

FINAL REPORT

Project 3.7

Identifying and overcoming barriers to marine and coastal habitat restoration and nature-based solutions in Australia

Legislative permitting processes for restoration

March 2024

Justine Bell-James, Phillipa McCormack, Nicole Shumway, Alexandra Wawryk









Milestone number: 4

Research Plan number: RP2023

Please address inquiries to: Justine Bell, j.bell-james@law.uq.edu.au

Preferred citation

Bell-James, J., McCormack, P., Shumway, N., Wawryk, A. (2024) *Identifying and overcoming barriers to marine and coastal habitat restoration and nature based solutions in Australia – Legislative permitting processes for restoration*. Report to the National Environmental Science Program. University of Tasmania.

Copyright

© University of Queensland and University of Adelaide, 2024 This report is reproduced and made available under the following licence from the copyright owners:

Creative Commons Attribution 4.0 Australia Licence.

For licence conditions, see https://creativecommons.org/licenses/by/4.0/

Acknowledgement

This work was undertaken for the Marine and Coastal Hub, a collaborative partnership supported through funding from the Australian Government's National Environmental Science Program (NESP).

NESP Marine and Coastal Hub partners

The Australian Institute of Marine Science, Bioplatforms Australia, Bureau of Meteorology, Charles Darwin University, Central Queensland University, CSIRO, Deakin University, Edith Cowan University, Flinders University, Geoscience Australia, Griffith University, Integrated Marine Observing System, James Cook University, Macquarie University, Murdoch University, Museums Victoria, NSW Department of Planning and Environment (Environment, Energy and Science Group), NSW Department of Primary Industries, South Australian Research and Development Institute, The University of Adelaide, University of Melbourne, The University of Queensland, University of New South Wales, University of Tasmania, University of Technology Sydney, The University of Sydney, University of Western Australia, The University of Wollongong

Disclaimer

The NESP Marine and Coastal Hub advises that this publication comprises general statements based on scientific research. The reader is advised and needs to be aware that such information may be incomplete or unable to be used in any specific situation. No reliance or actions must therefore be made on that information without seeking prior expert professional, scientific and technical advice. To the extent permitted by law, the NESP Marine and Coastal Hub (including its host organisations, employees, partners and consultants) excludes all liability to any person for any consequences, including but not limited to all losses, damages, costs, expenses and any other compensation, arising directly or indirectly from using this publication (in part or in whole) and any information or material contained in it.

Cover images: Sydney rock oysters: P Dwyer; saltmarsh: Vishnu Prahalad

This report is available on the NESP Marine and Coastal Hub website: www.nespmarinecoastal.edu.au

Contents

Ack	nowle	dgement of Country	1
Exe	cutive	summary	2
1.	Intro	oduction	3
1. 2. 3. 4. 5. Appe Appe Appe Appe Appe	Meth	nodology	5
	2.1.	Process for undertaking the legislative reviews	5
	2.2.	Consultation	5
	2.3.	Organisation of information in the legislative reviews	6
3.	Res	ults	8
	3.1.	Summary of oyster reef permitting processes	8
	3.2.	Summary of restoration of tidal flow permitting processes	13
4.	Disc	ussion and recommendations	17
	4.1.	Restoration projects are already being implemented despite legal barriers	17
	4.2.	Barriers to restoration caused by the permitting process	17
	4.3.	Possible solutions	19
	4.4.	Conclusion and areas for future work	24
5.	Refe	rences	26
App	endix	A – Oyster Reefs, Queensland	27
Арр	endix	B – Oyster Reefs, New South Wales	35
Арр	endix	C - Oyster Reefs, South Australia	42
Арр	endix	D – Oyster Reefs, Tasmania	80
Арр	endix	E – Restoration of Tidal Flow, Queensland	103
App	endix	F – Restoration of Tidal Flow, New South Wales	110
App	endix	G – Restoration of Tidal Flow, South Australia	118
Арр	endix	H – Restoration of Tidal Flow, Tasmania	169

List of figures

Figure 1 Oyster reefs - Queensland	9
Figure 2 Oyster reefs - NSW	10
Figure 3 Oyster reefs - SA	11
Figure 4 Oyster reefs - Tasmania	12
Figure 5 Restoration of tidal flow - Queensland	13
Figure 6 Restoration of tidal flow - NSW	14
Figure 7 Restoration of tidal flow - SA	15
Figure 8 Restoration of tidal flow - Tasmania	16
Figure 9 Risk matrix for determining the appropriate level of government scrutiny needed for a permitting project.	23
List of tables	
Table 1: Common features of permitting frameworks	6
Table 2: Categorising different permiting requirements	7

Acknowledgement of Country

The Marine and Coastal Hub acknowledges Aboriginal and Torres Strait Islander people as the first peoples and Traditional Owners and custodians of the land and waterways on which we live and work. We honour and pay our respects to Elders past, present and emerging.

Aboriginal and Torres Strait Islander peoples represent the world's oldest living culture. We celebrate and respect this continuing culture and strive to empower Aboriginal and Torres Strait Islander peoples.

Executive summary

Interest and investment in coastal and marine restoration is growing rapidly around Australia. In practice, restoration projects are also already being implemented in many of Australia's coastal states and territories. We have identified legal and policy barriers to these activities but, in each of the case study jurisdictions in this report, policymakers and project proponents have nevertheless found pathways through those barriers and complexity. With that in mind, the core purpose of this report is to examine and articulate the legal context for these projects and demonstrate that, while restoration is usually possible, there are important opportunities to reform laws and policies to provide more explicit and streamlined pathways for project approval. We highlight opportunities for reform that will help to ensure that coastal and marine restoration projects occur more efficiently, more effectively and in ways that are more consistent with (a) the urgent need to reverse the degradation of coastal and marine environments, (b) support for emerging markets for restoration outcomes, and (c) widespread government, community and industry support for coastal and marine restoration.

1. Introduction

Despite widespread support for coastal and marine restoration, and the practical implementation of a range of restoration projects around Australia, it is nevertheless well recognised that the legal permitting process is a barrier to these restoration projects occurring. There are no dedicated application and approval pathways for restoration projects; therefore, proponents are required to engage with the development assessment regime. In an earlier study, restoration practitioners identified this as problematic, as these processes are not fit-for-purpose: they are designed to focus on harmful aspects of projects rather than the positive benefits offered by restoration (Bell-James, Foster et al. 2023).

These permitting processes are also complex, comprised of an array of legislation and non-statutory policy instruments, with management fragmented across multiple government agencies (Shumway, Bell-James et al. 2021). The complexity of these frameworks can limit the uptake of restoration projects (Shumway, Bell-James et al. 2021).

In NESP Marine and Coastal Hub Project 1.6, a survey was disseminated to restoration practitioners and decision-makers working across Australia. The purpose of the survey was to understand current limitations to and opportunities for upscaling coastal and marine restoration in Australia (Saunders, Waltham et al. 2022). The legal permitting framework was identified as one of the main barriers. Open-ended responses emphasised the time and cost involved with obtaining permits, and the lack of a dedicated pathway for restoration activities. The need to reform the permitting process was identified as a priority.

As a precursor to reform, it is necessary to understand the current permitting framework and its limitations in detail. Thus, the aim of NESP Project 3.7 was to undertake some detailed analysis of current permitting frameworks. Given the multitude of different restoration methods available, and the distinct legal arrangements that apply in each of Australia's seven coastal jurisdictions, it was necessary to narrow our focus to several case studies. Reintroduction of tidal flow and oyster reef restoration were chosen due to increasing interest in these projects. Queensland, New South Wales, South Australia and Tasmania were chosen as case study jurisdictions to ensure a diversity of geographic, economic and population conditions from which to select examples. That is, our case study jurisdictions include the tropical and sub-tropical coasts and waters of Queensland, through to the

temperate coasts and waters of Tasmania; and the more-densely populated and wealthy states of Queensland and New South Wales, as well as the more-sparsely populated and less-wealthy states of South Australia and Tasmania. Each state in this study is home to one or more projects implementing one or both of the two restoration methods, and the practitioners and decision-makers involved in the research had some level of practical experience with the legal frameworks for these restoration methods.

Our analysis details the existing legal frameworks for both oyster reef restoration and tidal reintroduction in all four states. We carried out this analysis through a detailed desktop review of legislative and policy instruments, in consultation with relevant government agencies. We also undertook consultation with restoration practitioners.

The outcome of this project is a series of guides to the permitting frameworks in the case study jurisdictions and project types (see Appendices A-H). However, we also conclude that detailed guides will not be enough to allow significant upscaling of restoration in light of the significant barriers implicit in current legal frameworks. To this end, we offer some suggestions for reform and for future work.

2. Methodology

2.1. Process for undertaking the legislative reviews

We completed our review of permitting frameworks in several phases. First, we undertook a detailed desktop legal review, using official state and federal government legislation websites, and state government department websites for non-statutory policy. From this we compiled a first draft summary of the legislative framework.

In the second stage, we consulted state and commonwealth government agencies and restoration practitioners to refine our understanding of the permitting framework, and to fill in any gaps. Because there are no dedicated legal frameworks or pathways for restoration projects, there is often ambiguity as to which permits will apply. It was therefore imperative to consult government agencies to ensure that our reviews were correct.

The complete summaries of permitting requirements are annexed as Appendices A-H. Note that these are intended to be a guide to proponents, but no individual project will trigger every permitting process in the relevant juridisdiction, so it is advised that proponents seek their own independent advice as to the most appropriate permitting pathways for their projects. The legislative summaries reflect the authors' interpretation of the legislative frameworks but, depending on the circumstances, permitting authorities may interpret legislative requirements differently.

2.2. Consultation

To supplement our legislative analysis, we also undertook consultation with restoration practitioners and with government agencies responsible for administering the legislative frameworks. This included a series of formal semi-structured interviews (authorised by the University of Queensland's BEL Low to Negligible Risk Subcommittee, approval 2023/HE000168 and the University of Adelaide's Human Research Ethics Committee, approval H-2021-140). We also undertook informal consultation with restoration practitioners at the following events:

- The Australian Coastal Restoration Network Symposium, Townsville, May 2023
- The Australian Marine Sciences Association Conference, Gold Coast, July 2023
- NESP Stakeholder Workshop, Canberra, July 2023
- The Nature Conservancy Blue Carbon Workshop, Sunshine Coast, August 2023.

2.3. Organisation of information in the legislative reviews

The legislative reviews revealed common themes in permitting regimes across Australia. Broadly speaking, all legislative frameworks had the requirements as outlined in Table 1.

Table 1: Common features of permitting frameworks

Oyster Reefs	Reintroduction of tidal flow
Government planning permits – state and federal	Government planning permits – state and federal
Land access requirements	Land access requirements
Other requirements	Other requirements
Biosecurity requirements	

We then compiled summaries of the permitting frameworks and categorised each component of the permitting framework according to a 'traffic light' system as described in Table 2.

Table 2: Categorisation of different permitting requirements

Red light	A red light was used to denote a permit that is always required in a restoration project.
Orange light	An orange light was used to denote a permit that may be required depending on the circumstances. For example, if a certain threshold is exceeded, or if the project is to occur in a certain location
Green light	A green light was used to denote a situation where a project could proceed without a permit, but subject to a requirement to either comply with a code, or to comply with a statutory duty (e.g. not to cause harm to a protected matter)

3. Results

The full results of the legislative reviews are contained in Appendices A-H.

3.1. Summary of oyster reef permitting processes

The results of the permitting process for oyster reef restoration are summarised below for each state.

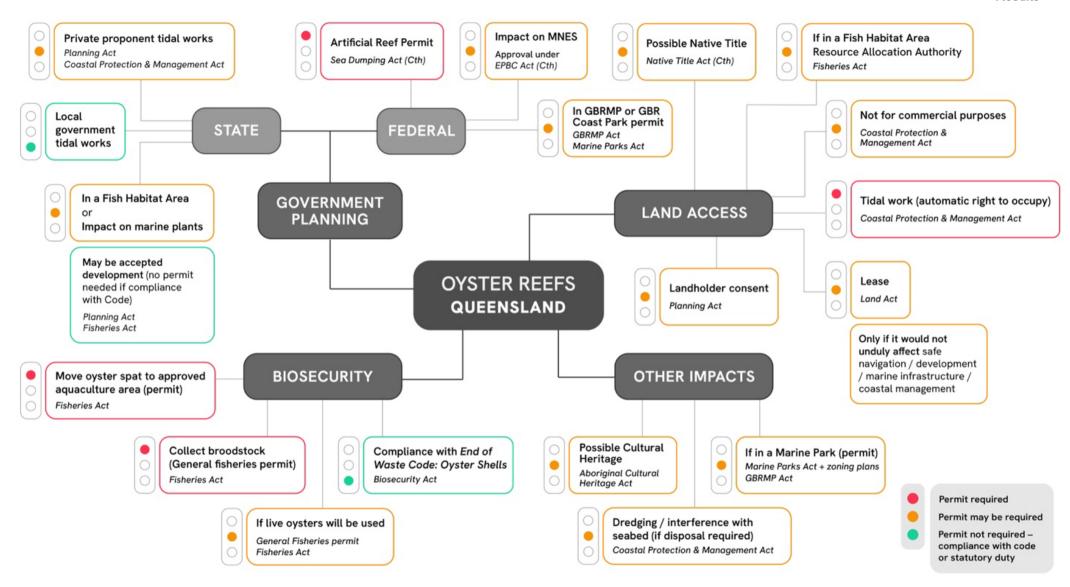


Figure 1. Queensland oyster reef permitting process.

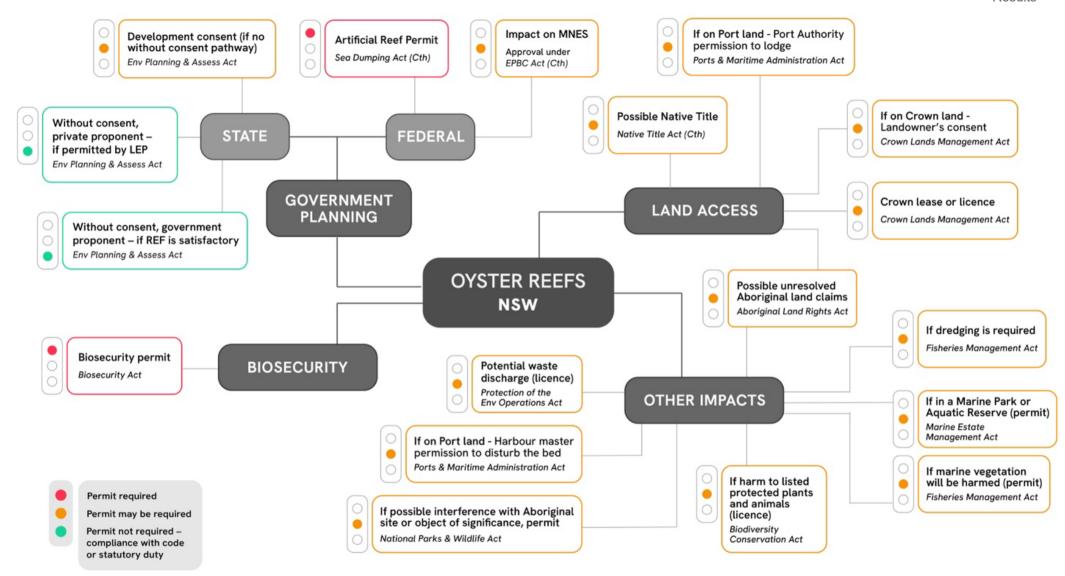


Figure 2. New South Wales oyster reef permitting process.

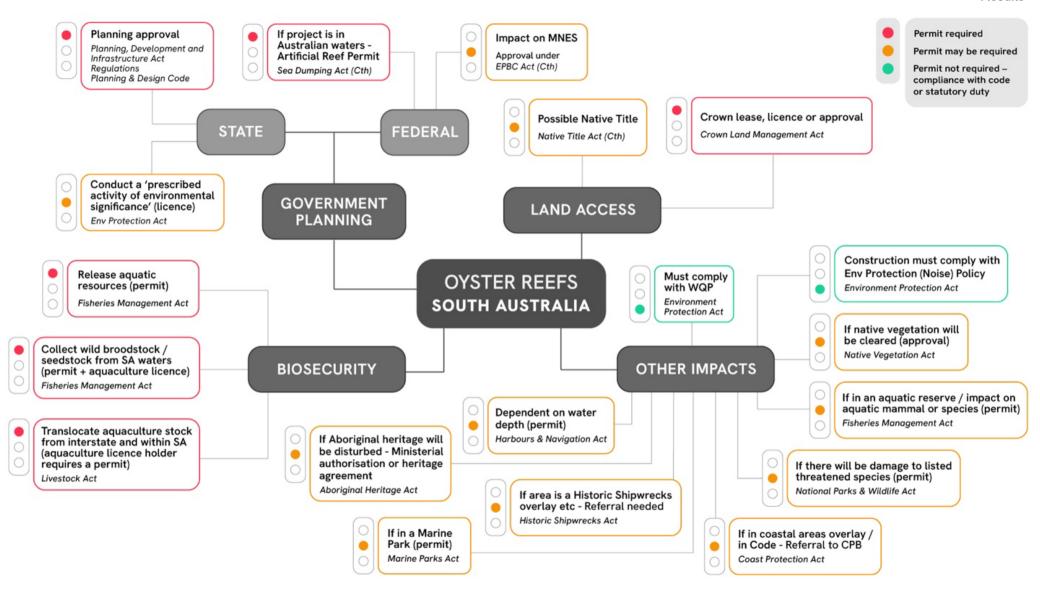


Figure 3. South Australia oyster reef permitting process.

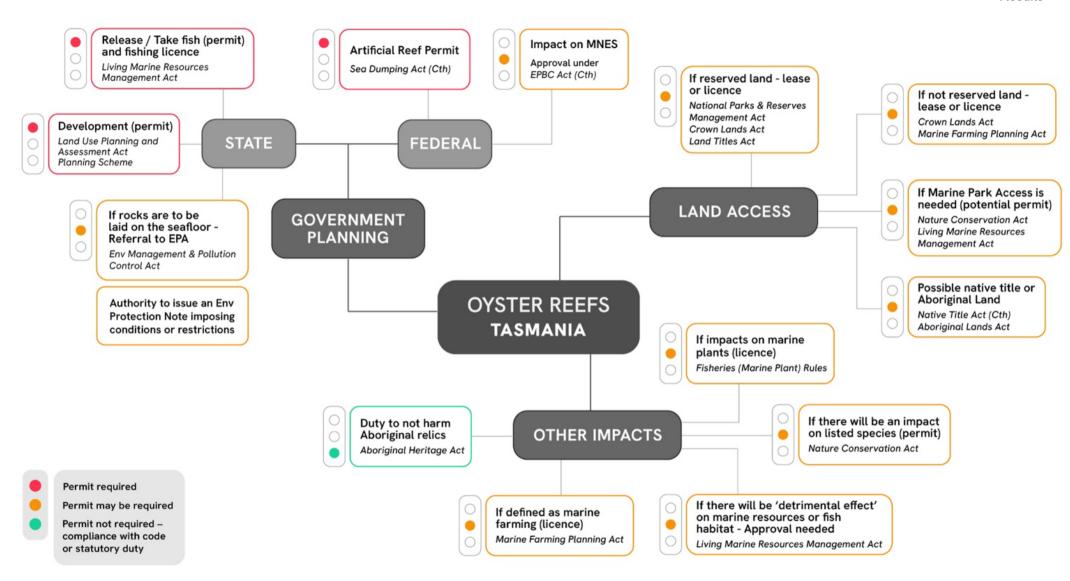


Figure 4. Tasmania oyster reef permitting process.

3.2. Summary of restoration of tidal flow permitting processes

The results of the permitting process for restoration of tidal flow are summarised below for each state.

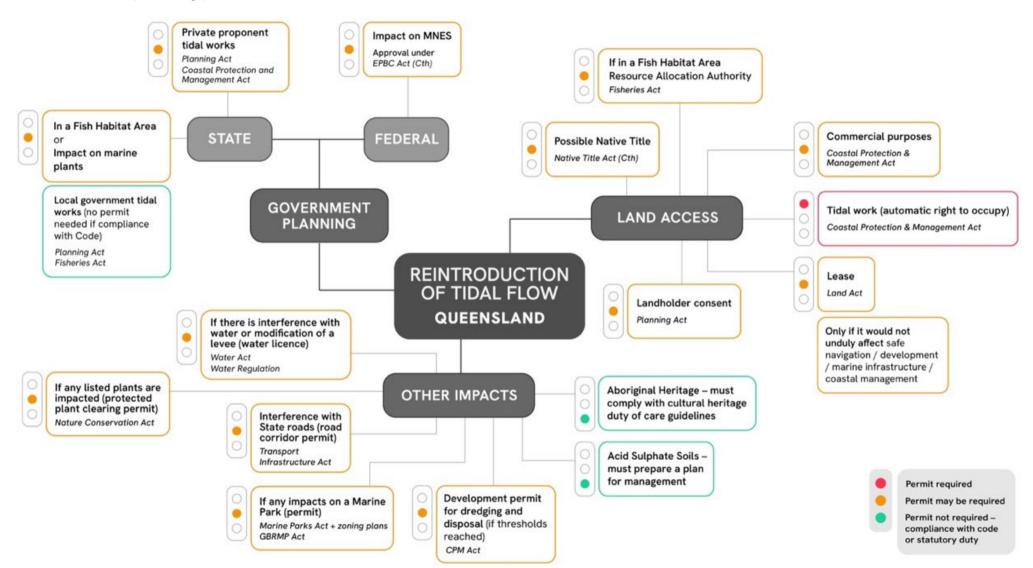


Figure 5. Queensland restoration of tidal flow permitting process.

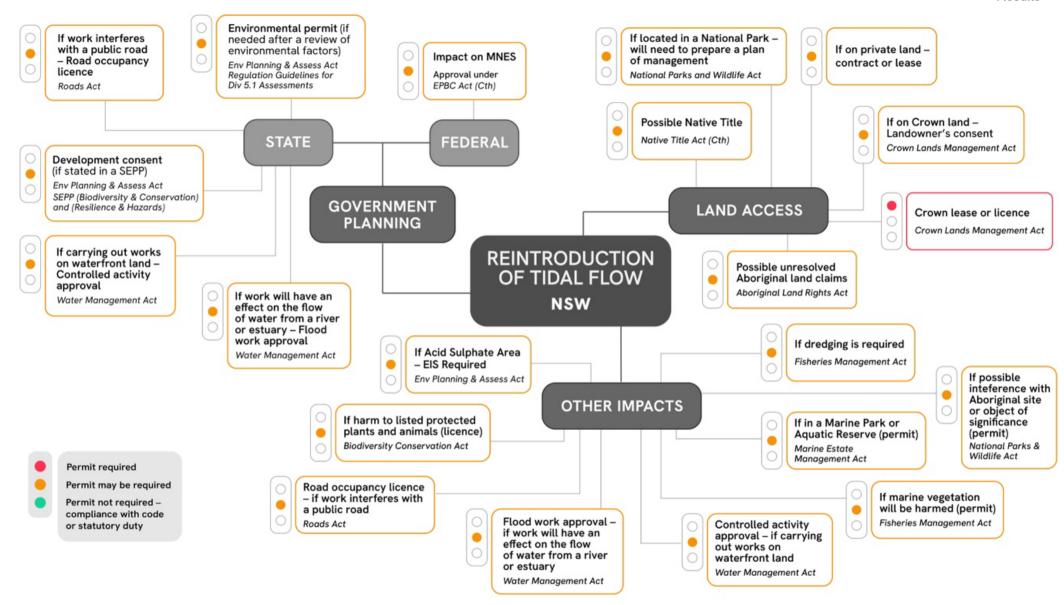


Figure 6. New South Wales restoration of tidal flow permitting process.

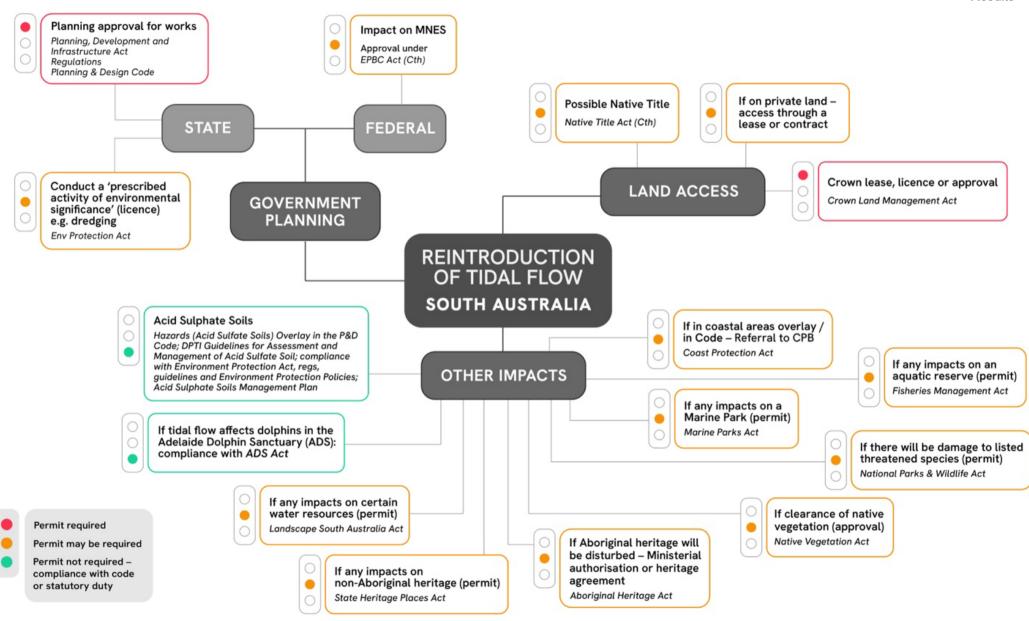


Figure 7. South Australia restoration of tidal flow permitting process.

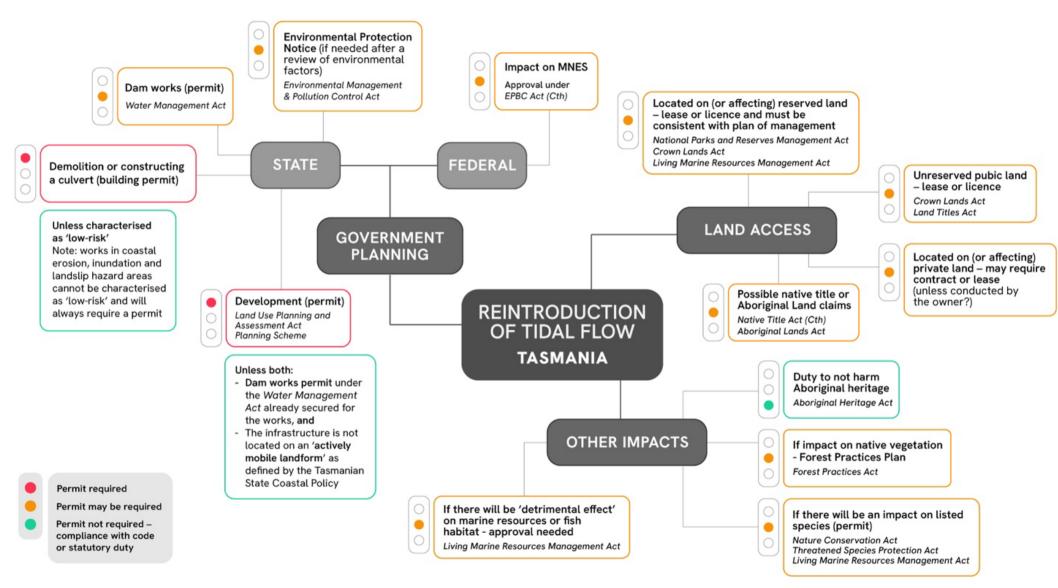


Figure 8. Tasmania restoration of tidal flow permitting process.

4. Discussion and recommendations

4.1. Restoration projects are already being implemented despite legal barriers

As noted at the outset, despite the deep complexity of the legal and policy frameworks for coastal and marine restoration, there are many examples of projects that are complete or underway in each of the case study jursdictions that we have analysed in this report.

As discussed in this section, the published literature, project proponents, policymakers and our legislative review demonstrate a range of barriers to marine and coastal restoration. However it is important to note that even with these barriers, these projects have been possible. This bodes well for the likely interest in coastal and marine restoration that may emerge if these frameworks are reformed and made more streamlined. It also suggests that proponents in these jurisdictions have been able – though sometimes at great inconvenience – to negotiate through the host of potentially applicable laws to find a set of approvals that government agencies and proponents have been able to 'live with'.

As we discuss in more detail below, we do not consider the status quo to be sufficient or desirable, in any of the states that we have analysed in this report. Nevertheless, the institutional memory and expertise that has been developed so far in projects that have been implemented should not be undervalued as reforms are tackled and new legislative instruments and processes are designed.

4.2. Barriers to restoration caused by the permitting process

In addition to the barriers identified in earlier work, other key barriers identified from our consultation were as detailed below.

⇒ Complexity leads to compromise

The complex, costly and time-consuming permitting process can prevent projects from occurring, or can cause practitioners to scale down the scope or size of the project (Bell-James, Foster and Shumway, in press). This is often because restoration practitioners are operating under limited budgets and tight funding timeframes, and a long permitting process may prevent them from achieving the on-ground work within these funding timeframes. Thus,

there was evidence of significant compromise (e.g. smaller projects, choice of less desirable sites) to ensure that at a minimum, some part of the project could be delivered.

⇒ Ambiguity of legislative frameworks makes them difficult to navigate

The interpretation and application of some legislation is ambiguous. This lack of clarity, combined with the complexity of the permitting process, means that both restoration practitioners and many government decision-makers find it difficult to understand the legal requirements that must be met and to 'navigate' the process.

Moreover, in the absence of government guidelines, new restoration practitioners need to rely heavily on the goodwill of other practitioners - notably The Nature Conservancy - to guide them through the permitting process.

Furthermore, in some cases, there are disconnects between the laws, as drafted, and internal government decisions implementing those laws. For example, there might be a legal entitlement to apply for permission to disturb acid sulphate soils, but a local government has internally decided not to grant any permits of this type (see Bell-James, Foster and Shumway, in press). Similarly, legislation may indicate that a host of different permits will be required for a restoration activity but, in practice, a government agency may decide to incorporate many (but not all) of those obligations under a single approval process.

⇒ Length of permitting processes may render projects unviable

The length of time required to complete the necessary permitting processes can also mean that ecological windows are not met (e.g. where restoration has to be undertaken in a very specific timeframe due to ecological conditions), or community involvement and enthusiasm for a project may be lost. This may lead to additional costs for restoration practitioners. For example, if construction work on a shellfish reef is delayed, the practitioner may need to pay extra money to the facility that is rearing the oysters prior to translocation to the reef. Moreover, these facilities have limited space and a lengthy delay may mean the organisation will have to dispose of the juvenile oysters.

⇒ Delay might deter future restoration work

The level of difficulty in navigating the permitting process, as well as the consequences of project delays, may lead to large emotional costs for some restoration practitioners, deterring them from undertaking future projects.

⇒ Maintenance of the status quo

The permitting process can stifle on-ground innovation and creativity (Bell-James, Foster and Shumway, in press). For example, if a practitioner determines that there is a more effective or less impactful way to undertake works once they have commenced, they are deterred from doing so due to the need to re-engage with the permitting process.

⇒ Ongoing liability may deter future restoration work

The imposition of ongoing maintenance and liability conditions is a major impediment to ongoing restoration efforts (Bell-James, Foster and Shumway, in press). There is an increasing trend for governments to devolve liability in perpetuity to project proponents. Given the limited budgets of these organisations, there is significant reluctance to assume cumulative liability for numerous projects.

⇒ Involvement of multiple government agencies is a complicating factor

The lack of interaction between government agencies – for example, between state agencies, but also across different scales of government, such as across Commonwealth, state and local governments – can lead to overlap, conflicting information, and conflicting conditions imposed on projects.

\Rightarrow Cost

Financial cost remains a barrier to restoration. Financial costs can include significant legal costs, including costs of seeking advice and application fees for obtaining government approvals. Unlike development projects where income will be made, restoration projects do not earn profit that can pay for ongoing annual fees for licences. In some cases annual fees can be a significant impost on restoration projects and make a project unviable, unless the fee is waived by government.

The key enabler that was identified is governmental will. Whilst no jurisdiction was identified as having an ideal permitting framework, the process was reported as being significantly smoother where there was high-level government support for restoration.

4.3. Possible solutions

Whilst our consultation revealed significant appetite for streamlining the permitting process, there is also widespread acknowledgement of the need for some government oversight of

these restoration projects. Thus, there is a need to achieve a balance between streamlining the permitting process to facilitate scaling up of restoration, while also ensuring rigour and oversight.

There are essentially three possible pathways to improving restoration permitting frameworks:

- Large-scale law reform, involving entirely new legislative frameworks;
- Smaller-scale law reform, to introduce or clarify the operation of easily accessible 'levers' within existing frameworks. That is, looking for opportunities to make minor changes to permitting frameworks, possibly through non-statutory policy; and
- A third, non-reform option, is to simply progress work on guides to permitting
 frameworks (like the guides prepared for this project), both as a way of informing and
 guiding proponents, and to demonstrate government support for these kinds of
 restoration projects.

Box 1

Restoration of tidal flow could be facilitated through accepted development codes

In Queensland, restoring tidal flow to a previously drained landscape may require a range of approvals including a development approval, permits to interfere with roads and water, marine parks permits, and additional permissions if there is dredging, impacts on listed threatened species, and disturbance of acid sulphate soils. Due to the intertidal location of these projects, they may also span across public and private tenures, as well as possibly native title land and leasehold. Consents to access land may therefore be needed from multiple parties.

At present, the system is streamlined if the proponent is a local government as tidal works are classified as 'accepted development', therefore removing the need to obtain a development approval. If a similar approach could be applied to all proponents this would streamline the permitting system, reduce time and cost burdens, and contribute to the rapid scaling up of restoration.



Photo: Mosley et al. 2019. Pathways to tidal restoration of the Dry Creek salt field.

Whilst the third option would certainly make the process easier to navigate, it would not fix some of the more pervasive issues (e.g. the length of assessment time, liability in perpetuity). The first option would also be extremely resource intensive, and given the large volume of highly interconnected environmental laws in existence, it may be impossible to replace some components without fracturing the entire legal framework (see eg Bell-James, Foster et al. 2023). There is therefore likely to be little or no appetite among policy-makers to engage in wholesale legal reform of this nature – at least at present.

The most feasible solution in the near-term is likely to be small-scale law and policy reform. From our consultation in the four jurisdictions that we have focused on in this report, there is strong support for this reform to incorporate three key elements:

- Dedicated permitting pathways for restoration projects;
- Assessment frameworks that are commensurate to the level of risk; and

 Greater coordination and cooperation between government agencies in assessing applications and setting conditions.





Shellfish restoration in South Australia: Environment Protection Act guidelines could better enable restoration

In South Australia, a licence from the Environment Protection Authority (EPA) is required to conduct a "Prescribed Activity of Environmental Significance' (PAES) as defined within the *Environment Protection Act 1993* (SA) and works approval is required for building works used for a PAES. Depositing limestone blocks or oyster shells on the seabed does not fall within the definition of a PAES and therefore a licence/works approval issued by the EPA is not required; however, a reef restoration practitioner must ensure they do not breach a general environmental duty in the Act or commit a criminal offence, by causing 'environmental harm'. While referral to the EPA is not usually required, the Authority provides non-binding governance advice for shellfish restoration projects through the Blue Infrastructure Working Group. In practice, restoration practitioners are unlikely to receive other approvals if they do not adhere to EPA 'advice'.

If shellfish restoration projects were listed as a PAES in the Environment Protection Act, all projects would be referred to the Environment Protection Authority. If the Environment Protection Authority developed guidelines that provided clear information on the type of projects, methods and materials that the Authority considers would lead to compliance with the Environment Protection Act, this could better enable large-scale reef restoration projects to proceed, by providing clarity and certainty to practitioners.



The first element would involve restoration projects being assessed as environmental good projects, as opposed to the current system where they are assessed under the same frameworks and in the same queue as developments which may cause harm to the environment (e.g. large-scale residential development). This may in turn lead to shorter assessment time frames (Bell-James, Foster and Shumway, in press).

The second element in particular was raised consistently in consultation, with restoration practitioners strongly advocating for accepted development codes for low-risk activities, whereby a proponent can proceed without obtaining development consent where there project complies with the requirements set out in the code. Such a framework could be modelled on the risk matrix suggested by Shumway et al (2021) (see Figure 9).

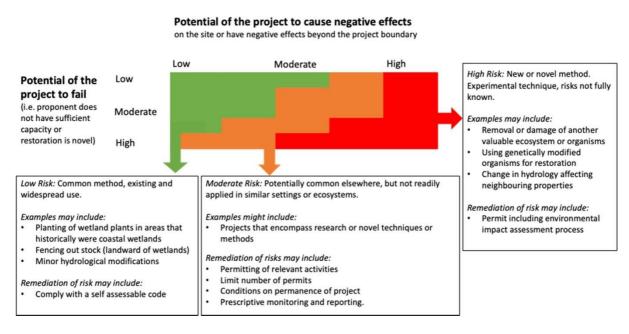


Figure 9 Risk matrix for determining the appropriate level of government scrutiny needed for a permitting project.

Source: Nicole Shumway, Justine Bell-James, James A Fitzsimons, Rose Foster, Chris Gillies and Catherine E Lovelock, 'Policy solutions to facilitate restoration in coastal marine environments' (2021) 134 *Marine Policy* 104789.

Such an approach would involve drafting and creating accepted development codes which establish truncated and streamlined processes for common or low-risk activities, as well as improvements to permitting processes for higher-risk activities.

The third element is necessary as restoration practitioners often raise the fragmented nature of restoration project decision-making as a barrier to success (Bell-James, Foster and Shumway, in press). For example, a project may require multiple permits issued by a range of local, state and federal government agencies. A proponent might receive multiple approvals with conditions that are inconsistent or even irreconcilable. The need to engage with multiple agenices also adds to time and transaction costs.

Coordination across multiple agencies at a single scale (such as state government) may be facilitated by, for example, establishing a dedicated government working group with representatives from multiple relevant agencies – either to discuss or even to conduct statutory assessments in direct consultation with each other. This form of coordination may also be facilitated by government guidelines that clarify which agencies are required to be engaged at different phases of a project assessment. Clarity about timing may ensure that decision makers do not engage too early (confusing the process) or too late (setting back timeframes as earlier steps need to be revisisted).

Coordination across governance scales (e.g. Commonwealth, state, local) could be facilitated through informal engagement but could be formalised through, for example, pro forma permit conditions designed to ensure complementary statutory requirements across scales. If a decision-maker chose to revise the pro forma conditions, that revision would act as a prompt to alert or negotiate with decision-makers at other governance scales, to ensure that conditions on a project are coherent and reconcilable across scales.

4.4. Conclusion and areas for future work

The current legal permitting framework for restoration creates barriers to achieving marine and coastal restoration at scale. That said, a great deal of investment, effort and commitment has been demonstrated by project proponents and policymakers, in the restoration projects that have already been implemented across Australia. These examples provide a strong basis for the reforms that we have proposed, and a source of crucial institutional knowledge and expertise that can be used to inform and guide improvements to these processes. In addition to that experience and expertise, there is a high level of support across sectors, governments and communities for reform of the legal permitting process for coastal and marine restoration. To support the reforms described above, a major priority area should be development of template/model codes for assessment.

Another major area of concern raised by proponents, which was not the subject of our brief for this research, relates to liability and maintenance obligations for structures while they are being installed, and after a project is complete. This is a difficult issue to resolve, as there may be sound reasons for both governments and restoration practitioners being reluctant to assume risk. We have identified both a desire from proponents and governments to see this issue of liability and maintenance examined, and a need for this issue to be addressed given that it may hinder future projects. Both observations support a need for further research to

'de-risk' restoration interventions, to rapidly increase capacity for, and investement in, marine and coastal restoration.

5. References

- Bell-James, J., R. Foster and C. E. Lovelock (2023). "Identifying priorities for reform to integrate coastal wetland ecosystem services into law and policy." <u>Environmental Science & Policy</u> **142**: 164-172.
- Bell-James, J., R. Foster and N. Shumway (2023). "The permitting process for marine and coastal restoration: a barrier to achieving global restoration targets?" <u>Conservation Science & Practice</u> (in press).
- Saunders, M. I., N. J. Waltham, T. Cannard, M. Sheppard, M. Fischer, A. Twomey, M.
 Bishop, K. Boody, D. Callaghan, B. Fulton, C. E. Lovelock, M. M. Pinto, I. M. McLeod, T. McPherson, R. Morris, A. Pomeroy, M. Ronan, S. Swearer and A. D. L. Steven (2022). A roadmap for coordinated landscape-scale coastal and marine ecosystem restoration. Report to the Reef and Rainforest Research Centre. National Environmental Science Program Final Report Project 1.6.
- Shumway, N., J. Bell-James, J. A. Fitzsimons, R. Foster, C. Gillies and C. E. Lovelock (2021). "Policy solutions to facilitate restoration in coastal marine environments."

 Marine Policy 134: 104789.

Appendix A – Oyster Reefs, Queensland

	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees
	Private proponent Reef construction	Planning Act 2016 (Qld) and Coastal Protection and Management Act 1995 (Qld)	 Operational work is assessable development if it is tidal works (<i>Planning Regulation 2017</i> (Qld) Sch 10, Part 17, Div 1, s 28(1)(a)). 'Operational work' means work, other than building works or plumbing or drainage work, in, on, over or under premises that materially affects premises or the use of premises (<i>Planning Act 2016</i> (Qld) Sch 2) 'Tidal works' is defined as works in, on or above land under tidal water (<i>Coastal Protection and Management Act 1995</i> (Qld) Schedule) note that aquaculture is an exception to 'tidal works' <i>Coastal Protection and Management Regulation 2017</i> (Qld) reg 15). It is unclear whether oyster reefs would be an exception also. 	Chief Executive of Planning Act (i.e. SARA (with advice from the Department of Environment and Science)) Unless: -on strategic port land – the port authority -prescribed tidal works in a single LGA – the local government	3430 fee units
s - State	Local government Reef construction	As above	Note that tidal works are accepted development if undertaken by a local government (Sch 7)	Local government	n/a
Planning approvals	If there is any likely impact on marine plants	Planning Act 2016 (Qld) Fisheries Act 1994 (Qld)	Operational work is assessable development if it is the removal, destruction or damage of a marine plant (<i>Planning Regulation 2017</i> (Qld) Sch 10, Part 6, Div 3, s 11). → exception applies if it is acceptable development as prescribed by the <i>Fisheries Act</i>	Chief Executive (i.e. SARA (with advice from the Department of Agriculture and Fisheries))	3430-13715 fee units depending on size

		Accepted development requirements for operational work that is the removal, destruction or damage of marine plants (2017).	 Development is accepted (i.e. no approval required) if it is: Fish habitat rehabilitation or restoration work that provides a net benefit to marine plant communities AND Removal, destruction, or damage of marine plants is in accordance with a Fisheries Queensland endorsed project plan. → Proponents should query whether an oyster reef provides a net benefit to marine plant communities 		
	If the reef is in a fish habitat area	Planning Act 2016 (Qld) Fisheries Act 1994 (Qld) Accepted development requirements for operational work that is completely or partly within a declared Fish Habitat Area (2020).	Operational work is assessable development if it is completely or partly in a declared fish habitat area (<i>Planning Regulation</i> 2017 (Qld) Sch 10, Part 6, Div 2, s 10). → exception applies if it is acceptable development as prescribed by the <i>Fisheries Act</i> Development is accepted (i.e. no approval required) if: • It is for a private purpose and is fish habitat rehabilitation or restoration work that provides a net benefit to declared FHAs AND it is in accordance with an endorsed plan • It is for a public purpose and it is in accordance with an endorsed plan ('public purpose' means for a use relating to the provision of services or infrastructure for the public by government, natural resource management groups and energy and water suppliers, and that is undertaken for a public benefit) → Proponents should query whether an oyster reef provides a net benefit to marine plant communities	Chief Executive (i.e. SARA (with advice from the Department of Agriculture and Fisheries))	1714-13715 fee units (see regs)
Planning approvals – Federal	If the site is in the Great Barrier Reef Marine Park or GBR Coast Marine Park	Great Barrier Reef Marine Park Act 1975 (Cth)	The Great Barrier Reef Marine Park Authority (the Authority) and the Queensland Parks and Wildlife Service (QPWS) (collectively – the managing agencies) implement a joint permission system.	GBRMPA	

		Marine Parks Act 2004 (Qld)	It is necessary to consult the relevant zoning plan to determine what permission is required.		
	Reef construction	Environment Protection (Sea Dumping) Act 1981 (Cth)	Section 4 defines an artificial reef as 'a structure or formation placed on the seabed (a) for the purpose of increasing or concentrating populations of marine plants and animals'. It is an offence to place an artificial reef without a permit (s 10E) A person may apply to the Minister for a grant of a permit (s 18(1)). The Minister has the power to request that the proponent undertake/fund research into the effect of the reef on the marine environment (s 18(4)).	DCCEEW/ Administered by the GBRMPA within the GBR Marine Park	\$10,000
	If there is any potential impact on MNES	Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Consider whether the reef is likely to have a significant impact on any MNES under the EPBC Act. If so, referral may be required.	DCCEEW	\$6,557 (referral)
	If the site has Aboriginal or Torres Strait Islander cultural heritage	Aboriginal Cultural Heritage Act 2003 (Qld)	A person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage (the cultural heritage duty of care) (s 23) The Minister may publish cultural heritage duty of care guidelines (s 28). Current guidelines were published in 2004. It may be prudent to determine whether there is any cultural heritage on site. The register and maps are instructive, but cultural heritage may exist even if not registered. Alternatively, the proponent could seek to enter into a Cultural Heritage Management Plan	Self-assessable if in accordance with guidelines OR through negotiation with relevant Aboriginal party	n/a
Other approvals	If the site is within a marine park	Marine Parks Act 2004 (Qld) Great Barrier Reef Marine Park Act 1975 (Cth)	Significant parts of Queensland coastal waters are located in marine parks (GBR Coast Marine Park, Great Sandy Marine Park, Moreton Bay Marine Park). Each park has a zoning plan that sets out permissible uses with and without permits (see e.g. <i>Marine Parks (Moreton Bay) Zoning Plan 2019</i>). Importantly restoration is not a permissible use within zoning plans.	GBR Marine Park - GBRMPA Other – Department of Environment and Science (QPWS)	n/a

		Marine Parks (Moreton Bay) Zoning Plan 2019 Marine Parks (Great Barrier Reef Coast) Zoning Plan 2004 Marine Parks (Great Sandy) Zoning Plan 2017	→ Anecdotally we know that restoration is being carried out under research permits; though there is may be an obligation imposed as a condition of approval to remove the reef once the research is complete (Shumway et al., 2021). Alternatively, there may be some potential to explore applying for an operational works permits.		
	If dredging and relocation of dredged material is	Coastal Protection and Management Act 1995 (Qld)	Capital dredging of less than 1000t per year on land under tidal waters needs a permit for operational works (tidal works), and would fall within the development application process described above. If any dredged material is to be disposed of elsewhere	Department of Environment and Science	Royalties may be payable where quarry
	required	And Guideline:	in tidal waters, it will also fall within this application.		material is allocated
		Dredging and Allocation of Quarry Material ESR/2016/1979	However, if the dredged material is to be disposed of on land, there may be a need to apply for and allocation of quarry material)		
	If basis of reef is reused oyster shells	Waste Reduction and Recycling Act 2011 (Qld)	The WRR Act regulates waste and resource recovery. Oyster shells are prima facie considered waste and therefore subject to regulation. → Under s 159, the Chief Executive may create an end of	The Department of Environment and Science	n/a
		('WRR Act') End of waste	waste code that provides for a particular form of waste to become a beneficial resource. If something becomes a resource under an end of waste code it removes the		
<u>≥</u>		code: Oyster Shells	need for approves related to regulated waste.		
Biosecurity		ENEW07278317	The 2018 End of waste code: Oyster Shells provides for the collection of oyster shells from processing centres and restaurants to be used for the purpose of constructing		
Bios			structures designed to promote the settlement of oyster spat.		

		Both the producer and user have certain obligations under the Code including registration of the producer. If the Code applies there is no need for a permit, but there are record keeping obligations		
If live oysters will be used	Fisheries Act 1994 (Qld)	A General Fisheries permit is required if installing live oysters outside of an Approved Aquaculture Area.	Department of Agriculture and Fisheries	
If broodstock needs to be collected	Fisheries Act 1994 (Qld) Fisheries (General) Regulation 2019 (Qld) Broodstock and Culture Stock Collection Policy 2018 Great Sandy Regional Marine Aquaculture Plan	The Chief Executive may issue a General Fisheries Permit (GFP) to collect broodstock or culture stock from the wild (reg 25(e). → 'Culture stock' refers to juvenile animals that are collected from the wild for grow-out in aquaculture facilities. → 'Broodstock' are required to produce animals with a closed lifecycle and are important for operations in their initial phases and for ongoing operations that require replenishment of viable spawning stock and maintenance of genetic diversity This permit is required if collection activities involve the collection of a regulated species (under the minimum or above the maximum size limits, or in excess of possession limits), collecting during closed seasons or in closed waters, or using a fishing apparatus that is not permitted to be used by a recreational fisher (Policy) → Note: If within Great Sandy Straight broodstock cannot be sourced from outside the natural genetic range or 50 km away (not endemic species)	Department of Agriculture and Fisheries	\$355.52

	Ensuring the materials being introduced won't have negative effects (eg. oysters bringing disease, ensure they are not hazardous to local wildlife)	Biosecurity Act 2014 (Qld) End of waste code: Oyster Shells (ENEW0727831 7)	Everyone has a general biosecurity obligation (GBO) to take all reasonable and practical measures to prevent or minimise the biosecurity risk: s 23 Under the 2018 End of waste code: Oyster Shells a producer must ensure that the shells do not come from a facility that is subject to quarantine restrictions. They must also take prescribed steps to wash and sterilise the oyster shells.	The Department of Environment and Science	n/a
	To possess or move oysters during the reseeding process	Fisheries Act 1994 (Qld) AND Health protocol for the movement of live bivalve molluscs – Aquaculture Protocol FAMPR003	A translocation approval is required to move edible oyster spat from hatchery facilities within Queensland to an approved aquaculture area/translocation approval area	Department of Agriculture and Fisheries	\$355.52
Land access/tenure	State land	If a structure is characterised as 'operational work that is tidal work' and not for commercial purposes – Coastal Protection and Management Act 1995 (Qld)	If a person has a development permit for operational works that are tidal works, and these are to be carried out on state tidal land: • the person has the right to occupy and use the state tidal land • this right applies to carrying out the works, and maintaining and using the structure: s 123(1), (5) Exception: → this section does not apply if the tidal works facilitate, or will facilitate, a commercial enterprise: s 123(3). Therefore a right to occupy will be required.	Department of Environment and Science	n/a

If located in a fish habitat area	Fisheries Act 1994 (Qld)	'Tidal works' is defined as works in, on or above land under tidal water (Schedule) 'Operational work' means work, other than building work or plumbing or drainage work, in, on, over or under premises that materially affects premises or the use of premises (<i>Planning Act 2016</i> (Qld) Sch 2) If work with a prescribed Declared Fish Habitat Area (FHA) is categorised as assessable development (s 76A) it requires a Resource Allocation Authority (RAA) (s 76C).	Administered by the Department of Environment and Science, authorised by Department of Agriculture and Fisheries	\$615 - \$7,420 depending on level of impact
In other circumstances	Land Act 1994 (Qld)	Land that is seaward of a tidal boundary is property of the State (s 9) and may only be dealt with under the authority of the Act (s 13) Land may be leased (s 15), but a lease may only be issued in a tidal area if: it would not unduly affect safe navigation and sound development of the State's waterways and ports; and its impact on marine infrastructure has been considered; and it would not have a detrimental effect on coastal management; and it would not be inconsistent with the intent of any relevant State management plan (s 15(4)). If a proponent wants an oyster reef structure to remain in place for a long period of time, a lease or resource allocation authority may be necessary. While there is a specific rental category for 'oyster leases' under the <i>Land Regulation 2020</i> , more commonly they are approved as an 'oyster area' under <i>The Fisheries Act</i> with a resource allocation authority. This is a way to avoid tenure issues, as leases provide exclusive access which is often not possible in these areas (DAF pers comm).	Department of Resources	Lease - \$304.32 + ongoing rent RAA - \$615 - \$7,420 depending on level of impact
Landowner consent is required for DAs for land	Planning Act 2016 (Qld)	A development application must be accompanied by written consent of the owner of the premises if the application is for works on premises that are below high-water mark (s 51(2))	Department of Resources	n/a

	elow the high ater mark		('premises' is defined to include land, whether or not a structure is on the land: Sch 2)	*or Department of Agriculture and Fisheries if it is in a declared fish habitat area	
ree cor a d	an oyster ef is to be enstructed in declared ative title ea	Native Title Act 1993 (Cth)	An act that affects native title in relation to land or waters may be classified as a 'future act' under the <i>Native Title Act</i> s 233(1). A future act will be invalid unless it validated under an Indigenous Land Use Agreement ('ILUA') or one of the provisions of the <i>Native Title Act 1993</i> (Cth). Therefore if Native Title exists over a proposed project area, the ILUA should be considered to determine whether a reef may fall within its terms, and the procedure for undertaking the activity.	Relevant Native Title group or corporation	n/a

Appendix B – Oyster Reefs, New South Wales

Activity	Applicable Legislation	Detail	Responsible Authority	Fees
Private proponent Reef construction	Assessment Act 1979 (NSW) Part 4	Works may constitute 'development' as carrying out/demolition of building or work: EPAA ss 1.4, 1.5. Development consent is required if stated in an environmental planning instrument: s 4.2 However, if an environmental planning instrument provides that development can be carried out with consent, it may be undertaken in accordance with that instrument: s 4.1 (Part 4 Development) Need to consult Local Environmental Plan to determine whether there is a 'without consent' pathway for a private proponent Note that the Principal Local Plan defines 'environmental protection works' as: 'works associated with the rehabilitation of land towards its natural state or any work to protect land from environmental degradation, and includes bush regeneration works, wetland protection works, erosion protection works, dune restoration works and the like, but does not include coastal protection works' These works must be permitted with or without development consent in most zones May need to seek advice as to whether the proposed works could constitute 'environmental protection works'. The reference to 'natural state' may cause difficulties	Part 4 – local government	

	Government proponent Reef construction	Environmental Planning and Assessment Act 1979 (NSW) Part 5	Possible 'without consent' pathway: To determine whether an EIA is required, the agency will prepare a document called a 'review of environmental factors' (REF): reg 171 → The determining authority has a duty to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity: s 5.5 → The REF will determine whether a development can be undertaken 'without consent' by a government department or agency → If not - An environmental impact assessment and environmental permit may be required for prescribed activities or activities that are 'likely to significantly affect the environment': s 5.7	If REF determines without consent pathway – responsible authority If EIA is required – Minister for Planning	
	Reef construction	Environmental Planning and Assessment Act 1979 (NSW) And Local Environmental Plans (in compliance with the Principal Local Environmental Plan)	If there is no 'without consent' pathway: Must lodge a Development Application (DA) addressing matters outlined in 4.15(1) of the EP&A Act. Must be lodged with the appropriate consent authority, usually the local council.	Council with input from Department of Planning and the Environment	
Planning approvals - Federal	If there is any potential impact on MNES	Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Approval is required under the EPBC Act if an action has, will have, or is likely to have, a significant impact on a matter of national environmental significance as defined in the EPBC Act, or on the Commonwealth marine environment.	Minister for Energy and Environment/ Commonwealth Department for Climate Change, Energy, environment	\$6,557 (referral)

				and Water (DCCEW)	
	Reef construction	Environment Protection (Sea Dumping) Act 1981 (Cth)	Section 4 defines an artificial reef as 'a structure or formation placed on the seabed (a) for the purpose of increasing or concentrating populations of marine plants and animals'. It is an offence to place an artificial reef without a permit (s 10E) A person may apply to the Minister for a grant of a permit (s 18(1)). The Minister has the power to request that the proponent undertake/fund research into the effect of the reef on the marine environment (s 18(4)).	DCCEEW	\$10,000
	If there will be disturbance/d amage/interf erence with an Aboriginal site or object of significance	National Parks and Wildlife Act 1974 (NSW)	May need to apply for an Aboriginal Heritage Impact permit if development may cause harm to Aboriginal objects or places	NSW Department of Planning and Environment	\$133- 2660
Other approvals	If building the reef involves dredging	Fisheries Management Act 1994 (NSW)	A person or local government authority must not carry out dredging work except under the authority of a permit issued by the Minister: ss 200-201 → 'Dredging' is defined to mean any work that involves excavating water land, or moving/removing material from water land ('water land' is land submerged by water, permanently or intermittently): s 198A → exception – work authorised under the Crown Land Management Act 2016. Public authorities can also undertake work without a permit, but must give notice: s 199) Relevant permit - Part 7 Fisheries Management Act permit	DPI Fisheries	\$179 + assess ment fee of \$179- \$3891+

If the reef is located in a Port	Ports and Maritime Administration Regulation 2021 (NSW)	A person must not use drags, grapplings or other apparatus for lifting an object or material from the bed, or otherwise disturb the bed, of a portexcept with the written permission of the relevant harbour master (reg 110)	Relevant Harbour Master	
If the site is in, or the project may affect, a Marine Park or an Aquatic Reserve	Marine Estate Management Act 2014 (NSW) Marine Estate Management (Management Rules) Regulation 1999; Marine Estate Management (Aquatic Reserve) Notification 2020 Policy on Artificial reefs and fish attracting devices in NSW Marine Parks	There are six declared Marine Parks in NSW and 12 aquatic reserves. Each marine park has distinct rules regarding what activities require permits. The Marine Estate Management (Aquatic Reserve) Notification 2020 sets out what activities in aquatic reserves require a permit. The Policy will be used in assessing the suitability of a reef	Department of Primary Industries (DPI)	
If there may be an impact on marine plants	Fisheries Management Act 1994 (NSW)	A person must not harm marine vegetation in a protected area, except with a permit: s 205 • 'marine vegetation' includes mangroves, seagrass and other vegetation declared by regs • Some marine vegetation may be declared as protected, meaning a permit cannot be granted: s 204A • 'harm' means gather, cut, pull up, destroy, poison, dig up, remove, injure, prevent light from reaching or otherwise harm the marine vegetation, or any part of it: s 204	Department of Primary Industries (DPI)	\$179 + assess ment fee of \$179- \$3891+

			Relevant permit - Part 7 Fisheries Management Act permit		
	If there may be an impact on native plants/animal s	Biodiversity Conservation Act 2016 (NSW)	The schedules to the Act set out lists of protected plants and animals. It may be an offence to harm these plants/animals, but a Biodiversity Conservation licence may be granted to authorise these activities. A number of factors should be considered when determining whether proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats s 7.3. Note also the defence under s 2.8 – it is a defence to show that an act was necessary for the carrying out of a development in accordance with a consent issued under the EPAA.	NSW Department of Planning, Industry & Environment (DPIE)	\$30 + possible assess ment fees
	If there may be pollution from placement of reef substrate material e.g. oyster shell and rock in estuaries	Protection of the Environment Operations Act 1997 (NSW)	This Act requires licencing for activities listed in the Schedule. Activities related to aquaculture require permits, as do certain types of waste discharge. → note – NSW shellfish reef restoration guideline suggests this may be required	NSW Environment Protection Authority (EPA)	
Biosecurity	Movement of oysters, oyster shells and construction equipment between estuaries may involve the spread of disease agents	Biosecurity Act 2015 (NSW)	Part 21 deals with the granting of permits, and allows permits to be granting to authorise conduct that is otherwise prohibited Part 4 of the Act creates offences regarding dealing with 'prohibited matter'. Sch 2 lists prohibited matter, which includes disease agents that may be present in oysters/shellfish	Department of Primary Industries Biosecurity and Food Safety	\$720 + potential admin charge

	As oyster reefs are located in State waters, there is a need to establish land access	Crown Lands Management Act 2016 (NSW)	The relevant Minister may issue a lease (Div 5.5) or a licence (Div 5.6) over Crown land.	NSW Department of Planning, Industry & Environment (DPIE) – Crown Lands	Lease \$757 + rent Licence \$576- 660
	For consent to undertake development on Crown Lands	Crown Lands Management Act 2016 (NSW)	An application for Landowner's consent may be needed for project proposals on Crown land.	NSW Department of Planning, Industry & Environment (DPIE) – Crown Lands	\$99
	If reefs are located in Port Authority land	Ports and Maritime Administration Act 1995 (NSW)	A person must not erect a structure in, on or over the bed of any waters vested in a relevant authority without first obtaining their permission: s 105C The Port Authority has developed a 'Permission to lodge' process - https://www.portauthoritynsw.com.au/projects-planning/planning-and-approvals/permission-to-lodge/	Port Authority of NSW	n/a
/tenure	Applies if an oyster reef is to be constructed in a declared native title area	Native Title Act 1993 (Cth)	An act that affects native title in relation to land or waters may be classified as a 'future act' under the <i>Native Title Act</i> s 233(1). A future act will be invalid unless it validated under an Indigenous Land Use Agreement ('ILUA') or one of the provisions of the <i>Native Title Act 1993</i> (Cth). Therefore if Native Title exists over a proposed project area, the ILUA should be considered to determine whether a reef may fall within its terms, and the procedure for undertaking the activity.	Relevant Native Title group or corporation	n/a
Land access/tenure	In relation to any unresolved Aboriginal Land Claims	Aboriginal Land Rights Act 1983 (NSW)	This Act provides a scheme for Aboriginal Land Councils to make claims over state land. It may be necessarily to determine whether there are any unresolved claims over the subject land.	NSW Department of Planning, Industry & Environment	

	(DPIE) – Crown	ı
	Lands	

Appendix C – Oyster Reefs, South Australia

Activities undertaken as part of an oyster reef restoration project may be defined as 'development' under the *Planning, Development and Infrastructure Act 2016* (SA) ('PDI Act') and may require assessment and approval by the relevant authority. The various planning procedures and requirements are set out in the PDI Act, the Planning, Development and Infrastructure (General) Regulations 2017, and the South Australian Planning and Design Code. The Planning and Design Code is designed to be used as an online tool, where proponents can type in a property address and see the Zones, categorisation of development, notification requirements, and criteria against which development will be assessed. Various overlays will also apply to developments depending on their nature, impacts and location. The PDI Act, Regulations and the Planning and Design Code identify a number of potential relevant authorities who may be the assessment and approval body. The legal regime also provides for development to be referred to various government departments or agencies for advice or approval.

Types of development

Under the PDI Act, Regulations and the Planning and Design Code, development may be categorised as one of four categories, as set out below. The categorisation depends on the Zones in which a location for development is situated, and the scale/type of development.

- 1. Accepted development. The Planning and Design Code will expressly categorise the type of development as accepted development. Accepted development does not require planning consent (PDI Act s 104). Common examples include installing roof top solar panels and above-ground water tanks. This assessment pathway will not apply to reef restoration projects as they are not listed in the Land Use Definitions table under Part 7 of the Planning and Design Code.
- 2. Code-assessed development, which is either:
 - a. Deemed-to-satisfy development. The Planning and Design Code will expressly categorise the type of development as deemed-to-satisfy (PDI Act s 105). Deemed-to-satisfy development must be granted planning consent (PDI Act s 106). Common examples include constructing a veranda or carport. For the same reason as accepted development, this assessment pathway will not apply to reef restoration projects.
 - b. Performance-assessed development. Development is performance-assessed development (i) if it is expressly categorised by the Planning and Design Code as performance-assessed development; **or** (ii) if development is not explicitly listed as accepted development, deemed-to-satisfy development or impact-assessed development for the location, the development will default to performance-assessed development. Performance-assessed development must be granted planning consent and is assessed on its merits against the Planning and Design Code (PDI Act, s 107). The Planning and Design Code contains General Development Policies for certain activities, which contain Assessment Provisions against which development will be assessed. The Assessment Provisions set out desired outcomes (DOs) and performance outcomes (POs) for development in the relevant Zone. For shellfish reefs in state coastal waters, this is the Coastal Waters and Offshore Islands Zone. In their planning application, applicants will demonstrate how the project will meet the relevant DOs and POs. The Assessment Provisions relevant to shellfish restoration in the Coastal Waters and

- Offshore Islands Zone are set out in Table 1, below. Planning approval must be denied where development would be significantly at variance with the provisions of the Planning and Design Code (PDI Act s 107(2)(c)).
- 3. Impact-assessed development: this is development classified by the Planning and Design Code as restricted development; or classified by the regulations or declared by the Minister as impact assessed development (PDI Act, s 108). Impact-assessed development must be granted planning consent. For restricted development, the State Planning Commission is the relevant authority (assessment and approval). The State Planning Commission will determine whether it will be prepared to assess development and how development will be assessed. For impact-assessed development that is not restricted development, the Minister for Planning is the relevant authority (assessment and approval), assisted by the State Planning Commission. The proponent must prepare an environment impact statement (EIS). The State Planning Commission will determine the level of detail required for the EIS and undertake other administrative responsibilities in the EIS process. Again, development will be assessed against the Assessment provisions of the Code.

Relevant Authorities

The PDIA Act, Regulations and Planning and Design Code identify a number of bodies that may potentially act as the relevant authority for assessing and/or approving development. These are:

- An assessment manager
- · An accredited professional
- A local council assessment panel
- A regional assessment panel appointed by the local council
- An assessment panel appointed by a joint planning board
- The State Commission Assessment Panel (SCAP)
- The Minister for Planning (where a proposed development is classified as impact assessed development, other than restricted development).

Shellfish reefs restored on Crown land underneath state coastal waters are located in an area defined as "Not Within a Council Area". The relevant authority will therefore be either the SCAP or the Minister for Planning (see below).

State Planning Policies

In accordance with s 58 of the PDI Act, the State Planning Commission has prepared State Planning Policies that set out the 'overarching goals or requirements for the planning system'.¹ These policies are to be given effect through the other legislative instruments, including the Planning and Design Code. While State Planning Policies are not to be used directly for the purpose of development assessment (per s 58(4)), they must be taken into consideration when an Environmental Impact Statement (EIS) is prepared for an impact assessed development application. For infrastructure schemes, the Minister can act only on the advice of the Commission. In providing this advice, the Commission must consider any relevant State planning policies, as well as relevant Regional Plans and the relevant provisions in the P&D Code.The Biodiversity Policy (State Planning Policy 4) and State Planning Policy 13: Coastal Environment are Planning Policies that are directly relevant to reef restoration projects.

• State Planning Policy 4: Biodiversity

This policy recognises the important role that the planning law system can play in conserving biodiversity, including by helping businesses and industries take advantage of new market opportunities and by enhancing resilience to climate change. It states that: 'In areas that have already been significantly modified, it is possible to re-introduce components of biodiversity to provide critical functions at low cost, such as ... aquatic ecosystems for flood mitigation and water quality improvement'.² Examples of specific policies are to: 'Encourage the re-introduction of biodiversity or its components in development areas to provide life-supporting functions at low cost' (Policy 4.3); 'Assess and manage risk posed by known or potential biosecurity threats to enable the sustainable development and use of terrestrial and marine environments; (Policy 4.7); and that 'Development in, or affecting, marine environments is ecologically sustainable' (Policy 4.8). These objectives are to be implemented through regional plans and the P&D Code. This includes establishing zones to protect areas of biodiversity value.

² State Planning Policy 4: Biodiversity, Version 1.1 – Gazetted 23 May 2019, p 36.

¹ State Planning Polices are available at https://plan.sa.gov.au/our-planning-system/instruments/planning-instruments/state-planning-policies

• State Planning Policy 13: Coastal Environment

This policy establishes that an objective of the planning system is to 'protect and enhance the coastal and marine environment and ensure that development is not at risk from coastal hazards'. Examples of specific policies are to: 'Protect and enhance the natural coastal environment and its resilience to a changing climate, including environmentally important features, such as ... marine-protected areas; ... native vegetation; living creatures; and other important habitats' (Policy 13.1) and to 'Support development that does not contribute to sediment, nutrients and contaminants entering the coast and marine environment' (Policy 13.10).

Crown Development Process

The oyster reef restoration projects that have taken place offshore in South Australia's coastal waters to 30 June 2023 have utilised a particular form of procedure for 'Crown development', established under Part 9 of the PDI Act, s131 (the 'Crown Development procedure') (similar provisions existed in the former *Development Act 1993* (SA)). Pursuant to s 131(2), the procedure applies to:

- (a) a State agency³ that undertakes development;
- (b) a State agency that proposes to undertake development for the provision of 'essential infrastructure' in a partnership or joint venture with a private sector developer; and to
- (c) a private sector developer who "proposes to undertake development initiated or supported by a State agency for the purposes of the provision of essential infrastructure and specifically endorsed by the State agency'.

In these cases, the State agency must lodge the application for development approval, containing prescribed particulars, with the State Planning Commission (s 131(2)). The State agencies who have lodged applications for the oyster reef conservation projects to date are: Primary Industries and Regions South Australia (PIRSA); the Department for Environment and Water (DEW); and the Kangaroo Island Landscape Board (KILB). Where a state agency undertakes the development, it need not be for 'essential infrastructure' (s 131). However, where a private developer undertakes the

³ State agency is defined in s 131(1) to mean— (a) the Crown or a Minister of the Crown; (b) an agency or instrumentality of the Crown (including a Department or administrative unit of the State); (c) any other prescribed person or prescribed body acting under the express authority of the Crown, but does not include a person or body excluded from the ambit of this definition by regulation.

⁴ 'Essential infrastructure' is defined in s3 of the PDI Act to mean— (a) infrastructure, equipment, structures, works and other facilities used in or in connection with— (i) the generation of electricity or other forms of energy; or (ii) the distribution or supply of electricity, gas or other forms of energy; and (b) water infrastructure or sewerage infrastructure within the meaning of the Water Industry Act 2012; and (c) transport networks or facilities (including roads, railways, busways, tramways, ports, wharfs, jetties, airports and freight-handling facilities); and (d) causeways, bridges or culverts; and (e) embankments, walls, channels, drains, drainage holes or **other forms of works or earthworks**; and (f) testing or monitoring equipment; and (g) **coast protection works** or facilities associated with sand replenishment; and (h) communications networks; and (i) health, education or community facilities; and (j) police, justice or emergency services facilities; and (k) other infrastructure, equipment, buildings, structures, works or facilities brought within the ambit of this definition by the regulations.

development, it must be for the provision of 'essential infrastructure'. It appears that oyster reefs most likely fit into the definition of 'essential infrastructure' in s 3 of the PDI Act as 'coast protection works' or 'other forms of works' (see n 4, below).

Regulation 107 of the Planning Development and Infrastructure (General) Regulations 2017 requires the application to be in a form determined by the Minister. The application must contain the 'prescribed particulars', which are (a) a description of the nature of the proposed development; and (b) details of the location, siting, layout and appearance of the proposed work (reg 107(2)). The state agencies that have applied have all attached an Ecologically Sustainable Development Risk Assessment to the development application. The first ESDRA for shellfish reef restoration was developed and undertaken by PIRSA for the Windara Reef, using a risk assessment method based on the *National Ecologically Sustainable Development Reporting Framework* 'How-To' Guide for Aquaculture.⁵ ESDRAs based on PIRSA's method should usually be read in conjunction with PIRSA's *Ecologically Sustainable Development Risk Assessment Guidelines* (2009).

Crown development applications exceeding \$10 million in value require public notification for a minimum period of 15 business days during which the public may make representations. Otherwise, there are no provisions in s 131 for public notification. Therefore, shellfish restoration projects that are under \$10 million do not require public notification under the Crown development process. However, the proponents to date have consulted widely as (a) there are a number of stakeholders – both individuals and groups – who are interested in reef restoration and/or committed to it, and (b) public consultation reduces the risk of delays in the approvals process (as the Minister is unlikely to grant approval unless the Minister is clear about the opinions of stakeholders and the public).

The SCAP assesses all applications for Crown development and prepares a report for the Minister for Planning, who makes the final decision. The Planning and Land Use Services division within the Department for Trade and Investment (PLUS_DTI) will undertake referral, public notification and assessment requirements, including collection of development fees, and the preparation of a report for SCAP's consideration. The 7-member Panel may delegate its duties to staff members, therefore the members of the Panel itself do not necessarily assess all applications. Oyster reef restoration projects in coastal waters have been delegated to staff and not assessed by Panel members. SCAP itself cannot consult with private groups/stakeholders (cf referrals to other agencies: see next para).

The Crown development procedure provides for the referral of the application to various bodies, including the local council and various bodies prescribed by the Act and Regs (PDAI s 131(6),(10); Regs, reg 41 and Sched 9) (eg the Coast Protection Board, Environment Protection Authority – see Table 2 below for referrals that may be required). Not all applications will trigger the requirement for referrals under the Planning and Design Code: for example, referral to the Environment Protection Authority is only required for a prescribed activity of environmental significance, as defined in Sched 1 of the *Environment Protection Act 1993* (SA). If an activity does not fall within this definition, referral to the EPA is not required. For development procedures other than Crown development (eg impact-assessed developments) SCAP will only refer the project if referral is strictly required by the Act/Regs/Code. However, where an application is made under the Crown development process, where the Minister is only required to 'have regard to' the Planning and Design Code, SCAP may refer the project to any government agency, and will refer a project to a range of agencies to achieve a holistic approach.

_

⁵ Fletcher, W., Chesson, J., Fisher, M., Sainsbury, K. and Hundloe, T. (2004). *National ESD Reporting Framework: The "How To" Guide for Aquaculture*. Version 1.1 FRDC, (Canberra, Australia).

The Minister for Planning is the decision-maker. An approval will be taken to be given subject to the condition that, before any building work is undertaken, the building work be certified by a building certifier, or by some person determined by the Minister for the purposes of this provision, as complying with the provisions of the Building Rules to the extent that is appropriate in the circumstances (ss 131(20),(21)). No appeal lies against a decision of the Minister (s 131(26)).

Exemptions

Reg 3 and Sched 4 – set out general exemptions from the definition of 'development'. None of these apply to oyster reefs.

Reg 3CA and Sched 4A exempts the provision of certain essential infrastructure by prescribed persons from the definition of 'development', but this does not include development carried out by a State agency within the meaning of s 131 of the Act, not will oyster reefs fall within the exclusion.

Reg 106 and sched 13 of the Regs exempt some State agency developments from approval and notice. None of these apply to oyster reefs, except note that development exempt from approval includes "the undertaking of any development for a period of not more than 2 years for the purposes of research, investigation or pilot plants" (Regs, Sched 13, cl 2(1)(e)). Reef restoration projects are usually not for research but are for conservation/restoration purposes. Moreover, using this exemption is not appropriate as once the two years have passed, project proponents will need to apply for consent.

'Private' Applications - Process (not Crown development)

Where shellfish restoration projects are not undertaken as Crown development, the project proponent will lodge the application through the online portal on the PlanSA website. Shellfish reef restoration activities ins state coastal waters will take place on land that is "Not Within a Council Area". Oyster reefs are not categorised as accepted development, deemed-to-satisfy or impact-assessed development by the PDI Act, Regs or Planning and Design Code. If a privately-owned entity were to put in an application for development approval for a project in state coastal waters, which is not within a council area, the project would default to performance-assessed development (unless the Minister for Planning declared it to be impact-assessed development). For performance-assessed development in state coastal waters/not within a council area, the SCAP would be the assessment authority and the decision-maker. If the Minister for Planning declared a shellfish restoration project to be impact-assessed development, the Minister would be the assessment authority (assisted administratively by the State Planning Commission) and the decision-maker. It is not clear whether shellfish reefs would be assessed as PAD or whether the Minister would declare a reef to be impact-assessed development, although it may be the latter, given the biosecurity risks/potential environmental impacts of shellfish reefs.

Referral. Where planning approval is required, unless the development is categorised as deemed-to-satisfy, the process will require referral to certain bodies, as per PDIA s122; Regs, reg 41 and Sched 9, and particular Overlays in the Code. Under the 'private' applications processes, SCAP will adhere strictly to the requirements in the Panning and Design Code, and *only* refer to the matters that are listed/defined as requiring referral in the Act, Regulations and Planning and Design Code.

Where development is referred to a prescribed body for 'direction', this means that the prescribed body may direct the relevant authority: (i) to refuse the relevant application; or (ii) if the relevant authority decides to consent to or approve the development (subject to any specific limitation under

another Act as to the conditions that may be imposed by the prescribed body) to impose such conditions as the prescribed body thinks fit, and the relevant authority must comply with any such direction. PDI (General) Regulations, Sched 9, cl 1.

Notice requirements. There are no notice obligations for applications for accepted and deemed-to-satisfy developments. However, the default position in the PDI Act is that proponents of performance assessed development are required to give notice to (a) each owner and occupier of each piece of adjacent land; and (b) members of the public, by placing a notice on the relevant land (s 107(3)(a)). Notification requirements are broader for impact assessed (restricted) development: in addition to notifying the owner/occupier of adjacent land and the general public by placing notice on the land, proponents must notify any owner of occupier of land that would be affected to a significant degree by the development, and any other person of a prescribed class (s 110(2)). If an EIS is required, interested persons may make written submissions (s 113(5)(b)(i) and the Minister may undertake, or require the proponent to engage in, public consultation (s 113(6)).

The Regulations and Planning and Design Code exclude certain listed classes of developments from the notice requirements, and exempt certain developments from the requirement to place a notice on the land, in certain Zones. In the Coastal Waters and Offshore Islands Zone, performance-assessed development is exempt from the requirement in s 107(3)(a)(ii) of the PDI Act to place a notice on the relevant land (PDI Act s 107(6); Regs, reg 47(6)(c) and Planning and Design Code, Coastal Waters and Offshore Islands Zone, Table 5 - Procedural Matters (PM) – Notification).

Other Notes on Governance

Since 2019, the Blue Infrastructure Steering Committee (BISC) has met regularly to inform the governance of shellfish reef restoration in South Australia.

The Blue Infrastructure Working Group (BIWG) and Blue Infrastructure Monitoring, Evaluation, Research and Reporting Group (BIMERRG) meet regularly to discuss project design and monitoring plans for reef restoration activities in South Australia.

- The BIWG is a technical advisory group established by the South Australian government. It includes representatives from Primary Industries and Regions SA (PIRSA), the Department for Environment and Water (DEW), the Environment Protection Authority (EPA), the SA Research and Development Institute (SARDI), the South Australian Tourism Commission (SATC), the Minister's Recreational Fishing Advisory Committee, the University of Adelaide, the Estuary Care Foundation, the Conservation Council, Wildcatch SA, the KILB and TNC.
- The BIMERRG is a scientific advisory group established to provide guidance on site selection, reef design, objectives and monitoring plans and includes members from University of Adelaide, TNC, Flinders University, and DEW.

TABLE 1: South Australia, Planning and Design Code, Coastal Waters and Offshore Islands Zone Assessment Provisions (AP) relevant to shellfish restoration in the Zone

Desired Outcome (DO)

- DO 1 Protection and enhancement of the natural marine and coastal environment and recognition of it as an important ecological, commercial, tourism and recreational resource and passage for safe watercraft navigation.
- DO 2 A limited number of small-scale, low-impact developments supporting conservation, navigation, science, recreation, tourism, aquaculture or carbon storage.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature	
PO 1.1	DTS/DPF 1.1	
PO 1.1 Small-scale, low-impact development for the purpose of conservation, navigation, science, recreation, tourism or aquaculture.	Development comprises one or more of the following: Advertisement Agricultural building Aquaculture Boat berth Campground Dwelling alterations or additions Farming Jetty Navigation structures, boat berth, pier, pontoon or similar structure Public amenities Renewable energy facility.	
Environmental Protection		
PO 3.1	DTS/DPF 3.1	
Development is undertaken in a manner which minimises the potential for harm to the marine and coastal environment or to fisheries and aquaculture, including harm arising from actions that introduce a biosecurity risk.	None are applicable.	
PO 3.2	DTS/DPF 3.2	
Development avoids pollution (including turbidity and sedimentation), shading and effects on water flows harming the marine environment both inside and outside of the zone.	None are applicable.	
PO 3.3	DTS/DPF 3.3	
Development avoids important nesting or breeding areas and areas that are important for the movement/migration patterns of fauna.	None are applicable.	
PO 3.4	DTS/DPF 3.4	
	None are applicable.	

Development avoids delicate or environmentally sensitive coastal areas and key habitat areas within and adjacent offshore islands such as sand dunes, cliff tops, estuaries, wetlands, mangroves and samphire areas.	
PO 3.5	DTS/DPF 3.5
Offshore development is sited to minimise potential impacts on, and to protect the integrity of, reserves under the <i>National Parks and Wildlife Act 1972</i> and the <i>Marine Parks Act 2007</i> .	Offshore development is located not less than 1km from the boundary of any reserve under the <i>National Parks and Wildlife Act 1972</i> , unless a lesser distance is agreed with the Minister responsible for that Act.

Activity	Specificity	Risks/Need	Applicable Legislation	Detail	Responsible Authority	Fees (as at 30 June 2023)
Building the Reef/depositi ng material on the seabed	Planning approval	Development approval for building work is needed, as materials need to be laid on the seafloor to replicate a natural reef structure. These may, for example, be limestone blocks, concrete blocks or oyster shells.	Planning, Development and Infrastructure Act 2016 (SA) Planning, Development and Infrastructure Regulations (General) 2017 Planning and Design Code	PDIA, s 101: no development may be undertaken unless the development is an approved development. The Act applies throughout the State: s 8. The 'State' is defined to include any part of the sea that is included in the coastal waters of the State by virtue of the Coastal Waters (State Powers) Act 1980 of the Commonwealth ie the Act applies to the sea and seabed, seaward from 3 nautical miles of the mean low water mark. 'Development' means (a) change in use of land (b) building work (s 3). Restoring shellfish reefs may fall within the definition of development as a 'change in the use of land' (s 4). Constructing a reef may be defined as 'building work' and therefore fall within the definition of 'development' on this basis.	Under the Crown development procedure, the Minister for Planning. If the Crown development procedure is not used: (i) the State Commission Assessment Panel; or (ii) if the Minister for Planning calls in development as impact- assessed development:	Lodgement Fee: \$184 (additional \$83 fee for hard copy lodgement). Planning Fees Fees per development category: Performance Assessed: \$260 or 0.125% of the total development cost up to a maximum of \$200,000, whichever is greater. Impact Assessed (Declared by the Minister): \$1,819 plus 0.25% of the total development cost up to a maximum of \$500,000. Crown Development: \$184 plus, 0.25% of the total

Section 3 specifies that 'development'	the Minister for	development cost up to a
includes "development on or under water".	Planning	maximum \$300,000
'Building' includes a 'structure'. 'Building		, , , , , , , , , , , , , , , , , , , ,
work" means work or activity in the nature		Public notification
of— (a) the construction, demolition or		\$260
removal of a building (including any		
incidental excavation or filling of land); or		Building Fees
(b) any other prescribed work or activity, but		Building Assessment –
does not include any work or activity that is		Class 10 (non-habitable
excluded by regulation from the ambit of		structures): \$135 or 0.25%
this definition. To construct a building		of the total development
includes to 'erect' a structure or place it on		cost whichever is greater.
land. "Land" includes land covered in water		greater.
(s 3). It appears that reefs are generally		Class 10 buildings are non-
considered a 'structure' and thereby need		habitable buildings or
to obtain planning/development approval.		structures. Class 10
to obtain planning/development approval.		includes three sub-
However, a reef 'sponsored' off KI was not		classifications: Class 10a,
defined as a structure (and therefore a		Class 10b and Class 10c.
building) when considering whether consent		Class 10b and Class 10c. Class 10a buildings are
was required under the building rules (cf		non-habitable buildings
planning/development approval). The		including sheds, carports,
ESDRA, submitted as part of the		and private garages. Class
development application under the PDI Act,		10b is a structure being a
stated that: 'Department of Planning and		fence, mast, antenna,
Infrastructure planners and SCAP's building officer have advised that shellfish reef		retaining wall, swimming
		pool, or the like. A Class
projects do not require building rules		10c building is a private
consent as "the proposed work is neither a		bushfire shelter. A private
building, nor a structure, nor an excavation		bushfire shelter is a
or filling work, nor a levee or mound with a		structure associated with,
finished height greater than 3m above the		but not attached to, a Class
natural surface of the ground".		1a building.
As stated above a mostic many series		Defendate Committee
As stated above, a reef is generally		Referral to Commission
understood to be a 'structure' for the		(Concurrence or Opinion):
purpose of the need to obtain planning/		\$359
development approval under the PDI Act.		
However, it is not clear if, after construction,		Source

			a reef will remain a "structure" or become part of the sea floor, and if so, when it will become part of the sea floor. Once part of the sea floor, it is part of Crown land and the responsibility of the Crown.		
Assessment of the environment al impacts of placing matter on the seabed	Limestone blocks. - May be swept down gulf by current, - may disturb aquaculture - may damage the seabed - may obstruct wildlife - depending on size may negatively affect tides/current s/seagrass meadows	Environment Protection Act 1993 (SA)	Licences and works approval A licence is required to conduct a "Prescribed Activity of Environmental Significance' (s 36 and Sched 1), and works approval is required for building works used for a PAES (s 35 and Sched 1). Whether a licence is required depends on whether depositing limestone blocks or oyster shells on the seabed is a PAES as defined in Sched 1. These activities do not fall within the definition of a PAES in Sched 1 and therefore a licence/works approval is not required. Referral to the Environment Protection Authority This is required by the PDI Act for a PAES. The PDI Act, Regs (reg 41 and Sched 9, cl 3 -Table, Pt A, item 9) and the Code require development that is a PAES under the EP Act, to be referred to the EP Authority, for Direction, within 20 business days. If development approval is granted under the PDI Act, separate works approval under the EP Act is not required. If development approval is granted under the PDI Act, the	Environment Protection Authority	

Environment Protection Authority cannot refuse to issue a licence under the EP Act. The activities involved in reef restoration do not fall within the definition of a PAES in Sched 1 and therefore referral is not required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act is must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection (Water Until the Environment Protection (Cause S 20, 20, 20, 20, 20, 20, 20, 20, 20, 20,	refuse to issue a licence under the EP Act. The activities involved in reef restoration do not fall within the definition of a PAES in Sched 1 and therefore referral is not required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is
The activities involved in reef restoration do not fall within the definition of a PAES in Sched 1 and therefore referral is not required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority, Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	The activities involved in reef restoration do not fall within the definition of a PAES in Sched 1 and therefore referral is not required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is
not fall within the definition of a PAES in Sched 1 and therefore referral is not required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	not fall within the definition of a PAES in Sched 1 and therefore referral is not required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is
Sched 1 and therefore referral is not required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking ref restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	Sched 1 and therefore referral is not required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is
required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	required. Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is
Even where a licence/works approval is not required and referral under the PDI Act is not required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm, It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	Duty to avoid causing environmental harm Even where a licence/works approval is not required and referral under the PDI Act is
Even where a licence/works approval is not required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	Even where a licence/works approval is not required and referral under the PDI Act is
required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including of 5 of the Environment Protection (Water	required and referral under the PDI Act is
required and referral under the PDI Act is not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection (Water	required and referral under the PDI Act is
not required (because there is no PAES) an activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
activity may cause 'environmental harm'. Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	I not required mecalise mere is no PAES) and
Persons undertaking reef restoration must not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
not breach the general environmental duty in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including ol 5 of the Environment Protection (Water	
in s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
avoid causing environmental harm. It is not an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
an offence to breach s 25 but a restoration practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
practitioner may be forced to comply with the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
the duty through an administrative order issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
issued by the Environment Protection Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
Authority. Moreover, it is an offence under the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
the EP Act to cause a nuisance, or material or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
or serious environmental harm (ss 79, 80, 82) 'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
'Environmental harm' is defined in s 5 of the Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	
Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	82)
Act and is also defined in various Environment Protection Policies, including cl 5 of the Environment Protection (Water	'Environmental harm' is defined in s 5 of the
cl 5 of the Environment Protection (Water	
	Environment Protection Policies, including
Ouglity Policy) 2015 ('WOP') Clause 5 of	
	Quality Policy) 2015 ('WQP'). Clause 5 of
the WQP provides that for the purposes of s	
5(1)(c) of the Act, each of the following constitutes environmental harm in relation	
to waters: (a) loss of seagrass or other	
native aquatic vegetation from the waters;	
······································	(b) a reduction in numbers of any native

species of aquatic animal or insect in or in
the vicinity of the waters; (c) an increase in
numbers of any non-native species of
aquatic animal or insect in or in the vicinity
of the waters; (d) a reduction in numbers of
aquatic organisms necessary to maintain
the health of the ecosystem of the waters;
(g) the waters becoming harmful or
offensive to humans, livestock or native
animals; (h) an increase in turbidity or
sediment levels of the waters.
It is also an offence to contravene a
mandatory provision of an Environment
Protection Policy (EP Act s 34) Under cl 11
of the WQP, it is an offence to discharge a
class 2 pollutant into any waters or a cavity
in land. While placing large rocks will
usually not be a class 2 pollutant, soil, clay,
gravel or sand are class 2 pollutants (see
WQP, Sched 3), and it is an offence to
place these in the reef.
Referral is only required for a PAES, but
some developments may cause
environmental harm/breach the EP Act
even though they do not reach the
threshold of being a PAES. The PDI Act
does not require referral for these activities.
As explained in the planning law notes
preceding this table, even where a reef
restoration project does not involve a
PAES, under the Crown development
procedure, SCAP may refer a project to the
Environment Protection Authority. This will
be to ensure projects will meet the Objects
of the EP Act, for example, in relation to
ecologically sustainable development; to

			ensure projects will not cause environmental harm and contravene the Act, for example, by breaching the Water Quality Policy; and to ensure holistic environmental assessment. Under a private development process, SCAP will only refer projects if this is strictly required by the PDI Act, Regs and Planning and Design Code. The EPA may offer advice to ensure projects will meet the Objects of the Act and will not breach the Act, through its involvement in South Australia's Blue Infrastructure Working Group (BIWG), which forms part of an advisory governance infrastructure for shellfish restoration projects (see the Notes preceding this Table). Although this advice is not binding, in practice, restoration practitioners are unlikely to receive other government approvals if they do not adhere to the EPA's advice.		
Permit to take or interfere with listed animal and plant species.	Damage to listed threatened species.	National Parks and Wildlife Act 1972 (SA)	Applies throughout the State. Sets out certain offences in relation to listed species. It is an offence to 'take' a 'protected' animal or the eggs of a protected animal (s 51(1)). It is an offence to interfere with, harass or molest, or cause or permit the interference with, harassment or molestation of, a protected animal (s 68(1)(a)). The maximum penalty for taking a marine mammal, or interfering with etc a marine mammal, is \$100 000 or imprisonment for 2 years. The Act specifies maximum penalties for other animals.	Minister for Climate, Environment and Water/ Department for Environment and Water (DEW)	Permit (for 1 year period) Take Protected Animals from the Wild Permit (s 53(1)(d): \$111 Molestation etc of protected animals Permit (s 68(2)): a) in the case of an application for a permit subject only to standard conditions: \$468.00

		Section 47(1): It is an offence to take a native plant (a) on any reserve, wilderness protection area or wilderness protection zone; or (b) on any other Crown land; or (c) on any land reserved for or dedicated to public purposes; or (d) on any forest reserve. "Land" is defined to include 'waters' (s 3).		b) in any other case: \$739.00 Permit to take native plants (s 49(1)(a)): \$111
		A permit may be granted by the Minister to take a protected animal for 'any other purpose (other than for sale) that the Minister considers proper and not inconsistent with the objectives of this Act.' (ss 53(1)(d)) or to interfere with etc a protected animal (s 68(2)). The Minister may grant a permit authorising the taking of native plants (s 49(1) (a)).		
		Protected animals and plants are listed in Scheds 7-9 of the Act.		
		'Take' is defined broadly: (a) with reference to an animal, includes any act of hunting, catching, restraining, killing or injuring, and any act of attempting or assisting to hunt, catch, restrain, kill or injure; and (b) with reference to a plant means— (i) to remove the plant or part of the plant, from the place in which it is growing; or (ii) to damage the plant.		
Damage to the seabed, aquatic animals and plants in an	Fisheries Management Act 2007 (SA)	The Governor may, by proclamation, declare that waters, or land and waters constitute an aquatic reserve (s 4). An aquatic reserve will be managed through a management plan (Pt 5). The Act prohibits a person from entering or remaining in an	Minister for Primary Industries and Regional Development	Permit Application for a Ministerial Permit to Undertake Activities Within an Aquatic Reserve (s 76, 77): \$133

aguatic		aguatic recorve, or opgoging in a fishing	Source
aquatic reserve.		aquatic reserve, or engaging in a fishing	Source
reserve.		activity in an aquatic reserve, except as authorised by the regulations or a permit	Evemption
			Exemption
		issued by the Minister (s 76).	Application for a Ministerial
			Exemption to Undertake
		The Act prohibits a person from engaging in	Activities Within an Aquatic
		an operation involving or resulting in (a)	Reserve: may include a fee
		disturbance of the bed of any waters	exemption: (s 115)
		forming part of an aquatic reserve; or (b)	
		removal of or interference with aquatic or	
		benthic animals or plants of any waters	
		forming part of an aquatic reserve, except	
		as authorised by the regulations or a permit	
		issued by the Minister (s 77).	
		Section 71(1): A person must not (a) take	
		an aquatic mammal or aquatic resource of	
		a protected species; or (b) injure, damage	
		or otherwise harm an aquatic mammal or	
		aquatic resource of a protected species.	
		Section 71(2): A person must not (a)	
		interfere with, harass or molest an aquatic	
		mammal or aquatic resource of a protected	
		species; or (b) cause or permit interference	
		with, harassment or molestation of, an	
		aquatic mammal or aquatic resource of a	
		protected species.	
Harm to	Adelaide	General duty of care: s 32(1) A person must	
dolphins in the	Dolphin	take all reasonable measures to prevent or	
Adelaide	Sanctuary Act	minimise any harm to the Adelaide Dolphin	
Dolphin	2005 (SA)	Sanctuary through his or her actions or	
Sanctuary	, ,	activities. Breaching the duty is not an	
		offence, but a person who has breached	
		the duty may be issued with a protection	
		order; a reparation order; or a reparation	
		authorisation (s 32).	
		, ,	
		The Act does not provide for a permitting	
		process.	

Permit to place matter on the seabed – to avoid the dumping of wastes and other matter at sea	Placing limestone blocks or other matter may fall within the definition and prohibition on 'dumping' wastes at sea	Environment Protection (Sea Dumping) Act 1991 (Cth) (applies to Commonwealt h waters) Environment Protection (Sea Dumping) Act 1984 (SA) (application to State coastal waters) has not come into force.	Section 6 of the Commonwealth Act prohibits the dumping of 'wastes or other matter' from any vessel without a permit. 'Wastes or other matter' is not defined in the Act, but is defined in Article III.4 of the London Convention on Dumping, reproduced in Sched 1 of the Act, to mean 'material and substances of any kind, form or description'. However, art III.1(b)(ii) stipulates that dumping does not include "placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention". It is an offence to place an artificial reef without a permit (s10). Section 4 defines an artificial reef as 'a structure or formation placed on the seabed (a) for the purpose of increasing or concentrating populations of marine plants and animals'. A shellfish reef falls within this definition. A person may apply to the Minister for a permit to construct an 'artificial' reef (s 18(1)). The Sea Dumping Act regulates the dumping of waste at sea and the creation of artificial reefs in Australian waters. Australian waters stretch from the low-water mark of the Australian shoreline out to 200	Commonwealth Department for Climate Change, Energy Environment and Water	Permit Artificial Reef Permit (s18(1)): \$10,000 Source
			nautical miles (nm). The Commonwealth Minister is empowered to make a Declaration that a state law will apply in coastal waters (s 9(1)), but the SA Sea Dumping Act is not in force, and there is no evidence such a Declaration has been		

			made. Even where a Declaration is made, the Commonwealth Act continues to apply in relation to state coastal waters in relation to the artificial reef placements where they involve 'seriously harmful material' (s 9(2)(d). The Commonwealth Act does not apply to the internal waters of a state that is, waters within the limits of a state or territory. The gulf waters in South Australia are within the limits of the state. Thus, a permit under the Cth Sea Dumping Act is not required in certain SA waters. Legal advice will be required on whether a reef is to be restored within the limits of the state of SA, or not. To date, a sea dumping permit has not been required for the reefs which have been located in SA waters. 'Dumping' in SA waters is also regulated through the Environment Protection Act, which deals with the prevention of pollution and maintaining water quality (see above).		
	Approval to clear native vegetation	Native Vegetation Act 1991 (SA)	Clearance of native vegetation is prohibited without an authorisation (NVA, ss 27, 28). The NVA applies to native vegetation under the sea eg to sea grasses. There is a very broad definition of 'clearance', which means (a) the killing or destruction of native vegetation; (b) the removal of native vegetation; (e) any other substantial damage to native vegetation, and includes the draining or flooding of land, or any other act or activity, that causes the killing or destruction of native vegetation,or any	Native Vegetation Council	Application for consent Consent to clear native vegetation (s 28): \$708.00 plus the fee payable by an applicant for consent to clear native vegetation for the preparation of the report referred to in section 28(3)(b)(ii)(A) of the Act (being the Minister's estimate of the reasonable cost of preparing a report of that kind

other substantial damage to native vegetation. Clearance can be approved by the Native Vegetation Council in certain circumstances, where a significant environment benefit is able to be achieved.	determined after consultation with the Council). Source
The Native Vegetation Regulations 2017 set out circumstances where approval for clearance is not required, although applicant must have regard to the "mitigation hierarchy' in the Regulations. However, these circumstances do not apply to native vegetation cleared for oyster reef restoration.	Referral Cost of referral to Native Vegetation Council: \$664.00 Source
The PDI Act, Regs (reg 41 and Sched 9, cl 3 -Table, Pt A, item 11) and the Code require referral to the Native Vegetation Council, for Direction, within 20 business days, of development that is (a) within the Native Vegetation Overlay or the State Significant Native Vegetation Overlay under the Planning and Design Code; and (b) is specified the Planning and Design Code as development of a class to which item 11 applies.	
An applicant for planning/development approval under the PDI Act will need to sign a Native Vegetation Declaration, declaring either that: (a) the proposal will not involve the clearance of native vegetation; or (b) if clearance of native vegetation is required, a report is supplied, categorising the clearance as 'level 1 clearance' (pursuant to reg 18(2)(a) of the Native Vegetation	

		Regulations 2017); or (c) that no report is supplied.		
Possibility of local sedimentatio n	Coast Protection Act 1972 (SA)	Two key functions of the Coast Protection Board, under s 14 of the Coast Protection Act, are: (a) to protect the coast from erosion, damage, deterioration, pollution and misuse; and (b) to restore any part of the coast that has been subjected to erosion, damage, deterioration, pollution or misuse. For the purposes of the Act, the 'coast' extends seaward 3 nautical miles ie the functions of the Board extend to state coastal waters. The PDI Act, Regs (Sched 9, cl 3 -Table, Pt A, item 3) and the Code require referral to the Coast Protection Board, for Direction, within 30 business days, of development that is (a) in the Coastal Areas Overlay under the Planning and Design Code; and (b) specified by the Planning and Design Code as development of a class to which this item applies.	Coast Protection Board	Referral Cost of referral to the Coast Protection Board: \$414.00 Source
	Environment Protection Act 1993 (SA)	It is an offence under the EP Act to cause a nuisance, or material or serious environmental harm, and to breach a mandatory provision of an Environment Protection Policy. Persons undertaking reef restoration must not breach the general environmental duty under s 25 of the Act ie must take all reasonable and practicable measures to avoid causing environmental harm. Sediments (including sand) (<63 microns) are easily resuspended. Sediments can		

smother animals and habitats. Under cl 11 of the WQP, it is an offence to discharge a class 2 pollutant into any waters. Soil, clay, gravel or sand are defined as class 2 pollutants, and it will be breach of the WQP to place these in the reef. Turbidity is often associated with suspended sediments. The WQP provides that: the provisions that a person must comply with in taking all reasonable and practicable measures to prevent or minimise environmental harm resulting from undertaking an activity that pollutes or might pollute waters (in compliance with the general environmental duty in s 25 of the Act) include, but are not limited to, the following: ... (b) in the case of waters with an environmental value of aquatic ecosystems or primary industries the person must avoid activating a trigger value for the Waters. Clause 7 of the WQP provides that: a trigger value for waters is activated if— (a) in the case of waters with an environmental value of aquatic ecosystems—a trigger value for an indicator specified in Chapter 3 of the Water Quality Guidelines—(i) has been reached or exceeded for a chemical substance or a characteristic; or (ii) in the case of a minimum level specified for a characteristic, has not been reached, in respect of the waters when assessed against Chapter 3 of the Water Quality Guidelines (and any other provisions of those guidelines that assist in the interpretation and construction of Chapter 3) on the basis of a 95% level of protection of species.

	Reef structures may be a hazard to navigation Safety of navigation for large-scale reefs may require the use of buoys to mark the reef area	Harbors and Navigation Act 1993 (SA)	'Water Quality Guidelines' means the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 prepared by ANZECC and ARMCANZ. Applicants under the PDI Act will generally be required to address the issue of safety of navigation in their development application. The reefs to date in SA have been sited where safety to navigation is not an issue. The PDI Act does not require referral to the Minister administering the Harbors and Navigation Act (see the Regs, Sched 9, Table). However, under the Crown Development procedure, SCAP has flexibility to refer to an application. Placement of buoys is subject to approval by the Minister administering the Harbors and Navigation Act.	Minister for Infrastructure and Transport Dept for Infrastructure and Transport	
Use of Pacific of shells as substrat within the reef des	Ensuring there is no biosecurity	Fisheries Management Act 2007 (SA) PIRSA, Policy for the Release of Aquatic Resources	Section 78(2) prohibits a person from releasing or permitting to escape into any waters, or depositing in any waters, (i) exotic fish; or (ii) aquaculture fish; or (iii) fish that have been kept apart from their natural habitat. A person must apply to the Minister for a permit to release or deposit aquatic resources. 'Aquatic resource' means fish or aquatic plants (s 3). 'Fish' means an aquatic animal other than— (a) an aquatic bird, an aquatic mammal, a reptile or an amphibian; or (b) an aquatic animal of a	Minister for Primary Industries and Regional Development Primary Industries and Regions SA (PIRSA) Fisheries and Aquaculture	Permit Application for a Ministerial Permit to Release Aquatic Resources (s 78(2)): \$133 Source

	kind declared by the regulations to be		
	excluded from the ambit of this definition.		
	excluded from the ambit of this definition.		
	Assuming oyster shells are 'fish' for the		
	purposes of this definition, a s 78 permit is		
	required to use oyster shells as a substrate		
	in fish design, and PIRSA/the Minister can		
	place conditions on the permit to ensure		
	that oyster shells used as a substrate are		
	decontaminated.		
	decontaminated.		
	In practice, after consulting with PIRSA,		
	applicants will set out the rigorous		
	measures they intend to take to address		
	biosecurity risks in their ESDRA/ planning		
	application. Applicants are unlikely to		
	receive development approval to use oyster		
	shells as a substrate unless biosecurity		
	risks are adequately addressed.		
Livestock Act	In practice, restoration practitioners will be	Minister for	
1997 (SA)	most likely to obtain 'recycled' oyster shells	Primary	
(3.1)	from within South Australia.	Industries and	
Prohibition of		Regional	
Entry into and	It is possible (if unlikely in practice) that	Development	
Movement	oyster shells could be obtained from	'	
within South	interstate. The import of 'aquaculture stock'		
Australia of	from interstate, and the translocation of		
Aquaculture	'aquaculture stock' within the state, is		
Stock Notice	regulated by the Livestock Act.		
2020 [The			
South	Livestock Act s33: the Minister		
Australian	may, by notice in the Gazette, prohibit entry		
Government	into, or movement within or out of, the State		
Gazette, No.	or a specified part of the State of livestock,		
60, 23 July	livestock products, or other property, of a		
2020, p 4044]	specified class—		
	(a) absolutely; or (b) subject to the condition		
	that specified documentation accompany		
	the livestock, livestock products or other		

property en route; or (c) subject to any
other condition.
2020 Notice, Part B: 'Aquaculture stock' that has been hatchery reared outside of the State or taken in waters other than waters of the State must not enter the State unless: (a) the aquaculture stock is supplied by a designated aquaculture supplier; (b) the prior written approval of the Chief Inspector of Stock has been obtained and all conditions of the approval are complied with; and; (c) all requirements in the Translocation Protocol relating to the entry of the species of aquaculture stock into the State are complied with. 'Translocation
protocol' means the South Australian Translocation Protocol for Aquaculture Stock approved by, and available from, the Chief Inspector of Stock.
2020 Notice, Part C: All aquaculture stock permitted to enter into, or move within the State or a part of the State in accordance with Part B of the Notice, must be accompanied by documentation issued by the supplier of the aquaculture stock, containing certain information.
In some circumstances, health certification of incoming stock by an accredited laboratory will be required and animals must be translocated within a certain period of time from the date of health testing.
However, 'aquaculture' stock is defined in the Notice to mean 'livestock that are aquatic animals farmed or intended to be

farmed pursuant to an aquaculture licence under the Aquaculture Act 2001'. Restrictions on importing oysters apply to aquaculture licence holders. It is not clear that the Notice applies to oyster shells imported from interstate for use as substrate in shellfish restoration as this doesn't appear to fall within the definition of 'aquaculture' or 'aquaculture stock'. 'Aquaculture' has the same meaning as in the Aquaculture to mean 'farming of aquatic organisms for the purposes of trade or business or research, but does not include an activity declared by regulation not to be aquaculture'. 'Farming of aquatic organisms' means 'an organised rearing process involving propagation or regular stocking or feeding of the organisms or protection of the organisms from predators or other similar intervention in the organisms' natural life cycles'. On a textual reading of the legislation and Notice, it seems unlikely that importing Pacific or other oyster shells from interstate to use shells as substrate for a reef falls within the definition of moving 'aquaculture stock'.
In practice, applicants are unlikely to receive planning/development approval to use the imported shells as a substrate and/or approval under the Fisheries Management Act unless they demonstrate biosecurity risks have been addressed.

Barge in the Gulf	May cause disruptions for wildlife (extra noise, activity, blocking usual routes/feeding areas, potential fallout from construction materials may prove hazardous)	National Parks and Wildlife Act 1972 (SA)	See above, in that it is an offence to 'take' protected animal and plants, and to interfere with etc, protected animals, without a permit issued by the Minister. Section 73A provides for liability and expiation of offences to the owner of vehicle (or person hiring/using under bailment) that commits certain offences set out in reg 41, Sched 1 of the National Parks and Wildlife (National Parks) Regulations 2016. These offences related to the use of vehicles in reserves/protected areas established under Pt 3 and Scheds 3-6 of the Act (rather than offences against listed/protected species). 'Vehicle' includes a ship, boat or vessel (Act, s 5).	Minister for Climate, Environment and Water/ Department of Environment and Water (DEW)	Permit (for 1 year period) Take Protected Animals from the Wild Permit (s 53(1)(d): \$111 Molestation etc of protected animals Permit (s 68(2)): a) in the case of an application for a permit subject only to standard conditions: \$468.00 b) in any other case: \$739.00 Permit to take native plants (s 49(1)(a)): \$111
		Environment Protection Act 1993 (SA)	Construction must comply with the Environment Protection (Noise) Policy 2007 [note: on 31 October 2023, this policy will be revoked and replaced by the Environment Protection (Commercial and Industrial Noise) Policy 2023.]	Environment Protection Authority	
		Marine Parks Act 2007 (SA) (see "Marine Parks Access", below)	Vessel access may be restricted in certain Zones in marine parks, at certain times of the year		
Any of the above actions that has, will have, or is likely to		Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Approval is required under the EPBC Act if an action has, will have, or is likely to have, a significant impact on a matter of national environmental significance as defined in the EPBC Act, or on the Commonwealth marine environment.	Minister for Energy and Environment/ Commonwealth Department for Climate	Referral Initial Referral fee: \$6,577 Assessment Fees per assessment approach:

	have, a significant impact on a matter of national environment al significance				Change, Energy, environment and Water (DCCEW)	 Assessments on referral information: \$8,964. Assessments on preliminary documentation: \$8,010. Assessments by public environment report or environmental impact: \$25,583. Assessments by bilateral agreement or accredited process: \$18,146. Fees Subject to increase based on complexity of project. Source
Populating the reef with oysters	Ensuring there is no biosecurity risk	Ensuring the oysters being introduced won't have negative effects (eg bringing disease, ensuring they are not hazardous to local wildlife)	Fisheries Management Act 2007 (SA) PIRSA, Policy for the Release of Aquatic Resources	Section 78(2) of the FM Act prohibits a person from releasing or permitting to escape into any waters, or depositing in any waters, (i) exotic fish; or (ii) aquaculture fish; or (iii) fish that have been kept apart from their natural habitat. A person must apply to the Minister for a s 78 permit to release or deposit aquatic resources. For a permit to be issued, a comprehensive ecologically sustainable development risk	Minister for Primary Industries and Regional Development Primary Industries and Regions SA (PIRSA) Fisheries and Aquaculture	Permit Application for a Ministerial Permit to Release Aquatic Resources (s 78(2)): \$133

Controlling	assessment (ESDRA) must be undertaken.
release to	As mentioned in the introductory text to this
ensure oysters	article, to 30 June 2023, all proponents of
stay in	shellfish reef restoration projects in state
approximate	coastal waters have been required to
location (eg	prepare and submit an ESDRA, based on
don't travel to	PIRSA's assessment requirements for
local oyster	aquaculture.
farms)	
	In practice, the reefs in SA have been
	populated by oysters that have been bred
	and/or reared in SARDI's hatchery and then
	translocated to the reef. Restoration
	practitioners could collect native oyster spat
	or juveniles from the wild and place them
	directly on a reef. In either case, a s 78
	permit is required to release/deposit the
	oysters onto the reef.
	However, if reefs are populated by natural
	settlement, a s 78 permit would not be
	required. Natural settlement would involve
	placing substrate on the sea floor and then
	playing music or other noise to attract
	oysters to the reef. This does not involve
	the release or deposit of oysters, or involve
	permitting the escape of oysters.

Collecting	Regulating the	Fisheries	Note: as regards biosecurity, regulation of	Permit
native wild	collection of	Management	(a) the collection of seedstock/broodstock	Application to Apply for a
spat/seedstoc	native wild	Act 2007 (SA)	and (b) translocation of oysters (see the	Broodstock or Seedstock
k/broodstock	oyster spat,	, ,	row below), takes place through legislation	permit (Reg 5): \$435
	seedstock	Fisheries	that is primarily directed to regulating	
	and/or	Management	aquaculture. This legislation refers to	
	broodstock	(Miscellaneous	activities that are done 'for the purpose of	Source
	from SA	Brood-stock	aquaculture' and/or places obligations on	
	waters, to be	and Seed-	aquaculture licence holders under the	
		stock	Aquaculture Act 2001 (SA). 'Aquaculture' is	
	populate the	Fishery)	defined in that Act to mean 'farming of	
	new shellfish	Regulations	aquatic organisms for the purposes of trade	
	reef with	2013	or business or research' (s 3). It is	
	oysters		arguable that the collection and	
			translocation of oysters for reef restoration	
			is not for 'aquaculture' as it is not for 'trade,	
			business or research'. This means that on	
			a textual reading of the law, the application	
			of legislation to shellfish reef restoration is	
			not necessarily clear.	
			Taking native wild oyster spat, seedstock	
			and/or broodstock from SA waters may	
			require a seedstock/broodstock permit,	
			issued under the Fisheries Management	
			(Miscellaneous Brood-stock and Seed-	
			stock Fishery) Regulations 2013.	
			Regs 4(1),(2): The Miscellaneous	
			Broodstock and Seedstock Fishery is	
			constituted, and consists of— (a) the taking	
			of sexually mature aquatic organisms in the	
			waters of the State to provide reproductive	
			material for the purposes of aquaculture; or	
			(b) the taking of juvenile aquatic organisms	
			in the waters of the State for the purposes	
			of aquaculture (other than the taking of	
			mussel spat in an area subject to an	
			aguaculture lease, pursuant to an	

aquaculture licence authorising the farming of mussels).
Reg 5—Issue of permits (1) The Minister may issue permits in respect of the fishery. (2) The Minister may only grant a permit in respect of the fishery if satisfied as to the following: (a) that the applicant is the holder of an aquaculture licence; (b) if the applicant is a natural person—that the person is at least 15 years of age and is a fit and proper person to hold a permit in respect of the fishery; (c) if the applicant is a company—that each director of the company is a fit and proper person to be a director of a company that holds a permit in respect of the fishery.
A broodstock permit will allow the holder to collect native spawning mature oysters from the wild to breed oysters. A seedstock permit will allow the holder to collect native spat/juveniles from the wild and rear them.
Pursuant to the Aquaculture Act s 50(3), the Minister may grant an aquaculture licence if the Minister is satisfied that the grant of the licence would be consistent with the objects of the Aquaculture Act and any prescribed criteria or other relevant provisions of an applicable aquaculture policy, and the applicant is a suitable person to be granted the licence.
In practice, in SA to date, SARDI has bred and reared native oysters for eventual translocation to the new reefs. SARDI has provided hatchery services, as SARDI has significant expertise and infrastructure/

		Nata OA is	facilities. Without SARDI, a restoration practitioner who wished to breed and rear oysters would have to approach a commercial hatchery to breed and rear native oysters. A restoration practitioner may approach SARDI (or a commercial hatchery) to breed and rear native oysters and then obtain the oysters from SARDI. Alternatively, a restoration practitioner could apply for an aquaculture licence and a permit to take broodstock/ seedstock from the wild and then move the stock to SARDI (or a commercial hatchery) for SARDI (or a commercial hatchery) to rear oysters to an appropriate size for translocation to the reef. PIRSA would require a permit in the latter case as the collection of native wild spat/seedstock/broodstock for SARDI or a commercial hatchery to rear would be seen as being taken for the purpose of aquaculture.	Minister	
Moving/transl ocating oysters, broodstock or seedstock, within SA waters, or importing from interstate	Oyster spat may be brought in from interstate.	Note: SA is currently drafting a new Biosecurity Act which will regulate the translocation of oysters Livestock Act 1997 (SA) Prohibition of Entry into and Movement within South	In practice, in SA to 30 June 2023, SARDI has bred and reared native oysters for eventual translocation to the new reefs. It is possible in the future that shellfish reef restoration practitioners might need to (or otherwise seek to) purchase native oysters bred and raised interstate in a hatchery interstate and seek to import them to SA. The import of 'aquaculture stock' from interstate, and the translocation of 'aquaculture stock' within the state, is regulated by the Livestock Act. Livestock Act s33: the Minister	Minister for Primary Industries and Regional Development	

Stock Notice 2020 Into, or movement within or out of, the State or a specified part of the Stock of livestock, livestock products, or other property, of a specified class— (a) absolutely; or (b) subject to the condition that specified documentation accompany the livestock, livestock products or other property en route; or (c) subject to any other condition. Currently, pursuant to the 2020 Notice, Part B: 'Aquaculture stock' that has been hatchery reared outside of the State or taken in waters other than waters of the State must not enter the State unless: (a) the aquaculture stock is supplied by a designated aquaculture stoplier; (b) the prior written approval of the Chief Inspector of Stock has been obtained and all conditions of the approval are complied with; and; (c) all requirements in the Translocation Protocol relating to the entry of the species of aquaculture stock into the State are complied with. 'Translocation protocol means the South Australian Translocation Protocol of Aquaculture Stock approved by, and available from, the Chief Inspector of Stock. 2020 Notice, Part C: All aquaculture stock permitted to enter into, or move within the State or a part of the State in accordance with Part B of the Notice, must be accompanied by documentation.

	In some circumstances, health certification
	of incoming stock by an accredited
	laboratory will be required and animals
	must be translocated within a certain period
	of time from the date of health testing.
	'Aquaculture stock' is defined in the Notice
	to mean 'livestock that are aquatic animals
	farmed or intended to be farmed pursuant
	to an aquaculture licence under the
	Aquaculture Act 2001'.
	7.44.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.
	'Aquaculture' has the same meaning as in
	the Aquaculture Act 2001, which defines
	aquaculture to mean 'farming of aquatic
	organisms for the purposes of trade or
	business or research, but does not include
	an activity declared by regulation not to be
	aquaculture'. 'Farming of aquatic
	organisms' means 'an organised rearing
	process involving propagation or regular
	stocking or feeding of the organisms or
	protection of the organisms from predators
	or other similar intervention in the
	organisms' natural life cycles'.
	Shellfish reef restoration practitioners could
	purchase native oysters bred and raised
	interstate in a hatchery interstate and seek
	to import them to SA. This import/
	movement of aquaculture stock would be
	subject to s 33 of the Livestock Act and the
	provisions in Parts B and C of the 2020
	Notice if the movement is of 'aquaculture
	stock', which on a textual reading of the Act
	and Notice, depends on whether the
	imported oysters are 'livestock that are
	aquatic animals farmed or intended to be
	farmed pursuant to an aquaculture licence
	The state of the s

Water used to transpor aquatic organisms may requir some form chemical	water may cause environmental harm	Environment Protection Act 1993 (SA)	under the Aquaculture Act 2001'. Parts B and C of the 2020 Notice would appear to apply if the oysters/stock reared at a hatchery interstate were imported to SA and reared/farmed/ regularly fed in a commercial hatchery in SA or by SARDI prior to translocation to a reef. Otherwise, it is not clear that the current Notice would apply to the import of oysters that are used for reef conservation, but which are not farmed for aquaculture. Even if the Notice did not apply, it is arguable that a restoration practitioner that imported oysters from interstate without documentation etc would be extremely unlikely to receive authorisation under s 78 of the Fisheries Management Act to place the oysters on the reef. An applicant for a permit to release aquatic resources will need to ensure that disposal of water complies with the Environment Protection (Water Quality) Policy 2003.		
treatment			<u> </u>		
Protecting the reef from interference to help reef establish	A period of time may be required to allow the reef to grow without commercial	Fisheries Management Act 2007 (SA)	Fisheries Management Act 2007 (SA), s 79: allows a temporary ban on commercial fishing. Restrictions on fishing can be managed in marine parks by restricting activities in certain zones (see 'Marine Parks', below).	Minister for Primary Industries and Regional Development	

Protect reef from harvesting of oysters		Ban the taking of oysters to protect the reefs from direct harvesting of oysters, for human health and safety, and preservation of the aquaculture industry's reputation.	Fisheries Management Act 2007 (SA)	Introduce a benthic (bottom-dwelling) notake zone. (This was done for the Windara reef but not the other reefs). Introduce catch limits for oysters (Ostrea angasi in SA). This has not been done. Restrictions on taking oysters from restored reefs can be managed in marine parks by restricting activities in certain zones (see 'Marine Parks', below).	Minister for Primary Industries and Regional Development PIRSA Fisheries and Aquaculture	
Land Access	Access to Crown land	The Crown owns the seabed and permission must be sought to undertake work	Crown Land Management Act 2009 (SA)	All sea/ocean floor etc is Crown land. The Minister may grant leases in relation to unalienated Crown land (s 32(1)). A Crown Lease may be issued to a person or organisation to have exclusive right to occupy a specific area of Crown land. Rent must be paid on Crown leases. A Crown licence may be issued by the Minister for a specific purpose over a specific area of Crown land (s 46). A licence is a non-exclusive right to the land and members of the public cannot be excluded from licensed Crown land. Licence purposes may include conservation and coastal protection works. The term of the licence is usually 12 months but cannot exceed 10 years; and rent is usually an annual licence fee. The Minister is also empowered to grant consent to a person to conduct an activity	Minister for Climate, Environment and Water Crown land is administered by the Crown Lands Program, Department for Environment and Water	Lease Application fee for lease (s 32(1)): \$495.00 Document preparation fee for lease: \$330.00 Licences Application fee for licence (s 46): \$495.00 General General consent for activities on Crown Land, other than under a lease or licence (s 56A(1)): not defined.

built on Sea Country and affect native title rights. Reef restoration activities may affect the environment of a marine park The Act 2007 (SA) The Act 2007 (SA) The Act prescribes 4 types of zones (s 4): (a) general managed use zones; (b) a habitat protection so the different types of zones. built on Sea Country and affect native title with native title with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required for future acts (such as issuing government with native title holders is required. Corporate/fribed Body Corporate/fribed B				on any Crown land, not being an activity that should, in the opinion of the Minister, require a lease or licence under the Act. (s 56A(1)) Typically, Crown approval is required for reef restoration. A Crown lease or licence is not required.		
Reef restoration activities may affect the environment of a marine park Reef restoration activities may affect the environment of a marine park Reef restoration activities may affect the environment of a marine park Reef restoration activities may affect the environment of a marine park Reef restoration activities may affect the environment of a marine park Reef restoration activities may affect the marine Parks Act 2007 (SA). Marine parks are managed according to management plans, which (among other things) establish the various types of zones within a park and provide guidelines with respect to the granting of permits for various activities that might be allowed within the park. (ss 12,13) The Act prescribes 4 types of zones (s 4): (a) general managed use zones; (b) a habitat protection zones; (c) a sanctuary zones; and (d) restricted access zones. The regulations apply various prohibitions or restrictions to the different types of zones.		Native Title	built on Sea Country and affect native	the 'future act' regime (s 233). Agreement with native title holders is required for future acts (such as issuing government approvals) that would affect native title rights in land or waters, under the "right to negotiate" procedure; or a court determination is required; or an Indigenous	Corporate/Presc ribed Body	
2012. Authorisation in the form of a permit issued	•		restoration activities may affect the environment of	 Marine parks have been established under the <i>Marine Parks Act 2007</i> (SA). Marine parks are managed according to management plans, which (among other things) establish the various types of zones within a park and provide guidelines with respect to the granting of permits for various activities that might be allowed within the park. (ss 12,13) The Act prescribes 4 types of zones (s 4): (a) general managed use zones; (b) a habitat protection zones; (c) a sanctuary zones; and (d) restricted access zones. The regulations apply various prohibitions or restrictions to the different types of zones. See <i>Marine Parks (Zoning) Regulations</i> 2012.	Environment and Water Dept for Environment	Permit Marine Park Permit to engage in otherwise prohibited activities (s 19): \$739.00 Source

Aquatic		Fisheries Management Act 2007 (SA)		undertake reef restoration activities in a marine park, to allow an activity that would otherwise be prohibited by the Marine Parks (Zoning) Regulations. A person must not contravene a provision of the regulations prohibiting or restricting activities within a zone of a marine park. (s 17(1)). Maximum penalty: \$100 000 or imprisonment for 2 years Section 37(1) sets out a general duty of care, which requires all persons to take all reasonable measures to prevent or minimise harm to a marine park through his or her actions or activities. The Governor may, by proclamation, declare that waters, or land and waters constitute an aquatic reserve (s 4). An aquatic reserve will be managed through a management plan (Pt 5). The Act prohibits a person from entering or remaining in an aquatic reserve except as authorised by the		Permit Application for a Ministerial Permit to Undertake Activities Within an Aquatic Reserve (s 76, 77): \$133
				regulations or a permit issued by the Minister (s 76).		
Heritage Protection	Aboriginal Heritage	Disturbing, damaging or interfering with an Aboriginal site or object of significance	Aboriginal Heritage Act 1988 (SA)	Section 23 – it is an offence to disturb, damage or interfere with an Aboriginal site or object of significance according to Aboriginal tradition, without authorisation under s 23. Section 23 authorisation must be obtained from the Minister for Aboriginal Affairs and Reconciliation. In determining whether or not to issue authorisation, the Minister must consider the advice of the SAHC, traditional owners and other interested Aboriginal people.	Minister for Aboriginal Affairs and Reconciliation	Authorisation Application for authority (s 23): \$299 No charge if there is an accompanying local heritage agreement. Source

			A Recognised Aboriginal Representative Body (RARB) can enter into a local heritage agreement (LHA) to determine how heritage will be managed. If a LHA is approved by the Minister, the Minister must issue s 23 authorisation to deal with heritage in the way specified in the LHA. Currently there are no RARBs established in relation to coastal regions.		
Shipwrecks	Preservation of underwater heritage	Historic Shipwrecks Act 1981 (SA)	The PDI Act, Regs (Sched 9, cl 3 -Table, Pt A, item 5) and the Code require referral to the Minister responsible for the administration of the Historic Shipwrecks Act 1981, for Direction, within 20 business days.	Minister responsible for the administration of the Historic Shipwrecks Act 1981	Referral Cost of referral to the Minister responsible for the administration of the Historic Shipwrecks Act 1981: \$414
			For Historic shipwrecks (State) Development that is (a) in the Historic Shipwrecks Overlay under the Planning and Design Code; and (b) specified by the Planning and Design Code as development of a class to which this item applies.		Source

Appendix D – Oyster Reefs, Tasmania

OYSTER REEFS - TASMANIA

Activities undertaken as part of an oyster reef restoration project may be defined as 'development' or 'works' under the *Land Use Planning and Assessment Act 1993* (Tas) (**LUPAA**), and require assessment and approval by the relevant local planning authority and/or state government authority. Proposed restoration activities must comply with the objectives of Tasmania's Resource Management and Planning System (Sch 1, LUPAA), as well as the Environmental Management and Pollution Control System established by the *Environmental Management and Pollution Control Act 1993* (Tas) (**EMPCA**, Sch 1, Part 2).

Tasmania is in the final stages of implementing a state-wide Tasmanian Planning Scheme that consists of State Planning Provisions (**SPP**) applying zones and codes consistently across every local government area; regional land use strategies; and Local Provisions Schedules that may vary state planning arrangements in particular local government areas. Planning schemes are available and searchable through the online planning tool: www.iplan.tas.gov.au. Tasmania's planning arrangements, including strategies, zones, overlays and codes, may apply to proposed restoration projects depending on their location, characteristics and potential impacts. Proposed projects must also comply with State Policies implemented under the *State Policies and Projects Act 1993* (s 14, SPPA), including the *Tasmanian State Coastal Policy 1996*.

The legal regime also provides for development applications to be referred, in specific circumstances, to government agencies or statutory authorities for advice or approval and, in some cases, for assessment and approval to be undertaken by the state Environment Protection Authority rather than a local government (see 'Authority/Planning Authority', below).

*Note: some activities related to reef restoration will likely be subject to assessment under the planning arrangements discussed below. However, nothing in a planning scheme may affect fishing or marine farming in State waters (s 11(3) LUPAA), so reef restoration activities that are administered under those arrangements, including under legislation such as the *Living Marine Resources Management Act 1995* (Tas), the *Marine Farming Planning Act 1995* (Tas) and related regulations, are explicitly excluded from planning arrangements (see Table, below).

Types of development

The Tasmanian Planning Scheme categorises activities according to a list of 'Use Classes' (SPP 6.2). If an activity does not fit the description of a Use Class under the scheme, then it must be categorised into the most similar Use Class (SPP 6.2.4). Reef restoration is not listed in a Use Class. The most similar Use Classes are likely to be: *Natural and Cultural Values Management* (to protect, conserve or manage ecological systems, habitat – though restoration is not explicitly supported); or *Resource Development* (to propagate, cultivate or harvest plants and breed livestock/fishstock, including aquaculture and marine farming). The relevant category for a restoration project will ultimately depend on the specific activities proposed in any given project and the interpretation adopted by the relevant planning authority.

All activities can be allocated (according to their Use Class) into one of four categories in the provisions of individual schemes:

Page | 80

- 1. no permit required, if the activity is listed in a scheme 'Use Table' as a use for which no permit is required, and the activity complies with all relevant standards in the scheme and is not otherwise required to have a permit (SPP 6.6). This is because activities classified as not requiring a permit will typically be straightforward, low-impact and low-risk, and compatible with the planning intentions for the area (s 10, Tasmanian Planning Scheme);
- 2. permitted, if the activity is either listed in a Use Table as one which must be permitted unconditionally or subject to conditions (SPP 6.7);
- 3. discretionary, if a planning authority has a discretion to approve, approve with conditions, or reject the application (SPP 6.8); or
- 4. *prohibited*, if the activity is not specified as a use to which points 1, 2 or 3 apply (above), or is explicitly prohibited, or if it does not comply with a standard for meeting planning objectives set out in the scheme (either by way of a defined 'Acceptable Solution' or 'Performance Criterion') (SPP 6.9, cl 3.1 definitions).

If a proposed development is either not covered by the planning scheme (see option three, below), or if the planning scheme characterises the development as 'discretionary', then it must be assessed and approved in one of the following three ways.

First, the proposed development may be assessed by the planning authority (the local council, or councils, responsible for the area in which the project is proposed to take place), to ensure that the project complies with the Tasmanian Planning Provisions, regional land use strategy and Local Provisions Schedules or Interim Planning Scheme (including that the activity meets the planning standard for the relevant Use Class in that location). The planning authority may be required to refer applications to undertake 'permitted' or 'discretionary' activities to the EPA, so that the EPA can decide whether it must assess the application under EMPCA (s 25(1)). If the EPA decides that it does not need to assess the activity (s 25(3)), the planning authority may assess and approve the application.

The second form of assessment arises if the planning authority refers a development application to the EPA and the EPA decides that it needs to assess the activity (s 25(2) and Sch 2 EMPCA). Following its assessment, the EPA may require the planning authority refuse to grant the permit (s 25(5)(b) EMPCA), or impose certain conditions or restrictions on the activity (s 25(5)(a), (6) EMPCA). The planning authority must comply with directions from the EPA (s 25(8) EMPCA).

The third way that a proposed development may be assessed arises if the planning scheme does not apply; that is, if a proponent is proposing an activity that may impact on the environment but for which a permit is not required under LUPAA. This may be the case, for example, if the area of a reef restoration project will take place beyond the area of any mapped planning scheme zones, overlays and descriptions. In this scenario, the proponent must refer the proposed activity to the EPA Board for assessment (ss 27 EMPCA). The EPA Board may decide that the activity will not result in serious or material environmental harm and advise that an assessment under EMPCA is not required (s 27(4)). More likely, the EPA Board will assess the proposed activity under EMPCA, including for consistency with the Environmental Impact Assessment Principles (s 74 EMPCA). If the EPA Board determines that the activity should be approved, it will issue an Environment Protection Notice including any conditions or restrictions on the activity along with a statement of reasons for its decision (s 44 EMPCA).

The legal regime in Tasmania is unusual, in that it includes a specific reference to a category of development for artificial reef restoration and construction activities. The definition of 'Class 2B' developments under EMPCA, for the 'conduct of certain activities in waters within the limits of the state', specifically includes activities for 'the placement of an artificial reef' (Sch 2, cl 7(e), EMPCA). This category of development was not designed with ecological restoration or habitat construction activities in mind but, nevertheless, the specific reference to reef construction means that the EMPCA process for EPA assessment and approval is likely to apply in most cases to proposed oyster reef restoration projects in Tasmanian waters.

Assessment Authority

Development assessments and approvals are typically carried out at the local government scale, with each local government responsible for undertaking assessments and rejecting or granting approvals for projects under the Tasmanian Planning Scheme or interim scheme ('planning authorities', s 10 LUPAA). However, oyster reef restoration projects will, in many cases, be conducted in areas that are not covered by a planning scheme because they occur in State waters, so the relevant assessment and approval body for these projects will often be the Tasmanian EPA, under EMPCA.

In addition to assessment by the EPA and/or planning authority, an application may be referred to one or more other bodies/agencies for review, depending on the likely impacts of the project. Referral bodies may include the Threatened Species Section or Conservation Assessments Section of Natural Resources and Environment Tasmania, which is the state environment department (**NRE Tasmania**); the Heritage Council (under s 36(2) of the *Historic Cultural Heritage Act 1995* (Tas)); Tasmania Parks and Wildlife if the application relates to reserved land; Aboriginal Heritage Tasmania (under the *Aboriginal Cultural Heritage Act 1975* (Tas)); and/or Fishing Tasmania and the Marine Resources Projects Branch of NRE Tasmania. Australian Government review and permits may also be required under, for example, the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

Process

- Apply to local planning authority (likely to be referred to the EPA Board for review and may be assessed by EPA not local council).
- Proponent will likely need to provide an Environmental Effects Report in accordance with the EPA's Guidelines 2021 (the 'EPA Guidelines').
- A draft Environmental Effects Report may need to be submitted to the EPA Board for review against the Guidelines before being finalised, resubmitted, and accepted by the EPA Board.
- Once accepted, an Environmental Effects Report will be published by the EPA Board for public inspection and comment for a period of 28 days and referred to relevant government agencies before a final decision is made.
- [To complete summary of how existing restoration projects have been assessed/approved]. NOTE too: the availability of the Sch 2 cl 7 'placement of an artificial reef' provision provides some level of certainty for a potential proponent but the focus of assessments under EMPCA is on harm, so this is a poorly adapted arrangement for a restoration project.

Notes

If a proponent or intervenor (i.e. a third party to the planning application process, provided they submitted or participated in in the consultation process) wishes to object to decision about a planning application, LUPAA and EMPCA both provide for merits review by the new Tasmanian Civil and Administrative Tribunal.

The Living Marine Resources Management Act 1995 (Tas) is the subject of an ongoing review (as at April 2023). Submissions to the review included advocacy for that Act to be amended to better accommodate and more clearly articulate processes for assessing and approving reef restoration projects. References to the Act in the following table may not apply to new legislation produced as a result of that review.

A separate but related (and very important) topic that is not covered in the table below, is that of ongoing maintenance, monitoring, management and liability. This may not be explicitly dealt with in the legislative regimes considered. Ongoing management will need to be addressed in individual

conditions of approvals but an assessment authority may not be empowered to impose such conditions if the application is focused on the installation or placement of an artificial reef, as opposed to, e.g., its construction and management (see EPA Environmental Assessment Report 2022).

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
Local govt planning/ approval	Govt permits	A development permit for shore-based works or development (eg jetty, wharf) or accretions	Tasmanian Planning Scheme Land Use Planning and Approvals Act 1993 (Tas) Tasmanian State Coastal Policy 1996 Building Act 2002 (Tas) and the Building Code of Australia Tasmanian Coastal Works Manual (Tas Govt, 2010)	A permit may be required for developing infrastructure such as a jetty, wharf or marina, and for works proposed to be undertaken within or adjacent to a local government planning scheme area, as identified in planning scheme zoning maps (s 11(4) LUPAA). *Any infrastructure proposed to be installed on the Tasmanian coastline should be consistent with the Tasmanian Coastal Works Manual: A Best Practice Management Guide for Changing Coastlines, including planning to address the risks of future sea level rise. *Any construction on the Tasmanian coastline may need to comply with the relevant Australian Standards (e.g. for maritime structures, marinas and ramp construction, AS4997 and AS3962?).	Local Government	Fees are currently determined independently by each local council.	
		A use permit may be required for load out activities, allowing contractors to access a reef restoration site	Tasmanian Planning Scheme Land Use Planning and Assessment Act 1993 (Tas)	The Tasmanian Planning Scheme applies to any part of the shore to the low-water mark; all jetties and structures partly within a municipal area and partly in or over the sea adjacent; and any area of the sea directly adjoining the municipal district any accretion from the sea (s 7 LUPAA).	Local government	Fees are currently determined independently by each local council.	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
		(e.g. storing rock for reef substrate on a marina prior to transport and/or installation)		On-shore activities such as 'load-out' (e.g. for transporting materials to a reef restoration site) may be permitted uses under a planning scheme (e.g. at an industrial wharf) and may not require an approval. A planning scheme may, however, make a use such as load-out activities permittable, discretionary or even prohibited, depending on e.g., the Natural Assets Code and its component instruments such as overlays (e.g. 'waterway and coastal protection area' or 'future coastal refugia'), and zones (e.g. 'environmental management' and 'landscape conservation').			
				*Note: while nothing in a planning scheme affects fishing or marine farming in State waters (s11(3) LUPAA; p 1 above), that exemption does not apply to the use or development of any structure in connection with marine farming that is constructed wholly or in part above the high-water mark. As such, the installation, operation and/or use of a jetty, wharf or other structure to support access to a reef restoration project will be assessed under the relevant planning scheme, even if the restoration project itself is assessed for a fishing licence or marine farming lease and licence.			
State govt planning/ approval	Govt permits	If assessed under LUPAA in consultation with the EPA – A development permit may be required for building work	Environmental Management and Pollution Control Act 1994 (Tas) Land Use Planning and	If the restoration site is included within the boundaries of a planning scheme, then placing materials on the seafloor will likely require a development permit for 'placing of a building [which includes a structure] on land [which includes land covered by water]' (s 3) of a kind that a planning authority has a discretion to refuse or permit or which may not proceed unless the planning authority waives, relaxes or	Local Government EPA Board	Permit Fees are currently determined independently by each local council.	Could a reef restoration proponent with an environment protection notice apply for a declaration

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
		in State waters, as materials need to be laid on the seafloor to replicate a natural reef structure	Approvals Act 1993 (Tas)	modifies a requirement of the planning scheme or otherwise consents to the development proceeding (s 57 LUPAA). An application to place rocks on the seafloor in State waters will require a referral to the EPA for assessment against the Environmental Impact Assessment Principles (ss 25, 74 EMPCA).		Referral to EPA Less than or equal to 500 tonnes of rocks placed per year: \$2,136 (1200 fee units) See Regs Schedule 1 Item 7(d) if more than 500 tonnes per year placed. Source	that the activity is 'low-risk' (EMPC Regs 2017, reg 10)?
		If assessed under EMPCA by the EPA – An Environment Protection Notice may be required in place of a development permit	Environmental Management and Pollution Control Act 1994 (Tas)	If a restoration project is assessed by the EPA Board (rather than the local council), the EPA may issue an environment protection notice, imposing conditions or restrictions on the way that the restoration project is implemented (ss 27, 44(1A)), including to protect and enhance the quality of the environment and to prevent environmental harm and pollution (Sch 1, Part 2). NOTE: within 12 months, a person with a LUPAA permit or an EP notice under s 27(6)(a) may apply for a determination of the EPA Board that the activity is a low-risk activity (r 10, EMPC Regs)	EPA Board	Fee for issue and service of environmental protection notice: \$445 (250 fee units) Source	What might allow a project to be classed as 'low-risk'

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
		A permit may be required to collect, release and otherwise deal with oysters in Tasmanian waters	Living Marine Resources Management Act 1995 (Tas)	 The Minister may issue a permit under s 12 to take an action that would otherwise be prohibited by the provisions of this Act, including: releasing 'introduced fish' into State waters (s 125); take a protected fish (s 135); carry out an activity that results in the disturbance of the bed of any State waters, interferes with fish, marine or benthic flora or fauna in any State waters or release or deposits any matter in any State waters (s 138) cut, remove, damage or destroy any prescribed marine plant (s 139) Reasons for being granted a permit do not include restoration but do include scientific research, environmental monitoring and the development of marine farming (s12(1)). For marine farming, see below. 	Fishing Tasmania or Wild Fisheries Management Branch (NRE Tasmania)	Fees calculated during assessment of application Source	What is a prescribed marine plant? At present, there are no Regulations to the Act and no relevant proclamation, the term is not used in other Acts
		If collecting oysters/spat from wild oyster stock — A fishing licence may be required to collect, release and otherwise deal with oysters in Tasmanian waters	Living Marine Resources Management Act 1995 (Tas) Fisheries (Marine Plant) Rules 2017	A fishing licence is required to 'take' (including collect, capture, raise, or obtain) oysters in State waters (s 12). A fishing licence is also required to participate in fishing (which includes searching for, attempting to take and taking oysters, s 3) or to take any other action that may only be taken by the holder of a fishing licence (s 60; licence issued by the Minister under s 77). 'Fish' includes oysters (s4(2)(h)) and explicitly includes spat 'and other offspring of an aquatic organism' (s4(3)(a)).	Wild Fisheries Management Branch (NRE Tasmania)	Fishing licence (personal) Grant or renewal - \$160.2 (90 fee units) Fishing licence (vessel) Renewal - \$534 (300 fee units) Fishing licence (commercial	Note: caps on licence numbers mean that there are no opportunities to apply for new fishing licences or shellfish licences under these provisions, at present.

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
				Fishing licences are subject to the terms of management plans for marine resources protected areas and habitat protection plans. A proponent should be aware of any plans that apply to a potential restoration project site and comply with their terms. *Note: Proponents should be aware of any management plans and specific rules made from time to time by the Minister in relation to particular 'fisheries' (ss 32, 33) such as the shellfish fishery (see below); and to categories of fishing licence (s 34); as well as other rules relating to fisheries (Div 1, Part 3). A 'fishery' includes 'activities by way of fishing identified by reference to any or all of the following: (a) a species, type or class of fish [e.g. shellfish, including oysters]; (c) an area of water, seabed or land [e.g. Georges Bay for collecting wild oysters]; (g) a purpose of an activity [note: at present, this does not include restoration, but this may be a pathway to streamline approvals and the application of other laws, in future]'; and '(2) a fishery includes the activity of processing or handling fish' (s6(1)).		dive) Renewal - \$712 (400 fee units) Shellfish licence (native oyster Georges bay) Renewal - \$3,560 (2000 fee units) Shellfish licence (Pacific Oyster) Grant or renewal - \$178 (100 fee units) Source	This licence appears to only be required for collecting oysters, including spat, from the wild.
			Fisheries (Shellfish) Rules 2017	The Fisheries (Shellfish) Rules limit the number, size and duration of fishing licences for native oysters and prohibit the collection of native oysters in particular ways and places (i.e. prohibiting the collection of oysters under the minimum or above the maximum size limits, or in excess of possession limits, collecting during closed seasons or in closed waters, or	Wild Fisheries Management Branch (NRE Tasmania)	See above.	A permit to collect oysters/spat in the wild may need to explicitly permit activities that would

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
				using a fishing apparatus that is not permitted by a particular class of fisher). *Note: when working under a Shellfish Licence, fishers must also abide by other fisheries rules, including that, 'if their harvesting techniques require them to dive or swim beneath the surface of the water they must also hold a fishing licence (commercial dive). They must hold a fishing licence (personal) and if using a vessel whilst taking shellfish, a fishing licence (vessel)'. (see Wild Fisheries Management Branch, 2017 Update to the Policy Document for the Tasmanian Minor Shellfish Fishery (March 2017)).			otherwise be prohibited by the Shellfish Rules. There does not appear to be an exception or exemption from these rules (as there is in Qld) unless a permit under s12 of the Act could include an explicit exemption.
		A Marine Plant Fishing Licence may be required if the reef construction impacts on marine plants (e.g. kelp, seagrass)	Fisheries (Marine Plant) Rules 2017	The Marine Plant Rules define fishing licences in addition to those listed under the Act (above), including a 'marine plant fishing licence' for taking (which may include impacting on) marine plants. A 'fishing licence (marine plant) issued by the Minister under Reg 12 would permit activities that are otherwise prohibited, such as taking a native marine plant that is attached to the seabed or other substrate (r 25), provided they are 'specified in the endorsement'.	Wild Fisheries Management Branch (NRE Tasmania)	Fishing licence (marine plant) Grant - \$712 (400 fee units) Source	Unclear whether these Regs expand the categories of a fishing licence under the Act or create a requirement for a separate licence.

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
		If the restoration project will rely on captive oysters — A licence may be required to enhance and breed marine life, including for research purposes	Living Marine Resources Management Act 1995 (Tas) Marine Farming Planning Act 1995 (Tas)	If the reef restoration project is defined as 'marine farming' – e.g. the farming, culturing, ranching, enhancement <i>and</i> breeding of fish or marine life for trade, business or research (s 3 LMRM Act) – then a marine farming licence will be required (s 65 LMRM Act). That licence will only be issued if a lease and development plan are in place under the Marine Farming Planning Act (see below, ss 66, 66A LMRM Act). *Note: a marine farming licence may authorise 'taking' activities that would otherwise need to be approved under a fishing licence (definition of 'take', s 3 LMRM Act). **Note: the term 'and' instead of 'or' in the provision above means that an oyster reef restoration project is extremely unlikely to be deemed to be marine farming and, as a result, we do not anticipate that this form of licence will be required.	Wild Fisheries Management Branch (NRE Tasmania)	Licence Marine farming licence (Bivalve – 1 species) - \$1,486.30 (835 fee units) Source Development Plan Draft marine farming development plan - \$1,308.30 (735 fee units) Lease Lease application - \$2,029.20 (1140 fee units) Source	
		If the project is defined as 'marine farming' – A lease and development plan are required for 'marine	Marine Farming Planning Act 1995 (Tas)	A marine farming licence (if required, see above) can only be granted in State waters to a person that has a lease for the relevant area, issued under Part 4 of the <i>Marine Farming Planning Act</i> , and where the relevant area is the subject of a marine farming development plan, approved by the Minister (Part 3, <i>Marine Farming Planning Act</i>).	Wild Fisheries Management Branch (NRE Tasmania)	See above.	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
		farming' in State waters		Leases may only be granted in zones designated as areas within which the relevant marine farming (i.e., shellfish) may occur in a marine farming development plan.	-		
		An approval may be required for a 'detrimental effect' on a marine resources protected area (e.g. impacts on marine plants such as seagrass, or animals)	Living Marine Resources Management Act 1995 (Tas)	An approval is required to 'engage in a specified activity' or 'do a specified act' in marine resources protected areas (s 132). Specified acts and activities are not defined. However, a proponent must comply with both the terms of an approval under s 132 and in accordance with any marine resources protected area management plan for the relevant protected area to avoid a penalty (s 131). As such, the provisions of any relevant management plan will likely inform the decision about whether the restoration project is 'not inconsistent with this Part' of the Act, and may therefore be approved (s 132(3)).	Fishing Tasmania (NRE Tasmania)	Unable to locate prescribed fee or application process.	
		A permit may be required if there is any potential impact on State listed threatened species or communities (e.g. Spotted Handfish, giant kelp marine forests)	Nature Conservation Act 2002 (Tas) Threatened Species Protection Act 1995 (Tas) Living Marine Resources Management Act 1995 (Tas)	A special permit may be required if a project will impact on (i.e. involves 'taking') specified listed species in specified areas (but not including fish, s 3 NCA), provided the permit would not be inconsistent with any management plan for the area (s 29 NCA). A permit is required to 'take, keepor process' any listed flora or fauna (including marine mammals, fishes and marine plants), or to disturb any listed flora or fauna that is the subject of an interim protection order, covenant or land management agreement (s 51 Threatened Species Protection Act).	NRE Tasmania	Special Permit currently no fee. Source Permit for flora or fauna that is subject to interim protection order: unable to locate any	
				If the restoration project will affect the habitat of any state-listed threatened species or		prescribed fee	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
				ecological communities (assessment must be consistent with the <i>Guidelines for Natural Values Surveys – Estuarine and Marine Development Proposals</i> (Natural and Cultural Heritage Division, DPIPWE, 2020))	•	or application process.	
				A translocation plan/procedure may be required if the reef is to be constructed in an area identified (by desktop survey) as suitable habitat for a listed species.			
		- there is a proh	ibition under the Ma	quired to construct something that will obstruct fishi arine and Safety (Pilotage and Navigation) Regulat may prohibit certain types of behaviour that interfer	ions 2017 on interferin	ng with navigation (
Federal govt planning/ approval	Govt permits	Cth approval is required to construct artificial reefs	Environment Protection (Sea Dumping) Act 1981 (Cth)	Section 4 defines an artificial reef as 'a structure or formation placed on the seabed (a) for the purpose of increasing or concentrating populations of marine plants and animals'. It is an offence to place an artificial reef without a permit (s 10E).	DCCEEW	Artificial Reef Permit (s18(1)): \$10,000	
				A person may apply to the Minister for a grant of a permit (s 18(1)). The Minister has the power to request that the proponent undertake/fund research into the effect of the reef on the marine environment (s 18(4)).			
		Cth approval if any impact on MNES	EPBC Act 1999 (Cth)	Consider whether the reef is likely to have a significant impact on any MNES under the EPBC Act (including threatened species, marine parks, world heritage areas, migratory species, cetaceans etc). If so, referral for Commonwealth assessment and permits may be required.	DCCEEW	Referral Initial Referral fee: \$6,577 Assessment Fees per assessment	
				*Note: impacts may include the reef itself, once installed, but may also relate to noise, turbidity		approach:	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
				and obstruction of migratory and other marine species during construction.		Assessments on referral information: \$8,964.	
						Assessments on preliminary documentation : \$8,010.	
						Assessments by public environment report or environmental impact: \$25,583.	
						Assessments by bilateral agreement or accredited process: \$18,146.	
						Fees Subject to increase based on complexity of project.	
Land access	As oyster reefs are located in State waters,	A lease and/or licence may be required to use land on the coast for	If the proposed access site is reserved land –	The Minister may grant a lease or, or licence to occupy reserved land that is Crown land (s 48 NPRM Act). A lease for more than 3 years may need to be registered under the Land Titles Act 1980 (Tas) s 64.	Tasmania Parks and Wildlife NRE Tasmania	NPRM Act (Reserve Land):	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
	there is a need to establish land access	access, and to maintain and exclude the public from the reef restoration site	National Parks and Reserves Management Act 2002 (Tas) Relevant reserve management plan Reserve Management Code of Practice Crown Lands Act 1976 (Tas) Land Titles Act 1980 (Tas)	A lease or licence cannot be granted to erect a building or structure on certain conservation tenures unless the building/structure is permitted under a management plan for the reserve, consistent with the statutory management objectives for that class of reserve (s 48(5), Sch 1 NPRM Act), and with the Reserve Management Code of Practice (Tas Govt 2003). Access must be consistent with or authorised by an approved management plan for the site (s 35 NPRM Act). Had to calculate the value of the site to determine the value of the licence – but the 'land' below the water is essentially valueless (no capacity to sell it for profit) so the value was 0?	Crown Land Services, Department of State Growth	Lease application fee - \$1,234.20 Licence application fee - access only - \$308.55 Licence application fee - general purpose - \$766.70 Crown Lands Act (Crown Land): Lease application fee - \$1,122.00 Licence application fee - access only - no fee Licence application fee - general purpose - \$272.00 Source	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
			Otherwise – Crown Lands Act 1976 (Tas) Marine Farming Planning Act 1995 (Tas) Tasmanian Coastal Works Manual (Tas Gov 2010)	Land that is vested in the Crown (including below the high water mark – land that is 'partly or wholly covered by the sea or other waters', s 2) is the property of the State and no person may use or occupy Crown land or erect any structure on Crown land without 'lawful authority' (s 46(1)). Crown land may be leased (s 29 and see s 53 for reclaimed shore/sea land below the highwater mark). However, the Minster must not grant a lease under s 29 for activities in State waters for a purpose for which a lease may be issued under the <i>Marine Farming Planning Act</i> 1995 (Tas). A lease issued under s 53 for land that is reclaimed from 'below the level of high water that forms [all or part of the] shore, [seabed] or other Crown land' must be accompanied by a licence for that reclamation that includes a prohibition on public 'navigation in and near the waters thereby affected; and fishing therein' (s 53(2) & (3)). If a proponent wants an oyster reef structure to remain in place for a long period of time, a combination of a lease for Crown land and a licence to prohibit public navigation will likely both be necessary. * Any proposal to install infrastructure should be consistent with the <i>Tasmanian Coastal Works Manual</i> (as noted above).	Tasmania Parks and Wildlife NRE Tasmania Crown Land Services, Department of State Growth	See above.	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
		Marine Park Access	Nature Conservation Act 2002 (Tas) Living Marine Resources Management Act 1995 (Tas) Environment Protection and Biodiversity Conservation Act 1999 (Cth) and Management plans and zoning rules	Significant areas of Tasmania's coastal waters are located in state and federal marine parks (e.g. the Commonwealth Government's South East Network of Marine Parks; and the 21 marine reserves located in State waters, see Parks & Wildlife). Each park has a zoning plan that sets out permissible uses (with and without permits and licences, see e.g. 'Freycinet Marine Park' in the South-East Network Management Plan 2013). Ecological and habitat restoration are not explicit permissible uses within zoning plans, but may be discretionary. It is not clear how oyster reef restoration activities will be managed under a marine protected area management plan in Tasmania. Presumably, there would be stricter restrictions in marine parks on introducing rock, shells and other substrate materials, and on introducing oysters and spat as part of a restoration project.	Tasmania Parks and Wildlife Parks Australia (for Commonwealth reserves)		In some other states, research permits are used instead of works permits to undertake restoration in marine park areas. It is unclear what would be required in Tas.
		Accessing Aboriginal land/waters – if an oyster reef is to be constructed in a declared native title area, or an area to which	Native Title Act 1993 (Cth)	An act that affects native title in relation to land or waters may be classified as a 'future act' under the <i>Native Title Act</i> s 233(1). A future act will be invalid unless it validated under an Indigenous Land Use Agreement ('ILUA') or one of the provisions of the <i>Native Title Act</i> 1993 (Cth). Therefore, if Native Title exists (or may exist) over a proposed project area, an ILUA should be considered to determine whether a reef may	Relevant Native Title group or corporation	n/a	
		native title area, or an		over a proposed project area, an ILUA should			

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
		Accessing Aboriginal land/waters – If the land or waters are vested in the Aboriginal Land Council of Tas (Sch 3, AL Act).	Aboriginal Lands Act 1995 (Tas)	A lease and/or licence may be required to access from, and/or construct an oyster reef on, Aboriginal land [which may be interpreted to include waters but this is not explicit in the Act] (s 28A).	Aboriginal Land Council of Tasmania	Unable to locate prescribed fee or application process.	
		Accessing land/waters with Aboriginal cultural heritage – if the site for the proposed oyster reef contains or is likely to contain Aboriginal cultural heritage	Aboriginal Heritage Act 1975 (Tas)	 The Act imposes general obligations to: report findings of any Aboriginal 'relics' (s10(3)); not harm (including destroy, damage, removeuncoveror otherwise interfere with), nor act in a way that is likely to harm, relics without a permit from the Minister (s 14); and not harm relics or protected objects in protected sites, nor remove a protected object from a protected site without a permit from the Minister (s 9). In the Act, 'Relics' include objects and sites of significance to Tasmanian Aboriginal (palawa) people (s 2), and include shell piles and other evidence of communal eating, as well as other coastal sites that may be culturally important. Note: subsidiary legal instruments use the (preferred) phrase 'Aboriginal heritage' rather than 'relics'. Compliance with Aboriginal Heritage Tasmania's Guidelines (2018) and Standards 	Aboriginal Heritage Tasmania OR Self-assessable through the online search tool (Aboriginal Heritage Property Search) or Dial Before you Dig service, provided that: (a) the online search does not identify any registered Aboriginal relics; and (b) actions are taken in accordance with: (i) an Unanticipated Discovery Plan, (ii) the Guidelines, and (iii) the Standards and Procedures.	No fee prescribed for permit application. Source	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
				and Procedures (2022) provides a defence to any alleged offence under ss 9 and 14 (s 21A).			
				Restoration proponents may be required to explain how they will avoid or protect any identified Aboriginal heritage on site, including in the form of an 'Unanticipated Discovery Plan', provided to Aboriginal Heritage Tasmania as part of a preliminary online Aboriginal Heritage Property Search, or as part of a more detailed assessment process including an Aboriginal Heritage Assessment Report (Standards and Procedures, pp 10, 13).			
		Accessing places of 'state historic cultural heritage significance' (European heritage, including shipwrecks)	Historic Cultural Heritage Act 1995 (Tas)	A certificate of exemption may be required to construct a structure in a heritage area if the structure may affect historic cultural heritage significance in that area (ss 30, 31). A proponent must have approval from the Heritage Council for any activity that is likely to physically disturb or change the fabric or condition of a shipwreck (s 66).	Tasmanian Heritage Council	Unable to locate prescribed fee or application process.	
Constructi on of the reef	Dredging and reclamati on	If constructing the reef involves dredging and relocation of dredged material	Environmental Management and Pollution Control Act 1994 (Tas) Environment Protection (Sea Dumping) Act 1981 (Cth)	Dredging and relocating dredge spoil in marine areas requires approval by the EPA (s 27(1); cl 7(e) Sch 2 EMPCA). To obtain an approval, a proponent would need to prepare an Environmental Impact Statement in accordance with the EPA's 2019 Guidelines, which would be assessed against the EMPCA Environmental Impact Assessment Principles (s 74) and objectives (Sch 1). *Dredging may also trigger considerations	EPA DCCEW	Royalties (if quarry material is allocated) Referral to EPA Less than or equal to 500 tonnes of spoil dumped per year: \$2,136 (1200 fee	
			EPA Tasmania Environmental	under the <i>Environment Protection (Sea Dumping) Act 1981</i> (Cth) discussed above, and		units)	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
			Impact Statement Guidelines (2019) National Assessment Guidelines for Dredging 2009	would need to comply with the national dredging guidelines. **Note: we do not expect dredging to be required for these kinds of activities and this provision is unlikely to apply to an oyster reef restoration project.		See Regs Schedule 1 Item 7 if more than 500 tonnes per year dumped.	
		If dredging and reef construction creates noise and turbidity impacts for state-listed migratory species (e.g. cetaceans) and other protected species	Threatened Species Act 1993 (Tas) Environmental Management and Pollution Control Act 1994 (Tas)	A noise and/or turbidity plan may be required by the EPA if the proposed development is located in the vicinity or will operate at a time that might affect migratory species such as cetaceans. *Note: depending on the species affected, these activities may also require a permit under the EPBC Act, as described above.	EPA		
	Extracting transport, and storage of rock	Quarrying – If reef construction will require rock (e.g. limestone) substrate)	Land Use Planning and Approvals Act 1993 (Tas) Environmental Management and Pollution Control Act 1994 (Tas) Mineral Resources	An EPA approval for 'extractive industry' activities (cl 5, Sch 2 EMPCA) and/or a mining lease under the MRD Act may be required if the reef construction includes extracting rock or other mineral materials at a sufficient quantity. If the rock or other mineral (e.g. gravel, sand, stone) is sourced from Crown land, a licence will be required (ss 40, 46(1) Crown Lands Act; r 19(1) Crown Lands Regulations). If the area from which rock is to be sourced is a Crown land reserve, the proponent must apply	Local Government/EPA Crown Land Services, Department of State Growth?	Referral to EPA More than 5000 but less than 10000 cubic metres of material extracted per year: \$1,335 (750 fee units) See Regs Schedule 1 Item 5 if more	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
			Development Act 1995 (Tas)	for an authority under reg 21, Crown Lands Regulations.		than 10000 cubic metres of material	
			Crown Lands Act 1976 (Tas)	*A proponent will not require a quarry permit if it purchases rock from an existing quarry or other provider with the necessary permits to		extracted per year.	
			Crown Lands Regulations	process and sell such materials		Source	
			2021 (Tas)			Mining Lease application fee: \$1,530.80	
						Source	
						For Crown Land licence, see fees set out above.	
		Short term storage – If reef construction will require	Land Use Planning and Approvals Act 1993 (Tas) Environmental	As noted at the top of this table, a local government and/or EPA approval may be required to store rock onshore before transport to the site if water quality might be affected if, e.g., rain washes gravel/dust particles into the water (s 51 LUPAA; s 25 EMPCA).	Local government/EPA NRE Tasmania Crown Land	See fees set out above.	
		rock (e.g. limestone) substrate)	Management and Pollution Control Act 1994 (Tas)	Approval may also be required under the Crown Lands Act to store rock on Crown land prior to load-out (s 46(1)).	Services, Department of State Growth		
			Crown Lands Act 1976 (Tas)	A proponent should ensure that all onshore activities are undertaken in a manner that is not inconsistent with the Tasmanian Planning Scheme and the State Coastal Policy (s 63(2)(a), LUPAA).			

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
			Crown Lands Regulations 2021 (Tas)				
	Placemen t of rock or substrate	Regardless of the material used for the reef construction (i.e. rock, reused shells etc)	Environmental Management and Pollution Control Act 1994 (Tas)	As noted above, an environmental protection notice is required for 'Certain Activities in Waters Within the Limits of the State:,,, [including]the placement of artificial reefs' (cl 7(e) Sch 2 EMPCA).	EPA	Fee for issue and service of environmental protection notice: \$445 (250 fee units)	
Dealing with oysters, spat, seed and shells	Transport oysters and spat	A handling licence may be required to receive, transport and deal with oysters (between collection and release)	Living Marine Resources Management Act 1995 (Tas)	The Minister may require a person to hold a handling licence to lawfully receive, transport or store, or otherwise deal with oysters received from a licensee (s 71). A licensee is any person holding a licence (s 3) including a marine farming, commercial/ recreational fishing and/or fish processing licence (s 76A(1)).	Fishing Tasmania or Wild Fisheries Management Branch (NRE Tasmania)	Handling Licence application fee: \$267 Source	
	Ensuring there is no biosecurit y risk	Transporting oysters including spat and shells into designated 'protected' areas	Animal Health Act 1995 (Tas) (AHA)	A permit may be required for transporting oyster spat and other oyster products into a protected area from another area in the State (s 44 AHA; permit application in accordance with Sch 2 AHA). If transporting the oysters/oyster products in this way is considered a risk to threatened species, the Minister will not approve a permit without consulting on the application of the <i>Threatened Species Protection Act 1995</i> (Tas) (see s 82 AHA).	Chief Veterinary Officer and Biosecurity Tasmania	Unable to locate prescribed fee or application process.	

Activity	Specific s	Risks/need	Applicable Legislation	Detail	Responsible authority	Fees	Remains unclear
	S	Moving oysters and oyster products (including spat and shells) originating from a hatchery	Animal Health Act 1995 (Tas) Group Permit – Control Measures for the movement of oysters, oyster product, and oyster farming equipment into, within and from a Control Zone Biosecurity Act 2019 (Tas) Biosecurity Tasmania Cleaning Protocols for Protecting Against Aquatic Threats Protocol for translocation of Pacific oysters and oyster farming equipment (to protect against Pacific Oyster Mortality Syndrome (POMS))	A permit is required to move oysters, spat or seed into or out of a quarantine area (s 14 AHA). A statewide Control Area Declaration is currently in place under the AHA, restricting the movement of oysters and related equipment around Tasmania (see Notice issued under s 40 of the AHA by the Chief Veterinary Officer, 9 Feb 2016; Declaration made under s 39(1) of the AHA by the CVO, 9 Feb 2016). As a result, a movement permit (also described as an 'individual permit' c.f. the group permit described below) is required for a person to move oysters and oyster spat or seed from hatcheries to any location in Tasmanian waters. Despite the Control Area Declaration, oyster producers (defined as 'persons who engage in the primary production of oysters') may move oysters and equipment between growing regions without an individual permit, provided they do so in accordance with the conditions set out in the Group Permit issued by the Chief Veterinary Officer on 8 March 2023 under s 100(2)(b) of the Biosecurity Act. In particular: • movement can occur within areas of the same risk and into another area where there is a higher risk of POMS being present; but • movements are not allowed from an area of high risk to an area with a lower level of	Chief Veterinary Officer and Biosecurity Tasmania	Unable to locate prescribed fee or application process.	unciear

Appendices

Activity	Specific	Risks/need	Applicable	Detail	Responsible	Fees	Remains
	s		Legislation		authority		unclear
Protecting new reefs	Restored reef will need to be protected from interferen ce	A Ministerial authorisation may be required to enter, remain and do anything in an area of water 'relating to a fish habitat'	Living Marine Resources Management Act 1995 (Tas)	A person must not 'put any litter, soil, noxious matter, refuse or other matter on any land or in any water relating to a fish habitat' (s 136), and the definition of fish includes oysters. The Minister may require fish habitat to be reinstated if actions contravening s 136 result in obstructing a fishery or having an adverse effect on the quality and integrity of a fish habitat (s 136). However, s 136(4) states that it is a defence if the person undertook the relevant activity 'with lawful authority'. A permit under s 12 (see above) may provide that lawful authority, as long as the relevant activity, which is otherwise prohibited by s 136, is explicitly authorised in the permit conditions.	Fishing Tasmania or Wild Fisheries Management Branch (NRE Tasmania)	Calculated during assessment of application. Source	Unclear how this applies if the activity is, in fact, creating fish habitat

Appendix E – Restoration of Tidal Flow, Queensland

	Activity	Applicable Legislation	Detail	Responsib le	Fees
				Authority	
approvals - State	Private proponent Smaller-scale works (eg making a hole in an existing culvert) OR larger-scale removal or modification of barriers/mechanisms that restrict tidal flow	Planning Act 2016 (Qld) Coastal Protection and Management Act 1995 (Qld) Coastal Protection and Management Regulation 2017 (Qld) State Development Assessment Provisions (SDAP)	 Operational work is assessable development if it is tidal works (<i>Planning Regulation 2017</i> (Qld) Sch 10, Part 17, Div 1, s 28(1)(a)). 'Operational work' means work, other than building works or plumbing or drainage work, in, on, over or under premises that materially affects premises or the use of premises (<i>Planning Act 2016</i> (Qld) Sch 2) 'Tidal works' is defined as works in, on or above land under tidal water (<i>Coastal Protection and Management Act 1995</i> (Qld) Schedule). It includes the construction and demolition of seawalls, breakwaters, groynes and embankments, works in tidal water associated with such construction or demolition, and reclamation of land under tidal water. Removal of a bund may be 'prescribed tidal works', which is works that consist only of tidal works, or other work provided it is an integral part of the tidal works: Reg'n 15. If a work is prescribed tidal work it is assessed according to the Code in the <i>Coastal Protection and Management Regulation 2017</i> Otherwise, tidal works are assessed according to SDAP State Code 8 	Local government (if prescribed tidal works) OR Chief Executive administering the Planning Act	3,430 units OR 6,859 units
Planning ap	Smaller-scale works (eg making a hole in an existing culvert)	As above	Note that tidal works are accepted development if undertaken by a local government (Sch 7)	n/a	

OR larger-scale removal or modification of barriers/mechanisms that restrict tidal flow				
Breaking a bund/dune made from a natural build- up of soil or sand.	Planning Act 2016 (Qld) Coastal Protection and Management Act 1995 (Qld) Coastal Protection and Management Regulation 2017 (Qld) State Development Assessment Provisions (SDAP)	May fall within the definition of tidal works above May additionally trigger requirements regarding quarry material if on State land. 'Quarry material' means material on State coastal land, including stone, sand, rock, mud, silt and soil (CPM Act Sch Dictionary). A person may apply to the chief executive for an allocation of quarry material in tidal water (s 73).	Local government (if prescribed tidal works) OR Chief Executive administering the Planning Act	\$275-\$8 + royaltie (calculat per cubic metre)
If there is construction of a gate to close and block water flow back out to sea OR Demolition of bunds may require construction to reinforce remaining seawall	Planning Act 2016 (Qld) Coastal Protection and Management Act 1995 (Qld) Coastal Protection and Management Regulation 2017 (Qld) State Development Assessment Provisions (SDAP)	Would likely constitute tidal works – see above	Local government (if prescribed tidal works) OR Chief Executive administering the Planning Act	
If any new works are required that may block fish passage	Planning Act 2016 (Qld) + regn Fisheries Act 1994 (Qld)	A development permit may be needed for constructing or raising waterway barrier works: <i>Planning Regulation</i> , Part 6, Div 4	Chief Executive (i.e. SARA (with advice	\$3130- \$12,518

	State Development Assessment Provisions (SDAP)	→ 'Waterway barrier works' means a dam, weir or other barrier across a waterway if the barrier limits fish stock access and movement along a waterway: Fisheries Act, Sch 1 Dictionary	from the Department of Agriculture and Fisheries))	
If works may impact on marine plant/s	Planning Act 2016 (Qld) Coastal Protection and Management Act 1995 (Qld) Accepted development requirements for operational work that is the removal, destruction or damage of marine plants (2017).	Operational work is assessable development if it is the removal, destruction or damage of a marine plant (Planning Regulation 2017 (Qld) Sch 10, Part 6, Div 3, s 11). → exception applies if it is acceptable development as prescribed by the Fisheries Act Development is accepted (i.e. no approval required) if: • Fish habitat rehabilitation or restoration work that provides a net benefit to marine plant communities AND • Removal, destruction, or damage of marine plants is in accordance with a Fisheries Queensland endorsed project plan. Otherwise if it is deemed assessable development – assessed according to State Code 11	Chief Executive (i.e. SARA (with advice from the Department of Agriculture and Fisheries))	State govt: 3430- 13,715 fee units depending on size and capacity + Local govt fees
If works are in a declared fish habitat area	Planning Act 2016 (Qld) Fisheries Act 1994 (Qld) Accepted development requirements for operational work that is completely or partly within a declared Fish Habitat Area (2020).	Operational work is assessable development if it is completely or partly in a declared fish habitat area (<i>Planning Regulation 2017</i> (Qld) Sch 10, Part 6, Div 2, s 10). → exception applies if it is acceptable development as prescribed by the <i>Fisheries Act</i> Development is accepted (i.e. no approval required) if: • It is for a private purpose and is fish habitat rehabilitation or restoration work that provides a net benefit to declared FHAs AND it is in accordance with an endorsed plan	Chief Executive (i.e. SARA (with advice from the Department of Agriculture and Fisheries))	1714- 13715 fee units (see regs)

			It is for a public purpose and it is in accordance with an endorsed plan ('public purpose' means for a use relating to the provision of services or infrastructure for the public by government, natural resource management groups and energy and water suppliers, and that is undertaken for a public benefit)		
Planning approvals - Federal	Potential for inundation to displace existing saltmarsh or bird habitat	Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Approval is required under the EPBC Act if an action has, will have, or is likely to have, a significant impact on a matter of national environmental significance as defined in the EPBC Act, or on the Commonwealth marine environment.	Minister for Energy and Environment/ Commonweal th Department for Climate Change, Energy, environment and Water (DCCEW)	\$6,557 (referral)
	If there is a need to construct a culvert under a public road to allow tide to flow.	Transport Infrastructure Act 1994 (Qld)	A person must not, without written approvalinterfere with a state-controlled road or its operation: s 33(1) A person must not construct, maintain, operate or conduct ancillary works and encroachments on a State-controlled road unless approval is granted: s 50(2) Relevant permit – Road Corridor Permit	Department of Transport and Main Roads	Non- commercial – no fee Commercia I – to be determined by Dept
approvals	If there is a need to construct a culvert under ungraded tracks on private land on a farm	n/a	No particular road permit needed, but other approvals and owner's permission would still be required	n/a	n/a
Other app	If there will be an interference with water	Water Act 2000 (Qld) Water Regulation 2016 (Qld)	A licence is required to take or interfere with water. 'Interference' with the flow of water in a watercourse includes diverting the course or water in a watercourse outside of its bed and banks.	Local government	Water licence appn - \$141

		Projects involving the construction or modification of levees may also, depending on the category of levee, require development approval. This will depend on whether the construction/modification has offsite impacts (see <i>Water Regulation 2016</i> (Qld)). • A 'levee' is an artificial embankment or structure which prevents or reduces the flow of overland flow water onto or from land (Sch 4) (but does not apply to structures within bed/bank of watercourse if it had a permit under the Planning Act) • 'Modification' of an existing levee means to raise or lower the levee's height, extend or reduce its length, or to make another change to the levee that affects the flow of water.		
If acid sulphate soils will be disturbed	Planning Act 2016 (Qld) State Planning Policy/local government planning schemes Environmental Protection Act 1994 (Qld)	State Planning Policy/local government planning schemes provide for mapping of areas with actual/potential acid sulphate soils, with development either avoiding disturbing them or actively managing them. Proponents should refer to the <i>Queensland Acid Sulfate Soil Technical Manual</i> in developing a plan. Note that pollution caused by acid sulphate soils may cause unlawful environmental harm under the <i>Environmental Protection Act 1994</i> (Qld).	Assessment manager for development	n/a
If a project may have an impact of listed threatened species	Nature Conservation Act 1992 (Qld)	If the site has any plants protected under the <i>Nature</i> Conservation Act, there is a potential need to apply for a protected plant clearing permit.	Queensland Department of Environment and Science	\$802- \$3216
If tidal flows back out to sea may affect the environment of a marine park	Marine Parks Act 2004 (Qld) Great Barrier Reef Marine Park Act 1975 (Cth) Marine Parks (Moreton Bay) Zoning Plan 2019	Significant parts of Queensland coastal waters are located in marine parks (GBR Coast Marine Park, Great Sandy Marine Park, Moreton Bay Marine Park). Each park has a zoning plan that sets out permissible uses with and without permits (see e.g. Marine Parks (Moreton Bay) Zoning Plan 2019).	GBR Marine Park – GBRMPA Other – Department of Environment and Science	n/a

	Marine Parks (Great Barrier Reef Coast) Zoning Plan 2004	A permit will be required if the project is within a marine park		
	Marine Parks (Great Sandy) Zoning Plan 2017	May need to assess whether a permit will be needed if a marine park is likely to be impacted indirectly (eg through poor water quality).		
If dredging and relocation of dredged material is required	Coastal Protection and Management Act 1995 (Qld) And Guideline: Dredging and Allocation of Quarry Material ESR/2016/1979	Capital dredging of less than 1000t per year on land under tidal waters needs a permit for operational works (tidal works), and would fall within the development application process described above. If any dredged material is to be disposed of elsewhere in tidal waters, it will also fall within this application.	Department of Environment and Science	Royalties may be payable where quarry material is allocated
	Planning Act regime Environmental Protection Act 1994 (Qld)	Also need to apply for an Allocation of Quarry Material Dredging more than 1000t within a year is an environmentally relevant activity under the <i>Environmental Protection Act 1994</i> and will require an environmental authority		
Disturbing, damaging or interfering with an Aboriginal site or object of significance	Aboriginal Cultural Heritage Act 2003 (Qld)	A person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage (the cultural heritage duty of care) (s 23) The Minister may publish cultural heritage duty of care guidelines (s 28). Current guidelines were published in 2004.	Self assessable if in accordance with guidelines OR through negotiation with relevant	n/a
		It may be prudent to determine whether there is any cultural heritage on site. The register and maps are instructive, but cultural heritage may exist even if not registered. Alternatively, the proponent could seek to enter into a Cultural Heritage Management Plan	Aboriginal party	

	Access to Crown land	Land Act 1994 (Qld)	There may be a formal arrangement to access land (e.g. a licence) Otherwise development application must be accompanied by the written consent of the land owner in circumstances where: • The applicant is not the owner; and • The application if for a material change of use/reconfiguring a lot, or works on premises that are below the HWM	Department of Resources	n/a
	Private land	Planning Act 2016 (Qld)	A development application must be accompanied by the written consent of the land owner in circumstances where: The applicant is not the owner; and The application if for a material change of use/reconfiguring a lot, or works on premises that are below the HWM	Private landowner	n/a
Land Tenure	Native Title	Native Title Act 1993 (Cth)	An act that affects native title in relation to land or waters may be classified as a 'future act' under the <i>Native Title Act</i> s 233(1). A future act will be invalid unless it validated under an Indigenous Land Use Agreement ('ILUA') or one of the provisions of the <i>Native Title Act 1993</i> (Cth). Therefore if Native Title exists over a proposed project area, the ILUA should be considered to determine whether a reef may fall within its terms, and the procedure for undertaking the activity.	Relevant Native Title group or corporation	n/a

Appendix F – Restoration of Tidal Flow, New South Wales

Government proponent Smaller-scale works (eg making a hole in an existing culvert) OR larger-scale removal or modification of barriers/mechanism s that restrict tidal flow	Environmental Planning and Assessment Act 1979 (NSW) Part 5 Environmental Planning and Assessment Regulation 2021 (NSW)	Possible 'without consent' pathway: To determine whether an EIA is required, the agency will prepare a document called a 'review of environmental factors' (REF): ss 5.5, 5.10, reg 171 → The REF will determine whether a development can be undertaken 'without consent' by a government department or agency → If the activity is likely to significant affect the environment - An environmental impact assessment and environmental permit may be required for prescribed activities or activities that are 'likely to significantly affect the environment': s 5.7	If REF determines without consent pathway – responsible authority If EIA is required – Minister for Planning	n/a
Smaller-scale works (eg making a hole in an existing culvert) OR larger-scale removal or modification of barriers/mechanism s that restrict tidal flow	Environmental Planning and Assessment Act 1979 (NSW) Local Environmental Plans (in compliance with the Principal Local Environmental Plan)	If there is no 'without consent' pathway: Must lodge a Development Application (DA) addressing matters outlined in 4.15(1) of the EP&A Act. Must be lodged with the appropriate consent authority, usually the local council.	Council with input from Department of Planning and the Environment	Depend s on cost of works
If in a mapped coastal wetland area	Environmental Planning and Assessment Act 1979 (NSW) Environmental Planning and Assessment Regulation 2021 (NSW)	Additional factors under relevant SEPPs: SEPP (Biodiversity and Conservation): Impacts on water quality/quantity Has adverse impacts on terrestrial or aquatic animals or vegetation, or wetlands SEPP (Resilience and Hazards): Development on land mapped as coastal wetlands and littoral rainforests area, the coastal vulnerability area, the coastal environment area, and the coastal use area Certain works may only be carried out with development consent: s 2.7	Department of Planning and the Environment	Depend s on cost of works

		Environmental Planning Policy (Biodiversity and Conservation) 2021 And State Environmental Planning Policy (Resilience and Hazards) 2021	check maps to see if site falls within any of these mapped areas		
	sulphate e present in ect site	Environmental Planning and Assessment Act 1979 (NSW) Environmental Planning and Assessment Regulation 2021 (NSW) Local Plans NSW Acid Sulfate Soil Manual	The Environmental Planning and Assessment Regulation 2021 (NSW) prescribes the types of development that are 'designated development.' Applicants for such development will be required to prepare and submit an EIS. Per the Regulation, several categories of development (including aquaculture, artificial waterbodies and extractive industries) will be designated development where they are to be carried out in an area of high watertable or acid sulphate soils. At the council level, local environment plans are likely to include development consent requirements for works on land identified in the acid sulphate soils mapping for that area. The Manual provides guidance on assessing projects, and will likely require a proponent to prepare a management plan and Statement of Environmental Effects (SEE) or Environmental Impact Statement (EIS) • unless the works could be classified as 'soil conservation works' – could possibly be undertaken by a public authority without consent	Local government	Depend s on cost of works
If new s		Environmental Planning and	Seawall construction may require approval under the <i>Environmental Planning and Assessment Act 1979</i> (NSW)	Local government	

	needed as part of the project	Assessment Act 1979 (NSW) Coastal Management Act 2016 (NSW)	Further, the Coastal Management Act 2016 (NSW) s 27 states that development consent must not be granted unless (a) the works will not unreasonably limit public access or pose a threat to public safety, and (b) satisfactory arrangements have been made through conditions of consent regarding restoration or adjoining land/beaches, and maintenance of works		
Planning approvals - Federal	Potential for inundation to displace existing saltmarsh or bird habitat	Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Approval is required under the EPBC Act if an action has, will have, or is likely to have, a significant impact on a matter of national environmental significance as defined in the EPBC Act, or on the Commonwealth marine environment.	Minister for Energy and Environment/ Commonwealth Department for Climate Change, Energy, environment and Water (DCCEW)	\$6,557 (referral)
	If there is a need to construct a culvert under a public road to allow tide to flow.	Roads Act 1993 (NSW)	A person must not erect a structure or carry out work in, on or over a public road; dig up or disturb the surface of a public road; or remove or interfere with a structure on a public road, without consent: s 138(1) Need to apply for a road occupancy licence	Transport for NSW or Local Government	
Other approvals	Flood works may impact on property, the community, and water sources	Water Management Act 2000 (NSW)	The Water Management Act 2000 (NSW) specifies three kinds of water management work approvals - water supply work approvals, drainage work approvals and flood work approvals. Approval is required to construct and use a specified flood work at a specified location s.90. A flood work approval confers a right on its holder to construct and use a specified flood work at a specified location. A 'flood work' means a work that is situated in or in the vicinity of a river, estuary or lake, or within a floodplain, and is likely to have an effect on the flow of water to or from a river, estuary or lake: dictionary.	Department of Planning and Environment (NSW)	Fee may vary dependi ng on extent of work

For waterfront activities	Water Management Act 2000 (NSW)	There may also be a need for a 'controlled activity' approval. 'Controlled activity' is defined as: (a) the erection of a building or the carrying out of a work (within the meaning of the EPAA) or (b) the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or (c) the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or (d) the carrying out of any other activity that affects the quantity or flow of water in a water source. An approval is required to carry out a controlled activity The Water Management Act 2000 (NSW) prescribes that actions carried out on waterfront land are 'controlled activities' and require approval under the Act. Controlled activities include the following: • carrying out works • removing material from waterfront land, such as plants or rocks • any activity which affects the quantity or flow of water in a water source.	Department of Planning and Environment (NSW)	
A project may have an impact on marine plants (e.g. seagrass)	Fisheries Management Act 1994 (NSW)	 A person must not harm marine vegetation in a protected area, except with a permit: s 205 • 'marine vegetation' includes mangroves, seagrass and other vegetation declared by regs • Some marine vegetation may be declared as protected, meaning a permit cannot be granted: s 204A • 'harm' means gather, cut, pull up, destroy, poison, dig up, remove, injure, prevent light from reaching or otherwise harm the marine vegetation, or any part of it: s 204 Relevant permit - Part 7 Fisheries Management Act permit 	Department of Primary Industries (DPI)	\$179 + assess ment fee of \$179- \$3891+

A project may ha an impact on liste threatened speci	ed Conservation Act 2016	The schedules to the Act set out lists of protected plants and animals. It may be an offence to harm these plants/animals, but a Biodiversity Conservation licence may be granted to authorise these activities. A number of factors should be considered when determining whether proposed development or activity is likely to significantly affect threatened species or ecological communities, or their habitats s 7.3. Note also the defence under s 2.8 – it is a defence to show that an act was necessary for the carrying out of a development in accordance with a consent issued under the EPAA.	NSW Department of Planning, Industry & Environment (DPIE)	\$30 + possible assess ment fees
Tidal flows back to sea may affec the environment a marine park	t Management Act 2014	There are six declared Marine Parks in NSW and 12 aquatic reserves. Each marine park has distinct rules regarding what activities require permits. The Marine Estate Management (Aquatic Reserve) Notification 2020 sets out what activities in aquatic reserves require a permit. If a proposed project may result in flows to a marine park/aquatic reserve, it is necessary to consult the relevant plan/notification to assess whether any consent is required.	Department of Primary Industries (DPI)	
If dredging and relocation of dredged material required	Fisheries Management Act 1994 (NSW)	A person or local government authority must not carry out dredging work except under the authority of a permit issued by the Minister: ss 200-201 (exception – work authorised under the <i>Crown Land Management Act 2016</i> . Public authorities can also undertake work without a permit, but must give notice: s 199) Relevant permit - Part 7 <i>Fisheries Management Act</i> permit 'Dredging' is defined to mean any work that involves excavating water land, or moving/removing material from water land ('water land' is land submerged by water, permanently or intermittently): s 198A	DPI Fisheries	\$179 + assess ment fee of \$179- \$3891+

	Aboriginal Heritage - Disturbing, damaging or interfering with an Aboriginal site or object of significance	National Parks and Wildlife Act 1974 (NSW)	May need to apply for an Aboriginal Heritage Impact permit if development may cause harm to Aboriginal objects or places	NSW Department of Planning and Environment	\$133- 2660
	Access to Crown land	Crown Lands Management Act 2016 (NSW)	Permission may take the form of an informal agreement, or a formal arrangement to access land (e.g. a licence)	NSW Department of Planning, Industry & Environment (DPIE) – Crown Lands	Lease \$757 + rent Licence \$576- 660
	consent undertake development on Crown Lands	Crown Lands Management Act 2016 (NSW)	An application for Landowner's consent may be needed for project proposals on Crown land.	NSW Department of Planning, Industry & Environment (DPIE) – Crown Lands	\$99
ess	National Park or Reserve	National Parks and Wildlife Act 1974 (NSW)	Only development which has been authorised by or under the <i>National Parks and Wildlife Act 1974</i> may be carried out without development consent. All other development is prohibited. Under the <i>National Parks and Wildlife Act 1974</i> a plan of management is required for land reserved under Part 4, Part 4A, or land acquired or occupied or proposed to be acquired or occupied under Part 11 s72.	NSW Department of Planning, Industry & Environment (DPIE)	
ld access	Private landholder consent	n/a	Will generally require a contract	Private landowner	n/a
Land tenure and	Native Title	Native Title Act 1993 (Cth)	An act that affects native title in relation to land or waters may be classified as a 'future act' under the <i>Native Title Act</i> s 233(1). A future act will be invalid unless it validated under an Indigenous Land Use Agreement ('ILUA') or one of the provisions of the <i>Native Title Act 1993</i> (Cth).	Relevant Native Title group or corporation	n/a

	Therefore if Native Title exists over a proposed project area, the ILUA should be considered to determine whether a reef may fall within its	
	terms, and the procedure for undertaking the activity.	

Appendix G – Restoration of Tidal Flow, South Australia

TIDAL FLOW REINTRODUCTION - SOUTH AUSTRALIA

Activities undertaken as part of a tidal flow restoration project may be defined as 'development' under the *Planning, Development and Infrastructure Act 2016* (SA) ('PDI Act') and may require assessment and approval by the relevant authority. The various planning procedures and requirements are set out in the PDI Act, the Planning, Development and Infrastructure (General) Regulations 2017, and the South Australian Planning and Design Code. The Planning and Design Code is designed to be used as an online tool, where proponents can type in a property address and see the Zones, categorisation of development, notification requirements, and criteria against which development will be assessed. Various overlays will also apply to developments depending on their nature, impacts and location. The PDI Act, Regs and Code identify a number of potential relevant authorities who may be the assessment and approval body. The legal regime also provides for development to be referred to various government departments or agencies for advice or approval.

Types of development

Under the PDI Act, Regulations and the Planning and Design Code, development may be categorised as one of four categories, as set out below. The categorisation depends on the Zones in which a location for development is situated, and the scale/type of development.

- 1. Accepted development. The Planning and Design Code will expressly categorise the type of development as accepted development. Does not require planning consent, although the proponent must comply with development controls in the Code. Common examples include installing roof top solar panels and above-ground water tanks. "Tidal restoration projects" are not listed in the Land Use Definitions Table under Part 7 of the Planning and Design Code as a particular type of development. However, tidal flow reintroduction works may involve activities (for example, demolition and construction), which may be listed as accepted development in a Zone (eg partial demolition of a building or structure is an accepted development in the Conservation Zone).
- 2. Code-assessed development, which is either:
 - a. Deemed-to-satisfy development. The Planning and Design Code will expressly categorise the type of development as deemed-to-satisfy. Must be granted planning consent. Common examples include constructing a veranda or carport. Again, various activities involved in tidal restoration projects may be listed as deemed-to-satisfy development.
 - b. Performance-assessed development. Development is performance-assessed development (i) if it is expressly categorised by the Planning and Design Code as performance-assessed development; **or** (ii) if development is not explicitly listed as accepted development, deemed-to-satisfy development or impact-assessed development for the location, the development will default to performance-assessed development. In some zones (such as the Coastal Waters and Offshore Islands Zone), the types of building works in involved in tidal flow reintroduction projects are not listed as accepted, deemed-to-satisfy, performance-assessed or restricted developments, and therefore default to

performance-assessed development. In other zones, development is listed as performance-assessed (for example, 'demolition' is listed as performance-assessed development in the Conservation Zone). Performance-assessed development must be granted planning consent and is assessed on its merits against the Planning and Design Code. Overlays and General Development Policies in the Code contain Assessment Provisions, which set out Desired Outcomes (DOs) and Performance Outcomes (POs) for development, against which development is assessed. Planning approval must be denied where development would be significantly at variance with the provisions of the Planning and Design Code (PDI Act s 107(2)(c)).

3. Impact-assessed development: classified by the Planning and Design Code as restricted development; or classified by the regulations or declared by the Minister as impact assessed development. Must be granted planning consent. For restricted development, the State Planning Commission is the relevant authority (assessment and approval). The State Planning Commission will determine whether it will be prepared to assess development and how development will be assessed. For impact-assessed development that is not restricted development, the Minister for Planning is the relevant authority (assessment and approval), assisted by the State Planning Commission. The proponent must prepare an environment impact statement (EIS). The State Planning Commission will determine the level of detail required for the EIS and undertake other administrative responsibilities in the EIS process.

Relevant Authorities

The PDI Act, Regulations and P&D Code, identify a number of bodies that may potentially act as the relevant authority for assessing and/or approving development. These are:

- An assessment manager
- An accredited professional
- A local council assessment panel
- A regional assessment panel appointed by the local council
- An assessment panel appointed by a joint planning board
- The State Commission Assessment Panel (SCAP)
- The Minister for Planning (where a proposed development is classified as impact assessed development, other than restricted development; or where the Crown development process is used).

State Planning Policies

In accordance with s 58 of the PDI Act, the State Planning Commission has prepared State Planning Policies that set out the 'overarching goals or requirements for the planning system'. These policies are to be given effect through the other legislative instruments, including the Planning and Design Code. While the State Planning Policies are not to be used directly for the purpose of development assessment (per s 58(4)), they must be taken into consideration when an Environmental Impact Statement (EIS) is prepared for an impact assessed development application. For infrastructure schemes, the Minister can act only on the advice of the Commission. In providing this advice, the Commission must consider any relevant State planning policies, as well as relevant Regional Plans and the relevant provisions in the P&D Code.

⁶ State Planning Polices are available at https://plan.sa.gov.au/our_planning_system/instruments/planning_instruments/state_planning_policies

Two policies are directly relevant to tidal flow restoration projects: the Climate Change Policy (State Planning Policy 5) and Biodiversity Policy (State Planning Policy 4). Sections 62 & 62A of the Act respectively require the Minister provides both policies.

State Planning Policy 4: Biodiversity

This policy recognises the important role that the planning law system can play in conserving biodiversity, including by helping businesses and industries take advantage of new market opportunities and by enhancing resilience to climate change. It states that opportunities should be found to re-instate biodiversity, even in areas that have been significantly modified. This potentially includes re-introducing biodiversity in 'aquatic ecosystems for flood mitigation and water quality improvement.' Policy 4.3 states that the planning system should 'Encourage the re-introduction of biodiversity or its components in development areas to provide life-supporting functions at low cost.' These objectives are to be implemented through regional plans and the P&D Code. This includes establishing zones to protect areas of biodiversity value.

State Planning Policy 5: Climate Change

The climate change policy recognises the role of the planning law system in promoting climate change mitigation and adaptation, including enhancing carbon storage, and enabling green technologies and industries. Policy 5.6 states that the planning system should 'Facilitate green technologies and industries that reduce reliance on carbon-based energy supplies and directly or indirectly reduce our greenhouse gas emissions.' Policy 5.7 suggests that the planning system should 'Protect and enhance areas that provide biodiversity and ecological services and maximise opportunities for carbon storage.' Regional plans should increase opportunities for carbon storage, and suitable areas should be identified in the P&D Code.

Private Applications - Process

Tidal flow restoration activities may take place on land that is in the intertidal zone and may be located on Crown land and/or privately-owned land. The relevant authority will depend on the location of the land where the activit(ies) take place and whether they are categorised as accepted development, deemed-to-satisfy or impact-assessed development, or comprise performance-assessed development, according to the PDI Act, Regs and Planning and Design Code. Generally speaking, a local council assessment panel can only be the relevant authority for a development within a council area (PDI Act, s 93(1)(a)); the SCAP is the relevant authority where a proposed development is to be undertaken in a part of the State that is not (wholly or in part) within the area of a council (PDI Act, s 94(1)(c)).

Projects that are located over both Crown land and privately-owned land are likely to be either performance-assessed or possibly impact-assessed development. Tidal flow reintroduction works may involve a number of possible development activities requiring approval, most likely on the basis that they are building works (for example, demolition and construction). The applicant will need to check the assessment pathway for the Zone in which the property is situated to determine whether the relevant activity is accepted, deemed-to-satisfy, performance-assessed or restricted development in that Zone. For performance-assessed development located wholly within a council area, an assessment manager or local council assessment panel is likely to be the assessment authority and the decision-maker. For performance-assessed development not wholly located within a council area, the SCAP would be the assessment authority and the decision-maker. If the Minister for Planning declared a tidal flow restoration project to be impact-assessed development, the Minister would be the assessment authority (assisted administratively by the State Planning Commission) and the decision-maker.

Where planning approval is required, unless the development proposal is categorised as deemed-to-satisfy in the relevant Zone (which is unlikely for the type of building works involved in most tidal flow reintroduction projects near the coast), the process will require referral to certain bodies, as per PDIA s122; Regs, reg 41 and Sched 9. Applications for specific types of development on land in the Coastal Areas Overlay under the Code (which covers the whole South Australian coastline, per the SA Property and Planning Atlas https://train.sappa.plan.sa.gov.au/) must be referred to the Coast Protection Board for direction (Regs, reg 41 and Sched 9 -Table, Pt A, item 3).

Where development is referred to a prescribed body for 'direction', this means that the prescribed body may direct the relevant authority: (i) to refuse the relevant application; or (ii) if the relevant authority decides to consent to or approve the development (subject to any specific limitation under another Act as to the conditions that may be imposed by the prescribed body) to impose such conditions as the prescribed body thinks fit, and the relevant authority must comply with any such direction. PDI (General) Regulations, Sched 9, cl 1.

Notice requirements. There are no notice obligations for applications for accepted and deemed-to-satisfy developments. However, proponents of performance assessed required to give notice to (a) each owner and occupier of each piece of adjacent land; and (b) members of the public, by placing a notice on the relevant land. The Regulations and Planning and Design Code exclude certain listed classes of developments from the notice requirements, and exempt certain developments from the requirement to place a notice on the land, in certain Zones. In the Coastal Waters and Offshore Islands Zone, performance-assessed development is exempt from the requirement in s 107(3)(a)(ii) of the PDI Act to place a notice on the relevant land (see Regs, reg 47(6)(c) and Planning and Design Code, Coastal Waters and Offshore Islands Zone, Table 5 - Procedural Matters (PM) – Notification).

Notification requirements are broader for impact assessed (restricted) development. In addition to notifying the owner/occupier of adjacent land and the general public by placing notice on the land, proponents must notify any owner of occupier of land that would be affected to a significant degree by the development, and any other person of a prescribed class (s 110(2)). If an EIS is required, interested persons may make written submissions (s 113(5)(b)(i) and the Minister may undertake, or require the proponent to engage in, public consultation (s 113(6)).

Crown Development Process

Tidal flow restoration works could be assessed and approved under a particular form of procedure for 'Crown development', established under Part 9 of the PDI Act, s131 (the 'Crown Development procedure') (similar provisions existed in the former *Development Act 1993* (SA). Pursuant to s 131(2), the procedure applies to:

(a) a State agency⁷ that undertakes development;

-

⁷ State agency is defined in s 131(1) to mean— (a) the Crown or a Minister of the Crown; (b) an agency or instrumentality of the Crown (including a Department or administrative unit of the State); (c) any other prescribed person or prescribed body acting under the express authority of the Crown, but does not include a person or body excluded from the ambit of this definition by regulation.

- (b) a State agency that proposes to undertake development for the provision of 'essential infrastructure' in a partnership or joint venture with a private sector developer; and to
- (c) a private sector developer who "proposes to undertake development initiated or supported by a State agency for the purposes of the provision of essential infrastructure and specifically endorsed by the State agency'.

In these cases, the State agency must lodge the application for development approval, containing prescribed particulars, with the State Planning Commission (s 131(2). Where a state agency undertakes the development, it need not be for 'essential infrastructure' (s 131). However, where a private developer undertakes the development, it must be for the provision of 'essential infrastructure'. It appears that tidal flow restoration works could fit within the definition of 'essential infrastructure' in s 3 of the PDI Act as 'coast protection works' or 'other forms of works' (see n 2, below).

Regulation 107 of the Planning Development and Infrastructure (General) Regulations 2017 requires the application to be in a form determined by the Minister. The application must contain the 'prescribed particulars', which are (a) a description of the nature of the proposed development; and (b) details of the location, siting, layout and appearance of the proposed work (reg 107(2)).

The Crown development procedure provides for the referral of the application to various bodies, including the local council and various bodies prescribed by the Act and Regs (PDAI s 131(6),(10); Regs, reg 41 and Sched 9).

Crown development applications exceeding \$10 million in value require public notification for a minimum period of 15 business days during which the public may make representations. Otherwise, there are no provisions in s 131 for public notification.

The SCAP assesses all applications for Crown development and prepares a report for the Minister for Planning, who makes the final decision. The Planning and Land Use Services division within the Department for Trade and Investment (PLUS_DTI) will undertake referral, public notification and assessment requirements, including collection of development fees, and the preparation of a report for SCAP's consideration.

The Minister for Planning is the decision-maker. An approval will be taken to be given subject to the condition that, before any building work is undertaken, the building work be certified by a building certifier, or by some person determined by the Minister for the purposes of this provision, as complying with the provisions of the Building Rules to the extent that is appropriate in the circumstances (ss 131(20),(21)). No appeal lies against a decision of the Minister (s 131(26)).

.

⁸ 'Essential infrastructure' is defined in s3 of the PDI Act to mean— (a) infrastructure, equipment, structures, works and other facilities used in or in connection with— (i) the generation of electricity or other forms of energy; or (ii) the distribution or supply of electricity, gas or other forms of energy; and (b) water infrastructure or sewerage infrastructure within the meaning of the Water Industry Act 2012; and (c) transport networks or facilities (including roads, railways, busways, tramways, ports, wharfs, jetties, airports and freight-handling facilities); and (d) causeways, bridges or culverts; and (e) embankments, walls, channels, drains, drainage holes or **other forms of works or earthworks**; and (f) testing or monitoring equipment; and (g) **coast protection works** or facilities associated with sand replenishment; and (h) communications networks; and (i) health, education or community facilities; and (j) police, justice or emergency services facilities; and (k) other infrastructure, equipment, buildings, structures, works or facilities brought within the ambit of this definition by the regulations.

Activity	Specificity	Risks/Need	Applicable Legislation	Detail	Responsible Authority	Fees (as at 30 June 2023)
Removal of barriers/mecha nisms that restrict tidal flow		Development approval for building work may be needed, to remove mechanisms that restrict tidal flow.	Planning, Development and Infrastructure Act 2016 (SA) Planning, Development and Infrastructure Regulations (General) 2017 Planning and Design Code	PDIA, s 101: no development may be undertaken unless the development is an approved development. The landowner, the developer and anyone engaging in building work on land all have a responsibility to check that development approval has been obtained before commencing work. A landowner cannot abdicate responsibility for a development on their land to another person and has a responsibility not to allow building works to commence unless the development has been approved by the relevant planning authority: City of Salisbury v Rocca [2009] SAERDC 94 at [4] and [7]. The Act applies throughout the State: s 8. The 'State' is defined to include any part of the sea that is included in the coastal waters of the State by virtue of the Coastal Waters (State Powers) Act 1980 of the Commonwealth ie the Act applies to the sea and seabed, seaward from 3 nautical miles of the mean low water mark and any sea that is on the landward side of any part of the territorial sea of	i. An assessment manager ii. A local council assessment panel iii. The SCAP iv. Under the Crown development procedure (or if called in as impact-assessed development), the Minister for Planning.	Lodgement Fee: \$184 (additional \$83 fee for hard copy lodgement). Planning Fees Fees per development category: Performance Assessed \$260 or 0.125% of the total development cost up to a maximum of \$200,000, whichever is greater. Impact Assessed (Declared by the Minister): \$1,819 plus 0.25% of the total development cost up to a maximum of \$500,000. Crown Development: \$184 plus, 0.25% of the total development cost up to a maximum \$300,000. Public notification \$260

Australia and is within the adjacent area in respect of the State but is not within the limits of the State or of a Territory. Section 3 specifies that 'development' includes "development on or under water".

'Development' means (a) change in use of land (b) building work (s 3). 'Building work" means work or activity in the nature of— (a) the construction, demolition or removal of a building (including any incidental excavation or filling of land); or (b) any other prescribed work or activity, but does not include any work or activity that is excluded by regulation from the ambit of this definition. 'Building' includes a 'structure'. To construct a building includes to 'erect' a structure or place it on land. "Land" includes land covered in water (s 3).

Development also includes any excavating or filling of a volume of material exceeding 9m³ (a) within coastal land (land within Costal Areas Overlay) (b) within 3 nautical miles seaward of the coast measured from mean high water mark on the sea shore at spring tide (Regs Sch 3).

Demolition of barriers to tidal flows may be considered a 'development' if it involves the excavation of more than 9m³ of material within the

Building Fees

Building Assessment – Class 10* (non-habitable structures): \$135 or 0.25% of the total development cost whichever is greater

Building Assessment (Demolition): \$151

Referral to Commission (Concurrence or Opinion): \$359

Source

*Class 10 buildings are non-habitable buildings or structures. Class 10 includes three subclassifications: Class 10a. Class 10b and Class 10c. Class 10a buildings are non-habitable buildings including sheds, carports, and private garages. Class 10b is a structure being a fence, mast, antenna, retaining wall, swimming pool, or the like. A Class 10c building is a private bushfire shelter. A private bushfire shelter is a structure associated with. but not attached to, a Class 1a building.

	tidal flows, the use from using land pagriculture/ farming use to using land that the tidal rein could be developed that it is a 'change Whether there is land depends on out in the Act and according to case there has been a matter of fact and essential characted the relevant land changed if propoproceeds (<i>Prestite Walkerville & Str.</i>)	ay fall within the ing work and will elopment'. that if, in restoring se of land changes with a similar or another land for carbon credits, troduction project ment on the basis e in use of land'. a change in use of criteria/rules set of Regs. Also, e law, whether change of use is a degree: has the er and balance of and buildings seed development the correction of the c	
Breaking a bund (part of a seawall to allow tidal flow) made of a combination of rock, aggregate	Demolition of an constructed seav definition of 'build work' and is there 'development' (s	artificially vall falls within the ling' and 'building efore 3).	See fee summary in row 1.
and/or sand, or concrete.	therefore within to 'building' and '	ne definition of ilding work'.	

	DC v M & B Farmer Nominees Pty Ltd (2000) 76 SASR 443; [2000] SASC 117.	
Breaking a bund/dune made from a	Demolition and removal of a structure falls within the definition of 'building work'.	See fee summary in row 1.
natural build up of soil or sand.	'Building' means a building or structure or a portion of a building or structure (including any fixtures	
	or fittings which are subject to the provisions of the Building Code), whether temporary or permanent,	
	moveable or immovable, and includes a boat or pontoon permanently moored or fixed to	
	land, or a caravan permanently fixed to land (s 3).	
	The definition of "building" is identical in effect to the definition of the term that existed under the	
	Development Act 1993. Under the 1993 Act it has been held that the term "structure" in the definition of	
	"building", as far as proposed building work is concerned, is limited to a structure which is	
	addressed in the Building Rules: Carter (Trustee for The Estate of Paul G Schmidt) v Mid-Murray	
	Council [2006] SAERDC 88 at [41]. In the context of the Act, 'structure'	
	means that which has been built or constructed (<i>Hobday v Nichol</i> [1944] 1 All ER 302 at 303-304 (this	
	view has been consistently adopted by the Supreme Court e.g. <i>Carter v</i>	

Removii up/cons tracks (e construct soil/shell through creek or farmland reintrodiflows in creek.	tructed eg cted of ll/rock) a n d, to uce	Mid-Murray Council [2007] SASC 145 at [10])). For naturally built up blockages, there is an argument that they are not 'structures' given that they have not been 'built' or 'constructed'. Demolition and removal of a structure falls within the definition of 'building work'. 'Building' means a building or structure or a portion of a building or structure (including any fixtures or fittings which are subject to the provisions of the Building Code), whether temporary or permanent, moveable or immovable, and includes a boat or pontoon permanently moored or fixed to land, or a caravan permanently fixed to land (s 3) In the context of the Act, 'structure' means that which has been built or constructed (Hobday v Nichol [1944] 1 All ER 302 at 303-304)	See fee summary in row 1.

Construction		Development approval for building work may be needed, to construct certain works.	Planning, Development and Infrastructure Act 2016 (SA) Planning, Development and Infrastructure Regulations (General) 2017 Planning and Design Code	The construction of works to reintroduce tidal flows (such as culverts) will usually fall within the definition of 'building work' and will therefore be 'development'. The following activities also constitute 'development' (Regs, Sched 3): 'The placing or making of any structure or works for coastal protection, including the placement of rocks, stones or other substances designed to control coastal erosion, within 100 m landward of the coast measured from mean high water mark on the sea shore at spring tide or within 1 km seaward of the coast measured from mean high water mark on the sea shore at spring tide' (cl 6); any excavation or filling on coastal land of more than 9m³ of material (cl 5); and the forming of a levee or mound greater than 3m above the ground (cl 4).	See fee summary in row 1.
	Constructing a culvert to allow tide to flow. May be constructed from a pipe, reinforced concrete or other material.			The construction of infrastructure will usually fall within the definition of 'building work' and will therefore be 'development'. However, see Regs, Sched 4, cl 2(1) - the following council works are not 'development': the construction, reconstruction, alteration, repair or maintenance by or on behalf of a council of a road, drain or pipe, other than the	See fee summary in row 1.

F	
	construction of a new road, drain or
	pipe within 100 m of the coast,
	measured from mean high water
	mark on the sea shore at spring
	tide. The construction of a pipe will
	therefore be excluded from the
	definition of 'development' if it is
	undertaken 'by or on behalf of a
	council' and is more than 100m
	from the coast.
	Note Garden College v Salisbury
	CC [2022] SAERDC 10, which
	involved expansion of a school
	campus, including additional
	learning areas and stormwater
	works. The stormwater disposal
	system comprised a system of
	interconnected pipes, pits and
	swales) connected to transportable
	classroom buildings. The sewerage
	pipe/stormwater drain system was
	held not to be a building or a
	structure and therefore not a
	development. It did not comprise
	work or activity in nature of
	excavation or filling of land
	incidental to a building – any
	excavation or filling would be
	incidental to the system.
	The classification of "building or
	structure" under the Building Code
	of Australia does not encompass
	underground services such as
	sewerage pipes and stormwater
	drains: City of Burnside v Macag
	Holdings Pty Ltd [2006] SASC 89 at
	[49].
	1

	Local Government Act 1999 (SA) Highways Act 1926 (SA)	Local governments/councils are responsible for local roads within the area of the council. The Dept for Infrastructure and Transport is responsible for 'authorised'/major road projects.	
Constructing a culvert (pipe) under ungraded tracks on private land on a farm (the tracks built across a creek block water flow in the creek).		May fall within the definition of 'building work' and will therefore be 'development'. Sewerage pipe/stormwater drain system held not to be a building or a structure and therefore not a development. Did not comprise work or activity in nature of excavation or filling of land incidental to a building – any excavation or filling would be incidental to system. Garden College v Salisbury CC [2022] SAERDC 10	See fee summary in row 1.
Construction of a gate to close and block water flow back out to sea, to control pollution. [If saline water comes into areas that have dried out and become acidic, then acid sulphates		Falls within the definition of 'building work' and will therefore be 'development'.	See fee summary in row 1.

become mobile who sea water enters aga and can flot to sea.] Demolition bunds may require construction reinforce the remaining seawall (or change the structure)	n w of n to e		Construction to reinforce a sea wall falls within the definition of 'building work' and will therefore be 'development'.		See fee summary in row 1.
		Coast Protection Act 1972 (SA)	Applications for specific types of development on land in the Coastal Areas Overlay under the Planning and Design Code (which covers the whole South Australian coastline) must be referred to the Coast Protection Board. The types of development requiring referral include: • excavation and/or filling where the total volume of material excavated and/or filled exceeds 9m3; • offshore structures; • coast protection works; and • infrastructure within 100m landward of the mean high water mark. After considering the application, the Board can direct the relevant authority to refuse the application or, if it decides to approve, impose	Coast Protection Board	Referral Cost of referral to the Coast Protection Board: \$414.00 Source

			conditions. The purpose of this referral process is to provide expert advice and direction to the relevant authority on: • the risk to development from current and future coastal hazards (including sea-level rise, coastal flooding, erosion, dune drift and acid sulfate soils)		
			 coast protection works; potential impacts from development on public access and the coastal environment. 		
			The Board will determine the application with reference to the Policy on coast protection and new coastal development (1991). This states that the Board should not approve coastal protection works if they will lead to erosion of neighbouring land, loss of beach amenity, or other adverse environmental effects.		
Acid sulphates in the environment		Planning, Development and Infrastructure Act 2016 (SA) Planning, Development and	The Planning and Design Code includes a Hazards (Acid Sulfate Soils) Overlay. The Code outlines that the Desired Outcome for development on land in this Overlay is that the development is located and undertaken to minimise disturbance of potential or actual acid sulfate soils and/or the release	Relevant authority under the PDI Act Coast Protection Board	See fee summary in row 1. Referral Cost of referral to the Coast Protection Board: \$414.00
		Infrastructure Regulations (General) 2017	of acid drainage. The Performance Outcome for this Overlay is that development that involves excavation or a change to		Source

Planning and Design Code, Hazards (Acid Sulfate Soils) Overlay	a water table where potential or actual acid sulfate soils are present is undertaken to minimise soil disturbance or drainage; prevent or minimise oxidation; and contain and treat any acid drainage to prevent harm or damage to the environment, primary production, buildings, structures and infrastructure or public health. The development will be 'deemed-to-satisfy' this Overlay if it does not involve or cause excavation to land or a change to the water table (if it does, then the proposal will be assessed on its merits against the Code). Referral to the Coast Protection Board Applications for development in the Coastal Areas Overlay must be referred to the Coast Protection Board, which may then direct the local government assessing the application to reject it or approve with conditions. The Planning and Design Code specifies that a key objective of the referral is to enable the Board to provide expert assessment and direction on, among other risks, acid sulfate soils. The SA Guidelines provide a	
Infrastructure and Transport (DIT),	framework for the assessment and management of ASS which may be disturbed during maintenance activities or infrastructure development, and identifies matters	

Guideline for	that must be considered during the	
Assessment	planning and environmental impact	
And	assessment process for	
Management	proposed works.	
of Acid		
Sulfate Soils	The following six-step process	
('SA	outlined in the SA Guidelines must	
Guidelines')	be undertaken by the project	
	manager to determine the potential	
	presence of ASS:	
	check the Australian Soil	
	Resource Information System	
	website for the potential for ASS;	
	determine whether field	
	indicators are present on site, with	
	reference to EPA Guideline,	
	Site Contamination – acid sulfate	
	soil materials EPA 638/07;	
	3. undertake soil and water testing;	
	4. assess project alternatives to	
	avoid impacts;	
	5. prepare an ASS Management	
	Plan; and	
	6. implement management	
	measures.	
	measures.	
	In preparing an ASS Management	
	Plan, which will be required where	
	ASS disturbance is unavoidable,	
	the main management objective is	
	the prevention or minimisation of	
	the potential for on- and off-site	
	impacts, utilising the most	
	environmentally sustainable and	
	cost-effective measures. Common	
	management approaches posited	
	by the SA Guideline include	
	designing the works to avoid the	
	need for excavation, preventing	

	T	T	T
	oxidation, and collecting and		
	disposing of the ASS materials to		
	an appropriately licensed waste		
	facility.		
	The SA Guideline also states that a		
	Management Plan should be		
	prepared in accordance with		
	the Guidelines for the assessment		
	and remediation of site		
	contamination prepared by the SA		
	Environmental Protection Authority,		
	and should include a description of		
	the proposed development and		
	works, a monitoring program for		
	soils, surface and groundwater		
	during construction and operations,		
	and an outline of contingency and		
	remedial measures.		
Environment	The Environment Protection		
Protection	Regulations 2009 (SA) prescribe		
Act 1993 (SA)	acid sulphate soil generation		
7101 7000 (071)	undertaken in the course of a		
Environment	business as a potentially		
Protection	contaminating activity for the		
Regulations	purpose of <i>Environment Protection</i>		
2009 (SA)	Act 1993 (SA) provisions relating to		
==== (=,	the issuing of site contamination		
Environment	assessment orders and site		
Protection	remediation orders.		
(Water			
Quality) Policy	Management of ASS also falls		
2015 (SA)	under the scope of the general		
()	environmental duty in s 25 of		
	the Environment Protection Act		
	1993 (SA), and as expressed in s 9		
	of the Environment Protection		
	(Water Quality) Policy 2015 (SA),		
	mismanagement of ASS may cause		

				environmental harm, which is an		-
				offence under the Act (ss 79, 80).		
Other				offence under the Act (55 / 9, 00).		
Environmental Impacts						
	Depending on amount of inundation, can replace one saltmarsh environment with another. Affect birds: loss of bird habitat (loss of drier saltmarsh habitat, not as suitable for birds). Depending on amount of inundation, can replace a saltmarsh environment with a mangrove environment.	Approval may be required.	Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Approval is required under the EPBC Act if an action has, will have, or is likely to have, a significant impact on a matter of national environmental significance as defined in the EPBC Act, or on the Commonwealth marine environment.	Minister for Energy and Environment/ Commonwealth Department for Climate Change, Energy, Environment and Water (DCCEEW)	Referral Initial Referral fee: \$6,577 Assessment Fees per assessment approach: Assessments on referral information: \$8,964. Assessments on preliminary documentation: \$8,010. Assessments by public environment report or environmental impact: \$25,583. Assessments by bilateral agreement or accredited process: \$18,146. Fees Subject to increase based on complexity of project. Source

or interf with lists animal a plant sp Damage listed threater species	Act 1972 (SA) and ecies. e to	Applies throughout the State. Sets out certain offences in relation to listed species. It is an offence to 'take' a 'protected' animal a protected animal or the eggs of a protected animal (s 51(1)). It is an offence to interfere with, harass or molest, or cause or permit the interference with, harassment or molestation of, a protected animal (s 68(1)(a)). The maximum penalty for taking a marine mammal, or interfering with etc a marine mammal, is \$100 000 or imprisonment for 2 years. The Act specifies maximum penalties for other animals. Section 47(1): It is an offence to take a native plant (a) on any reserve, wilderness protection area or wilderness protection zone; or (b) on any other Crown land; or (c) on any land reserved for or dedicated to public purposes; or (d) on any forest reserve. "Land' is defined to include 'waters' (s 3). A permit may be granted by the Minister to take a protected animal for 'any other purpose (other than	Climate, Environment and Water/ Department for Environment and Water (DEW)	Permit (for 1 year period) Take Protected Animals from the Wild Permit (s 53(1)(d): \$111 Molestation etc of protected animals Permit (s 68(2)): c) in the case of an application for a permit subject only to standard conditions: \$468.00 d) in any other case: \$739.00 Permit to take native plants (s 49(1)(a)): \$111 Source
--	-------------------------------	---	--	--

Impacts on native vegetation and/or seagrass	Approval to clear native vegetation	Native Vegetation Act 1991 (SA)	Protected animals and plants are listed in Scheds 7-9 of the Act. 'Take' is defined broadly: (a) with reference to an animal, includes any act of hunting, catching, restraining, killing or injuring, and any act of attempting or assisting to hunt, catch, restrain, kill or injure; and (b) with reference to a plant means— (i) to remove the plant or part of the plant, from the place in which it is growing; or (ii) to damage the plant. Clearance of native vegetation is prohibited without an authorisation (NVA, ss 27, 28). The NVA applies to native vegetation under the sea eg to sea grasses. There is a very broad definition of 'clearance', which means: (a) the killing or destruction of native vegetation; (b) the removal of native vegetation; (e) any other substantial damage to native vegetation, and includes the draining or flooding of land, or any other act or activity, that causes the killing or destruction of native	Native Vegetation Council	Application for consent Consent to clear native vegetation (s 28): \$708.00 plus the fee payable by an applicant for consent to clear native vegetation for the preparation of the report referred to in section 28(3)(b)(ii)(A) of the Act (being the Minister's estimate of the reasonable cost of preparing a report of that kind
			removal of native vegetation; (e) any other substantial damage to native vegetation, and includes the draining or flooding of land, or any other act or activity, that causes the killing or destruction of native vegetation,or any other substantial damage to native vegetation. Clearance can be approved by the		in section 28(3)(b)(ii)(A) of the Act (being the Minister's estimate of the reasonable cost of
			Native Vegetation Council in certain circumstances, where a significant		

		environment benefit is able to be achieved. The Native Vegetation Regulations 2017 set out circumstances where approval for clearance is not required, although applicant must have regard to the "mitigation hierarchy' in the Regulations. The PDI Act, Regs (reg 41 and Sched 9, cl 3 -Table, Pt A, item 11) and the Code require referral to the Native Vegetation Council, for Direction, within 20 business days, of development that is (a) within the Native Vegetation Overlay or the State Significant Native Vegetation Overlay under the Planning and Design Code; and (b) is specified the Planning and Design Code as development of a class to which item 11 applies.		Referral Cost of referral to Native Vegetation Council: \$664.00 Source
Permit to disturb seabed, animals or plants in an aquatic reserve	Fisheries Management Act 2007 (SA)	The Governor may, by proclamation, declare that waters, or land and waters constitute an aquatic reserve (s 4). An aquatic reserve will be managed through a management plan (Pt 5). The Act prohibits a person from engaging in an operation involving or resulting in (a) disturbance of the bed of any waters forming part of an aquatic reserve; or (b) removal of or interference with aquatic or benthic animals or plants of any waters forming part of an aquatic reserve, except as authorised by	Minister for Primary Industries and Regional Development	Permit Application for a Ministerial Permit to Undertake Activities Within an Aquatic Reserve (s 76, 77): \$133 Source Exemption Application for a Ministerial Exemption to Undertake Activities Within an Aquatic

			the regulations or a permit issued by the Minister (s 77).		Reserve: may include a fee exemption: (s 115)
	Permit to take or interfere with listed animal and plant species. Damage to listed threatened species.	National Parks and Wildlife Act 1972 (SA)	See above.	Minister for Climate, Environment and Water Department for Environment and Water (DEW)	Permit (for 1 year period) Take Protected Animals from the Wild Permit (s 53(1)(d): \$111 Molestation etc of protected animals Permit (s 68(2)): a) in the case of an application for a permit subject only to standard conditions: \$468.00 b) in any other case: \$739.00 Permit to take native plants (s 49(1)(a)): \$111
Tidal flows back out to sea may affect the environment of a marine park	Permit to undertake various activities in a marine park may be required.	Marine Parks Act 2007 (SA)	Marine parks have been established under the <i>Marine Parks Act 2007</i> (SA). Marine parks are managed according to management plans, which (among other things) establish the various types of zones within a park and provide guidelines with respect to the granting of permits for various activities that might be allowed within the park. (ss 12,13)	Minister for Climate, Environment and Water Dept for Environment and Water	Permit Marine Park Permit to engage in otherwise prohibited activities (s 19): \$739.00 Source

	<u></u>	,		Ī	
back sea the envi dolp Ade Dolp	al flows ck out to a may affect vironment of phins in the elaide lphin nctuary	Adelaide Dolphin Sanctuary Act 2005 (SA)	The Act prescribes 4 types of zones (s 4): (a) general managed use zones; (b) a habitat protection zones; (c) a sanctuary zones; and (d) restricted access zones. The regulations apply various prohibitions or restrictions to the different types of zones. See Marine Parks (Zoning) Regulations 2012. Authorisation in the form of a permit issued by the Minister may be required to undertake activities in a marine park, to allow an activity that would otherwise be prohibited by the Marine Parks (Zoning) Regulations. Section 37(1) sets out a general duty of care, which requires all persons to take all reasonable measures to prevent or minimise harm to a marine park through his or her actions or activities. General duty of care: s 32(1) A person must take all reasonable measures to prevent or minimise any harm to the Adelaide Dolphin Sanctuary through his or her actions or activities. Breaching the duty is not an offence, but a person who has breached the duty may be issued with a protection order; a reparation order; or a reparation authorisation (s 32).	Minister for Climate, Environment and Water Dept for Environment and Water	
			authorisation (s 32). The Act does not provide for a		
			permitting process.		

Dredging	Environment Protection Act 1993 (SA) Environment Protection Authority, Dredge Guideline (August 2020)	A licence is required to conduct a "Prescribed Activity of Environmental Significance' (s 36 and Sched 1), and works approval is required for building works used for a PAES (s 35 and Sched 1). Dredging is defined as 'removing solid matter from the bed of any marine waters or inland waters by any digging or suction apparatus, but excluding works carried out for the establishment of a visual aid to navigation and any lawful fishing or recreational activity'. Dredging is a PAES, for which is licence is required under the EPA Act (s 36 and Sched 1, Pt A, cl 7 (4)). The PDI Act, Regs (reg 41 and Sched 9, cl 3 -Table, Pt A, item 9) and the Code require development that is a PAES under the EP Act, to be referred to the EP Authority, for Direction, within 20 business days.	Environment Protection Authority	Planning Application See summary of planning application fees in row 1. Licence Lodgement fee \$227 Assessment fee - licence to undertake dredging or earthworks Drainage: \$771.80 Source Referral Costs of referral to Environment Protection Authority: Non-licensable \$770 Licensable \$ \$1,733
		recreational activity'. Dredging is a PAES, for which is licence is required under the EPA Act (s 36 and Sched 1, Pt A, cl 7 (4)). The PDI Act, Regs (reg 41 and Sched 9, cl 3 -Table, Pt A, item 9) and the Code require development that is a PAES under the EP Act, to		Costs of referral to Environment Protection Authority: Non-licensable \$770 Licensable \$ \$1,733

				,
		The impacts may cause		
		'environmental harm (defined in s		
		5). It is an offence under the EP Act		
		to cause a nuisance, or material or		
		serious environmental harm.		
		Persons undertaking activities must		
		not breach the general		
		environmental duty under s 25 of		
		the Act ie must take all reasonable		
		and practicable measures to avoid		
		•		
		causing environmental harm.		
		The EDA has issued a Drader-		
		The EPA has issued a <u>Dredge</u>		
		Guideline (August 2020) to provide		
		guidance to dredging proponents		
		and licensees in meeting the		
		environmental duty under s 25 of		
		the Act, by demonstrating that all		
		reasonable and practicable		
		measures have been undertaken to		
		minimise the potential for		
		environmental harm, a broad		
		overview of what dredging		
		proponents need to do to meet their		
		legislative requirements. Among		
		other things, a Dredge		
		Management Plan approved by the		
		EPA, will be required before works		
		begin, and must be submitted at		
		least 15 days prior to the		
		commencement of works.		
		Confinencement of works.		
		In practice the proposant of a tidal		
		In practice, the proponent of a tidal		
		flow reintroduction project will hire a		
		construction company to undertake		
		the works, and that company will		
		hold the licence to dredge.		
Potential	Landscape	Among other things, the LSSA	Relevant	Permit
impacts on	South	provides for the management and	regional	

Water	Australia Act	protection of water resources.	landscape	Application for a permit
Resources	2019 (SA)	Where there are water resources	board.	under Part 8 of the Act,
		such as rivers or lakes on the land		other than an
		to which tidal flow will be		application for a permit
		introduced, project proponents		to drill a well or to
		should consult with the relevant		undertake work on
		regional landscape board to avoid		a well: \$65
		breaching the Act.		
				Source: <u>Landscape</u>
		There is a general statutory duty		South Australia (Fees)
		established in s 8(1) of the LSSA: A		Notice 2023, Sched 1, cl
		person must act reasonably in		2(2) (in force 1 July
		relation to the management of		2023)
		natural resources within the State.		
		In determining what is reasonable		
		for the purposes of subsection (1),		
		regard must be had, amongst other		
		things, to the objects of the Act, and		
		to 9 matters listed in s 8(2).		
		Breaching the duty is not an		
		offence, but a person who has		
		breached the duty may be required		
		to prepare and implement an action		
		plan; be issued with a protection		
		order; a reparation order or		
		reparation authorisation; and/or be		
		subject to an order made by the		
		Environment, Resources and		
		Development Court under Part 10 of the Act.		
		of the Act.		
		A permit may be required from the		
		relevant regional landscape board		
		to conduct certain activities. Section		
		102(1) of the Act allows a		
		'prescribed authority' – which will		
		be the relevant regional landscape		
		board – to prepare a 'water		
		affecting activities control policy'		
		anecting activities control policy		

				with respect to the conservation, management or protection of— (a) a watercourse, lake or well (insofar as the watercourse, lake or well is within the board's region); or (b) an area or a place containing (or from time to time containing) surface water (insofar as the area or place is within the relevant regional landscape board's region). Subject to other provisions of the Act, the Act prohibits certain activities from being done in contravention of a 'water affecting activities control policy' without a permit or water authorisation (s104(3)), including, for example, 'draining or discharging water directly or indirectly into a watercourse or lake' (s 104(4)(c)). DEW recommends applying for a permit at least two months before the planned undertaking of an activity.		
Land Tenure/ Access	Access to Crown land	Permission must be sought to undertake work on Crown land.	Crown Land Management Act 2009 (SA)	The Minister may grant leases in relation to unalienated Crown land (s 32(1)). A Crown Lease may be issued to a person or organisation to have exclusive right to occupy a specific area of Crown land. Rent must be paid on Crown leases. A Crown licence may be issued by the Minister for a specific purpose over a specific area of Crown land (s 46). A licence is a non-exclusive	Minister for Climate, Environment and Water Crown land is administered by the Crown Lands Program, Department for Environment and Water	Lease Application fee for lease (s 32(1)): \$495.00 Document preparation fee for lease: \$330.00 Licences Application fee for licence (s 46): \$495.00 General General consent for

			right to the land and members of the public cannot be excluded from licensed Crown land. Licence purposes may include conservation and coastal protection works. The term of the licence is usually 12 months but cannot exceed 10 years; and rent is usually an annual licence fee. The Minister is also empowered to grant consent to a person to conduct an activity on any Crown land, not being an activity that should, in the opinion of the Minister, require a lease or licence under the Act. (s 56A(1))		activities on Crown Land, other than under a lease or licence (s 56A(1)): not defined. Source
Private land.	Access to land, demolition and/or construction on private land will require consent from private landowner	Will generally require a contract		Private landowner	
Native Title	Construction and demolition on Country may affect native title rights.	Native Title Act 1993 (Cth)	Native Title Act 1993 (Cth) Establishes the 'future act' regime (s 233). Agreement with native title holders (and registered claimants?) is required for future acts (such as issuing government approvals) that would affect native title rights in land or waters, under the "right to negotiate" procedure; or a court determination is required; or an	Registered Native Title Body Corporate/Presc ribed Body Corporate	

				Indigenous Land Use Agreement (ILUA) is required.		
Heritage Protection	Aboriginal Heritage	Disturbing, damaging or interfering with an Aboriginal site or object of significance	Aboriginal Heritage Act 1988 (SA)	Section 23 – it is an offence to disturb, damage or interfere with an Aboriginal site or object of significance according to Aboriginal tradition, without authorisation under s 23. Section 23 authorisation must be obtained from the Minister for Aboriginal Affairs and Reconciliation. In determining whether or not to issue authorisation, the Minister must consider the advice of the SAHC, traditional owners and other interested Aboriginal people. The Minister for Aboriginal Affairs and Reconciliation maintains a Register of Aboriginal Heritage. However, all Aboriginal heritage in SA is protected, whether listed on the register or not. A Recognised Aboriginal Representative Body (RARB) can enter into a local heritage agreement (LHA) to determine how heritage will be managed. If a LHA is approved by the Minister, the Minister must issue s 23 authorisation to deal with heritage in the way specified in the LHA. Currently there are no RARBs	Minister for Aboriginal Affairs and Reconciliation Attorney- General's Department, Aboriginal Affairs and Reconciliation	Authorisation Application for authority (s 23): \$299 No charge if there is an accompanying local heritage agreement. Source

			established in relation to coastal regions.		
Non-Aboriginal cultural heritage	Damaging or disturbing objects or places of National, State or local heritage significance	Heritage Places Act 1993 (SA) Planning, Development and Infrastructure Act 2016 (SA) Planning, Development and Infrastructure (General) Regulations 2017 Planning and Design Code Environment Protection and Biodiversity Conservation Act 1999 (Cth)	State Heritage Areas, Heritage Places and related Objects of State significance are protected under the Heritage Places Act 1993 (SA). Certain activities in relation to State Heritage Places designated as a place of geological, palaeontological or speleological significance; and in relation to geological, palaeontological or speleological specimens; and archaeological srefacts of heritage significance; are prohibited without a permit issued by the SA Heritage Council (ss 25-28). The South Australian Heritage Register contains information about places of heritage value in South Australia, including State Heritage Areas, State Heritage Places and related Objects of State significance. Section 67 of the Planning, Development and Infrastructure Act 2016 (SA) allows for the designation of places as places of local heritage value' ie 'Local Heritage Areas'. Part 11 of the Planning and Design Code designates places as 'places of local heritage value' for the purposes of s 67 of the PDI Act.	SA Heritage Council Minister for Climate, Environment and Water/ Heritage South Australia (situated within the Dept for Environment and Water) Commonwealth Minister for the Environment, Energy and Water	Application for a permit under Part 5 Division 1 of the Heritage Places Act 1993 (SA): \$196.00 Source

The PDI Act, Regulations and the
P&D Code protect State Heritage
Areas, State Heritage Places and
also Local Heritage Areas by
controlling activities such as the
demolition of buildings. There are
several Overlays in the P&D Code
that apply to the assessment of
development that may affect
heritage and character, including:
a State Heritage Area Overlay; a
State Heritage Place Overlay; a
Local Heritage Place Overlay; a
Historic Area Overlay to protect
Historic Conservation Zones and
the like, plus Contributory items
within them; a Character Area
Overlay to protect neighbourhood
character and streetscapes; and a
Historic Shipwrecks Overlay to
protect shipwrecks in South
Australian coastal waters.
The PDI Act, Regulations and P&D
Code provide for referrals to the
Minister responsible for the
administration of the Heritage
Places Act 1993 (SA) (currently the
Minister for Climate, Environment
and Water) if certain criteria are
met.
National heritage places and
Commonwealth heritage places are
protected under the <i>EPBC Act</i> 1999
(Cth).

TABLE 2: South Australia, Extracts from Selected Planning and Design Code Overlays relevant to tidal flow reintroduction

Planning and Design Code, Coastal Waters and Offshore Islands Zone Assessment Provisions (AP) relevant to tidal flow reintroduction in the Zone

Desired Outcome (DO)

- DO 1 Protection and enhancement of the natural marine and coastal environment and recognition of it as an important ecological, commercial, tourism and recreational resource and passage for safe watercraft navigation.
- DO 2 A limited number of small-scale, low-impact developments supporting conservation, navigation, science, recreation, tourism, aquaculture or carbon storage.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1	DTS/DPF 1.1
Small-scale, low-impact development for the purpose of conservation, navigation, science, recreation, tourism or aquaculture.	Development comprises one or more of the following: Advertisement Agricultural building Aquaculture Boat berth Campground Dwelling alterations or additions Farming Jetty Navigation structures, boat berth, pier, pontoon or similar structure Public amenities Renewable energy facility.
Environmental Protection	Tonomable onergy domy.
PO 3.1	DTS/DPF 3.1
Development is undertaken in a manner which minimises the potential for harm to the marine and coastal environment or to fisheries and aquaculture, including harm arising from actions that introduce a biosecurity risk.	None are applicable.
PO 3.2	DTS/DPF 3.2
Development avoids pollution (including turbidity and sedimentation), shading and effects on water flows harming the marine environment both inside and outside of the zone.	None are applicable.
PO 3.3	DTS/DPF 3.3
Development avoids important nesting or breeding areas and areas that are important for the movement/migration patterns of fauna.	None are applicable.

PO 3.4	DTS/DPF 3.4
Development avoids delicate or environmentally sensitive coastal areas and key habitat areas within and adjacent offshore islands such as sand dunes, cliff tops, estuaries, wetlands, mangroves and samphire areas.	None are applicable.
PO 3.5	DTS/DPF 3.5
Offshore development is sited to minimise potential impacts on, and to protect the integrity of, reserves under the <i>National Parks and Wildlife Act 1972</i> and the <i>Marine Parks Act 2007</i> .	Offshore development is located not less than 1km from the boundary of any reserve under the <i>National Parks and Wildlife Act 1972</i> , unless a lesser distance is agreed with the Minister responsible for that Act.

Planning and Design Code, Conservation Zone Assessment Provisions (AP) relevant to tidal flow reintroduction in the Zone **Desired Outcome (DO)** DO 1 The conservation and enhancement of the natural environment and natural ecological processes for their ability to reduce the effects of climate change, for their historic, scientific, landscape, habitat, biodiversity, carbon storage and cultural values and provision of opportunities for the public to experience these through low-impact recreational and tourism development. **Performance Outcome Deemed-to-Satisfy Criteria / Designated Performance Feature** Land Use DTS/DPF 1.1 PO 1.1 Development comprises one or more of the following: a) Advertisement Small-scale, low-impact land uses that provide for the conservation and protection of the area, while b) Camp ground allowing the public to experience these important environmental assets. c) Farming d) Public toilet DTS/DPF 1.2 PO 1.2 None are applicable. Development is primarily in the form of: a) directional, identification and/or interpretative advertisements and/or advertising hoardings for conservation management and tourist information purposes b) scientific monitoring structures or facilities a small-scale facility associated with the interpretation and appreciation of natural and cultural heritage such as public amenities, camping grounds, remote shelters or huts structures for conservation management purposes **Environmental Protection** PO 3.1 DTS/DPF 3.1 None are applicable. Development avoids important habitat, nesting or breeding areas or areas that are important for the movement/migration patterns of fauna.

PO 3.2	DTS/DPF 3.2
Development avoids seagrass, mangroves and saltmarshes for their biodiversity value and carbon storage potential.	None are applicable.
Built Form and Character	
PO 4.1	DTS/DPF 4.1
Development is sited and designed unobtrusively to minimise the visual impact on the natural environment by:	None are applicable.
 a) using low-reflective materials and finishes that blend with, and colours that complement, the surrounding landscape b) being located below hilltops and ridgelines c) being screened by existing vegetation. 	
PO 4.2	DTS/DPF 4.2
Development is sited and designed to minimise impacts on the natural environment by:	None are applicable.
a) containing construction and built form within a tightly defined site boundaryb) minimising the extent of earthworks.	
PO 4.4	DTS/DPF 4.4
Development does not obscure existing public views to landscape, river or seascape features and is not visibly prominent from key public vantage points, including public roads or car parking areas.	None are applicable.
Landscaping	
PO 7.1	DTS/DPF 7.1
Screening and planting are provided to buildings and structures and comprise locally indigenous species to enhance the natural environment.	None are applicable.

Planning and Design Code, Coastal Areas Overlay

Assessment Provisions (AP) relevant to shellfish reef restoration and tidal flow reintroduction in the Overlay

Desired Outcome (DO)

- DO 1 The natural coastal environment (including environmentally important features such as mangroves, wetlands, saltmarsh, sand dunes, cliff tops, native vegetation, wildlife habitat, shore and estuarine areas) is conserved and enhanced.
- DO 2 Provision is made for natural coastal processes; and recognition is given to current and future coastal hazards including sea level rise, flooding, erosion and dune drift to avoid the need, now and in the future, for public expenditure on protection of the environment and development.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Hazard Risk Minimisation	
PO 2.3	DTS/DPF 2.3
FO 2.3	None are applicable.
Development will not create or aggravate coastal erosion or require coast protection works that cause or aggravate coastal erosion.	
Coast Protection Works	
DO 2.4	DTS/DPF 3.1
PO 3.1	None are applicable.
Development avoids the need for coast protection works through measures such as setbacks to protect	
development from coastal erosion, sea or stormwater flooding, sand drift or other coastal processes.	
PO 3.2	DTS/DPF 3.2
PO 3.2	None are applicable.
Development does not compromise the structural integrity of any sea wall or levee bank or the ability to	
maintain, modify or upgrade any sea wall or levee bank.	
Environment Protection	
PO 44	DTS/DPF 4.1
PO 4.1	None are applicable.
Development will not unreasonably affect the marine and onshore coastal environment by pollution,	
erosion, damage or depletion of physical or biological resources; interference with natural coastal processes; or the introduction of and spread of marine pests or any other means.	
processes, or the introduction of and spread of marine pests of any other means.	

DO 4.0	DTS/DPF 4.2
PO 4.2	None are applicable.
Development avoids delicate or environmentally sensitive coastal areas such as sand dunes, cliff tops, estuaries, wetlands or substantially intact strata of native vegetation.	
DO 4.0	DTS/DPF 4.3
PO 4.3	None are applicable.
Development allows for ecological and natural landform adjustment to changing climatic conditions and sea levels, by allowing landward migration of dunes, coastal wetlands, mangrove and samphire areas.	
PO 14	DTS/DPF 4.4
PO 4.4	None are applicable.
Development avoids, or in built up areas minimises, impacts on important habitat areas that support the nesting, breeding and movement/migration patterns of fauna, including threatened shorebirds.	
	DTS/DPF 4.7
PO 4.7	Development does not involve the removal of shell grit or sand.
Development involving the removal of shell grit, cobbles or sand, other than for coastal protection works purposes, is not undertaken.	
Access	
PO 54	DTS/DPF 5.1
PO 5.1	None are applicable.
Development maintains or enhances appropriate public access to and along the foreshore.	
	DTS/DPF 5.4
PO 5.4	None are applicable.
Development on land adjoining a coastal reserve is sited and designed to be compatible with the purpose, management and amenity of the reserve and to prevent inappropriate access to or use of the reserve.	
	1

Desired Outcome (DO)	
DO 1 Protection of the Adelaide Dolphin Sanctuary dolphin population and their habitat.	
Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land use	
PO 1.1	DTS/DPF 1.1 None are applicable.
Development avoids or minimises harm to habitat, and the functioning of ecosystems that support the dolphin population.	
PO 1.2	DTS/DPF 1.2
Development does not result in the disruption of critical dolphin behaviours such as breeding, feeding, resting and movement.	None are applicable.

, marinas, pontoons), aquaculture, tourism, recreation and renewable energy
Deemed-to-Satisfy Criteria / Designated Performance Feature
DTS/DPF 1.1
None are applicable.

Planning and Design Code, Historic Shipwrecks Overlay Assessment Provisions (AP) relevant to shellfish restoration and tidal flow reintroduction in the Overlay	
Desired Outcome (DO)	
DO 1 Historic shipwrecks and historic relics are protected from encroaching development.	
Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Development is located and designed to avoid potential impacts on historic shipwrecks and historic relics.	DTS/DPF 1.1 Development involving impact to the surface or subsoil of land or sea/river floor is not located: a) seaward of the mean high water mark; or b) within 15m landward of the banks of the River Murray.

Planning and Design Code, Resource Extraction Zone Assessment Provisions (AP) relevant to tidal flow reintroduction in the Zone		
Desired Outcome (DO)		
DO 1 The provision and protection of land for the extraction, production or processing of a mineral, extractive or petroleum resource.		
Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature	
Land Use and Intensity		
PO 1.2 Remediation and rehabilitation is facilitated where resource extraction is no longer viable.	DTS/DPF 1.2 None are applicable.	
	DTS/DPF 1.3	
PO 1.3 Undeveloped resource areas accommodate a limited range of low-intensity activities to maintain access to future resources.	Development comprises one or more of the following land uses: a) Farming b) Horse keeping c) Horticulture	

Planning and Design Code, Regulated and Significant Tree Overlay Assessment Provisions (AP) relevant to tidal flow reintroduction in the Overlay **Desired Outcome (DO)** Conservation of regulated and significant trees to provide aesthetic and environmental benefits and mitigate tree loss. **Deemed-to-Satisfy Criteria / Designated Performance Feature Performance Outcome** Tree Retention and Health DTS/DPF 1.1 PO 1.1 None are applicable. Regulated trees are retained where they: a) make an important visual contribution to local character and amenity; b) are indigenous to the local area and listed under the National Parks and Wildlife Act 1972 as a rare or endangered native species: and / or c) provide an important habitat for native fauna. DTS/DPF 1.2 PO 1.2 None are applicable. Significant trees are retained where they: a) make an important contribution to the character or amenity of the local area; b) are indigenous to the local area and are listed under the National Parks and Wildlife Act 1972 as a rare or endangered native species; c) represent an important habitat for native fauna; d) are part of a wildlife corridor of a remnant area of native vegetation; e) are important to the maintenance of biodiversity in the local environment; and / or form a notable visual element to the landscape of the local area. DTS/DPF 1.3 PO 1.3 None are applicable. A tree damaging activity not in connection with other development satisfies (a) and (b): a) tree damaging activity is only undertaken to: remove a diseased tree where its life expectancy is short: mitigate an unacceptable risk to public or private safety due to limb drop or the like; rectify or prevent extensive damage to a building of value as comprising any of the following:

A. a Local Heritage Place;

B. a State Heritage Place; C. a substantial building of value; and there is no reasonable alternative to rectify or prevent such damage other than to undertake a tree damaging activity; iv. reduce an unacceptable hazard associated with a tree within 20m of an existing residential, tourist accommodation or other habitable building from bushfire; v. treat disease or otherwise in the general interests of the health of the tree; and / or vi. maintain the aesthetic appearance and structural integrity of the tree. b) in relation to a significant tree, tree-damaging activity is avoided unless all reasonable remedial	
b) in relation to a significant tree, tree-damaging activity is avoided unless all reasonable remedial treatments and measures have been determined to be ineffective.	
	DTS/DPF 1.4
PO 1.4	None are applicable.
A tree-damaging activity in connection with other development satisfies all the following:	
 a) it accommodates the reasonable development of land in accordance with the relevant zone or subzone where such development might not otherwise be possible b) in the case of a significant tree, all reasonable development options and design solutions have been considered to prevent substantial tree-damaging activity occurring 	
Ground work affecting trees	
PO 2.1	DTS/DPF 2.1 None are applicable.
Regulated and significant trees, including their root systems, are not unduly compromised by excavation and / or filling of land, or the sealing of surfaces within the vicinity of the tree to support their retention and health.	

Planning and Design Code, State Significant Native Vegetation Areas Overlay Assessment Provisions (AP) relevant to shellfish restoration and tidal flow reintroduction in the Overlay

Desired Outcome (DO)

DO 1 Protect, retain and restore significant areas of native vegetation.

Performance Outcome

Deemed-to-Satisfy Criteria / Designated Performance Feature

Environmental Protection

PO 1.1

Development enhances biodiversity and habitat values through revegetation and avoiding native vegetation clearance except to promote an appreciation and awareness of wildlife areas, including visitor parking and amenities, or for the administration and management of a reserve or park established for the protection and conservation of wildlife.

DTS/DPF 1.1

An application is accompanied by either (a) or (b):

- a) a declaration stating that the proposal will not, or would not, involve clearance of native vegetation under the *Native* Vegetation Act 1991, including any clearance that may occur:
 - a. in connection with a relevant access point and / or driveway
 - b. within 10m of a building (other than a residential building or tourist accommodation)
 - c. within 20m of a dwelling or addition to an existing dwelling for fire prevention and control
 - within 50m of residential or tourist accommodation in connection with a requirement under a relevant overlay to establish an asset protection zone in a bushfire prone area
- b) a report prepared in accordance with Regulation 18(2)(a) of the *Native Vegetation Regulations 2017* that confirms that the clearance is categorised as 'Level 1 clearance'.

Planning and Design Code, Hazards (Acid Sulfate Soils) Overlay Assessment Provisions (AP) relevant to tidal flow reintroduction in the Overlay

Desired Outcome (DO)

DO 1 Development is located and undertaken to minimise disturbance of potential or actual acid sulfate soils and / or the release of acid drainage.

Performance Outcome Deemed-to-Satisfy Criteria / Designated Performance F	
Land Use and Intensity	
PO 1.1	DTS/DPF 1.1
· ·	

Development that involves excavation or a change to a water table where potential or actual acid sulfate soils are present is undertaken to minimise soil disturbance or drainage; prevent or minimise oxidation; and contain and treat any acid drainage to prevent harm or damage to the environment, primary production, buildings, structures and infrastructure or public health.

Development does not involve or cause:

- a) excavation of land
- b) change to a water table.

Planning and Design Code, Prescribed Watercourses Overlay Assessment Provisions (AP) relevant to tidal flow reintroduction in the Overlay

Desired Outcome (DO)

DO 1 Prescribed watercourses are protected by ensuring the taking of water from such watercourses is avoided or is undertaken in a sustainable manner that maintains the health and natural flow paths of the watercourses.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.2	DTS/DPF 1.2
	None are applicable.
Development comprising the erection, construction, modification, enlargement or removal of a dam, wall or other structure that will collect or divert surface water flowing in a prescribed watercourse is undertaken in a manner that maintains the quality and quantity of flows required to meet the needs of the environment as well as downstream users	

Planning and Design Code, Hazards (Flooding) Overlay

Desired Outcome (DO)		
DO 1 Impacts on people, property, infrastructure and the environment from high flood risk are minimised by retaining areas free from development, and minimising intensification where development has occurred.		
Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature	
Land Use		
PO 2.1	DTS/DPF 2.1 None are applicable.	
Development sited and designed to minimise exposure of people and property to unacceptable flood risk.		
Flood Resilience		
PO 3.2	DTS/DPF 3.2 None are applicable.	
Development does not cause unacceptable impacts on any adjoining property by the diversion of flood waters or an increase in flood velocity or flood level.	тчото ате аррисаме.	
PO 3.3	DTS/DPF 3.3	
	None are applicable.	
Development does not impede the flow of floodwaters through the allotment or the surrounding land, or cause an unacceptable loss of flood storage.		
DO 0.4	DTS/DPF 3.4	
PO 3.4 Development avoids frequently flooded or high velocity areas, other than where it is part of a flood mitigation scheme to reduce flood impact.	Other than a recreation area, development is located outside of the 5% AEP principal flow path.	
Environmental Protection		
PO 4.2	DTS/DPF 4.2	
Development does not create or aggravate the potential for erosion or siltation or lead to the destruction of vegetation during a flood.	None are applicable.	

State Heritage Place Overlay

Assessment Provisions (AP) relevant to tidal flow reintroduction in the Overlay

Desired Outcome (DO)

Development maintains the heritage and cultural values of State Heritage Places through conservation, ongoing use and adaptive reuse consistent with Statements of Significance and other relevant documents prepared and published by the administrative unit of the Public Service that is responsible for assisting a Minister in the administration of the Heritage Places Act 1993.

Performance Outcome Deemed-to-Satisfy Criteria / Designated **Performance Feature Demolition** PO 6.1 DTS/DPF 6.1 State Heritage Places are not demolished, destroyed or removed in total or in part unless either of the following apply: None are applicable (a) the portion of the State Heritage Place to be demolished, destroyed or removed is excluded from the extent of listing that is of heritage value or (b) the structural condition of the State Heritage Place represents an unacceptable risk to public or private safety and results from actions and unforeseen events beyond the control of the owner and is irredeemably beyond repair.

State Heritage Area Overlay

Assessment Provisions (AP) relevant to tidal flow reintroduction in the Overlay

Desired Outcome (DO)

DO 1. Development maintains the heritage and cultural values of State Heritage Areas through conservation, ongoing use and adaptive reuse consistent with Statements of Significance and other relevant documents prepared and published by the administrative unit of the Public Service that is responsible for assisting a Minister in the administration of the Heritage Places Act 1993.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature	
Demolition		
PO 6.1	DTS/DPF 6.1	
Buildings and other features of identified heritage value within a State Heritage Area are not demolished, destroyed or removed in total or in part unless:	None are applicable	
(a) the portion of any building or other feature is determined to not contribute to the heritage value of the State Heritage Area		
or		
(b) the structural condition of the building represents an unacceptable risk to public or private safety and results from actions and unforeseen events beyond the control of the owner and is irredeemably beyond repair.		

Assessment Provisions (AP) relevant to tidal flow reintroduction in the Overlay				
ve reuse.				
Deemed-to-Satisfy Criteria / Designated Performance Feature				
DTS/DPF 6.2				
None are applicable				

Historic Area Overlay

Assessment Provisions (AP) relevant to tidal flow reintroduction in the Overlay

Desired Outcome (DO)

DO 1. Historic themes and characteristics are reinforced through conservation and contextually responsive development, design and adaptive reuse that responds to existing coherent patterns of land division, site configuration, streetscapes, building siting and built scale, form and features as exhibited in the Historic Area and expressed in the Historic Area Statement.

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Demolition	
PO 7.1	DTS/DPF 7.1
Buildings and structures, or features thereof, that demonstrate the historic characteristics as expressed in the Historic Area Statement are not demolished, unless:	None are applicable.
(a) the front elevation of the building has been substantially altered and cannot be reasonably restored in a manner consistent with the building's original style or	
(b) the structural integrity or safe condition of the original building is beyond reasonable repair.	
PO 7.2	DTS/DPF 7.2
Partial demolition of a building where that portion to be demolished does not contribute to the historic character of the streetscape.	None are applicable.
PO 7.3	DTS/DPF 7.3
Buildings or elements of buildings that do not conform with the values described in the Historic Area Statement may be demolished.	None are applicable.
Ruins	
PO 8.1	DTS/DPF 8.1
Development conserves and complements features and ruins associated with former activities of significance.	None are applicable.

Appendix H – Restoration of Tidal Flow, Tasmania

TIDAL FLOW REINTRODUCTION - TASMANIA

Activities undertaken as part of a tidal flow reintroduction project may be defined as 'development' or 'works' under the *Land Use Planning and Approvals Act 1993* (Tas) (**LUPAA**), and require assessment and approval by the relevant local planning authority and/or state government authority. Proposed restoration activities must comply with the objectives of Tasmania's Resource Management and Planning System (Sch 1, LUPAA), as well as the Environmental Management and Pollution Control System established by the *Environmental Management and Pollution Control Act 1993* (Tas) (**EMPCA**, Sch 1, Part 2).

Tasmania is in the final stages of implementing a state-wide Tasmanian Planning Scheme that consists of State Planning Provisions (SPP) applying zones and codes consistently across every local government area; regional land use strategies; and Local Provisions Schedules that may vary state planning arrangements in particular local government areas. Planning schemes are available and searchable through the online planning tool: www.iplan.tas.gov.au. Tasmania's planning arrangements, including strategies, zones, overlays and codes, may apply to proposed restoration projects depending on their location, characteristics and potential impacts. Some of the codes that are likely to apply and guide an assessment authority's decision to approve or reject a tidal flow project include the Natural Assets Code, Coastal Erosion Hazard Code, Coastal Inundation Hazard Code, Flood-Prone Areas Hazard Code and Landslip Hazard Code. Proposed projects must also comply with State Policies implemented under the *State Policies and Projects Act 1993* (s 14, SPPA), including the *Tasmanian State Coastal Policy 1996*.

The legal regime also provides for development applications to be referred, in specific circumstances, to government agencies or statutory authorities for advice or approval and, in some cases, for assessment and approval to be undertaken by the state Environment Protection Authority rather than a local government (see 'Authority/Planning Authority', below).

Types of development

The Tasmanian Planning Scheme categorises activities according to a list of 'Use Classes' (SPP 6.2). If an activity does not fit the description of a Use Class under the scheme, then it must be categorised into the most similar Use Class (SPP 6.2.4). Tidal flow reintroduction is not listed in a Use Class. The most similar Use Class is likely to be: *Natural and Cultural Values Management* (to protect, conserve or manage ecological systems, habitat). The relevant category for a tidal flow project will ultimately depend on the specific activities proposed in any given project and the interpretation adopted by the relevant planning authority.

All activities can be allocated (according to their Use Class) into one of four categories in the provisions of individual schemes:

- 5. no permit required, if the activity is listed in a scheme 'Use Table' as a use for which no permit is required, and the activity complies with all relevant standards in the scheme and is not otherwise required to have a permit (SPP 6.6). This is because activities classified as not requiring a permit will typically be straightforward, low-impact and low-risk, and compatible with the planning intentions for the area (s 10, Tasmanian Planning Scheme);
- 6. permitted, if the activity is either listed in a Use Table as one which must be permitted unconditionally or subject to conditions (SPP 6.7); or
- 7. discretionary, if a planning authority has a discretion to approve, approve with conditions, or reject the application (SPP 6.8); or
- 8. *prohibited*, if the activity is not specified as a use to which points 1, 2 or 3 apply (above), or is explicitly prohibited, or if it does not comply with a standard for meeting planning objectives set out in the scheme (either by way of a defined 'Acceptable Solution' or 'Performance Criterion') (SPP 6.9, cl 3.1 definitions).

If a proposed development to which the planning scheme applies is characterised as 'discretionary' under the Tasmanian Planning Scheme or an interim scheme, then it must be assessed and approved in one of three ways.

First, the proposed development may be assessed by the planning authority (the local council, or councils, responsible for the area in which the project is proposed to take place), to ensure that the project complies with the Tasmanian Planning Provisions, regional land use strategy and Local Provisions Schedules or Interim Planning Scheme (including that the activity meets the planning standard for the relevant Use Class in that location). The planning authority may be required to refer applications to undertake 'permitted' or 'discretionary' activities to the EPA, so that the EPA can decide whether it must assess the application under EMPCA (s 25(1)). If the EPA decides that it does not need to assess the activity (s 25(3)), the planning authority may assess and approve the application.

The second form of assessment arises if the planning authority refers a development application to the EPA and the EPA decides that it needs to assess the activity (s 25(2) and Sch 2 EMPCA). Following its assessment, the EPA may require the planning authority to refuse to grant the permit (s 25(5)(b) EMPCA), or impose certain conditions or restrictions on the activity (s 25(5)(a), (6) EMPCA). The planning authority must comply with directions from the EPA (s 25(8) EMPCA).

The third way that a proposed development may be assessed arises if the planning scheme does not apply. That is, if a proponent is proposing an activity that may impact on the environment but for which a permit is not required under LUPAA. In this scenario, the proponent must refer the proposed activity to the EPA Board for assessment (ss 27 EMPCA). The EPA Board may decide that the activity will not result in serious or material environmental harm and advise that an assessment under EMPCA is not required (s 27(4)). More likely, the EPA Board will assess the proposed activity under EMPCA, including for consistency with the Environmental Impact Assessment Principles (s 74 EMPCA). If the EPA Board determines that the activity should be approved, it will issue an Environment Protection Notice including any conditions or restrictions on the activity along with a statement of reasons for its decision (s 44 EMPCA).

Assessment Authority

Development assessments and approvals are typically carried out at the local government scale, with each local government responsible for undertaking assessments and rejecting or granting approvals for projects under the Tasmanian Planning Scheme or interim scheme ('planning authorities', s 10 LUPAA). However, some tidal reintroduction projects will be conducted in areas that are not covered by a planning scheme because they occur in State waters, so the relevant assessment and approval body for these projects will often be the Tasmanian EPA, under EMPCA.

In addition to assessment by the EPA and/or planning authority, an application may be referred to one or more other bodies/agencies for review, depending on the likely impacts of the project. Referral bodies may include the Threatened Species Section or Conservation Assessments Section of Natural Resources and Environment Tasmania, which is the state environment department (**NRE Tasmania**); the Heritage Council (under s 36(2) of the Historic Cultural Heritage Act 1995 (Tas)); Tasmania Parks and Wildlife if the application relates to reserved land; Aboriginal Heritage Tasmania (under the Aboriginal Cultural Heritage Act 1975 (Tas)); and/or Fishing Tasmania and the Marine Resources Projects Branch of NRE Tasmania.

Process

- Apply to local planning authority (likely to be referred to the EPA Board for review and may be assessed by EPA not local council).
- Proponent will likely need to provide an Environmental Effects Report in accordance with the EPA's Guidelines 2021 (the 'EPA Guidelines').
- A draft Environmental Effects Report may need to be submitted to the EPA Board for review against the Guidelines before being finalised, resubmitted, and accepted by the EPA Board.
- Once accepted, an Environmental Effects Report will be published by the EPA Board for public inspection and comment for a period of 28 days and referred to relevant government agencies before a final decision is made.

Exceptions to planning approval

Although most tidal reintroduction works will require a permit under the LUPAA, the State Planning Provisions (SPPs) and certain provisions of the LUPAA exclude a range of uses and developments from this requirement where they meet specific criteria.

Under s 60A(1) of the LUPAA and 4.2.1 of the SPPs, if a permit for dam works, within the meaning of the Water Management Act 1999, is in force under that Act, a planning permit for those works will not be required.

Under the Water Management Act, a permit is required to undertake any dam works (s 143). Dam works is defined to mean any works for the construction, erection, enlargement, modification, repair or removal of a dam, or for the conversion of land to a dam or any work on any dam which may significantly increase the dam's safety risk (s 3). Works includes a drain, outfall, bridge, culvert, channel, or dam (including associated infrastructure). Dam means a permanent or temporary barrier or structure that stores, holds back or impedes the flow of water and includes:

- (a) any spillway or similar works for passing water around or over the barrier or structure; and
- (b) a pipe or other works for passing water through or over the barrier or structure; and
- (c) water stored or held back by the barrier or structure and the area covered by that water; and
- (d) an artificial depression or hole excavated in a watercourse that holds water or impedes the flow of water; and
- (e) an artificial levee or bank that holds back or diverts water in a watercourse.

Given the broad definition of dam, which is likely to include most tidal flow restriction mechanisms, activities undertaken to remove tidal flow restrictions are likely to require a permit under the Water Management Act. On this basis, a planning permit will not be required for these activities if a dam works permit is granted.

4.4.1 of the SPPs also exempts an activity from requiring planning approval where it involves the clearance and conversion of a threatened native vegetation community, or the disturbance of a vegetation community, in accordance with a forest practices plan certified under the Forest Practices Act

1985, unless for the construction of a building or the carrying out of any associated development. And at 4.4.3, for the the planting, clearing or modification of vegetation for the implementation of a vegetation management agreement or a natural resource, catchment, coastal, reserve or property management plan or the like, provided the agreement or plan has been endorsed or approved by the relevant State authority or a council.

Although these exceptions may apply to certain aspects of a tidal reintroduction project, the exemptions only apply to the specific vegetation related activities and do not exempt other parts of the project (eg removing a bund) from requiring consent.

Furthermore, in accordance with 4.0.3 of the SPPs, no development relying on these exclusions is exempt from the planning scheme if it is to be undertaken on actively mobile landforms as referred to in clause 1.4 of the Tasmanian State Coastal Policy 1996. Actively mobile landforms have not been defined other than to include frontal dunes. Any development on actively mobile landforms in the coastal zone must comply with the requirements of the Coastal Erosion Hazard Code which includes a range of Performance Criteria in place to ensure that developments that present risks of coastal erosion are managed in a way to reduce the risks to people and surrounding area and infrastructure.

Activity	Specificity	Risks/Need	Applicable Legislation	Detail	Responsible Authority	Fees
Removal of barriers/me chanisms that restrict tidal flow	General considerations	Building and planning approval may be required to remove mechanisms that restrict tidal flow	Building Act 2016 (Tas) Director's Determination Categories of Building and Demolition Work ('CBDW') Land Use Planning and Approvals Act 1993 (Tas) Tasmanian Planning Scheme — State Planning Provisions	Building Approval The Building Act regulates building, plumbing and demolition work in Tasmania. S 3: Building work includes work consisting of or relating to erecting, re-erecting, constructing, altering, repairing, underpinning, demolishing or removing a building and excavating, or filling, that is incidental to that activity. Building includes a structure. Function or powers exercised under the Act may be exercised in respect of any accretion from the sea, any part of the seashore to the low-water mark, any bridge, jetty, wharf, boat-house or other structure, and any area of the sea in, on, over or under which any building or building work is related to, or affects, any adjacent land (s 10). Work under the Building Act is regulated in accordance with the risk level of the proposed activity. Low-risk work can generally be carried out by the land owner. Medium-risk (notifiable work) must be designed by a designer, performed by a suitably licensed person, and inspected and issued with a certificate of likely compliance by a building surveyor (s 117,119). High-risk work (permit work) must be performed by a suitably licensed person, inspected by and issued with a certificate of likely compliance by a building surveyor, and be approved by a building permit (s 180, 190). Director determinations provide additional information and requirements for particular elements of the Building Act,	Director of Building Control or an appointed permit authority. Local government	Building Approval Building administration fee for work costing over \$20,000: 0.1% of estimated cost of work (s 296 Building Act). Industry Training Levy for all work costing over \$20,000: 0.2% of estimated cost of work. Source Building permit fees determined individually by each local council. Planning approval Fees are currently determined independently by each local council.

If assessed	Environmental	including the risk categories for different types of work (s 20). Building work that would otherwise be low-risk, that is within a Bushfire, Landslip, Coastal Inundation, Coastal Erosion or Riverine Inundation hazard area will be medium-risk (notifiable work) (CBDW pg 54) Planning Approval A person must not commence any use or development which, under the provisions of a planning scheme, requires a permit, unless such a permit has been granted (s 51(1). S 3: use includes the manner of utilising land but does not include undertaking a development. Development includes— (a) the construction, exterior alteration or exterior decoration of a building, (b) the demolition or removal of a building or works, and (c) the construction or carrying out of works. Building includes a structure and works includes any change to the natural or existing condition or topography of land. The Act and the accompanying planning scheme apply to (a) any accretion from the sea, (b) any part of the sea-shore to the low-water mark adjoining its municipal district, (c) all bridges, jetties, wharves, boat-houses and other structures partly within its municipal district and partly in or over the sea adjacent to its municipal district, and (d) any area of the sea directly adjoining its municipal district in, on, over or under which any use or development is related to (s 7). Barriers that restrict tidal flow may fall within the definition of structures or works and may therefore be a development. For planning approval, if a project is assessed by the EPA	EPA Board	Fee for issue and
under EMPC	Management	Board (rather than the local council), the EPA may issue an		service of

Act by the EPA – An Environment Protection Notice may be required in place of a development permit	and Pollution Control Act 1994 (Tas) ('EMPC Act').	environment protection notice, imposing conditions or restrictions on the way that the project is implemented (ss 27, 44(1A)), including to protect and enhance the quality of the environment and to prevent environmental harm and pollution (Sch 1, Part 2). NOTE: within 12 months, a person with a LUPAA permit or an EP notice under s 27(6)(a) may apply for a determination of the EPA Board that the activity is a low-risk activity (r 10, EMPC Regs)		environmental protection notice: \$445 (250 fee units) Source
Removing a tidal flow barrier may require consent for dam works	Water Management Act 1999 (Tas)	It is an offence to undertake dam works without a permit (s 143). Dam works includes the modification or removal of a dam (s 3). Dam includes a barrier or structure that holds back or impedes the flow of water (s 3). A permit will therefore be required prior to removing a tidal flow barrier.	Natural Resources and Environment Tasmania: Primary Industries and Water	Permit fee: \$678.18 (381 fee units) plus: \$96.12 (54 fee units) for each hour spent in processing the application (excluding the first 7 hours); and \$380.92 (214 fee units) for a notice under section 145 of the Act.
Certain relevant activities prohibited on Crown Land without lawful authority	Crown Lands Act 1976 (Tas) Tasmanian Coastal Works Manual (Tas Gov 2010)	Land that is vested in the Crown (including land that is 'partly or wholly covered by the sea or other waters', s 2) is the property of the State and no person may on Crown Land, 'without lawful authority': • use or occupy the land; • erect any structure; • cut, dig, or take therefrom any timber, wood, gravel, stone, limestone, salt, guano, shells, sand, loam, brick-earth, or any other natural substance whatever; or • cut, remove, take, or damage any trees or vegetation thereon (s 46(1)).	Natural Resources and Environment Tasmania: Parks	Lease application fee - \$1,174.80 Licence application fee - access only - no fee Licence application fee - general purpose - \$284.80

	Decking	Typically, all land below the high-water mark belongs to the Crown. On this basis, most tidal flow reintroduction works will require "lawful authority", regardless of whether the surrounding land above the high-water mark is privately or publicly owned. Minister may grant licence to remove natural materials from Crown land (s 40(1)). Crown land may be leased (s 29 and see s 53 for reclaimed shore/sea land below the high-water mark). A lease issued under s 53 for land that is reclaimed from 'below the level of high water that forms [all or part of the] shore, [seabed] or other Crown land' must be accompanied by a licence for that reclamation that includes a prohibition on public 'navigation in and near the waters thereby affected; and fishing therein' (s 53(2) & (3)). If a proponent needs to maintain control over the tidal flow reintroduction works for a long period of time (such as for the purposes of the ERF), a lease may be preferrable.	Source
Breaking a bund (part of a seawall to allow tidal flow) made of a combination of rock, aggregate and/or sand, or concrete	Breaking a seawall may require building and planning approval	Building Approval Breaking a seawall is likely to be considered as demolishing or removing a structure and will therefore constitute building works. Risk classification (to determine application regulations) may be: Low risk: Marine structures (Includes wharves, jetties, marinas, breakwaters or pontoons) (CBDW 1.5.4). Medium risk (notifiable): total demolition of class 10 structures, any other non-inhabitable class 10 structure (CBDW 3.2.2, 3.5.2). High risk (permit work): Any building work that doesn't fit into one of the other categories.	Building Approval Building administration fee for work costing over \$20,000: 0.1% of estimated cost of work (s 296 Building Act). Industry Training Levy for all work costing over \$20,000: 0.2% of estimated cost of work.

		Planning Approval Breaking a seawall is likely to be considered as the demolition or removal of a structure and therefore a development. A development permit will be required unless an exception applies to the proposed development.	Building permit fees determined individually by each local council. Planning approval Fees are currently determined independently by each local council
Breaking a bund/dune made from soil or sand. This is not a constructed barrier but natural buildup	Breaking a bund/dune may require building and planning approval	Building Approval Breaking a natural barrier may be considered as demolishing or removing a structure and therefore building works. However, Building Act centred around artificially constructed buildings and the Building Code. Query whether a natural barrier may not fall within the definition of a structure. Planning Approval Development includes the carrying out of works. Works includes any change to the natural or existing condition or topography of land. Breaking a natural barrier will therefore be a development.	As above.
Removing built up/constructed tracks (eg constructed of soil/shell/rock) through a creek on farmland, to reintroduce flows in the creek	Removing a track may require building and planning approval	Building Approval Removing a natural barrier may be considered as demolishing or removing a structure and therefore building works. However, Building Act centred around artificially constructed buildings and the Building Code. Query whether a natural barrier may not fall within the definition of a structure. Planning Approval Development includes the carrying out of works. Works includes any change to the natural or existing condition or	As above.

				topography of land. Breaking a natural barrier will therefore be a development.		
	Breaking a tidal flow barrier on reserved land	Certain relevant activities prohibited on reserved land without authority	National Parks and Reserves Management Act 2002 (Tas) ('NPRM Act') National Parks and Reserves Management Regulations 2019 (Tas)	Regulation 5: A person must not on any reserved land: • dam up, divert or pollute any water on or under the surface of land; • interfere with, dig up, cut up, collect or remove any sand, gravel, clay, rock or mineral or any timber, firewood, humus or other natural substance; or • erect, place or modify any building or structure. The managing authority may grant an authority in relation to the reserved land or a specific person, permitting activities that would otherwise constitute an offence (Reg 28). Authority can be assumed where activity is expressly permitted under a management plan for the land (Reg 26(2)).	Natural Resources and Environment Tasmania: Parks	Unable to locate prescribed fee or application process.
Construction	General considerations	Building and planning approval may be required to construct tidal flow related structures	Building Act 2016 (Tas) Director's Determination Categories of Building and Demolition Work ('CBDW') Land Use Planning and Approvals Act 1993 (Tas) Tasmanian Planning Scheme — State Planning Provisions	Building and Planning Approval The construction of works to reintroduce tidal flows (such as culverts) will usually constitute the construction of a building or structure and will therefore be both building work and a development.	Director of Building Control or an appointed permit authority. Local government	Building Approval Building administration fee for work costing over \$20,000: 0.1% of estimated cost of work (s 296 Building Act). Industry Training Levy for all work costing over \$20,000: 0.2% of estimated cost of work. Source Building permit fees determined individually by

Construction of a tidal flow related structure may require consent for dam works	Water Management Act 1999 (Tas)	It is an offence to undertake dam works without a permit (s 143). Dam works includes the modification or removal of a dam (s 3). Dam includes a barrier or structure that holds back or impedes the flow of water (s 3). A permit will therefore be required prior to constructing a culvert, or modifying any tidal restriction mechanism to allow tidal flow.	Natural Resources and Environment Tasmania: Primary Industries and Water	each local council. Planning approval Fees are currently determined independently by each local council. Permit fee: \$678.18 (381 fee units) plus: \$96.12 (54 fee units) for each hour spent in processing the application (excluding the first 7 hours); and \$380.92 (214 fee units) for a notice under section 145 of the Act.
Licence and lease required to undertake activity on Crown Land	Crown Lands Act 1976 (Tas) Tasmanian Coastal Works Manual (Tas Gov 2010)	Constructing a tidal flow related structure will likely affect Crown Land (if below high-water mark) and therefore require 'lawful authority' (s 46(1)). Crown land may be leased (s 29 and see s 53 for reclaimed shore/sea land below the high-water mark) or licensed (s 42). If a proponent needs to maintain control over the tidal flow reintroduction works for a long period of time (such as for the purposes of the ERF), a lease may be preferrable.	Natural Resources and Environment Tasmania: Parks	Lease application fee - \$1,174.80 Licence application fee - access only - no fee Licence application fee - general purpose -

			* Any infrastructure proposed to be installed on the Tasmanian coastline should be consistent with the Tasmanian Coastal Works Manual: A Best Practice Management Guide for Changing Coastlines, including planning to address the risks of future sea level rise.		Source
Constructing a culvert under a public road to allow tide to flow. May be constructed from a pipe, reinforced concrete or other material.	Constructing a culvert under a public road may require building and planning approval		Building Approval Construction of a culvert will be considered building works. S 73(1): A person must not perform any building work over an existing drain or within one metre from the edge of an existing drain measured horizontally, unless the owner of the building obtains written consent from the general manager of the council for the municipal area where the work is performed. Planning Approval Construction of a culvert will be considered a development. 52(1B): If land in respect of which an application for a permit is required is Crown land, is owned by a council or is administered or owned by the Crown or a council and a planning scheme does not provide otherwise, the application must: (a) be signed by the Minister of the Crown responsible for the administration of the land or by the general manager of the council; and (b) be accompanied by the written permission of that Minister or general manager to the making of the application.		Fees as above (for building and planning)
	Proponent may need to work with local council to ensure it does not breach the Roads and Jetties Act	Roads and Jetties Act 1935 (Tas)	No person shall make any drain, sink, or watercourse upon or across any road (s 49(1)(c)). A person must not, intentionally or recklessly, damage a road, bridge or jetty (s 50(2)). A person must not make any excavation, vault or cellar beneath a street in a town without the consent of the appropriate council (s 50B). Road is a public highway and includes (e) a bridge or tunnel and (j) a culvert (s 3).	Local government	n/a

Constructing a culvert (pipe) under ungraded tracks on private land on a farm (the tracks built across a creek block water flow in the creek).	Constructing a culvert on private land may require building and planning approval	Building and Planning Approval The construction of a culvert will constitute the construction of a building or structure and will therefore be both building work and a development.	Fees as above (building)
Construction of a gate to close and block water flow back out to sea, to control pollution. [If saline water comes into areas that have dried out and become acidic, then acid sulphates become mobile when sea water enters again and can flow to sea.]	Constructing a gate may require building and planning approval	Building and Planning Approval The construction of a gate to control the flow of water will likely constitute the construction of a building or structure and will therefore be both building work and a development.	Fees as above (building and planning)
Demolition of bunds may require construction to reinforce the remaining	Reinforcing a seawall may require building and planning approval	Building and Planning Approval Construction of parts of a seawall will likely constitute the construction, alteration or repair of a building or structure and will therefore be building work. Constructing parts of a seawall is also likely to be a development.	Fees as above (building and planning)

	seawall (or to change the structure) Constructing or modifying a tidal flow barrier on reserved land.	Certain relevant activities prohibited on reserved land without authority	National Parks and Reserves Management Act 2002 (Tas) ('NPRM Act') National Parks and Reserves Management Regulations 2019 (Tas)	Regulation 5: A person must not on any reserved land: • dam up, divert or pollute any water on or under the surface of land; • interfere with, dig up, cut up, collect or remove any sand, gravel, clay, rock or mineral or any timber, firewood, humus or other natural substance; or • erect, place or modify any building or structure. The managing authority may grant an authority in relation to reserved land or a specific person, permitting activities that would otherwise constitute an offence (Reg 28). Authority can be assumed where activity is expressly permitted under the relevant management plan for the land (Reg 26(2)).	Natural Resources and Environment Tasmania: Parks	Prescribed fee and application process, unclear
Acid sulfates in the environment	Acid sulfate may be defined as 'pollution'	Proponent must ensure acid sulfates are not released in a way that breaches the EMPC Act	Environmental Management and Pollution Control Act 1994 (Tas) ('EMPC Act')	The release of acid sulphates will be subject to the general environmental duty under the EMPCA which provides that a person must take such steps as are practicable or reasonable to prevent or minimise environmental harm or environmental nuisance caused, or likely to be caused, by an activity conducted by that person (s 23A(1)).	Natural Resources and Environment Tasmania: Environment and Climate Change	n/a
	Acid sulfates may affect protected flora, fauna and environments	Approval may be required if likely to have significant impact on MNES	Environment Protection and Biodiversity Conservation Act 1999 (Tas) ('EPBC Act')	Approval is required under the EPBC Act if an action has, will have, or is likely to have, a significant impact on a matter of national environmental significance ('MNES') as defined in the EPBC Act, including a Commonwealth marine area, wetland of international importance, and a listed threatened species. Actions undertaken to reintroduce tidal flows that may disturb and release acid sulfates may require referral and approval under the EPBC Act.	Minister for Energy and Environment/ Commonwealth Department for Climate Change, Energy, environment and Water (DCCEW)	Referral Initial Referral fee: \$6,577 Assessment Fees per assessment approach: Assessments on referral information: \$8,964.

		Exemption or	Living Marine	A person must not carry out any activity which is likely to	Natural	Assessments on preliminary documentation: \$8,010. Assessments by public environment report or environmental impact: \$25,583. Assessments by bilateral agreement or accredited process: \$18,146. Fees Subject to increase based on complexity of project. Source Fees calculated
		permit may be required if likely to have a serious effect on the marine	Resources Management Act 1995 (Tas)	have a serious effect on the marine environment and involves or results in the discharge, release or deposit of any matter in any State waters (s 138). Minister may exempt a person from a provision of the Act (s	Resources and Environment Tasmania: Primary Industries and	during assessment of application Source
		environment		11) or issue a permit to take an action that would otherwise contravene the Act (s 12).	Water	
Other Environmen tal Impacts	General considerations	Approval may be required if likely to have significant impact on MNES	Environment Protection and Biodiversity Conservation Act 1999 (Tas) (EPBC Act)	Approval is required under the EPBC Act if an action has, will have, or is likely to have, a significant impact on a matter of national environmental significance (MNES) as defined in the EPBC Act, including a Commonwealth marine area, wetland of international importance, and a listed threatened species.	Minister for Energy and Environment/ Commonwealth Department for Climate Change,	Prescribed fee as above (referral and assessment)

			Actions undertaken to reintroduce tidal flows that may have a significant impact on a MNES may require referral and approval under the EPBC Act.	Energy, environment and Water (DCCEW)	
and fauna	Permit required to interfere with listed wildlife	Nature Conservation Act 2002 (Tas) Nature Conservation (Wildlife) Regulations 2021 (Tas)	A person must not take or possess specially protected, partly protected, or protected wildlife (any living creature other than fish s 3) without a licence or permit (reg 16-19). However, prohibition does not apply to wildlife taken in the course of clearing native vegetation in accordance with a certified forest practices plan (<i>Forest Practices Act 1985</i>), or undertaking dam works under a permit for dam works (<i>Water management Act 1999</i>). Taking wildlife includes killing, destroying, hunting, pursuing, catching, shooting, netting, snaring or injuring wildlife (s 2). Secretary may grant a permit authorising the taking of wildlife that would otherwise be prohibited under the act (s 29). However, permit will not be granted for private land without the consent of the owner or for reserved land without the consent of the relevant authority, and provided that the permit would not be inconsistent with any management plan for the area (s 29). Schedules 3-8 of the Regulations set out protected wildlife.	Natural Resources and Environment Tasmania: Primary Industries and Water	Permit currently no fee. Source
	Permit required to interfere with listed wildlife	Threatened Species Protection Act 1995 (Tas)	A permit is required to 'take, keepor process' any listed flora or fauna (including marine mammals, fishes and marine plants), or to disturb any listed flora or fauna that is the subject of an interim protection order, covenant or land management agreement (s 51).	Natural Resources and Environment Tasmania: Environment and Climate Change	Prescribed fee unclear
	Permit, exemption or licence required to interfere with animals and	Living Marine Resources Management Act 1995 (Tas)	A person must not, in State Waters, take fish (includes marine plants) without a licence, other than for, among other things, recreational purpose (s 60). Take includes to capture, carry away, catch, collect, destroy, dredge or fish for, gather, kill, raise, remove or in any other way obtain the	Natural Resources and Environment Tasmania: Primary	Fishing licence (marine plant) Grant - \$712 (400 fee units) Source

marine plants in State Waters	Fisheries (Marine Plant) Rules 2017	fish (whether from water, land under water or the foreshore) (s 3). A person must not take a native marine plant that is attached to the seabed or other substrate (Marine Plant Rules r 25). Minister may declare a species of fish (includes marine plants) to be protected and no person may take a protected fish (s 135). Minister may exempt a person from a provision of the Act (s 11), issue a permit to take an action that would otherwise contravene the Act (s 12), or the proponent can apply for a fishing licence (s 77).	Industries and Water	General permit/exemption: fees calculated during assessment of application Source
A Ministerial authorisation may be required to enter, remain and do anything in an area of water 'relating to a fish habitat'	Living Marine Resources Management Act 1995 (Tas)	A person must not 'put any litter, soil, noxious matter, refuse or other matter on any land or in any water relating to a fish habitat' (s 136). The Minister may require fish habitat to be reinstated if actions contravening s 136 result in obstructing a fishery or having an adverse effect on the quality and integrity of a fish habitat (s 136). However, s 136(4) states that it is a defence if the person undertook the relevant activity 'with lawful authority'. A permit under s 12 (see above) may provide that lawful authority, as long as the relevant activity, which is otherwise prohibited by s 136, is explicitly authorised in the permit conditions.	Natural Resources and Environment Tasmania: Primary Industries and Water	Calculated during assessment of application. Source
If on reserved land - authority may be required to interfere with plants and substrate	National Parks and Reserves Management Act 2002 (Tas) ('NPRM Act') National Parks and Reserves Management Regulations 2019 (Tas)	A person must not cut down a tree, or damage or otherwise destroy a tree or a fallen tree, that is on reserved land without the approval of the managing authority (s 36). Regulation 5: A person must not on any reserved land: • take a growing or standing plant; • dam up, divert or pollute any water on or under the surface of land; • interfere with, dig up, cut up, collect or remove any sand, gravel, clay, rock or mineral or any timber, firewood, humus or other natural substance; or	Natural Resources and Environment Tasmania: Parks	Prescribed fee and application process, unclear.

T				,
		 erect, place or modify any building or structure. 		
		Regulation 7: A person must not on reserved land, take, possess, interfere with the nest, breeding place or habitation of, or rouse or disturb any wildlife (any living creature other than fish (s 3))		
		The managing authority may grant an authority in relation to reserved land or a specific person, permitting activities that would otherwise constitute an offence (Reg 28). Authority can be assumed where activity is expressly permitted under the relevant management plan for the land (Reg 26(2)).		
Lease or licence required to interfere with substrate and vegetation on Crown Land	Crown Lands Act 1976 (Tas)	the relevant management plan for the land (Reg 26(2)). Land that is vested in the Crown (including land that is 'partly or wholly covered by the sea or other waters', s 2) is the property of the State and no person may, without lawful authority: • cut, dig, or take therefrom any timber, wood, gravel, stone, limestone, salt, guano, shells, sand, loam, brick-earth, or any other natural substance whatever; or • cut, remove, take, or damage any trees or vegetation thereon (s 46(1)). Minister may grant licence to remove natural materials (s 40(1)) or to take marine plants (s 41(1)) from Crown land. Crown land may be leased (s 29 and see s 53 for reclaimed shore/sea land below the high-water mark). A lease issued under s 53 for land that is reclaimed from 'below the level of high water that forms [all or part of the] shore, [seabed] or other Crown land' must be accompanied by a licence for that reclamation that includes a prohibition on public 'navigation in and near the waters thereby affected; and fishing therein' (s 53(2) & (3)).	Natural Resources and Environment Tasmania: Parks	Lease application fee - \$1,174.80 Licence application fee - access only - no fee Licence application fee - general purpose - \$284.80 Source
		If the land is reserve land and subject to a management plan, the Minister must ensure that the use of the land under a licence or lease is consistent with the management plan (s 40(2)) and under a management plan for the		

	Forest practices plan required to remove threatened native vegetation	Forest Practices Act 1985 (Tas) Nature Conservation Act 2002 (Tas)	reserve, consistent with the statutory management objectives for that class of reserve (s 48(5), Sch 1 NPRM Act), and with the Reserve Management Code of Practice (Tas Govt 2003). Must not carry out, or cause or allow the carrying out of the clearing of trees or the clearance and conversion (includes removing vegetation and replacing with another) of a threatened native vegetation community, unless carried out under a certified forest practices plan. Removal of vegetation includes by drowning or uprooting (s 3(3)). Threatened native vegetation communities are listed in Schedule 3A of the Nature Conservation Act (eg. riparian vegetation, wetlands, salt marsh).	Natural Resources and Environment Tasmania: Resources	Varies by complexity of plan. Lowest: \$92.56 (52 fee units) Highest: \$913.14 (513 fee units) or \$53.4 (30 fee units) per hectare of land covered.
	Assessment considerations		If the project will affect the habitat of any state-listed threatened species or ecological communities (assessment must be consistent with the Guidelines for Natural Values Surveys – Estuarine and Marine Development Proposals (Natural and Cultural Heritage Division, DPIPWE, 2020) and the Guidelines for Natural Values Surveys - Terrestrial Development Proposals (Natural and Cultural Heritage Division, DPIPWE, 2015))		Source n/a
Tidal flows may affect the environment of a marine park	May need exemption for any detrimental effect on a marine resources protected area, or for a serious effect on any marine environment	Living Marine Resources Management Act 1995 (Tas)	If the tidal reintroduction occurs in a marine resources protected area, must not engage in any activity which is likely to have a detrimental effect on its environment without approval or in accordance with a relevant management plan (s 131). A person must not carry out any activity which is likely to have a serious effect on the marine environment and involves or results in— (a) the disturbance of the bed of any State waters; or (b) the removal of, or interference with, fish or marine or benthic flora or fauna in any State waters; or	Natural Resources and Environment Tasmania: Primary Industries and Water	Prescribed fee and application process, unclear.

	Tidal flows may affect an existing river mouth, river, lake or wetland	Must ensure project does not cause serious or material environmental harm to watercourse	Water Management Act 1999 (Tas)	(c) the discharge, release or deposit of any matter in any State waters (s 138). Minister may exempt a person from a provision of the Act (s 11) or issue a permit to take an action that would otherwise contravene the Act (s 12). Person must not take water from a watercourse, lake or well if the taking would cause, either directly or indirectly, material environmental harm or serious environmental harm (s 51). "Take" includes most relevantly, diverting the flow of water in a watercourse from the watercourse or releasing water from a lake (s 3).	Natural Resources and Environment Tasmania: Primary Industries and Water	n/a
	Altering tidal flows may affect water rights of other landowners	Must ensure project does not affect water rights of other landowners	Water Management Act 1999 (Tas)	The Minister may, by order, declare that the taking of water in any tidal area (area below mean high-water mark) is subject to this Act (s 5A). Must not take water from a watercourse or lake if doing so would detrimentally affect the ability of a landowner with rights to use the water, from doing so (s 52). "Take" includes diverting the flow of water in a watercourse from the watercourse or releasing water from a lake (s 3).	Natural Resources and Environment Tasmania: Primary Industries and Water	n/a
Land Tenure/ Access	If the proposed access site is reserved land	Certain relevant activities prohibited on reserved land without authority	National Parks and Reserves Management Act 2002 (Tas) ('NPRM Act') Relevant reserve management plan Reserve Management Code of Practice	The Minister may grant a lease or, or licence to occupy reserved land that is Crown land (s 48 NPRM Act). A lease for more than 3 years may need to be registered under the Land Titles Act 1980 (Tas) s 64. A lease or licence cannot be granted to erect a building or structure on certain conservation tenures unless the building/structure is permitted under a management plan for the reserve, consistent with the statutory management objectives for that class of reserve (s 48(5), Sch 1 NPRM Act), and with the Reserve Management Code of Practice (Tas Govt 2003). Access must be consistent with or authorised by an approved management plan for the site (s 35 NPRM Act).	Tasmania Parks and Wildlife NRE Tasmania Crown Land Services, Department of State Growth	NPRM Act (Reserve Land): Lease application fee - \$1,292.28 Licence application fee - access only - \$323.07 Licence application fee - general purpose - \$802.78

		Crown Lands			Source
		Act 1976 (Tas)			<u> </u>
		Land Titles Act 1980 (Tas)			
Access to Crown land	Certain relevant activities prohibited on reserved land without authority	Crown Lands Act 1976 (Tas) Tasmanian Coastal Works Manual (Tas Gov 2010) National Parks and Reserves Management Act 2002 (Tas) ('NPRM Act')	Land that is vested in the Crown (including land that is 'partly or wholly covered by the sea or other waters', s 2) is the property of the State and no person may use or occupy Crown land or erect any structure on Crown land without 'lawful authority' (s 46(1)). Typically, all land below the high-water mark belongs to the Crown. On this basis, most tidal flow reintroduction works will require "lawful authority", regardless of whether the surrounding land above the high-water mark is privately or publicly owned. Minister may grant licence to remove natural materials (s 40(1)) or to take marine plants (s 41(1)) from Crown land. Crown land may be leased (s 29 and see s 53 for reclaimed shore/sea land below the high-water mark). A lease issued under s 53 for land that is reclaimed from 'below the level of high water that forms [all or part of the] shore, [seabed] or other Crown land' must be accompanied by a licence for that reclamation that includes a prohibition on public 'navigation in and near the waters thereby affected; and fishing therein' (s 53(2) & (3)). If the land is reserve land and subject to a management plan, the Minister must ensure that the use of the land under a licence or lease is consistent with the management plan (s 40(2) <i>Crown Lands Act</i>) and under a management plan for the reserve, consistent with the statutory management objectives for that class of reserve (s 48(5), Sch 1 <i>NPRM Act</i>), and with the Reserve Management Code of Practice (Tas Govt 2003).	Natural Resources and Environment Tasmania: Parks	Lease application fee - \$1,174.80 Licence application fee - access only - no fee Licence application fee - general purpose - \$284.80 Source

			If a proponent needs to maintain control over the tidal flow reintroduction works for a long period of time (such as for the purposes of the ERF), a lease may be preferrable.		
Access to private land	May require approval, consent or agreement for access		Tidal flow works on private land will require consent from private landowner.	n/a	n/a
Marine Park Access	Certain relevant activities prohibited on reserved 'land' (including water) without authority	Nature Conservation Act 2002 (Tas) Living Marine Resources Management Act 1995 (Tas) Environment Protection and Biodiversity Conservation Act 1999 (Cth) and Management plans and zoning rules	Significant areas of Tasmania's coastal waters are located in state and federal marine parks (e.g. the Commonwealth Government's South East Network of Marine Parks; and the 21 marine reserves located in State waters, see Parks & Wildlife). Each park has a zoning plan that sets out permissible uses (with and without permits and licences, see e.g. 'Freycinet Marine Park' in the South-East Network Management Plan 2013). Ecological and habitat restoration are not explicit permissible uses within zoning plans, but may be discretionary.	Tasmania Parks and Wildlife Parks Australia (for Commonwealth reserves)	Prescribed fee and assessment process, unclear.
Native Title	Accessing Aboriginal land/waters – if a project is to be carried out in a declared native title area, or an area to which	Native Title Act 1993 (Cth)	An act that affects native title in relation to land or waters may be classified as a 'future act' under the <i>Native Title Act</i> s 233(1). A future act will be invalid unless it validated under an Indigenous Land Use Agreement ('ILUA') or one of the provisions of the <i>Native Title Act 1993</i> (Cth). Therefore, if Native Title exists (or may exist) over a proposed project area, an ILUA should be considered to determine whether a project may fall within its terms, and the procedure for undertaking the activity.	Relevant Native Title group or corporation	n/a

	Aboriginal Land	native title may apply in future Accessing Aboriginal land/waters – If the land or waters are vested in the Aboriginal Land Council of Tas (Sch 3,	Aboriginal Lands Act 1995 (Tas)	A lease and/or licence may be required to access from, and/or carryout tidal reintroduction activities on, Aboriginal land [which may be interpreted to include waters but this is not explicit in the Act] (s 28A).	Aboriginal Land Council of Tasmania	Unable to locate prescribed fee or application process.
Heritage Protection	Aboriginal Heritage	AL Act). Accessing land/waters with Aboriginal cultural heritage — if the site for the proposed project contains or is likely to contain Aboriginal cultural heritage	Aboriginal Heritage Act 1975 (Tas)	 The Act imposes general obligations to: report findings of any Aboriginal 'relics' (s10(3)); not harm (including destroy, damage, removeuncoveror otherwise interfere with), nor act in a way that is likely to harm, relics without a permit from the Minister (s 14); and not harm relics or protected objects in protected sites, nor remove a protected object from a protected site without a permit from the Minister (s 9). In the Act, 'Relics' include objects and sites of significance to Tasmanian Aboriginal (palawa) people (s 2), and include shell piles and other evidence of communal eating, as well as other coastal sites that may be culturally important. Note: subsidiary legal instruments use the (preferred) phrase 'Aboriginal heritage' rather than 'relics'. Compliance with Aboriginal Heritage Tasmania's <i>Guidelines</i> (2018) and <i>Standards and Procedures</i> (2022) provides a defence to any alleged offence under ss 9 and 14 (s 21A). Project proponents may be required to explain how they will avoid or protect any identified Aboriginal heritage on site, including in the form of an 'Unanticipated Discovery Plan', provided to Aboriginal Heritage Tasmania as part of a preliminary online Aboriginal Heritage Property Search, or 	Aboriginal Heritage Tasmania OR Self-assessable through the online search tool (Aboriginal Heritage Property Search) or Dial Before you Dig service, provided that: (a) the online search does not identify any registered Aboriginal relics; and (b) actions are taken in accordance with: (i) an	No fee prescribed for permit application. Source

				as part of a more detailed assessment process including an Aboriginal Heritage Assessment Report (Standards and Procedures, pp 10, 13).	Unanticipated Discovery Plan, (ii) the Guidelines, and (iii) the Standards and Procedures.	
	European heritage	Accessing places of 'state historic cultural heritage significance' (European heritage)	Historic Cultural Heritage Act 1995 (Tas)	A certificate of exemption may be required to construct a structure in a heritage area if the structure may affect historic cultural heritage significance in that area (ss 30, 31).	Tasmanian Heritage Council	Unable to locate prescribed fee or application process.
Monitoring	Monitoring positive and adverse environmental impacts	The legislation referred to above may provide a mandate for agencies to require monitoring of outcomes, success or impacts from projects	As relevant	The decision-making authority for planning approval can put conditions on planning approvals regarding monitoring	As relevant	n/a

Note: issues under the Emission Reduction Fund are consistent with other states.



CONTACT

Justine Bell-James

j.bell-james@law.uq.edu.au

This project is supported with funding from the Australian Government under the National Environmental Science Program.