



Department of
Primary Industries and
Regional Development

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AQUATIC BIOSECURITY POLICY

19 January
2017

1 PURPOSE

The Department of Primary Industries and Regional Development (the Department) is the lead agency in Western Australia (WA) for the management of aquatic pests and diseases. Such invasive species are one of the main causes of global biodiversity loss (Secretariat of the Convention on Biological Diversity).

This document outlines the Department's policy for the management of aquatic pests and diseases to ensure aquatic environments within WA are biosecure.

2 SCOPE

This policy applies to aquatic pests and diseases that impact on the environment, the economy and social amenity, to ensure their management in a manner consistent with relevant International, National and State obligations and legislation including the Intergovernmental Agreement on Biosecurity (IGAB) and the National Environmental Biosecurity Response Agreement (NEBRA).

Aquatic pests and diseases identified as human health concerns will be dealt with by, or in collaboration with, the WA Department of Health.

Through the implementation of this policy the Department aims to minimise the negative impacts of aquatic pests and diseases in WA's marine and fresh waters through prevention, eradication, containment and targeted asset protection actions. In partnership with industry and community, resources will be targeted at the highest priorities for cost-effective and efficient management. The focus of the Department is on prevention of aquatic pest and disease establishment and continuous improvement of biosecurity practices.

3 OUTCOMES

This policy will promote the following outcomes:

- Prevent the establishment of all aquatic pests and diseases in new locations by:
 - Managing the pathways and vectors (using a risk-based approach) that are

responsible for their introduction and spread; and

- Eradicating priority pests and diseases in small, localised populations through a focus on early detection, reporting and rapid response.
- Minimise the impact of established aquatic pests and diseases by:
 - Containing priority pests and diseases to limit their spread; and
 - Targeted asset protection.
- Develop appropriate partnership arrangements with relevant agencies, industries, and other stakeholders with a view to formalising responsibilities.

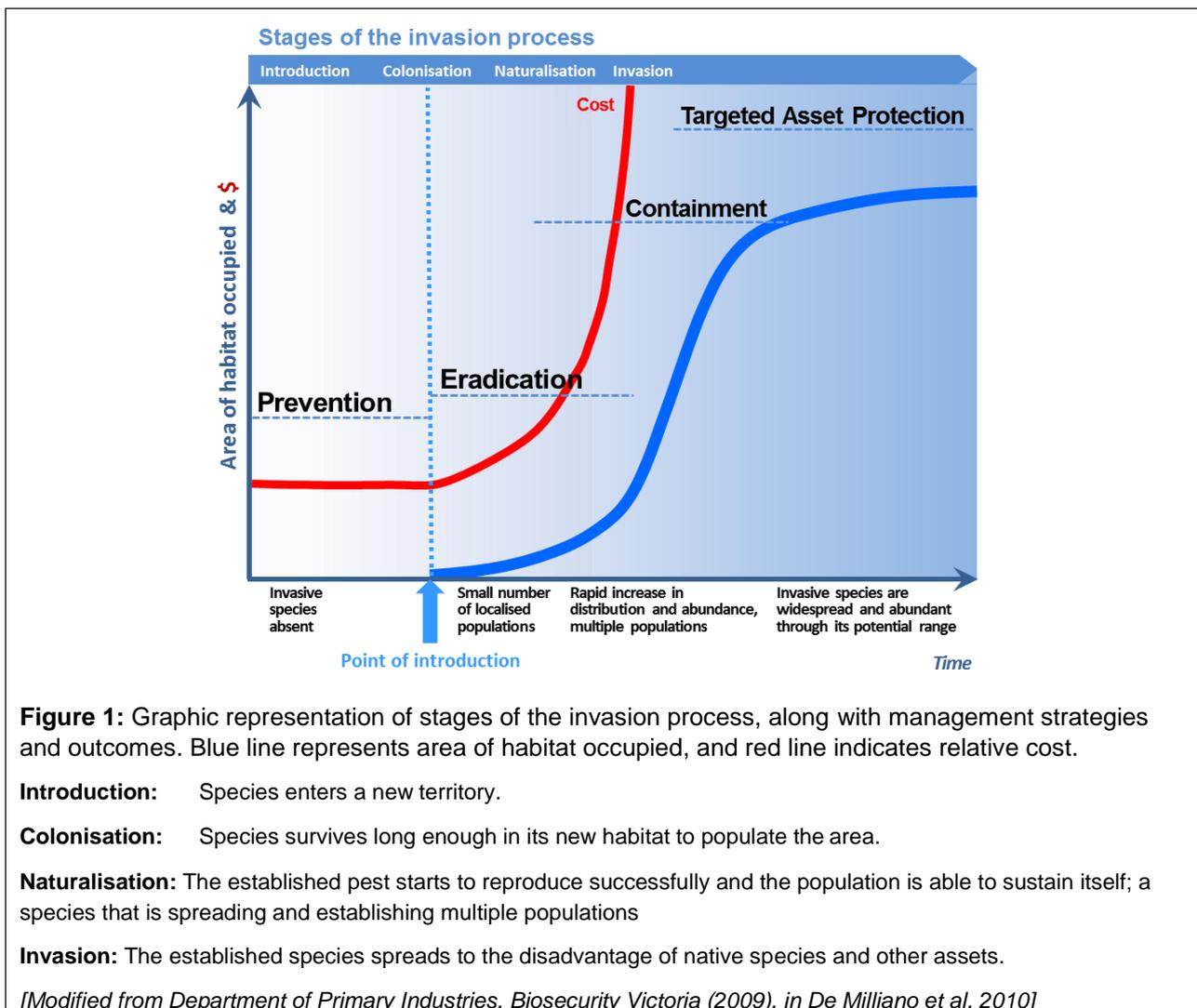
- Engage the community in the protection of aquatic ecosystems from pests and diseases.
- Maintain WA's favourable reputation for:
 - Being free from priority aquatic pests and diseases;
 - Biosecure business activities; and
 - Diverse and sustainable aquatic ecosystems.
- Comply with State, national and international aquatic biosecurity obligations.

4 KEY PRINCIPLES

This policy operates under the following key principles:

4.1 Focus on Prevention

On the basis of existing evidence, the most cost effective and efficient means for managing biosecurity is to focus on the 'prevention' end of the continuum. This is the focus of the Department's Biosecurity Program and Policy (See Figure 1).



4.2 Risk-Based Resource Allocation

Resources for biosecurity activities, including prevention, eradication, containment and asset protection, are allocated according to risk, to achieve the greatest reduction in the highest priority risks, and the most cost-effective benefit to the community.

4.3 Science-Based Risk Analysis

The Department's aquatic biosecurity decision-making is founded on its scientifically-based 'Ecosystem Based Fisheries Management' framework (Fletcher and Santoro 2012). Decisions and subsequent management strategies are based on a combination of qualitative and quantitative risk assessments involving expert opinion, scientifically robust research, published information and risk assessment models. This ensures a consistent and transparent approach.

4.4 Least Restrictive Biosecurity Measures

The Department aims to maximise biosecurity protection for the State, while minimising costs and inconvenience to stakeholders and the community.

4.5 Continuous Improvement

The Department regularly reviews processes, policy, and current knowledge to continually develop best practice for aquatic biosecurity.

4.6 International, National and State Obligations and Laws

The Department's primary responsibility is to assist the Minister for Fisheries in administering the *Fish Resources Management Act 1994* (FRMA) and the *Pearling Act 1990*, and subsidiary legislation.

With respect to its responsibility for aquatic biosecurity, the Department recognises and complies with relevant international, national and state obligations and legislation, including those identified in Appendix 10.1.

4.7 A Shared Responsibility

The Department has a leadership role in aquatic biosecurity but biosecurity is a shared responsibility and hence is everyone's concern. Relevant stakeholders have a responsibility to assist in managing biosecurity for WA, including those identified in Appendix 10.2.

5 LEGISLATION

This policy is in accordance with the second object of the *FRMA* - to share and conserve the State's fish and other aquatic resources and their habitats for the benefit of present and future generations. This directly links to Part 9A "Exotic Fish", Part 9 "Noxious fish" and Part 16A "Emergency powers to deal with biological threats", of the *FRMA*.

6 SUPPORTING DOCUMENTS

Other key departmental policies, procedures and guidelines relevant to this policy include:

- Aquatic Biosecurity Incident Management Protocol (draft);
- Biofouling and ballast water biosecurity policy (draft);
- Guidance statement on Management of Freshwater Pest Fish in Western Australia 2012-2016.
- Western Australia Department of Fisheries Policy for Managing Translocations of Live Fish into and within Western Australia – June 2012 (http://www.fish.wa.gov.au/Documents/biosecurity/dof_translocation_policy.pdf)

- Marine biosecurity policy and legislation webpage (<http://www.fish.wa.gov.au/Sustainability-and-Environment/Aquatic-Biosecurity/Vessels-And-Ports/Pages/Legislation-Policies-And-Advice.aspx>)
- Biofouling management tools and guidelines webpage (<http://www.fish.wa.gov.au/Sustainability-and-Environment/Aquatic-Biosecurity/Vessels-And-Ports/Pages/Biofouling-management-tools-and-guidelines.aspx>)
- Western Australian Prevention List for Introduced Marine Pests, DPIRD (http://www.fish.wa.gov.au/Documents/biosecurity/epa_introduced_marine_pests.pdf);

Other directly related documents, such as State and Commonwealth legislation, agreements, and guidelines, can be found in Appendix 10.1.

7 DEFINITIONS AND ABBREVIATIONS

For the purposes of aquatic biosecurity, the following definitions shall apply:

Aquatic pests and diseases	Non-native species and diseases that have adverse impacts when present in an area.
Biosecurity	Mitigating the risks and impacts on the economy, the environment, social amenity or human health associated with pests and diseases (NEBRA).
Containment	Management strategies designed to stop or restrict the spread of populations of pests and diseases (De Milliano et al. 2010).
Disease	Defined in the <i>Biosecurity and Agriculture Management Act 2007</i> as a disease that is capable of having a detrimental effect on an animal or a plant and includes a micro-organism; and a disease agent; and an infectious agent; and a parasite at any stage of its life cycle; or a genetic disorder of an animal or plant.
Eradication or eradicate	Management strategies to eliminate a pest or disease from an area. Eradication is indicated by the pest or disease no longer being detectable.
Established pest	A pest or disease that, for the foreseeable future, is perpetuated within any area and which it is deemed not feasible (either technically or as a result of a cost: benefit analysis) to eradicate (NEBRA).
Fish	Defined in the <i>Fish Resources Management Act 1994</i> as an aquatic organism of any species (whether alive or dead) and includes — <ul style="list-style-type: none"> (a) the eggs, spat, spawn, seeds, spores, fry, larva or other source of reproduction or offspring of an aquatic organism; and (b) a part only of an aquatic organism (including the shell or tail); and (c) live rock and live sand, but does not include aquatic mammals, aquatic reptiles, aquatic birds, amphibians or (except in relation to Part 3 and Division 1 of Part 11) pearl oysters.
IGAB	Intergovernmental Agreement on Biosecurity is an agreement between the Commonwealth, State and Territory governments, with the exception of Tasmania. This Agreement was developed to improve the national biosecurity system by identifying the roles and responsibilities of governments and outlines the priority areas for collaboration to minimise the impact of pests

and disease on Australia's economy, environment and the community. <http://www.coag.gov.au/node/47>

Management	A measure applied to protect animal or plant life, human health, or to prevent or limit other damage from risks arising from the entry, establishment or spread of pests and diseases, disease-carrying organisms or disease-causing organisms. Measures include all relevant laws, decrees, regulations, requirements and procedures (from SPS Agreement).
Native	Fish that occurred naturally in WA prior to the year 1400, and whose accepted current or historic distribution includes the area (e.g. water body, catchment, bioregion) under consideration.
NEBRA	National Environmental Biosecurity Response Agreement is the first deliverable of the Intergovernmental Agreement on Biosecurity, and sets out emergency response arrangements, including cost-sharing arrangements, for responding to biosecurity incidents that primarily impact the environment and/or social amenity and where the response is for the public good (http://www.coag.gov.au/node/74).
Preparedness	Arrangements to ensure that, should an outbreak occur, all the necessary resources and services can be efficiently mobilised and deployed.
Prevention	Management strategies including regulatory and physical measures to ensure that outbreaks are prevented or their impacts mitigated, and include pre-border, border and post-border activities (NEBRA).
Risk assessment	Risk assessment focusing on a variety of ecological attributes in order to protect the environmental, economic, social and cultural values identified by society (Hewitt and Campbell 2007).
Social amenity	Any tangible or intangible resources developed or provided by humans or nature such as dwellings and parks, or views and outlooks (NEBRA).
Targeted asset protection	Protection of high-priority assets from the social, environmental or economic impacts of aquatic pests and diseases. High priority asset areas include State marine parks, lands and waters adjacent to A class reserves, pearling and aquaculture facilities, and ports.

8 REVIEW

This policy will be reviewed at least every two years based on the date listed below.

Responsible Officer: Manager – Biosecurity Section, Aquatic Environment Branch

Date: 04 February 2021

9 REFERENCES

De Milliano, J.W., Woolnough, A., Reeves, A. and Shepherd, D. (2010). *Ecologically significant invasive species: A monitoring framework for natural resource management groups in Western Australia*. Prepared for the Natural Heritage Trust 2 program, Department of Agriculture and Food, Western Australia, South Perth.

Finnoff, D., Shogren, J., Leung, B. and Lodge, D. (2007). *Take a risk: Preferring prevention over control of biological invaders*. *Ecological Economics* 62:216 – 222.

Fletcher, W.J. and Santoro, K. (eds). (2012). Status Reports of the Fisheries and Aquatic Resources of Western Australia 2011/12: The State of the Fisheries. Department of Fisheries, Western Australia. (accessed 17/10/13).

Hewitt, C. and Campbell, M. (2007). Mechanisms for the prevention of marine bioinvasions for better biosecurity. *Marine Pollution Bulletin* 55:395–401.

10 APPENDICES

10.1 Appendix 1: Relevant international, National and State Legislation, Guidelines and Agreements

- Australian Biosecurity System for Primary Production and the Environment (AusBIOSEC)
- Australian *Environment Protection (Sea Dumping) Act 1981*
- Australian *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act)
- Australian *Protection of the Sea (Harmful Antifouling Systems) Act 2006*
- Australian *Quarantine Act 1908*
- Bureau of Rural Sciences 1999 National Policy for the Translocation of Live Aquatic Organisms (1999)
- IGAB - Intergovernmental Agreement on Biosecurity (IGAB) <http://www.coag.gov.au/node/47> (accessed 17/10/13)
- International Convention for the Prevention of Pollution from Ships (MARPOL), October 1983
- International Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES)
- International Convention on the Control of Harmful Antifouling Systems on Ships (AFS Convention), which entered into force internationally and for Australia on 17 September 2008.
- International Maritime Organisation 2011 Guidelines for the Control and Management of Ships' Biofouling to Minimise the transfer of Invasive Aquatic Species. Marine Environmental Protection Committee (IMO-MEPC62), July 2011.
- International Maritime Organisation International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004. BWM/COF/36, February 2004.
- International Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972) (the London Protocol)
- International United Nations Convention on Biological Diversity (1992)
- International United Nations Food and Agriculture Organisation Code of Conduct for Responsible Fisheries (1995)
- National Strategy for the Conservation of Australia's Biological Diversity (1996)
- National System for the Prevention and Management of Introduced Marine Pest Incursions - <http://www.marinepests.gov.au/>

- NEBRA - National Environmental Biosecurity Response Agreement 2012 National Environmental Biosecurity Response Agreement <http://www.coag.gov.au/node/74> (accessed 10/08/12).
- SPS Agreement - World Trade Organisation 1994 Agreement on the Application of Sanitary and Phytosanitary Measures http://www.wto.org/english/tratop_e/sps_e/sps_e.htm *WA Biosecurity and Agriculture Management Act 2007* (accessed 17/10/13).
- *WA Biosecurity and Agriculture Management Act 2007*
- *WA Conservation and Land Management Act 1984*
- *WA Environmental Protection Act 1986*
- *WA Exotic Diseases of Animals Act 1993*
- *WA Fish Resources Management Act 1994* and regulations.
- *WA Government Fisheries Policy Statement 2012*
- *WA Pearling Act 1990*
- *WA Wildlife Conservation Act 1950* and *Wildlife Conservation Regulations 1970*
- Western Australia Department of Fisheries Native Freshwater Fish Biodiversity Policy - Draft August 2013

10.2 Appendix 2: A Shared Responsibility

The Department has a leadership role in aquatic biosecurity but biosecurity is a shared responsibility and is everyone's concern. All levels of government, resources and shipping industries, environmental managers, non-government organisations, tourism operators, visitors to WA, and the WA community, have a role to play. Recognising this, all who benefit from WA's aquatic biosecurity status should share in the responsibility for the management of the State's aquatic biosecurity, sometimes in partnership by: reporting pests, not releasing pests, preventing the introduction of, and controlling, pests. Key stakeholders include:

General Public – The public stand to be adversely impacted by biosecurity threats to public health, amenity, the environment and economic development. The public are therefore critically important in the reporting of aquatic pests and diseases.

Port Authorities – These organisations are responsible for the management of logistics and movement of vessels into and out of their jurisdictions. Other management responsibilities include the construction and maintenance of new facilities, such as jetties, wharves and slipways. Thus Port Authorities have a key role to play with respect to detecting, monitoring, preventing and eradicating introduced marine pests.

Marinas – Marinas are the responsibility of local government authorities or the Department of Transport. The relevant body is responsible for the construction and maintenance of new and existing marina facilities, such as jetties, boat pens and boat ramps. Marina managers can facilitate the safe cleaning of vessels and reporting of pests.

Resources sector – Because of the large number of vessels employed by resource companies, this sector has an important biosecurity role. Given the movement of resource sector vessels between trading countries and the capacity for vessels to be a pathway aiding the spread of introduced marine pests, resource companies often also have legal obligations in the area of marine biosecurity.

Shipping and Boating Industry – The shipping and boating industry is comprised of commercial and pleasure vessels which utilise both port and marina facilities as appropriate. The movement of ships and boats between different countries and within Australia means that

they have the capacity to act as vectors for the spread of introduced marine pests and as such they also play an important role in marine biosecurity and prevention by ensuring vessels are at low risk of transporting aquatic pests and diseases, and in reporting suspected pests and diseases.

Aquarium Fish Suppliers - The commercial aquarium industry deals in the movement of large numbers of ornamental fish into, and within, WA. Some of these species have potential to become invasive if released into natural waterbodies. Suppliers can help ensure their customers understand these issues, know what to do with unwanted fish and only buy species that it is legal to own.

WA Fishing Industry Council (WAFIC) – This is the peak sector body representing the commercial fishers of WA, who may be adversely impacted by biosecurity threats to their fisheries. WAFIC can help ensure that suspected pests and diseases are reported, that their members are aware of vessel biosecurity, and of import requirements on fish and fish products.

Recfishwest – This group is the recognised peak recreational fishing body in WA and may be adversely impacted by biosecurity threats to their fisheries. It can help ensure that suspected pests and diseases are reported and that its members are aware of vessel biosecurity.

Local Government Authorities – The work of Local Government Authorities is varied, but in relation to aquatic biosecurity, responsibilities include management and maintenance of ports and marinas, recreational facilities such as lakes, as well as management of planning and development approvals. They can help ensure that suspected pests and diseases are reported and that those detected are eradicated.

Environmental Protection Authority (EPA) – The EPA has statutory obligations under the *Environmental Protection Act 1986* to conduct environmental impact assessments, initiate measures to protect the environment from environmental harm and pollution, and to provide advice to the Minister for Environment on environmental matters generally.

Office of the Environmental Protection Authority (OEPA) – The OEPA supports the EPA in conducting environmental impact assessments and developing policies to protect the environment. The OEPA also monitors compliance with Ministerial conditions related to approvals for development proposals, including marine pest conditions. It administers and operates under the *Environmental Protection Act 1986* and regulations.

Department of Primary Industries and Regional Development (DPIRD) – DPIRD assists the State's agriculture, food and fiber sectors to be sustainable and profitable, with a clear focus on export-led growth. It manages associated biosecurity issues under the *Biosecurity and Agriculture Management Act 2007*. It represents other State government agencies and authorities on the National Biosecurity Committee and other relevant committees.

Department of Biodiversity, Conservation and Attractions (DBCA) - DBCA protects and conserves the State's natural environment. Its key responsibilities include conserving biodiversity and managing the State's national parks, marine parks and other reserves. It also has responsibility under the *Swan and Canning Rivers Management Act 2006* for the protection of the Swan and Canning Rivers to maintain ecological values, and community benefits and amenity.

Commonwealth Department of Agriculture, Water and the Environment (DAWE) – DAWE manages quarantine controls at our federal borders to minimise the risk of exotic pests and diseases entering the country and administers the *Quarantine Act 1908*. DAWE manages ballast water at the national border but does not manage biofouling and administers the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Applicants wishing to in-water clean vessels in Commonwealth waters must consult with DAWE regarding their EPBC Act obligations.

Western Australian Museum (WAM) – The WAM is the provider of taxonomic expertise required to identify the many aquatic pests collected on vessels and submersible equipment and at survey sites within WA.