



# Draft Corner Inlet Fishery Management Plan

Draft for public consultation



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#### Child Safe Statement

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## Vision

Corner Inlet is a productive and sustainable fishery that supports the interests of all user groups, is highly valued by the broader public for supplying outstanding quality seafood for Victorians, and provides one of the State's best recreational fishing experiences.



## **Minister's Foreword**

I am pleased to be able to notify my intent to declare this management plan for the Victorian Corner Inlet fishery. This will be the first management plan for this long-standing fishery for declaration under the *Fisheries Act 1995.* It establishes a framework to ensure a viable and ecologically sustainable Corner Inlet fishery in this State for everyone who utilises or simply values this remarkable natural resource.

Consistent with our commitment to effective stakeholder consultation, the draft plan has been prepared by the Victorian Fisheries Authority in consultation with a stakeholder-based Victorian Corner Inlet Fishery Management Plan Steering Committee, with input from Seafood Industry Victoria, commercial licence holders, VRFish, FutureFish, Traditional Owners, and other key stakeholders.

I would like to thank members of the Steering Committee for the sustained effort put into working through some complex issues and the strong leadership they have all shown. Stronger partnerships have been formed between various stakeholders and I would particularly like to acknowledge the commercial and recreational representatives who have come together with a common interest in ensuring sustainable management of fishing in Corner Inlet.

I would also like to thank others who provided their expert advice including research scientists from Deakin University, Melbourne University, Yarram Yarram Landcare, Parks Victoria and various other interested stakeholders throughout the process.

The Corner Inlet commercial fishery is Victoria's third most valuable fishery with a Gross Value of Production of approximately \$3 million. It supports local businesses and regional employment across South Gippsland and more broadly. The reputation of Corner Inlet seafood is building, and has become one of Australia's most prized, sustainable sourced, fresh, quality seafood and is available in some of Australia's best restaurants.

Corner Inlet is also very popular with recreational fishers, particularly in the warmer months when large numbers of people visit the South Gippsland region for some of the best fishing available in Australia.

This plan also recognises that the Corner Inlet fishery is of particular importance to Aboriginal people, both personally and communally. The plan acknowledges this link through specific management actions.

For the benefit of all fishing sectors, it's vital that we continue to look after this important fishery by ensuring it remains sustainable. Once again, I would like to congratulate all those involved in the development of the draft Victorian Corner Inlet Fishery Management Plan. I am confident that this plan would help ensure that the fishery continues to be managed sustainably into the future.

Hon Melissa Horne MP

Minister for Fishing and Boating

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## **Executive summary**

The *Corner Inlet Fishery Management Plan* will be the first fishery management plan declared for the fishery. The management plan will ensure catches by all fishing sectors will remain at levels that prevent overfishing and ensure that Victorians can enjoy a plentiful resource for generations to come.

The Corner Inlet fishery spans marine waters from the large, shallow embayment north of Wilsons Promontory National Park, extending east to McLoughlins Beach. The area is situated within the Corner Inlet Ramsar site which has high environmental value and is largely in a near natural condition.

The fishery is naturally variable, whereby the productivity of many species is dependent on available seagrass habitat, environmental conditions (including conditions outside of the Inlet) and successful spawning events.

It is a multi-species, multi-gear fishery enjoyed by indigenous, commercial and recreational fishers and a significant fishery for Victoria. The commercial fishery alone has an estimated gross value of production (GVP) of approximately \$3 million.

The Plan specifies the policies, management objectives and strategies for managing Victoria's Corner Inlet fishery resource under the requirements of the *Fisheries Act 1995* and the principles of ecologically sustainable development. It also details how the fishery will be monitored and identifies key research priorities.

The objectives for the Corner Inlet Fishery are:

Objective 1: Ensure sustainability of the Corner Inlet fishery resource

#### Objective 2: Maintain the ecological integrity of the fishery ecosystem

Objective 3: Ensure fishing practices are ethical, responsible and respectful and promote harmony amongst stakeholders

**Objective 4: Ensure optimal economic utilisation of the Corner Inlet resource** 

#### **Objective 5: Cost-effective and participatory management**

A key initiative of the plan is to establish an ongoing Corner Inlet Fishery Management Advisory Committee. This will strengthen the co-management approach between the Victorian Fisheries Authority and each of the fishing sectors and help ensure management arrangements remain adaptive and responsive.

The Plan will come into effect following its declaration by the Minister for Fishing and Boating in the Victoria Government Gazette and remains in place until either a new plan is declared or until it is revoked in accordance with the requirements of the *Fisheries Act*.

The key risks identified as relevant to the fishery and the appropriate preventative measures contained in this plan have been reviewed in consultation with key stakeholders. The Victorian Fisheries Authority would like to thank the members of the steering committee for their involvement and effort in developing this management plan and other stakeholders who have provided input to date.

## **1. Introduction**

## **1.1 OVERVIEW**

This management plan applies to the Corner Inlet fishery in southern Gippsland. The fishery includes marine waters from the large, shallow embayment north of Wilsons Promontory National Park, extending east to McLoughlins Beach. It is a multi-species, multi-gear fishery enjoyed by commercial, recreational and indigenous fishers. Corner Inlet is Victoria's most valuable commercial bay and inlet fishery, an important contributor to the State's economy, and has long been a popular area for Victoria's growing recreational fishing sector.

The Corner Inlet Fishery Management Plan (the Plan) specifies the policies, management objectives and strategies for managing the fishery resources at Corner Inlet, consistent with the requirements of the *Fisheries Act 1995* (the Fisheries Act) and the principles of ecologically sustainable development. The Victorian Fisheries Authority (VFA) has prepared the Plan in consultation with the Corner Inlet Fishery Management Plan Steering Committee, consisting of key partners and fishing representatives, and in accordance with the requirements under Part 3 of the *Fisheries Act*.

This is the first management plan for this long-standing fishery and outlines the management direction to ensure that the commercial, recreational and indigenous fishing sectors, along with other interested stakeholders, have a clear framework specifying how the resource will be managed.

The objectives, strategies and actions in the Plan provide for continued use and improved management of the Corner Inlet fishery resource, in a manner that is effective, efficient and ecologically sustainable. They also ensure fishing practices are responsible and respectful of community values and will help maintain public support for utilisation of the shared resource.

## **1.2 DURATION OF THE PLAN**

The Plan comes into effect following its declaration by the Minister for Fishing and Boating in the Victoria Government Gazette and remains in place until either a new plan is declared or until it is revoked in accordance with the requirements of the *Fisheries Act*. The Minister may amend a management plan by notice published in the Victoria Government Gazette.



Commercial fisher from Port Franklin overlooks the Corner Inlet basin

## 2. Victoria's Corner Inlet Fishery

## 2.1 DESCRIPTION OF THE FISHERY

## 2.1.1 Area of the fishery

The Corner Inlet fishery is located in South Gippsland, approximately 200 kilometres southeast of Melbourne. Often referred to as 'the Inlet', this area more generally includes all marine waters inside of the five main entrances from Bass Strait, namely the:

- i. Port Welshpool entrance
- ii. Port Albert Entrance
- iii. Kate Kearney Entrance
- iv. Shoal / Shallow Inlet Entrance, and
- v. McLoughlin's Beach Entrance.

These entrances are shown in Figure 1 below. For the purposes of managing this area as a separate fishery, the *Fisheries Regulations 2019* define the exact outer boundaries of the Corner Inlet Fishery<sup>1</sup>. This area is classified as internal Victorian waters managed by the State.

There are four small ports within the fishery including Port Albert, Port Welshpool, Port Franklin and Barry Beach, however the latter is mostly used for shipping and not typically used to land fish.



Figure 1. The five permanent entrances to the Corner Inlet fishery.

The marine waters of the fishery are within the Corner Inlet-Nooramunga Ramsar Site (the Ramsar Site). The Ramsar Site spans a total area of approximately 67,000 hectares, however this includes numerous lowlying islands which are present across the fishery. Corner Inlet Marine National park is also situated within the Ramsar site and excludes all forms of fishing from an area of 1,550 hectares. Further details on the Ramsar Site and marine park are provided in section 2.4. The outer islands near the entrances to the Inlet are referred to as the "barrier islands", as they protect the Inlet from the swell of Bass Strait.

There is a system of deep channels within the Inlet which typically range from 1m to 20m in depth, except for the main entrance channel near Wilson's Promontory which can be up to approximately 40m deep. The

<sup>&</sup>lt;sup>1</sup> Corner Inlet is defined in the Fisheries Regulations 2019 as: "the total area of all the bays, inlets and entrances bounded by a line running south-westerly from the mean high water mark on the south-western end of the Ninety Mile Beach (McLoughlins Entrance) which follows the mean high water mark along the outer or seaward shoreline of the Nooramunga Islands that enclose Shoal or Shallow Inlet, crossing the entrances at McLoughlins Beach, Manns Beach, Kate Kearney Entrance and Port Albert with a straight line between the mean high water marks on the seaward extremities on each side of each entrance, continuing along the mean high water mark on the outer or seaward shoreline of Snake Island to Bentley Point then in a straight line to the mean high water mark on the most northern point of Entrance Point on Wilsons Promontory".

marine waters are subject to sizeable tides with the deep channels filling and draining via Bass Strait. The tidal variances can be large and can differ by as much as two metres.

There are large shallow banks that allow the growth of seagrass (including fine leaf seagrass - *Zostera spp.* and broad leaf seagrass – *Posidonia spp.*), providing important habitat for various fish species such as King George whiting, rock flathead, southern calamari and southern sea garfish. Large mudflats and sandbanks, many of which are present with seagrass, cover much of the Inlet and some of these banks are exposed at low tide, particularly when tides have a strong run off.

It is a dynamic system and the banks, channels, islands, sea grass beds and entrances are continuously changing, influencing the populations of fish that live in the inlet.

## 2.1.2 Species, biology and stock status

The Corner Inlet fishery is a multi-species fishery, with more than 20 species being caught on a regular basis by both commercial and recreational fishers. It is a naturally variable fishery, whereby the productivity of many species is dependent on available seagrass habitat, environmental conditions (including conditions outside of the Inlet) and successful spawning events.

#### Key species

The key species presented in Table 1 below are generally considered as the 12 most important species in the fishery, given they are either a primary species or secondary species that are commonly targeted and retained by the commercial and/or recreational fishing sectors.

**Table 1.** The 12 key species targeted in the Corner Inlet fishery, the relevant stock management unit, and recent Status of Australian Fish Stocks classification.

Species	Current management Unit / Stock structure	2019 VFA stock status	SAFS 2020 classification <sup>2</sup>
King George whiting Sillaginodes punctatus	State-wide (Victorian stock)	Sustainable	Sustainable
Southern sea garfish Hyporhamphus melanochir	State-wide (Victorian stock)	Sustainable	Sustainable
Southern calamari Sepioteuthis australis	State-wide (Victorian stock)	Sustainable	Sustainable
Rock flathead Platycephalus laevigatus	Corner Inlet - Nooramunga	Undefined	Notassessed
Gummy shark Mustelus antarcticus	State-wide (Southern Australia stock)	Sustainable	Sustainable
Southern bluespotted flathead Platycephalus speculator	Corner Inlet - Nooramunga	Undefined	Notassessed
Southern sand flathead Platycephalus bassensis	Corner Inlet - Nooramunga	Undefined	Undefined
<b>Greenback flounder</b> Rhombosolea tapirina	Corner Inlet - Nooramunga	Sustainable	Sustainable
Silver trevally Pseudocaranx spp	State-wide (Victoria stock)	Sustainable	Sustainable
Australian salmon Arripis trutta	State-wide (Eastern Australia stock)	Sustainable	Sustainable
Snapper Chrysophrys auratus	Eastern Victoria	Data limited	Undefined
Yellow-eye mullet Aldrichetta forsteri	State-wide (Victorian stock)	Recovering	Recovering

<sup>&</sup>lt;sup>2</sup> Toby Piddocke, Crispian Ashby, Klaas Hartmann, Alex Hesp, Patrick Hone, Joanne Klemke, Stephen Mayfield, Anthony Roelofs, Thor Saunders, John Stewart, Brent Wise and James Woodhams (eds) 2021, Status of Australian fish stocks reports 2020, Fisheries Research and Development Corporation, Canberra.

Although the flathead and eastern Victoria snapper stocks are listed as 'not assessed' or 'undefined' in the most recent Status of Australian Fish Stocks assessment (2020), the VFA reviews the status of each of these stocks regularly by analysing available data and the latest scientific information. While a clear stock status determination has not been confirmed under SAFS, the VFA does not consider these stocks to be in or near a depleted state. Available recent data of the primary key performance indicator (catch-per-unit-effort) for these stocks is provided in Appendix 4. Furthermore, research priorities for each of these stocks are listed within this Plan to increase the level of available data and enhance future stock status determinations.

A summary of the biological characteristics, relevant stock and other information for these species can be found on the Status of Australian Fish Stocks website<sup>3</sup> and in the Corner Inlet-Nooramunga Fishery Assessment 2016 (Conron *et. al*, 2016)<sup>4</sup>.

Other commonly retained species include cockles, blue weed whiting, snook, leatherjacket, tailor, mackerel, eagle rays, elephant fish, estuary perch and sand crabs. Additionally, a wide range of other species are present in the fishery and are either retained in low numbers or more likely as bycatch where they are immediately released back to the water.



Popular species southern sea garfish and King George whiting taken from Corner Inlet and placed in ice slurry

<sup>&</sup>lt;sup>3</sup> www.fish.gov.au/

<sup>&</sup>lt;sup>4</sup> Conron S, Green C, Hamer P, Giri K and Hall K (2016). Corner Inlet-Nooramunga Fishery Assessment 2016. Fisheries Victoria Science Report Series No. 11.

## 2.2 OVERVIEW OF SECTORS USING THE FISHERY RESOURCE

## 2.2.1 The Indigenous Fishing Sector

Aboriginal people have a strong connection to country and water that is central to their identity and culture. For Aboriginal people, cultural values are informed by and interconnected with traditional uses, spiritual connection, ancestral ties and respect for waterways, land, sea and the resources these provide.

The Corner Inlet and Nooramunga region is significant to the Gunaikurnai people, the Bunurong people and the Boon Wurrung people. This document acknowledges the Aboriginal Traditional Owners of the Corner Inlet – Nooramunga area and recognises their deep connection to their ancestral lands and waters.

Fishing is known to be an integral part of life for coastal and inland Aboriginal communities. Use of fish for communal gatherings and for barter and trade was extensive prior to European settlement. Today, fish provide an important source of food and is an important part of cultural and ceremonial life for many Aboriginal people.

## 2.2.2 The Recreational Fishing Sector

The Corner Inlet fishery is one of southern Gippsland's greatest tourist attractions and a popular fishing destination for Victoria's growing recreational fishing sector. Recreational fishing in Victoria contributes close to \$3 billion annually to the economy<sup>5</sup> and recreational fishing in and around the Corner Inlet fishery makes a significant contribution to the Victorian economy at a local, regional and State level. Recreational fishing generates a number of psychological, physiological and social benefits. It promotes general health and wellbeing, reduces stress and improves mental health.

While a significant number of those fishing the Inlet are from the local area around South Gippsland and further inland (e.g. from the Latrobe Valley), many are known to travel from other areas such as metropolitan Melbourne (approximately 200km away). Many recreational fishers stay a weekend or longer and purchase goods and services such as accommodation, food, tackle, bait and fuel supplies. The flow-on economic contribution from these visitors to the area is vitally important to the Gippsland region, particularly port towns along the South Gippsland Highway between Foster and Yarram.

Several jetties across the mainland's coastline are an important part of our maritime history and provide for land-based access and opportunities within the fishery. This includes Port Welshpool's historical Long Jetty which was constructed in the late 1930's and extended in the 1980's. Following recent investment in 2017 to rehabilitate the jetty from fire damage, it remains a popular fishing spot and stretches out 800 metres from the shoreline.

Like many fishing destinations around Victoria, recreational fishing in Corner Inlet fishery is more popular in the warmer months which also sees a higher level of boating activity associated with recreational fishing. This can be observed from increased boat launches at popular ramps at Port Welshpool, Port Albert and McLoughlins Beach. It is important to note that many fishers may also fish offshore, outside of the entrances of the Inlet, to target species such as snapper and gummy shark.

The VFA conducts creel surveys, which are detailed assessments of recreational angler catches and effort at the main boat ramps, which provide good indicators for how the fishery is operating. While not reflective of all recreational fisher views, the data collected over the first three years of creel surveys (which commenced in 2017-18) suggests most recreational fishers are either "quite" or "very" satisfied with their experience fishing the Inlet. While fishing satisfaction typically relates to catching fish, for many it is also the undisturbed nature and clean environment which add considerably to their fishing experience in Corner Inlet.

In general, the recreational sector primarily targets flathead (blue-spotted and sand), gummy shark, King George whiting and snapper in Corner Inlet, with flathead and whiting understood to make-up a significant component of the catch. For land-based fishers (e.g. those fishing off jetties), calamari can also be a popular species targeted. Hand-spearing is also permitted on the Nooramunga (east) side of the fishery and can be popular for targeting flounder (mainly at night with the aid of a light).

The VFA also encourages recreational fishers to use the GoFishVic app to record information on catch, including the size, species and how long they spent fishing on each trip. Whilst relatively new, this app replaces the existing diary angler program and will help with our understanding of how our fisheries are performing and will inform state-wide assessments of recreational catch in the future.

<sup>&</sup>lt;sup>5</sup> *The economic value of recreational fishing in Victoria*, December 2020, Ernst and Young - Final report for Better Boating Victoria and the Victorian Fisheries Authority. Available at: <u>https://vfa.vic.gov.au/\_\_\_data/assets/pdf\_file/0004/629257/The-economic-value-of-recreational-fishing-in-Victoria-2020-Ernst-and-Young-Report.pdf</u>



Port Welshpool Long Jetty



Creel survey interview of a recreational fisher

### 2.2.3 The Commercial Fishing Sector

#### **Corner Inlet commercial fishery**

The commercial fishery has a long history and is one of Victoria's oldest professional fisheries. It is likely that commercial fishing in Corner Inlet started around 1840 when the area was settled, whereby fish were harvested and later smoked, salted or dried and sent to gold rush towns. Soon afterwards, Port Albert and Port Welshpool developed as major fishing ports and are an important part of our maritime history.

The commercial fishery is now Victoria's largest bay and inlet commercial fishery, typically providing around 230 to 350 tonnes of fresh seafood annually. Total landed commercial catch is worth around \$3 million per annum in Gross Value of Production (GVP)<sup>6</sup>, with further value added later in the supply chain. The commercial fishery also brings substantial economic and social value to local regions around Gippsland, including important employment in its coastal centres, and also other regions across the State. Previous studies have shown the value of the commercial fishery is far greater than the landed value of the catch and in the case of Corner Inlet, the broader flow on benefits to the regional economy is estimated at \$12-13 million annually. Victorians enjoy eating locally sourced seafood from the commercial fishers and most tourists would agree that this is an important part of their coastal holiday and that the industry adds character to these regional towns.

The majority of today's Corner Inlet professional fishers continue a family tradition and culture of fishing that has been passed down through the generations. These fishers use low impact, sustainable methods from small open boats to catch a rich diversity of Victorian's favourite and iconic seafood species. The fishers play an important role in supplying fresh, locally caught seafood to consumers, mostly within Victoria.

There are a total of 18 transferable Corner Inlet Fishery Access Licences (CIFALs) which are mostly all currently active, however some are operated on a part-time basis. There are a number of young operators in the fishery, some of which are 5<sup>th</sup> generation Corner Inlet fishers. Commercial fish is predominantly taken using seine nets and mesh nets, however longline and other fishing gear (including hoop nets and hand lines) are also authorised under this licence class and used occasionally.

Commercial fishers often have to time their operations with the tides and avoid windy weather to ensure it is safe to go fishing. This means they are sometimes subject to operating at unusual hours and often fish at night, although licence holders are not permitted to operate commercial fishing equipment between the hours of midnight on Fridays and 5pm on Sundays.

The typical ports of landing for the commercial fishers are Port Franklin, Port Welshpool and Port Albert. Most of the catch is transported to Melbourne, where it is sold and eaten within hours of being caught. It can also be found on the menu at some of Australia's best restaurants in Melbourne and Sydney due to its highquality eating.

A wide variety of species are caught by commercial fishers, with King George whiting, rock flathead, southern sea garfish and southern calamari typically making up 60% of fish caught by weight. Other commercially sought-after species include gummy shark, Australian salmon, silver trevally and flounder.

<sup>&</sup>lt;sup>6</sup> GVP is a value obtained by multiplying the volume of catch (whole weight equivalent) by the estimated average per unit beach price. In the case of a multispecies fishery, the fishery's GVP is the cumulative total of the GVP relevant to each species caught commercially. The average per unit beach price for Corner Inlet fish was estimated based on ABARES market prices for each species and using a deflation point of 13% (as per Hundloe *et. al*, 2006)



The last regularly used timber "slow" boat run by Shane Roberts with his son and grandson (three generations out on the water fishing).



Hand hauling of commercial seine net

Fish caught by seine net being hand sorted with the assistance of dip net



Fish removed from ice slurry on return to port and sorted by species into fish bins for transport

## What is seine netting?

The current commercial seine netting practice in Corner Inlet is typically completed using one boat and 2-3 crew members. It is a sustainably minded fishing method as the net can be used to slowly herd the fish (so that they are not exhausted or overtaken by the net) and remain swimming freely in an enclosed area until they are retrieved using a dip net, with undersize or unwanted fish released back to sea. The fish are not exposed to the same stresses as other active fishing methods and, if conducted properly, there is high survival of unmeshed fish that are released. The foot line (at the base of the seine net) is typically longer than the float line (at the top of the net) allowing the net to glide over the seagrass whilst it is towed or hauled by hand, without causing any significant damage to the benthos.

There are slight variations in technique and gear among fishers, however the key steps for a seine net shot typically involve:

- Dropping and anchoring one end of the net with a surface buoy attached (commencing the "shot")
- The length of the net is then run out or "shot" from the back of the boat while the boat moves slowly to tow this in an arc, partially enclosing the area to be fished. The towing speed is very slow (generally less than 2 knots) and up to a maximum of 650m net length is allowed to be used.
- The boat continues to tow the net into a teardrop/circle shape (known as a 'ring shot') to close the net.
- Once the net is brought around in a closed circle or teardrop, one end of the net is then slowly hauled in by hand, whilst towing or retrieving the other end, reducing the circumference of the enclosed area (i.e. becomes smaller) which causes the fish to slowly crowd together.
- The boat is then anchored while bringing the remaining portion of the net (usually 50 to 80 metres in length still encircling the catch) closer to the boat with the "bag" or "cod-end" remaining in the water.
- Most fishers utilise rings that are connected to the lead line (foot line) of the net and pull the drawstring which draws the rings close to one another preventing the fish from swimming down to escape the net. This effectively provides a relatively large net cage in which the fish are still able to swim freely in the enclosed area.
- All sorting is done from the side of the boat whereby the fish are retrieved using a dip-net and the marketable species are placed into bins on board (most of which contain a seawater/ice slurry to keep the product fresh and in good condition), while the undersize or unwanted fish are released back to sea.

It is a requirement that one end of the net is anchored when running/towing the net which means that power winches are not able to be used to tow both ends of the net through the water with the assistance of long ropes (as may occur with other seine netting fisheries). Trawling is not permitted and both ends of the net are not able to be moved at the same time unless the shot has been closed (forming a circle or teardrop shape) and the net is being hauled into the boat.

The "ringing seine net" typically used is constructed from polyethylene netting material which helps to prevent fish becoming entangled or meshed in the net as it is towed. Most fishers now use this when seine netting instead of nylon "ring nets" whereby fish were meshed during seine operations rather than herded into the bag for sorting. The total time to conduct a shot using a ringing seine net is usually around 3 hours, including sorting of the catch. If using the old "ring net", the fishing operation was typically completed in a shorter time.

Only 2 seine net shots are allowed by Corner Inlet Fishery Access Licence holders in any 24-hour period (midnight to midnight).



Figure 2. Illustration<sup>7</sup> of a seine net 'ring shot'

<sup>&</sup>lt;sup>7</sup> Image sourced from the Lakes and Coorong Fishery User Guide (October 2018), pg 18, Department of Primary Industries and Regions SA, 2018

## What is a mesh net?

Mesh nets consist of a panel of net held vertically in the water column in a stationary position to soak and capture fish in the mesh. It is a passive form of fishing where the net is set and left in the water, with the fisher returning sometime later to retrieve the catch. Mesh nets in Corner Inlet are usually set in a straight line along the seabed. They are set by the fisher dependent on the tides (often to either catch fish swimming shoreward when the tide is coming in, or when the fish move off the banks when the tides go out). Knowledge of fish movements is needed so that the net is set in the correct position and can be dependent on the time of year. The boat does not remain attached to the gear while it is fishing, although the fishing boat may remain in the area depending on how long the fisher intends to leave it to soak (soak times are often shorter in the Spring/Summer months). The mesh net can then be hauled from one end into the boat by hand and cleared of any bycatch for return back to the water. The marketable catch is retained.

Mesh nets are one of the oldest forms of fishing and have a high degree of selectivity. The mesh size and the way the netting is constructed determines what size and species of fish are caught. Fishermen in Corner Inlet use a range of mesh nets depending on the season and target species.



Figure 3. Illustration<sup>8</sup> of a mesh net

#### Other commercial harvest in the Corner Inlet fishing zone

There are no other commercial fishery access licences currently issued that authorise fishing within the Corner Inlet fishery boundary. However, the VFA may authorise fishing for purposes such as research, bait collection or invasive species control using general permits issued under the Fisheries Act. For example, there is currently one commercial sea urchin permit which authorises the control of sea urchin numbers within the fishable areas of the Inlet (sea urchin is currently not authorised to be taken under a Corner Inlet Fishery Access Licence).

#### Aquaculture

There are currently no aquaculture operations in the fishery boundary of Corner Inlet.

## **2.3 CATCH HISTORY IN THE FISHERY**

### 2.3.1 Indigenous catch and effort

There is currently no information on the catch history of Aboriginal fishers in Corner Inlet. This plan includes actions for the Victorian Fisheries Authority to improve Traditional Owner input into the management of the fishery, to identify important cultural sites and/or species within the fishery and to undertake a survey to better understand Traditional Owner take in Corner Inlet.

### 2.3.2 Recreational catch and effort

Recreational catch is managed using daily bag limits, possession limits, minimum size limits and closed seasons. However, the number of fish caught annually by the recreational sector in Corner Inlet has been a significant data gap for many years.

The VFA is working to improve our understanding of recreational catch and effort through ongoing recreational creel surveys at the main boat ramps and the continued roll out of the GoFishVic app which allows recreational fishers to report and record catches. It is expected that improved information from these programs will be available within the next two years. To compliment data collected under these programs, a key action under this plan is to also undertake a survey to better understand recreational take in Corner Inlet.

## 2.3.3 Commercial catch and effort

#### History of endorsements to fish commercially in Corner Inlet

Commercial fishing in the Inlet has been managed as a stand-alone, limited-entry fishery for over 50 years. At the time of publication (2021), 18 Corner Inlet Fishery Access Licences (CIFALs) are issued, and this is the maximum number that may exist under the cap which is set in the *Fisheries Regulations 2019*.

However, the number of endorsements to fish in this area was much higher prior to the establishment of the CIFAL licence class in 1998. Previously, fishing in Corner Inlet was authorised under a limited number of endorsements attached to what was known as a Master Fisherman's Licence.

Licence transferability was first introduced in 1987 when there were 44 endorsements to fish in Corner Inlet. By 1999, the number of commercial licences fishing Corner Inlet was reduced to 30. Following voluntary government buy-outs in 1999/2000 and 2005/2006, the number of CIFALs reduced to 20 and then 18 respectively.

No additional licences will be issued. New entrants can only acquire a licence through the transfer of a licence from an existing licence holder. Nearly all 18 CIFAL licences have been active in recent years, however some are not operated as regularly as others, so there is some latent effort in the fishery.

#### History of catch and effort reporting

Recording of catches began as early as 1914<sup>9</sup>. However, it was not until 1978 that fishers commenced recording fishing effort as well. Catch and effort data is critical to understanding if fishing is sustainable. From July 1978 until March 1998, fishers who operated in the Inlet were required to complete an 'Inlet fishing' catch and effort return form, which recorded fish caught within Corner Inlet from any fish that were taken offshore.

It was not until April 1998 that clear boundaries of the Corner Inlet fishery were mapped, and this was when the specific Corner Inlet Fishery Access Licence and the current five commercial reporting zones within the Inlet were established. Further details on the current reporting zones are provided in section 5.2.

<sup>&</sup>lt;sup>9</sup> Victoria. Parliament. Natural Resources and Environment Committee (1991). Allocation of fish resources in Victorian bays and inlets : preliminary report and recommendations. Govt. Printer, [Melbourne]



**Figure 4.** Total number of commercial fishing days using the main fishing methods in Corner Inlet from 1978/79 to 2020/21 (financial year)



**Figure 5.** Total commercial catch in tonnes by the main fishing methods used in Corner Inlet from 1978/79 to 2020/21 (financial year)

#### Total commercial catch since 1998 (following establishment of the CIFAL licence class)

The commercial fishery's total annual catch and catch composition fluctuates between years due to a number of factors such as natural variations in recruitment of species to the fishery, environmental conditions and other influences such as market prices, fishing methods used and persons operating the licences.

Since 1998, total catches have generally been sustained above 250 tonnes of fish. Figure 6 shows the total commercial landings (of all species) and landings of 10 key commercial species by financial year since 1998. A further breakdown of commercial catch of key species is provided in Appendix 1.

Total annual commercial catch peaked in the 2018-19 financial year at 446 tonnes, followed by 438 tonnes in 2019/20. These unusually high catch years were influenced by both a natural period of high King George whiting abundance, but also a recent increase in commercial fishing effort. Part of the latter was associated with a change in fishing practices by some operators. A number of commercial and recreational fishers raised concerns regarding these increased catches. In light of this, and with the support from the majority of CIFAL holders, the VFA issued Fisheries Notices in 2020 and 2021 for the commercial fishery that implemented management changes to help reduce total fishing effort to ensure fishing remained sustainable and to ensure fishing practices were safe.



**Figure 6.** Total commercial landings (all species) and landings of ten key species from Corner Inlet between the 1998/99 to 2020/21 financial years. The vertical red dotted lines indicate the introduction of the first and second Fisheries Notices, with new rules for commercial fishers to comply with, from June 2020 and March 2021 respectively.

#### Total commercial fishing effort by gear since 1998 (establishment of licence class)

Commercial fishers predominantly use haul seines or mesh (gill) nets to catch a variety of species in the fishery.

Over the last 20 years, the total mesh net effort (kilometre hours per year<sup>10</sup>) has generally increased (Figure 7). This increase is partly attributed to longer soak times on mesh nets (i.e. nets were left in the water for a longer period of time).

Total seine effort (number of shots per year) decreased substantially between 2000 to 2012, followed by a general increase up to 2019/20 which coincided with record catches for the last 40 years, whereby licence holders themselves called for restrictions to ensure fishing remained sustainable. In response to this, a Fisheries Notice was implemented in 2020 to restrict the number of seine shots per licence, per day, to a maximum of two shots and to also prohibit the use of a seine or mesh net at the same time

Other authorised commercial gear within the fishery includes hoop nets, longline and fishing lines, however these are rarely used and catch from these methods is generally negligible.



Figure 7. Total mesh net and seine net effort in the Corner Inlet fishery during the 1998/99 to 2020/21 financial years.

#### Catch composition by seine and mesh netting

Harvest by seine nets results in the majority of the commercial catch each year, accounting for close to 75% of the total weight of fish taken over the last 10 financial years. King George whiting, garfish, calamari and silver trevally are the main species taken by this method (Figure 8).

Mesh nets account for around 25% of the total weight of fish taken over the last 10 financial years, with rock flathead, bluespotted flathead, gummy shark, King George whiting and yellow-eye mullet the main species taken by this method (Figure 9).

The size of mesh on a mesh (gill) net is selected depending on the species being targeted. Smaller mesh is primarily used to target rock flathead, with blue-spotted flathead, yellow-eye mullet and King George whiting commonly retained. Larger mesh is primarily used to target gummy shark, while some rays, elephant fish,

<sup>&</sup>lt;sup>10</sup> Mesh net effort is calculated by the multiplication of the length of the net used (measured in kilometres) and by the soak time (measured in hours) for each individual mesh net shot. For example, if 1km of net is soaked for 8 hours, the effort is 8km.hrs. The cumulative total of all fishers' mesh effort over a 12-month period is combined to provide a measure of annual mesh net effort across the fishery. This effort can be further broken down into relevant gear codes or grouped where useful to identify trends in fishing effort targeting particular species.

and flounder are taken as by-product. A further breakdown of catch by different size mesh nets can be found in Appendix 2.



Figure 8. Composition of catch by seine net in the last ten financial years (2011/12-2020/21) in Corner Inlet



Figure 9. Composition of catch by mesh net in the last ten financial years (2011/12-2020/21) in Corner Inlet

#### Bycatch fish species

Commercial fishers are not currently required to report on bycatch (including unwanted fish that fishers were legally entitled to retain). However, commonly discarded bycatch species are known to be porcupine fish, toad fish, cobblers, black stingray, banjo shark, Port Jackson shark and sand crab, as these are not typically a consumer preference.

In determining the effects of seine netting in Corner Inlet, Knuckey *et. al* (2002)<sup>11</sup> found that no mortalities of bycatch species occurred during their study, including for ornate cowfish, globefish, barred toadfish and smooth toadfish. These and other undersized fish that are returned to the water generally have high survival rates, particularly when captured using a seine net, which is the predominant fishing method in Corner Inlet. Seine netting in Corner Inlet is characterised by slow tow speeds, short tow duration and operation in shallow depths. These characteristics mean that fish are slowly herded into the bag or cod end and are not exhausted or overtaken by the net. During the seine netting operation, the fish are sorted within the bag or cod end still in the water, allowing juvenile and unwanted species to be returned to the water alive. The shallow depths from which fish are caught also means that captured fish are also not subject to the large temperature and pressure changes that can occur with offshore trawl fishing.

There is currently limited information on bycatch from other fishing methods, including from commercial mesh netting. However, to address this knowledge gap action 8 i) of this Plan seeks to implement a bycatch monitoring program for both commercial and recreational fisheries, and action 4v of the Plan aims to improve information on bycatch through transitioning the commercial fishery to electronic reporting

#### Protected species interactions

All commercial fishers in Corner Inlet are required to report any interactions with threatened, endangered and protected (TEP) species. Interactions are defined as a fishing vessel, gear or operator coming into contact with a protected species, regardless of the outcome and includes the taking, destroying, disposing of or possessing a TEP. Interactions with protected species are normally an offence under State legislation. However, legal instruments have been put in place to exempt commercial fishers from prosecution, where the interaction is inadvertent, and they report the interactions in their logbooks. Deliberate or negligent acts will still be subject to prosecution.

The TEP reporting records for Corner Inlet licence holders indicate a low number of interactions with protected species. Between 2015 and 2019, a total of 1,214 interactions were reported, of which 1,199 of the animals were returned to the water alive and 15 (approximately one per cent of interactions reported) were reported as injured or dead. Most reported incidences of TEP interactions are from the seine netting method and mostly involve seahorses and pipefish, almost of all of which are released alive.

<sup>11</sup> Knuckey, I. A., Morison, A.K. and Ryan, D.K. 2002. The effects of haul seining in Victorian bays and inlets. FRDC Final Report, 1997/210.

## 2.4 ENVIRONMENTAL SIGNIFICANCE AND MARINE PROTECTED AREAS

## 2.4.1 Ramsar listing

The Corner Inlet-Nooramunga area (Figure 10) was listed as a "Wetland of International Importance" under the Ramsar Convention in 1982. It is also listed as a matter of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The Corner Inlet Ramsar site has high environmental value and is largely in a near natural condition<sup>12</sup>. The Ramsar site comprises extensive intertidal mudflats, tidal channels, sandy barrier islands, areas of inflowing creeks and small areas of freshwater wetland on islands within the boundary. It has large areas of seagrass, saltmarsh and mangrove vegetation communities, supports significant migratory bird populations, provides important habitat for beach nesting birds and supports outstanding fish habitat values.

Thirty-two species of wading birds have been recorded at Corner Inlet-Nooramunga with populations often reaching close to 30,000 birds, or more than 20% of Victoria's summertime wading bird population. Nearly 50% of the migratory wading birds that spend their winter in Victoria, do so in Corner Inlet-Nooramunga<sup>5</sup>.

The VFA is committed to managing fishing activities at Corner Inlet in a manner compatible with the Ramsar sites ecological character. The Ecological Character Description (2011)<sup>11</sup> details the critical ecological components, processes and services of the Ramsar site and Limits of Acceptable Change (LACs). One of the defined LACs relates to changes in fish abundance. That is, a LAC will have been exceeded if the long-term median catch (greater than 5 years) falls below the 20th percentile historical baseline in standardised abundance or catch-per-unit-effort values for five or more commercially significant species (relative to their baseline), due to altered habitat conditions within the site. Based on the most recent assessment, which considered VFA's 2019 fisheries stock status assessment reporting, this LAC criteria has not been exceeded



Figure 10. Ramsar listed wetland covers the entirety of the Corner Inlet fishery's marine waters

### 2.4.2 Seagrass within the site

Seagrass beds have a high primary productivity and provide food and habitat for various fish and invertebrate species. Seagrass drives Corner Inlet's commercial and recreational fisheries. This includes the main commercial and recreational species taken (whiting, rock flathead, garfish and calamari) which are dependent on seagrass habitat for part, if not most, of their life cycle<sup>13</sup>.

<sup>&</sup>lt;sup>12</sup> BMT WBM (2011). Ecological Character Description of the Corner Inlet Ramsar Site – Final Report

<sup>&</sup>lt;sup>13</sup> Hindell, J. S. 2006. Assessing the trophic link between seagrass habitats and piscivorous fishes. Marine and Freshwater Research 57:121.

Overall, area coverage of sub-tidal seagrass area in Corner Inlet has generally been in a slow decline since the mid-1960s. A study by Ford *et. al* (2016)<sup>14</sup> found the cover of subtidal seagrass was the lowest it had been in a 48-year period (85.3km<sup>2</sup>) and in comparison to coverage in 1965 (110.4 km<sup>2</sup>) it had declined at an average rate of 0.5km<sup>2</sup> per year.

While the total area coverage of the dominant sub-tidal seagrass known as broad leaf seagrass (*Posidonia australis*) has been relatively stable, the total area coverage of another key sub-tidal seagrass known as fine-leaf seagrass (*Zostera nigracaulis*) is understood to have previously declined but has since made some recovery. There is no apparent evidence seagrass decline has been attributed to commercial or recreational fishing practices.



Broad leaf seagrass (Posidonia australis)



Fine-leaf seagrass (Zostera nigracaulis)

Over recent years, changes in local seagrass health and distribution and the presence of algae have been of concern to local fishers, recreational users and local community members. Climate is one factor that could be considered a driver of seagrass condition; as changes in water temperature, water quality and depth are all factors that may affect the health of seagrass. Expanding sea urchin populations have also been identified as an issue and are considered an indicator of climate change. Sea urchins have potential to damage seagrass beds and cause barrens, resulting in a loss of feeding and shelter habitat for fish. While the Purple Sea Urchin (*Heliocidaris erythrogramma*) is a native species, if it is not managed effectively, the loss of seagrass habitat may significantly affect the productivity of the fishery and the broader ecosystem. Managing the grazing pressure of overabundant urchins to support the health and regeneration of seagrass systems is currently the focus of an adaptive management program led by Parks Victoria, supported by relevant permits issued by the VFA.

Since 2019, a project known as "The Corner Inlet Broadleaf Restoration Project" involving Landcare, commercial fishers, recreational anglers and other interested parties and volunteers have been trialling the restoration of seagrass at several sites within the inlet. This project operates annually during the warmer months when the *Posidonia* plants peak in their seasonal growth and release seeds which can be collected when they float to the surface. The seeds are collected and held in tanks onshore until they are ready for distribution to the selected sites, with the intention being many of these seeds will create new seagrass beds. Multiple commercial fishers have been donating their time and use of their boats towards this initiative. The in-kind contribution from the fishing community is estimated to exceed \$500,000 over the past three years. This project does however rely on various funding streams in order to continue what is considered Australia's largest community restoration project.

"By increasing the area of native seagrass it will recover habitat for important fish species, improve water quality and clarity, biodiversity, natural amenity and promote sediment stability and biological productivity in Corner Inlet Part of the aim in restoring seagrass habitat is to make a stronger and more resilient fishery for the future. The recovery of seagrass also contributes to carbon capture and oxygen production through restoration of carbon sinks and preservation of carbon already stored in marine sediments. Seagrass meadows also slow the flow of incoming water by trapping sand and nutrients in their root systems and this can minimise the damage caused by flooding or catchment-based runoff. Other benefits of this project include empowering the Corner Inlet fishers with knowledge about habitat restoration, and increasing community understanding of the impact that onshore activities can have on seagrass meadows"<sup>15</sup>.

<sup>&</sup>lt;sup>14</sup> Ford, J.R., Barclay K., Day R.W. University of Melbourne, 2016, Using local knowledge to understand and manage ecosystem-related decline in fisheries productivity, Fisheries Research and Development Corporation Final Project Report, Melbourne, June. CC BY 3.0

<sup>&</sup>lt;sup>15</sup> <u>https://www.marineandcoastalcouncil.vic.gov.au/news-and-events/victorian-marine-and-coastal-awards/2020/corner-inlet-broadleaf-seagrass-restoration-project</u>



**Figure 11.** Broad leaf seagrass restoration project – seed tanks (top left), transporting sandbags (top right), deployed sandbags (bottom left), broadleaf seagrass (bottom right).

The West Gippsland Catchment Management Authority (WGCMA) is responsible for catchment management in the region. In 2013, the WGCMA developed the Corner Inlet Water Quality Improvement Plan<sup>16</sup>. This recognises that the condition and extent of seagrass meadows are primarily threatened by nutrient and sediment pollution from catchment land uses and that this can impact on the delicate balance of organisms that rely on these habitats. The Plan aims to significantly improve the quality of water entering the Corner Inlet Ramsar Site in order to protect its unique and significant values. Achieving this aim requires a measurable reduction in the level of nutrients and suspended sediment loads from surrounding catchments.

The West Gippsland Waterway Strategy (2014-2022)<sup>17</sup> has also identified Corner Inlet as a priority waterway within the broader region and this sets out a program of activities to ensure future management provides the appropriate environmental conditions to support a range of environmental, social, cultural and economic values from the area.

<sup>16</sup> West Gippsland Catchment Management Authority, 2013, *Corner Inlet Water Quality Improvement Plan 2013*, available at: <u>https://www.wgcma.vic.gov.au/wp-content/uploads/2015/01/corner-inlet-wgipweb.pdf</u>

<sup>&</sup>lt;sup>17</sup> West Gippsland Catchment Management Authority, 2014, West Gippsland Waterway Strategy 2014-2022, available at: <u>https://www.wgcma.vic.gov.au/wp-content/uploads/2015/01/WaterStrategy2014-2022-web-pt4.pdf</u>

## 2.4.3 Marine protected areas

Victoria was the first jurisdiction in the world to establish an entire system of highly protected marine areas at the same time, where activities such as fishing, mining of seabed materials and dumping of waste are prohibited. Around five per cent of the Victoria's coastal waters are protected by marine national parks and sanctuaries under the *National Parks Act 1975*. Parks Victoria is responsible for management of these areas.

Marine parks are not designed to be a fisheries management tool, however they may have flow on benefits to fisheries.

The Corner Inlet Marine National Park was established in 2002 and is located off the west side of the most northern part of Wilsons Promontory National Park (Figure 12). This marine park makes an important contribution to Victoria's system of Marine National Parks and Marine Sanctuaries by protecting a representative area of the only extensive broad-leaf seagrass meadows in Victoria, and a complex network of mangroves, saltmarsh, mud banks, subtidal reef environments and deep channels<sup>18</sup>. The marine national park is made up of two close-by but separate areas comprising a 1,550-hectare area of national environmental significance, as well as internationally significant shorebird habitat.

All forms of commercial and recreational fishing, including shellfish collection, are prohibited within the marine national park boundaries. Under a service agreement with Parks Victoria, the Victorian Fisheries Authority is responsible for fisheries law compliance within the Corner Inlet Marine National Park.



**Figure 12.** Map of the Corner Inlet Marine National Park (two areas in dark blue) where all forms of fishing are prohibited<sup>16</sup>.

The fishery is also home to two marine and coastal parks; the Corner Inlet Marine and Coastal Park and the Nooramunga Marine and Coastal Park (Figure 13). Certain protections are in place to protect the environment in these areas, however fishing is permitted as long as it is conducted under and in accordance with the provisions of the Fisheries Act.

<sup>&</sup>lt;sup>18</sup> Parks Victoria, Corner Inlet Marine Park Management Plan (2005), Published in September 2005 by Parks Victoria, Melbourne, Australia.



**Figure 13.** Map of all marine protected areas in the South Gippsland region. The areas of the Corner Inlet Marine and Coastal Park and Nooramunga Marine and Coastal Park are shown (light blue hatched areas within the fishery)<sup>19</sup>.

<sup>19</sup> Corner Inlet Marine Park Management Plan (2005)

## **3. Framework for managing the fishery**

## 3.1 LEGISLATIVE AND POLICY FRAMEWORK

## 3.1.1 Victorian legislation, regulation and policy

The Corner Inlet Fishery is managed in accordance with the *Fisheries Act 1995, Fisheries Regulations 2019* and the *Fisheries (Fees, Royalties and Levies) Regulations 2017.* The Fisheries Act provides the legislative framework for managing Victoria's fisheries resources and sets out the general provisions applicable to all recreational fishing activities and commercial access licences, including the Corner Inlet Fishery Access Licence.

The objectives of the Fisheries Act are:

- to provide for the management, development and use of Victoria's fisheries, aquaculture industries and associated aquatic biological resources in an efficient, effective and ecologically sustainable manner;
- to protect and conserve fisheries resources, habitats and ecosystems including the maintenance of aquatic ecological processes and genetic diversity;
- to promote sustainable commercial fishing and viable aquaculture industries and quality recreational fishing opportunities for the benefit of present and future generations;
- to facilitate access to fisheries resources for commercial, recreational, traditional and nonconsumptive uses;
- to promote the commercial fishing industry and to facilitate the rationalisation and restructuring of the industry;
- to encourage the participation of resource users and the community in fisheries management.

The *Fisheries Regulations 2019* provide the specific details regarding the activities authorised by a recreational fishery licence and authorised activities and obligations of Corner Inlet Fishery Access Licence holders and persons acting on their behalf (there may also be further licence conditions which will be expressed or referred to on an access licence itself).

The *Fisheries (Fees, Royalties and Levies) Regulations 2017* specify the fees and levies that recreational and commercial licence holder must pay to obtain a licence. This includes the levies for a recreational fishing licence and the commercial fishing licence levies that cover the costs of the services provided by the VFA to the commercial sector (more information on the VFA's commercial "cost recovery" framework is provided below). These regulations also specify the fees that must be paid to cover administrative costs associated with commercial licences, including transferring, renewing or variation fees, fees for transferring quota units (where applicable) and fees for boat registrations, renewals and transfers.

Other key Victorian legislation and policy, relevant to the Corner Inlet fishery includes:

- Victorian Fisheries Authority Act 2016;
- National Parks Act 1975;
- Environment Protection Act (Victoria) 1970;
- Seafood Safety Act 2003;
- The Traditional Owner Settlement Act 2010;
- Aboriginal Heritage Act 2006;
- Marine Act (Victoria) 1988;
- Marine and Coastal Act 2018;
- Occupational Health and Safety Act 2004.

From a policy perspective, all Australian jurisdictions, including the State of Victoria, have made a commitment to manage fisheries according to the principles of ecologically sustainable development. These principles include:

- ensuring that fishing is carried out in a biologically and ecologically sustainable manner;
- ensuring that there is equity within and between generations regarding the use of fish resources;
- maximising economic and social benefits to the community from fisheries within the constraints of sustainable utilisation;
- adopting a precautionary approach to management, particularly for fisheries with limited data; and
- ensuring that the processes and procedures involved in management of a fishery are appropriate, transparent and inclusive.

#### Cost Recovery Framework for commercial fishing

The Victorian Fisheries Authority (VFA) delivers a range of compliance, management, research and administration services for the ongoing sustainable operation of Victoria's commercial fisheries (comprising wild-catch, aquaculture and fish receiver licences and individual quota holders). The costs of delivering these services are recouped via licence levies on a "cost recovery" basis, consistent with the Victorian Department of Treasury and Finance Cost Recovery Guidelines.

Cost recovery is only in place for the commercial fisheries sector, although, recreational fishing licence fees collected by the VFA, on behalf of the Government are held in a Trust Account in accordance with the Fisheries Act and invested back into recreational fishing.

### Aboriginal rights in Victoria

Victorian Traditional Owners currently have rights to access natural resources recognised under law. Members of Traditional Owner groups with a native title determination under the Commonwealth's *Native Title Act 1993* (NT Act) have non-exclusive rights to hunt, fish and gather natural resources for personal, communal and cultural purposes, without the need to obtain a licence.

Traditional Owner rights can also be recognised under Victoria's *Traditional Owner Settlement Act 2010* (TOS Act). Under the TOS Act, the State legally recognises Traditional Owner rights in public land and water and facilitates the exercise of Traditional Owner rights in relation to natural resources, participation in natural resource management, procedural rights on proposed activities on public land and returns certain public land to Traditional Owners by grants of freehold and 'Aboriginal title' (for joint management). A TOS Act settlement can also provide resources to the Traditional Owner group to give effect to the settlement.

The Corner Inlet-Nooramunga region is significant to the Gunaikurnai People, the Bunurong People and the Boon Wurrung People. The VFA recognises the importance of Aboriginal Victorians' engagement in management of their country and fisheries resources and is committed to working with all Traditional Owner groups to strengthen this partnership.

The Gunaikurnai people hold native title over a significant area of Corner Inlet-Nooramunga. This enables Gunaikurnai People to hunt, fish and gather natural resources for personal, communal and cultural purposes, without the need to obtain a licence, within the area of native title. The native title determination also requires the VFA to notify and consult with the Gunaikurnai prior to the granting of any licence or permit within the area held under native title (i.e. all public land and all waterbodies within land held under native title), if that licence or permit could extinguish native title rights and interests or if the licence or permit is wholly or partly inconsistent with the continued existence, enjoyment or exercise of native title by Gunaikurnai People.

The Victorian Government has also entered into an agreement with the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) under the TOS Act<sup>20</sup>. GLaWAC is the "traditional owner group entity" appointed by the Gunaikurnai People for the purposes of the TOS Act. GLaWAC is also the Registered Aboriginal Party for the same area. The Gunaikurnai People are made up of five major clans: Brabralung, Brataualung, Brayakaulung, Krauatungalung, Tatungalung.

Under the Gunaikurnai TOS Act agreement, the State has a number of obligations which are relevant to fisheries management, including a requirement to collaborate with GLaWAC on the employment of Gunaikurnai People to work on lands relevant to the agreement (and elsewhere within the agreement area). The Gunaikurnai agreement also encourages 'Welcome to Country' ceremonies at all major events within the agreement area, where members of the public, representatives of other Governments and/or the media are

<sup>&</sup>lt;sup>20</sup> The agreement between the State and GLaWAC was the first to be made under the TOS Act and is currently being re-negotiated to ensure it reflects a meaningful partnership between the State and the Gunaikurnai People.

present. This includes (but is not limited to) major festivals, major launches of government policies and programs and conferences held or sponsored by the Victorian Government.

Victoria also has in place a broad exemption from the requirement to obtain a Recreational Fishing Licence for any person who identifies as an Aboriginal person or a Torres Strait Islander, subject to compliance with existing recreational fishing rules that apply to recreational fishers in Victoria (e.g. bag limits, size limits, spatial and temporal closures). This exemption applies to all traditional owners in Victoria, irrespective of whether they are a member of a group that has a native title determination under the NT Act or a settlement agreement under the TOS Act.

The Victorian Aboriginal Fishing Strategy aims to incorporate the rights, interests, aspirations and culture of Aboriginal people into fisheries management. The strategy focuses on achieving three key outcomes:

- i) recognition of customary fishing rights for recognised Traditional Owner groups,
- ii) better economic opportunities for all Aboriginal people in fishing and related industries, and
- iii) sustainable fisheries management in collaboration with Traditional Owner groups.

#### Offshore Constitutional Settlement agreements

Management of marine fishing outside of bays and inlets is divided between the Commonwealth and the States, in accordance with an agreement known as the "Offshore Constitutional Settlement Agreement" (OCS Agreement). The OCS Agreement gives rise to a general rule that Victorian fisheries laws apply between the shoreline out to three nautical miles and Commonwealth law applies between three nautical miles to 200 nautical miles. However, there are several exceptions to this rule, which are outlined in documents known as "OCS Arrangements". These documents utilise the OCS clause that jurisdictional arrangements can be varied by agreement in particular circumstances.

Most OCS Arrangements do not apply to Victorian internal waters (i.e. bays and inlets) and are not applicable to fishing in Corner Inlet. The only exception to this is commercial fishing for gummy shark and school shark. Under an OCS agreement with the Commonwealth which has been in place since 2000, Victoria has agreed to limit the commercial take of school shark and gummy shark to a combined total of 40 tonnes per annum across the State.

To manage Victoria's take of these species within this combined limit, most commercial fishers operating outside of bays and inlets are restricted to a combined possession limit of 2 gummy shark and school shark (of which no more than one shark may be a school shark) per day. However, the VFA also has an endorsement process in place that allows some commercial fishers to take up to 5 gummy sharks (of which no more than one shark may be a school shark), subject to certain conditions.

There are currently no possession limits that apply to the take of school shark and gummy shark by commercial fishers operating within internal waters (i.e. bays and inlets) including Corner Inlet. However, fishers should be aware that the VFA would be compelled to prohibit the take of gummy shark and school shark by all Victorian commercial fishing access licence holders, including CIFAL holders, if the combined take of these species exceeded 40 tonnes in any given year.

## 3.1.2 Commonwealth legislation

#### The Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Government and is Australia's key piece of environmental legislation. The EPBC Act provides for the protection of the environment by identifying key threatening processes, protecting critical habitat, promoting the conservation of biodiversity, and providing for the protection of listed species, protected areas and communities on Commonwealth land (and water).

Part 13A of the EPBC Act also requires all fisheries intending to export product commercially to be assessed against the *Guidelines for the Ecologically Sustainable Management of Fisheries*<sup>21</sup> to ensure that each fishery is being managed in an ecologically sustainable manner.

<sup>&</sup>lt;sup>21</sup> Commonwealth Department of the Environment and Water Resources, 2007, *Guidelines for the ecologically sustainable management of fisheries:* <u>http://www.environment.gov.au/marine/publications/guidelines-ecologically-sustainable-managementfisheries</u>

The Corner Inlet commercial fishery was first given export approval under the EPBC Act in August 2017 for a period of three years. Export approval was recently granted a second time for a further three years until 31 August 2023.

This management plan has been prepared in recognition of the Commonwealth's sustainability guidelines and the conditions applied to the recent export approval and will ensure the Corner Inlet commercial fishery maintains access to export markets into the future.

## 3.2 ECOLOGICALLY SUSTAINABLE DEVELOPMENT RISK ASSESSMENT

A risk assessment was undertaken to inform the development of this management plan. The methodology of the assessment was based on the *National Ecologically Sustainable Development (ESD) Reporting Framework for Australian Fisheries* (Fletcher *et. al.* 2002)<sup>22</sup>.

The framework was developed in response to *Australia's National Strategy for Ecologically Sustainable Development* (Australian Government 1992)<sup>23</sup>, which defines ecologically sustainable development as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'.

Development of the risk assessment involved input from the Corner Inlet Fishery Management Plan Steering Committee. Risks associated with the fishery were identified, then scored according to the potential consequence of that risk and the likelihood that the risk may occur. The risks were then categorised into risk ratings (low, moderate, high, extreme) to help prioritise the importance of each risk.

The Plan will primarily focus on outcomes that the VFA can directly manage. Matters that are not the direct responsibility of the VFA will be addressed through ongoing consultation with the appropriate agency. This may include, but is not limited to, the Department of Environment, Land, Water and Planning (DELWP), Parks Victoria, West Gippsland Catchment Management Authority, South Gippsland Shire Council, Wellington Shire Council, conservation groups, industry representative bodies (Seafood Industry Victoria, VRFish, FutureFish) and Traditional Owner groups including GLaWAC.

Close to 90 risks were identified across eight components of the ESD framework (and its sub-components) - retained species, non-retained species, impacts on ecosystem, community wellbeing, wider wellbeing (i.e. national), indigenous community wellbeing, governance, and external factors affecting fishery. Table 2 summarises the issues identified as a high risk relevant to the Corner Inlet fishery and which justify a management response or action for inclusion in this management plan.

Management responses to each of these risks (proposed and current) were developed in consultation with the Corner Inlet Fishery Management Plan Steering Committee as set out in Appendix 3. The linkage between any key actions as set out in Table 3 (management actions) are also referenced below.

ESD component	#	Risk description	Key actions incorporated into Table 3
Retained	Commercial harvest of rock flathead from the Corner Inlet fishery lead to recruitment overfishing.		1i) 1iv) 2 i) 4 vii)
species	2	Cumulative harvest (commercial and recreational) of southern blue- spotted flathead and sand flathead from the Corner Inlet fishery leads to recruitment overfishing.	1i) 1iv) 2 i) 4 vii)

**Table 2.** A summary of the key risks relevant to the fishery identified under the Ecologically SustainableDevelopment risk assessment.

<sup>22</sup> Fletcher, W.J., Chesson, J., Fisher, M., Sainsbury, K.J., Hundloe, T., Smith, A.D.M. and B. Whitworth (2002) National ESD Reporting Framework for Australian Fisheries: The 'How to' Guide for Wild Capture Fisheries. FRDC Project 2000/145, Canberra, Australia.

<sup>&</sup>lt;sup>23</sup> Australian Government (1992) National Strategy for Ecologically Sustainable Development. AGPS Press, Canberra. http://www.environment.gov.au/about-us/esd/publications/national-esd-strategy

	3	Cumulative harvest (commercial and recreational) of snapper from the Corner Inlet fishery leads to recruitment overfishing (eastern snapper stock).	1iv) 2ii) 4 vii)
	4	There is significant latent effort in the commercial fishery which could lead to overfishing of some species if there is a significant change in operators and/or practices change.	2i) 15i)
	5	There is limited knowledge of the total recreational and indigenous catch and effort in Corner Inlet which could lead to sustainability issues	4i) 4ii) 4iv) 4vii)
	6	Unlicensed or undetected illegal fishing or misreporting of catch and effort information leads to incorrect management decisions or overfishing	4iv) 16i)
Non-retained	7	Discarding of retained species in Corner Inlet during mesh netting operations leads to significant unaccounted fishing mortality.	8ii)
species	8	A lack of monitoring of commercial bycatch, including dead discards, results in unforeseen and unacceptable decline of non-retained species in the Inlet.	8i)
	9	Changes in commercial fishing technique by some operators, which focus on maximising total catch, results in catch inequities and disproportionate share of the income from the fishery.	3ii)
	10	Severe work-related injuries or death of commercial operators occur.	11ii)
Community Wellbeing	11	Some commercial fishing practices in Corner Inlet may not align with general community expectations for responsible fishing, resulting in a lack of community support for bay and inlet fisheries and the commercial fishing industry in general.	10ii)
	12	Negative community views of commercial net fishing in bays and inlets, in general, impacts the social licence of the commercial fishery.	10i) 14 i) 14 ii)
	13	Management arrangements do not support efficient, effective and responsive management resulting in suboptimal fishery outcomes.	3i) 4iv)
Governance	14	Available research / collected scientific information is not sufficient to support efficient, effective and responsive management resulting in suboptimal fishery outcomes.	4 i) 4 vii)
	15	Some Corner Inlet access licence holders do not support the management arrangements for the fishery, leading to a change in practices to work around existing regulations.	15 ii) 15 iii)
	16	Land and water management arrangements do not effectively mitigate risk of detrimental impacts to water quality in fishing areas and loss of seagrass.	6 iii) 7 ii)
External factors	17	The fishery's ecosystem is significantly impacted by expansion of known marine pests or invasion of new marine pests (species of relevance include but are not limited to green shore crab, Pacific oyster, New Zealand screw shell, broccoli weed, Wakame, Northern Pacific sea star, and European fan worms).	7 iii)
affecting fishery	18	Sea urchin populations increase significantly causing an unacceptable reduction in seagrass coverage.	6 iii) 7 iii)
	19	Climate change and weather extremes impact the long-term sustainability of fish stocks.	1 iv) 3 i)
	20	A combination of sediment and nutrients from urban and agricultural run- off, dredging, and small boat activity reduce water quality and cause a decline in seagrass.	7 i)
	21	Commonwealth licensed trawl fishers target mature King George whiting that are part of the spawning stocks in the south east.	2 ii)

## 4. Objectives, strategies and actions

## 4.1 FISHERY OBJECTIVES AND STRATEGIES

The objectives contained in the *Fisheries Act 1995* require Victoria's fisheries to be managed in an efficient, effective and ecologically sustainable manner. The following fishery-specific objectives and subsequent strategies for Corner Inlet are consistent with these legislated objectives.

The objectives and strategies contained in this plan are new and do not build on any previous management plans as this is the first fishery management plan to be declared for Corner Inlet.

Actions have been developed for each of the strategies and these are detailed in Table 3 below. Many of these include management responses to the risks identified in Table 2 from the ESD risk assessment.

The intent is that the identified actions are included in an annual work plan that will be delivered by the VFA, stakeholders and partner agencies. The annual work plan will be developed in consultation with stakeholders.

### **Objective 1: Ensure sustainability of the Corner Inlet fishery resource**

**Strategy 1.** Ensure the reproductive capacity of primary and secondary target species is at a level that sustains the fishery into the future.

**Strategy 2.** Ensure that total fishing effort and harvest is consistent with the long-term sustainability of the fishery and the precautionary principle.

**Strategy 3.** Maintain modern and adaptive management arrangements that ensure sustainable fishing effort and harvest.

**Strategy 4.** Improve data collection and systems relevant to the fishery to ensure that accurate stock status determinations and management decisions are made.

### Objective 2: Maintain the ecological integrity of the fishery ecosystem

Strategy 5. Minimise interactions with threatened, endangered and protected (TEP) species.

Strategy 6. Maintain healthy fisheries habitat and support seagrass restoration.

Strategy 7. Minimise fishing impacts on the ecosystem.

## Objective 3: Ensure fishing practices are ethical, responsible and respectful and promote harmony amongst stakeholders

Strategy 8. Minimise mortality of fish that are captured but not retained (bycatch).

**Strategy 9.** Ensure commercial netting practices are responsible and respectful of community and Traditional Owner values.

**Strategy 10.** Promote respectful relationships and understanding between recreational, commercial and indigenous fishing sectors that value the resource for different purposes.

Strategy 11. Actively support the mental health of commercial, recreational and indigenous fishers.

### **Objective 4: Ensure optimal economic utilisation of the Corner Inlet resource**

**Strategy 12.** Foster a viable and profitable commercial fishery consistent with the principles of ecologically sustainable development.

**Strategy 13.** Maximise the cultural, recreational and lifestyle benefits of the Corner Inlet fishery for the community, including Traditional Owners.

Strategy 14. Grow awareness and promote the community benefit of the fishery to the broader public.

#### **Objective 5: Cost-effective and participatory management**

Strategy 15. Promote stakeholder participation in decision making.

Strategy 16. Achieve compliance with legislation.

**Strategy 17.** Deliver cost-effective management arrangements.



Commercial fisher with a King George whiting

## 4.2 ACTIONS

Table 3. Fishery level objectives, strategies and actions for the Victorian Corner Inlet Fishery.

Objective	Strategy	Actions	Performance measures / targets
Ensure sustainability of the Corner Inlet fishery resource	<b>1.</b> Ensure the reproductive capacity of primary and secondary target species is at a level that sustains the fishery into the future.	i) Include the primary target species of the Corner Inlet fishery in every biennial stock status assessment process.	<ul> <li>The stock status of rock flathead, King George whiting, southern sea garfish, southern calamari, bluespotted flathead and sand flathead are formally assessed at a minimum of every two years.</li> </ul>
		ii) Include the secondary species of the Corner Inlet fishery in every biennial stock status assessment process wherever feasible, prioritising assessment if stock is of concern or recovering.	• The stock status of yellow-eye mullet, greenback flounder, snook, Australian salmon, gummy shark, eastern snapper, and silver trevally are formally assessed every two years where feasible, with priority given if stock is of concern or recovering.
		iii) Prepare a Corner Inlet species update each year to support relevant consultation processes.	<ul> <li>An annual summary of how the key species are performing is developed and shared with key stakeholders.</li> <li>Relevant stock status information feeds into relevant consultation processes and key decision-making processes (ongoing).</li> </ul>
		iv) Improve quantitative monitoring of the performance of higher risk species (flathead species and snapper)	<ul> <li>Improvements to quantitative monitoring of the stocks (e.g. key performance indicators and data analysis methods), including those relied upon in the VFA's regular stock review reporting process, are identified and implemented (ongoing)</li> <li>If the VFA or CIFMAC identifies any significant changes in performance of the stocks, the review process set out in section 7 of this management plan will be initiated.</li> </ul>
		<ul> <li>v) Adjust management arrangements as required to mitigate risk of primary and secondary species from becoming recruitment impaired.</li> </ul>	<ul> <li>No primary or secondary species are classified as depleted.</li> <li>A review of relevant management arrangements is commenced where a key species is considered to be at high risk of becoming recruitment impaired (ongoing).</li> </ul>
	<b>2.</b> Ensure that total fishing effort and harvest is consistent with the long-term sustainability of the fishery and the precautionary principle.	i) Quantitatively monitor the fishery for significant changes in fishing effort or catch	<ul> <li>VFA to monitor the fishery for significant changes in catch or effort (ongoing)</li> <li>An annual catch and effort summary is prepared (as per action 15 i) and shared with key stakeholders and any significant changes identified.</li> <li>If the VFA or CIFMAC identifies any significant changes in fishing effort or catch, the review process set out in section 7 of this management plan will be initiated.</li> </ul>
		ii) Advocate for a 50kg trip limit for take of King George whiting catch by Commonwealth licensed trawlers	• The Commonwealth Government implements a 50kg trip limit for King George whiting for Commonwealth trawl fishing as soon as possible.

<b>3.</b> Maintain modern and adaptive management arrangements that ensure sustainable fishing effort and harvest.	i) Adjust the <i>Fisheries Act 1995</i> , Fisheries Regulations 2019 and any Fisheries Notices as required to implement best-practice management appropriate for the fishery.	<ul> <li>Implement and adjust legal instruments as required (ongoing).</li> </ul>
	ii) Transfer management arrangements effected via Fisheries Notices into regulation if they demonstrate long-term effectiveness.	• Specific management arrangements are incorporated into regulation after at least 2 years of successful operation (as required) in consultation with industry.
<b>4.</b> Improve data collection and systems relevant to the fishery to ensure that accurate stock status determinations and management decisions are made.	<ul> <li>i) Support the installation of boat ramp cameras at the most popular launch areas across the fishery.</li> </ul>	<ul> <li>Cameras at Port Albert, Port Welshpool and McLoughlins Beach are installed and support provision of data to the VFA by July 2022.</li> </ul>
	ii) Undertake a survey to improve data collection of recreational and indigenous fishing activities in Corner Inlet.	Survey is completed by 2023.
	iii) Amend the commercial logbook template to improve understanding of target species including for mesh netting activity.	<ul> <li>Commercial logbooks are updated in 2022, including for current gear code M1 to confirm whether King George whiting or rock flathead are targeted.</li> </ul>
	iv) Undertake a data integrity review for Corner Inlet catch and effort reporting to improve industry confidence and implement any recommendations in consultation with industry.	<ul> <li>By December 2022, the VFA completes an internal audit of Corner Inlet commercial fishery data with industry input, including cross- referencing with information from the Vessel Monitoring System (and any electronic reporting, where feasible)</li> <li>A summary is presented to SIV and licence holders once finalised to</li> </ul>
		<ul> <li>Any needs identified from the data integrity review (see above) are addressed by adjusting logbook guidance, education materials and data analysis methodology for fishery assessments to ensure they remain fit-for-purpose.</li> </ul>
	v) Improve data recording technology and systems, including transitioning the commercial fishery to electronic catch and effort reporting.	Corner Inlet fishery transitioned to electronic reporting (e.g. VFA's 'Vic e-catch') from 2022/23.
	vi) Promote use of the GoVicFish app by recreational fishers.	<ul> <li>Where appropriate, the GoFishVic app is promoted at local recreational fishing forums, fishing and seafood festivals, and via social media relevant to Corner Inlet</li> </ul>
	vii) Complete rock flathead research project and progress research priorities listed in this management plan (see section 6.2).	<ul> <li>The current rock flathead research project is completed by the end of 2023 and findings presented to industry.</li> <li>All research priorities are progressed over the next 5 years.</li> </ul>

Maintain the ecological integrity of the fishery ecosystem	5. Minimise interactions with threatened, endangered and protected (TEP) species.	<ul> <li>i) Undertake a new project to improve understanding of TEP interactions and mortality risk from fishing methods in Corner Inlet.</li> <li>ii) Ensure data collection methods accurately capture fishing interactions with TEP species and that risks associated with fishing methods are acceptable.</li> </ul>	<ul> <li>A project plan for monitoring TEP interactions is developed by March 2022. Project to be included in list of research priorities and future funding opportunities identified in consultation with industry and key stakeholders.</li> <li>There is a high level of compliance by Corner Inlet commercial fishers for reporting interactions with TEP species (ongoing).</li> <li>Recreational creel surveys in Corner Inlet continue to account for relevant TEP interactions.</li> </ul>
		iii) Revamp education materials for all Corner Inlet fishers in relation to TEP interactions and minimisation.	<ul> <li>TEP interactions are discussed annually with DELWP.</li> <li>Development of a commercial fishing guide with up-to-date guidance for Corner Inlet fishers by July 2022.</li> <li>Update guidance on TEP interactions in the recreational fishing guide (annually).</li> </ul>
	<b>6.</b> Maintain healthy fisheries habitat and support seagrass restoration.	<ul> <li>i) Industry to develop measures to minimise impact on seagrass for inclusion in a potential voluntary Code of Practice.</li> </ul>	<ul> <li>If the voluntary Code of Practice is renewed, mitigation of netting impacts on seagrass habitat are included (as required).</li> </ul>
		ii) Support seagrass restoration projects in Corner Inlet where possible.	<ul> <li>Commercial fishers continue to provide their time and resources for seagrass projects (as required).</li> <li>Communications on Corner Inlet seagrass projects are shared and promoted by key fisheries stakeholders (ongoing) to maximise reach.</li> </ul>
		iii) Work closely with WGCMA, DELWP and Parks Victoria to achieve healthy fish habitats that support fisheries productivity now and into the future.	<ul> <li>Work with the WGCMA in their role as the site coordinator in assessing and managing risks to fish habitat within the Ramsar site (as required).</li> </ul>
	<b>7.</b> Minimise fishing impacts on the ecosystem.	<ul> <li>Maintain awareness of changes in seagrass coverage and implications for fisheries harvest and management arrangements.</li> </ul>	Engage with the Corner Inlet Connections Partner Group on seagrass research (as required).
		ii) Promote the importance of the fishery to support future improvements to water quality.	<ul> <li>Engage with the WGCMA and the wider Corner Inlet Connections Partner Group on water quality (as required).</li> </ul>
		<ul> <li>iii) Engage with key agencies and stakeholders</li> <li>in relation to marine pest incursions and</li> <li>management of sea urchins.</li> </ul>	<ul> <li>Engage with Agriculture Victoria, Parks Victoria and the Corner Inlet Connections Partner Group on marine pests (as required).</li> </ul>
Ensure fishing practices are ethical, responsible and respectful and promote harmony	<b>8.</b> Minimise mortality of fish that are captured but not retained (bycatch).	<ul> <li>i) Develop and implement a Corner Inlet bycatch monitoring program for commercial and recreational fisheries to support consideration of feasible bycatch minimisation strategies.</li> </ul>	<ul> <li>A project plan for monitoring bycatch is developed by March 2022. Project to be included in list of research priorities and future funding opportunities identified in consultation with industry and key stakeholders.</li> <li>Findings of bycatch project (once available) are discussed with industry and key stakeholders to determine feasible mitigation options.</li> </ul>

amongst stakeholders		<li>ii) Improve understanding of efficiency of mesh netting operations and discard mortality associated with soak times.</li>	•	A cost-effective research project is undertaken in consultation with industry.
		<li>iii) Support further education of recreational and commercial fishers on bycatch minimisation and improved fish handling.</li>	•	Provide information to fishers on best-practice bycatch reduction and fish handling techniques, including at fishing events and in fishing guides (ongoing).
	<b>9.</b> Ensure commercial netting practices are responsible and respectful of community and Traditional Owner values.	<ul> <li>i) Adjust management arrangements as required to minimise poor fish welfare incidents where feasible and avoid significant damage to social licence.</li> </ul>	•	Threats to social licence of the fishery are minimised and swift action taken in consultation with industry (ongoing).
		ii) Support GLaWAC and other TO groups relevant to Corner Inlet to engage with the wider Traditional Owner group to identify important cultural sites and/or species within the fishery.	•	Potential funding sources are considered to support engagement and site visits for Traditional Owners by February 2022.
	<b>10.</b> Support respectful relationships and understanding between recreational, commercial and indigenous fishing sectors that value the resource.	<ul> <li>i) Recreational and commercial sectors to independently pursue a Memorandum of Understanding about future resource sharing and access.</li> </ul>	•	A cross-sector workshop is convened by SIV by January 2022. Memorandum of Understanding signed by February 2022.
		<ul> <li>ii) Commercial sector to develop a new voluntary Code of Practice inclusive of measures that support ethical, responsible and respectful fishing practices.</li> </ul>	•	A new Code of Practice is developed by mid-2022.
	<b>11.</b> Support the health and safety of commercial, recreational and indigenous fishers.	i) Where feasible, SIV and the VFA to support fishers who may be experiencing mental health troubles and direct them to appropriate support services where beneficial.	•	Support licence holders where possible (ongoing).
		ii) Ensure fishers are aware of their OHS and boating safety responsibilities	•	The VFA works with Marine Safety Victoria and water police to manage risks to commercial fishing boating safety that may become evident (ongoing).
Ensure optimal economic utilisation of the Corner Inlet resource	<b>12.</b> Promote a viable and profitable commercial fishery consistent with the principles of ecologically sustainable development.	(i) Collect market seafood prices for key commercial species to assist in making informed fisheries management decisions.	•	VFA and SIV to develop a plan for collection of market price data in consultation with industry by July 2022.
		(ii) Support management arrangements that can allow fishing operations to be economically efficient while ensuring sustainability.	•	Suggestions for alternative management arrangements that improve efficiency of operations are explored (ongoing).

	<b>13.</b> Maximise the cultural, recreational and lifestyle benefits of the Corner Inlet fishery for the community, including Traditional Owners.	(i) The VFA will consider GLaWAC and other TO groups relevant to Corner Inlet for participation in all future on-ground fishery monitoring and improvement works and consult where appropriate.	•	GLaWAC and other TO groups relevant to Corner Inlet are approached to lead projects where Cultural Rangers may have capacity to assist with on-ground and on-water habitat or species research/activities (ongoing).
		(ii) Reduce the recreational bag limit for cockles in Corner Inlet to 2 litres to better share the resource in popular harvest areas such as McLoughlins Beach.	•	Bag limit is reduced in 2022, supported by updated signage at McLoughlins Beach to educate recreational fishers.
	<b>14.</b> Grow awareness and promote the community benefit of the fishery to the broader public.	i) Initiate annual Vic Fish Kids events in Corner Inlet.	•	Vic Fish Kids event commences in 2022/23.
		ii) Engage with other agencies to help enhance marine and seafood festivals in Corner Inlet to promote the fishery (e.g. the existing Sea Days Festival).	•	VFA to support the festival with fisheries pop-ups and potential sponsorship where funding allows.
		<ul> <li>iii) Improve access to fresh local seafood for</li> <li>Victorian consumers, including through offshore</li> <li>Hook and Line Permits to existing licence</li> <li>holders.</li> </ul>	•	The Hook and Line Permit Trial is extended to South Gippsland, with a small number of permits issued to Corner Inlet licence holders in 2022.
		iv) Develop an understanding and tell the story of indigenous connection to the fishery and promote significance more broadly	•	VFA to engage with GLaWAC and other TO groups relevant to Corner Inlet by 2023 to enhance understanding of indigenous connection. Significance of indigenous connection to the fishery is promoted through various mediums e.g. VFA website (ongoing)
Cost-effective and participatory management	<b>15.</b> Promote stakeholder participation in decision making.	i) Produce more frequent catch and effort reporting for industry and key stakeholders.	•	An annual summary of how the fishery is performing is developed and shared with key stakeholders.
		ii) Ensure adequate stakeholder consultation and transparent decision-making processes is conducted by the VFA.	•	Ensure all consultation is undertaken in accordance with Section 3A of the Fisheries Act 1995 (ongoing).
		iii) Establish a Corner Inlet fisheries management advisory committee to oversee implementation of the management plan and support more effective consultation.	•	Corner Inlet fisheries management advisory committee (CIFMAC) established in 2022. CIFMAC convened to provide feedback and advice to the VFA relating to management of the Corner Inlet fishery (Committee to meet at least twice each year or as appropriate).
		iv) Ensure licence holder interests and fish- related science are considered in the	•	VFA continues to engage with the Corner Inlet Connections Partner Group and other relevant government organisations and stakeholders.

	consultation and decision-making processes of other agencies.		
<b>16.</b> Achieve compliance with legislation.	<ul> <li>(i) VFA to develop annual compliance strategies for Corner Inlet that incorporate a compliance risk assessment.</li> </ul>	•	The VFA develops and implements compliance strategies (for internal use only) each year.
	(ii) Develop annual compliance report summary for Corner Inlet and present to key stakeholders.	•	The VFA develops an annual compliance report summary and presents this to key stakeholders each year.
<b>17.</b> Deliver cost-effective management arrangements.	<ul> <li>i) Ensure efficient management activities and processes are in place to achieve fishery objectives whilst minimising costs.</li> </ul>	•	Review and revise management activities as required (ongoing).

## **5. Managing the Corner Inlet Fishery**

## **5.1 RECREATIONAL FISHING MANAGEMENT ARRANGEMENTS**

## 5.1.1 Licensing

A Recreational Fishing Licence (RFL) covers all forms of recreational fishing in all of Victoria's marine, estuarine and inland waters. Unless an exemption applies, a Recreational Fishing Licence (RFL) is required to take, or attempt to take from public waters, any species of fish by any method, including line fishing, bait or shellfish collection, yabby fishing, prawning and spearfishing and/or using or possessing recreational fishing equipment in, on or next to Victorian waters. An RFL may not be loaned or transferred to another person.

A RFL is not needed if you are:

- under 18 years of age;
- 70 years of age or over.

or a holder of a:

- Victorian Seniors Card or interstate equivalent (see single card image to the right);
- Veterans' Affairs Pensioner Card;
- Veterans' Affairs Repatriation Health Card coded (TPI)
- Commonwealth Pensioner Concession Card coded either (DSP), (DSP Blind), (AGE), (AGE Blind) or (CAR)

or:

• a person that identifies as Aboriginal or Torres Strait Islander.

## 5.1.2 Key management controls

Recreational fishing is managed using a combination of various input controls (e.g. gear restrictions) and species' size, bag and possession limits. Some spatial and temporal closures also apply, for example, recreational (and commercial) fishing is prohibited within the Corner Inlet Marine National Park.

Table 4 summarises the key recreational fishing rules that apply in Corner Inlet. Further information on other important controls is provided in section 5.1.3 below.

Please note Table 4 is not a comprehensive list of all recreational fishing laws. For more information on the laws, please refer to the *Fisheries Act 1995* and the *Fisheries Regulations 2019*, or other Acts and subordinate legislation applying to, or affecting recreational fishing. An easy-to-read format of all rules and descriptions for recreational fishing equipment is also published in the annual Victorian Recreational Fishing Guide (the Guide)<sup>24</sup>, which is available at many fishing tackle shops, online at <u>vfa.vic.gov.au/recreational-fishing-guide</u> and via the 'Vic Fishing' smartphone app. For many fishers, the smart phone app is the easiest way to access and keep up to date with management arrangements.

#### Table 4. A summary of key elements of the recreational fishery relevant to Corner Inlet.

Key element	Recreational Fishery
Access to fishery	<ul> <li>Recreational Fishery Licence (unless exempt)</li> <li>Unlimited entry</li> </ul>
Management Zones	N/A - State-wide
Authorised fishing equipment and limits	<ul> <li>Fishing lines (4 with up to 2 hooks or 1 bait jig per line per person)</li> <li>Dip net (1)</li> <li>Hoop nets (2)</li> <li>Bait traps (2)</li> <li>Bait net (1) (area restrictions apply)</li> <li>Bait pump (1)</li> </ul>

<sup>24</sup> VFA 2020. Recreational Fishing Guide. Victorian Fisheries Authority. Melbourne. https://vfa.vic.gov.au/recreational-fishing/recreational-fishing-guide

	<ul> <li>Hand-held spear (restricted area only, spear guns prohibited)</li> <li>Hand collection (intertidal zone restrictions apply<sup>25</sup>)</li> </ul>
Species	<ul> <li>Various (refer to recreational fishing guide<sup>26</sup>)</li> </ul>
Primary method of control	Size and bag limits
Method of monitoring	<ul><li>Creel surveys</li><li>GoFishVic smart phone app</li><li>Boat ramp cameras</li></ul>

## **5.1.3 Other management controls**

Other key regulations that apply to the Corner Inlet recreational fishery are detailed below.

#### Restrictions on use of bait nets in Corner Inlet

A recreational bait net is only permitted to be used in Corner Inlet waters if it is at least 30m away from any jetty or pier and at least 400m from the mouth of any creek or river. These must not be towed, dragged or hauled behind a motor under propulsion.

#### Spear guns are prohibited in Corner Inlet

A person must not use or possess a spear gun or Hawaiian sling in or on Corner Inlet. Each licensed or exempt fisher may only possess a spear gun in a boat in Corner Inlet if they are proceeding by the most direct route to, or from, a boat ramp or mooring to waters in which the use of a spear gun is permitted.

#### Restrictions on use of hand-held spears in Corner Inlet

The use or possession of a hand-held spear is prohibited in Corner Inlet where the person is:

- within 30 m of any jetty any mouth of any creek or river; and
- in, on or next to specified waters<sup>27</sup> in the western end of the fishery as detailed in Figure 14 below.

Recreational fishers may only possess a hand-held spear in a boat on prohibited waters (including those specified above) if they are proceeding by the most direct route to, or from, a boat ramp or mooring to waters in which the use of the hand-held spear is permitted.



<sup>&</sup>lt;sup>25</sup> https://vfa.vic.gov.au/recreational-fishing/recreational-fishing-guide/waters-with-fishing-restrictions/restricted-areas-intertidal-zone

<sup>&</sup>lt;sup>26</sup> https://vfa.vic.gov.au/recreational-fishing/recreational-fishing-guide/fishing-equipment/marine-fishing-equipment

<sup>&</sup>lt;sup>27</sup> Use of hand-held spears is prohibited in, on or next to waters of the Corner Inlet fishery west of a line from the mean high water mark on the most northerly point of Entrance Point (on Wilsons Promontory) to the most westerly part of Little Snake Island at the mean high water mark then following the coastline of Little Snake Island generally north and then east to a point directly south of the long jetty at Port Welshpool and then on a north-south line to the end of that jetty and along the jetty to the shore.

Figure 14. Use of a hand-held spear is prohibited the western half of the Corner Inlet fishery (left of the red line shown in map)

## 5.1.4 Future management of the recreational fishery

#### Cockles

Cockle collection is an important multicultural recreational fishery that provides enjoyment to many families. However, the VFA is aware of ongoing concerns raised by the local community regarding the take of cockles and the potential impacts on seagrass, in particular at McLoughlins beach and its surrounding areas. Observations from Fisheries Officers who frequently patrol the area suggests the number of recreational fishers hand-collecting cockles in the Corner Inlet fishery has increased significantly over recent years.

While the VFA does not believe cockle harvesting activity results in long term impacts to the substrate (as fishers are mostly bare foot when collecting shellfish and digging instruments are already prohibited under fisheries regulations), the VFA is proposing to reduce the recreational daily bag and possession limit for molluscs (all species other than abalone, mussels, pipis, scallop, squid, octopus, oysters and cuttlefish) from 5 litres (or, if shucked or split, 1 litre) to 2 litres (or, if shucked or split, 0.5 litre), subject to approval from the Minister for Fishing and Boating. This proposal will ensure that shellfish, including cockles, are better shared amongst the harvesting community. As set out in Action 13 ii) (see table 3), this change is proposed to be implemented by the end of 2022.

This type of change has proven successful in similar recreational fisheries including for take of pipis in Venus Bay in South Gippsland.



Seized cockles from targeted enforcement operation

#### Other management arrangements

The VFA is not proposing any further changes to the recreational fishing management arrangements under this Plan. However, it should be noted that recreational size limits and bag/possession limits can be adjusted as necessary, if there is evidence that the harvest limits are inappropriate. Any change will be based on the best supporting evidence available and will be undertaken according to usual administrative process, which includes justification of proposed changes and a consultation process in accordance with section 3A of the Fisheries Act.

## 5.1.5 Victorian recreational fishers voluntary Code of Conduct

The voluntary Code of Conduct developed by VRFish aims to provide guidelines to minimise conflicts on the water, encourage local stewardship, demonstrate best practice for responsible fishing and result in a more enjoyable fishing experience for all. The Code asks that recreational fishers:

- 1. Be aware of and comply with fishing regulations:
  - have a copy of the Recreational Fishing Guide on you, or download the VFA app.
- 2. Respect the rights of other anglers and waterway users:
  - the water is for all anglers and commercial fisheries.
- 3. Protect and restore the environment and fish habitats:
  - dispose of fishing lines, excess bait etc. thoughtfully and respectfully.
- 4. Carefully return undersized, protected or unwanted catch back to the water:

- humanely dispatch any fish you're planning to keep (see the VFA's responsible fishing behaviour guide for more information<sup>28</sup>)
- remember not to return noxious aquatic species to waterways.
- 5. Fish species and other organisms must not be relocated/transferred into other water bodies.
- 6. Always seek permission when entering private property.
- 7. Use established access roads and tracks.
- 8. Attend to your fishing gear and care for your catch.
- 9. Pass on your knowledge and promote sustainable fishing practices.
- 10. Respect Aboriginal sites, culture and values.

## **5.2 COMMERCIAL FISHERY MANAGEMENT ARRANGEMENTS**

## 5.2.1 Licensing

Corner Inlet commercial fishing entitlements are based on the legal ownership of a Corner Inlet Fishery Access Licence (CIFAL). Access licences are fully transferable and can be sold or leased to and operated by another fisher deemed as fit and proper by the VFA. The processes for issue, renewal, variation and transfer of licences and permits are detailed in the Fisheries Act and relevant fisheries regulations.

The commercial fishery is a limited-entry fishery. There is currently a maximum of 18 licences set under the *Fisheries Regulations 2019* and no additional licences will be issued for the commercial fishery.

Corner Inlet Fishery Access Licences are issued for one year and must be renewed prior to expiry in order for the licence holder to commence fishing at the start of the next fishing season. The fishing season commences on 1 April until 31 March the following year. There is no closed season as such for commercial fishing in Corner Inlet, however there is a temporal closure on weekends (details are provided below).

## 5.2.2 Key management controls

Table 5 summarises the key commercial fishing rules that apply to Corner Inlet Fishery Access Licence holders. Further information on other important controls is provided in section 5.2.3 below. Please note the table and subsequent text is not a comprehensive list of all laws applying to this licence class. For more information on the laws (including current definitions of authorised equipment and size limits for all species), please refer to the *Fisheries Act 1995* and the *Fisheries Regulations 2019*, or other Acts and subordinate legislation applying to, or affecting commercial fishing.

Key element	Commercial Fishery
Access to fishery	<ul><li>Entry limited to 18 licences</li><li>One operator per licence (no limits on crew)</li></ul>
Management Zones	<ul> <li>Single fishing zone - 'Corner Inlet' (however this is split into five areas for catch reporting and scientific monitoring purposes – see figure 15 – and excludes marine national park)</li> </ul>
Fishing method/equipment	<ul> <li>Seine net (up to 650m)</li> <li>Mesh net (up to 1650m or 1300m if operating alone)</li> <li>Longline/s (up to a combined total of 400 hooks)</li> <li>Fishing lines (up to 6 with 3 hooks per line)</li> <li>Hoop nets (up to 20)</li> <li>Hand operated bait pumps - no more than 2</li> </ul>
Species	<ul> <li>Various (take of abalone, jellyfish, rock lobster, giant crab, scallop and sea urchin is prohibited)</li> <li>No more than eight wrasse can be taken in any one day</li> </ul>

**Table 5.** A summary of key elements of the commercial fishery relevant to Corner Inlet.

<sup>28</sup> <u>https://vfa.vic.gov.au/recreationalfishing/recreational-fishing-guide/responsible-fishing-behaviours</u>

Primary method of control	<ul> <li>Input controls (e.g. various conditions use of gear – details below)</li> <li>Size limits</li> </ul>
Method of monitoring	Catch and effort reporting

## **5.2.3 Other management controls**

Other key regulations that apply to the Corner Inlet commercial fishery are detailed below.

#### Weekend closure

Commercial fishing is prohibited between midnight on Friday and 5pm the following Sunday of each weekend. This is a resource sharing arrangement between commercial and recreational fishers that ensures commercial fishers are not on the water during the weekend when there are more recreational boats on the water.

#### Restriction on use of commercial fishing equipment close to shore

Commercial fishing equipment cannot be used within 30 metres of any pier, jetty, wharf or breakwater (that is not privately owned). Seine nets cannot be used within 400 metres of the mouth of any river, stream or creek.

#### Must not use a boat or boats under propulsion to tow both ends of a seine net at the same time

This regulation prohibits seine nets being used in a trawling manner which could damage the benthos. This law also deters high levels of fishing effort as otherwise the area swept would not be limited and would damage the quality of fish caught.

#### Dragging of seine net into water less than 60cm deep or on land prohibited

Licence holders must not drag or draw a seine net containing fish onto dry land or into water less than 60 centimetres deep. This regulation applies to all commercial fishers and is designed to mitigate against poor welfare outcomes for fish and ensure the commercial sector demonstrates responsible and respectful fishing practices.

#### Requirement to have Vessel Monitoring System (VMS) on commercial fishing boat

A VMS unit must be installed on all vessels listed for use on the licence. The VMS unit must be turned on when the vessel leaves port on a commercial fishing trip.

The Vessel Monitoring System (VMS) uses small on-board transceivers to log a vessel's position and uploads this information to the Australian Fisheries Management Authority (AFMA) servers. This information is then accessible to VFA officers who can view it on computers and portable devices.



#### Daily catch and effort reporting requirement

Catch and effort information must be accurately recorded on each day that fishing activity takes place under a Corner Inlet Fishery Access Licence. A hardcopy of the monthly catch and effort record must be sent to the VFA after each month (by the 18<sup>th</sup> of the following month). The VFA intends to transition the Corner Inlet fishery to electronic reporting from 2022/23 to simplify the reporting process for fishers and ensure access to real time catch and effort information that can support more responsive and efficient management of the fishery. This would be completed via the Vic e-catch digital platform which has proven successful in other key Victorian fisheries.



Figure 15. Commercial fishing catch reporting areas (1 to 5).

#### TEP (Threatened, Endangered and Protected) species interactions reporting requirement

Any interaction with a protected species must be reported in the catch and effort logbook and if significant, is to also be immediately reported to a VFA duty officer.

#### Sales receipts and fish movement record requirements

All commercial fishers are required to issue documentation for all sales of fish or other transfers for commercial purposes (exemptions may apply dependent on certain circumstances as set out in the *Fisheries Regulations 2019*). Additionally, documentation must be held to account for all fish held on commercial premises. These laws are designed to address potential illegal take and black-market sales of fish and supports the integrity and ongoing viability of commercial fisheries in Victoria.

#### **Fisheries Notices**

Fisheries Notices are a regulatory tool utilised by the VFA to implement management arrangements in a timely manner. This ensures management can be responsive and efficient.

Since 19 June 2020, several Fisheries Notices have been implemented relevant to the Corner Inlet fishery. At the time of publication, two Fisheries Notices were in place that implement further restrictions on the commercial fishery. A general summary of the main controls under these Notices is provided below:

- I. prohibit the operation of more than two seine net shots in any given 24-hour period (midnight to midnight)
- II. prohibit the use of more than one type of fishing gear at any given time inclusive of seine and mesh net
- III. prohibit the use of a seine net that does not have one end anchored
- IV. prohibit the use of more than 100 metres of rope or combination of ropes on the ends of seine nets
- V. further prohibit the movement of both ends of the seine net at the same time
- VI. prohibit more than one repositioning of the anchored end of a seine net
- VII. require the installation and operation of a Vessel Monitoring System on any motorised tender boat or any tender boat equipped with a mechanical device capable of propelling, hauling or retrieving a seine net.

It is important to note that these laws may be adjusted over time and it is the responsibility of each licence holder or operator to ensure their fishing operations comply with any subsequent Fisheries Notice or amendments to the *Fisheries Regulations 2019*. All current Fisheries Notices are listed on the VFA website.

## 5.2.4 Corner Inlet commercial fishers' Code of Practice

This is a voluntary arrangement designed to minimise conflict between licence holders and other sectors and to promote best practice fishing operations. Signatories to the Corner Inlet commercial fishers' Code of Practice operate in accordance with agreed principles for the fishery. This is set to be renewed as per action 6 i) in Table 3 of this Plan.

## 6. MONITORING, ASSESSMENT AND RESEARCH

## **6.1 MONITORING AND ASSESSMENT**

To ensure that fishery resources are managed sustainably and to maximise the economic, social and cultural benefits, the VFA closely monitors and assesses our fisheries. This includes assessment of the status of various fish stocks which consider whether the current abundance of fish in a stock is at an adequate level and whether the level of fishing pressure is adequately controlled through management.

The stock status for all primary and most other key species relevant to the Corner Inlet fishery are assessed every two years under the VFA Stock Status Review and the Commonwealth's Status of Australian Fish Stocks process (see Section 2.1.2, Table 1 for latest classifications).

The VFA bases its biennial assessments on multiple lines of evidence covering, where feasible, four key aspects of stock condition and fishery sustainability:

- biomass status using commercial catch per unit effort (CPUE) as a proxy;
- fishing pressure using total catch and effort or proxies from each sector;
- fishing mortality trends inferred using length composition data;
- recruitment measured using fishery independent sampling of pre-recruits.

The biological characteristics of each species are also considered. Further information on the VFA's assessment methods is detailed in the VFA's Review of Key Victorian Fish Stocks - 2019<sup>29</sup>.

These assessments utilise available data from the Corner Inlet fishery, as well as from other fisheries where relevant to a particular species. Currently, data is assessed to the end of the financial year. A high-level summary of the data used to assess stock in Corner Inlet is provided in section 6.1.1 and 6.1.2 below.

## 6.1.1 Fishery-dependent data

The VFA collects a range of information from fishing participants in Corner Inlet to support scientific monitoring and assessment of fish stocks.

#### **Commercial fishery**

#### Catch and effort logbooks

Catch and effort information is recorded on each day that fishing activity takes place under a Corner Inlet Fishery Access Licence and a hardcopy of the monthly catch and effort record is sent to the VFA<sup>30</sup> at the end of each month (by the 18<sup>th</sup> of the following month).

Key information currently recorded in logbooks includes:

- □ Fishing location (area code)
- □ Gear type used
- □ Net length (m) or total number of specified gear
- □ Number of shots
- □ Fishing time
- □ Weight of fish for each species caught

The data collected from commercial logbooks is critical for the stock status assessments for key species. This data is particularly important for species that are considered to be part of resident stocks in Corner Inlet such as the flathead species and flounder.

#### Protect species interaction reporting

All licence operators must report any interactions with threatened, endangered and protected species on

<sup>&</sup>lt;sup>29</sup> Conron, S. D., Bell, J. D., Ingram B. A. and Gorfine H. K. (2020). Review of key Victorian fish stocks — 2019, November 2020, First Edition. Victorian Fisheries Authority Science Report Series No. 15.

<sup>&</sup>lt;sup>30</sup> The VFA intends to transition the Corner Inlet fishery to electronic reporting by the end of 2023. Further details in section 5.2.3.

each fishing day. TEP species include all species of mammal, bird, reptile and amphibian species that are native to Victoria and threatened fish. These species are protected under State and Federal legislation, however incidental fishing interactions with these species can and occasionally do occur. If the interaction is incidental and the fisher adheres to the required reporting protocols, the fisher is exempt from prosecution. An "Interaction" is defined as a fishing vessel, gear or operator encountering a protected species, regardless of the outcome. Deliberate or negligent acts will still be subject to prosecution. This requirement has been incorporated into the paper-based commercial logbook.

#### Commercial catch sampling

Some of Corner Inlet's commercial fishers support the VFA's science program by assisting with sampling their catch for length frequency and the VFA also collects fish frames from certain fish shops. This covers key species including King George whiting and rock flathead, which are caught using seine nets and mesh nets.

Otoliths (ear bones) are also collected and used to determine the age of the fish and help improve the VFA's understanding of a species stock dynamics.

#### Vessel Monitoring System

Commercial vessels are equipped with GPS transceivers connected to a Vessel Monitoring System that logs vessel position. This information is automatically uploaded to a secure Government database in real time during fishing operations. This provides information on where fishing activity is occurring and supports operational compliance and enforcement activities.

#### **Recreational fishery**

#### Creel survey program

Creel surveys typically involve VFA staff counting and interviewing recreational anglers at boat ramps and shoreline access points and recording detailed catch and effort, social demographic, economic and opinion information. The current creel survey program in Corner Inlet occurs on approximately 25 days of the year between November and April. Detailed methods can be found in PoMC (2008)<sup>31</sup>.

Key data obtained through the surveys includes but is not limited to:

- □ Boat/shore based
- □ Fishing location and depth
- □ Method (lines bait/lure/jig, other)
- □ Fishing time
- □ Technology (GPS/sounder)
- □ Target species
- □ Catch (number caught/released)
- □ Length frequency
- □ Number of anglers
- □ Age group
- □ Fishing experience
- □ Travel distance and trip expenditure
- Licence status
- □ Fishing satisfaction



Key Victorian recreational fisheries where ongoing creel survey programs are in place



Creel survey of land-based fisher

<sup>31</sup> PoMC (2008) Fish stock and recruitment. Subprogram 1— Recreational surveys. Detailed design CDP\_ENV\_MD\_017 Rev 1. Port of Melbourne Corporation.

### GoFishVic phone app

The VFA has developed an app that allows recreational fishers to record their fishing trips and catch rates, while also providing a number of benefits to anglers themselves. This information is aggregated across fishers and will support more informed fisheries management by providing an indication on how Victoria's fisheries, including Corner Inlet, are performing. At the time of publication, more than 2,800 fishers have registered and are using the app. The VFA plans to work with recreational fishers to expand and grow this initiative in the future.



#### Boat ramp cameras

Installation of boat ramp cameras at key ramps across Corner Inlet supports an improved understanding of fishing effort throughout the year and provides a cost-effective method of data collection.

There are currently cameras in place at Port Welshpool and others will be installed at other key ramps at Port Albert and McLoughlins Beach by 2022. The VFA has contributed funding towards the installation of these cameras in collaboration with Marine Safety Victoria.





Boat ramp cameras

## 6.1.2 Fishery-independent data

Fishery-independent data is information collected about a fishery or fish stock by VFA staff or researchers independent of the fishery to support monitoring and assessment of fish stocks. The VFA currently uses prerecruit surveys across Victoria to provide broad information that can be used to inform management decisions. For example, monitoring of juvenile recruitment currently occurs for King George whiting in Port Philip Bay each year. This monitoring is undertaken using a seine net (with a small mesh size) between October and November to take samples of juvenile King George whiting over seagrass beds.

This survey helps the VFA to establish an understanding of the abundance of King George whiting settling into Port Philip Bay each year. It is also used as an indicator for recruitment into other bays and inlets such as Western Port, and to some extent, Corner Inlet.

When a relatively high number of juveniles are caught through pre-recruit surveys in Port Philip Bay in a particular year, it is an indication that recruitment into Corner Inlet may also be above average and that fishing opportunities may improve in the 2-4 years following (when the fish are legal size and still in the fishery). However, King George whiting found in Corner Inlet are thought to have additional spawning sources from those associated with recruitment into Port Philip Bay and Western Port as well.

## **6.2 RESEARCH PRIORITIES**

#### 6.2.1 Current research

#### Rock flathead stock structure and assessment

The Fisheries Research and Development Corporation (FRDC) has approved a two-year project aimed at understanding the stock structure of rock flathead in Corner Inlet<sup>32</sup>. The research project involves the application of acoustic tracking along with modern genetic techniques and otolith chemistry to address key questions around processes that influence the dynamics of rock flathead in Corner Inlet. The bulk of the field and lab work is expected to be completed by 2022. The results will help determine if the rock flathead population is a resident, self-replenishing stock in Corner Inlet.



Freshly caught rock flathead on ice

#### 6.2.2 Future research priorities

A list of research priorities is provided in Table 6 below. The timeline for delivery of the research priorities will be subject to funding availability, however the VFA will actively pursue funding whenever possible.

<b>Fable 6.</b> A list of key research	priorities identified of imp	portance to the Corner Inlet fishery
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#	Research priorities for the fishery
1	Complete survey to estimate total recreational and indigenous fishing in Corner Inlet-Nooramunga.
2	Develop a method for measuring recreational boat fishing effort using integrated trailer counts and camera sensor data.
3	Develop and implement a project to improve understanding of bycatch relevant to Corner Inlet's commercial and recreational fisheries.
3a.	Improve understanding of the efficiency of mesh netting operations and discard mortality associated with soak times.
4	Conduct length frequency sampling and ageing of key flathead species (rock flathead, blue-spotted flathead and sand flathead) to improve understanding of fish stock dynamics.
4a.	Investigate blue-spotted flathead stock structure and conduct a status assessment (fish tagging project).
5	Conduct biological sampling of King George whiting outside Corner Inlet to better understand the full reproductive status and life cycle east of Wilsons Promontory.
6	Undertake a tagging study of King George whiting in Corner Inlet to investigate possible links with offshore areas, western Victoria and southeast South Australia, and Flinders Island whiting populations.
7	Improve understanding of the eastern snapper stock.

<sup>32</sup> Understanding the stock structure of Rock Flathead and the role of movement dynamics in influencing the performance of the Corner Inlet fishery, https://www.frdc.com.au/project/2020-003

## 7. Management review process

Where the VFA or the Corner Inlet Fishery Management Advisory Committee (CIFMAC) identifies a potential issue or need of relevance to the fishery, a review of relevant management arrangements will be initiated in accordance with the process below.

- 1. The VFA will conduct a deep analysis of the issue and relevant data to consider whether a management response may be required. If new measures may be needed, this will include analysis of pros and cons of possible adjustments.
- 2. If the VFA considers that a management response may be required, the VFA will convene the Corner Inlet Fisheries Management Advisory Committee (once established) to discuss the issue and potential management response. Relevant supporting data will be made available to CIFMAC where appropriate.
- 3. Following consideration of discussions at CIFMAC and any subsequent advice, if the VFA considers a management response is necessary, a proposed solution will be developed and consultation will be undertaken with relevant groups (e.g. SIV, VRFish, CIFHA and other established industry associations, CIFAL holders and any other stakeholders as appropriate). Suitable time will be allocated for associations and licence holders to discuss the matter.
- 4. The VFA will consider all stakeholder responses before seeking either the CEO of the VFA or the Minister for Fishing and Boating's approval/endorsement of the proposed solution (where applicable).
- 5. Should the approved solution require a regulatory response (e.g. preparation of a Fisheries Notice or a regulatory or legislative amendment), all relevant formal consultation processes associated with the relevant legal instrument will be followed.
- 6. All CIFAL holders, SIV, VRFish, CIFHA and other key stakeholders will be advised in writing of the final management response.

The Corner Inlet Fishery Management Advisory Committee will include participation of key representatives from all relevant sectors to continue the partnership and co-management approach with the VFA. Part of CIFMAC's role will be to review the latest fishery information and help to ensure management remains adaptive and responsive.



Figure 16. Summary of management review process

## 8. Education and Enforcement

The VFA plays the lead role in educating fishers and detecting and dealing with non-compliance with fisheries legislation. It delivers a fully integrated program that comprises prevention (community engagement and education), regional operations, intelligence collation and targeted investigations. This is led by the VFA's Education & Enforcement Division (and includes authorised Fisheries Officers in various stations across the State) and can occur through means of a general deterrence (word of mouth / being seen / media releases) or specific deterrence (warning / fines/ prosecution). Education and enforcement are very important in ensuring effective management of the Corner Inlet fishery.

Fisheries Officers from VFA's station based in Yarram are predominantly responsible for conducting enforcement and education activities in Corner Inlet. They conduct at-sea (by vessel) and land-based patrols and can operate in uniform or plain clothes. In Corner Inlet, there is currently a particularly strong focus on compliance with the following elements of fisheries legislation:

- licensing requirements;
- equipment limits and permitted use;
- species size and catch limits;
- bycatch safe return of unwanted fish;
- accurate protected species interaction reporting (commercial fishery only);
- accurate catch and effort reporting (commercial fishery only); and
- VMS requirements (commercial fishery only).

There are currently cost-recovered inspection targets set for on-water and landing inspections for the Corner Inlet commercial fishery each year. There is no cost recovery from the commercial industry for services related to the recreational sector or addressing illegal fishing activity, however Fisheries Officers are regularly out engaging with recreational fishers and ensuring compliance around the area. Fisheries Officers also conduct compliance under other legislation to promote responsible fishing and boating, such as wildlife, environmental and maritime safety legislation.

The VFA is committed to growing awareness and promoting the community benefit of the fishery to the broader public. Key actions included in this plan are to initiate annual Vic Fish Kids events in the local region and enhance other marine and seafood festivals in Corner Inlet. These initiatives will provide further opportunities to grow fishing in Victoria and support the public awareness of the fishery and compliance with relevant legislation.



## 9. Review of the Management Plan

This Corner Inlet Fishery Management Plan will be reviewed after two and four years of operation, following its declaration, to formally determine progress against the objectives, strategies and actions outlined in Table 3. An annual report will be provided to the Chief Executive Officer of the Victorian Fisheries Authority describing progress against objectives, strategies and actions. The Corner Inlet Fishery Management Plan will remain in place until it is formally revoked or a new plan is declared.



## Glossary

These terms are intended to be used for the purpose of interpreting this management plan only:

**Bag limit:** The maximum number, weight or volume of a species that can be legally be taken per day by a recreational fisher.

Bait pump: means a hand operated suction pump.

Biomass: The total weight or volume of a fish stock or component of a stock.

Bycatch: The component of the catch that is not a targeted species and which is returned to the water.

Byproduct: Non-targeted catch that is commercially valuable and retained by commercial fishers.

**Catch per unit effort (CPUE):** A measure of fishing success with a type or unit of fishing gear, such as the number or weight of fish caught by a unit of fishing effort. CPUE is often used as an index of relative fish abundance through time in stock assessments and management decision rules.

CIFAL: Corner Inlet Fishery Access Licence

CIFMAC: Corner Inlet Fishery Management Advisory Committee

**Ecologically Sustainable Development:** The use of natural resources in a manner that maintains the lifesupport systems of nature and does not diminish the potential of the resource to meet the needs and aspirations of future generations.

**Fishery-dependent data:** The information collected by the participants in a fishery that is relevant to the fishery or fish stock, e.g. commercial catch and effort logbooks.

**Fishery-independent data:** The information collected about a fishery or fish stock by researchers independent of the fishery. e.g. scientific surveys

**Hand spear:** a spear with one or more prongs (with or without barbs) that is held in the hand and propelled by human power without the use of any explosive, spring, elastic material or mechanism, and designed so that the prong or prongs do not detach from the spear when they penetrate the body of a fish. This does not include a Hawaiian sling or a spear gun.

Hoop net: means a cylindrical net open at the top, consisting of not more than 2 hoops.

**Input controls:** Indirect restraints on catch including regulation of the amount or type of fishing gear (e.g. maximum net length) and fishing period (e.g. weekend closure).

**Intertidal zone:** the area of Victoria from the maximum high-water mark to where the water is at least two metres deep.

**Licence operator**: in relation to a commercial fishery access licence, means a person whose name is specified in an access licence as a person permitted to carry out all fishing activities authorised by the licence.

Limited entry fishery: A fishery where the number of licence holder and/or operators is restricted.

Longline: means a line to which is attached more than 8 hooks.

**Mesh net:** any net that is designed or used for setting in a stationary position to soak and mesh or gill fish and includes a gill net or set net but does not include a trammel net or stake net or seine net.

**Nominal CPUE:** 'Nominal' means raw data. Nominal CPUE data for the commercial fishery is calculated based on catch and effort information as reported by fishers prior to any statistical transformations being carried out on the data (such as standardisation).

**Possession limit:** The set number, weight or volume of a species that is legal for a person to possess in, on or next to Victorian waters.

**Precautionary principle:** This concept asserts that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decision making should be guided by: (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and (ii) an assessment of the risk-weighted consequences of various options.

Recruitment: The addition of new individuals of legal size to a stock.

**Seine net:** means any net designed or used to surround fish that is drawn through the water to close the ends of the net but does not include a recreational bait net, trawl net, purse seine net or mesh net.

**Shot:** in relation to a seine net means the act of setting a seine net using a boat and the hauling or retrieval of the same seine net back on board the boat, ready for a new shot.

**Size limit:** This can include a minimum or maximum size that determines the legal size at which a given species can be retained.

**Spear gun:** A mechanical device or other thing that is capable of imparting propulsive energy to a spear or arrow but does not include a crossbow or a bow and arrow.

**Species:** A group of organisms capable of interbreeding freely with each other but not with member of other species.

**Stock**: A group of individuals of a species occupying a well-defined spatial range independent of other groups of the same species, which can be regarded as an entity for management or assessment purposes.

## Appendix 1: Reported commercial catch of the key species



Landings of the top ten species from Corner Inlet

# Appendix 2: Further breakdown of catch composition by commercial mesh nets in Corner Inlet



Catch composition by mesh net with multifilament mesh size <95mm (i.e. gear codes M1, M2 and M3) in the last ten financial years (2011/12-2020/21) in Corner Inlet



Catch composition by mesh net with multifilament mesh size >95mm (i.e. gear codes M4 and M5) in the last ten financial years (2011/12-2020/21) in Corner Inlet

## Appendix 3: Risk assessment management responses

Risk description	Key management responses
Commercial harvest of rock flathead from the Corner Inlet fishery leads to recruitment overfishing.	<ul> <li>VFA to improve quantitative monitoring of the stock through its stock review reporting and initiate a management review where appropriate [Actions 1i) and 1iv))].</li> <li>Complete research underway to further understand stock structure and movement dynamics [Actions 4 vii)</li> <li>Consider need for pre-recruit surveys for flathead in future</li> </ul>
Cumulative harvest (commercial and recreational) of southern blue-spotted flathead and sand flathead from the Corner Inlet fishery leads to recruitment overfishing.	<ul> <li>VFA to improve quantitative monitoring of the stock through its regular stock review reporting and initiate a management review where appropriate. [Actions 1 i) and 1 iv)].</li> <li>Include as one of the research priorities to fill key knowledge gaps for blue-spotted and sand flathead [Action 4 v)]</li> <li>Consider need for pre-recruit surveys for flathead in future.</li> </ul>
Cumulative harvest (commercial and recreational) of snapper from the Corner Inlet fishery leads to recruitment overfishing (eastern snapper stock).	<ul> <li>VFA to improve quantitative monitoring of the stock through its regular stock review reporting and initiate a management review where appropriate. [Actions 1 i) and 1 iv)].</li> <li>Maintain recreational creel survey program and closely monitor for trends relevant to snapper [Actions 2 ii-iv)].</li> <li>Consider future research needs for the eastern Victorian snapper stock [Action 4 v)]</li> </ul>
There is significant latent effort in the commercial fishery which could lead to overfishing of some species if there is a significant change in operators and/or practices change.	<ul> <li>Continue to monitor key fishing effort indicators and manage risk of significant increases in fishing effort [Actions 2 i)]</li> <li>VFA to monitor mesh effort closely through its annual catch and effort updates for industry and initiate a management review where appropriate in consultation with CIFMAC. [Actions 2 i) and 15 i)].</li> </ul>
Recreational and indigenous catch in Corner Inlet is not well understood and leads to recruitment overfishing	<ul> <li>Conduct a recreational fishing survey in Corner Inlet [Action 4 ii)].</li> <li>Continue with the ongoing creel monitoring program (details in section 6)</li> <li>Support the installation of boat ramp cameras at key ramps [Action 4 i)].</li> <li>Promote the use of the GoFishVic app by recreational fishers [Action 4 iv)].</li> </ul>
Undetected illegal fishing and/or misreported catch and effort information leads to overfishing or incorrect management decisions	<ul> <li>Undertake a data integrity review for Corner Inlet catch and effort reporting, adjusting logbook guidance, education materials and data analysis methodology for fishery assessments as required to ensure they remain fit-for-purpose [Action 4 iv)].</li> <li>The VFA develops and implements compliance strategies (for internal use only) each year [Action 16 i)].</li> </ul>
Discarding of retained species in Corner Inlet during mesh netting operations leads to significant unaccounted fishing mortality.	Improve understanding of discard mortality from mesh netting     [Action 8 ii)].
A lack of monitoring of commercial bycatch, including dead discards, results in unforeseen and unacceptable decline of non-retained species in the Inlet.	<ul> <li>Develop and implement a bycatch monitoring program to understand level of bycatch and discard mortality [Action 8 i)].</li> </ul>
Changes in commercial fishing technique by some operators, which focus on maximising total catch, results in catch inequities and disproportionate share of the income from the fishery.	<ul> <li>Monitor effectiveness of Fisheries Notices in place which are designed to mitigate this risk [Action 3 ii)].</li> </ul>
Severe work-related injuries or death of commercial operators occur.	Continue to remind fishers of their OHS and boating safety responsibilities [Action 11 ii)].
Some commercial fishing practices in Corner Inlet may not align with general community expectations for responsible fishing, resulting in a lack of community support for bay and inlet fisheries and the commercial fishing industry in general.	<ul> <li>Assist the commercial industry to develop a new voluntary Code of Practice to ensure fishing practices remain ethical, responsible and respectful [Action 10 ii)].</li> </ul>
Negative community views of commercial net fishing in bays and inlets, in general, impacts the social licence of the commercial fishery.	<ul> <li>Help promote the sustainable, low impact commercial fishing methods in Corner Inlet as providers of fresh local seafood [Actions 14 i) and ii)].</li> <li>FutureFish Foundation to establish a Memorandum of Understanding between the recreational and commercial fishing sectors regarding future resource sharing and access [Action 10 i)].</li> </ul>
Management arrangements do not support efficient, effective and responsive management resulting in suboptimal fishery outcomes.	<ul> <li>Continue to review management arrangements including Fisheries Notices in place and adjust as required [Action 3 i)].</li> <li>Implement electronic catch and effort reporting to enable more responsive decision making and efficient collection of data [Action 4 iii)].</li> </ul>
Available research/ collected scientific information is not sufficient to support efficient, effective and responsive management resulting in suboptimal fishery outcomes.	<ul> <li>Develop a list of research priorities for inclusion in the management plan and seek funding where feasible [Action 4 v)].</li> <li>Support installation of boat ramp cameras and develop ways to utilise the information [Actions 4 i) and vii)].</li> </ul>

Some Corner Inlet access licence holders do not support the management arrangements for the fishery, leading to a change in	<ul> <li>Ensure adequate consultation on management changes [Action 15 ii)].</li> </ul>
practices to work around existing regulations.	<ul> <li>Consider creation of a stakeholder-based Corner Inlet Fishery Management Advisory Committee to oversee delivery of the Plan [Action 15 iii)].</li> </ul>
Land and water management arrangements do not effectively mitigate risk of detrimental impacts to water quality in fishing areas and loss of seagrass.	<ul> <li>Continue to engage with WGCMA and Corner Inlet Connections Partner Group to support improvements to water quality and help recognise the importance of the fishery [Actions 6 iii] and 7 ii)].</li> </ul>
The fishery's ecosystem is significantly impacted by expansion of known marine pests or invasion of new marine pests (species of relevance include but are not limited to green shore crab, Pacific oyster, New Zealand screw shell, broccoli weed, Wakame, Northern Pacific sea star, and European fan worms).	<ul> <li>Continue to engage with Agriculture Victoria and Parks Victoria in relation to marine pest incursions [Action 7 iii)].</li> </ul>
Sea urchin populations increase significantly causing an unacceptable reduction in seagrass coverage.	<ul> <li>Continue to support management arrangements for other licences/permits that enable commercial take of sea urchin in Corner Inlet to reduce numbers as required [Action 7 iii)].</li> <li>Continue to engage with and support Parks Victoria in relation to sea urchin management in Corner Inlet [Actions 6iii) and 7 iii)].</li> </ul>
Climate change and weather extremes impact the long-term sustainability of fish stocks.	<ul> <li>Continue to monitor stocks and adjust management arrangements as required [Action 1 iv)].</li> <li>Maintain flexible and diverse fishing methods and management arrangements to maintain a viable and sustainable fishery [Action 3 i)].</li> </ul>
A combination of sediment and nutrients from urban and agricultural run-off, dredging, and small boat activity reduce water quality and cause a decline in seagrass.	<ul> <li>Maintain awareness of changes in seagrass coverage and how this may impact catches in the fishery and respective management arrangements [Action 7 i)].</li> </ul>
Commonwealth licensed trawl fishers target mature King George whiting that are part of the spawning stocks in the south east.	<ul> <li>Seek that Australian Fisheries Management Authority implement a 50kg trip limit for take of King George whiting by Commonwealth trawlers [Action 2 ii)].</li> </ul>

# Appendix 4: Key performance indicators for higher risk flathead species

**Rock Flathead mesh net** 



Catch-per-unit-effort (CPUE) of Rock Flathead by seine net in the Corner Inlet during 1978/79 –2020/21 financial years. Black line is nominal CPUE (±SE), magenta line is standardised CPUE, blue line is a generalised additive model (GAM) of the standardised CPUE trend with the shaded grey area representing the 95% confidence interval of the GAM. Horizontal black line is the mean standardised CPUE during the reference period (1986–2015) and the dashed black line is the minimum standardised CPUE within the reference period. Source: VFA 2021 stock review (TBC).



#### Other<sup>33</sup> Flathead mesh net

Catch-per-unit-effort (CPUE) of Other Flathead by commercial mesh net in the Corner Inlet during 1978–2018 financial years. Black line is nominal CPUE (±SE), magenta line is standardised CPUE, blue line is a generalised additive model (GAM) of the standardised CPUE trend with the shaded grey area representing the 95% confidence interval of the GAM. Horizontal black line is the mean standardised CPUE during the reference period (1986–2015) and the dashed black line is the minimum standardised CPUE within the reference period. Source: VFA 2019 stock review (to be updated)

<sup>33</sup> There is some uncertainty around the accuracy of commercial catch reporting for southern bluespotted flathead and sand flathead species.