# FRANKLIN BIOREGION HIGH PRIORITY MARINE PARKS



Hell's Gates, Photo: M.Jacques

## MARINE LIFE NETWORK

Facebook: At the "Tasmanians for Marine Parks" site,

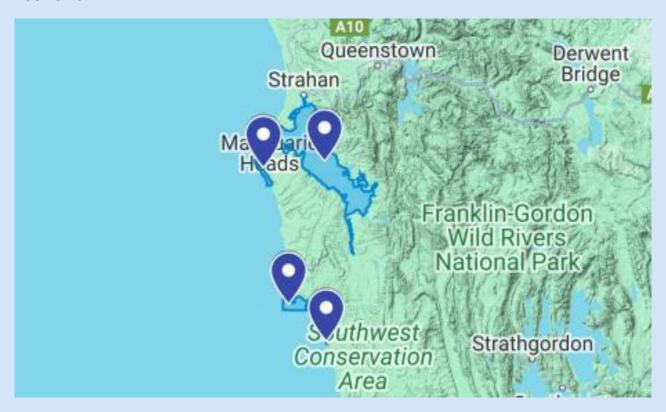
Instagram: tasmanians\_for\_marine\_parks,

Website: http://marinelife.org.au, Email: moremarineparks@gmail.com

# Franklin BioregionPlan

## What is the Franklin Bioregion

The Otway Bioregion encompasses the entire northern and central parts of the West Coast of Tasmania.





## Special natural features of the Franklin Bioregion

Tasmania's oceans are all special, but why is Franklin Bioregion different from other parts of Tasmania? Some of its key features are:

## What Scientists have said about the natural values of the bioregion

Dr Karen Parsons - Nowhere else on earth report

"Franklin Bioregion - rugged, remote beaches The Franklin Bioregion occupies the majority of Tasmania's west coast and refers to the Franklin River, an iconic feature of our Wilderness World Heritage Area. The remote and largely pristine coastline of this region lies in the path of strong westerly winds of the Roaring 40s and is subject to some of the most extreme weather on earth. Waves build up over thousands of kilometres in the southern Indian and Atlantic oceans before breaking on the Tasmanian west coast. The largest wave recorded in temperate Australian coastal waters was measured in this region - a 19.8 m giant off Ocean Beach! The exposed open coastline has many long sandy beaches that are separated by rocky headlands, with few comparable undisturbed, high energy rocky and sandy coasts found in the world's temperate zones. A diversity of landforms includes outstanding coastal features such as raised marine terraces that provide Australia's most complete record of sea level in relation to tectonic uplift. The only deviation from the characteristic high-energy coastline is Macquarie Harbour, a massive inlet on the central west coast that receives high volumes of freshwater from the King and Gordon rivers and forms Tasmania's largest estuarine system. Rather than possessing characteristic plants or animals, the biological communities of this region are distinctive for their low diversity of reef plants and animals, soft-sediment fish communities, estuarine fish and macroinvertebrate assemblages, and molluscs in collections of beachwashed shells. This has been attributed to a combination of very high wave energy on the open coast and low nutrient, dark stained waters in estuaries that restrict algal growth and hence primary production. Despite the low diversity, some attributes of the Franklin Bioregion's fauna are unique, and this vast length of coastline has considerable conservation value on the basis of its largely pristine state. Beach habitats of the region are important for both resident and migratory shorebirds, with Ocean Beach internationally significant for the migratory Sanderling, and also supporting high numbers of Double-banded Plovers and Red-necked Stints. The north-west coast provides extensive stretches of suitable nesting habitat for resident Hooded Plovers, Pied Oystercatchers, Sooty Oystercatchers and Vulnerable Fairy Terns.

## Summary of Bioregion Natural values

| rugged, remote long sandy beaches separated by rocky headlands | <b>~</b> |
|--|----------|
| remote and largely pristine coastline                          | <b>✓</b> |
| strong westerly winds of the Roaring 40s                       | <b>~</b> |
| exposed open coastline   | <b>~</b> |

| undisturbed   | <b>✓</b> |
|---|----------|
| diversity of landforms includes outstanding coastal features such as raised marine terraces | <b>/</b> |
| massive inlet   | <b>~</b> |
| biological communities of this region are distinctive for their low diversity               | <b>~</b> |
| low nutrient, dark stained waters in estuaries  | <b>~</b> |
| Rare, ancient species   | <b>~</b> |
| Beach habitats important for resident and migratory shorebirds                              | <b>✓</b> |
| Pristine estuary  | <b>✓</b> |

#### Bioregion Social and economic factors

About 4300 people live on the West Coast., 347 identify as First Nations people. The coastline is largely unpopulated except in the far NW and the Strahan/Queenstown/Zeehan region. Nearly a quarter of all workers are employed in mining, 650 people are on an age pension. Agriculture, forestry and fishing amounts to 6.5% of employment. The coast is predominantly of economic use to commercial crayfish and abalone fishermen.

Zones 6 (the far NW) provided 81 tonnes of crayfish in 2020, a significant fall from the 244 tonnes in 2000. The central West Coast (Zone 7 supplied 133 tonnes in 2021 and has been more stable over time.

Abalone harvesting across the entire Western Zone [which includes part of Davey and Franklin bioregion] remained stable in 2022, or marginally declining in some sub-blocks. Both catch and CPUE have declined in the Western Zone since the early 2000's leading to sustained recruitment overfishing. The recommended Western Zone TACC for 2023 was reduced by 28 t to 311.5 t1from a total allowable commercial catch (TACC) of 794.5 t2.

Block 5 [far NW tip of West Coast]two blocks, Block 49 [Flerieu Group], along with block 3 on King Island [SW King Island] produce the majority of blacklip abalone for the Northern Zone3 The Northern Zone [Otway and Franklin Bioregion] TACC peaked at 402.5 t.

## Recreational Fishing

<sup>&</sup>lt;sup>1</sup> Tasmanian-Abalone-Assessment-2022-compressed-1.pdf (utas.edu.au)

<sup>&</sup>lt;sup>3</sup> Tasmanian-Abalone-Assessment-2022-compressed-1.pdf (utas.edu.au)

Recreational fishermen from the NW Coast visit areas with access, like the Bluff Hill point area and Macquarie Heads in the rare suitable weather, but are restricted to more sheltered inshore locations. There is limited snorkelling and beach fishing activity. Macquarie Heads is line fished, mostly for Australian salmon and other pelagic species when the seasonal 'runs' occur.

By comparison with the other coastal areas, recreational effort on the West Coast is low (1% of total effort). Australian Salmon and Rock Lobster are the key west coast species. Recreational diving and potting out of Macquarie Heads only possible in uncommon suitable weather, generally in the lee of Cape Sorell.

"Effort in this region was almost entirely (90%) due to the activities of residents from the West and North West". (Lyle 2019)

#### Marine farming

The West Coast is unsuitable for marine farming, except the sheltered waters of Macquarie Harbour. There are several leases in the Liberty Point area of the mid to upper harbour. There have been controversial due to the impact on harbour oxygen levels and the threatened Maugean skate. Stocking levels are currently capped at 9500 tonnes, but there have been demands for fish farming to cease in the harbour.

#### <u>Current Protections in the Boags Bioregion</u>

There are extensive netting bans in Macquarie Harbour. There are few other restrictions.

#### **Threats**

The general threats of significance to low lying or soft coastlines like estuaries and beaches are: 4

- increased siltation resulting from land clearance and urban and rural runoff,
- increased nutrient loads resulting from marine farms, sewerage and agricultural use of fertilisers,
- foreshore development, dredging, habitats clearing and reclamation
- modification to water flow through dams and weirs,
- acidification of rivers and heavy metal pollution from mines,
- the spread of introduced pest species, and
- sea level rise and coastal erosion.
- Wildlife displacement, disruption of social and feeding behaviour e.g. Beach crowding, Pet impacts<sup>5</sup>.

<sup>&</sup>lt;sup>4</sup> Based upon, A Classification of Tasmanian Estuaries and Assessment of their Conservation Significance using Ecological and Physical Attributes, Population and Land UseG.J. Edgar1, N.S. Barrett2 and D.J. Graddon3, Ocean Rescue 2000

<sup>&</sup>lt;sup>5</sup> Dr Eric Woehler, pers comms

Microplastics and litter (particularly damaging to seabirds).

On Harder coastlines like reef, or in the open sea,6

- climate change effects, ocean acidification, changes food supply, damage/changes to food availability e.g. plankton communities change, changing diseases, range extension, weather changes, extreme events,
- · overfishing,
- invasive (feral) species.
- Microplastics and litter (particularly damaging to seabirds).
- Wildlife interactions eg. Boat strike on sea mammals.
- Disruption of behaviour e.g. seismic testing.
- pollutants., Excessive nutrients e.g. salmon farms, sewerage, stormwater.
- Silt from erosion,
- Habitat damage- dredging and bottom trawling.

## Why have marine parks

Marine Parks protect depleted, threatened, rare, endangered or endemic species and ecological communities and in particular to preserve habitats considered critical for the survival of such species. Some species are sensitive, with complex habitat requirements, or are vulnerable to disturbance.

They can slow down the decline of degraded ecosystems and be a focus for efforts to restore habitats. A healthier more resilient habitat is more likely to survive new threats like invasive species and climate change.

They can protect economically significant habitats like fish nursery sites, as well as habitats, species and seascapes of importance to recreation and tourism.

They can protect geological, archaeological, historical sites, seascapes, cultural sites and cultural practices and manage these significant sites for future generations.

They can aid in the interpretation of marine and estuarine systems for the purposes of conservation, recreation and public education.

They provide places for research and provide reference sites for scientific studies, including sites for baseline fisheries monitoring and long-term environmental monitoring.

MARINE LIFE NETWORK Website: <a href="http://marinelife.org.au">http://marinelife.org.au</a>, moremarineparks@gmail.com

<sup>&</sup>lt;sup>6</sup> Based on media monitoring by Marine Life Magazine 2010 - 2020



Bull kelp likes the high energy shallows, Photo Jun Zhang

# So where would we put any new marine parks?

Scientists have been talking about more marine parks for Tasmania for a long time. The areas previously talked about were,

| Sloop Rocks and Pt Hibbs (south of Macquarie Harbour entrance) | High Value Site - Nowhere else on earth report |
|--|--|
| Arthur River-Temma   | Prof Graham Edgar                              |
| Kings Run  |  |
| Wanderer river estuary   | High Value Site - Nowhere else on earth report |
| Macquarie Hbr  | High Value Site - Nowhere else on earth report |

Not all of these areas are high priority sites for protection in a marine park.

Here are the details about those proposals:



#### Pt Hibbs



#### Special Features of the Site

Dr Karen Parsons High Value Site - The environment around Point Hibbs has not been surveyed but includes an even wider range of wave exposure, and may also provide a wider range of tidal currents and other conditions given the presence of a protruding headland and associated small island (Hibbs Pyramid). This site is worthy of investigation, since it may yet prove to best represent the range of open coast habitats within the rugged Franklin Bioregion126.

## Special features of the Franklin Bioregion contained in the site

| rugged, remote long sandy beaches separated by rocky headlands | >        |
|--|----------|
| remote and largely pristine coastline                          | >        |
| strong westerly winds of the Roaring 40s                       | <b>\</b> |
| exposed open coastline   | <b>\</b> |

| >           |
|-------------|
| <b>&gt;</b> |
|             |
| <b>\</b>    |
| >           |
|             |
|             |
|             |

#### **Known Threats**

This is an almost pristine site with particular vulnerability to disruptive wildlife interactions such as plastics, gear entanglement, and fishing activity.

#### **Current protection**

There are no netting bans in Hibbs Lagoon.

The land is within the South West Conservation Area.

#### Current human uses

Hibbs Lagoon is a popular stopover for small numbers of cruising Yachtsmen. Commercial fishing boats may also moor in the area. It is otherwise little visited with no public infrastructure.

| Economic Interests | -Existing or potential contribution to economic value by virtue of its protection, eg. for recreation or tourism, or as a refuge or nursery area, or source of supply for economically important | impact on current users even if |
|--------------------|--|---------------------------------|
|                    | - Current or potential use for the extraction of, or exploration for resources   |                                 |

|                             | <ul> <li>Current or potential use for the extraction of, or exploration for resources</li> <li>Importance for shipping and/or trade.</li> <li>Value due to its contribution to local or regional employment and economic development.</li> </ul>             |   |
|-----------------------------|--|---|
| Indigenous Interests        | -Traditional usage and/or current economic value. Contains indigenous cultural values. Native title considerations   | No significant adverse impact, subject to further consultation. There is no intention to interfere with indigenous muttonbirding in the area. |
| Social Interests            | Existing or potential value to the local, national or international communities because of its heritage, cultural, traditional, aesthetic, educational, recreational, or economic values   | Presently little used or recognised.  |
| Scientific Interests        | Existing or potential value for research and monitoring.   | High  |
| Practicality/Feasibility    | Degree of insulation from external destructive influences  Social and political acceptability, and a degree of community support  Access for recreation, tourism, and education  Lends itself to practical management (cost effectiveness, compliance etc.). | Remote  |
| Vulnerability<br>Assessment | Extent to which the site is vulnerable and susceptible to human induced changes and threatening processes.   | Vulnerable  |
| Replication                 | Provides a replication of ecosystems within a Marine Protected Area within the bioregion.  | Bird values are unique  |

## **Recommended Protection**

IUCN II National Park.

## **Sloop Rocks**



#### Special Features of the Site

#### Dr Karen Parsons

High Value Site - "The marine habitats of the open coast are poorly known in the Franklin Bioregion, however amongst the sites examined during reef surveys, the Sloop Rocks area south of the entrance to Macquarie Harbour is considered to contain the best known representation of the reef assemblages in this region126. The area from Dunes Creek to Gorge Point (including offshore Sloop Rocks) contains deep as well as shallow reefs and some shelter to the prevailing westerly swells, and is therefore expected to contain a high proportion of the Franklin open coast biodiversity."

## Special features of the Bioregion contained in the site

| rugged, remote long sandy beaches separated by rocky headlands                              | <b>&gt;</b> |
|---|-------------|
| remote and largely pristine coastline   | <b>~</b>    |
| strong westerly winds of the Roaring 40s  | <b>/</b>    |
| exposed open coastline  | <b>~</b>    |
| undisturbed   | <b>/</b>    |
| diversity of landforms includes outstanding coastal features such as raised marine terraces | <b>~</b>    |
| massive inlet   |             |
| biological communities of this region are distinctive for their low diversity               | <b>~</b>    |
| low nutrient, dark stained waters in estuaries  |             |
| Rare, ancient species   |             |
| Pristine estuary  |             |

#### **Known Threats**

This is an almost pristine site with particular vulnerability to disruptive wildlife interactions such as plastics, gear entanglement, and fishing activity.

## **Current protection**

There are no netting bans in Hibbs Lagoon.

The land is within the South West Conservation Area.

#### Current human uses

Hibbs Lagoon is a popular stopover for small numbers of cruising Yachtsmen. Commercial fishing boats may also moor in the area. It is otherwise little visited with no public infrastructure.

| Economic Interests          | -Existing or potential contribution to economic value by virtue of its protection, eg. for recreation or tourism, or as a refuge or nursery area, or source of supply for economically important species.  - Current or potential use for the extraction of, or exploration for resources  - Current or potential use for the extraction of, or exploration for resources  - Importance for shipping and/or trade.  - Value due to its contribution to local or regional employment and economic development. | An area of low impact on current users even if highly protected. |
|-----------------------------|---|--|
|                             | employment and economic development.  |  |
| Indigenous Interests        | -Traditional usage and/or current economic value. Contains indigenous cultural values. Native title considerations  | No significant adverse impact, subject to further consultation.  |
| Social Interests            | Existing or potential value to the local, national or international communities because of its heritage, cultural, traditional, aesthetic, educational, recreational, or economic values  | Presently little used or recognised.                             |
| Scientific Interests        | Existing or potential value for research and monitoring.  | High   |
| Practicality/Feasibility    | Degree of insulation from external destructive influences  Social and political acceptability, and a degree of community support  Access for recreation, tourism, and education  Lends itself to practical management (cost effectiveness, compliance etc.).  | Remote   |
| Vulnerability<br>Assessment | Extent to which the site is vulnerable and susceptible to human induced changes and threatening processes.  | Vulnerable   |
| Replication                 | Provides a replication of ecosystems within a Marine Protected Area within the bioregion.   | values are unique  |

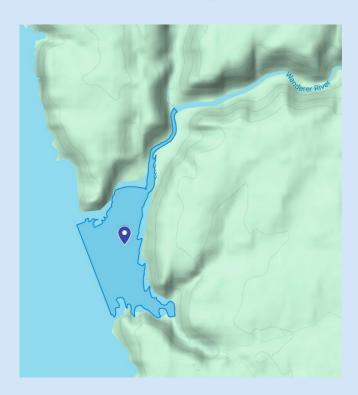
## **Design Comments**

# Recommended Protection

**IUCN II National Park** 



## **Wanderer River estuary**



#### Special Features of the Site

In addition to the nine representative estuaries found to possess highest conservation value, North East Inlet was also assigned Class A conservation status because it possessed high species diversity and included species not contained in other Class A estuaries. The ten class A estuaries are North East Inlet, Black River estuary, Bryans Lagoon, New River Lagoon, Thirsty Lagoon, Tamar River estuary, Southport Lagoon, Bathurst Harbour, Payne Bay and Wanderer River estuary. We recommend that plants, animals and habitats within the ten Class A estuaries and associated catchments be protected within an integrated system of Tasmanian estuarine protected areas. We also recommend that catchments and aquatic ecosystems of a further 38 estuaries, which were assigned Class B conservation status on the basis of minimal anthropogenic impacts, be quarantined from future developments, and existing impacts reduced wherever possible.

The number of species collected at sites also varied with the estuarine groups identified using physicochemical attributes, with highest numbers of species occurring in marine inlets and small open estuaries. Relatively few species were collected at sites in microtidal river estuaries, barred low-salinity estuaries or hypersaline lagoons, with extremely low numbers collected in the western Tasmanian Wanderer estuary. North East Inlet (Flinders Island) and seagrass beds at the mouth of the Tamar estuary possessed exceptionally high diversity for both fishes and invertebrates.

The low number of species recorded from estuaries along the western Tasmanian coast reflected extremely low macrofaunal productivity in that region. Estimated secondary productivity of west coast estuaries was generally at least one, and up to three, orders of magnitude lower than equivalent estuaries on other coasts. This low productivity was attributed to unusually low concentrations of dissolved nutrients in rivers and dark tannin-stained waters which greatly restrict algal photosynthesis and primary production.

#### Beachsafe.org.au

Christmas Cove is a 350 m wide south-facing bedrock embayment located at the mouth of the Wanderer River (Fig. 4.142). Beach T 725 is located on the northern shore of the cove and extends for 350 m west of the 50 m wide rock-fringed river mouth. It faces due south down the cove and receives waves averaging 1-1.5 m which maintain a 50 m wide low tide terrace cut by one to two rips during higher wave conditions. The beach is bordered by steep, densely vegetated slopes rising to 100 m. A low densely vegetated 200 m wide barrier backs the beach, with the estuary meandering a few kilometres upstream in a deeply incised V-shaped valley. Beach T 726 is located at the mouth of a small creek that descends steeply from the backing 120 m high slopes, 2 km north of Christmas Cove. The beach consists of a 60 m wide collection of boulders and poorly sorted creek debris, located inside a 100 m deep 50 m wide bedrock gully. Waves average about 0.5 m at the shore and wash over the backing creek deposits during high wave conditions.



Dr Karen Parsons High Value Site - The remote Wanderer River Estuary located 60 km south of Macquarie Harbour is one of ten estuaries statewide that has been classified as having critical conservation significance. This estuary is very unusual in that despite having a large catchment and occurring in a high rainfall area, it is occasionally closed by a sand barrier. Such an estuary is more typical of the dry east coast where low rainfall and hence freshwater flows provides greater opportunity for accumulation of sand around estuary entrances. In a characterisation of 111 estuaries around Tasmania on the basis of physical variables, the Wanderer Estuary was one of only two estuaries (the other being the Tamar Estuary, see Section 6.1) that formed its own unique group within the nine estuary groups identified. The fish and invertebrate assemblages in the estuary are very different to those of other barrier estuaries, and contain very few species as well as low animal abundances. The value of this estuary therefore lies not in high biodiversity, nor in it being representative of the Franklin Bioregion, but instead to it being highly pristine and the only estuary of its type in Tasmania.

### Special features of the Franklin Bioregion contained in the site

| rugged, remote long sandy beaches separated by rocky headlands                              |          |
|---|----------|
| remote and largely pristine coastline   | <b>~</b> |
| strong westerly winds of the Roaring 40s  |          |
| exposed open coastline  |          |
| undisturbed   | <b>✓</b> |
| diversity of landforms includes outstanding coastal features such as raised marine terraces | <b>~</b> |
| massive inlet   |          |
| biological communities of this region are distinctive for their low diversity               | <b>/</b> |
| low nutrient, dark stained waters in estuaries  | <b>~</b> |
| Rare, ancient species   |          |
| Beach habitats important for resident and migratory shorebirds                              | <b>~</b> |
| Pristine estuary  | <b>✓</b> |

#### **Known Threats**

Biological resources within most large Tasmanian estuaries are exploited, but this area is an almost pristine site, particular vulnerability to disruptive visitation.

## **Current protection**

The calamari and squid fisheries are closed in Bass Strait during peak calamari spawning periods. There is a no netting zone in Mosquito Inlet, and a gill net ban in much of the proposed area.

## Current human uses

| Economic Interests       | <ul> <li>-Existing or potential contribution to economic value by virtue of its protection, eg. for recreation or tourism, or as a refuge or nursery area, or source of supply for economically important species.</li> <li>- Current or potential use for the extraction of, or exploration for resources</li> <li>- Current or potential use for the extraction of, or exploration for resources</li> <li>- Importance for shipping and/or trade.</li> <li>- Value due to its contribution to local or regional employment and economic development.</li> </ul> | An area of low impact on current users even if highly protected.  |
|--------------------------|---|---|
| Indigenous Interests     | -Traditional usage and/or current economic value. Contains indigenous cultural values. Native title considerations  | No significant adverse impact, subject to further consultation. There is no intention to interfere with indigenous muttonbirding in the area. |
| Social Interests         | Existing or potential value to the local, national or international communities because of its heritage, cultural, traditional, aesthetic, educational, recreational, or economic values  | Presently little used or recognised.  |
| Scientific Interests     | Existing or potential value for research and monitoring.  | High  |
| Practicality/Feasibility | Degree of insulation from external destructive influences  Social and political acceptability, and a degree of community support  Access for recreation, tourism, and education  Lends itself to practical management (cost effectiveness, compliance etc.).  | Remote  |

| Vulnerability<br>Assessment | Extent to which the site is vulnerable and susceptible to human induced changes and threatening processes. | Vulnerable             |
|-----------------------------|--|------------------------|
| Replication                 | Provides a replication of ecosystems within a Marine Protected Area within the bioregion.                  | Bird values are unique |

## **Recommended Protection**

**IUCN II National park** 

# Identification Criteria (from Tasmania's MPA Strategy)

All of the above sites met the identification criteria except one.

| Criteria                 | Description of criteria  |
|--------------------------|--|
| Comprehensiveness        | -Adds to the coverage of the full range of ecosystems recognised at an appropriate scale within and across each bioregion.   |
|                          | -Enhances the comprehensive nature of the Representative System of Marine Protected Areas in Tasmania.   |
| Adequacy                 | The size of the area, its boundaries and location are adequate to ensure that its biological and ecological values can be protected and managed and the impact of activities can be minimised. |
| Representativeness       | -Represents one or more ecosystems within an Interim Marine and Coastal Regionalisation of Australia bioregion.  |
|                          | -Enhances the representative nature of the Representative System of Marine Protected Areas in Tasmania.  |
| Ecological<br>Importance | -Contributes to maintenance of essential ecological processes or life-support systems.   |
|                          | -Contains habitat for rare or endangered species.  |
|                          | - Preserves genetic diversity, ie. is diverse or abundant in species.  |
|                          | -Contains areas on which other species or other systems are dependent, eg. contain nursery or juvenile areas or feeding, breeding or rest areas for migratory species.                         |
|                          | -Contains one or more areas which are a biologically functional, self-sustaining ecological unit. International or National Significance.  |
|                          | -Is listed, or has the potential to be listed, on the World or National Heritage List or declared as Biosphere Reserve or subject to an international or national conservation agreement       |

| Uniqueness                  | -Contains unique species, populations, communities or ecosystems Contains unique or unusual geographic features |
|-----------------------------|---|
| Productivity                | Do the species, populations, or communities of the area have a high natural productivity                        |
| Vulnerability<br>Assessment | Contains ecosystems and/or communities vulnerable to natural processes.   |
| Biogeographic<br>Importance | Captures important biogeographical qualities.   |
| Naturalness                 | Extent to which the area has been protected from, or not been subject to, human-induced change                  |

The Macquarie Harbour site, although worthwhile and with important current issues, has already been protected. This protection allows sustainable use, as would a change to IUCN IV marine conservation area. The public debate lies around the management and appropriateness of those activities and whether they are sustainable in fact.

## Macquarie Harbour



#### Special Features of the Site

Dr Karen Parsons High Value Site - Macquarie Harbour is unique within the Franklin Bioregion and Australia at large. This massive inlet, which is one of the largest estuarine systems in the country, covers 295 km2 7 and is therefore six times the size of Sydney Harbour! It has highly unusual physical and hydrological characteristics, with the only similar water body in Tasmania being Bathurst Harbour further to the south. These two estuaries are unique in Australia, having highly stratified waters, a darkly stained brackish surface layer, and relatively deep (>30 m) basins separated from the sea by shallower areas. Macquarie Harbour is however distinctive

from the Bathurst system due to higher nutrient levels, more restricted marine flows at its narrow entrance, and its 'three-layer' system comprising a surface layer of mixed marine and freshwater origin, a marine bottom layer, and also an intermediate slowly changing mid-layer. Biological studies within Macquarie Harbour have also revealed a remarkable discovery. The Endangered Maugean Skate is an endemic western Tasmanian species that was only discovered in 1988 and is limited to brackish upper estuary waters (see Section 5.3). This species was initially believed to be confined entirely to Port Davey in Tasmania's south-west, however it was subsequently recorded in Macquarie Harbour, where it is in fact more abundant and widespread46. The highly limited distribution of this 'microendemic' fish means that protection of its habitat is a very high conservation priority.



Maugean skate, Photo: Jane Ruckert

#### Special features of the Franklin Bioregion contained in the site

| rugged, remote long sandy beaches separated by rocky headlands                              |          |
|---|----------|
| remote and largely pristine coastline   | <b>~</b> |
| strong westerly winds of the Roaring 40s  |          |
| exposed open coastline  |          |
| undisturbed (partly)  | <b>~</b> |
| diversity of landforms includes outstanding coastal features such as raised marine terraces |          |

| massive inlet   | <b>~</b> |
|---|----------|
| biological communities of this region are distinctive for their low diversity | <b>~</b> |
| low nutrient, dark stained waters in estuaries                                | <b>~</b> |
| Rare, ancient species   | <b>~</b> |
| Beach habitats important for resident and migratory shorebirds                |          |
| Pristine estuary  |          |

#### **Known Threats**

Of the nine major indirect threats to Tasmanian estuaries the most relevant are:

- (iv) foreshore development and dredging,
- (v) marine farms,
- (vi) modification to water flow through dams and weirs,
- (vii) acidification of rivers and heavy metal pollution from mines,
- (viii) the spread of introduced pest species, and
- (ix) long-term climate change.

The most topical of these is marine farming, because of its nutrient inputs and impact on oxygen levels in the harbour. Parts of the harbour are contaminated by mine waste. There is also an issue with boat wash undermining the harbour banks, especially in the Gordon River. The area near Strahan also suffers the same risks that come with any urbanization and development.

#### Current protection

The area is already under reserve, public discussion will continue on appropriate activities in those reserves and specific measures for threatened species protection.

## Current human uses

Extensive marine farm leases.

| Economic Interests       | -Existing or potential contribution to economic value by virtue of its protection, eg. for recreation or tourism, or as a refuge or nursery area, or source of supply for economically important species.                   | An area of low impact on current users even if highly protected.  |
|--------------------------|---|---|
|                          | <ul> <li>Current or potential use for the extraction of, or exploration for resources</li> <li>Current or potential use for the extraction of, or exploration for resources</li> </ul>                                      |   |
|                          | <ul><li>Importance for shipping and/or trade.</li><li>Value due to its contribution to local or regional employment and economic development.</li></ul>   |   |
| Indigenous Interests     | -Traditional usage and/or current economic value. Contains indigenous cultural values. Native title considerations  | No significant adverse impact, subject to further consultation. There is no intention to interfere with indigenous muttonbirding in the area. |
| Social Interests         | Existing or potential value to the local, national or international communities because of its heritage, cultural, traditional, aesthetic, educational, recreational, or economic values                                    | Presently little used or recognised.  |
| Scientific Interests     | Existing or potential value for research and monitoring.  | High  |
| Practicality/Feasibility | Degree of insulation from external destructive influences  Social and political acceptability, and a degree of community support  Access for recreation, tourism, and education  Lends itself to practical management (cost | Remote  |
|                          | effectiveness, compliance etc.).  |   |

| Vulnerability<br>Assessment | Extent to which the site is vulnerable and susceptible to human induced changes and threatening processes. | Vulnerable             |
|-----------------------------|--|------------------------|
| Replication                 | Provides a replication of ecosystems within a Marine Protected Area within the bioregion.                  | Bird values are unique |

#### Recommended Protection

The upper harbour area is already under reserve, the issue is that the activities permitted under that regime appear unsustainable. Public discussion will continue on appropriate activities in those reserves and specific measures for threatened species protection.

The oxygen levels in the harbour, and the ongoing survival of the Maugean skate remain the key issues.

## Current human uses

| <u>Odifolit flaman doco</u> |   |  |
|-----------------------------|---|--|
| Economic Interests          | -Existing or potential contribution to economic value by virtue of its protection, eg. for recreation or tourism, or as a refuge or nursery area, or source of supply for economically important species.  - Current or potential use for the extraction of, or exploration for resources  - Current or potential use for the extraction of, or exploration for resources  - Importance for shipping and/or trade.  - Value due to its contribution to local or regional employment and economic development. | An area of low impact on current users even if highly protected.   |
| Indigenous Interests        | -Traditional usage and/or current economic value. Contains indigenous cultural values. Native title considerations  | Subject to further consultation. Aboriginal communities at Kings Run may not wish to have the Church Rock area included. |
| Social Interests            | Existing or potential value to the local, national or international communities because of its heritage, cultural, traditional, aesthetic, educational, recreational, or economic values  | Presently little used or recognised.   |
| Scientific Interests        | Existing or potential value for research and monitoring.  | High   |
| Practicality/Feasibility    | Degree of insulation from external destructive influences  Social and political acceptability, and a degree of community support  Access for recreation, tourism, and education  Lends itself to practical management (cost effectiveness, compliance etc.).  | Remote   |
| Vulnerability<br>Assessment | Extent to which the site is vulnerable and susceptible to human induced changes and threatening processes.  | Vulnerable   |

| Replication | Provides a replication of ecosystems within a | Bird values are |
|-------------|---|-----------------|
|             | Marine Protected Area within the bioregion.   | unique          |

#### **Design Comments**

The area is protected largely for its unique landforms. Indigenous activities at Kings Run and Sundown Point would need to be considered. A sea country management regime could be considered in these areas.

#### Recommended Protection

IUCN IV National Park, with perhaps an indigenous management arrangement. That proposal would still need further discussion.

#### Who are We?

Marine Life Network (MLN) are ordinary people who volunteer their time to help protect and promote the wonders of Tasmania's ocean environment. The aims of Marine Life Network are to educate and advocate.

We do anything useful for the marine environment, but our main campaign at present is a campaign called "Tasmanians for Marine Parks". This campaign is trying to create a system of comprehensive, adequate and representative marine parks for Tasmania.

An effort has been made to recruit a broad a cross-section of the community from along the political spectrum. MLN is non-partisan, welcoming to everyone, and is not an affiliate of existing political parties.

