

Lobster traps may also be lost due to ocean currents or interference by other vessels. Because of their value, particularly when they contain lobsters, traps are sometimes stolen. These factors in addition to wear and tear result in significant replacement costs for lobster traps.

B1.3.5 Bait used in the fishery

The Lobster Fishery utilises a variety of products to bait traps. Mullet and luderick taken in other NSW commercial fisheries are primarily used as bait in inshore lobster traps and may be used fresh, salted or dried. Other fish species are also used. Some offshore lobster fishers use meat products (eg. bones) in their traps, as they take longer to break down. Others use fish frames, particularly tuna, which in some cases are sourced from other states. Bait used in offshore traps may be fresh, salted dried or a mixture of these. Bait is generally purchased in bulk and costs from \$1.00 per kg. Bait is attached inside the lobster trap by either: tying it to the pot with wire; or twine or placing it inside a bait holder, which can be made from either wire, plastic or synthetic netting.

B1.3.6 Storage of live rock lobsters

Lobster fishers may store live rock lobsters in clearly identifiable holding pens which are sealed (do not allow lobsters in or out) and do not exceed the dimensions of a commercial lobster trap which is permitted in those waters. The location of the holding pen must be recorded on the fisher's daily log sheet each time lobsters are stored in the pen. The location of any other storage facility for live rock lobsters must also be recorded on a fisher's daily log sheet. A Fisheries Officer may inspect any lobster storage facility.

B1.4 Catch and Value Information

While catch records for the Lobster Fishery can be tracked back to the late 1800s, the integrity of the records over the years is questionable. The records are based upon:

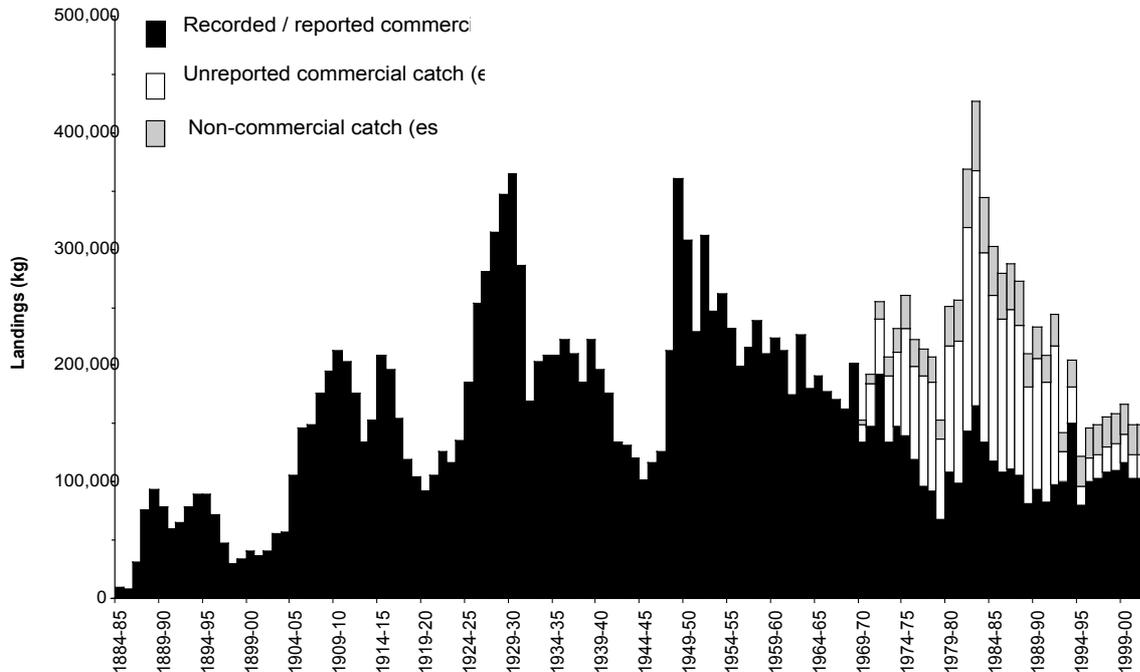
- i) quantities of individual species sold through the major market centres each year until 1939-40 (does not take account of fish sold outside major markets)
- ii) the catch of lobsters reported on monthly catch returns up to 1993-94
- iii) the catch reported through a daily logbook system since 1994-95.

Annual landings peaked around 1910-11, 1930-31, 1948-49, 1971-72 and 1982-83, whilst troughs occurred around 1920-21, 1931-32, 1944-45 and 1978-79 (see Figure B1.6). Annual landings fell in most years since the peak around 1982-83 until the introduction of restrictive management in 1993. Between 1970 and the introduction of restrictive management in 1993, unreported commercial catch (i.e. black marketed catch) has been estimated at high levels based on telephone surveys (see Montgomery *et al.*, 1997) and in some years more than the reported commercial catch. Recreational (non-commercial) catch estimates in Figure B1.6 are also based on telephone surveys.

In July 1994 the first Total Allowable Commercial Catch (TACC) was set for the Lobster Fishery. Table B1.8 includes the TACC set for each year since 1994, the portion of the TACC that was caught and the estimated value of the catch.

The annual reported commercial catch gradually increased as the TACC increased since its introduction in 1994-95 until 1999-00. In 2000-01 and 2001-02 the TACC set peaked at 150 tonnes and the portion of the TACC caught dropped considerably, to below 70% (see Table B1.8). The

TACC set for 2002-03 was 135 t and was the first year the TACC decreased since quota management was introduced. Concern by the TAC Committee (2003) over the status of the spawning stock in the north of the state led to the TACC being set at 135 t again for 2003-04 along with a recommendation that management action be taken to further protect the spawning stock. The TACC for 2004-05 was set at 102 t, a reduction of 25% from the previous fishing period, due to the committee's continuing concern over the eastern rock lobster spawning stock.



(Source: Liggins *et al.* 2003)

Figure B1.6 Annual catch of eastern rock lobsters from the waters of NSW from 1884-85 to 2001-02. Catch data were unavailable for the periods 1895-96 to 1897-98, 1942-43 and 1943-44 and estimates for these years are based on interpolation.

In the TAC Committee Rock Lobster Report for 2001-2002, the TAC Committee reported three possible reasons for unfilled quota in the Lobster Fishery:

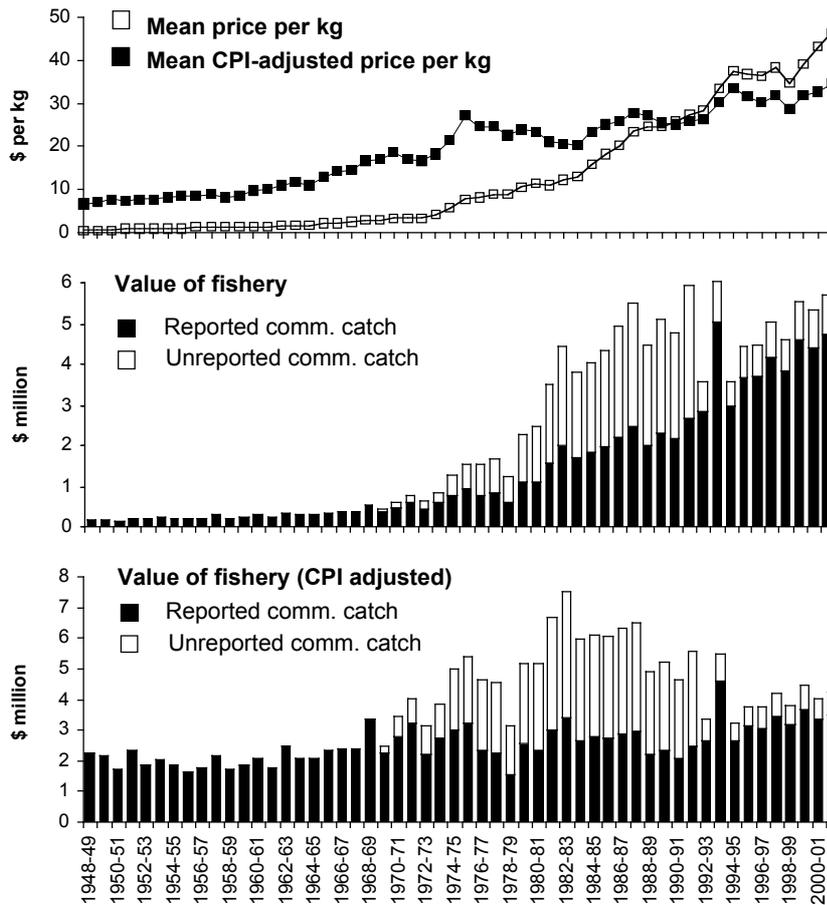
- inadequate resource and TACC set too high
- environmental conditions not conducive to fishing, and limited opportunities for taking the TACC through leasing quota
- a range of other economic factors.

The TACC of 102 t set for 2004-05 should result in a 'binding constraint' on the Lobster Fishery, such that the TACC should act to restrict catches, and result in increased quota and share values (TAC Committee, 2004).

Table B1.8 Annual TACC, reported commercial catch, and value of the reported commercial catch for the Lobster Fishery since quota management was introduced.(Source: NSW Fisheries, 2003; Liggins *et al.* 2003)

Year	TACC (tonnes)	Reported commercial catch (tonnes)	% TACC caught	Value of reported commercial catch
1994-95	106 (20 % withheld)	79.6	75.1 (not informative)	N/A
1995-96	106	99.8	94.1	\$3.68 million
1996-97	106	102.6	96.8	\$3.71 million
1997-98	117	108.2	92.5	\$4.15 million
1998-99	125	109.9	87.9	\$3.83 million
1999-00	140	117	83.6	\$4.57 million
2000-01	150	102.4	68.3	\$4.40 million
2001-02	150	102.3	68.2	\$4.74 million
2002-03	135	121.3	89.9	\$5.43 million

The eastern rock lobster is considered a premier seafood of NSW, enjoying a high public profile, and fetching consistently higher prices than lobsters imported from other states. Most eastern rock lobsters are sold whole on local fresh seafood markets, either live or cooked. The prices paid for lobsters in the 1880s were low compared to those paid at the Sydney Fish Market today. Lobster prices remained low until around 1948-49. Figure B1.7 shows that the value of the estimated unreported commercial catch component was particularly high until management of the Lobster Fishery was restricted in the early 1990's. The mean price paid for lobsters in 2001-02 was \$46.33 per kg, the highest on record. This represents the second highest on record in CPI adjusted terms (second only to 1994-95) (Liggins *et al.*, 2003) (see Figure B1.7).



(Source: Liggins *et al.*, 2003)

Figure B1.7 Average annual market price and value of the Lobster Fishery from 1948-49 to 2001-02.

B1.5 Existing Management Regime

B1.5.1 History of the Lobster Fishery

Controls on commercial fishing in NSW date back as far as 1865 when the first fisheries legislation was introduced. Since that time, several Acts have been introduced to improve the ability to manage impacts of fishing. The *Fisheries & Oyster Farms Act 1935* provided a good set of management tools, such as licensing rules, gear controls and fishing closures, and was in force for some 60 years.

With the advent of new technology and ongoing increases in effective fishing capacity, more contemporary management regulations were needed. The *Fisheries Management Act 1994* replaced the *Fisheries & Oyster Farms Act 1935* and provided more comprehensive instruments to manage fisheries. Table B1.9 provides an insight into the historical development of the Lobster Fishery.

Table B1.9 Chronology of major events in the NSW Lobster Fishery.

(Source: Montgomery and Chen, 1996 and the Lobster Share Management Plan)

Period	Event/Management action
1873	First recorded commercial landings of eastern rock lobster
1902	Legal minimum length for the eastern rock lobster was set at 10 inches measured along the body from the rostrum to the tip of the tail. The 10 inch body length equates approximately to the current legal minimum carapace length of 104 mm
1940s	Motored vessels entered the fishery. Fishing effort increased dramatically following the end of World War II
1949	Lobster catches are reported to have peaked at approximately 400 t
mid 1950s	It became an offence to land females carrying eggs
early 1970s	Lobster grounds were found on the continental slope along NSW (170 - 200m depth)
1980s	The use of compressed air for the use of taking lobsters was banned. Reported annual catch rapidly declined after a peak in 1982/83
1984	A freeze on the number of vessels permitted to fish in state waters was introduced
1992	The Rock Lobster Steering Committee submitted a Report to the Minister for Natural Resources in response to a request for a strategic plan of management. The steering committee consisted of representatives from industry, recreational fishing, Government and the marketing sectors. The report included a number of recommendations to assist in rebuilding the fishery including the restriction of entry, and the introduction of tagging and quota schemes for commercially caught lobsters
1993	The Lobster Fishery was declared a 'restricted fishery'. Entry criteria were developed based on historical participation. 157 fishers satisfied the criteria and a management fee of \$1000 was charged for a restricted fishery permit
1994	A quota management system was implemented for the eastern rock lobster and management tags were issued for a fee of \$2 per tag. From this point all eastern rock lobster landed for sale in NSW have been required to have a tag attached until the point of consumption. Tag fees replaced the annual permit fee for the fishery
	A new Regulation prevented the taking of rock lobster over 200 mm carapace length
1995	The Regulation was amended to increase the maximum number of endorsements that could be allocated in the fishery to 200 and allow the consideration of verified catch history in the Lobster Fishery
	The Fisheries Management Act 1994 commenced providing for 'share management fisheries'. The Lobster Fishery was included in Schedule 1 of the Act as a share management fishery. Endorsement holders were invited to apply for shares in the fishery
1996	Successful applicants were issued with shares on a provisional basis in proportion to their validated catch history. (10234 shares were issued). The Lobster Fishery ceased to be a restricted fishery and entered the limited access stage of share management
1998	NSW Fisheries received advice from the Independent Pricing and Regulatory Tribunal of NSW on setting management charges appropriate for the Lobster Fishery
2000	Commencement of the Share Management Plan for the Lobster Fishery
2002	183 shares bought back from the fishery by Government with the implementation of the zoning plan for the Solitary Islands Marine Park
2003	Preparation of the Fishery Management Strategy and EIS commenced for the Lobster Fishery

B1.5.2 Management Controls and Administration

There are two broad types of management controls for commercial fisheries known as input and output controls. Input controls limit the amount of effort commercial fishers put into their fishing activities, indirectly controlling the amount of fish caught. They need to be continually modified in response to fishing technology. Input controls can include restrictions on the number of licences, the

size and engine capacity of boats, the size of fishing gear, and the areas and times which can be worked. Output controls, on the other hand, directly limit the amount of fish that can be taken by a fishery and are well suited for single species, high value fisheries using single gear types (Goulstone, 1996).

The Lobster Fishery is managed by a combination of input and output controls including restricted entry, minimum and maximum size limits and a Total Allowable Commercial Catch (TACC). The *Fisheries Management Act 1994* provides several broad frameworks for managing commercial fisheries including category 1 and category 2 share management fisheries and restricted fisheries. Each framework provides a different level of access right along with different levels of cost and responsibility for industry. Table B1.10 provides a comparison between the three management frameworks. The Lobster Fishery is a Category 1 share management fishery.

Table B1.10 Comparison of the restricted fishery and share management fishery frameworks.

	Restricted fishery	Category 1 share management fishery	Category 2 share management fishery
Right issued	Validated catch history which gives rise to an "entitlement"*	Shares	Shares
Access	Endorsement	Endorsement	Endorsement
Transferability	Subject to transfer policy	Subject to the management plan	Subject to the management plan
Statutory compensation payable?	No	Yes, if shares are cancelled	Yes, if shares are cancelled within 15 year term
Statutory management plan required?	No	Yes, 5 year plan	Yes, 5 year plan
Appeal mechanism	Statutory review panel	Statutory review panel	Statutory review panel
Cost recovery	Partial; moratorium on full cost recovery	Full cost recovery	Partial; full cost recovery after 8 years
Community contribution payable?	No	Yes, as determined by the NSW Treasurer from time to time	Small rental payment

* = exceptions apply in some fisheries where validated catch history is not required to hold the endorsement

B1.5.2.1 Lobster Share Management Plan

A statutory management plan commenced for the Lobster Fishery in 2000 referred to as the Lobster Share Management Plan. The share management plan was developed in accordance with sections 56, 57 and 58 of the FM Act including an extensive consultation process with industry and other stakeholders. It provides shareholders with a statutory basis for the future of their fishery and provides objectives, performance indicators and trigger points which aim to ensure that the fishery remains sustainable. The share management plan is made available to all shareholders and nominated fishers. It includes four parts as described in Table B1.11.

Table B1.11 Components of the current Lobster Share Management Plan.

Part	Title	Purpose
Part 1	Management Advisory Committees	Describes the role and composition of the MAC
Part 2	Fishery Profile Rock Lobster	A brief description of the fishery and its key management components
Part 3	Strategic Plan for the Rock Lobster Fishery	Includes the objectives and strategies to ensure the sustainable management of the fishery
Part 4	<i>Fisheries Management (Lobster Share Management Plan) Regulation 2000</i>	The legislated component of the share management plan

Within Part 3 of the Lobster Share Management Plan for the Lobster Fishery are the Strategic Plans for rock lobster management, research and compliance. These plans include the objectives for the fishery and the strategies (or actions) to achieve these objectives. Table B1.12 includes the existing objectives and strategies for rock lobster management. The strategic plan for lobster research and compliance are included in sections 1.6 and 1.7 of this chapter, respectively.

Table B1.12 The strategic plan for lobster management contained within the Lobster Share Management Plan.

Objective: Increase the biomass of exploitable eastern rock lobster stock	
Strategies	Support sound initiatives and recommendations from research
	Ensure up to date catch and effort information is entered on to the database
	Implement closures as required, in a timely manner
	Review current strategies
Objective: Promote commercial fishing practices for rock lobster that do not have an adverse environmental impact on the broader ecosystem	
Strategies	Identify practices that may have an impact
	Direct and oversee ongoing education of shareholders through meetings and training programmes
	Assess, monitor and review ecological impacts through a team approach to management and research with the Office of Conservation
	Biodiversity strategies developed
Objective: Promote cost efficient management <u>and</u> Ensure management arrangements for the fishery do not have a significant impact on the costs of taking eastern rock lobster for sale	
Strategies	Pursue best practice by providing high levels of client service by being responsive, consulting, communicating and showing integrity
	Respond promptly to requests for information from shareholders
	Transparent budget setting process
	Effective industry consultation
	Promote best practice by continually reviewing and refining current performance where necessary
Objective: Ensure appropriate research and monitoring in relation to the fishery	
Strategies	Provide timely catch information to research and compliance
	Administer quota system
	Consultation with industry, the community, within the Department and other agencies
	Keep informed of how other agencies are managing their fishery
Objective: Minimise the number of offences committed by fishers in relation to rock lobster	
Strategies	Review and amend legislation where appropriate
	Promote legislation by keeping industry informed of current rules and any changes
	Continue to educate through port meetings
	Act in timely fashion in relation to illegal activity
	Review current performance

B1.5.2.2 Share allocation

Shares were allocated in the Lobster Fishery in proportion to catch history and all shareholders, regardless of their holding, were able to become endorsed to fish for lobsters. New entrants (i.e. those who entered the fishery since 18 February 2000, when the share management plan commenced) must hold a minimum of 55 shares before an endorsement will be issued with respect to that shareholding. In January 2003, approximately half of all existing lobster shareholders held less than 55 shares (around a third held less than 35 shares).

The maximum shareholding permitted in the fishery is 350 shares. The total number of shares in the fishery at the commencement of the 2002-03 fishing period was 10,234. The current number of shares within the Lobster Fishery is 10,051 as 183 shares were recently bought back from the fishery when the zoning plan for the Solitary Islands Marine Park commenced.

B1.5.2.3 Management charges

The NSW Government policy on cost recovery for share management fisheries applies to the Lobster Fishery. The management charge is payable in proportion to a shareholding and is set by the Minister for Primary Industries to meet the costs of managing the fishery. Management fees contribute towards the fishery's compliance, research and management services.

The Minister for Fisheries commissioned the Independent Pricing and Regulatory Tribunal (IPART) to investigate the costs of managing commercial fisheries in NSW. The broad pricing principles identified by IPART (1998) are applied to the requirements of the Lobster Fishery in calculating the amount payable per share. Table B1.13 displays the management fee per lobster share since the commencement of the share management plan for the fishery. The management charge is not permitted to exceed \$80 per share under the existing share management plan, unless additional resources are requested by the Lobster Management Advisory Committee.

Table B1.13 Annual per share management charge for the Lobster Fishery since the commencement of the FM (Lobster SMP) Regulation.

Year	Management fee per share
1999-00	\$48.00
2000-01	\$58.00*
2001-02	\$58.00
2002-03	\$59.70
2003-04	\$61.70

* first year of cost recovery

Cost recovery was phased in to the Lobster Fishery over a number of years and recent management charge increases have been directly associated with the consumer price index (CPI).

B1.5.2.4 Fees

A number of commercial fishing fees are payable by lobster fishers relating to licence administration (e.g. for issue or renewal of personal fishing and boat licences, nominations and crew registrations). These administrative fees are adjusted annually in accordance with the CPI and do not incur GST.

B1.5.2.5 Quota management

A quota management system was introduced into the Lobster Fishery in July 1994. Quota was originally allocated to fishers based on past participation in the fishery. Since becoming a share managed fishery, individual quotas are allocated (by weight) in proportion to shareholding on an annual basis. At present, the only species in this fishery subject to a total allowable commercial catch (TACC) is eastern rock lobster. The TACC is set by the statutory and independent Total Allowable Catch Setting and Review Committee. The TACC setting process takes into account an assumed level of recreational catch and unreported (illegal) commercial catch. For the period 2004-05 the TACC for eastern rock lobster was set at 102 tonnes.

The TACC is to be allocated among all shareholders, including those who do not hold the minimum shareholding required to fish in the fishery². Each shareholder and any nominated fisher of the shareholder is notified of the shareholder's quota allocation and any period(s) in which that quota may be taken.

Total Allowable Catch Setting and Review Committee (TAC Committee)

The TAC Committee consists of at least four members, including:

- a person appointed by the Minister for Primary Industries as the Chairperson of the TAC Committee, being a person who is neither engaged in the administration of the FM Act nor engaged in commercial fishing
- a person appointed by the Minister who is a natural resource economist not employed by the Government
- a person appointed by the Minister who is a fisheries scientist not employed by the Government
- persons appointed by the Minister who have appropriate fisheries management qualifications.³

In determining the total allowable catch for the Lobster Fishery the TAC Committee is to have regard to all relevant scientific, industry, social and economic factors. It must also have regard to:

- the need to ensure that the exploitation of fisheries resources is conducted in a manner that will conserve fish stocks in the long term
- the impact of fishing activities on all species of fish and the aquatic environment
- the precautionary principle.⁴

The TAC Committee considers harvest estimates from other sectors, including recreational and illegal catch estimates (by both commercial and non-commercial fishers), when setting the TACC. Before the TAC Committee makes a determination, it is required to call for public submissions and have regard to the submissions received within the timeframe fixed for the making of submissions.

Under section 29 of the FM Act the TAC Committee is not subject to any Ministerial control when making a determination, however, the Minister for Primary Industries may determine the

² Shareholders who cannot actively take their share of the quota due to the minimum share holding requirement may still transfer their quota to other lobster fishers.

³ Section 27 of the *Fisheries Management Act 1994*

⁴ Section 30 of the *Fisheries Management Act 1994*

procedure to be followed or matters to be considered by the TAC Committee when making a determination.

B1.5.2.6 Commercial fishing licence

A personal fishing licence is required by an individual before they can take fish for sale or be in possession of commercial fishing gear in or adjacent to any waters. Whilst the right to take fish for sale is through share ownership, the lobster fisher must hold a commercial fishing licence endorsed in the Lobster Fishery. A person applying for a commercial fishing licence endorsed in the Lobster Fishery must have a three-year conviction free record for any rock lobster or serious fishery related offence. They must also be applying in relation to a shareholding in the fishery of not less than 55 shares. New entrants to the fishery must hold, or be nominated with respect to, at least 55 shares in the Lobster Fishery to obtain an endorsement.

B1.5.2.7 Nominated fishers

Shareholders can choose to be endorsed themselves, or to nominate another person to take lobsters on their behalf. Only one fisher can be nominated with respect to a shareholding at any one time. Similarly, nominated fishers may only work for one lobster shareholder at any one time. The minimum nomination period is four weeks, unless otherwise approved.

Nominated fishers are endorsement holders in the fishery and are therefore subject to a conviction record check upon application. They are required to comply with the rules for the fishery, including the completion of log sheets. A nominated fisher is required to notify the relevant shareholder if he/she is charged with an offence under the FM Act, the Regulation or the FM (Lobster SMP) Regulation. The administrative fee for nominations is \$332. In January 2004 there were 26 lobster shareholdings with a nominated fisher.

B1.5.2.8 Crew

To assist an endorsement holder in the Lobster Fishery one must either hold a commercial fishers licence or hold a current crew registration. All crew must be recorded on the daily log sheet. An application for crew registration must be recommended by a fisher endorsed in the Lobster Fishery and can be refused if the applicant has been convicted of a state or Commonwealth fisheries offence in the three years prior to submitting the application. As of March 2003 there were 13 registered crew members in the Lobster Fishery. An endorsement holder may have unauthorised crew members present while working in the Lobster Fishery on up to two times in any calendar month.

B1.5.2.9 Commercial fishing boat licence

Only commercially licensed fishing boats may be used to take rock lobster for sale. Vessels must have the relevant licensed fishing boat (LFB) number marked on the hull and the upper deck in clearly visible figures. Immediately preceding the 'LFB', the letters 'RL' must be displayed to indicate that the vessel is used in the Lobster Fishery.

There is no limit on the size or type of vessel used in the Lobster Fishery, however many fishers are endorsed in other commercial fisheries that may be subject to boat size and/or replacement rules. Under the Offshore Constitutional Settlement agreement, fishing boats that were previously licensed to fish outside 3 nm under Commonwealth jurisdiction were automatically issued an authority on their State boat licence (called an 'OG1' or an Offshore General Authorisation) to continue to work

in offshore waters. Only boats that are licensed with an OG1 authorisation are permitted to operate in ocean waters beyond 3 nm.

B1.5.2.10 Renewal of licences

Commercial fishing licences and fishing boat licences must currently be renewed annually. Fishers are sent renewal application forms approximately one month before the expiry date on the licence. If a commercial fishing licence is not renewed within 60 days of the expiry date on the licence, the renewal application is taken to be an application for a new licence. Additional fees apply to late renewal applications.

Abeyance period for fishing boat licences

Fishing boat licences can be held in abeyance for a period of up to two years from the date of expiry of the licence, or when advised in writing by the owner. Fishing boat licence fees are not payable during the period of abeyance, but the full amount due is payable if the licence is reinstated within the two years specified.

B1.5.2.11 Appeal mechanisms

Fishers may lodge an appeal to the Administrative Decisions Tribunal (ADT) against a decision to refuse to issue or renew, suspend, cancel or place conditions on a commercial fishing licence (or an endorsement on that licence) or a fishing boat licence.

The main role of the ADT is to review administrative decisions of New South Wales Government agencies. To lodge an appeal with the ADT, a request must first be made to NSW Department of Primary Industries for an internal review of the decision, then a written application should be lodged with the ADT no more than 28 days after the internal review was finalised.

The ADT can make various orders concerning an appeal application including:

- upholding the original decision
- reversing the decision completely or in part
- substituting a new decision for the original decision
- ordering the agency to reconsider the decision in light of the ruling.

For further information, refer to the *Administrative Decisions Tribunal Act 1997* or the following website: www.lawlink.nsw.gov.au

B1.5.2.12 Time and area closures

There are no time-based or seasonal closures in the Lobster Fishery. Apart from general area closures to commercial fishing, there are currently no fishery specific area closures in place. Closures may be implemented under Section 8 of the FM Act if the Minister for Primary Industries determines that a closure is needed (see also section B1.1.2 in this Chapter).

B1.5.2.13 Permits

Section 37 of the *Fisheries Management Act 1994* allows for permits to be issued for research and other authorised purposes. These permits provide a legal framework for activities that fall outside normal operating rules set out in the Act or its regulations. Each permit sets out a number of conditions, which vary depending on the purpose of the permit. These conditions ensure that permits

are used only for the purpose intended by their issuing and are often used to limit the extent of the permitted activity. The permits that are currently issued in relation to the Lobster Fishery are outlined in Table B1.14.

Permits issued under section 37 are valid only insofar as they do not conflict with approved determinations of native title made under the Commonwealth *Native Title Act 1993*. Permits are valid for the period specified on the permit, and may be suspended or cancelled at any time by the Minister. Permits are not transferable. In 2003 the *Fisheries Management (General) Regulation 2002* was amended to make it an offence to breach a condition of a permit issued under section 37 of the *FM Act 1994*. A maximum penalty of \$11,000 was established, with a penalty notice of \$200.

Table B1.14 Permits that may be issued in the Lobster Fishery.

Permit Type	Description
Research	Permits are issued to research scientists (including NSW Fisheries staff, universities and other research organisations) and commercial fishers assisting in undertaking research programs. The permits generally authorise the retention of prohibited size fish in excess of the possession or bag limits or use of gear not prescribed in the Regulation
Development of new fishing gear	This permit provides a legal framework for the possible development of more selective or passive fishing methods. Permits are often required to trial types of fishing gear with dimensions or configurations not prescribed in the regulations. Permits may be issued to facilitate industry in developing alternate fishing practices in line with goals of the FM Act and existing policy

B1.5.2.14 Reporting requirements

Lobster fishers are required to complete a rock lobster log sheet every day that they fish for rock lobster as well as a monthly reconciliation form that summarises the catch for every month. Non-fishing days are indicated on the monthly reconciliation.

Log sheets provide essential catch and effort information that is used for stock assessment purposes. They are also used as a compliance tool. Daily log sheets must be completed in accordance with the instructions provided on the sheet immediately after landing or transferring to a holding pen any rock lobster taken on that day, or immediately after returning to shore, if no lobsters were taken. These completed forms must be submitted to NSW Department of Primary Industries within seven days of the particular fishing day. Information that must be recorded on the daily log sheet includes:

- area fished
- method
- number of traps pulled
- quantity of eastern rock lobster landed
- quantity of other rock lobster species landed
- crew and boat (if any) details
- validated weight of landed lobsters
- holding pen location details
- tag numbers used
- quantity of eastern rock lobster discarded (berried, undersized, oversized and other)

Lobster fishers must complete and forward to NSW Department of Primary Industries a completed monthly reconciliation form within seven days of the end of each month. Information that must be recorded on the monthly reconciliation form includes:

- total daily catch
- reasons for non-lobster fishing days
- total catch for the month
- quota balance details
- disposal of catch information

B1.5.2.15 Tagging lobsters

Tags are attached to commercially caught lobsters to distinguish those lobsters taken legitimately by licensed commercial fishers. Tagging requirements only apply to the eastern rock lobster, as it is the only species in the Lobster Fishery subject to a total allowable catch. Lobster fishers are required to attach a tag to all eastern rock lobsters before they are transferred to another boat, placed into a holding pen or immediately after a rock lobster is landed and before entering any premises. Each tag is to be attached in a manner that it cannot be removed without being broken and the fisher is to trim the tail of the tag so that it is flush with the locking mechanism immediately after attaching it.

Tags are issued to shareholders or nominated fishers by NSW Department of Primary Industries each fishing period in accordance with the quota allocated to the relevant shareholding. The number of tags issued to each fisher is calculated using the average weight of a retainable eastern rock lobster across the fishery. A lobster fisher can order additional tags as needed during the fishing period. All tags are registered with the Department and reconciled through mandatory catch reporting. Tags have a unique identification number and must be used in sequential order. Tags may not be re-used and must be produced when requested by a Fisheries Officer. A lobster fisher's tags are only transferable to another lobster fisher in conjunction with an approved quota or share transfer. NSW Department of Primary Industries must receive written advice of any lost, stolen or destroyed tags. Unused tags must be returned to NSW Department of Primary Industries at the end of the fishing period.

B1.5.2.16 Share transactions

Share transactions in the Lobster Fishery include share transfer, assignment, transmission and mortgage. A share transfer is the standard way for a shareholder to pass a quantity of his or her shares on to another party. A share assignment is a transfer of shares which may be of a temporary nature. A share transmission is a transfer of shares in accordance with a will. A share mortgage occurs if shares become security for a loan.

Lobster shares may be transferred in share packages, each comprising 10 shares, unless otherwise approved. A shareholder may transfer all of the shares he or she holds in the fishery. Any applicable unused allocated quota is also transferred with the shares. The minimum number of shares required by a new entrant to gain an endorsement in the fishery is currently 55 shares. If a person who held shares at the commencement of the share management plan for the fishery transfers or assigns any of those shares, the minimum shareholding in respect of that person increases to 55.

A shareholder may assign, transmit or mortgage their rock lobster shares however all shares held must be assigned, transmitted or mortgaged to only one person (or one partnership or company). Share transactions may be refused for a number of reasons, such as:

- the transaction is to avoid share forfeiture
- any fee or contribution under the FM Act is outstanding in respect of the shares
- any assignment or mortgage of the shares has not been discharged or cancelled
- the person to whom the shares will be transferred would be refused an endorsement in the fishery because of having been convicted of a rock lobster offence or a serious offence⁵ in the previous three years.

⁵ Serious offence means: an offence against the FM Act or regulations that is punishable by imprisonment, an offence against clause 108 of the *Fisheries Management (General) Regulation 2002*, or an offence punishable under the *Crimes Act 1900*.

A foreign person or a foreign owned body is not permitted to own shares in the Lobster Fishery.

All rock lobster share transactions must be registered in the Share Register to take effect. The 2004-05 fee for registration of share transfer, assignment and transmission transactions is \$226. The fee for share mortgage transactions is \$395.

B1.5.2.17 Quota transfers

Quota can be transferred between shareholders throughout the year. Shareholders must not acquire through quota transfer more than twice the amount of his or her actual allocation for the fishing period. The minimum amount of quota that can be transferred is 10% of the quota of the transferor or 50 kg (whichever is greater). Quota cannot be carried forward or borrowed from another fishing period.

For the 2004-05 season an administrative fee of \$169 accompanies each quota transfer.

B1.5.2.18 Community contribution

Shareholders in a category 1 share managed fishery are required to make a periodic contribution to the community for their right to access a community owned resource. The FM (Lobster SMP) Regulation requires payment of this contribution by each shareholder two months after the end of each fishing period. The level of community contribution was originally determined at a rate of 6% of the gross value of the fishery, to be split among shareholders according to their proportion of the total shareholding. The capacity of industry to meet the costs of management has been impacted by a number of factors including the costs attributable to the development of the fishery management strategy and environmental impact assessment for the fishery.

Arrangements have been made for the Lobster Share Management Plan to be amended so that lobster fishers are charged a community contribution of \$100 per shareholder per year (CPI adjusted to \$109 in 2004-05) until July 2007. An independent economic review of the fishery will occur by 2007, with future community contributions based on the outcome of that review.

B1.5.2.19 Seafood safety programs

The NSW Food Authority is currently assisting in implementing food safety programs for all commercial fisheries as required under the *Food Production (Safety) Act 1998*.

B1.5.2.20 Markets and fish receivers

The *Fisheries Management Act 1994* places restrictions on the sale of fish. Fish taken by a commercial fisher when using a commercial fishing boat or commercial fishing gear are deemed by the Act to have been taken for sale.

Prior to 1999, commercial fishers were required to sell their catch through a recognised market, being either the Sydney Fish Market or a Fisherman's Co-operative trading society. In areas not serviced by a recognised market the fisher could sell the catch to a Certificate of Exemption (COE) holder, or direct to the public if the fisher held a 'consent' under the Act. Consents were issued to fishers who were able to show they resided beyond a certain distance from a recognised wholesale market, or that the market did not cater for their product (e.g. for the sale of bait to local suppliers). The Sydney Fish Market has historically been the major market place for fish caught in NSW, although there has traditionally been a more diverse market for prawns, many of which have been sold

into local markets. Fishers in southern NSW also consigned significant quantities of fish to the Melbourne Fish Market.

Under the regulated marketing system prior to 1999, there were 22 Fishermen's Co-operatives, 45 COE holders and 154 consent holders. In November 1999, the marketing of fish in NSW was deregulated and a system of "fish receivers" was implemented. Co-operatives and COE holders were granted Registered Fish Receiver (RFR) certificates and consent holders were granted Restricted Registered Fish Receiver (RRFR) certificates. Under the new arrangements any person, commercial fisher, business or company can apply for a Fish Receiver certificate. All Fish Receivers must supply summaries of all fish received to NSW Department of Primary Industries on a monthly basis.

For quantities of crustaceans (including rock lobster) of 3 kg or more and fin fish of 10 kg or more (whole weight), prescribed records of sale and possession must be made and retained by the seller for five years after the sale.

B1.5.3 Existing performance indicators and trigger points for monitoring the Lobster Fishery

The *Fisheries Management (Lobster Share Management Plan) Regulation 2000* includes a performance monitoring regime for the Lobster Fishery. Table B1.15 includes the objectives, performance indicators and trigger points as presented in the share management plan.

B1.5.3.1 Performance indicators

The existing performance indicators provide an indication of whether the management objectives in the share management plan are being attained. A number of monitoring programs are being used to gather information to measure the performance of the fishery (refer to Table B1.15).

B1.5.3.1 Trigger points

The trigger points specify the point when a performance indicator has reached a level that suggests there may be a problem with the fishery and a review is required.

Table B1.15 identifies the performance indicators and trigger points that are currently used to measure whether each of the management objectives described in the share management plan are being attained.

B1.5.3.1 Review

Under the existing regime a review of the share management plan is required if the Minister for Primary Industries is satisfied that a trigger for review is breached.

An annual report for the Lobster Fishery is completed after each fishing period, examining the performance of the fishery against the objectives of the plan. Specifically, it addresses each of the performance indicators and triggers identified in Table B1.15. The results of this annual review of fishery performance are presented within a submission to the TAC Committee for its consideration when setting the TAC for the following fishing period.

Only one trigger has been breached since the introduction of the Lobster Share Management Plan in 2000, and that was the trigger relating to Objective 1, increasing biomass of eastern rock lobster. In two consecutive years, 2000-2001 and 2001-2002, the catch per unit effort was below the levels recorded in 1998-99. A review has been conducted following the breach of this trigger and the

results have been taken into account by the TAC Committee when reviewing the TACC that was set for the 2003-2004 period.

Table B1.15 Current performance monitoring for the Lobster Fishery.

Objective 1. Increase the biomass of eastern rock lobster stock			
No.	Performance indicator	Monitoring program	Trigger point
1	Levels of eastern rock lobster stock increase or remain stable (with 1998–1999 levels being used as a benchmark), or are likely to do so, having regard to total allowable catch	Annual reporting on the performance of the Fishery. Annual assessment of eastern rock lobster resource	Annual catch per unit effort (CPUE) is below 1998–99 levels in 2 consecutive years

Objective 2. Promote commercial fishing practices for rock lobster that do not have an adverse environmental impact on the broader ecosystem			
No.	Performance indicator	Monitoring program	Trigger point
1	Research conducted periodically by or on behalf of NSW Fisheries indicates that commercial fishing practices for rock lobster do not have an adverse environmental impact on the broader ecosystem	Annual reporting on the performance of the Fishery. Annual assessment of eastern rock lobster resource	Research conducted by or on behalf of NSW Fisheries indicates that commercial fishing practices for rock lobster are having an adverse environmental impact on the broader ecosystem

Objective 3. Ensure management arrangements for the fishery do not have a significant impact on the costs of taking eastern rock lobster for sale			
No.	Performance indicator	Monitoring program	Trigger point
1	Management charge for the fishery (under section 76 of the Act) does not increase significantly, disregarding any increase that is attributable to the provision of additional resources by NSW Fisheries (eg the provision of additional compliance officers)	Annual reporting on the performance of the Fishery	Management charge for the fishery increases in any year at a rate that exceeds the rate of inflation (as measured by the consumer price index), disregarding any increase that is attributable to the provision of additional resources by NSW Fisheries after the commencement of this Plan

Table B1.15 Continued.

Objective 4. Promote cost efficient management			
No.	Performance indicator	Monitoring program	Trigger point
1	Independent review of the management arrangements for the fishery, conducted periodically at the request of the Minister, determines that management arrangements are appropriate	Review completed as required by the Minister for Fisheries	Independent review determines that the management arrangements for the fishery are inappropriate

Objective 5. Ensure appropriate research and monitoring in relation to the fishery			
No.	Performance indicator	Monitoring program	Trigger point
1	Sufficient data is available for assessment of rock lobster stocks	Annual reporting on the performance of the Fishery. Annual assessment of eastern rock lobster resource	Insufficient data is available for the purpose of setting the total allowable catch for rock lobster

Objective 6. Minimise the number of offences committed by fishers in relation to rock lobster			
No.	Performance indicator	Monitoring program	Trigger point
1	Number of offences in relation to rock lobster committed annually, as indicated by quality inspections conducted by NSW Fisheries, indicates substantial compliance with the Act, this Plan and the other regulations under the Act	Annual reporting on the performance of the Fishery	Overall rate of compliance with the Act, this Plan and the other regulations under the Act in relation to rock lobster (estimated annually by the Director) is less than 70 percent

B1.6 Research

The general objective of the research for the Lobster Fishery, as stated in the Lobster Share Management Plan is 'to provide the scientific information needed to complete the annual assessment of the eastern rock lobster resource in NSW'. Table B1.16 contains what was the strategic plan for the Lobster Fishery contained within the Lobster Share Management Plan in 2000. Table B1.17 summarises the existing research projects for the Lobster Fishery. It is an updated version of the research needs identified in the Lobster Share Management Plan and is essentially the current research plan for the Lobster Fishery. Table B1.17 includes a description of each of the current research initiatives related to the management of the Lobster Fishery.

The research program is focused on attaining information relevant to measuring the performance of the fishery against the objectives of the existing share management plan. The various research sub-programs all contribute to the annual resource assessment that is provided to the TAC committee to assist with the determination of the TAC for the fishery (e.g. Liggins *et al.*, 2000, 2001, 2002, 2003).

B1.6.1 Review and assessment of the dynamics and status of the fishery

The TACC for eastern rock lobster is set by the TAC Committee prior to the beginning of each season (financial year). It is set having regard for any review and assessment of the dynamics and status of the Lobster Fishery following the previous season. An annual report for the fishery, an annual assessment of eastern rock lobster and the NSW Department of Primary Industries' submission to the TAC Committee are all considered by the TAC Committee when setting the TACC.

The Lobster Fishery Annual Report examines the performance of the fishery against the six objectives of the FM (Lobster SMP) Regulation. It also highlights significant developments in the fishery and briefly outlines achievements in research, compliance and management for the Lobster Fishery. The annual report provides data on the commercial catch of eastern rock lobster and uncaught quota in the fishery and information on share and quota trading.

An assessment of the NSW eastern rock lobster resource is completed annually and published in the NSW Fisheries Resource Assessment Series. The assessment includes reviewing all current monitoring programs that apply to the Lobster Fishery and applying data to both biomass dynamics and length-structured models. It provides the current status of the stock, based on both models. The current status of the eastern rock lobster stock is described in section B2.2.1.

NSW Department of Primary Industries provides a submission to the TAC Committee each year for its consideration when determining the TACC for the Lobster Fishery. The submission summarises the performance of the fishery in relation to the six objectives of the FM (Lobster SMP) Regulation. It also includes information relating to research, compliance and management activities during the previous season (i.e. financial year period), data on commercial catch and information on share and quota trading. Key points for consideration by the TAC Committee are presented at the beginning of each submission from NSW Department of Primary Industries.

Meetings with representatives from the Lobster MAC, NSW Department of Primary Industries fisheries research, fisheries management and fisheries compliance and other stakeholders are conducted annually to discuss the current status of the fishery, stock assessment data, compliance and other social and economic factors that may impact on the fishery taking the TACC. Any submissions from interested parties (typically from the Lobster MAC, individual commercial fishers and recreational fishers) are also considered by the TAC Committee when determining the TACC.

Table B1.16 The strategic plan for lobster research contained within the Lobster Share Management Plan.

Objective: Increase the biomass of exploitable eastern rock lobster stock	
Strategies	Monitor catch, effort and CPUE using logbook program
	Estimate changes in biomass using biomass dynamics model
Objective: Promote commercial fishing practices for rock lobster that do not have an adverse environmental impact on the broader ecosystem	
Strategies	Assess magnitude and composition of bycatch from lobster fishing (as a component of the observer survey of commercial catches)
	Review other potential impacts and modify strategic plan (through consultation with LobMAC and Office of Conservation)
Objective: Ensure appropriate research and monitoring in relation to the fishery	
Strategies	Development of age - and length - structured models to monitor spawning biomass and assess impacts of changes to minimum and maximum legal lengths
	Development and continuation of research programs to support length-structured model (tagging studies of growth and movement; survey of puerulus recruitment; observer survey of size-distribution of commercial catch)
	Development of independent survey of mature biomass to monitor changes in spawning and "oversize" biomass
	Ongoing review and development of research and monitoring programs through: -consultation and annual research/budget review with LobMAC, -consultation with fishers at annual port meetings, annual review, discussion and feedback from TAC committee, -periodic external reviews by expert scientists