## State code 17: Aquaculture

## **Purpose statement**

The purpose of this code is to ensure **aquaculture** industry development and practices are ecologically sustainable. The code ensures that development:

- 1. maintains the health and productivity of **fisheries resources**, **fish habitat** and the natural environment;
- 2. maintains commercial, recreational, and indigenous **fishing** access
- 3. manages the health and productivity of **aquaculture fisheries resources**.

#### Using this code

The assessment benchmarks for this code comprise:

- a purpose statement which identifies the overall intent of the code;
- performance outcomes which set benchmarks to achieve the purpose statement of the code;
- acceptable outcomes which identify one way to achieve the relevant performance outcome.

Development complies with the code where:

- it complies with the acceptable outcomes for the performance outcome; or
- it complies with all the performance outcomes, where not complying with the acceptable outcomes; or
- development does not meet relevant performance outcome(s) and SARA determines, on balance, that the development complies with the purpose statement.

This code also includes the glossary of terms for definitions relevant to this code and reference documents; including the guideline <u>State Development Assessment Provisions</u> guideline - State Code 17: Aquaculture, which provides direction on how to address this code.

# Performance outcomes and acceptable outcomes

#### Table 17.1: Material change of use

Performance outcomes	Acceptable outcomes
Location	
PO1 Development is suitably designed, constructed	No acceptable outcome is prescribed.
and maintained for the type and scale of aquaculture	
activity proposed.	
<b>PO2</b> Development is designed, constructed and	AO2.1 Development is designed, constructed and
maintained to minimise adverse impacts on	maintained to avoid adverse impacts on fisheries
1. fisheries resources;	resources, fish habitat and the natural environment.
2. fish habitat;	
3. the natural environment.	
<b>PO3</b> Structures that hold and contain <b>aquaculture</b>	No acceptable outcome is prescribed.
fisheries resources are designed, constructed and	
maintained to prevent the escape or release of	
aquaculture fisheries resources under the full range	
of conditions that could be expected at the site.	
Access	
PO4 Development does not adversely impact on	<b>AO4.1</b> Development does not alter existing access
community access to fisheries resources and fish	infrastructure or existing community access
habitat including recreational and indigenous fishing	arrangements to fisheries resources and fish
access.	habitat.
<b>PO5</b> Development does not adversely impact on	No acceptable outcome is prescribed.
commercial fishing access.	
PO6 Development does not adversely impact on	No acceptable outcome is prescribed.
existing linkages associated with a commercial <b>fishery</b>	
and infrastructure, services, and facilities.	

State Development Assessment Provisions v3.3

Performance outcomes	Acceptable outcomes
Health and productivity	
P07 Development is designed, constructed and	No acceptable outcome is prescribed.
maintained to prevent the risk of mortality, disease,	
injury, or compromise the health and productivity of,	
fisheries resources.	
PO8 Development likely to cause drainage or	No acceptable outcome is prescribed.
disturbance to acid sulfate soils prevents the release	
of contaminants and impacts on fisheries resources	
and fish habitat.	
<b>PO9</b> Development is designed, constructed and	No acceptable outcome is prescribed.
maintained:	
1. for the <b>aquaculture</b> of local endemic species; or	
2. to eliminate the nazards and risks associated with	
Boto Development is designed, constructed and	No apportable outcome is prescribed
maintained to provide for the management of <b>disease</b>	No acceptable outcome is prescribed.
Land-based aquaculture development	
PO11 Ponds tanks containers aquaria and	No acceptable outcome is prescribed
drainage systems are designed, constructed and	No acceptable outcome is prescribed.
maintained to avoid leakage	
PO12 Development is designed, constructed and	A012.1 Development is designed, constructed and
maintained to mitigate <b>biosecurity</b> and <b>disease</b> risks	maintained to prevent impacts on waterways and
to the natural environment.	wetlands by:
	1. being located away from important natural
	features such as waterways and wetlands:
	a. for tidal habitats:
	<ol> <li>100 metres from highest</li> </ol>
	astronomical tide outside an urban
	area; or
	ii. 50 metres from <b>highest</b>
	astronomical tide within an urban
	area;
	b. for non-tidal habitats:
	I. 50 metres from bankfull width
	Outside an urban area; and
	II. 25 metres from banktuli width within
	2 constructing all <b>ponds</b> above the <b>highest</b>
	astronomical tide:
	3 for <b>land</b> -based freshwater <b>aguaculture</b> not
	allowing <b>discharge</b> from <b>ponds</b> and <b>tanks</b> to
	enter Queensland waters.
	AND
	AO12.2 For land-based development, the design of
	the aquaculture facility controls the containment and
	release of water from all ponds, tanks and drainage
	systems within the approved aquaculture area.
PO13 Ponds, tanks, containers, aquaria and	For the cultivation of exotic aquaculture fisheries
drainage systems are designed, constructed and	resources:
maintained to ensure immunity from flooding and	
inundation.	AO13.1 Ponds, tanks, containers and aquaria used
	to cultivate exotic aquaculture fisheries resources
	are constructed on <b>land</b> that is situated above the
	U100 flood level (1% AEP), or no lower than the

State Development Assessment Provisions v3.3 State code 17: Aquaculture

Performance outcomes	Acceptable outcomes
	highest known or recorded flood level if Q100 (1% AEP) is unavailable.
	For all other development.
	AO13.2 Ponds, tanks, containers and aquaria used to cultivate aquaculture fisheries resources and for bioremediation are constructed with the lowest point of the top of wall at least the height of the Q100 flood level (1% AEP), or no lower than the highest known or recorded flood level if Q100 (1% AEP) is unavailable.
	AND
	AO13.3 Ponds, tanks, containers and aquaria used solely for treatment and settlement (free of aquaculture fisheries resources) are constructed so that the lowest point on the top of wall is at least the height of the Q50 (2% AEP) flood level.
	AND
	<b>AO13.4</b> All in-ground structures, including any structure or impoundment used for the collection or treatment of wastewater, are constructed to prevent the ingress of stormwater run-off e.g. by constructing a bund or levee wall around the structure or impoundment.
<b>PO14 Aquaculture fisheries resources</b> are protected by excluding wild fauna through the design or structures on the site.	No acceptable outcome is prescribed.
<ul> <li>Wild fauna (excepting zooplankton) is excluded from land-based aquaculture-development through:</li> <li>1. the design, construction, and operation preventing entry of fauna; and</li> <li>2. the screening of water introduced into the encounter development</li> </ul>	
Tidal aquaculture developments	
<ul> <li>PO15 Aquaculture furniture or other structures on tidal land are designed, constructed and maintained to prevent stranding or entanglement of native fauna, including, but not limited to:</li> <li>1. fisheries resources;</li> <li>2. birds;</li> <li>3. marine mammals:</li> </ul>	No acceptable outcome is prescribed.
4. reptiles.	
<b>PO16</b> The type of <b>aquaculture fisheries resource</b> selected minimises risks to, and avoid impacts on, wild <b>fisheries resources</b> and other indigenous flora and fauna specific to that area.	<b>AO16.1</b> Aquaculture fisheries resources are not released to, or placed in, Queensland waters unless they are free of <b>disease</b> and parasites, and are of the same species and the same genetic stock as the resident population of that area.
	AND

State Development Assessment Provisions v3.3 State code 17: Aquaculture

Performance outcomes	Acceptable outcomes
	<b>AO16.2</b> Tidal <b>aquaculture</b> is only of native Queensland <b>fish</b> species that are endemic to the location of the development.
	AND
	<b>AO16.3</b> The <b>aquaculture fisheries resource</b> can and will be produced from sufficient broodstock, sourced from the area to ensure appropriate genetic diversity to minimise risks to the natural environment.
<b>PO17 Aquaculture furniture</b> and other infrastructure are designed, constructed and maintained to prevent movement of the structure from the intended point of placement, anchoring or mooring.	No acceptable outcome is prescribed.
<b>PO18</b> The design, construction and maintenance of <b>aquaculture furniture</b> and other infrastructure does not result in adverse impacts to <b>fisheries resources</b> .	AO18.1 Aquaculture furniture does not interfere with fisheries resources.
	AND
	<b>AO18.2 Aquaculture furniture</b> and other infrastructure is designed, constructed and maintained to be removable.
	AND
	<b>AO18.3</b> All materials used in the construction of <b>aquaculture furniture</b> are of a chemically inactive and non-hazardous nature.
	AND
	<b>AO18.4</b> Other structures, including break walls, fences, boat ramps and jetties, are not constructed on areas allocated for <b>prescribed aquaculture</b> .
	AND
	<b>AO18.5 Aquaculture furniture</b> and other infrastructure is designed and constructed to not include any fixed structures in the substrate (except for supporting posts).
P019 Development in the Great Sandy Strait Marine	No acceptable outcome is prescribed.
<ol> <li>is within a designated aquaculture area identified in the Great Sandy Regional Marine Aquaculture Plan (GSRMAP);</li> <li>is consistent with the type of aquaculture</li> </ol>	
<ol> <li>approved for the designated area; and</li> <li>complies with the assessment criteria and conditions of the GSRMAP.</li> </ol>	
High risk activities	
to fauna in inland catchments (west of the Great Dividing Range).	AU20.1 Development is designed to prevent the spread of <b>disease</b> or the introduction of barramundi into catchments where it does not naturally occur, through:

State Development Assessment Provisions v3.3

Performance outcomes	Acceptable outcomes
<b>PO21</b> No water or organisms originating from the <b>aquaculture</b> of <b>exotic fish</b> reaches Queensland waters with the exception of waters within constructed storage dams located above Q100 limits and used for the purposes of water storage and reuse only.	<ol> <li>ensuring no water or organisms originating from the aquaculture of barramundi and co-cultured species is permitted to reach Queensland waters without treatment/sterilisation appropriate to render nodavirus nonviable. This includes during the transportation of aquacultured product;</li> <li>aquacultured barramundi and co-cultured species must not be sold, traded, stocked into Queensland waters or given away for non-food purposes;</li> <li>all containers used to aquaculture barramundi are screened to exclude predators (for example birds) without causing injury to such predators.</li> <li>AO21.1 Culture of exotic fish does not occur in open or flow-through systems that discharge into waterways.</li> </ol>
	<b>AO21.2</b> All <b>containers</b> used to <b>aquaculture exotic</b> <b>fish</b> are screened to exclude predators (for example birds) without causing injury to such predators.
<ul> <li>PO22 Development involving fish that are listed under international, Commonwealth or State legislation as 'near threatened', 'vulnerable', 'endangered', 'critically endangered' or 'extinct in the wild':</li> <li>1. provides a net benefit to management of the chosen species;</li> <li>2. avoids or acceptably minimises biosecurity risks;</li> <li>3. manages any risks to rare, threatened, or endangered fish.</li> </ul>	No acceptable outcome is prescribed.

## **Reference documents**

### Aquaculture policies and guidelines

Department of Agriculture and Fisheries, <u>State Development Assessment Provisions guideline - State Code 17:</u> <u>Aquaculture</u>.

<u>Conservation Agreement</u> between the Minister for Sustainability, Environment, Water, Population and Communities on behalf of the Commonwealth of Australia and the Minister for Agriculture, Food and Regional Economies and the Minister for Environment on behalf of the State of Queensland dated 7 September 2011 – Agreement in relation to aquaculture operations in the Great Sandy Marine Park as described in the Great Sandy regional marine aquaculture plan (Queensland Government, approved October 2010) and made under the Environment Protection and Biodiversity Conservation Act 1999 (Cth)Department of Employment, Economic Development and Innovation 2011

Department of Employment, Economic Development and Innovation (Fisheries Queensland) 2011, <u>Great Sandy</u> regional marine aquaculture plan

Department of Employment, Economic Development and Innovation 2011, <u>Implementation guide for the Great</u> <u>Sandy Regional Marine Aquaculture Plan</u>

Queensland Primary Industries and Fisheries 2004, <u>FAMOP001 – Management arrangements for potentially high</u> risk activities in the context of ecologically sustainable development for aquaculture facilities

State Development Assessment Provisions v3.3 State code 17: Aquaculture Queensland Primary Industries and Fisheries 2007, <u>Guidelines for constructing and maintaining aquaculture</u> <u>containment structures</u>

Queensland Primary Industries and Fisheries 2007, Policy for maximising rock oyster production: management of non-productive oyster areas

Department of Agriculture and Fisheries 2015, Oyster industry plan for Moreton Bay Marine Park

#### Translocation and biosecurity

Department of Agriculture and Fisheries, Use of agricultural and veterinary chemicals

Department of Agriculture and Fisheries 2018, FAMPR001 – Health protocol for the movement of live prawns

Department of Agriculture, Fisheries and Forestry 2011, <u>FAMPR002 – Health protocol for the importation and movement of live barramundi</u>

Department of Agriculture and Fisheries 2019, <u>FAMPR003 – Health protocol for the movement of live bivalve</u> <u>molluscs</u>

Queensland Primary Industries and Fisheries 2003, <u>FAMOP005 – Policy relating to the relaying of oysters within</u> <u>Queensland waters</u>

Queensland Primary Industries and Fisheries 2003, <u>FAMOP006 – Policy relating to the trans-shipment of oysters</u> into Queensland waters

Department of Agriculture and Fisheries, Preventing disease in aquaculture

Department of Agriculture and Fisheries, Identifying and reporting disease in aquaculture

Department of Agriculture and Fisheries, Managing disease in aquaculture farms

Department of Agriculture, Fisheries and Forestry 2011, <u>FAMPR004 – Health protocol for the movement of live</u> marine crustaceans including crabs, lobsters and bugs

Department of Agriculture, Fisheries and Forestry 2011, FAMPR005 – Health protocol for the movement of live eels

Department of Agriculture, Fisheries and Forestry 2011, <u>FAMPR006 – Health protocol for the movement of live</u> freshwater crayfish and prawns

Department of Employment, Economic Development and Innovation 2011, <u>FAMPR007 – Health protocol for the</u> movement of live freshwater native finfish (other than barramundi and eels)

Department of Agriculture and Fisheries 2017, <u>FAMPR008 – Health protocol for movement of aquatic animals for aquaculture in Queensland</u>

#### **Accepted Development**

Department of Agriculture and Fisheries 2020, <u>Accepted development requirements for material change of use that</u> is aquaculture

#### **Other references**

Australian Government Department of Agriculture, Water and the Environment, AQUAVETPLAN

Australian Government Department of Agriculture, Water and the Environment 2020, <u>National policy guidelines for</u> the translocation of live aquatic animals

Department of Agriculture and Fisheries 2019, Aquaculture Development Areas

State Development Assessment Provisions v3.3

Department of Science, Information Technology, Innovation and the Arts 2014, <u>Queensland Acid Sulfate Soil</u> <u>Technical Manual</u>

International Erosion Control Association 2008, Best Practice Erosion and Sediment Control Guidelines

## **Glossary of terms**

#### Aquaculture see the Fisheries Act 1994.

Note: Aquaculture means the cultivation of live fisheries resources for sale other than in circumstances prescribed by regulation.

#### Aquaculture fisheries resources see the Fisheries Act 1994.

Note: Aquaculture fisheries resources means live fish and other marine plants cultivated in aquaculture.

#### Aquaculture furniture see the Fisheries Act 1994.

Note: Aquaculture furniture means a cage, rack, tank, tray, or anything else used, or capable of being used, in aquaculture or to assist in aquaculture.

**Bioremediation** means the branch of biotechnology that uses biological processes to overcome environmental problems. For example, the culture of fisheries resources for the purpose of improving the quality of **discharge** water from treatment and settlement **ponds**.

**Biosecurity** means protection from the risks posed by organisms to the economy, environment and people's health.

#### Container see the Fisheries Act 1994.

Note: Container includes a basket, case and tray.

#### Discharge means the release of wastewater into natural waterways.

#### Disease see the Biosecurity Act 2014.

Note: **Disease** means:

- 1. the presence of a pathogenic agent in a host; or
- 2. the clinical manifestation of infection; or
- 3. a syndrome

#### Exotic fish means fish originating from anywhere outside Queensland.

#### Fish see the Fisheries Act 1994.

Note: Fish means

- 1. means an animal (whether living or dead) of a species that throughout its life cycle usually lives:
  - a. in water (whether freshwater or saltwater);
  - b. in or on foreshores; or
  - c. in or on land under water.
- 2. includes:
  - a. prawns, crayfish, rock lobsters, crabs and other crustaceans;
  - b. scallops, oysters, pearl oysters and other molluscs;
  - c. sponges, annelid worms, bêche-de-mer and other holothurians;
  - d. trochus and green snails.
- 3. however, does not include:
  - a. crocodiles;
    - b. protected animals under the Nature Conservation Act 1992;
    - c. pests under the Pest Management Act 2001; or
    - d. animals prescribed under a regulation not to be fish
- 4. also includes:
  - a. the spat, spawn and eggs of fish;
  - b. any part of fish or of spat, spawn or eggs of fish;
  - c. treated fish, including treated spat, spawn and eggs of fish;
  - d. coral, coral limestone, shell grit or star sand;
  - e. freshwater or saltwater products declared under a regulation to be fish.

#### Fish habitat see the Fisheries Act 1994.

Note: Fish habitat includes land, waters and plants associated with the life cycle of fish, and includes land and waters not presently occupied by fisheries resources.

State Development Assessment Provisions v3.3

#### **Fisheries resources** see the *Fisheries Act 1994*. Note: **Fisheries resources** includes **fish** and marine plants.

#### Fishery see the Fisheries Act 1994.

Note: Fishery includes activities by way of fishing, including, for example, activities specified by reference to all or any of the following:

- a. a species of fish;
- b. a type of fish by reference to sex, size or age or another characteristic;
- c. an area;
- d. a way of **fishing**;
- e. a type of boat;
- f. a class of person;
- g. the purpose of an activity;
- h. the effect of the activity on a fish habitat, whether or not the activity involves fishing;
- i. anything else prescribed by regulation.

#### Fishing see the Fisheries Act 1994.

- Note: Fishing includes:
- 1. searching for, or taking, **fish**;
- 2. attempting to search for, or take, fish;
- 3. engaging in other activities that can reasonably be expected to result in the locating, or taking, of fish;
- 4. landing fish (from a boat or another way), bringing fish ashore or transhipping fish.

High risk activities mean activities involving aquaculture of exotic fish species, barramundi in inland catchments and species of conservation interest.

**Highest astronomical tide** means the highest level of the tides that can be predicted to occur under average meteorological conditions and under any combination of astronomical conditions.

Land see the Fisheries Act 1994.

Note: Land includes foreshores and tidal and non-tidal land.

Marine park means a marine park declared, or taken to be declared, under the Marine Parks Act 2004.

Pond means an earthen in-ground container.

Prescribed aquaculture means aquaculture for which a resource allocation authority has been obtained.

**Resource allocation authority** means a current **resource allocation authority** issued under the *Fisheries Act 1994*.

Tank means an above-ground container used for intensive aquaculture within an enclosed facility.

#### Tidal land see the Fisheries Act 1994.

Note: Tidal land includes reefs, shoals and other land permanently or periodically submerged by waters subject to tidal influence.

#### Waterway see the Fisheries Act 1994.

Note: Waterway includes a river, creek, stream, watercourse, drainage feature or inlet of the sea.