



DEPARTMENT *of*
PRIMARY INDUSTRIES,
WATER *and* ENVIRONMENT

Tasmania

Marine Farming Development Plan

Port Sorell Estuary

May 2001

Prepared by Inspiring Place Pty Ltd for the Food, Agriculture & Fisheries Division,
Department of Primary Industries, Water and Environment, Tasmania

Some comments expressed in this document have arisen out of discussions with stakeholders in the study area and an examination of departmental files. To the best knowledge of the Department of Primary Industries, Water and Environment, the views of these stakeholders have been correctly incorporated.

The Crown in right of the State of Tasmania gives no warranty, either express or implied, that the marine farming zones identified in this marine farming development plan are suitable for marine farming activities.

Persons considering marine farming within a zone contained within this plan are solely responsible for establishing the suitability or otherwise of the zone for that purpose.

CAUTION: The maps shown throughout this document are not to be used for navigation. For navigation purposes appropriate hydrographic charts should be used. The coastline detail shown is reproduced from a 1:25000 scale giving a horizontal accuracy within 12.5 metres of true position.

It should be noted that at the stage of the public exhibition and comment period this Plan remains a draft plan and only becomes a marine farming development plan on the approval of the Minister for Primary Industries, Water and Environment.

Foreword

The Tasmanian Government recognises the need to guide the management of the State's coastal resources on a sustainable basis. The coastal zone of Tasmania is both vulnerable and valuable, which Government has recognised with initiatives to ensure that there is a long-term strategy for the management of this zone.

One important economic use of Tasmania's coastal zone is marine farming. This industry has grown rapidly in Tasmania since the establishment of shellfish culture in the 1960s and finfish farming in the 1980s. In 1995 the Tasmanian Government introduced specific legislation known as the *Marine Farming Planning Act 1995* (MFPA), to facilitate sustainable and integrated growth of marine farming in the State.

The MFPA establishes mechanisms for the preparation and approval of marine farming development plans. The plans use zoning principles to identify specific areas where developments may occur while taking into consideration other uses and values of the region. The plans also prescribe the operational constraints to which marine farming activities must adhere. The Act also requires periodic reviews of approved development plans to ensure that the objectives of resource management, having regard to any relevant changing circumstances, are achieved to the maximum extent possible.

An important component of marine farming development in Tasmania is an extensive environmental monitoring program to ensure that the industry operates in an environmentally sustainable way. This will help to ensure that the Plans are consistent with "sustainable development", a key component of the State's Resource Management and Planning System, and a specific objective of the MFPA under which this Plan has been prepared.

This Marine Farming Development Plan for the Port Sorell Estuary has been prepared by the Department of Primary Industries Water and Environment in accordance with section 15 of the MFPA.

This document is in two parts: Part A, an environmental impact statement in relation to the use of the area for marine farming activities and Part B, development proposals and management controls.

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Part B – Marine Farming Development Plan

1 Plan Area

The Port Sorell Estuary is situated on the north of Tasmania, centred on 41° 13' south 146° 35' east. The Estuary is approximately 17 km east of the city of Devonport.

The area covered by this Plan consists of all that area within the Port Sorell Estuary to the high water mark south of an imaginary line drawn across the Estuary from Taroona Point to Griffith Point and finishing at an imaginary line drawn across the Rubicon River at the bridge carrying the main road from Harford to Frankford and an imaginary line drawn across the parallel of latitude of the southern most point of Devil's Nut Island situated in the Franklin Rivulet downstream of the bridge carrying the main road from Harford to Frankford . The area of the Plan is approximately 1710 hectares. Map B1.1 on page 57 shows the Plan area.

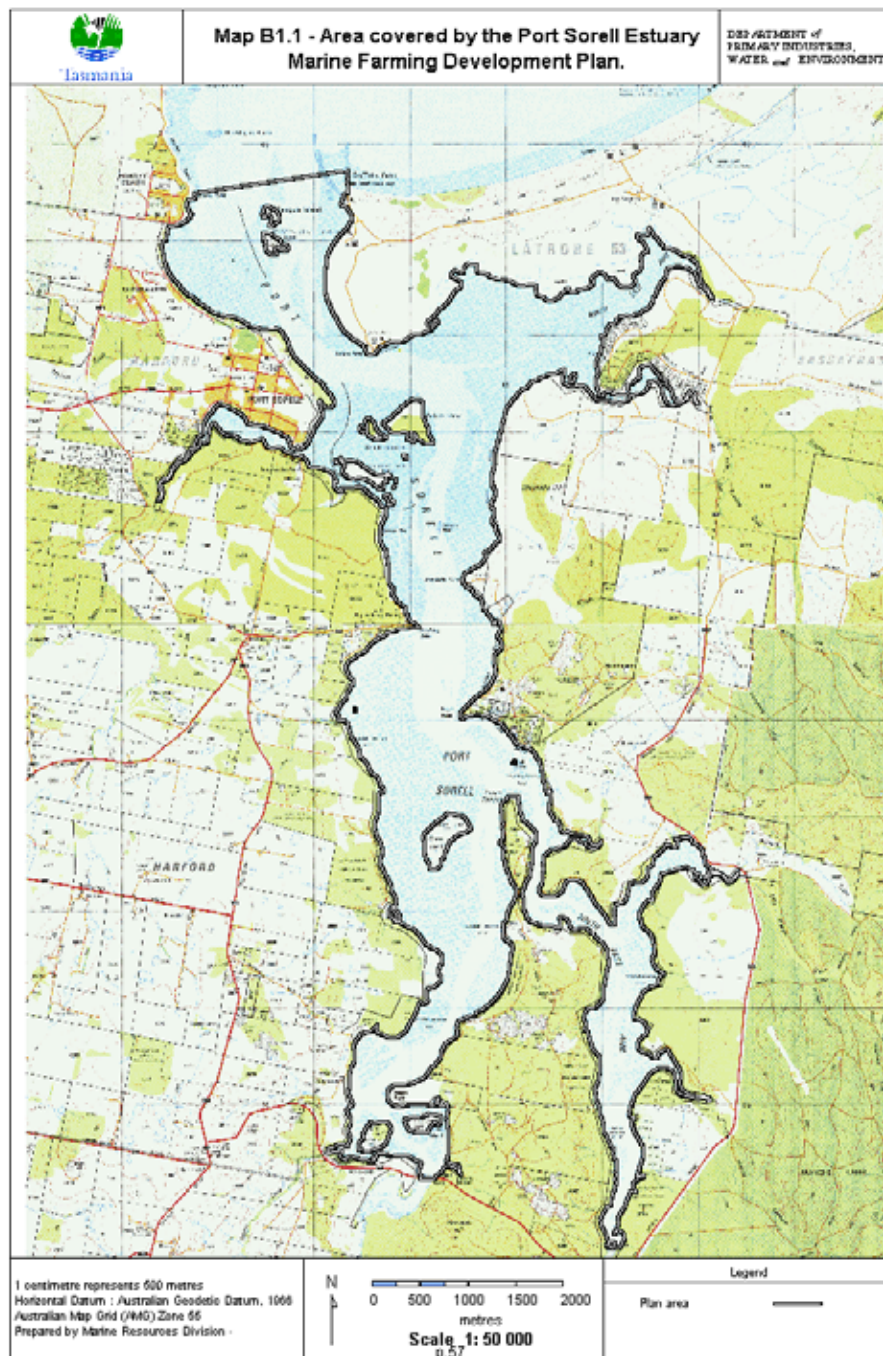
2 Marine Farming Zones

The following Table summarises the zones identified in the Port Sorell Marine Farming Development Plan.

Zone	Category of fish allowed for culture	Zone Area (ha)	Proposed maximum leasable area (ha)
1	Shellfish, Seaweed	13.75	7.00
2	Shellfish, Seaweed	12.34	8.00
3	Shellfish, Seaweed	0.61	0.55
4	Shellfish, Seaweed	11.00	6.00
5	Shellfish, Seaweed	5.41	3.00
Total		43.11	24.55

The following information describes the individual marine farming zones identified by the Port Sorell Marine Farming Development Plan May 2001.

Map B2.1 on page 64 of this section shows the marine farming zones in the context of the Port Sorell Estuary (1:25 000 scale).



2.1 Zone 1

2.1.1 Location

Zone 1 is located within the Port Sorell Estuary, approximately 1 km northeast of The Point.

Zone 1 consists of all that area bounded by a line being from points defined by AMG coordinates:

Zone	Easting	Northing	Latitude	Longitude	
1 - 1	E464800.17	N5436769.30	41° 13.1731'S	146° 34.804'E	thence to
1 - 2	E464913.72	N5436769.21	41° 13.1734'S	146° 34.8852'E	thence to
1 - 3	E464620.28	N5436075.57	41° 13.5475'S	146° 34.6728'E	thence to
1 - 4	E464405.39	N5436049.69	41° 13.561'S	146° 34.5188'E	thence to
1 - 5	E464601.44	N5436538.77	41° 13.2971'S	146° 34.6609'E	thence to
1 - 1	E464800.17	N5436769.30	41° 13.1731'S	146° 34.804'E	

Australian Mapping Grid (AMG)

Zone 55 Coordinates

2.1.2 Zone Area

The area of Zone 1 is approximately 13.75 ha.

2.1.3 Maximum Leasable Area

The maximum leasable area within Zone 1 is 7 ha.

2.1.4 Category of Fish

The category of fish allowed for culture within Zone 1 will be shellfish and seaweeds.

2.1.5 Management Controls

The management controls for Zone 1 are prescribed in Section 3 of the Plan.

2.1.6 Special Provisions

Subject to the provisions of the *MFPA* it is the planning intention to provide for the relocation of a total of 7 hectares of the area prescribed by marine farming lease number 145 to an area within Zone 1 located in the Rubicon River.

2.2 Zone 2

2.2.1 Location

Zone 2 is located to the south west of The Tongue and to the east of Grass Island within the Port Sorell Estuary.

Zone 2 consists of all that area bounded by a line being from points defined by AMG coordinates:

Zone	Easting	Northing	Latitude	Longitude	
2 - 1	E464910.81	N5437888.93	41° 12.5683'S	146° 34.887'E	thence to
2 - 2	E464739.35	N5437871.04	41° 12.5775'S	146° 34.7642'E	thence to
2 - 3	E464696.36	N5437593.52	41° 12.7274'S	146° 34.7325'E	thence to
2 - 4	E464765.44	N5437326.23	41° 12.872'S	146° 34.781'E	thence to
2 - 5	E464865.56	N5437106.46	41° 12.991'S	146° 34.8519'E	thence to
2 - 6	E464908.54	N5437097.73	41° 12.9959'S	146° 34.8826'E	thence to
2 - 1	E464910.81	N5437888.93	41° 12.5683'S	146° 34.887'E	

Australian Mapping Grid (AMG)

Zone 55 Coordinates

2.2.2 Zone Area

The area of Zone 2 is approximately 12.34 ha.

2.2.3 Maximum Leasable Area

The maximum leasable area within Zone 2 is 8 ha.

2.2.4 Category of Fish

The category of fish allowed for culture within Zone 2 will be shellfish and seaweeds.

2.2.5 Management Controls

The management controls for Zone 2 are prescribed in Section 3 of the Plan.

2.2.6 Special Provisions

Subject to the provisions of the MFPA it is the planning intention to provide for the relocation of a total of 8 hectares of the area prescribed by marine farming lease number 145 to an area within Zone 2 located in the Rubicon River.

2.3 Zone 3

2.3.1 Location

Zone 3 is located in South East Arm approximately 1 km south of The Tongue.

Zone 3 consists of all that area bounded by a line being from points defined by AMG coordinates and bounded by the natural high water mark generally between AMG co-ordinates 1 and 4 from a point where a line drawn between 1 and 2 intersects the natural high water mark and at a point where a line drawn between 4 and 3 intersects the natural high water mark.:

Zone	Easting	Northing	Latitude	Longitude	
3 - 1	E465219.91	N5437520.65	41° 12.7680'S	146° 35.1669'E	thence to
3 - 2	E465298.61	N5437510.41	41° 12.7738'S	146° 35.1632'E	thence to
3 - 3	E465262.89	N5437368.15	41° 12.8506'S	146° 35.1372'E	thence to
3 - 4	E465197.45	N5437373.80	41° 12.8474'S	146° 35.0903'E	thence to
3 - 1	E465219.91	N5437520.65	41° 12.7680'S	146° 35.1669'E	

Australian Mapping Grid (AMG)

Zone 55 Coordinates

2.3.2 Zone Area

The area of Zone 3 is approximately 0.61 ha.

2.3.3 Maximum Leasable Area

The maximum leasable area within Zone 3 is 0.55 ha.

2.3.4 Category of Fish

The category of fish allowed for culture within Zone 3 will be shellfish and seaweeds.

2.3.5 Management Controls

The management controls for Zone 3 are prescribed in Section 3 of the Plan.

2.3.6 Special Provisions

Subject to the provisions of the MFPA it is the planning intention to provide for the relocation of a total of 0.55 of a hectare of the area prescribed by marine farming lease number 95 to an area within Zone 3 located in South East Arm.

2.4 Zone 4

2.4.1 Location

Zone 4 is located in South East Arm, approximately 1.5 km south of The Tongue.

Zone 4 consists of all that area bounded by a line being from points defined by AMG coordinates and bounded by the natural high water mark generally between AMG co-ordinates 9 and 12 from a point where a line drawn between 9 and 10 intersects the natural high water mark and at a point where a line drawn between 12 and 11 intersects the natural high water mark.:

Zone	Easting	Northing	Latitude	Longitude	
4 - 1	E465331.70	N5437038.97	41° 13.0287'S	146° 35.1853'E	thence to
4 - 2	E465460.07	N5437118.35	41° 12.9862'S	146° 35.2775'E	thence to
4 - 3	E465583.27	N5437111.84	41° 12.99	146° 35.3656'E	thence to
4 - 4	E465729.99	N5437051.05	41° 13.0232'S	146° 35.4704'E	thence to
4 - 5	E465865.05	N5436948.28	41° 13.0791'S	146° 35.5667'E	thence to
4 - 6	E466017.70	N5436842.30	41° 13.1368'S	146° 35.6757'E	thence to
4 - 7	E465977.88	N5436711.87	41° 13.2071'S	146° 35.6467'E	thence to
4 - 8	E465819.97	N5436848.21	41° 13.133'S	146° 35.5342'E	thence to
4 - 9	E465610.96	N5436947.80	41° 13.0787'S	146° 35.3849'E	thence to
4 - 10	E465587.83	N5436914.16	41° 13.0968'S	146° 35.3682'E	thence to
4 - 11	E465565.73	N5436927.43	41° 13.0895'S	146° 35.3524'E	thence to
4 - 12	E465539.58	N5436961.99	41° 13.0709'S	146° 35.3339'E	thence to
4 - 13	E465417.93	N5436880.43	41° 13.1146'S	146° 35.2465'E	thence to
4 - 14	E465328.97	N5436908.23	41° 13.0994'S	146° 35.1829'E	thence to
4 - 1	E465331.70	N5437038.97	41° 13.0287'S	146° 35.1853'E	

Australian Mapping Grid (AMG)

Zone 55 Coordinates

2.4.2 Zone Area

The area of Zone 4 is approximately 11.00 ha.

2.4.3 Maximum Leasable Area

The maximum leasable area within Zone 4 is 6 ha.

2.4.4 Category of Fish

The category of fish allowed for culture within Zone 4 will be shellfish and seaweeds.

2.4.5 Management Controls

The management controls for Zone 4 are prescribed in Section 3 of the Plan.

2.4.6 Special Provisions

Subject to the provisions of the MFPA it is the planning intention to provide for the relocation of a total of 6 hectares of the area prescribed by marine farming lease number 95 to an area within Zone 4 located in South East Arm.

2.5 Zone 5

2.5.1 Location

Zone 5 is located in South East Arm, approximately 2 km south of The Tongue.

Zone 5 consists of all that area bounded by a line being from points defined by AMG coordinates:

Zone	Easting	Northing	Latitude	Longitude	
5 - 1	E466116.86	N5436819.67	41° 13.1492'S	146° 35.7466'E	thence to
5 - 2	E466195.01	N5436767.62	41° 13.1776'S	146° 35.8024'E	thence to
5 - 3	E466245.04	N5436334.93	41° 13.4116'S	146° 35.8367'E	thence to
5 - 4	E466079.06	N5436450.20	41° 13.3488'S	146° 35.7183'E	thence to
5 - 5	E466096.86	N5436619.57	41° 13.2573'S	146° 35.7316'E	thence to
5 - 6	E466054.08	N5436769.16	41° 13.1764'S	146° 35.7015'E	thence to
5 - 1	E466116.86	N5436819.67	41° 13.1492'S	146° 35.7466'E	

Australian Mapping Grid
(AMG) Zone 55 Coordinates

2.5.2 Zone Area

The area of Zone 5 is approximately 5.41 ha.

2.5.3 Maximum Leasable Area

The maximum leasable area within Zone 5 is 3 ha.

2.5.4 Category of Fish

The category of fish allowed for culture within Zone 5 will be shellfish and seaweeds.

2.5.5 Management Controls

The management controls for Zone 5 are prescribed in Section 3 of the Plan.

2.5.6 Special Provisions

Subject to the provisions of the MFPA it is the planning intention to provide for the relocation of a total of 3 hectares of the area prescribed by marine farming lease number 95 to an area within Zone 5 located in South East Arm.



3 Management Controls

Prepared in accordance with section 24 of the MFPA. Management controls must contain any measures necessary to manage and mitigate negative effects which the Plan may have.

3.1 General controls for all marine farming zones

There must be no unacceptable environmental impact, to the satisfaction of the Secretary, outside the boundary of the marine farming lease area. Environmental parameters must be monitored in accordance with the requirements specified in the relevant marine farming licence.

3.2 Environmental controls relating to carrying capacity

- (1) In all new lease areas used for the farming of shellfish there must not be more than the equivalent¹ of either:
 - (a) 1.1 km of stocked racking per hectare of lease area; or
 - (b) 4.4 km of stocked post and wire farming equipment (commonly known as the BST system) per hectare of lease area; or
 - (c) 330 metres of effective backbone longline per hectare of lease area.
- (2) In all existing lease areas used for the farming of shellfish there must not be more than the equivalent¹ of either:
 - (a) 1.1 km of stocked racking per hectare of lease area; or
 - (b) 4.4 km of stocked post and wire farming equipment (commonly known as the BST system) per hectare of lease area; or
 - (c) 330 metres of effective backbone longline per hectare of lease area.
- (3) Holders of an existing marine farming lease have 5 years from the date of approval of this Plan to comply with 3(2).
- (4) Containers of oysters in intertidal lease areas must be clear of the seabed and there shall be no layering of containers on the racking.

¹ For the purposes of 2 (1) and 2 (2) above each 100 metres of stocked racking shall be deemed equivalent to 400 metres of stocked post and wire farming equipment in circumstances where both systems are used in a lease area at the same time.

- (5) All longlines and associated equipment for filter feeding shellfish must be maintained at least 1 metre clear of the seabed.

3.3 Environmental controls relating to monitoring

- (1) Lessees must comply with the environmental monitoring requirements specified in the relevant marine farming licence.
- (2) Lessees are to provide to the Secretary an estimate of numbers or biomass of each species of shellfish being farmed in a lease area for which they hold a marine farming licence, on an annual basis or as otherwise specified in the relevant marine farming licence.
- (3) Lessees must provide a baseline environmental survey as specified by the Secretary where:
 - (a) a new lease area is being established; or
 - (b) for any expansion greater than 10% to an existing marine farming lease area.

The baseline environmental survey must be undertaken prior to the commencement of marine farming operations.

Note: The Secretary will use the information from the baseline environmental survey to assess whether the area to be farmed contains any rare and endangered species or any unusual habitat and will determine future management and monitoring requirements for the area.

- (4) Lessees farming or taking bivalve shellfish from the lease area for human consumption or for ongrowing for human consumption must comply with the requirements of the Tasmanian Shellfish Quality Assurance Program and with any directions from the Minister for the Department of Health and Human Services.
- (5) Lessees must regularly measure the growth of samples of shellfish, as specified by the Secretary, in areas where the growth rates of shellfish have declined and questions arise over the carrying capacity of a growing area.

3.4 Abalone farm audit

All abalone marine farming is to be conducted in accordance with the DPIWE's Abalone Farm Audit requirements.

3.5 Chemical controls

All chemical use must comply with the requirements of the *Agriculture and Veterinary Chemicals (Control of Use) Act 1995*.

3.6 Controls on waste

Lessees must dispose of wastes from:

- (1) harvesting;
- (2) processing of produce; and
- (3) removal of fouling organisms,

in a manner that the Secretary is satisfied will not cause an unacceptable effect on the ecology of the marine environment or nearby shorelines.

3.7 Disease controls

- (1) Lessees must notify the Secretary of any suspected disease in accordance with the *Animal Health Act 1995*.
- (2) Lessees must not intentionally release into State waters fish of species authorised in the relevant marine farming licence unless authorised to do so by that licence.

3.8 Visual controls

Lessees must ensure that all marine farming structures and equipment on marine farming lease areas conform to the following controls:

- (1) All buoys, netting and other floating marine farming structures and equipment on the sea, other than that specified for navigational requirements, must be grey to black in colour, or be any other colour that is specified in the relevant marine farming licence.

Holders of an existing marine farming lease have five years to conform from the date of approval of this Plan.

Lessees of new marine farming lease areas must comply immediately on commencement.

- (2) Marine farming structures and equipment must be low in profile and be of a uniform size and shape to the satisfaction of the Secretary.

Holders of an existing marine farming lease have five years to conform from the date of approval of this Plan.

Lessees of new marine farming lease areas must comply immediately on commencement.

- (3) Posts on each section of racking on intertidal lease areas are to be of consistent height above sea level.
- (4) Row markers on intertidal lease areas are to be of consistent height above sea level.
- (5) The lease area must be kept neat and tidy to a standard acceptable to the Secretary.
- (6) Floating storage huts, grading facilities and shelters must not be located within a lease area unless authorised under the relevant marine farming licence.
- (7) Lessees must ensure that lighting of marine farming operations, other than that required for navigation purposes, complies with the *Environmental Management and Pollution Control Act 1994*.
- (8) Anchors and mooring lines that extend outside the lease area must be at least 5 metres below the surface at the boundary of the lease area.

3.9 Access controls

- (1) Lessees must mark the external boundaries of the lease area in whatever manner is required by the Secretary and by the relevant authority under the provisions of the MAST.
- (2) Lessees must identify the lease area in a manner specified by the Secretary.

3.10 Other controls

- (1) Lessees must comply with the *Marine Farming Planning Act 1995* and with any other Act or regulations that may affect the lease area or the marine farming operations in that lease area.
- (2) Lessees must comply with guidelines on noise emissions for marine farming operations made pursuant to the *Environmental Management and Pollution Control Act 1994*.
- (3) Lessees must maintain marine farming structures and equipment on lease areas held by them in a serviceable condition.
- (4) Lessees must remove redundant, dilapidated or loose marine farming structures and equipment from the lease area at the request of the Secretary.
- (5) If any part or parts of marine farming structures or equipment break away from the lease area, lessees must take action as soon as reasonably possible to recover those structures and equipment and return them to the lease area or otherwise dispose of them in an appropriate manner.
- (6) Lessees must ensure any predator control of protected species is conducted with the approval of the Parks and Wildlife Service of the Department Primary Industries, Water and Environment.
- (7) Lessees must permit the Minister, or persons authorised by the Minister, to enter into and inspect the lease area at all reasonable times.
- (8) Lessees must comply with all lawful written requirements of the Minister.

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Glossary

anoxic	Limited or no supply of oxygen in the sediments
benthic	Associated with solid surfaces underneath water bodies
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DHHS	Department of Health and Human Services
DELM	Department of Environment and Land Management
DPIF	Department of Primary Industry and Fisheries
DPIWE	Department of Primary Industries, Water and Environment (NB. DPIF and DELM amalgamated in September 1998 to DPIWE)
endophytotic	Plant occurring in the area
epiphyte	Plant growing on another
eutrophic	An abundance or oversupply of nutrients
FRDC	Fisheries and Research Development Corporation
infauna	Animals living within the sediments.
macroalgae	Large algae, generally fixed onto a hard surface. Otherwise known as seaweeds (note: does not include seagrasses).
microalgae	Small, often single celled algae not forming large uniform sections.
MAST	Marine and Safety Tasmania
oxic	Plentiful supply of oxygen in the sediments
ppt	Parts per thousand
Phytoplankton	Plankton consisting of plants
Secretary	Planning Authority Is the Secretary, DPIWE Secretary of the Department of Primary Industry, Water and Environment
STP	Sewage Treatment Plant
TASFA	Tasmania Amateur Sea Fisherman's Association
TFDA	Tasmanian Fisheries Development Authority
TSQAP	Tasmanian Shellfish Quality Assurance Program
viviparous	Live bearing

Species Glossary

Oysters, Flat	<i>Ostrea angasi</i>
Oysters, Pacific	<i>Crassostrea gigas</i>