NOPSEMA
Australia's offshore energy regulator

INFORMATION PAPER

Reducing marine pest biosecurity risks through good practice biofouling management

Document No: N-04750-IP1899 A715054

Date: 01/10/2020

Background

The movement of vessels and mobile facilities into, out of, and within the Commonwealth marine area[1] (CMA) is a potential mechanism for the transfer of marine pests (also referred to as invasive marine species (IMS)) into new areas. The establishment of marine pests in the CMA may result in significant impacts to the marine environment potentially compromising the viability of socio-economic commodities such as aquaculture, fishing and tourism as well as potentially widespread ecological impacts. Historically, once marine pests are established, they are very difficult to control and fully eradicate. Consequently, the management of marine pest risk[2] should focus on preventing the introductions of marine pests into new areas.

Biofouling is the growth of marine organisms found on the hulls and niche areas of vessels and underwater surfaces of offshore facilities, including mobile offshore drilling units (MODUs). Biofouling is one of the most common ways that marine pests are transferred within the marine environment. The offshore oil and gas industry has a key role to play in managing the risk of marine pest introductions and preventing further spread of already established species. Through its regulatory activities, NOPSEMA has identified that there is not a common understanding across the industry in relation to the biofouling risk management requirements that apply to offshore petroleum and greenhouse gas activities (offshore activities).

The intent of this Information Paper is to:

a. Clarify biosecurity requirements relevant to offshore activities[3].

b. Provide coordinated good practice advice that is consistent with the expectations of all jurisdictions responsible for regulating biofouling management within the Australian marine environment to the boundary of the Economic Exclusion Zone and/or over the continental shelf of Australia (Australian waters).

c. Support the industry's contribution to marine pest risk management consistent with objective 1 of Australia's *National Strategic Plan for Marine Pest Biosecurity* (2018-2023)[4] – 'Minimise the risk of marine pest introduction, establishment and spread'.

[1] The Commonwealth marine area (CMA) is any part of the sea, including the waters, seabed, and airspace, within Australia's exclusive economic zone and/or over the continental shelf of Australia, that is not state or Northern Territory waters and is a listed matter of national environmental significance under the *Environmental Protection and Biodiversity Conservation Act 1999*.

[2] Definition of risk is provided in Australian Standard – Risk management – Guidelines (AS ISO 3100).

[3] This Information Paper should not be relied on as a comprehensive guide to all of the marine biosecurity requirements that apply in Australian waters given that there are a number of legislative changes currently under consideration and multiple State / Territory jurisdictions with varying requirements.

[4] Department of Agriculture and Water Resources 2018, MarinePestPlan 2018–2023: the National Strategic Plan for Marine Pest Biosecurity, Department of Agriculture and Water Resources, Canberra, May. CC BY 4.

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1. Clarifying biosecurity requirements

There are a range of requirements that apply to the management of marine biosecurity risk within Australian waters. These include the *Biosecurity Act 2015* administered by the Commonwealth Department of Agriculture, Water and the Environment (DAWE), the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations) administered by NOPSEMA and relevant state/territory marine biosecurity requirements (see Appendix A for details).

Titleholders, MODU operators and vessel contractors servicing the offshore industry need to be aware of, and comply with, relevant biosecurity requirements (including biofouling management requirements) that apply when moving into and between Commonwealth and state/territory jurisdictions, specifically:

- From the territorial sea baseline (coast) to 3 nm (nautical miles) (coastal waters)
  - The relevant state/territory biosecurity agency requirements (see Appendix A for contact details) in accordance with the relevant state/territory legislation.
  - DAWE requirements in accordance with the *Biosecurity Act 2015.*
- Between 3 and 12 nm (joint DAWE/NOPSEMA jurisdiction)
  - DAWE requirements in accordance with the *Biosecurity Act 2015.*
  - NOPSEMA's requirements in accordance with the Environment Regulations apply if the vessel[5] (including seismic vessels and support vessels e.g. construction, installation and accommodation vessels), facility[6], MODU or any other mobile component is engaged in an offshore activity which must be undertaken in line with an approved Environment Plan (EP). Once a vessel (including seismic and/or support vessels), facility, MODU or other mobile component is no longer undertaking an offshore activity, the Environment Regulations no longer apply.
- Between 12 and 200 nm (exclusive economic zone/NOPSEMA jurisdiction)
  - NOPSEMA's requirements in accordance with the Environment Regulations apply if the vessel (including seismic vessels and support vessels (e.g. construction, installation and accommodation vessels)), facility, MODU or any other mobile component is engaged in an offshore activity which must be undertaken in line with an approved EP. Once a vessel (including seismic and/or support vessels), facility, MODU or other mobile component is no longer undertaking an offshore activity, the Environment Regulations no longer apply.

[5] Defined under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* as 'a vessel used in navigation, other than by air navigation, and includes a barge, lighter or other floating vessel'.
[6] Defined under the Environment Regulations as including 'a structure or installation of any kind'.

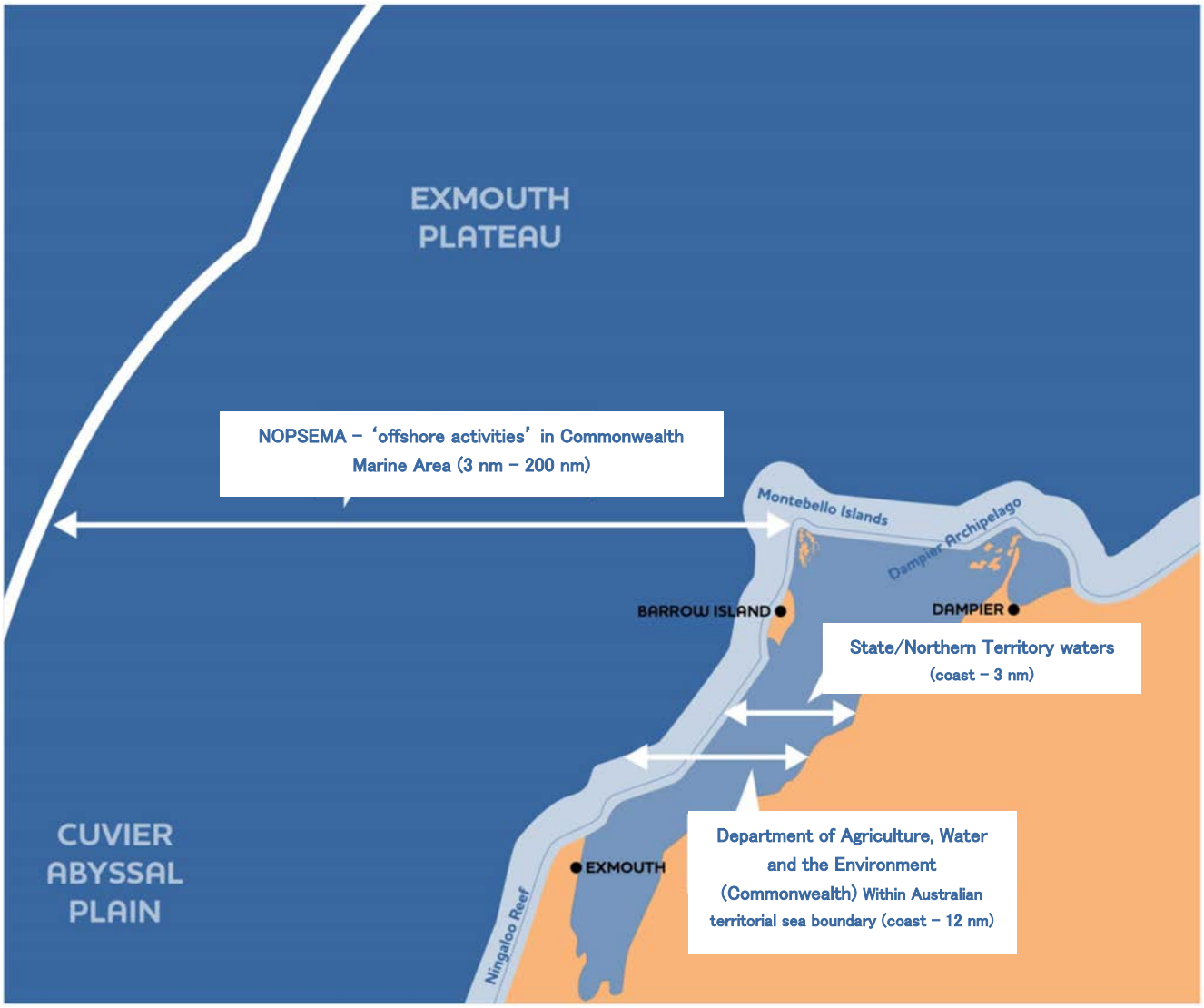


Figure 1 – Map illustrating the differences and overlap between relevant marine biosecurity jurisdictions in Australian waters.

To comply with relevant legislative requirements, biosecurity risk assessments and management measures may be required prior to entry into relevant jurisdictions. Further information on the relevant biosecurity requirements and associated agencies is provided in Appendix A of this Information Paper.

2. Nationally accepted approach to biofouling management

Marine biosecurity risk assessments that appropriately consider biosecurity risk factors are an effective tool for informing the need for, and type of, biosecurity management measures required to minimise the risk of marine pest introduction, establishment and spread. The reliability of risk assessment results are contingent on the degree to which relevant risk factors were taken into account and applied throughout the process. Offshore industry biosecurity risk assessment processes that do not adequately account for biofouling risk factors can lead to unreliable or false 'low' risk assessment outcomes. In turn this can lead to failures to identify and implement appropriate management measures to address biofouling risks.

Good practice advice

A nationally-accepted and consistent approach to biofouling risk assessment and management by the offshore industry is supported by NOPSEMA. This approach would provide confidence that vessels (including seismic and support vessels), facilities, MODUs or other mobile components moving into, out of, and within Australian waters do not present an unacceptable biosecurity risk. A consistent approach would then reduce the risk to industry in terms of remediation actions resulting in unforeseen delays and costs.

Key biofouling management guidance that should be considered when designing effective biosecurity management frameworks include *National biofouling management guidelines for the petroleum production and exploration industry* (Australian Government, V1, 2009)[7] (National biofouling management guidelines), and *Guidelines for the control and management of a ships' biofouling to minimise the transfer of invasive aquatic species* (IMO Guidelines, 2011) (IMO Guidelines)[8]. Consistent with this guidance, key factors that should be accounted for when developing and implementing biofouling risk assessment processes include:

- Timing of marine pest risk assessment relative to vessel/rig selection and movement to the offshore activity area to ensure there is sufficient time to implement necessary control measures in cases where management is warranted to reduce the risk.
- History of the vessel/facility, including time spent in ports of call since last dry dock, cleaning regime or marine pest inspection results.
- Time between a biofouling inspection and mobilisation to an offshore activity to inform exposure risk following the last inspection and justify the relevance of biofouling inspection findings.
- Presence of an appropriate biofouling management plan and effective implementation of the plan (e.g. demonstrated implementation of external and internal marine growth prevention systems, an understanding of the effectiveness of antifouling coatings and functionality of internal treatment systems).
- Level of existing biofouling and the presence of species of concern (in particular the presence of marine pests) within biofouling communities on the vessel/infrastructure/facility associated with the activity (often informed by biofouling record books, maintenance records, cleaning results or inspection programs).
- Operational profile relevant to biosecurity risk such as operating speed, time alongside a facility and the need for ballast exchanges while engaged in an offshore activity.
- Receiving environment including temperature, salinity and the presence of shallow water sensitivities within proximity to the offshore activity.
- Qualifications and competency of personnel undertaking biofouling inspections, associated risk assessments and making management decisions.

NOPSEMA's expectation for the industry's management of biofouling risk is that titleholders and their contracted vessels/mobile facility operators, at a minimum, apply relevant guidance from the IMO Guidelines. The IMO Guidelines are intended to provide an internationally consistent approach to

[7] Marine Pest Sectoral Committee 2018, National biofouling management guidelines for the petroleum production and exploration industry, Department of Agriculture and Water Resources, Canberra, December. CC BY 4.0. Document modified in 2018 to meet accessibility requirements

[8] The IMO Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (Biofouling Guidelines) (resolution MEPC.207(62)) are intended to provide a globally consistent approach to the management of biofouling, which is the accumulation of various aquatic organisms on ships' hulls.

biofouling management and record keeping with the key recommendations for the development and implementation of a biofouling management plan and biofouling record book.

NOPSEMA is aware that states/territories have specific biofouling risk management expectations, arrangements and systems based around their legislative requirements and functions. Their respective websites include a variety of resources relevant to biofouling risk management (see Appendix A). Titleholders and their contracted vessel (including seismic and support vessels), facility, MODU or other mobile component operators servicing the industry, should ensure they are aware of, and have regard to, the relevant state/territory risk management requirements as appropriate to the circumstances of the offshore activity. They may even consider applying state/territory risk management systems, where appropriate, for understanding biofouling risks posed by offshore activities.

In addition there is merit in titleholders establishing vetting processes that ensure their contracted vessel (including seismic and support vessels), facility, MODU or other mobile component operators have effective biofouling management plans in place with supporting evidence contained in biofouling record books consistent with the IMO Guidelines. This will provide important context for titleholder risk assessments and facilitate the effective implementation of biofouling risk assessment and management measures to support the case made that marine pest risks are being managed to as low as reasonably practicable (ALARP) and acceptable levels as required by the Environment Regulations.

3. Managing the risk to acceptable levels

In order to demonstrate that impacts and risks will be of an acceptable level, titleholders should first define the acceptable level in the EP and the set environmental performance outcomes (EPOs), control measures and associated environmental performance standards to meet that level. In general terms, EPOs for marine biosecurity risk should set a benchmark for preventing the introduction, establishment and spread of marine pests to and within Australian waters. Sufficient management arrangements must be in place to provide confidence that the acceptable level of risk will be met.

Good practice advice

The biosecurity risk assessment process should include an evaluation of the risks analysis results against the defined acceptable level of risk to support decisions about control measures (if any) needed to provide assurance that the acceptable level of risk can be met. In circumstances where a vessel (including seismic and support vessels), facility, MODU or other mobile component is leaving an offshore activity and entering within 12 nm of the coast (the territorial sea) and/or coastal waters, relevant biosecurity management requirements of these jurisdictions apply and advice from the relevant biosecurity agencies should be sought where necessary (refer to Appendix A, Table 1).

In all circumstances, where the risk assessment output is not low/acceptable, some form of management response would be expected in order to reduce the risk to the acceptable level.

Management responses needed to ensure that the acceptable level of risk can be met will be dependent on the degree of risk presented by the activity and may include, but are not limited to:

- Visual inspection of submerged surfaces and niche areas by a suitably experienced and competent biosecurity inspector[9] to better understand the actual biosecurity risk and inform management actions.
- Cleaning of biofouling on submerged surfaces to reduce the risk of marine pest transfer.

[9] The Department of Primary Industries in WA provides guidance on criteria that may be used to determine suitably qualified IMS experts in the *Criteria for Suitably Qualified Invasive Marine Pest Experts* guidance statement which can be accessed at fish.wa.gov.au/Documents/biosecurity/invasive_marine_pest_expert_guidance_statement.pdf.

- Temporal or spatial controls to limit the risk of marine pest transfer to the environment from a vessel (including seismic and support vessels), facility, MODU or other mobile component of an offshore activity.
- Additional marine growth prevention measures (e.g. dosing of internal seawater system with biocides, application or re-application of anti-foul coatings).
- Using alternative vessels (including seismic and support vessels), MODUs or other mobile components or equipment that have a demonstrated low biosecurity risk profile.

For further information on management measures to minimise the transfer of marine pests to new areas, titleholders should refer to IMO Guidelines and the National biofouling management guidelines.

Appendix B provides an example framework outlining considerations that may be relevant to evaluating the acceptability of marine pest biosecurity risk associated with engaging a facility, vessel (including seismic and support vessels), MODU or other mobile components in an offshore activity.

4. Interpreting low risk status from the Department of Agriculture, Water and the Environment

The *Offshore Installations Biosecurity Guide*[10] explains that 'where an installation has satisfied the Director of Biosecurity that its biosecurity risk is acceptable, DAWE will issue a letter to the operator of the installation indicating that the installation achieved a 'low risk status'. A 'low risk' determination by the Director of Biosecurity is based on consideration of topsides biosecurity only, it does not provide any form of assurance of a 'low' marine pest risk profile from biofouling. DAWE has recently made a change to the low risk status letters to clarify that they apply to topsides activities only and do not include consideration of marine pest risk presented by biofouling.

Good practice advice

The 'low risks status' letter issued by the Director of Biosecurity should not be referenced in EPs to infer a 'low risk' marine biosecurity profile. Instead, effort should be directed by titleholders (and in some cases operators of vessels (including seismic and support vessels), facilities, MODUs or other mobile components) to develop and implement appropriate good practice risk assessments and measures for biofouling risk management.

5. Consideration of new information relevant to biosecurity risk

During the course of undertaking offshore activities there is potential for the marine biosecurity risk profile to change. For example, a risk profile could change as a result of new information (e.g. in water inspection results) or changes to the offshore activity (e.g. new vessel (including a seismic and support vessels), MODU or other mobile component to be commissioned with risk profile different to that assessed in the EP). These changes should trigger a risk review process to determine whether new or modified control measures should be adopted to ensure that the EPO and the acceptable level of risk continues to be met.

Good practice advice

Biosecurity risk management should be integrated into titleholder environmental management systems so that changes to the offshore activity or new information relevant to marine biosecurity risk are identified, analysed and evaluated to ensure that biosecurity risk remains acceptable and managed to ALARP

[10] Department of Agriculture, Water and the Environment *Offshore Installations Biosecurity Guide* can be accessed at agriculture.gov.au/biosecurity/avm/vessels/offshore_installations/offshore-installations.

throughout the course of the offshore activity. Titleholders should ensure that change management processes include the evaluation of the effectiveness of existing control measures and/or the need for different or additional control measures to address altered biosecurity risk profiles and whether EP revision in accordance with Regulation 17 of the Environment Regulations[11] is warranted.

6. Assumption that offshore activities outside of Australian territorial sea boundary present an inherently low biosecurity risk

Biosecurity management legislation is applied by the DAWE within the 12 nm Australian territorial sea boundary and relevant state/territory agencies within coastal waters (see Appendix A). Offshore activities undertaken outside of the 12 nm Australian territorial sea boundary must not be assumed to have inherently low risk that negates the need for consideration of marine biosecurity management controls. For offshore activities undertaken in the CMA the Environment Regulations require titleholders to demonstrate that all impacts and risks will be managed to ALARP and acceptable levels. This requirement applies equally to marine pest biosecurity risk with biofouling and the movement of vessels (including seismic and support vessels), facilities, MODUs or other mobile components into the CMA to undertake an offshore activity.

Good practice advice

Industry risk assessment processes need to be applicable to offshore activities that are located outside the 12 nm Australian territorial sea boundary to ensure that relevant biosecurity risk pathways can be evaluated and that biosecurity risk can be managed to acceptable levels. Examples of potential risk pathways outside the 12 nm territorial sea boundary that risk assessment processes should account for include:

- The entry of a facility from a foreign port containing biofouling communities, potentially containing marine pests, into Australian waters.
- The movement of vessels (including seismic and support vessels), MODUs or other mobile components from domestic and international ports potentially facilitating the movement of marine pests/propagules and transfer to the facility's wet surfaces consequently creating a source of marine pest biosecurity risk that requires ongoing management.
- The presence of biofouling on a facility that is known to or has potential to contain reproductively viable marine pests/propagules that may be taken up in vessel ballast water and/or successfully transferred to support vessels surfaces and conveyed to other areas outside of the title (e.g. coastal waters/ports).
- The presence of IMS on facilities which form viable reproductive populations that can naturally disperse to shallow shoals/reefs in Australian waters.

7. Domestically sourced vessels

Given that there are marine pests established in some port locations in Australia and not others, domestically sourced vessels may pose a risk of marine pest transfer and spread between regions within Australian waters. For example, there is potential for support vessels to transfer marine pests to MODUs and for those rigs to subsequently transfer marine pests to other locations in Australian waters that have not previously been exposed to that species of concern.

[11]NOPSEMA's *When to submit a proposed revision of an EP* guideline can be accessed at nopsema.gov.au/assets/Guidelines/A515816.pdf

Good practice advice

In a comprehensive risk assessment consideration should be given to the potential for marine pests to be transferred between vessels (including seismic and support vessels), facilities, MODUs or other mobile components, and the risk that this poses for transfer to other areas of Australian waters that may not have that species of concern. In circumstances where facilities are known to be colonised with pests, it is important that the risk of spread from the facility to the Australian marine environment is minimised through control measures and ongoing surveillance to monitor the risk over time. Depending on the level of risk, limiting time alongside the infected facility and/or other controls consistent with IMO Guidance, in conjunction with assurance processes that confirm the effective implementation of these measures, may be required.

8. Effectiveness of anti-fouling systems

The International Convention on the Control of Anti-Fouling Systems on Ships, 2001 (AFS Convention)[12] requires ships of 400 GT or above to have an International anti-fouling system (AFS) certificate. While the AFS Convention addresses anti-fouling on ships, its focus is on the prevention of adverse impacts from the use of anti-fouling systems and the biocidal properties they may contain, rather than preventing the transfer of marine pests. It is important to note that the AFS certificate alone does not provide assurance that the marine pest risk is appropriately managed as it is the effectiveness and condition of the anti-foul coating that is relevant to informing the risk. As such, titleholders cannot rely on the presence of an AFS certificate alone as a control for managing biofouling risks to an acceptable level.

Good practice advice

When antifoul systems, antifoul coatings and/or marine growth prevention systems are adopted as control measures for reducing the risk of marine pest transfer, it is important that the level of performance expected of these controls (e.g. implemented, functional, maintained and audited by personnel with relevant capability and experience) are defined in the EP and incorporated into environmental performance standards. This can be informed by operator/contractor biofouling record books, maintenance records and/or through relevant in-water or out of water inspections.

9. Take away message

In designing biofouling management arrangements, titleholders and operators of vessels (including seismic and support vessels), facilities, MODUs or other mobile components need to consider the environmental and jurisdictional context in which they are working and the marine pest biosecurity risk presented by their offshore activities to ensure requirements are complied with and appropriate control measures are in place. NOPSEMA considers that the IMO Guidelines provide relevant, good practice advice for the offshore industry. Through applying this guidance, industry will be aligned with the new biofouling requirements that are being progressed by the Australian Government and can demonstrate their contribution to implementing *Australia's Marine Pest Plan 2018-2023*.

[12] http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-on-the-Control-of-Harmful-Anti-fouling-Systems-on-Ships-(AFS).aspx

10. Additional resources

- Australian Ballast Water Management Requirements Version 7 (Department of Agriculture and Water Resources)
- Department of Agriculture and Water Resources 2018, MarinePestPlan 2018–2023: the National Strategic Plan for Marine Pest Biosecurity, Department of Agriculture and Water Resources, Canberra, May. CC BY 4.
- Department of Agriculture and Water Resources 2019, Australian biofouling management requirements for international vessel arrivals—Consultation Regulation Impact Statement, Canberra, March. CC BY 4.0.
- International Maritime Organisation - Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (2012 Edition)
- Marine Pest Sectoral Committee 2018, National biofouling management guidelines for the petroleum production and exploration industry, Department of Agriculture and Water Resources, Canberra, December.
- Department of Primary Industries and Regional Development – Biofouling management tools and guidelines (fish.wa.gov.au/Sustainability-and-Environment/Aquatic-Biosecurity/Vessels-And-Ports/Pages/Biofouling-management-tools-and-guidelines.aspx)

11. Contact

Enquiries should be directed to communications@nopsema.gov.au and quote 'NOPSEMA Information Paper on - Reducing marine pest risks though good practice biofouling management'.

Appendix A: Relevant Australian marine biosecurity requirements, guidance and contacts

This attachment provides an overview of biosecurity management requirements relating to Australian marine jurisdictions.

NOPSEMA

The legislation that NOPSEMA administers, the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (Environment Regulations), applies to petroleum and greenhouse gas activities (offshore activities) in the Commonwealth Marine Area (CMA) and requires titleholders to demonstrate that all impacts and risks from their offshore activities will be managed to as low as reasonably practicable (ALARP) and acceptable levels. This includes the risk of marine pest introduction and establishment within the CMA as a result of the movement of vessels (including seismic and support vessels), facilities, MODUs or other mobile components.

The relevant requirements that apply to assessing and managing marine pest biosecurity risk associated with offshore activities in the CMA are contained in the Environment Regulations:

- Regulation 13(4)(a) & (b) states that an environment plan must describe the requirements, including legislative requirements, that apply to the activity and are relevant to the environmental management of the activity; and demonstrate how those requirements will be met.
- Regulation 13(5)(a),(b) & (c) states that the environment plan must include details of the environmental impacts and risks for the activity; and an evaluation of all the impacts and risks, appropriate to the nature and scale of each impact or risk; and details of the control measures that will be used to reduce the impacts and risks of the activity to as low as reasonably practicable and an acceptable level.
- Regulation 11A requires that, in the course of preparing an environment plan (or revision), the titleholder must consult with each Department or agency of the Commonwealth, State or Northern Territory to which the activities to be carried out under the environment plan (or revision of the environment plan) may be relevant.

NOPSEMA's regulatory functions include monitoring titleholder compliance. NOPSEMA may monitor titleholder implementation of biofouling risk management measures to ensure they are managing marine pest risks to ALARP and acceptable levels and can use enforcement powers if necessary.

Department of Agriculture, Water and the Environment

The principle national biosecurity legislation in Australia is the *Biosecurity Act 2015*. It is administered by the Department of Agriculture, Water and the Environment (DAWE) and applies to mobile facilities and vessels on first entry into the Australian territorial sea, i.e. within 12 nm of the coast. The legislative requirements for ballast water management have been harmonised since the International Maritime Organization (IMO) Ballast Water Management Convention entered into force on 8 September 2017 and prescriptive Australian ballast water management requirements took effect. Under the *Biosecurity Act 2015* there is currently no requirement for a vessel to report on, or have an inspection in relation to biofouling prior to entering the Australian territorial sea. However, where information is available to DAWE (e.g. through consultation or from information shared by other Australian Government agencies) to indicate there may be an unacceptable biosecurity risk from biofouling, DAWE may take action on a case by case basis. DAWE is considering options for mandatory requirements to manage biofouling in Australia

consistent with the guidance provided of the IMO Guidelines[13]. The Australian Government marine pest website provides advice on managing biofouling risks in Australia, including links to relevant guidance material[14].

In 2018, Australia's national strategic plan for marine pest biosecurity, *MarinePestPlan 2018-2023*[15], was endorsed by the Minister for Agriculture, highlighting that the management of marine pests will require a coordinated, cross industry sectorial approach. The activities implemented under this plan are overseen by the Marine Pest Sectoral Committee (MPSC) to which NOPSEMA is a formal contributor[16].

DAWE has published an *Offshore Installations – Biosecurity Guide*[17] (Biosecurity Guide) to provide guidance to the offshore industry on Australian biosecurity requirements relevant to titleholders and operators of vessels (including seismic and support vessels), facilities, MODUs or other mobile components. The Biosecurity Guide enables the operator of the facility to apply for 'low risk status' however it is important to note that a 'low risk status' determination only applies to topsides biosecurity. In addition, DAWE has published consultation guidance to clarify consultation expectations during the preparation of environment plans for offshore activities and in the event that an offshore activity has potential to introduce or spread a marine pest and associated disease[18].

State and territory requirements

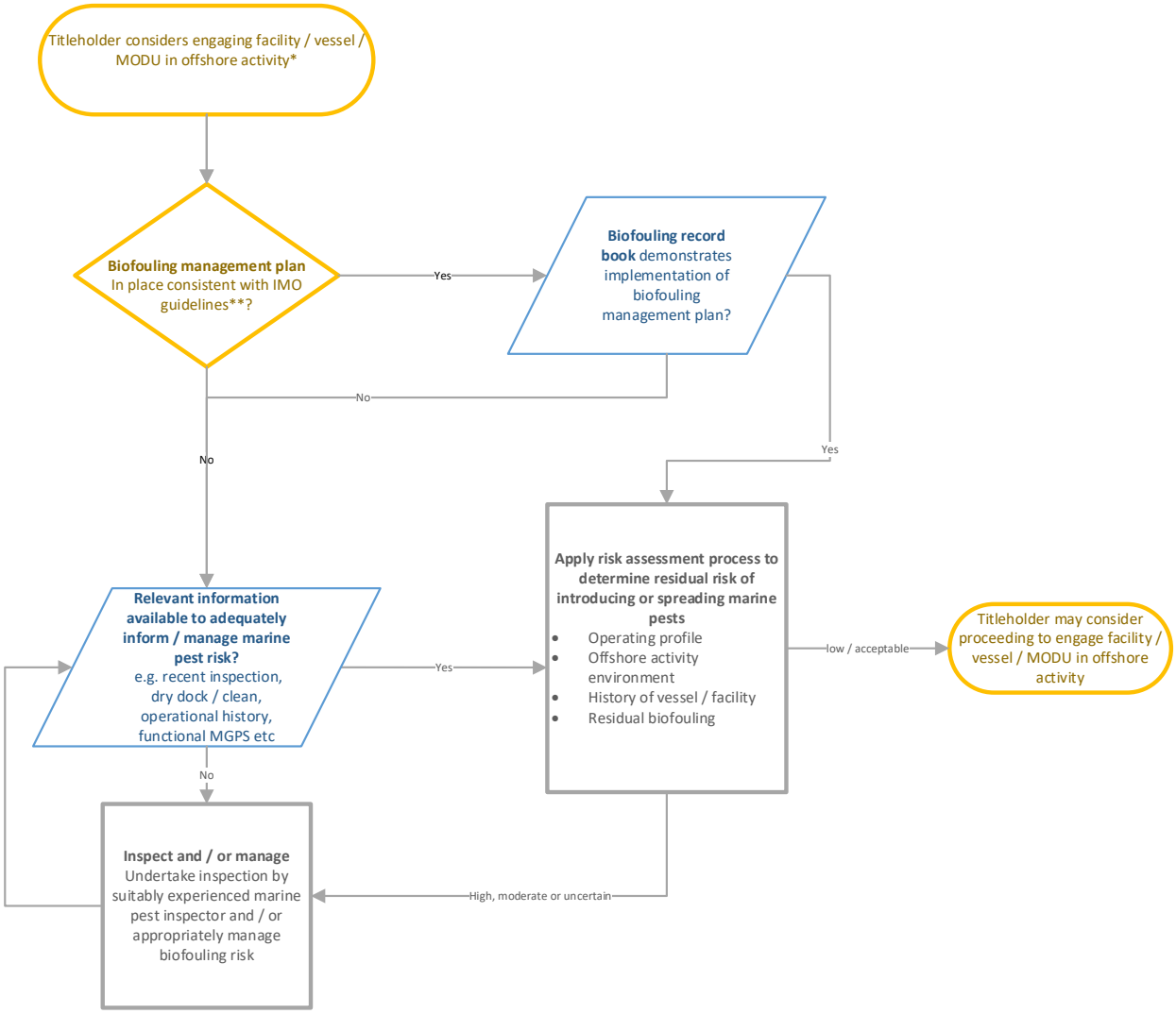
Further to Commonwealth requirements and expectations, there are marine biosecurity obligations captured in relevant state/territory legislation, policies and guidance that apply in coastal waters. Requirements and standards for biofouling risk assessment and management are specific to individual state/territory jurisdictions and requirements/expectations for risk assessments and management vary between biosecurity regulators of coastal waters. Biosecurity agencies for state/territory waters are provided in Table 1. These agencies should be contacted in the instance that there is uncertainty in the biosecurity requirements that apply to individual jurisdictions.

[13] http://www.agriculture.gov.au/biosecurity/avm/vessels/biofouling/consultation-reg-impact-statement
[14] https://www.marinepests.gov.au/
[15] https://www.marinepests.gov.au/what-we-do/publications/marine-pest-plan
[16] https://www.marinepests.gov.au/what-we-do/partnerships
[17] http://www.agriculture.gov.au/biosecurity/avm/vessels/offshore_installations/offshore-installations
[18] https://www.agriculture.gov.au/biosecurity/avm/vessels/offshore_installations/marine-pest-biosecurity#offshore-consultation-guidance-for-environmental--plans-and-offshore-project-proposals

Table 1 – Biosecurity agencies, corresponding jurisdictional boundaries, guidance and contact details

Agency	When and where relevant biofouling requirements apply	Relevant guidance and contact details
NOPSEMA	All petroleum and greenhouse gas activities (includes MODUs and support vessels servicing offshore activities) in the Commonwealth Marine Area (3 nm to 200 nm)	**Relevant guidance:** • EP assessment policy and guidance material; on website • Guidelines for the control and management of a ships' biofouling to minimise the transfer of invasive aquatic species (IMO, 2011). • National biofouling management guidelines for the petroleum production and exploration industry (Australian Government, V1, 2009). **Website:** https://www.nopsema.gov.au/environmental-management/environment-resources/ Contact: communications@nopsema.gov.au
Department of Agriculture, Water and the Environment	On entry into Australian Territorial seas (12 nm)	**Relevant guidance:** • Marine Pest Plan • Guidelines for the control and management of a ships' biofouling to minimise the transfer of invasive aquatic species (IMO, 2011). • National biofouling management guidelines for the petroleum production and exploration industry (Australian Government, V1, 2009). • Anti-fouling and in-water cleaning guidelines April 2015 **Website:** https://www.agriculture.gov.au/biosecurity/avm/vessels/offshore_installations/marine-pest-biosecurity
State and territory requirements (adjacent to or in close proximity to offshore activities in Commonwealth Marine Area)	In all coastal waters (3 nm to coast)	**Northern Territory** Agency: The 'Aquatic Biosecurity Unit' Northern Territory Department of Primary Industry and Resources Contact: 0413381094 Website: https://nt.gov.au/marine/for-all-harbour-and-boat-users/biosecurity/aquatic-pests-marine-and-freshwater/contact-aquatic-biosecurity-unit **Western Australia** Agency: The 'Aquatic Pest Biosecurity Section' of the Department of Primary Industries and Regional Development Contact: (08) 9203 0111 General biosecurity enquiries: aquatic.biosecurity@dpird.wa.gov.au Vessel management enquiries: vessel.management@dpird.wa.gov.au Website: : Biofouling management tools and guidelines **South Australia** Agency: Department of Primary Industries and Regions South Australia (PIRSA) Biosecurity SA Contact: 08 8303 9620 (invasive species) Website: https://pir.sa.gov.au/biosecurity/aquatics/aquatic_pests **Victoria** Agency: Biosecurity and Agriculture Services, Department of Jobs, Precincts and Regions Contact: Marine.pests@agriculture.vic.gov.au Website: www.vic.gov.au/marine-pests **Tasmania** Agency: Biosecurity Tasmania - Department of Primary Industries, Parks, Water and Environment Contact: Biosecurity.Tasmania@dpipwe.tas.gov.au Website: https://dpipwe.tas.gov.au/biosecurity-tasmania

Appendix B: Example framework - determining an acceptable level of biofouling risk prior to engaging a facility, MODU or vessel in an offshore activity



**Facilities, vessels (including seismic and support vessels), MODUs and other mobile components engaged in an offshore activity (offshore petroleum or greenhouse gas activity) in Commonwealth Marine Area whereby the Environment Regulations (administered by NOPSEMA) and associated environment plan requirements apply.*

*** Guidelines for the control and management of a ships' biofouling to minimise the transfer of invasive aquatic species (IMO, 2011).*