BIOSECURITY SA
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Vessel in-water cleaning in Australia

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PREMIUM
FOOD AND WINE FROM OUR
CLEAN
ENVIRONMENT

SOUTH AUSTRALIA

Government of South Australia
Primary Industries and Regions SA

Presentation Overview

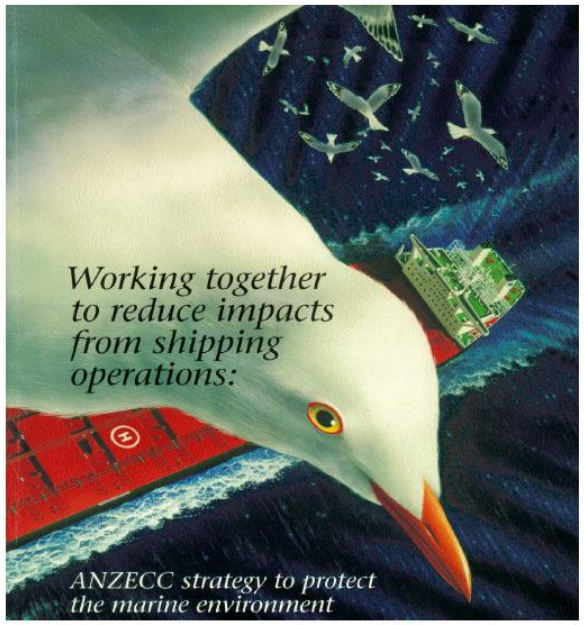
- Background to the development of the 2013 (Australian and New Zealand) Antifouling and In-water Cleaning Guidelines
  - 1997 Guidelines
  - 2010 review of antifouling and cleaning technologies
  - 2014 review
- State implementation of the Guidelines
  - South Australia
  - Western Australian policy

Policy background

- 1997 - Australian and New Zealand Environment Conservation Council (ANZECC) released a Code of Practice for application, use, removal and disposal of antifouling paints

- Contaminant and marine invasive risks of in-water hull cleaning

- Prohibited in-water cleaning of vessels unless a permit is granted by the relevant authority



Changes in international policies

•Introduction of the 2008 International Convention on the Control of Harmful Antifouling Systems on Ships (AFS), ratified by Australia in 2007

•International Maritime Organization identified in-water cleaning as an important part of biofouling management (later adopting the 2011 Biofouling Guidelines)

→ANZECC code was at variance accepted the use of tributyltin-based antifouling coatings and prohibited cleaning

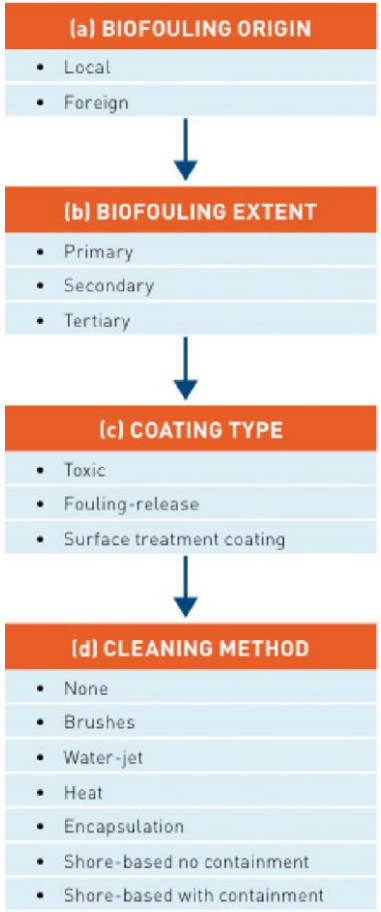
•Plus advancements in non-biocidal antifouling coatings and novel hull cleaning technologies

2010 Review of technologies and risk

2010 – Review prepared by National Institute of Water and Atmospheric Research (NIWA)

- Literature review and assessment of antifouling coatings and novel technologies
- Analysis of benefits and risks of in-water cleaning based on available technologies
- Scenarios of hull cleaning and risk factors

Hull cleaning scenarios



Biosecurity and contaminant risk associated with hull cleaning determined by combinations of a, b, c and d.

Developed rankings for biosecurity and contaminant risk for >100 scenarios

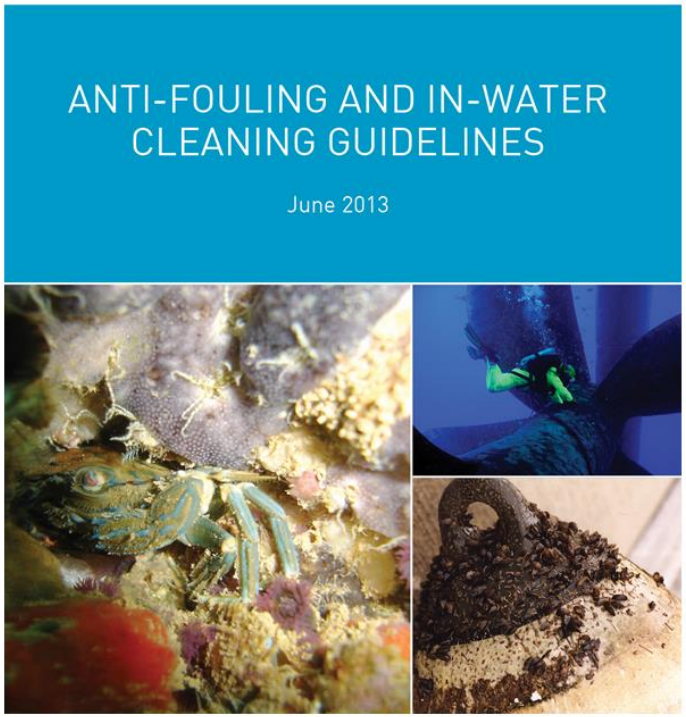
2013 – Guidelines developed

Best-practice for

- the application, maintenance, removal and disposal of anti-fouling coatings
- the management of biofouling and invasive aquatic species on vessels and movable structures in Australia and New Zealand.

Assist state authorities to decide on the appropriateness of in-water cleaning operations in general and on a case-by-case basis

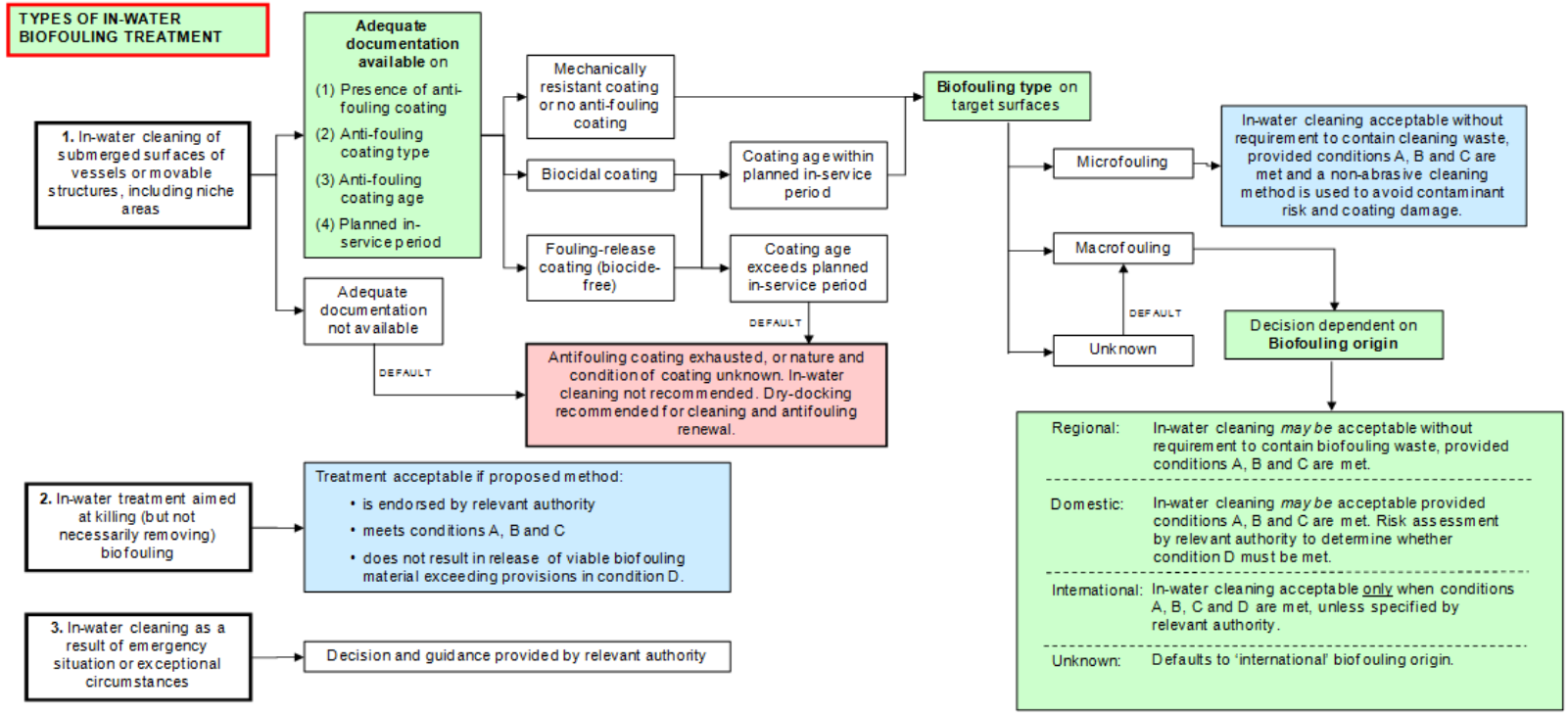
Australian Government
Department of Agriculture, Fisheries and Forestry
Department of Sustainability, Environment, Water, Population and Communities



Decision Support Tool

Decision-Support Tool for in-water cleaning

This tool is designed to assist relevant authorities with making decisions about in-water cleaning practices in their jurisdictions. The tool is a part of, and must be used in conjunction with, the main text of the *Anti-fouling and in-water cleaning guidelines*. The terms used in this tool are defined in the guidelines.



Conditions for removal and/or treatment of biofouling:

A: Antifouling coating is suitable for cleaning/treatment.

B: Cleaning/treatment method does not damage coating surface.

C: Discharges meet local standards or requirements.

D: Cleaning/treatment method ensures that release of biological material into the water column is minimised through the capture and containment of biofouling waste. Cleaning methods should aim to, at least, capture debris greater than 50 µm in diameter which will minimise the release of viable adult, juvenile and larval stages of macrofouling.

2014 Review of the Guidelines

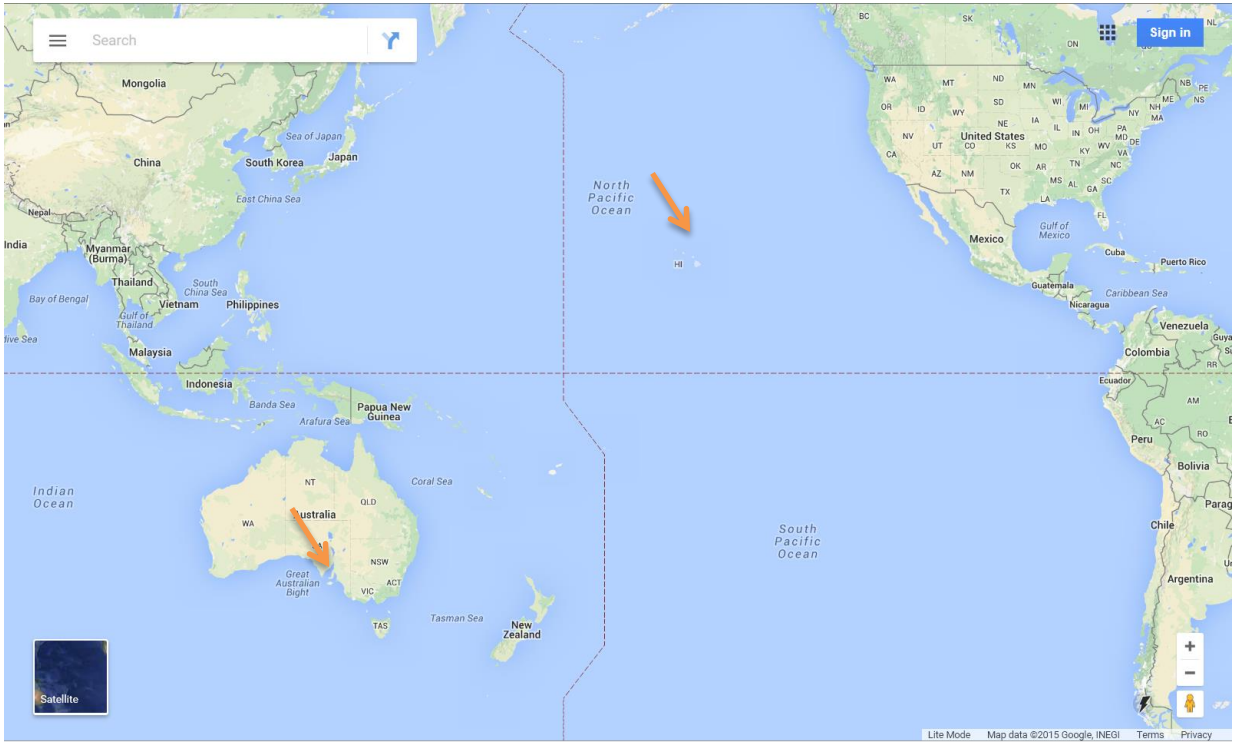
Chair of government committee that endorsed the guidelines requested review of operation after 12 months.

Purpose of the review was to consider any existing gaps in implementation of the guidelines in Australia and New Zealand.

Outcomes of the review:

- Cleaning technology promising but requires further development and independent verification.
- No agreed framework for monitoring contaminant discharge and damage to anti-fouling paints.
- Difficulties defining ‘locally acquired’ fouling.

In-water cleaning in South Australia



South Australian Regulations

South Australian Environment Protection Authority (EPA) - Environment Protection (Water Quality) Policy (2003)

•cleaning of a vessel/surface that has been coated or contaminated with an antifoulant, may only be carried out—

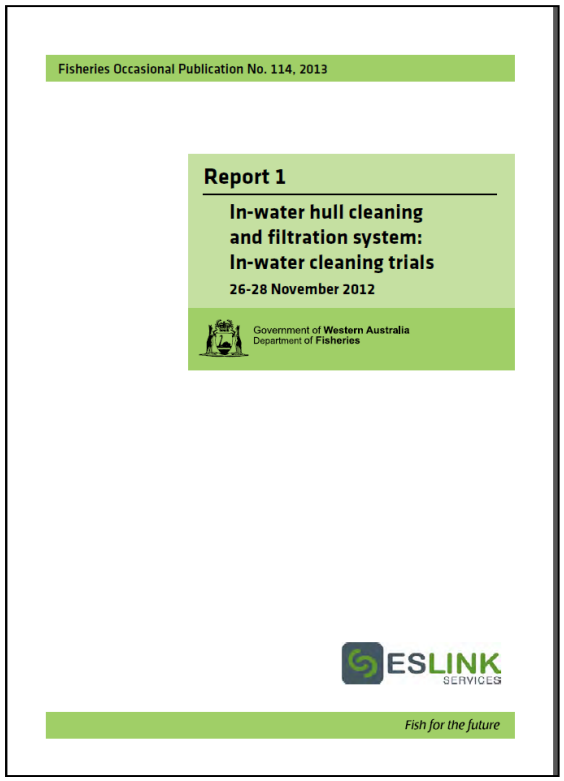
- (i) in dry dock; or
- (ii) above the high water mark of any waters; or
- (iii) below the high water mark of any waters while the tide is out to such an extent that there is no tidal water coming into contact with the vessel, structure or equipment;

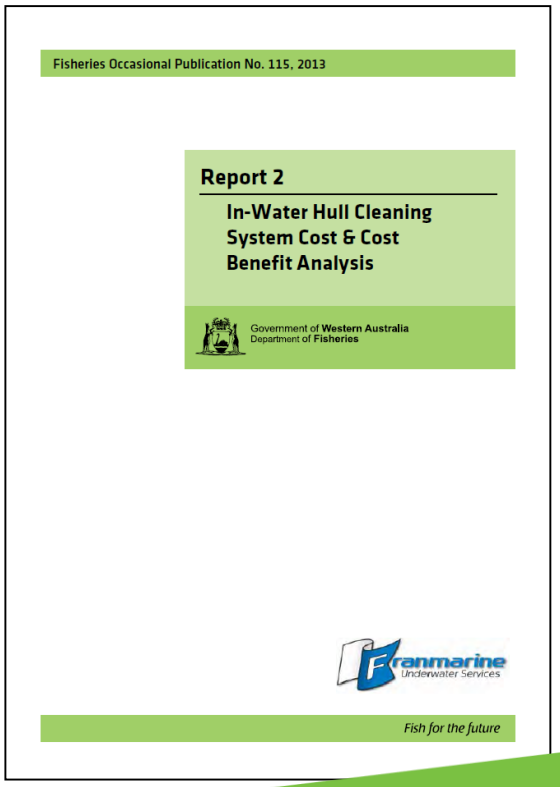
• Antifoulant residues must be contained and disposed of in a land based facility.

•Mandatory provision: Category B offence.

Western Australian Policy

Mid-2011, request for a service provider to develop a system for trials for the in-water treatment and removal of marine biofouling by vessel encapsulation and cleaning technologies to kill and remove biofouling from large (40m+) vessels.

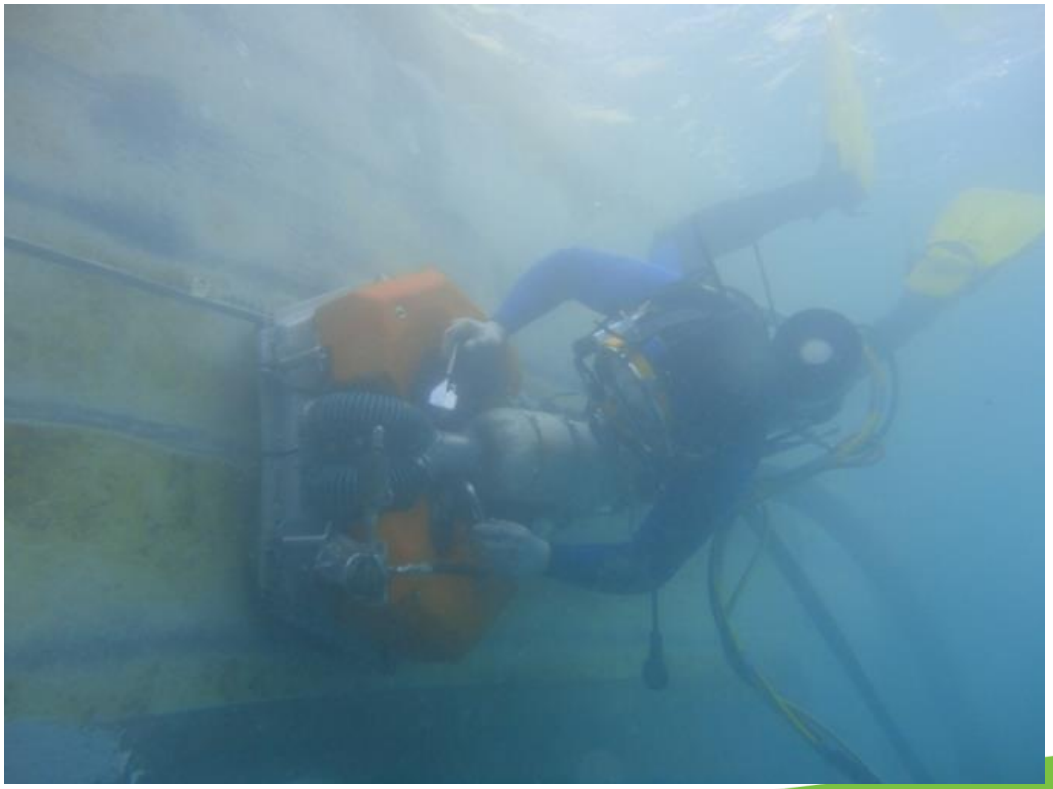




Technological development

The trial assessed a prototype developed by FranMarine:
"Envirocart" – in-water cleaning capture technology

- hydraulically powered hull cleaning unit fitted with rotating discs that is a contactless



Western Australian Policy

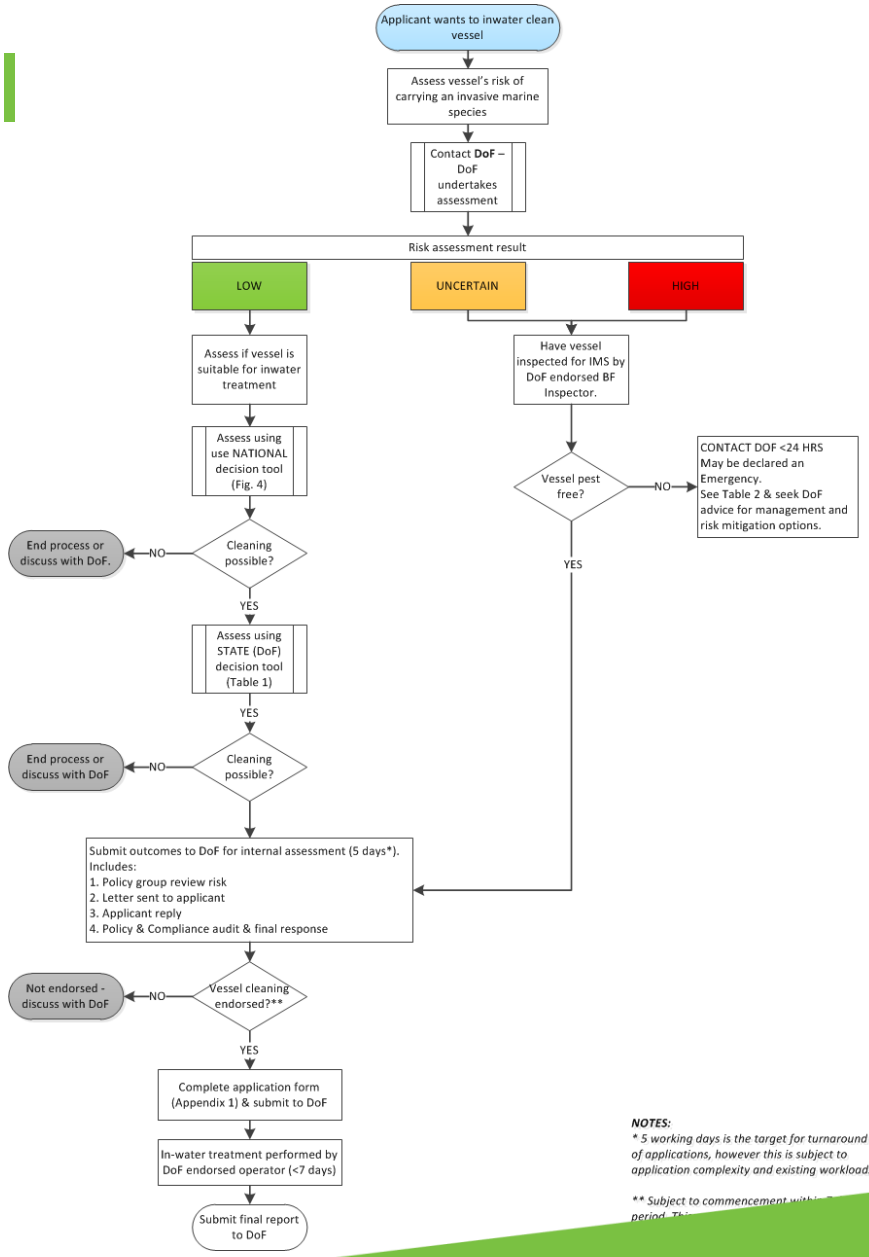
Released March 2015.

Key elements include:

- Out of water treatment is preferred
- Promote “Clean before you leave”
- Prevention – minimise biofouling accumulation
- By 2020 zero secondary biofouling level of vessel hygiene
- See Policy for : standard for assessing in-water treatment methods and suitability of vessel for cleaning

http://www.fish.wa.gov.au/Documents/biosecurity/in_water_treatment_guidance_statement_10_march_2015.pdf

Decision support tool



NOTES:

** 5 working days is the target for turnaround of applications, however this is subject to application complexity and existing workloads.*

*** Subject to commencement within*

For follow-up questions

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Anti-fouling and In-water Cleaning Guidelines
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See www.marinepests.gov.au for further information.