1 THE HISTORY OF FISHING AND FISHERIES MANAGEMENT IN NEW SOUTH WALES

This chapter sets out the history of fishing in New South Wales from pre-European colonisation to the introduction of the Fisheries Management Act 1994. Significant events in relation to recreational and commercial fishing, State and Commonwealth fisheries management and fisheries research are listed chronologically.

1.1 Aboriginal Fisheries Exploitation Prior to Colonisation

Prior to colonisation by Europeans, both the inland and coastal fisheries of New South Wales were exploited by aboriginal people for food and trade. Fishing technologies used included nets, hook and line, spears, and fixed and moveable traps. There is evidence that both women and men took part in fishing activities, and that canoes and berley were also utilised.

Although fish constituted a significant proportion of the diet of coastal aboriginal communities, aboriginal fishing activity appears to have had little impact on fish populations or distributions. Analysis of estuarine and coastal mounds of shells and fishbones, known as middens, around the Sydney area indicates that snapper, bream, groper, wrasse, morwong, mulloway, leatherjacket, flathead, tailor, blackfish, and various molluscs were eaten by local tribes.

1.2 1788 to 1864: Initial European Fishing Activity

Small scale fishing activity by Europeans commenced immediately after the establishment of the colony at Port Jackson in 1788. The strain of over 1,000 extra

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3 NSW Fisheries (1997). Heritage and Conservation Register, NSW Fisheries, Sydney, p 13

4 NSW Fisheries (1997), Heritage and Conservation Register, pp 15-16
mouths to feed on the area’s natural resources, including its fisheries, contributed to the starvation of Aborigines during the winter of 1788. In response, Governor Phillip issued a General Order to fishing parties to give part of their catch to Aborigines if approached.\(^5\)

The earliest reference to a local commercial fishing industry appears in the Sydney Gazette of 14 December 1806, which referred to a boatload of salted fish that was landed at the Hospital Wharf, Circular Quay. Fish auctions were first held in Sydney about 1827.\(^6\)

Whaling was the dominant form of commercial fishing in NSW in the first half of the 19th Century. Whaling was undertaken primarily for export, with whale products being the leading export of the Colony until 1833.\(^7\) Although whaling declined in the second half of the century as the demand for whale oil fell (due to increased use of gas for lighting and cooking), the industry did lead to the establishment of ports which later re-emerged as major centres in NSW for the deep-sea fishing industry, with Eden being the most prominent.\(^8\)

As whaling declined, some of those in the industry turned to supplying table fish for local consumption. This industry was geographically constrained by limitations on the transport of fish due to putrefaction, the tainting of other goods during transit, and a relatively small local population centred on Sydney. Michael Lorimer, in his MA Thesis, *The Technology and Practices of the New South Wales Fishing Industry 1850 - 1930*, notes that by the 1860s:

> The only significant market was that of Sydney, which was supplied by a small group of fishermen living in the... suburbs around Port Jackson. Using small open boats, no longer than 25 [feet], propelled by sail and oars, they worked the enclosed waters of Port Jackson and the nearby offshore reefs and headlands. The number of operating fishing boats is unclear from the very limited documentary data available. I would

\(^5\) NSW Fisheries (1997), Heritage and Conservation Register, p 15

\(^6\) NSW Fisheries (1997), Heritage and Conservation Register, p 18


\(^8\) Pownall (1979), Fisheries of Australia, p 91
suggest that there were less than 25 boats... Fish, at this time, was a luxury item rather than a normal feature of the diet... Between 1850 and 1863 the fishing industry remained static with fish reaching the Sydney consumer regularly from Port Jackson and occasionally in winter from Broken Bay and Botany Bay.\(^9\)

### 1.3 1865 to 1888: Technological Innovation, Government Intervention, and the Introduction of Trout

By the mid-1860s the use of fine-mesh nets that destroyed large quantities of fry and the practice of ‘stalling’, whereby fixed nets were used to isolate shallow bays or mud flats at high tide in order to leave fish stranded at low tide, had seriously depleted stocks in the waters around Sydney. Eventually concerned fishers enlisted the assistance of Richard Driver Jnr MLA in bringing the matter before a Parliamentary select committee.\(^10\)

Gerard Carter, former Legal Officer with NSW Fisheries, has noted that:

> The outcome of the Select Committee’s considerations was the *Fisheries Act 1865*. That Act divided the year into winter and summer months and specified the description of nets which could lawfully be used during... [each] period. The Act also made it an offence to fix or stake any net within a mile of the shore or at the mouth of any river. The administration of the Act was entrusted to the Police and Customs Departments.\(^11\)

Regular fish shipments to Sydney from outside the Greater Sydney Region commenced in the early 1870s with the introduction of steamships.\(^12\) The expansion

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\(^11\) G Carter (1986). *Fisheries Law in New South Wales*, NSW Department of Agriculture, Sydney, p 19

of the commercial fishing industry was further encouraged with the erection of a fish market building in Woolloomooloo by the Sydney Municipal Council in 1872, the widespread availability of ice from butter factories, and the expansion of the railway networks emanating out of Sydney and Newcastle in the 1880s.\(^\text{13}\)

Despite the restrictions of the *Fisheries Act 1865*, overfishing continued in the Sydney area with the 1880 Royal Commission on Fisheries commenting that:

> Port Jackson, although at one time, and not many years ago, holding a very high rank among our fishing grounds for all kinds of the best net fish, is now scarcely deserving as being regarded as a source of supply at all. And this is owing... to the ceaseless and often wanton process of netting to which every bay and flat has been subjected for the past fifteen or twenty years. The wholesale destruction within the harbour caused by... nets... with meshes almost small enough for a naturalist’s hand has of course produced its natural effect on the outside grounds, where the snapper can now only be taken in very small quantities...\(^\text{14}\)

In relation to species introduction and translocation into the Colony’s inland fisheries the Royal Commission reported:

> There can be no doubt that the transfer from one part of the country to another of the best of our fresh-water fishes is a much more sensible and feasible proceeding than the introduction with much trouble and at great expense of some of the most useless fishes of the European rivers. Old associations, however natural, connected with the names of gudgeon, carp, perch, &c., should not induce us to stock our rivers or fish-ponds with such inferior fishes. But it is quite possible to go too far even in the much better direction of the transfer of our western fishes to our eastern waters. The cod, as we have before observed, is a most destructive fish,
swallowing up everything that comes in its way, not excepting its own species; and its introduction into new waters might result in the final destruction of other kinds. Some caution, therefore, should be used in the introduction of such a formidable fish; more particularly when from the same near source we can get supplied with fish of much better quality and less destructive tendencies. We allude to the fishes known in the Murrumbidgee as the “golden perch” and “silver bream” ... For the purposes of food and all other objects to be attained by the stocking with good fish of our eastern rivers and fish-ponds these fishes are infinitely superior to the cod, and their ova can be obtained for transport with ease.\footnote{15}

The Royal Commission recommended that a Fisheries Commission be established, and a year later the Colonial Government obtained passage of the \textit{Fisheries Act 1881} providing for five Commissioners acting in an honorary capacity.

Carter has pointed out that:

\begin{quote}
The \textit{Fisheries Act 1881} was the first comprehensive legislation in New South Wales dealing with fisheries. The Act set up a body of five Commissioners to administer the Act and provided for the regular supervision of the fisheries by inspectors. Extensive regulation-making powers were vested in the Governor. The Act dealt with fishing nets, closed seasons for net fish, closed fisheries, fishermen’s and boat licences, prawn fishing, torpedoes and dynamite, unmarketable (under-weight) fish ... protection of certain fish and the territorial jurisdiction of the Act.\footnote{16}
\end{quote}

Dissatisfaction among commercial fishers with the degree of Government intervention in the industry following the implementation of the \textit{Fisheries Act 1881} led to another inquiry into the industry by a select committee of the Legislative Assembly. The result was the \textit{Fisheries Act (Amendment Act) 1883} which reduced the regulation of the industry.

\footnote{15} Fishries Inquiry Commission (1880), Report of the Royal Commission 13 May 1880, p 37
\footnote{16} Carter (1986), Fisheries Law in New South Wales, p 20
The abundance of naturally occurring oysters was a significant aspect of fisheries in New South Wales last century, with the NSW oyster industry supplying both Sydney and Victorian demand from the 1850s to the 1870s. As with other fisheries, over-exploitation came to affect the oyster industry and by the 1870s the oyster beds were showing signs of exhaustion. In response, the Government obtained passage of the *Oyster Beds Act 1884* which limited foreshore leases to a maximum length of 2,000 yards and lease terms to 15 years. However, by this time overfishing and the worm *polydora ciliata* had all but destroyed the natural beds which had been the mainstay of the industry. Subsequently oyster collectors discovered that the foreshore or rock oyster was more resistant to the worm and began to limit themselves to collecting naturally occurring rock oysters.

The first documented releases of trout into New South Wales waters occurred in 1888, although trout may have been released for sport by anglers as early as 1872. During 1888, 300 yearling brown trout were released in the Yass, Braidwood and Monaro districts by Mr John Gale and Mr F Campbell of Queanbeyan, and the NSW Fisheries Commission released around 2,000 brown trout fry around Armidale and 300 yearling brown trout in the upper reaches of the Shoalhaven River. All of these fish were sourced from Victoria and released for recreational use. The first fish hatching in New South Wales occurred the following year, with 5,000 brown trout eggs being incubated in Phillip Street, Sydney.

By this time, the commercial industry had explored most of the estuarine and near-shore fishing grounds within NSW, with commercial activity stretching from Twofold Bay in the south to the Clarence River in the north. Lorimer has provided the following with regard to the relative importance of specific fishing grounds in 1888:

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18 An Act for the Amendment of the “Fisheries Act 1881“, the Promotion of Oyster Culture and the Regulation of Oyster Fisheries 1884


The major supplier [to the Sydney market] was now the Clarence River (15.62 per cent), followed by Port Stephens (11.78 per cent), Botany Bay (11.27 per cent), Lake Illawarra (9.44 per cent), Lake Macquarie (8.35 per cent), with another 14 areas supplying the remainder.22

1.4 1889 to 1913: Creation of the Fisheries Board and Initial Fisheries Research

In the late 1880s some within the commercial fishing industry were still unhappy with what they believed to be an onerous degree of Government regulation and enlisted the support of Frank Farnell MLA. Farnell criticised the Fisheries Commission in Parliament “for want of practical knowledge, and the officers under them for their administration of the Act”.23 Another Parliamentary select committee that included Farnell among its membership was appointed. This committee reported in August 1889 that the Act was unnecessarily restrictive and operated harshly upon those in the industry, recommending that the Fisheries Commission be abolished24 A second royal commission into the industry, conducted between 1894 and 1895, also criticised the Fisheries Commission, concluding that the Commissioners “do not seem to have given any attention to the development of the fisheries”, and advocated the undertaking of further research activity.25 Despite these criticisms, no further legislative action was taken until the turn of the century.

In 1894 the first documented capture of trout from New South Wales waters was achieved by Mr R U B Rose, of Dalgety. In the same year rainbow trout were first imported into New South Wales in the form of eggs from New Zealand26 and the NSW Fisheries Commission built trout hatching troughs below Prospect Reservoir.


23 Godden Mackay Consultants (1997), NSW Fisheries Heritage and Conservation Register, pp 20-21

24 Godden Mackay Consultants (1997), NSW Fisheries Heritage and Conservation Register, pp 20-21

25 Royal Commission on Fisheries 1894-5, pp 33, 35

26 T C Roughley (1961). Fish and Fisheries of Australia, Angus and Robertson, Sydney, pp 282-283
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The following year Prospect Hatchery was established. This was the State’s first fish hatchery, with large scale releases of rainbow, brown, and loch leven (salmo levenensis) trout commencing from 1898.\textsuperscript{27}

At this early stage in development of the recreational inland fishery, the Fisheries Commissioners relied upon individuals with an interest in trout acclimatisation for information in relation to the success of trout introductions into each area. The Commissioners also encouraged catch-and-release practices for conservation purposes. Referring to trout, the Commissioners report of 1899 stated:

\begin{quote}
Until these fish are thoroughly established the Commissioners look to the local people to protect them.
\end{quote}

\begin{quote}
Many fishing enthusiasts in the interior have supported us in this respect by returning trout to the water when caught on lines baited for other fish, and it is the desire of the Commissioners that similar action should be taken in those waters that are only sparingly supplied with this species of fish.\textsuperscript{28}
\end{quote}

The reasoning behind the large scale introduction of trout was given by the Fisheries Commissioners in 1900:

\begin{quote}
To realise the efforts we are making to stock our rivers with trout, it should be borne in mind that many of the waters in which they are being liberated are devoid of edible fish life. On the eastern slopes of our northern tablelands the only edible inhabitants of the streams are eels, and on the western slopes there are no fish except where cod have been introduced from the rivers of the plain country.

Very much the same may be said of the streams of the western and southern highlands. A food supply of great commercial
\end{quote}

\textsuperscript{27} NSW Fisheries (1997), Heritage and Conservation Register, p 24

\textsuperscript{28} Fisheries Commissioners (1899). Fisheries of the Colony, Report of Commissioners of Fisheries for Year 1898, NSW Legislative Assembly, p 8
value is thus being introduced into the waters of these districts where no food supply previously existed.\textsuperscript{29}

The commercial inland fishery began to be developed on the Murray-Darling system in the mid to late 1800s, with golden perch and Murray cod being regularly supplied to the Sydney, Melbourne and Adelaide fish markets. Murray cod dominated early catches, comprising 75 per cent of river fish available at the Melbourne Wholesale Fish market in 1900.\textsuperscript{30} The sustainability of the fishery was questioned as early as 1899, with the Fisheries Commissioners requesting legislative action to ban the use of traps which spanned the entire stream and therefore prevented free fish passage up and down the river.\textsuperscript{31}

In 1898, in line with the recommendations of the second Royal Commission into the fishing industry, the Colonial Government commissioned HMCS \textit{Thetis} to undertake trawling experiments off the New South Wales coast. These experiments, which were carried out as far north as the Manning River and as far south as Jervis Bay, met with some success.

In 1900 the demand for fish plummeted as a result of a serious fish-kill in Port Jackson, thought to be a consequence of the use of chemicals in response to the bubonic plague outbreak in Sydney. In response to this threat to the industry’s viability, the Fisheries Commissioners closed Port Jackson to commercial fishing. In addition, the See Government obtained passage of the \textit{Fisheries Act 1902}, which:

\begin{quote}
... prescribed a Board consisting of a chairman (appointed by the Governor for three years) and nine other members, one required to be a licenced fisherman of five years’s standing and an oyster lessee of equal experience... and six representatives of the crown. The Board was given extensive powers and responsibilities under the new chairman, Frank Farnell, to supervise the industry, to carry out investigations likely to be of service, and to ensure observance of regulations
\end{quote}

\textsuperscript{29} Commissioners of Fisheries (1900). Fisheries of the Colony, Report of the Commissioners of Fisheries for Year 1899, NSW Legislative Assembly, p 9

\textsuperscript{30} Kailola et al (1993), Australian Fisheries Resources, p 264 & p 267

\textsuperscript{31} Fisheries Commissioners (1899), Fisheries of the Colony, p 7
regarding dimension of nets, closure of inland and tidal waters, net-fishing etc.  

The Government also engaged Harald Dannevig as NSW Superintendent of Fisheries Investigations and Fish Hatcheries in 1902. Dannevig had been in charge of the Aberdeen Marine Fish Hatchery, Scotland. David Stead, a naturalist, was appointed as Scientific Assistant to Dannevig. Upon arrival Dannevig quickly selected a site at Port Hacking in the vicinity of Cronulla for the construction of a marine fish hatchery to replace a temporary facility on the southern shore of Port Hacking near the village of Bundeena.

By 1905 a strong oyster industry based on farming had been established in New South Wales.

Dannevig wrote:

A considerable proportion of the foreshores and shallow areas of the river estuaries are most excellent natural oyster-beds, where fine oysters are annually procured in large quantities. These areas are leased from the Government by private people, who through constant attention to the beds are able to materially increase the natural yield; about 391,921 lineal yards of foreshore are at present held in this manner, from which the Government derives an annual revenue of about £4,000. The wholesale value of the oysters taken is estimated at about £27,000 yearly, and in retail a similar additional amount is approximately realised.

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32 Godden Mackay Consultants (1997), NSW Fisheries Heritage and Conservation Register, pp 23-27
33 Godden Mackay Consultants (1997), NSW Fisheries Heritage and Conservation Register, pp 26-29
34 NSW Fisheries (1997), Heritage and Conservation Register, pp 24-31
35 Dannevig contribution in W H Hall (1906). The Official Year Book of New South Wales 1904-5, Government of New South Wales, p 757
In 1906 construction of the Port Hacking fish hatchery was completed. A major aim of the hatchery was the acclimatisation of fish from other parts of Australia, a task in which the hatchery met with only limited success.\footnote{36} Meanwhile, the Federal Government decided to have a trawler built to explore the Australian coast for possible trawling grounds. This boat was built at the NSW Government shipyard at Newcastle and commissioned, in 1909, as HMAS \textit{Endeavour}. Harald Dannevig, who was by then the Commonwealth Director of Fisheries, was appointed to lead the investigations and the first explorations were undertaken around Shoalhaven Bight during the same year. T C Roughley has written that:

The work of the \textit{Endeavour} laid the foundation for commercial trawling in Australian waters, for it demonstrated convincingly that there were at least two areas, one along the south-eastern Australian coast, the other in the Great Australian Bight, where fish of good edible quality existed in quantities comparable with the best of the grounds in the northern hemisphere.\footnote{37}

In 1910, the Wade State Government introduced the \textit{Fisheries (Amendment) Act 1910}. According to Godden and Mackay the new legislation:

... amended the 1902 Act by establishing the principle of Ministerial administration and the former Board of Fisheries became the Fisheries Branch of the Chief Secretary’s Department. The amended Act ‘contemplated’ the appointment of a Chief Inspector of Fisheries and an Advisory Board consisting of no more than five persons to advise the Minister, who was charged with the control and regulation of the sale of fish and oysters, whether produced in the state or imported. The amendment was not implemented until early in 1911 when it was ‘not deemed necessary to... appoint... an Advisory Board as experience has shown that such a board is not so far necessary’.\footnote{38}
Despite its geographical expansion late last century, the fishing industry was still carried out on a small-scale basis. The 1911 Royal Commission on Food Supplies and Prices noted “a lack of organisation along commercial lines” with the supply of fish to the Sydney market being largely dependent on fishers working individually or in groups of two or three. The Royal Commission also noted that fishers had relatively little capital invested in the industry and earned relatively low incomes.\(^\text{39}\)

Despite the relatively low earnings from fishing, there was a marked increase in the number of commercial fishers in New South Wales between 1901 and 1913, when there were 706 and 2,220 fishers respectively. By 1929 the number of commercial fishers in New South Wales had declined marginally to 2008.\(^\text{40}\)

### 1.5 1914 to 1930: Widespread Use of Motorised Fishing Vessels and the Establishment of Government Fishing Operations

NSW commercial fishers began using motorised boats during the early 1900s following the introduction of steam and petrol powered boats in Britain in the 1880s. While steam engines could effectively power large trawlers, they proved to be unsatisfactory for smaller boats, requiring constant attention and taking up a large proportion of the hull. This led the generally small-scale New South Wales commercial fishing industry to use small, petrol powered boats suitable for teams of two or three.\(^\text{41}\)

The first sectors of the industry to use motorised boats were the offshore crayfishing and snapper fleets, allowing fishers to reach the limit of their fishing grounds and return in one day. The mechanisation of estuary-based fleets took place over a longer period due to the lower economic return attached to this activity.\(^\text{42}\)

\(^{39}\) NSW Parliament (1911). Royal Commission on Food Supplies and Prices 1911-1912, Report, NSW Government, Sydney, p 27

\(^{40}\) Lorimer (1984), The Technology and Practices of the New South Wales Fishing Industry, table 6

\(^{41}\) Lorimer (1984), The Technology and Practices of the New South Wales Fishing Industry, pp 48-52

\(^{42}\) Lorimer (1984), The Technology and Practices of the New South Wales Fishing Industry, pp 48-52
Prior to the First World War, estuary-based fishing dominated the NSW catch, with less than 10 per cent of the Sydney fish supply coming from off-shore fisheries in 1912. In 1914 the Holman Government decided to set up a publicly-owned company called the State Trawling Industry to encourage the development of off-shore fishing and to supply Sydney and Newcastle with large quantities of cheap fish. David Stead was sent to Great Britain to examine steam trawling methods and acquire the necessary ships and crews. Three such ships arrived in April and May 1915. Trawling operations began in June of the same year, landing large quantities of fish. In 1916 the Government decided to expand its fishing operations and placed an order for three more trawlers with the State Dockyard in Newcastle. The Government also established an integrated fishing and marketing system, with the new company opening four retail outlets in Sydney by 1916. By 1922 this network had grown to 20 outlets, 14 of which were in the Sydney area.

In terms of impact on the market, these trawlers were noticeably successful. Lorimer has remarked that “Quite rapidly the trawlers captured almost fifty per cent of the Sydney market”. By 1919 new coastal depots had been opened by the State Trawling Industry for receiving, cleaning and distributing the trawler catch on the Clarence River, at Port Stephens, at Newcastle, at Eden and on the St Georges Basin.

The tourism benefits of recreational fishing were also beginning to be recognised around this time. The 1916 Official Year Book of New South Wales noted:

Trout fishing now constitutes an important attraction for tourists and sportsmen in the districts watered by the Murrumbidgee and Snowy Rivers and their tributaries.

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43 NSW Parliament (1911), Royal Commission on Food Supplies and Prices 1911-1912, pp 27-28
44 Lorimer (1984), The Technology and Practices of the New South Wales Fishing Industry, pp 72-74
45 Lorimer (1984), The Technology and Practices of the New South Wales Fishing Industry, pp 72, 115
47 1916 Official Year Book of New South Wales, p 1185
While off-shore commercial fishing and recreational angling grew rapidly during World War One, fisheries research in New South Wales suffered a significant setback during the same period with the closure of the Port Hacking fish hatchery for the duration of the war.\(^4^8\)

By 1920, in the face of consistently large financial losses arising from State Trawling Industry operations, the Storey Government replaced David Stead with a Mr Summer-Greene as Manager. Lorimer notes that, “Summer-Greene... began a major cost-cutting program, starting by closing most of the coastal depots and gradually reducing the number of retail shops”.\(^4^9\)

In 1923 the Fuller Government decided to sell off the operation which had a running loss of over £180,000.\(^5^0\) The steam trawlers were eventually sold to private companies.

In 1928, trout releases in New South Wales exceeded one million for the first time.\(^5^1\)

By 1930 the NSW trawling industry was concentrated into three main companies, namely: Coastal Trawling Limited, which was soon joined in a merger with Red Funnel Trawlers; Cam and Sons, formed by the Italian C Caminetti who had imported a number of trawlers from Italy; and A A Murrell, who began in 1926 with an English trawler, acquiring a second in 1929 and more in 1930.\(^5^2\)

### 1.6 1931 to 1945: Conservation Concerns and Further Technological Innovation

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\(^{48}\) Godden Mackay Consultants (1997), NSW Fisheries Heritage and Conservation Register, pp 31-36

\(^{49}\) Lorimer (1984), The Technology and Practices of the New South Wales Fishing Industry, p 74

\(^{50}\) Lorimer (1984), The Technology and Practices of the New South Wales Fishing Industry, pp 74-75

\(^{51}\) State Fisheries (1939), Report on the Fisheries of New South Wales for the Year Ended 30th June 1938, NSW Legislative Assembly, Sydney, p 7

\(^{52}\) Lorimer (1984), The Technology and Practices of the New South Wales Fishing Industry, p 75
In delivering large quantities of fish to the State’s markets, steam trawlers had a marked impact on tiger flathead stocks. Sloane, Cook and Company have observed that, despite the high catches during the 1920s (towards 4,000 tonnes in some years), “Catches fell rapidly and progressively after 1931 ... resulting in the voluntary restriction of the fleet to 13 boats (down from a maximum of 17) in 1935.”

In 1934 the Stevens Government decided to repeal the existing fisheries legislation and replace it with what became the *Fisheries and Oyster Farms Act 1935*. In introducing the new bill, the Colonial Secretary, Frank Chaffey, noted:

> Right throughout the history of fisheries in this state the revenues derived have, in some years, been many thousands of pounds short of the expenditure... in the majority of cases there will be increases on what is being paid at the present time.

A few weeks later, Chaffey informed Parliament that the proposed “licence fee varies according to size from 5s. to £25. The object is to secure revenue from owners of large vessels of 100 tons or more.”

In 1935 control of trout streams and the supervision of hatcheries was transferred to Acclimatisation Societies. The Department did not regain control over these activities until 1959.

In 1936 a new form of trawling, Danish seining, was introduced into New South Wales. This technique eventually became the dominant trawling method. Danish seining was carried out by vessels up to 80ft in length in ocean waters generally shallower than those fished by steam trawlers (between 55 and 75 metres). The

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55 *Sydney Morning Herald*, 3 October 1935, p 15

56 Roughley (1961), *Fish and Fisheries of Australia*, p 283

57 NSW Parliament (1953), Parliamentary Committee on Fish Marketing 1953, NSW Government, Sydney, p 6
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technique involves the use of a net secured to the boat by a long rope at each end and the following procedure: One of the ropes is attached to a buoy and thrown overboard; The boat then turns to form a large loop with the net at the far end; The boat then moves ahead with the action of the ropes in the water guiding the fish into the net; When the ropes and the net have almost been drawn together by the fish enclosed, the net is hauled on board. 

According to T W Houston, from the late 1930s onwards:

... seiners commenced working along the New South Wales coast... and the annual total catch... reached a peak in the financial year 1938-39. Normal fishing operations were curtailed in 1939, and in 1940 most of the fishing vessels were taken over for wartime duties. Production decreased as a consequence and it was not until 1944-45, when the fleet was being rehabilitated, that the annual total catch showed signs of improvement. The trend of rising catch culminated in 1946-47 with the third and highest peak of production... The... seiners, working mainly from the ports of Newcastle, Sydney, Wollongong, Ulladulla, and Eden, mostly fish[ed] the grounds close to their home ports but occasionally move[d] up and down the coast according to reports of availability of fish.

In 1937 the Commonwealth’s Council for Scientific and Industrial Research (CSIR) proposed using the Port Hacking fish hatchery site as a centre for its fisheries research. At that time, the NSW Fisheries Division had only recently resumed significant research at the hatchery. Nevertheless, the following year the site was transferred to the Commonwealth on condition that it also house the NSW Fish Biology Branch and allow occasional use by students of the University of Sydney.

In 1941 the McKell Government decided to take an interventionist approach to the commercial fishing industry, obtaining passage of the *Fisheries and Oyster Farms*

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58 NSW State Fisheries and NSW Fish Marketing Authority (1979). *Fisheries and Fish Marketing in NSW*, NSW Fish Marketing Authority, Sydney, p 11


60 Godden Mackay Consultants (1997), *NSW Fisheries Heritage and Conservation Register*, pp 38-39
(Amendment) Act 1942 the next year. As the 1953 NSW Parliamentary Committee on Fish Marketing commented, this Act altered the 1935 Act:

to make provision for the constitution of fish districts and to require all fish sold for human consumption to be first brought to and sold in the markets established in such districts. It also provided, inter alia, for the cancellation of agents’ licences and the conduct of markets by the Chief Secretary as a corporation sole.\textsuperscript{61}

Two years later the then Prime Minister, John Curtin, requested the support of the McKell Government “in the organisation of the fishing industry on a co-operative basis for the purpose of rationalising the marketing and distribution of fish”. The bill introduced by the McKell Government to implement this was rejected in the Legislative Council. In response the McKell Government in 1945 invoked “the provisions of the 1942 legislation... and control of the Sydney Fish Market was assumed by the Chief Secretary as a corporation sole.”\textsuperscript{62}

Due to its lower capital cost and use of smaller, less powerful boats, Danish seining was actively promoted by the Government during and shortly after World War Two in the hope that it would lead to an expansion of the industry and open up new fishing grounds.\textsuperscript{63} A New South Wales Parliamentary committee, established in 1953 to inquire into fish marketing, reported that the main Danish seining activity at that time occurred from Port Stephens in the north to Eden in the south.\textsuperscript{64} The introduction of seine trawling was significant for it eventually was responsible for expanding the catch of certain species and opening up new fishing grounds, particularly ocean prawning.\textsuperscript{65}

\textsuperscript{61} NSW Parliament (1953), Parliamentary Committee on Fish Marketing 1953, p 5

\textsuperscript{62} NSW Parliament (1953), Parliamentary Committee on Fish Marketing 1953, p 5

\textsuperscript{63} P Williamson (1984). Growth and Management of the New South Wales Demersal Fisheries, M Ec Thesis, University of Sydney, p 27

\textsuperscript{64} NSW Parliament (1953), Parliamentary Committee on Fish Marketing 1953, p 6

\textsuperscript{65} V C F Han (1962). “The Australian Fishery for Morwong”, Fisheries Management Seminar Papers, Sydney, Fisheries Division, Department of Primary Industry, Canberra, pp 41-45
1.7 1946 to 1979: Establishment of Fish Cooperatives and Stricter Licensing Requirements

Following World War Two the Federal Government renewed its efforts in the area of fisheries research aimed at developing new fisheries. For example, in 1957 the Commonwealth Government funded a prawn survey off the east coast by the trawler *Challenge*. The success of the survey resulted in large numbers of boats commencing commercial operations from NSW ports.\(^\text{66}\)

From 1946 the Commonwealth Government began establishing fishermen’s cooperatives in all states as part of the post World War Two reconstruction programme.\(^\text{67}\) Thirteen were subsequently formed up and down the NSW coast as follows:

**TABLE 1.1**\(^\text{68}\)
Formation of Fishermens Co-operative Societies

<table>
<thead>
<tr>
<th>Fishermen’s Co-operative Societies</th>
<th>Year of Formation</th>
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<tbody>
<tr>
<td>Clarence River</td>
<td>1946</td>
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<tr>
<td>Macleay River</td>
<td>1946</td>
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<tr>
<td>Laurieton</td>
<td>1946</td>
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<tr>
<td>Byron Bay</td>
<td>1947</td>
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<td>Bermagui</td>
<td>1947</td>
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<td>Hastings River</td>
<td>1947</td>
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<tr>
<td>Nambucca River</td>
<td>1947</td>
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<tr>
<td>Wallis Lake</td>
<td>1947</td>
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<tr>
<td>Evans Head</td>
<td>1947</td>
</tr>
</tbody>
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\(^{66}\) Sloane, Cook and Company (1978), The Demersal Fishing Industry in New South Wales, vol I, p 24

\(^{67}\) J Glaister (1996). Review of Fisheries Consultation in New South Wales, NSW Fisheries, Sydney, p 41

\(^{68}\) NSW Parliament (1953), Parliamentary Committee on Fish Marketing 1953, p 8
Other co-operatives were later established at Wooli, Coffs Harbour, Crowdy Head, Port Stephens, Mannering Park, Tuggerah, Hawkesbury River, Wollongong, Lake Illawarra, Greenwell Point and Ulladulla.  

In 1949 the McGirr Government obtained passage of the *Co-operation (Amendment) Act 1949* which provided for:

> The granting of approval by the Governor, subject to certain conditions, to co-operative trading societies to establish, operate and control fish markets... The establishment of advisory committees to make recommendations to the Minister in relation to the promotion, etc of co-operatives of particular types...  

In the early 1950s the Commonwealth Government sought to assert greater authority over the number of fishing boats operating in its territorial waters with the Menzies Government obtaining passage of the *Fisheries Act 1952*. This Act was the first comprehensive Federal fisheries act and provided for Commonwealth licensing and regulation of Australian fishing boats operating between 3 miles and 200 miles offshore. The states retained control over fishing in their territorial seas out to 3 miles.  

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70 NSW Fish Marketing Authority (1971). *Fish Marketing in New South Wales: Historical Summary*, NSW Fish Marketing Authority, Sydney, p 2  
Chapter One

Preservation of NSW fish stocks continued to be a problem throughout the 1940s and 1950s. A 1953 NSW Parliamentary committee reported that a degree of oversight and control over the operations of fishers and the prevention of the sale of undersized fish was necessary to protect stocks and fishing grounds.\(^{72}\)

In 1958 a general NSW freshwater angling license was established, replacing the existing trout angling fee paid to the acclimatisation societies.\(^{73}\) These licenses cost £1 per annum, with 49,350 being issued during 1958-59.\(^{74}\)

In 1961 what is now the Narrandera Fisheries Centre was opened to conduct inland fisheries research.

In the same year the last remaining steam trawler ceased operations following continued overfishing of flathead. This represented a rapid decline of the method, with the major steam trawling companies, Red Funnel and Cam and Sons, having collectively owned around ten steam trawlers during the early 1950s harvesting about 30 per cent of the NSW catch (around 2,800 tonnes).\(^{75}\)

In 1963, following long-running negotiations between commercial fishers and the New South Wales Government, the Heffron Government established the New South Wales Fish Authority and obtained passage of the *Fisheries and Oyster Farms (Amendment) Act 1963*. This Act conferred on the Authority the conduct and management of Fish Markets previously maintained by the Chief Secretary from 18

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\(^{72}\) NSW Parliament (1953), *NSW Parliamentary Committee on Fish Marketing 1953*, p 12

\(^{73}\) NSW Fisheries (1997). *A Freshwater Recreational Fishing Fee?*, Discussion Paper, p 1

\(^{74}\) Roughley (1961), *Fish and Fisheries of Australia*, p 284

\(^{75}\) NSW Parliament (1953), *NSW Parliamentary Committee on Fish Marketing 1953*, p 6; and NSW State Fisheries and NSW Fish Marketing Authority (1979), *Fisheries and Fish Marketing in NSW*, p 21
April 1964. In 1966 the Fish Authority relocated the main Sydney market to a new, larger (6-acre) site at Pyrmont.

In 1968 the Commonwealth extended Australia’s declared fishing zone to 12 nautical miles from the coast, allowing the Commonwealth to regulate foreign boats within this zone. The Continental Shelf (Living Natural Resources) Act also came into force in 1968, extending Australia’s jurisdiction to the edge of the continental shelf for sedentary marine species such as pearl oysters.

Over-exploitation of New South Wales’ existing fishing grounds intensified during the 1960s. Peter Sloane has noted that, “By the late 1960s many of the grounds on the continental shelf were being heavily exploited and catches were static or falling”.

In response to declining catches, the Askin Government intensified fishing research effort by building and equipping the 82-ft (25m) fisheries research vessel Kapala to undertake intensive marine resources surveys. The Kapala began operations in 1970 and was fitted with modern electronic fish-finding navigational aids and catching gear.

The Fish Marketing Authority later described the significance of the Kapala’s contribution to the development of new fishing grounds as follows:

> commercial stocks of gemfish and ... other deep-water fish ... were proven during the early 1970s by the ... Kapala. As the results of Kapala’s exploratory fishing were made available to commercial trawl fishermen, they shifted their efforts from the more inshore fisheries to the newer waters... What has been happening is an important shift of fishing effort to deeper waters, accompanied by a change in the composition - rather than the size - of the total ocean waters catch sent to market...

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76 NSW Fish Marketing Authority (1971), Fish Marketing in New South Wales: Historical Summary, p 5

77 Kailola et al (1993), Australian Fisheries Resources, p 62


79 Pownall (1979), Fisheries of Australia, p 111
By... 1976-7 the gemfish catch had grown 185 per cent in a year to 2,109,000 kilograms and was the single largest component of the trawl fish sent to market.\textsuperscript{80}

The growth of the gemfish catch is illustrated in the table below.

**TABLE 1.2** \textsuperscript{81}

Gemfish Catch in NSW: 1970s

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TONNES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971-1972</td>
<td>83 tonnes</td>
</tr>
<tr>
<td>1972-1973</td>
<td>90 tonnes</td>
</tr>
<tr>
<td>1973-1974</td>
<td>555 tonnes</td>
</tr>
<tr>
<td>1974-1975</td>
<td>649 tonnes</td>
</tr>
<tr>
<td>1975-1976</td>
<td>739 tonnes</td>
</tr>
<tr>
<td>1976-1977</td>
<td>2,109 tonnes</td>
</tr>
</tbody>
</table>

Another significant species of fish identified by the Kapala as amenable to mid-water trawling was the redfish, which grew from 94 tonnes landed in 1966-1967 to 1,421 tonnes in 1976-1977.\textsuperscript{82}

\textsuperscript{80} NSW Fish Marketing Authority (1971), Fish Marketing in New South Wales: Historical Summary, pp 8-9

\textsuperscript{81} Sloane Cook and Company (1978). The Demersal Fishing Industry in New South Wales, vol II, p 31

\textsuperscript{82} Sloane Cook and Company (1978), The Demersal Fishing Industry of New South Wales, vol II, pp 15-18
In 1972 the number of Danish seine trawlers operating in NSW waters peaked at 48.\textsuperscript{83} Danish seining then rapidly declined with the advent of otter trawling, when many Danish seiners were converted to the new method.\textsuperscript{84} The principal advantage of the new method was that light otter trawl gear could be used by small diesel-powered vessels.

In 1972 the Brackish Water Fish Culture Research Station, now the Port Stephens Research Centre, was opened. The Station initially focussed on prawn aquaculture but shifted its emphasis to oyster research later in the decade.

In January 1975 the Askin Government removed the administration of the Act from the Chief Secretary’s Department to the Minister for Lands and Forests. In 1976 the Wran Government established NSW State Fisheries as a separate department under the Minister for Conservation.\textsuperscript{85}

1979 was a significant year for both National and State fisheries management with the Commonwealth’s declaration of the Australian Fishing Zone and significant amendments to the State’s fisheries legislation. The declaration assumed sovereign rights over living resources within 200 nautical miles of the coast in anticipation of the 1982 United Nations Convention on the Law of the Sea.\textsuperscript{86}

When the Wran Government introduced the bill for what was to become the *Fisheries and Oyster Farms (Amendment) Act 1979*, Lin Gordon, the Minister for Water Resources and Conservation, declared that the new legislation would:

... amend section 25 of the [1935] Act by rearranging... the provisions relating to the licensing of professional fishermen... Many persons who are not genuine commercial fishermen have been granted licences in the past to the disadvantage of the full-time bona-fide commercial fishermen... in the general

\textsuperscript{83} NSW Parliament (1953), NSW Parliamentary Committee on Fish Marketing 1953, p 5; Williamson (1984), Growth and Management of the New South Wales Demersal Fisheries, p 28

\textsuperscript{84} NSW Fisheries (1997), Heritage and Conservation Register, p 21

\textsuperscript{85} Godden Mackay Consultants (1997), NSW Fisheries Heritage and Conservation Register, p 53

\textsuperscript{86} Kailola et al (1993), Australian Fisheries Resources, p 16
interests of the industry, it would appear to be necessary to clamp down on the part-time... fisherman, who wishes to fish only during the lucrative prawn and crayfish seasons... Consequently section 25 of the Act is to be amended to provide that a fisherman’s licence shall not be issued to a person... unless he proposes to derive the major part of his income from... the taking and sale of fish...87

Prior to this, commercial fishing in New South Wales had been open-access. While this new legislation laid the basis for the future introduction of fundamental changes in the operation of commercial fishing in the State88, the Wran Government remained generally in favour of open access. The then Director of NSW Fisheries, Donald Francois, commented in 1980 that “We think... natural forces ... operating in... [a] free enterprise system” were the appropriate basis for commercial fishing in New South Wales, rather than “government intervention.”89

The Fisheries and Oyster Farms (Amendment) Act 1979 also transformed the NSW Fish Authority into the Fish Marketing Authority and required the sale of all fish sent to the Sydney Metropolitan area to be conducted through the Sydney Fish Market in order to prevent private sales undermining the Authority’s new auction system.90

1.8  1980 to 1988: The Expansion of Deep Sea Trawling and the Inauguration of the South East Trawl Fishery

In the few years leading up to 1980 New South Wales fishers expanded their operations to deeper waters at the edge of the continental shelf to exploit mid-water

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87 Second Reading Speech. Fisheries and Oyster Farms (Amendment) Bill 1979. NSW Parliamentary Debates, Legislative Assembly, 28 February 1979, pp 2584-2585

88 Carter (1986), Fisheries Law in New South Wales, p 110


90 NSW State Fisheries and NSW Fish Marketing Authority (1979), Fisheries and Fish Marketing in NSW, p 51
stocks such as gemfish, mirror dory, ling and ocean perch. By the early 1980s, deep water catches accounted for the majority of total trawl landings.\footnote{SCP consultants (1996), Some Background Data on South-Eastern Australian Fisheries, p 7, citing Bureau of Agricultural Economics (1982), Survey Results of the South East Trawl Fishery 1978-79 - 1980-81, Bureau of Agricultural Economics, Canberra}

New methods and gear were required to take advantage of these new fisheries. According to Sloane:

\begin{quote}
The industry dealt with the problem of changing fishing techniques in two ways. At first, during the mid- to late 1970s, existing boats were refitted with new gear, particularly net drums and stern gantries... in the early to mid-1980s profitability in the industry was high. Commercial operators were willing and able to invest in new specially designed larger boats, with more powerful engines. They incorporated better on-board handling facilities, such as refrigerated seawater (RSW) tanks, for the larger catches being landed.\footnote{SCP Consultants (1996), Some Background Data on South-Eastern Australian Fisheries, pp 3-4}
\end{quote}

Other technological innovations which came into widespread use during this period were the echo sounder and satellite navigation (which allowed vessels to go closer to reefs).

In 1980 the NSW Minister for Fisheries, by an order published in the Government Gazette under the newly introduced section 22A of the \textit{Fisheries and Oyster Farms (Amendment) Act 1979}, declared the abalone fishery to be the State’s first restricted fishery.

The process has been described by Geoffrey Waugh, fisheries economist, as follows:

\begin{quote}
The introduction of the licence limitation scheme in 1980 by the New South Wales State Fisheries had as its object the restriction of effort to protect the stock and at the same time maintain ‘reasonable incomes’ to the fishermen... Under the scheme... the required number of divers was estimated by
\end{quote}
calculating the number of divers which current annual production rates could support at the income considered fair or reasonable as determined by... [an] economic survey... At an income of $24,750 this was equivalent to 22 divers on the basis of the value of the catch in 1977-78 and 30 divers on the basis of value of the catch in 1976-77. The goal for the State Fisheries was to reduce the number of divers (which was 131 full-time and part-time divers in 1977-78) towards this level, but at the same time ensure that the allocation of permits to dive for abalone... [were] granted on an equitable basis. A set of four criteria were determined in negotiations between State Fisheries and the United Abalone Divers’ Association to act as the basis for the allocation of permits. Under the agreement reached, a successful applicant... [had to] fulfil the following criteria: Three years active fishing in the fishery... An allowance to be made for longevity of a diver’s activity in the fishery... an allowance to be made for fishermen who do not satisfy criteria owing to illness... An allowance to be made for aborigines who have been engaged in taking abalone... Under these conditions 59 licences were issued ... All other divers were issued notices to immediately cease activities in the abalone fishery.93

In 1981 the Fraser Government announced that new facilities for the marine laboratories (of what had become the Commonwealth Scientific, Industrial and Research Organisation) would be built at Hobart. In late 1984, just prior to the completion of CSIRO’s new Hobart facilities, the Port Hacking research site was transferred back to the NSW Government. State marine fisheries research continued at Port Hacking assisted by the Fisheries Research Vessel Kapala.

By 1981/82, NSW fish landings had peaked at 28,000 tonnes. Although there was a sudden decline to 22,400 tonnes in 1983/84, finfish landings remained fairly stable at around 25,000 tonnes until the early 1990s.94

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Despite this catch stability, by the mid 1980s there were signs of over exploitation of specific stocks, particularly gemfish and southern bluefin tuna.\(^\text{95}\) The NSW tuna catch declined from 3,267 tonnes in 1981-1982 to 899 tonnes in 1983-1984\(^\text{96}\), while the NSW gemfish catch fell from 5,059 tonnes in 1980 to 2,800 tonnes in 1984.\(^\text{97}\)

Concerns in the early 1980s over indications of declining fish stocks in the seas off New South Wales, Victoria and Tasmania led the Federal Minister for Primary Industry, Peter Nixon, to declare in July 1981 that it was “vital that fishing be maintained within safe levels”. He also announced that the Federal and State governments were considering a proposal to limit the fishing fleet “in waters extending from northern New South Wales into eastern Bass Strait”.\(^\text{98}\)

In October 1981 representatives of the four states involved (NSW, Victoria, Tasmania and South Australia) and the Federal Government - termed, collectively, the South Eastern Fisheries Committee - issued a report on options for the future management of the fishery.

In 1982 the Wran State Government increased the fee for a fisherman’s licence from $2 per annum to $100 per annum in an effort to retain in the industry only those who were committed to earning their living through fishing.\(^\text{99}\)

The following year the Wran Government abolished fisheries as a separate department and re-established it as the Division of Fisheries within the Department of Agriculture.

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\(^\text{95}\) SCP Fisheries Consultants (1991), Fishing Industry Review, Report to the NSW Department of Public Works, p 1

\(^\text{96}\) A Caton, K McLoughlin and M J Williams (1990), Southern Bluefin Tuna: The Scientific Background to the Debate, Bureau of Resource Sciences, Department of Primary Industry, Canberra, pp 12-13


\(^\text{99}\) Williamson (1984), Growth and Management of the New South Wales Demersal Fisheries, p 92
In January 1984 the Federal Minister for Primary Industry, John Kerin, issued a draft management plan for what was termed the South East Trawl Fishery. The plan divided the fishery into Traditional and Developing Zones, put forward a limitation on the number of boats that could operate in the Traditional Zone, and proposed controlled entry for the Developing Zone. The fishing industry, through the Australian Fisheries Council, subsequently notified the Hawke Government of their general approval of the plan.

In June 1985 the Hawke Government introduced the scheme, inaugurating the South East Trawl Fishery (SETF). The following year a South East Trawl Management Advisory Committee was established in order to facilitate consultation between the commercial fishing industry, administrators and scientists.

In the same year the Wran Government introduced a moratorium on the issuing of all new commercial fishing boat licences.\(^{100}\)

### 1.9 1988 to 1994: Departmental Upheaval and Introduction of the Fisheries Management Act 1994

In 1988 inland recreational angling licenses were abolished following the election of the Greiner Government.

In the same year the Hawke Government, in response to the marked decline in the gemfish catch, introduced a SETF total allowable gemfish catch of 3,000 tonnes.\(^{101}\) This was the first Total Allowable Catch (TAC) set in Australia.

In 1989 the structure of the State’s fisheries administration was again disturbed with the proposal to relocate the Department of Agriculture, including the Division of Fisheries, to Orange by 1991. The relocation of the Department of Agriculture eventually went ahead without the Division of Fisheries, which was re-established

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as a separate agency, renamed NSW Fisheries, and placed under the new Ministry of Natural Resources.\textsuperscript{102}

In 1989, a committee was formed of Federal and state fisheries directors in order to produce recommendations for the future management of the South East Trawl Fishery. The Resource Assessment Commission wrote that:

\begin{quote}
This committee reported in December 1989 and recommended that a system of individual transferable quotas be introduced. The Minister for Primary Industries and Energy announced in 1990... an individual transferable quota system based on quantity for the fishery...
\end{quote}\textsuperscript{103}

On the basis of the committee’s report, the Hawke Government subsequently obtained passage of the \textit{Fisheries Management Act 1991}. Under this legislation the Federal Government established the Australian Fisheries Management Authority (AFMA) which then assumed control of fisheries management in Commonwealth waters on behalf of the Federal Government.

Using the New Zealand Government’s fishing policy as an example, the Greiner Government also set out to introduce substantial changes in the NSW fishing industry by granting commercial fishers tradable fishing rights. As the Minister for Natural Resources in the succeeding Fahey Government, Ian Causley, informed Parliament in late 1992, “a fishing right”, in the legislation that the Fahey Government hoped to introduce, “would be for a fixed quantity or fixed proportion of an allowable catch”.\textsuperscript{104}

The Greiner Government also set out to hand back to the industry the responsibility for managing and regulating fish marketing in New South Wales. In March 1992 the then Premier, Nick Greiner, and the then Minister for Agriculture and Fisheries, Ian

\begin{flushright}
\textsuperscript{102} Godden Mackay Consultants (1997), NSW Fisheries Heritage and Conservation Register, p 43  \\
\textsuperscript{103} Tony Battaglene, Debbie Brown, Drew Collins, Padma Lal, Paul Morris, Patrick Power, Chris Reid, Heather Roper, Michelle Scoccimarro, Michael Stephens, Jeremy Witham and Doug Young (1993), Use of Economic Instruments in Coastal Zone Management, Resource Assessment Commission, Canberra, p 46  \\
\end{flushright}
Causley, announced that “the Government and the industry will work together towards the aim of the... fishing industry - managing the markets and taking over from the government the regulation of fish marketing in New South Wales”.  

In 1994 the Fahey Government obtained passage of the *Fisheries Management Act 1994* with the aim of balancing fisheries exploitation with resource sustainability (see Chapter three).

The constant upheaval in the NSW commercial fishing industry and State Government restrictions on entry since the early 1980s have served to significantly reduce the number of licensed fishers working in New South Wales. In 1983-1984 there were 3,259 fishing licences held in NSW. By 1997, the number of licences had fallen to 1,835.  

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106 Source: NSW Fisheries