

**Regulation of Prawn Farming in Australia – A Summary of State and Commonwealth Legislation**  
**prepared for the Australian Prawn Farmer’s Association National Prawn Farming Environmental Management Workshop**  
**24 and 25 May 2000**

The purpose of this paper is to summarise in broad terms current environmental management regulation related to establishing and operating prawn farms in Australia. It is intended for use by workshop participants to identify areas of commonality and areas of difference and to demonstrate the complexity of the issue.

This paper has three parts.

1. A table that summarises the protocols (the regulatory and policy processes) to be followed in various jurisdictions.
2. A selection of definitions of aquaculture/prawn farming found in various pieces of environment protection legislation. This list is not complete - definitions also vary between aquaculture and planning laws.
3. A table that summarises the parameters commonly used in setting waste discharge limits in licence conditions.

Notes:

- GBRMPA means the Great Barrier Reef Marine Park Authority, a Commonwealth Government agency.
- Aust. Water Quality Guidelines means the water quality guidelines published under the National Water Quality Management Strategy.
- The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) impacts on the regulation of prawn farms but has not been incorporated into Table 1. This Act provides that certain actions – in particular, actions which are likely to have a significant impact on a matter of national environmental significance – are subject to a rigorous assessment and approval process. The Commonwealth may, through bilateral agreements, delegate to the States the responsibility for conducting assessments and, in limited circumstances, the responsibility for deciding whether to grant approval.

**IMPORTANT:**

Although care has been taken to represent the situation for each jurisdiction correctly, important details have been omitted to in order to achieve the purpose of this background paper. Hence, this paper should not be relied upon for accurate information about legislative requirements applying to particular proposals in individual jurisdictions. Specific advice for particular matters should be sought from the relevant jurisdiction.

## Part 1. Summary of protocols for the establishment and operation of prawn farms in various jurisdictions

	NSW	QLD	NT	WA	GBRPMA
1. What are the key statutory approvals required?	fisheries aquaculture permit; development consent; environment protection licence	aquaculture permit; development approval; environment protection licence	aquaculture licence; development assessment approval; water discharge licence; environmental assessment process	aquaculture permit; development consent; environment protection licence	permit to discharge aquaculture waste
2. Is development approval or consent required?	Yes, with existing arrangements under <i>Environmental Planning and Assessment Act 1979</i> approval required under Local Environmental Plan.  Under proposed State Environmental Planning Policy, some aquaculture will be “pre-assessed” and permissible in certain areas.	Yes - is assessable development under <i>Integrated Planning Act 1997</i> if: <ul style="list-style-type: none"> <li>activity is to be licensed under EP Act; or</li> <li>required by local government planning scheme.</li> </ul> Process differs depending on trigger.	Development consent required.	Yes. A lease from the Department of Lands Administration is required for proposals on Crown Land. Change of land use may need to be gazetted by the Local Government Authority (aquaculture is permitted on lands gazetted as rural or pastoral).	Yes. A permit is required under the <i>Great Barrier Reef Marine Park Act 1975</i> .
3. Is a formal (including public consultation) assessment of environmental impacts required?	Yes if development consent is required (some aquaculture is to designated development under EP&A Act).  There is a proposal to exclude from designation aquaculture that is determined to be low environmental risk.	Case specific.  Public notification if impact is assessable under the relevant planning scheme.  Also can be triggered (administrative threshold criteria proposed) for projects of state significance by <i>State Development and Public Works Organisation Act 1971</i> .	Public Environmental Report or Environmental Impact Statement can be required by the Environmental Assessment administrative Procedures under the <i>Environmental Assessment Act 1982</i> .	Yes. Under the <i>Environmental Protection Act 1986</i> , the EPA determines whether a proposal is likely to have a significant effect on the environment and sets a "level of assessment". Full-scale prawn farms are likely to be allocated a "formal" level of assessment, incorporating public consultation.	Yes. The <i>Great Barrier Reef Marine Park (Aquaculture) Regulations 2000</i> require an applicant to publish information about the application. This regulation ensures the public is given an opportunity to comment upon proposals that may affect them.
4. Is there an integrated approvals system?	Integrated Development Assessment under EP&A Act.	Integrated Development Approvals System under IP Act.	Not legislated but in practice facilitated by administrative procedures under the Environmental Assessment Act.	Yes. Relevant stakeholders, including members of the Inter-Departmental Committee for Aquaculture are consulted through the Fisheries WA process outlined in the Fisheries WA Ministerial Policy Guideline No.8.	Yes. The GBRMP aquaculture Regulations integrate assessment procedures with the Commonwealth EP(IP) Act and will integrate with the EPBC Act after 16July 2000.

	<b>NSW</b>	<b>QLD</b>	<b>NT</b>	<b>WA</b>	<b>GBRPM</b>
5. Is an “environmental” licence required? see definitions for licensable activities in Part 2 below.	Licence required to carry out scheduled activity under <i>Protection of the Environment Operations Act 1997</i> .  Also may apply for licence for carrying out non-scheduled activity where there is discharge to waters.	Licence required to carry out scheduled activity under <i>Environmental Protection Act 1994</i> .	Licence required under <i>Water Act 1992</i> to discharge waste to waters.  (see note in q6. about aquaculture licence)	Works approval for construction and licence to carry out activity on prescribed premises (both EP Act).	A permit to discharge waste from an aquaculture facility, within the control area adjacent to the GBR, is required.
6. What does the licence address?	Pollution being or likely to be caused by the carrying out of the activity or work concerned and the likely impact of that pollution on the environment.	Environmental harm caused or may be caused by the release of contaminants from carrying out the activity.	Maintenance of long term sustainability in water use.  (aquaculture licence might address environmental issues such as fisheries protection, mangroves, sustainability and conservation of aquatic systems)	In general licences address discharges of waste or emissions of noise, odour or electromagnetic radiation. A licence is issued to ensure that the environmental impacts associated with the operations are controlled and managed. In particular for aquaculture licences the condition address waste water and solid management.	The discharge of contaminants to waters contiguous with waters of the GBRMP.
7. Does the relevant legislation prescribe the setting of numerical discharge limits?	Set of numbers not prescribed.  Numbers derived from decision-making process which must consider a set of prescribed matters.	Set of numbers not prescribed.  Numbers derived from decision-making process which must consider a set of prescribed matters.	Set of numbers not prescribed.  Numbers derived from administrative process.	Set of numbers not prescribed.  Numbers derived from decision-making process which must consider a set of prescribed matters.	Set of numbers not prescribed.  Numbers derived from decision-making process which must consider a set of prescribed matters.
8. What is the basis for setting discharge limits - water quality objectives or best practice for the activity?	Water quality objectives developed for relevant catchment receiving waters.	Both water quality objectives and best practice environmental management for the activity are statutory matters to be considered.	Impact on receiving waters.	Water quality objectives.	Conditions necessary to provide requisite degree of protection for animals and plants in the Marine Park.

	NSW	QLD	NT	WA	GBRPMA
9. How are the Aust. Water Quality Guidelines (AWQGs) being implemented with respect to water quality objectives?	Interim water quality objectives and river flow objectives published for 31 catchments.	Listed in subordinate legislation as a document to use in determining water quality objectives (WQOs).  Environmental values and WQOs scheduled for Trinity Inlet.  Draft Qld guidelines being derived from AWQGs.	AWQG used in assessing beneficial uses and potential impact of effluent but allowances need to be made for local circumstances.	Draft <i>WA water quality guidelines for fresh and marine waters</i> modified from AWQGs.	The ANZECC trigger values for environmental harm and AWQ Guidelines are used in the determination of water quality objectives.
10. Is there a model licence?	Draft under preparation.	Proposal to prepare draft model licence.	No.	Not currently, as no WA prawn farms have yet obtained an environmental licence.	There is a standard permit with variations on conditions.
11. What other policies or strategies might impact on regulating prawn farms?	<ul style="list-style-type: none"> <li>• NSW Coastal Policy</li> <li>• NSW Rivers and Estuarine Policy</li> <li>• North Coast Sustainable Aquaculture Strategy</li> <li>• Healthy Rivers Commission</li> </ul>	<ul style="list-style-type: none"> <li>• review of Queensland Marine Prawn Aquaculture under EP Act</li> <li>• Regional Water Quality Studies e.g. Brisbane River and Moreton Bay Regional Water Quality Management Strategy</li> <li>• RAMSAR sites Harbours Act approval required for prawn farm inlets and outlets</li> <li>• DPI mangrove policy</li> <li>• Marine Parks Act (State)</li> <li>• <i>Commonwealth Great Barrier Reef Marine Park Act</i></li> </ul>	<ul style="list-style-type: none"> <li>• NT Coastal Management Policy</li> <li>• Mangrove policy - Fisheries Department</li> <li>• Land Use Objectives</li> <li>• Acid sulphate soil reclamation guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife Conservation Act 1950</li> <li>• Conservation and Land management Act 1984</li> <li>• Fish Resources Management Act 1994</li> <li>• Lands Administration Act</li> <li>• Native Title Act</li> <li>• Waterways Conservation Act 1976</li> <li>• RAMSAR</li> </ul>	The Commonwealth Environmental Protection, Biodiversity and Conservation Act 1999 will impact on aquaculture facilities that operate adjacent to World heritage areas and Ramsar sites etc.

## **Part 2. Sample definitions of aquaculture/prawn farming activities - environment protection legislation**

NSW *Protection of the Environment Operations Act 1997* scheduled activity to be licensed (note - schedule is being amended)

Aquaculture or mariculture for the commercial production (breeding, hatching, rearing or cultivation) of marine, estuarine or freshwater organisms, including aquatic plants or animals (such as fin fish, crustaceans, molluscs or other aquatic invertebrates), but not including oysters, involving supplemental feeding in tanks or artificial waterbodies with a total water storage area of more than 10 hectares or a total water volume of more than 400 megalitres.

Qld *Environmental Protection Act 1994* scheduled activity to be licensed.

Aquaculture—cultivating or holding marine, estuarine or freshwater organisms (other than molluscs) in ponds or enclosures in waters—

- (a) if the total area of the ponds or enclosures is 5 ha or more and no wastes are released to waters
- (b) if the total area of the ponds or enclosures is less than 5 ha and wastes are released to waters
- (c) if the total area of the ponds or enclosures is 5 ha or more but less than 10 ha and wastes are released to waters
- (d) if the total area of the ponds or enclosures is 10 ha or more but less than 20 ha and wastes are released to waters
- (e) if the total area of the ponds or enclosures is 20 ha or more and wastes are released to waters

WA *Environmental Protection Act 1986* - activity on prescribed premises to be licensed

Aquaculture (ponds or tanks): premises on which

- (a) marine, estuarine or freshwater fish or prawns are propagated or reared; and
- (b) supplementary feeding occurs,

in ponds or tanks that discharge waste into waters or onto land. A production or design capacity of biomass 1000 kilograms or more applies.

Aquaculture (natural waters): premises on which

- (b) marine, estuarine or freshwater fish or prawns are propagated or reared; and
- (b) supplementary feeding occurs,

in enclosures in naturally occurring waters. A production or design capacity of biomass does not apply.

GBRMPA *Great Barrier Reef Marine Park Act 1975/Great Barrier Reef Marine Park (Aquaculture) Regulations 2000*

The scheme provides:

- (i) for aquaculture operations of a limited size and nature (less than 1 hectare and which do not carry out hatchery or larval production activities) to continue without further regulation under the proposed Regulations; and
- (ii) for aquaculture operations of an intermediate size and nature (greater than 1 hectare but less than 5 hectares and which do not carry out hatchery or larval production activities) to continue operations subject to notification of certain details to the Authority; and
- (iii) that discharge of waste from aquaculture operations greater than 5 hectares or which carry out hatchery or larval production activities, will be prohibited unless permission is first sought and obtained from the Great Barrier Reef Marine Park Authority.

### Part 3. Summary of parameters encountered in the regulation of operating prawn farms

	NSW	QLD	NT	WA	GBRMPA
1. What policy or technical guidelines recommend discharge limits?	1995 internal paper (after discussion with industry) on what limits can be met.	A draft discussion paper for review of Queensland Marine Prawn aquaculture.	Based on receiving waters/beneficial uses.	ANZECC and EPA water quality guidelines and the Water and Rivers Commission (WRC) General guidelines for acceptability of aquaculture projects.  <i>Water Quality Protection Note - Aquaculture Projects</i> Water and Rivers Commission 1998.	GBRMPA Draft Aquaculture Policy in association with ANZECC water quality guidelines.  Draft discussion paper for review of Queensland Marine Prawn Aquaculture.
2. What are the parameters commonly set for water discharges to non-sensitive waters?	The values below vary on a case by case basis with a view to maintaining water quality objectives for the relevant waterway.	The values below are from the draft discussion paper.  The values in square brackets represent the range of maximum limits in existing licences.		The values below are from the WRC guidelines and are for small scale projects ONLY (discharging less than five cubic meters of wastewater per day).  Large scale projects to be on a case by case basis, determined using ANZEC guidelines and ambient water quality at the site.	The values set must reflect the sensitivity of Great Barrier Reef World Heritage Area.  Values will differ in accordance to the proximity to sensitive environments eg seagrass beds or fringing coral reefs.  Available on request.
BOD	<20mg/L	n/a		<20mg/L	
TSS (NFR) <sup>#</sup>	(<90 mg/L; 60 mg/L 90 <sup>th</sup> %ile)	under review [15-200mg/L]		<80mg/L	
Total N	<10mg/L	under review [1-5 mg/L]		N as NH <sub>3</sub> <1mg/L N as NO <sub>3</sub> <10mg/L	
Total P	<1 mg/L	under review [0.25 - 0.8 mg/L]		< 1mg/L	
pH	6.5-.8.5	6.5-8.7		5-9	
D.O.	>4mg/L	4mg/L or 50% saturation whichever is least			
salinity change				<20% between up/downstream	

<sup>#</sup> The values in brackets for NSW are for NFR. Values for other jurisdictions are for TSS.