



An Australian Government Initiative



THE NATIONAL SYSTEM FOR THE PREVENTION AND  
MANAGEMENT OF MARINE PEST INCURSIONS

# National Biofouling Management Guidelines for **Recreational Vessels**



This collaborative effort is supported by the Australian Government, state and Northern Territory governments, marine industries, researchers and conservation groups.

## Important

These Guidelines are part of a series setting out a consensus view of effective biofouling management practices.

The Guidelines are made available on the understanding that the Commonwealth of Australia is not thereby engaged in rendering professional advice. The Commonwealth does not warrant the accuracy, currency or completeness of the Guidelines, or their relevance for any particular purpose. In particular it should be noted that legislation, regulations and bye-laws may vary between different jurisdictions and ports in Australia. Consequently the Guidelines do not purport to state what is necessary or sufficient to comply with laws applying in any place.

Before relying on the Guidelines in any important matter, users should obtain appropriate professional advice to evaluate accuracy, currency, completeness and relevance for their purposes.

January 2009

ISBN 978-1-921575-01-3

© Commonwealth of Australia 2008 (except where otherwise indicated)

This work is copyright. You may download, store in cache, display, print, reproduce, distribute or communicate these Guidelines in unaltered form only (retaining this notice) provided no monetary consideration is received in exchange and that the work is not dealt with in a manner that is misleading or deceptive. Apart from any use as permitted under the *Copyright Act 1968*, all other rights are reserved. Requests for further authorisation should be sent to: *Commonwealth Copyright Administration*, Attorney General's Department, Robert Garran Offices, National Circuit, Barton ACT 2600 or posted at [www.ag.gov.au/cca](http://www.ag.gov.au/cca).

'Tinny' cover image courtesy of NSW Maritime.

Northern Pacific Seastar image courtesy of John Lewis ES Link Services Pty Ltd

# National Biofouling Management Guidelines for **Recreational Vessels**



**A heavily biofouled yacht being slipped for a clean and antifouling paint renewal.**

Image: Bayview Slipway

These guidelines have been developed to assist recreational vessel owners and operators reduce the risk of spreading marine pests by managing biofouling on your vessels.

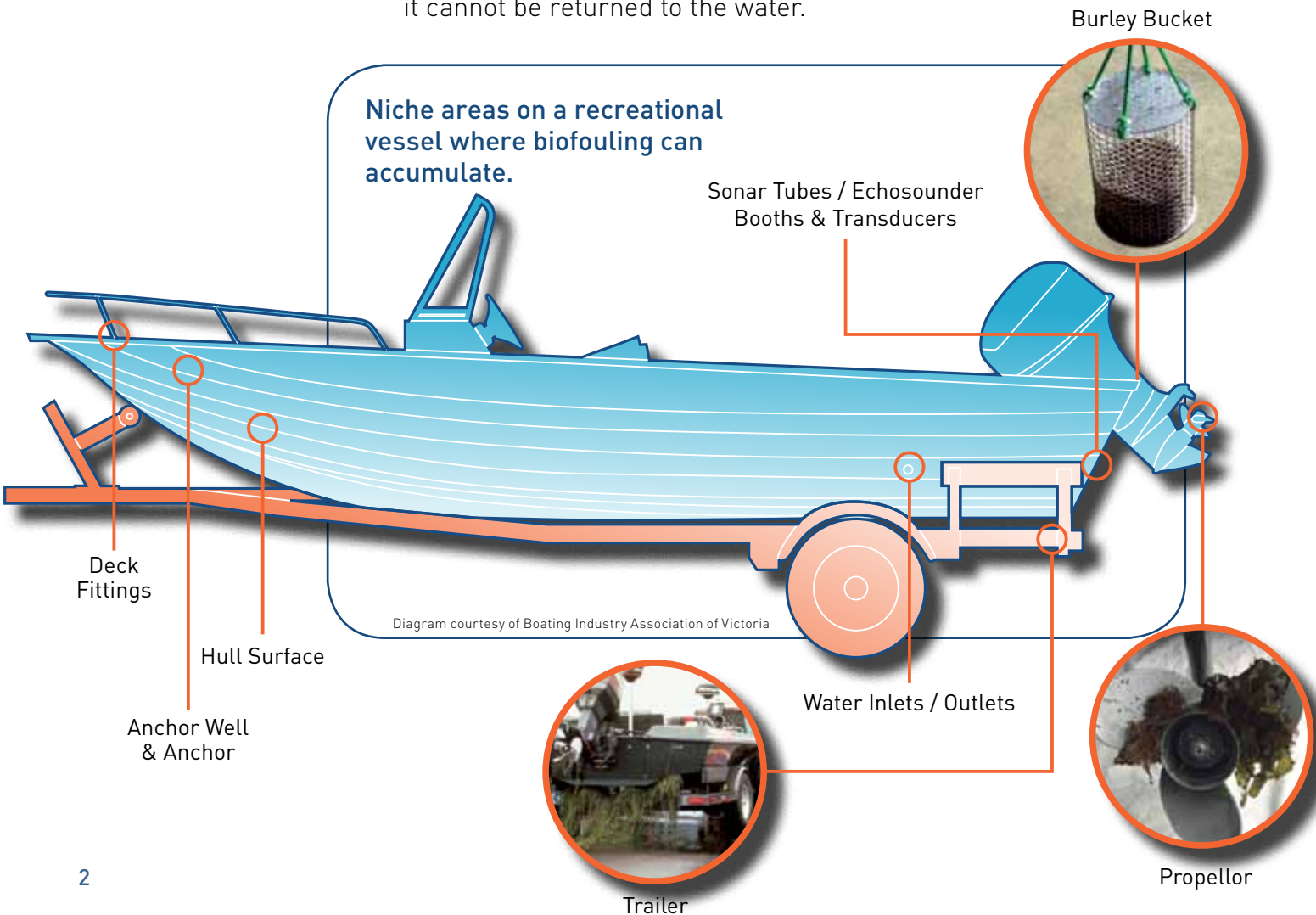
Marine pests are great hitchhikers and readily attach themselves to hulls, internal seawater systems, damp spaces or to boating gear such as anchors, ropes and buckets. With more than one million recreational vessels in Australia, there is huge opportunity for pests to be inadvertently spread as boats move from one place to another.

The keys to preventing marine pests from being spread by your vessel are good maintenance and having effective antifouling.

# 1. Maintaining trailered vessels onshore

**Trailered vessels have the potential to translocate marine pests from one area to another via both the vessel and/or its trailer. To reduce this risk, take the following precautions after each trip:**

- check for, and remove entangled or attached biofouling (e.g. seaweeds) from the vessel and trailer (see diagram)
- check outboard and hull fixtures for water that could harbour potential marine pests (e.g. trim outboard down to let water out of the gearbox housing)
- rinse the boat inside and out with fresh water, drain and if possible, allow to dry for 48 hours if moving to another location
- dispose of any biofouling and waste water, including known marine pests, in bins or to landfill so that it cannot be returned to the water.



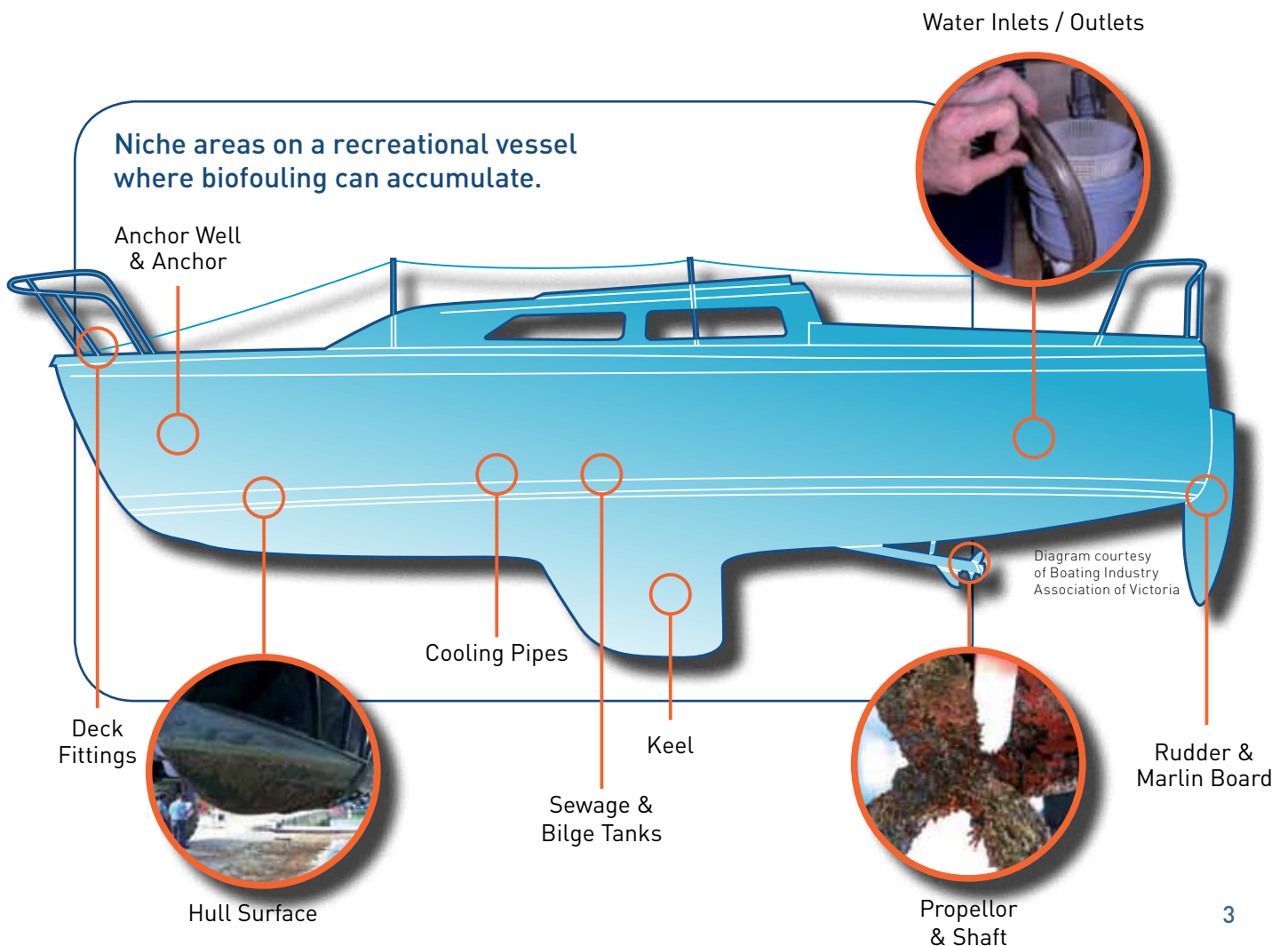


## 2. Clean your vessel and gear

Keep your vessel and gear clean to help to prevent the spread of marine pests.

### a. Remove biofouling as soon as possible

- at a licensed vessel maintenance facility if your vessel has established biofouling, or,
- by rinsing with freshwater either once you have returned to land or in your back yard if your vessel is trailered, and allow to drain completely and air dry. Air-drying will kill most small pest species in about 24 hours. If your vessel does become fouled, remove the biofouling on land where scrapings and wastewater cannot get back into the waterways or stormwater drains. If conducting hull servicing independently, remember to obtain the relevant permits to discard biofouling at a licensed disposal site. See section on waste disposal below.



- b. Do not scrape down your vessel hull in the water.** Maintenance of all vessels should be undertaken at licensed vessel maintenance facilities. The *ANZECC Code of Practice for Antifouling and In-Water Hull Cleaning and Maintenance* (the Code) is applicable in all states and the Northern Territory. Ask your maintenance facility how they manage their waste. Under the Code in-water hull scraping/cleaning is generally not allowed and permission needs to be sought to conduct any in-water cleaning. If you do wish to conduct in-water cleaning, please check with the relevant state/territory or port authority and [www.environment.gov.au/coasts/pollution/antifouling/code/index.html](http://www.environment.gov.au/coasts/pollution/antifouling/code/index.html) on how to apply for a permit to conduct in-water cleaning.
- c. Do not scrape down your vessel hull on the beach, at boat ramps, tidal grids or careening bays** where removed organisms can get back into waterways. As above, all vessel maintenance should take place in an appropriate facility.
- d. Wash down your vessel with a soft cloth to remove the slime layer as often as required to prevent build-up of heavy fouling if this is permitted in your area.** Soft-cloth wipe down may not be permitted in all places depending on your vessel movements and the presence of any marine pests in your area. Check with your relevant state/territory or port authority for more information.
- e. Clean propellers and other underwater fittings that cannot be painted regularly.** Check with the relevant state/territory or port authority for any conditions or management measures required when cleaning propellers and other underwater fittings.

Biofouling on a recreational vessel being removed by hydroblasting.

Image: Paul Gascoigne, Sandringham Yacht Club.





- f. **Clean/treat internal seawater systems regularly.** See section below.
- g. **Inspect hulls at least monthly if vessels are moored for long periods in one place, to monitor for potential biofouling,** and take any necessary action such as slipping and cleaning.
- h. **Inspect, clean and dry gear and equipment each time you change the location you are operating (e.g. Between different waterways, bays or harbours),** including anchors, fishing gear, nets and burley buckets (refer to diagram). Dispose of waste to a bin.
- i. **Ensure your boat hull is clean before leaving its current location** so that potential pests are not spread to other harbours and other vessels.
- j. **Notify your local regulatory agency if you think you have identified any pest species, any unknown species or any other potential pest species**—so their spread can be monitored. This could include unusually heavy biofouling or biofouling largely of the same species or a 'new' species not seen before. If possible, collect some specimens and keep in a sealed plastic bag in the freezer for identification.

## 3. Application of antifouling

**If your vessel is moored in water, apply an antifouling coating suitable for your vessel type and usage.**

**a. Select the best antifouling coating for your vessel based on:**

- vessel type/operating profile
- vessel construction (e.g. wood, steel, aluminium)
- voyage profile—pattern of use and activity

Consult your antifouling coating supplier for advice. Remember antifouling products containing tributyltin cannot be used in Australia.



A recreational vessel's old antifouling coating being sanded back before a fresh coat is applied.



- b. Apply and remove antifouling products at licensed vessel maintenance facilities.** These premises should comply with the *ANZECC Code of Practice for Antifouling and In-Water Hull Cleaning and Maintenance (1997)* which can be found at [www.environment.gov.au/coasts/pollution/antifouling/code/index.html](http://www.environment.gov.au/coasts/pollution/antifouling/code/index.html).

Procedures for applying and removing antifouling coatings should also follow the ANZECC Code of Practice.

- c. Apply antifouling at least as often as specified by the manufacturer, and follow closely the application directions on the can,** for the particular product selected for your vessel.

Antifouling coatings should be renewed towards the shorter end of its recommended life expectancy. Note that the effective life of a coating may be reduced by hull scrubbing or by knocks and collisions.

## 4. Treatment of internal seawater systems

**Clean or treat internal seawater systems, which are known to be a high-risk area for biofouling and may contain large numbers of juveniles or small species.**

Treat systems with an approved treatment:

- a. if a vessel has remained stationary for an extended period of time
- b. before moving a vessel to a new location
- c. whenever you slip your vessel, and
- d. regularly flush internal seawater systems with fresh water or use an approved treatment as a preventative measure to keep the systems clean.

You will need to check with your local regulatory authority to find out what internal seawater system treatments are permitted in your area. Please see [www.marinepests.gov.au](http://www.marinepests.gov.au) for more information.



## 5. Waste and effluent disposal

**Dispose of all biofouling waste appropriately and ensure that it cannot get back into waterways, stormwater drains or the marine environment.**

- a. Contain, collect and treat all biofouling removed** during hull cleaning and dispose of it appropriately into identified bins at a licensed vessel maintenance facility.
- b. Contain all wash down water that may be contaminated by fouling organisms**—don't allow it to run back into the waterways or stormwater drains.

**Where possible, dispose of bilge water and sewage wastes at appropriate pump-out facilities provided at marinas, slipways or boat ramps.** Bilge water and seawater used for toilet flushing may be contaminated with marine pests. Your marina/port authority may have guidelines for the disposal of bilge water and sewage wastes.

## 6. Record keeping and reporting

**Keep the following records to help in the case of marine pest emergencies, such as safety situations, declaration of marine pest management areas, quarantine areas, and for auditing and compliance monitoring:**

**a. antifouling and maintenance schedules**, including:

- purchase invoices for antifouling products (indicating date, brand, type and volume of paint), receipts for application of the paint by the slipway or evidence of third party oversight (e.g. written statement from the owner's marina, boat club representative confirming oversight of repainting)
- a vessel log book—to record all slipping and maintenance schedules, antifouling application schedule and products used, cleaning of hull, propeller and any other problem areas of the vessel, and treatment of internal seawater systems.

**b. vessel movement reports and voyage plans**, including destination, route and expected time of departure and return, to marina or boating club in order to track vessels in the event of a pest outbreak or other emergency.



## 7. Declared pest management measures or areas

**Comply with specific requirements as directed in the event of declared pest management measures or areas.** If management measures are implemented to eradicate an outbreak of an introduced marine pest or control an existing marine pest, the relevant authority will advise you on what you need to do.

Measures may include:

- a. declaration of a quarantine area or a control area to quarantine vessels within an area and/or prevent vessels from entering and/or leaving the area
- b. your vessel may be required to undergo an inspection and/or be treated and cleaned if it is within a control area or at a specific location, to eradicate a pest or prevent its transfer to another location
- c. you may be required to report your vessel movements so that vessels that may be contaminated with a marine pest can be tracked
- d. access to certain areas or locations may be restricted to prevent your vessel from being contaminated. It is important to comply with specific requirements as directed in the event of declared pest management areas or temporary quarantined areas.

The records mentioned above will assist authorities assess the level of biofouling that may be present on your vessel and may assist in getting your vessel cleared to leave a quarantined area.

## 8. Reporting marine pests

- a. Learn to identify known pests and report any new sightings of these species or any other unusual species to the relevant authority
- b. Be aware of pest infestations in your local area and undertake measures to minimise the risk of translocating these species
- c. Never release a known marine pest back into the water.



Live aquarium  
caulerpa  
(*Caulerpa  
taxifolia*)  
underwater.

Image: Tim Glasby, NSW  
Department of Primary Industries



