

# **NSW Land Based Sustainable Aquaculture Strategy**

## **Overview**

**Aquaculture & Planning Approval Process**

**December 2009**

**A NSW Government Initiative**

# NSW Land Based Sustainable Aquaculture Strategy

## Overview

### Aquaculture & Planning Approval Process

A NSW Government initiative of Department of Premier's and Cabinet, Department of Planning; Industry & Investment NSW; Department of Environment, Climate Change and Water; Land and Property Management Authority; Department of Local Government and NSW Food Authority to encourage sustainable land based aquaculture.

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## Acknowledgment

The NSW Aquaculture Strategy Steering Group developed the NSW Land Based Sustainable Aquaculture Strategy and this overview document as an extension of the NSW State Government's Aquaculture Initiative. The steering group would like to thank all those who contributed to the development of the strategy by making submissions. The steering group will continue to liaise with all stakeholders in implementing the strategy and reviewing it from time to time.

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### **To obtain copies of this document**

The document can be accessed from [Industry & Investment NSW](#) website.

Please note that this document has been compiled using linkages to relevant websites which contain detailed information regarding the topic being discussed in the text. The electronic version of this document contains numerous links to relevant websites and these links are indicated by blue text. To activate these links please place your cursor on the word and then press the left mouse button and the web page should open. The printed form of this document contains a number of the key links within it. The web links were active at the time of preparation of this document and may refer to previous government agencies that were in the process of being amalgamated into a new department at the time of writing. The electronic web version of this document will be amended once government agency amalgamations have been completed and their respective websites updated.

## 1. Introduction

The purpose of this document is to provide an overview of aquaculture and the planning approval process.

Detailed information required to develop an aquaculture proposal and for seeking a development consent can be found in the NSW Land Based Sustainable Aquaculture Strategy which promotes the ecological sustainable development (ESD) of the land based aquaculture industry in NSW. The strategy aims to simplify the approvals process for aquaculture giving greater certainty to the community and investors. It also details best practice guidelines for aquaculture based on ESD principles and outlines the regulatory framework for NSW.

## 2. What is land based aquaculture?

Land based aquaculture means the breeding, growing, keeping and harvesting of fish or marine vegetation with a view to sale or for commercial purposes in land based facilities.

This strategy covers the types of land based aquaculture which may be used to produce fish for food, stocking and the aquarium trade. The types of aquaculture can be divided into either pond or tank using either fresh, saline groundwater, estuarine, or marine water.

**Aquaculture within public waterways is not dealt with in this strategy. However, land based aquaculture may access water from public waterways including rivers, estuaries and the ocean.**

### 2.1 Brief history of aquaculture in NSW

Aquaculture has been practiced in Australia for approximately forty thousand years by aboriginal communities using sophisticated fish traps created to capture and hold fish. The Aboriginal fish traps in the [Brewarrina](#) region of New South Wales, also known as the Ngunnhu to the local Ngemba people still exist today and stand as a testament to Aboriginal knowledge of engineering and fish migration. In Victoria there are also remains and archeological evidence in the [Lake Condah](#) region of a settled Aboriginal community farming eels for food and trade in what is considered to be the earliest and possibly largest land based aquaculture venture in Australia.



**Photo 1. Brewarrina Fish traps.**

During the early European history of Australia a number of acclimatisation groups undertook aquaculture to produce European fish species (mainly trout) for stocking into rivers and streams. Brown trout were introduced as fertilised eggs imported into Tasmania from the United Kingdom in 1864. Soon afterwards, stocks in Victoria were developed from eggs obtained from Tasmania, and in 1888 brown trout were introduced into New South Wales. Progeny from these stocks were distributed widely throughout New South Wales.

Until the 1980s, the oyster, trout and aquarium fish breeding industries comprised the majority of aquaculture in NSW. Now the industry has a greater diversity of species and is undertaken in oceanic (mussels), estuarine (oysters), and land based (prawns, silver perch, yabbies, barramundi, aquarium fish) sites.

In 2007/2008 the NSW aquaculture industry had grown to be worth \$52 million dollars to the economy and employed over 1,500 people directly in regional areas. The land based aquaculture industry in 2007/08 was valued at about \$11 million.

## **2.2 Introduction to aquaculture**

There are a variety of aquaculture systems for growing fish, crustaceans, other invertebrates and marine vegetation. The choice of system depends upon several factors including the physiological requirements of the species (space, water quality, nutrition), the operating costs of the system (labour, feed, energy), market price and the site location (land area, urban, rural). Successfully combining these key factors will support sustainable and profitable aquaculture.

In general, aquaculture farms can be divided into two infrastructure types being either pond or tank. These in turn can be divided into further categories depending on the type of culture water (freshwater, saline groundwater, estuarine or marine waters) used, what feeding regime is used and the management of discharged culture water.

## **2.3 Land based aquaculture infrastructure**

### **(a) Ponds**

Pond aquaculture is undertaken in structures that are constructed by excavating and reshaping earth to contain water. These structures may be constructed below or above ground level and may be lined with impervious soils or with an impervious liner such as concrete, rubber, plastic or fibreglass in areas where seepage is a problem or to prevent erosion in open (flow through) systems. Ponds are typically 0.1 to 1.0 ha (1000 to 10,000 m<sup>2</sup>) in size, rectangular or square in shape, have a water inlet and outlet and have access to electricity to drive aerators and pumps. Ponds may have a sump area (lowest point) made of concrete, fibreglass or plastic to facilitate harvest and final draining of the pond. Water exchange is usually undertaken during the production cycle. Production and stocking level is often expressed as tonnes per hectare and/or numbers of fish per hectare respectively.

Water stored for agriculture cropping and stock watering provide opportunities for freshwater pond extensive aquaculture. Using stocking levels matched to the natural productivity of the water body, moderate yields of native fish species can be attained. These culture systems operate with low operating and low capital costs, have a low level of management and have fewer risks compared to the more intensive culture methods. The fish are essentially 'free-ranging' and can take longer to grow compared to more intensive systems depending upon food availability, stocking density, predation and other factors.

Pond aquaculture farms may include ancillary activities and infrastructure such as tanks to handle the pre-market conditioning or holding market sized fish post-harvest prior to sale.

Within ponds, additional infrastructure may be used to culture the farmed species such as cages or raceway devices. Species suitable for pond aquaculture include prawns, mulloway, silver perch, trout and aquarium fish.

Diagram 1 outlines the main components of a pond with photos 2, 3, 4 & 5 showing some typical examples of pond aquaculture farms.

Diagram 1. Diagram representing a typical earthen pond aquaculture system.

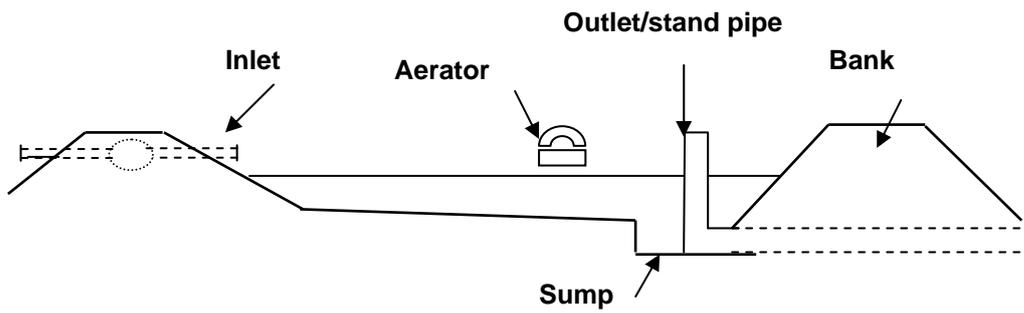


Photo 2.  
Harvesting fish from a half drained earthen pond in the Riverina region; note outlet standpipe in background.



Photo 3.  
Estuarine pond aquaculture on the Clarence River used to grow prawns.

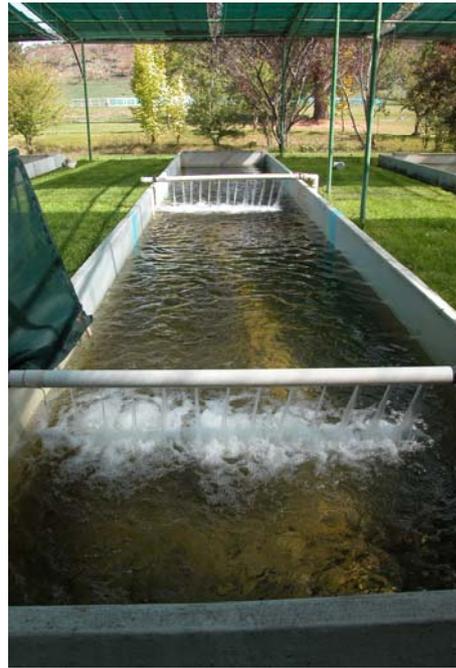


Photo 4.  
A stock watering dam used for extensive pond aquaculture.



Photo 5.

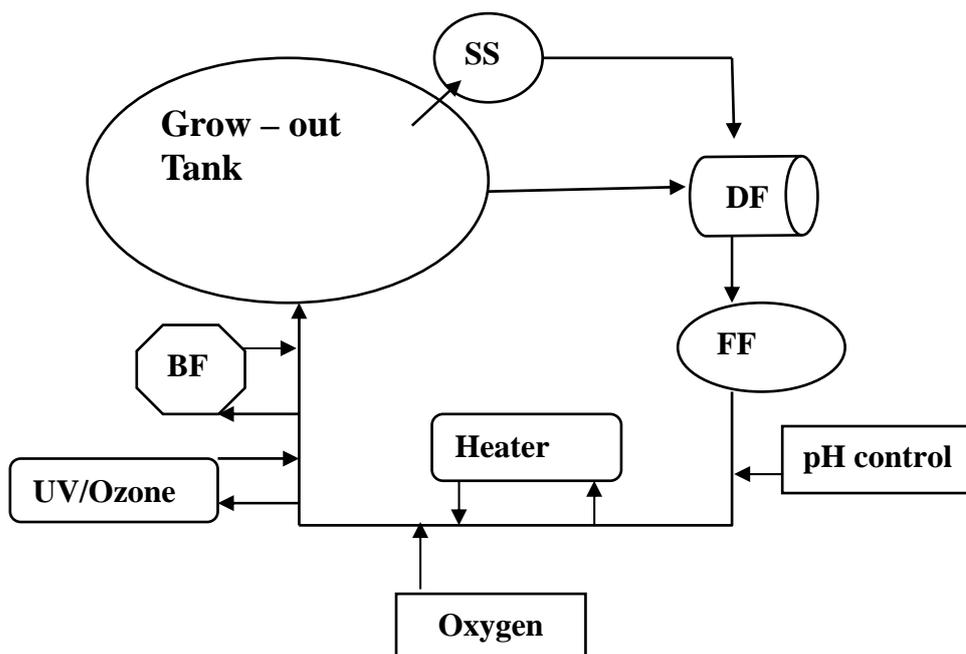
An open (flow through) pond aquaculture system at Gaden Trout Hatchery.



**(b) Tanks**

Tank aquaculture is generally housed within a purpose built farm or industrial style sheds and have concrete floors with a drainage system. Plastic covered hothouses are also used to assist in controlling environmental factors. The equipment used can include; round or trough/raceway tanks (1,000 to 30,000 litres, constructed from materials such as fibreglass, plastics, concrete, glass or metals), a filtration unit including swirl separator, drum filter and settling tank, oxygenation, ozonation or UV sterilisation unit, pumps, de-gassing chamber and a bio-filter (see Diagram 2). Production and stocking levels are usually expressed as kilograms/m<sup>3</sup> and numbers of fish/m<sup>3</sup> of water respectively.

**Diagram 2. Major componentary of a typical recirculating tank aquaculture system**  
(SS = swirl separator; DF = drum filter; FF = foam fractionator; BF = biofilter; UV = ultra violet).



Tank aquaculture may be based on open, semi closed or closed systems. Semi closed and closed systems will use recirculating aquaculture systems (RAS) which is an intensive culture method using sophisticated technology to recycle water back through the production tanks. RAS require a high degree of management and technical expertise. The risk of disease and losses can increase proportionally with intensification. RAS can also be used for pre-market conditioning and holding stock for short periods prior to sale associated with pond aquaculture systems.

Species grown in tank aquaculture include barramundi, barcoo grunter, Murray cod and aquarium fish.

Photo 6 shows a typical tank aquaculture facility which is using a RAS to culture fish. It can be seen from this photo that tank aquaculture is a securely housed system that can be used to grow high security status species with little potential for impact on the environment.

Aquarium fish production may occur on a large scale farm similar to that undertaken for food fish production or on a small scale in small shed or garage in a suburban residential area producing high value species, see photo 7.

**Photo 6.**  
A small  
recirculating  
aquaculture  
system (RAS) at  
the Grafton  
Aquaculture  
Centre.



**Photo 7.**  
Coral aquaculture  
undertaken in  
glass tanks within  
a garage in  
Sydney.



## 2.4 Feeding regimes

Aquaculture farms may be classed as either intensive or extensive production systems depending on the feeding regimes used to grow the farmed species.

**Extensive aquaculture** systems involve fish held at low density with their nutritional requirements coming from the natural productivity of the water body in which they are held. These systems rely on relatively low capital input and little management as there is no supplemental feeding or aeration. Consequently, there are lower yields per unit area due to low stocking densities. In NSW, the harvesting of yabbies from farm dams is an example of an extensive aquaculture system.

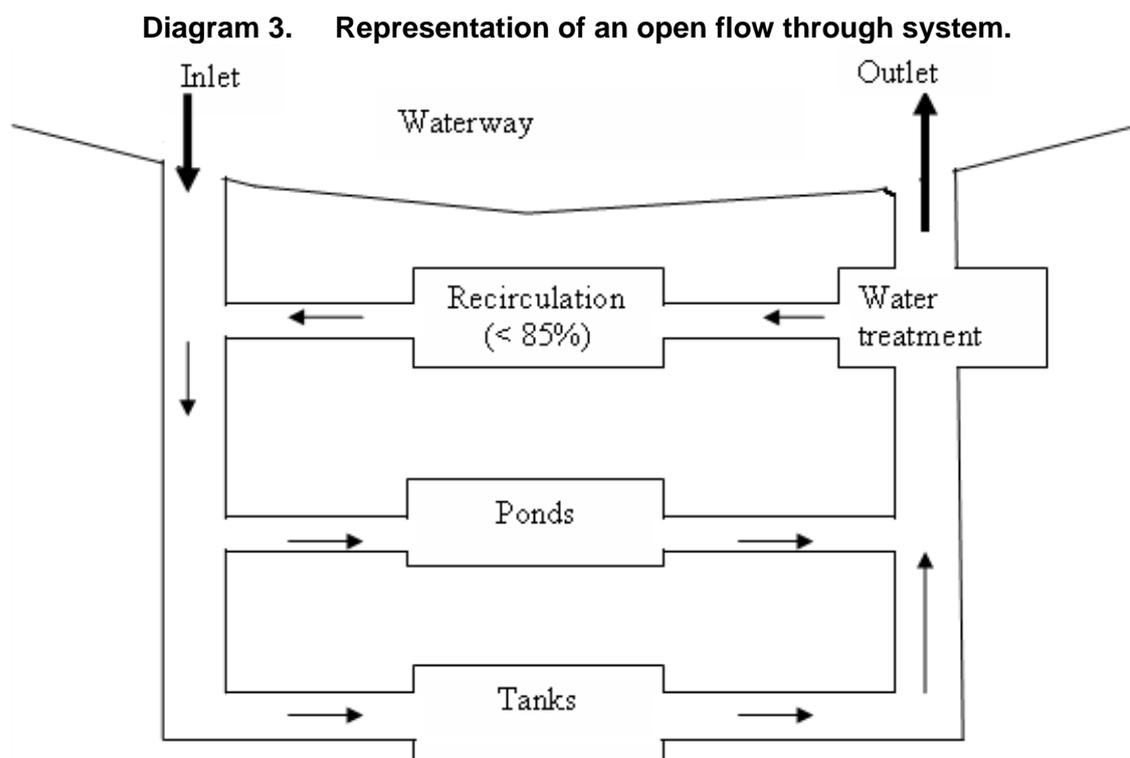
**Intensive aquaculture** systems involve holding fish at higher stocking densities with regular feeding using an artificial diet. There is a higher degree of management, utilising water exchanges and aeration, higher risks, higher production costs and higher yields per unit area. Examples of intensive aquaculture in NSW include pond or tank systems growing trout, silver perch, prawns, aquarium fish, barramundi and Murray cod.

## 2.5 Discharge classification

Aquaculture farms can be broken into three discharge classifications depending on the amount of culture water discharged from the facility.

**Open flow through systems** on average discharge between 15 to 100% of their culture water back into a waterway per day. These systems generally have high volumes of water moving through the farm rapidly to meet the physiological requirements of the species being cultured, such as a trout farm (see Photo 5). Discharge water may be treated/filtered to remove suspended solids and nutrients. These systems may require a licence under the [Protection of the Environment Operations Act 1997](#).

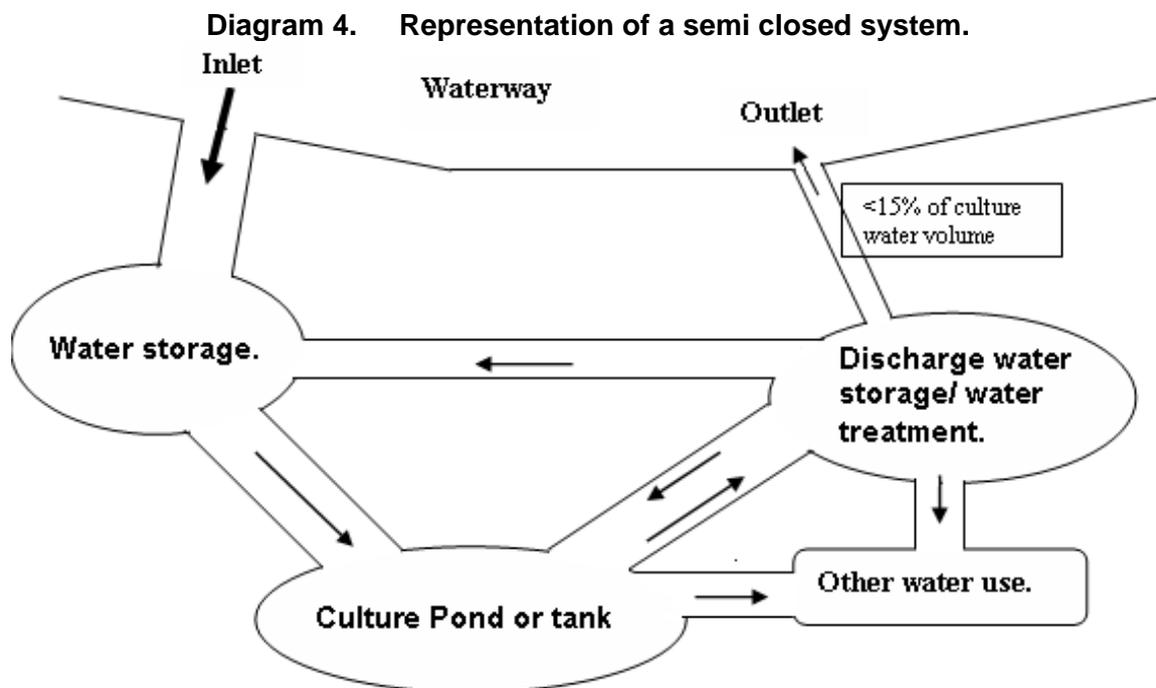
Diagram 3 outlines an open flow through system which may also include some recirculation of water if required.



**Semi closed systems** on average discharge less than 15% per day of the culture water from the farm back into a waterway. Water leaving the culturing ponds or tanks is placed within dedicated discharge water ponds or tanks to manage suspended solids and dissolved nutrients prior to reuse or discharge, such as a prawn farm (see Photo 3). Saline groundwater, estuarine and marine waters may be discharged off the farm after the above treatment and in accordance with any licence issued under the [Protection of the Environment Operations Act 1997](#).

It should be noted that no freshwater aquaculture farms other than specific (eg. Salmonid farms) open farms are permitted to discharge to waterways. This encourages the reuse/recycling of the water on the farm for aquaculture or other uses such as agriculture (irrigated crops, hydroponics, etc.).

Diagram 4 outlines a semi closed system.



**Closed system** has no direct discharge to waterways, such as a yabby, silver perch or barramundi farm (see Photo 2, 4 & 6). Water leaving the culturing ponds or tanks is managed within dedicated discharge water ponds or tanks to manage suspended solids and dissolved nutrients prior to reuse within the aquaculture farm or used for other purposes such as irrigated agriculture or hydroponics.

## 2.6 Summary of the types of land based aquaculture practices

In the production of seafood for human consumption, the aquarium trade or for fish stocking purposes there are a number of combinations of culture systems commonly used as shown in Table 1 and as outlined above. These types of aquaculture activities can be undertaken on a relatively large scale producing many tonnes of seafood or on a small scale producing a small number of high value aquarium fish.

In addition to the infrastructure outlined above an aquaculture farm may incorporate facilities for:

-  holding, breeding, harvesting and pre-market conditioning of stock;

-  facilities for the preparation or storage of feed;
-  processing, manufacturing, packaging or distribution of products;
-  administration, laboratory, storage and maintenance;
-  waste management;
-  water extraction, storage, reticulation and recirculation systems;
-  transport facilities;
-  research and education; and
-  related tourist or fishout activities.

Table 1 outlines the types of aquaculture infrastructure, water supply, the feeding regimes and the species that may be grown within the various culture systems.

**Table 1. Types of land based aquaculture systems.**

WATER SUPPLY	INFRASTRUCTURE TYPE		
	Pond aquaculture		Tank aquaculture
	Single Site	Multi site	
<b>Fresh</b> Surface water (dams, rivers, creeks) or bore	Intensive or Extensive NSW endemic species & salmonids	Extensive NSW endemic species except Silver Perch and Eels	Intensive or Extensive NSW endemic species & non endemic
<b>Saline groundwater</b> Interception scheme or bore	Intensive or Extensive NSW endemic species & salmonids	N/A	Intensive or Extensive NSW endemic species & non endemic
<b>Estuarine</b> Pipeline	Intensive or Extensive NSW endemic species	N/A	Intensive or Extensive NSW endemic species & non endemic
<b>Marine</b> Pipeline	Intensive or Extensive NSW endemic species	N/A	Intensive or Extensive NSW endemic species & non endemic

## 3. The planning approval process

### 3.1 Introduction

#### (a) Who should you talk to when planning your aquaculture project?

Before you undertake a land based aquaculture project you will need to check the government approvals you are likely to need. In addition to the information contained within this document you should talk to:

- the local [Council](#) and the Department of Planning ([DoP](#)) to find out what planning and land use rules apply to the site you intend to use for your aquaculture project;
- Industry & Investment NSW ([I&I NSW](#)) staff regarding aquaculture production issues and aquaculture permits;
- other NSW government agencies such as Department of Environment Climate Change and Water ([DECCW](#)) and NSW Office of Water ([NOW](#)) to check whether you need a licence or permit under their legislation;
- local Catchment Management Authority ([CMA](#)) regarding any clearing of native vegetation;
- aquaculture associations or local fish farmers (see [NSW aquaculture directory](#)).

#### (b) How does the NSW Land Based Sustainable Aquaculture Strategy help?

The NSW Land based Sustainable Aquaculture Strategy (NSW LBSAS) includes a simplified approvals process. It is gazetted in accordance with *State Environmental Planning Policy – 62 Sustainable Aquaculture* ([SEPP 62](#)). The NSW LBSAS also contains an Aquaculture Industry Development Plan (AIDP) gazetted under the *Fisheries Management Act 1994*. The AIDP specifies best practice guidelines based on ESD principals for:

- business planning;
- species selection;
- site selection and design;
- planning and operation of the aquaculture farm; and,
- performance requirements for relevant environmental regulations.

Based on best practice in the AIDP a project profile analysis (PPA) has been developed to provide an up-front preliminary risk assessment of the aquaculture project. The PPA allows classification of projects based on the likely level of risk to the environment (using risks associated with performance, species, methods and locational criteria).

Depending on the size, location and environmental risk associated with the project the PPA will apply differently, as will the assessment regime under which the project is assessed.

A simple, streamlined assessment process will be applied to those aquaculture projects that are appropriately sited, employ best practices and pose a low risk to the environment.

### 3.2 Planning approval

#### (a) Is it permissible?

The first thing you must consider in planning an aquaculture project is whether it is permissible in the area of land you propose to carry out the project. Does it meet the minimum criteria under the PPA? Table 2 provides an overview of the zones in which pond and tank aquaculture is permissible. If aquaculture is permissible on the land you will need to apply for approval from [DoP](#) or development consent from your local Council (depending on the scale and nature of the project).

**Table 2. LEP Zoning Table (LEP Zones for aquaculture based on LEP template).**

LEP ZONES	AQUACULTURE TYPE	
	Pond	Tank
<b>Rural</b>		
RU1 Primary Production	Permissible	Permissible
RU2 Rural Landscape	Permissible	Permissible
RU3 Forestry	Permissible	Permissible
RU4 Rural Small Holdings	Permissible	Permissible
RU5 Village	Prohibited	Permissible
RU6 Transition	Prohibited	Permissible
<b>Residential</b>		
R1 General Residential	Permissible (1)	Permissible (1)
R2 Low Density Residential	Permissible (1)	Permissible (1)
R3 Medium Density Residential	Prohibited	Permissible (1)
R4 High Density Residential	Prohibited	Prohibited
R5 Large Lot Residential	Permissible (1)	Permissible (1)
<b>Business</b>		
B1 Neighbourhood Centre	Prohibited	Permissible
B2 Local Centre	Prohibited	Permissible
B3 Commercial Core	Prohibited	Permissible
B4 Mixed Use	Prohibited	Permissible
B5 Business Development	Prohibited	Permissible
B6 Enterprise Corridor	Prohibited	Permissible
B7 Business Park	Prohibited	Permissible
<b>Industrial</b>		
IN1 General Industrial	Prohibited	Permissible
IN2 Light Industrial	Prohibited	Permissible
IN3 Heavy Industrial	Prohibited	Permissible
IN4 Working Waterfront	Permissible	Permissible
<b>Special Purpose Zones</b>		
SP1 Special Activities	Permissible	Permissible
SP2 Infrastructure	Permissible	Permissible
SP3 Tourist	Permissible	Permissible
<b>Recreation</b>		
RE1 Public Recreation	Permissible	Permissible
RE2 Private Recreation	Permissible	Permissible
<b>Environment protection</b>		
E1 National Parks and Nature Reserves	Prohibited	Prohibited
E2 Environmental Conservation	Prohibited	Prohibited
E3 Environmental Management	Permissible (2)	Permissible (1)
E4 Environmental Living	Permissible (2)	Permissible (1)
<b>Waterway</b>		
W1 Natural Waterways	Permissible (3)	Permissible (3)
W2 Recreational Waterways	Permissible (3)	Permissible (3)
W3 Working Waterways	Permissible (3)	Permissible (3)

**Note (1)** Permissible only if the development is for the purposes of small scale aquarium fish production.

**Note (2)** Permissible only if the development is for the purposes of extensive aquaculture.

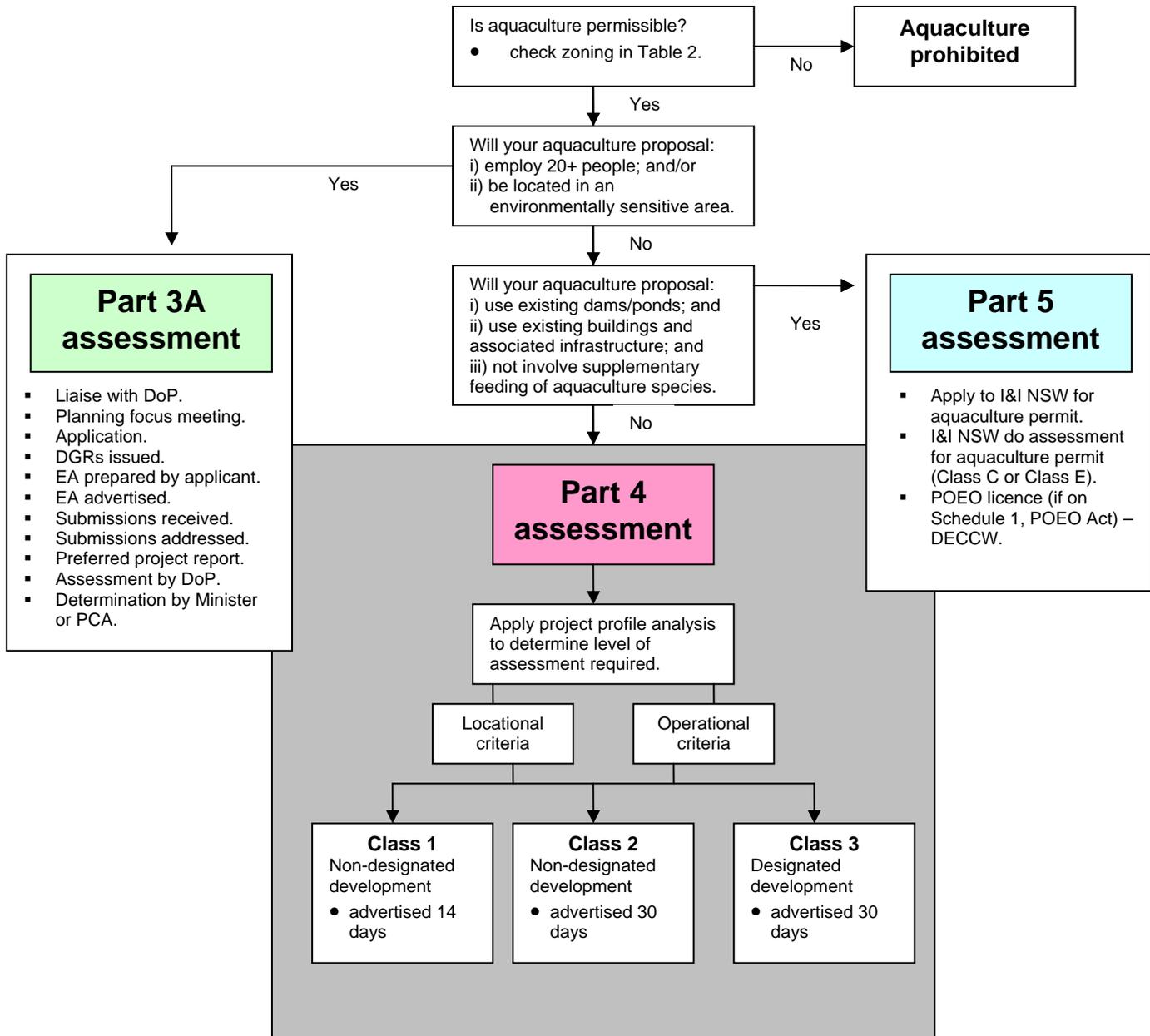
**Note (3)** Permissible only if the development will utilise waterways to source water.

**(b) Is it Part 3A, Part 4 or Part 5?**

The assessment regime for aquaculture projects in NSW is determined by the *Environmental Planning and Assessment Act 1979 (EP&A Act)*. Depending on the size and location of a

land based aquaculture project, the assessment may be under Part 3A, Part 4 or Part 5 of the EP&A Act. Figure 1 summarises the pathways for different land based aquaculture projects.

**Figure 1. Assessment under the *Environmental Planning and Assessment Act 1979*.**



### 3.3 Part 3A – Major projects

#### (a) Is it a major project?

After establishing whether the proposed aquaculture project is permissible you can determine whether your project is a major project. *State Environmental Planning Policy - Major Projects 2005 (MP SEPP)* identifies major aquaculture projects which are assessed under Part 3A of the *EP&A Act* by DoP and determined by the Minister for Planning. These projects are usually large and/or located in environmentally sensitive areas. The types of aquaculture projects which fall under Part 3A assessment are under Schedule 1 of the MP SEPP.

**State Environmental Planning Policy (Major Projects) 2005**

Schedule 1: Part 3A projects – classes of development

*Aquaculture*

- (1) *Development that employs 20 or more people for the purposes of aquaculture.*
- (2) *Development for the purpose of aquaculture located in environmentally sensitive areas of State significance.*

Environmentally sensitive areas of State significance include:

- (a) coastal waters of the State, or
- (b) land to which [State Environmental Planning Policy No 14—Coastal Wetlands](#) or [State Environmental Planning Policy No 26—Littoral Rainforests](#) applies, or
- (c) land reserved as an aquatic reserve under the [Fisheries Management Act 1994](#) or as a marine park under the [Marine Parks Act 1997](#), or
- (d) land within a wetland of international significance declared under the Ramsar Convention on Wetlands or within a World heritage area declared under the World Heritage Convention, or
- (e) land identified in an environmental planning instrument as being of high Aboriginal cultural significance or high biodiversity significance, or
- (f) land reserved as a State conservation area under the [National Parks and Wildlife Act 1974](#), or
- (g) land, places, buildings or structures listed on the State Heritage Register, or
- (h) land reserved or dedicated under the [Crown Lands Act 1989](#) for the preservation of flora, fauna, geological formations or for other environmental protection purposes, or
- (i) land identified as being critical habitat under the [Threatened Species Conservation Act 1995](#) or Part 7A of the [Fisheries Management Act 1994](#).

If your project is a major project your application must be submitted to DoP and they will advise you of the issues that your environmental assessment (EA) must cover. Under Part 3A, DoP prepares and makes publicly available the key issues that a proponent must address in an environmental assessment of the proposal. These are known as the Director-General's requirements (DGRs) for environmental assessment. State agencies such as I&I NSW, DECCW and other relevant authorities including local councils, are consulted in developing these requirements to ensure all key issues are identified at the start of the process.

In preparing the EA, the proponent is also encouraged to consult with the community, relevant Councils and agencies. The environmental assessment is generally required to include a written statement of commitments outlining how the project's likely environmental impacts will be minimised or managed. If the project is approved, the proponent will be required to honour these commitments as part of the conditions of consent.

Once the proponent has prepared the EA, it is checked to ensure it adequately addresses the DGRs and, if satisfactory, DoP will arrange to exhibit the EA for public comment for a minimum of 30 days.

Under Part 3A, the proponent may be required to respond in writing to issues raised in submissions and provide a preferred project report, which outlines any proposed changes to the project to minimise its environmental impact. If it is determined that the proposed changes significantly alter the nature of the project, the proponent may be required to make the preferred project report available to the public. All key project documents, including project declarations, applications and environmental assessments are made publicly available.

If approved, your aquaculture project will have a number of conditions which will be consistent with the best practice principles contained in the AIDP for land based aquaculture.

**(b) How does the AIDP apply to Part 3A Projects?**

The AIDP can be used by proponents to plan their aquaculture project, using the best practice principles to ensure that their project complies with ecological sustainable development principles, and that their application is of low environmental risk.

For information about assessment of major projects go to the Department of Planning website at [www.planning.nsw.gov.au/assessingdev/duapsrole.asp](http://www.planning.nsw.gov.au/assessingdev/duapsrole.asp)

**(c) What other approvals do I need under Part 3A?**

If your project is assessed and determined under Part 3A then you only need separate approvals for *Protection of the Environment Operations Act 1997* and *Water Act 1912* and an *Aquaculture Permit* from I&I NSW. Part 3A removes the need for single-issue approvals under other Acts. It also replaces a separate threatened species assessment with an integrated assessment process.

You may also need an approval from the Commonwealth government under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) if your project is likely to have an impact on matters of national environmental significance (e.g. threatened species, migratory birds).

For information about EPBC Act requirements go to: [www.environment.gov.au/epbc/](http://www.environment.gov.au/epbc/)

### 3.4 Part 4 projects

New aquaculture projects, or alterations or additions to existing aquaculture farms (which do not fall under Part 3A of the *EP&A Act*), are usually assessed under Part 4 of the *EP&A Act* by local councils. Again, the first thing you must consider is whether the project is permissible in the area of land you propose to carry out the project (see Table 2 above).

Land based aquaculture is permissible if it complies with minimum site locational (including zoning provisions) and operational criteria listed in the PPA. The consent authority has to take into consideration the AIDP when making their determination.

To determine the level of environmental assessment required in a land based aquaculture project, the PPA provides a matrix ranking of the level (or class) of environmental risk associated with the site locational and operational attributes of the aquaculture project. The criteria used in the PPA is consistent with the best practise principals in the AIDP. There are three classes of assessment possible when applying the PPA:

- Class 1 – Non - designated development (low level risk)
  - if all risk levels in relation to each site locational and operational attribute are Level 1 (i.e. lowest risk) in the PPA.
  - a statement of environmental effects (SEE) is required of the proponent
  - this is an advertised development and required to be advertised for at least 14 days.
- Class 2 – Non - designated development (medium level risk)
  - if all the risk levels in relation to each attribute are level 2 (medium risk) or level 1 and 2 in the PPA.
  - a Statement of Environmental Effects (SEE) is required and level 2 risk attributes should have a higher level of assessment.
  - this is an advertised development but must be advertised for at least 30 days.

- Class 3 – Designated development
  - if any risk level in relation to an attribute is Level 3 (high risk) in the PPA.
  - an Environmental Impact Statement (EIS) is required.
  - designated development is to be advertised for at least 30 days.

Once the class of development and level of assessment required has been determined in consultation with the consent authority the proponent can use the AIDP to assist them to prepare their application to ensure that their project meets the ecologically sustainable objectives that the AIDP sets out. When the SEE/EIS has been submitted to the consent authority a determination can be made on the project.

### **What other approvals/consents do I need?**

Under the Integrated Development Assessment (IDA) provisions of the [EP&A Act](#), aquaculture developments (whether designated or non-designated) are considered to be integrated development as they will require one or more licences, permits or approvals as listed in Table 3.

For projects which are integrated development the consent authority (usually [Council](#)) must liaise with other approval authorities for an integrated consent. This process results in a streamlined approval process and a reduction in overlapping requirements from approval authorities. The process helps to ensure that the approval requirements are appropriate for the particular type of aquaculture proposal and reflect the level of risk.

It is very important that you discuss with the consent authority (usually council) what applications and assessment reports need to accompany a development application, as this information will be used to advise other agencies involved in the IDA process. A poorly prepared development application and/or assessment reports will result in a delayed approval process as corrections and additional information will be requested.

For Part 4 projects you may need a number of other approvals, licences or permits including:

- Aquaculture Permit. All aquaculture projects must hold a valid [Aquaculture Permit](#) from I&I NSW;
- *Protection of the Environment Operations Act 1997* ([POEO Act](#)) licence. A land based aquaculture project will require a licence under the POEO Act if it is listed in Schedule 1 – Schedule of EPA-licensed activities.
- [National Parks and Wildlife Act 1974](#) (*Aboriginal heritage*);
- [Water Act 1912](#) and [Water Management Act 2000](#) (*water use, water access and excavations near rivers*);
- [Environment Protection and Biodiversity Conservation Act 1999](#) (Commonwealth matters).

You may also need land owners consent from the [Land and Property Management Authority](#) if running water inlet/outlet pipelines are over Crown land, prior to lodging a development application.

Clearing or damaging any native vegetation may trigger the requirement for a Property Vegetation Plan under the [Native Vegetation Act 2003](#), consult your local [Catchment Management Authority](#).

## **3.5 Part 5 assessments**

A Part 5 assessment may apply to a freshwater closed, extensive pond aquaculture farms using existing water storages and established facilities to support pre-market conditioning and packaging of cultured product.

**(a) Does the proposed project need development consent?**

If your aquaculture project will be using existing:

- farm dams/ponds;
- existing buildings and associated infrastructure;
- it will not involve supplementary feeding of the aquaculture species.

Then your local Council may determine you do not need to lodge a development application.

If this is the case then your project will be assessed under Part 5 of the EP&A Act by I&I NSW. Only a Class C or Class E Aquaculture permit can be issued for this type of project.

**Table 3. Summary of integrated approvals under the EP&A Act. (Most approvals will only relate to the establishment phase of the project. Those marked with \* may be relevant throughout the life of the project.)**

Act	Provision	Integrated approvals applying to aquaculture
<i>Fisheries Management Act 1994</i>	s 144* s 201 s 205	<ul style="list-style-type: none"> <li>• Aquaculture permit.</li> <li>• Permit to carry out dredging or reclamation work in any waters.</li> <li>• Permit to cut, remove, damage or destroy marine vegetation on public water land or an aquaculture lease, or on the foreshore of any such land or lease.</li> </ul>
<i>Heritage Act 1977</i>	s 58	<ul style="list-style-type: none"> <li>• Approval in respect of the doing or carrying out of an act, matter or thing referred to in s 57(1).</li> </ul>
<i>National Parks and Wildlife Act 1974</i>	s 90*	<ul style="list-style-type: none"> <li>• Consent to knowingly destroy, deface or damage or knowingly cause or permit the destruction or defacement of or damage to, a relic or Aboriginal place.</li> </ul>
<i>Protection of the Environment Operations Act 1997</i>	ss 43 (a), 47 and 55* Ss 43 (b), 48 and 55* Ss 43 (d), 45, 55, 120* and 122*	<ul style="list-style-type: none"> <li>• Environment protection licence to authorise carrying out of scheduled development work at any premises.</li> <li>• Environment protection licence to authorise carrying out of scheduled activities at any premises (excluding any activity described as a 'waste activity' but including any activity described as a 'waste facility').</li> <li>• Environment protection licences to control carrying out of non-scheduled activities for the purposes of regulating water pollution resulting from the activity.</li> </ul>
<i>Roads Act 1993</i>	s 138	Consent to: <ul style="list-style-type: none"> <li>• erect a structure or carry out a work in, on or over a public road, or</li> <li>• dig up or disturb the surface of a public road, or</li> <li>• remove or interfere with a structure, work or tree on a public road, or</li> <li>• pump water into a public road from any land adjoining the road, or</li> <li>• connect a road (whether public or private) to a classified road.</li> </ul>
<i>Water Act 1912</i> <i>Note: the Act is under review</i>	s 10* s 13A* s 18F* s 20B* s 20CA* s 116 Part 8	<ul style="list-style-type: none"> <li>• Licence to construct and use a work, and to take and use water, if any, conserved or obtained by the work, and to dispose of the water for the use of occupiers of land.</li> <li>• Licence to construct a supply work and to take and use water obtained thereby.</li> <li>• Permit to construct and use a work, and to take and use water, if any, conserved or obtained by the work, and to dispose of the water for the use of occupiers of land for any purpose other than irrigation.</li> <li>• Authority to take water from a river or lake for the purposes of a joint water supply scheme.</li> <li>• Authority to construct a supply work and to take and use water conserved or obtained thereby.</li> <li>• Licence to commence sinking a bore or to enlarge, deepen or alter a bore.</li> <li>• Approval to construct a controlled work.</li> </ul>
<i>Water Management Act 2000</i>	s89 s90 s91	<ul style="list-style-type: none"> <li>• Water use approval to use water for a particular purpose at a particular location.</li> <li>• Water management works approval to construct and use a specified water supply/drainage/flood work at a specified location.</li> <li>• Activity approval to carry out a controlled/aquifer interference activity at a specified location or in a specified area.</li> </ul>