

**ESTUARY PRAWN TRAWL MANAGEMENT ADVISORY COMMITTEE MEETING  
AGENDA**

Meeting 23 November 2007  
9:00 am to 5:00 pm  
1st meeting for 2007  
Cronulla Fisheries Research Centre  
Cronulla, NSW 2230

**Chairperson**

Mr Brian Beer

**Management Advisory Committee Representatives**

Don Johnson	Clarence River
Suzane Hamilton	Hunter River
Rolf Norrington	Hawkesbury River
Malcolm Poole	Recreational representative
Vacant	Nature Conservation Council
Darren Reynolds	Director-General's nominee

**Observers**

Dianna Watkins	NSW DPI, Manager, Commercial Fisheries
Steve Montgomery	NSW DPI, Science and Research
Renee Winsor	NSW DPI, Compliance
Darren Hale	NSW DPI, Senior Fisheries Manager
Bill Hoskin	NSW DPI, Fisheries Management Officer

**EPTMAC DRAFT AGENDA  
23 November 2007**

Welcome and Apologies	Chairperson
Agreement on agenda	Chairperson
Confirmation of draft minutes of 1 September 2006	Chairperson
Correspondence sent and received	Chairperson
1. Business arising from the minutes	Chairperson/ NSW DPI
2. Updates	NSW DPI
3. Marine Pests	NSW DPI
4. Share Management Plans and Stage 2 Regulation Reform	NSW DPI
5. Square mesh codends	NSW DPI
6. BRDs in the EPT fishery	NSW DPI
7. New size limit for flounder and sole species	Industry
8. Opening and closing times Hunter River EPT	Industry
9. Brooklyn Sewerage Treatment Plant	Industry
10. Hawkesbury EPT issues paper	Industry
11. Other business	Chairperson
12. Chairperson's summary and next meeting date	Chairperson

**Chairperson**

**Issue**

Welcome and Apologies

**Background**

**Chairperson**

**Issue**

Agreement on Agenda

**Background**

A notice of the meeting and call for agenda items was circulated to committee members, Regional Industry Convenor, Fishermen's Co-operatives, other interested parties and regional offices of the Department of Primary Industries on 24 October 2007.

A draft agenda has been circulated to all Committee members, co-operatives and coastal fisheries offices. Additional items may be proposed for discussion during other business, subject to approval by the Chairperson.

**Chairperson**

**Issue**

Confirmation of draft minutes from the previous meeting on 1 September 2006.

**Background**

Draft outcomes for the EPTMAC meeting on 1 September 2006 were circulated amongst MAC members for comment prior to being distributed to the Regional Industry Convenor, Fishermen's Co-operatives, other interested parties and regional offices of the Department of Primary Industries.

**Chairperson**

**Issue**

Correspondence received and sent.

**Background**

A list of correspondence received is attached for the Committee to note.

**Draft Recommendation**

The MAC notes the correspondence.

## EPTMAC CORRESPONDENCE LIST

<b>Date</b>	<b>From</b>	<b>Issue</b>	<b>To</b>	<b>Action</b>
5/09/2006	NSW DPI	Notification of joint SIAC & MAC meeting for briefing on draft Share Management Plans	EPTMAC	FYI
11/09/2006	CRPF Representative	Share Management Implementation – Industry recommendations	Chair	Comment
13/09/2006	NSW DPI	EPTMAC draft meeting outcomes for 1 September 2006	EPTMAC	Comment
30/10/2006	NSW DPI	Food Authority Newsletter - Food safety, enforcement and prosecution issues	EPTMAC	FYI
12/2/2007	Sydney Water	Sydney Desalination project - Environmental assessment of pipeline route	Chair	FYI
23/2/2007	NSW DPI	Copy of Act, General Regulation, Supporting Plan and EPT Management Plan	EPTMAC	FYI
1/05/2007	NSW DPI	Copy of approved FMS for the NSW Ocean Trawl Fishery	Chair	FYI
3/08/2007	NSW DPI	Availability of approved FMS for the NSW Lobster Fishery	Chair	FYI
13/08/2007	NSW DPI	Availability of approved FMS for the NSW Abalone Fishery	Chair	FYI
2/11/2007	NSW DPI	Procedural matters for MAC meetings	Chair	FYI
6/11/2007	NSW DPI	Participation in MAC meetings	Chair	FYI

**Issue**

Business arising from the previous meeting.

**Background**

An action status list is attached for the Committee to note.

Items complete and previously noted by the EPTMAC as complete have been removed from the list.

Only action items included in the outcomes for the EPTMAC meeting on 1 September 2006 are included in the attached Action Status List (not the recommendations from that meeting).

DPI has devoted significant resources to the implementation of share management fisheries over the past 18 months.

**Draft recommendation**

That the EPTMAC reviews the Action Status List with the objective of removing those actions that are no longer current.

### Action Status List for the EPTMAC – Updated November 2007

Recommendation/Resolution/Action	FMS	Meeting	Responsibility	In Progress	Pending	Complete	Ongoing
Consult fishers on banning the possession of spikes.	1.1 e	28 Apr 2004	Industry		✓		
DPI & Hawkesbury working group to meet and determine program for implementing the prawn count and ICR program		25 July 2005	DPI / HREPT		✓		
Report on research into the effects of trawling in the Clarence River by University of Sydney & DPI, to be referred to Committee members when finalised.	-	25 July 2005	DPI			✓ On agenda	
DPI & Industry members of the Committee to consider the terms of reference for the IPART review on the Sydney Catchment Authority, with a view to making submission on issues relating to the Health of the Hawkesbury river.		25 July 2005	All MAC members			✓ No submission made by DPI	
Eric McCarthy, Seafood Industry Training Council, to be invited to the next meeting to update the Committee on training programs for commercial fishers.		25 July 2005	DPI			✓ Organisation no longer exists. DPI to provide industry with alternative training contact.	
DPI to provide a summary of representation received from other stakeholder groups regarding the EPT fishery.	7.1	25 July 2005	DPI				✓
DPI to consider whether applying size limits to species such as flounder means that those species can no longer be taken in prawn trawl nets, noting that the current regulation (c138) prohibits the taking of species subject to size limit from estuarine waters using a prawn trawl net.		1 September 2006	DPI			✓ On agenda	
Hawkesbury EPT representative to identify points of contact for relevant authorities co-ordinating the proposed River Keeper program in the Hawkesbury River, with a view to the committee providing a letter of support. DPI to consider the committee's suggestion for DPI to contribute to the program.		1 September 2006	HREPT		✓		
DPI to seek clarification from the NSW Food Authority on the proposed "exclusion zone(s)" and opportunities for industry input.		1 September 2006	DPI			✓ On agenda	

DPI to consider designing, funding and implementing, in conjunction with the Hornsby Shire Council and NSW Maritime, a water monitoring program (eg. before and after controlled impact (BACI) experimental design) to monitor the affects of the STP on zooplankton, particularly species of zooplankton important to commercial and recreational fishing. Any such testing must commence prior to commissioning the STP during 2007 to ensure adequate before / baseline data.		1 September 2006	DPI			✓ Funding application was not successful	
DPI to review the conditions on permits issued to Hawkesbury River fishers to enable testing of cod-ends with larger circumferences, and streamline the process of issuing permits to encourage and assist industry test new net designs.		1 September 2006	DPI			✓ Permitted up to 2.3m	
DPI to review the price information relied upon to value catch and determine if the data is region specific and if it can be updated to provide a more accurate value of the product taken in the Hawkesbury River.		1 September 2006	DPI		✓ Relevant to all fisheries		

**Issue**

Updates

**Background**

Opportunity is provided for members to provide an update on contemporary issues relating to the management of the EPT Fishery. Following are updates provided by DPI on contemporary issues that may be of interest to stakeholders in the EPT Fishery.

**Seafood Services Australia (SSA)**

SSA provides a range of services to promote and develop a sustainable Australian seafood industry and is funded in part through your contributions to the Fisheries Research and Development Corporation (FRDC). The SSA manages a range of programs relating to the seafood supply chain, environmental management, seafood safety, seafood quality, market access and industry development. SSA has recently revamped its program with increased focus on security of supply, security of markets, product integrity and the promotion of innovative industry developments initiative. To find out more about SSA and its services visit [www.seafood.net.au](http://www.seafood.net.au).

**Seafood Directions**

A small contingent of commercial fishers from NSW and two representatives from DPI recently attended Seafood Directions 2007 in Hobart. The conference focused heavily on industry issues relating to accreditation of commercial fisheries, co-management, climate change, marketing and human resource development.

**Australian Council of Prawn Fishers**

The Australian Council of Prawn Fishers (ACPF) is funded in part through your contributions to the FRDC and has taken on the role of representing and developing Australian wild-catch prawn fisheries. The ACPF recently launched the ACPF Fisheries Research and Development Strategic Plan (FRDC 2005/308). A copy of the plan can be obtained by contacting FRDC. Due to the departure of the NSW industry representative on the ACPF, Mr John McGuren, a new representative is required. Should you be interested please contact Darren Hale, Senior Fisheries Manager, DPI on (02) 6645 0503.

**Seafood Industry Advisory Council (SIAC)**

SIAC met on 1 June 2007 and covered a raft of issues some of which will affect the future of every commercial fisher. The most notable being the SIACs endorsement of the terms of reference for the engagement by DPI of an independent consultant to provide recommendations on a structural adjustment strategy to deliver more profitable and sustainable commercial fisheries in NSW (see below). The main issues discussed by SIAC at this meeting can be viewed on DPI's website at:

[www.dpi.nsw.gov.au/fisheries/commercial/siac/message](http://www.dpi.nsw.gov.au/fisheries/commercial/siac/message)

**Report on Structural adjustment in NSW commercial fisheries**

Independent consultant Mr Richard Stevens has conducted a study into the Structural Adjustment of the NSW's commercial fisheries and recently submitted his report to the Minister for Primary Industries.

**Share Appeals**

The Share Appeal Panel has met twice this year to formalise withdrawals and for preliminary consideration of a number of applications. It is envisaged the Panel will commence referring DPI's submissions to applicants mid to late November with a view to holding the first round of hearings on the north coast early 2008.



**Licensing update - share transfers**

DPI has been asked by SIAC to make a presentation on the share transfer transaction process at the next SIAC meeting. DPI also proposes to develop a user friendly guide to assist commercial fishers and other interested parties through the share transfer process. Mr Laurie Derwent, Manager Fisheries Business Services, will discuss:

- the number of share transfer applications received since 5 February 2007;
- the number of share transfer applications received for the EPT fishery
- the timeframes for processing share transfers
- samples of reported values of transactions for the EPT fishery
- questions from Industry

**Research**

Representatives of the Science and Research Division will provide updates on the following (see Attachment 1 for details):

Studies of the growth and mortality of school prawns - Dr Steve Montgomery

A quantitative analysis of prawn harvesting strategies – Matt Ives

A copy of the report “Assessment and management of potential impacts of prawn trawling on estuarine assemblages” authored by Tony Underwood will be provided for MAC information. See attachment 2 for summaries of other recent research by Matt Broadhurst.

***Beam Trawling***

A Clarence River EPT fisher has been issued a permit under section 37 of the *Fisheries Management Act 1994* to trial the use of a beam trawl during the 2007/2008 prawn trawl season.

A beam consists of a trawl net (prawns) attached to two “sleds” connected by a rigid pole (beam) that holds the net open for fishing. This method may have the potential to reduce herding and subsequent capture of by-product species. In addition, beam trawling may have less impact on the river bed than otter trawling and result in reduced fuel consumption associated with trawl operations.

Only one permit will be issued for the 2007/08 season pending any formal assessment of the method’s benefits and/or impacts. It is envisaged the MAC will be involved in any decision to instigate formal assessment following the current trial.

**Compliance**

Renee Winsor, District Fisheries Officer, DPI will be attending the MAC meeting to provide an update on compliance issues regarding the EPT fishery.

**Outcomes**

For information.

**Agenda Item 3**

NSW DPI

**Issue**

Marine pests and their relevance in the EPT fishery.

**Background**

Objective 1.4 of the EPTFMS is "To prevent the introduction and translocation of marine pests and diseases. The management response 1.4a commits to implementing, in consultation with the MAC, measures required in accordance with any marine pest or disease management plans.

Attachment 3 is provided for background notes on marine pests and their relevance for the EPT fishery including the implementation of a National System for the Prevention and Management of Marine Pest incursions and the development of Industry's best practice guidelines.

Clare Murphy, Aquatic Biosecurity Officer, will give a presentation at the meeting (see Attachment 3 for details).

**Outcomes**

For information.

**Agenda Item 4**

NSW DPI

**Issue**

Share Management Plans and Stage 2 Regulation reform

**Background**

A number of amendments to the *Fisheries Management (General) Regulation 2002* ("the General Regulation") and the movement of provisions from the General Regulation into relevant SMPs were postponed due to the tight time frame for implementing the plans by February 2007. These amendments are now to be incorporated into legislation in the coming months. A summary of the changes relevant to the EPT fishery will be presented at the meeting for the MACs information.

**Outcomes**

For information.

**Agenda Item 5**

NSW DPI

**Issue**

Square mesh codends

**Background**

An update on the implementation of square-mesh codends will be provided at the meeting.

In line with the requirements of the EPT FMS the Minister has approved the mandatory use of square mesh codends in the EPT fishery.

Industry representatives have continually raised issues concerning the introduction of square-mesh codends especially regarding codend specifications and implementation date.

DPI has been liaising with industry representatives regarding these concerns and is giving the matter careful consideration with the aim of achieving a balance between the demonstrated benefits of square mesh codends and maintaining industry's capacity to maintain catches.

#### **Outcomes**

For discussion.

### **Agenda Item 6**

**NSW DPI**

#### **Issue**

Bycatch Reduction Devices in the Estuary Prawn Trawl fishery.

#### **Background**

Research has demonstrated that two of the industry designed behavioural-type BRDs (Quality Clarence panel and Diamond BRD) retain significantly more bycatch compared with the Nordmore Grid and are considered ineffective for use in the EPT fishery. This research also demonstrated that modifications to the length, angle and profile of the Nordmore grid was effective for minimising marine debris including weed fouling nets.

The relevant research report is provided as an annexure to this agenda.

There are currently eight different BRDs approved for use in the EPT fishery.

Based on the results of this research and having regard to the requirements of the EPTFMS concerning mitigating bycatch, DPI proposes the following changes to the suite of BRDs available in the EPT fishery:

- Removing the Quality Clarence Panel BRD from all estuaries
- Removing the Diamond BRD from all estuaries
- A single specification for the Nordmore Grid that applies to all three estuaries and incorporates (a) the option of a triangle or single cut (as previously permitted in the Clarence River only) escape hole; and (b) information on modifying the length, angle and profile of the Nordmore grid.

A summary of the BRDs that would be available in each estuary is provided in the following table. New draft specifications for all BRDs will be presented at the meeting for discussion.

Estuary	Approved BRD Type	Proposed BRD Type
Clarence River	Square Mesh Panel Blubber Chute (100mm mesh) Modified Nordmore Grid Quality Clarence Panel Diamond BRD	Square Mesh Panel Blubber Chute (100mm mesh) Modified Nordmore Grid
Hunter River	Square Mesh Panel Blubber Chute (100mm mesh) Nordmore Grid Quality Clarence Panel Diamond BRD	
Hawkesbury River	Square Mesh Panel Blubber Chute (175mm mesh) Nordmore Grid Quality Clarence Panel Hawkesbury Square Mesh Diamond BRD	Square Mesh Panel Blubber Chute (175mm mesh) Modified Nordmore Grid Hawkesbury Square Mesh

#### Outcomes

The MAC to consider revised BRDs.

#### Agenda Item 7

Industry

#### Issue

New size limit for flounder and sole species.

#### Background

Hawkesbury fishers have raised concern regarding the implementation of a size limit for flounder and sole species.

New bag and size limits for fish were introduced on 3 September 2007. A minimum size limit of 25cm now applies for flounder and sole species. Previously, under the provisions of clause 38(3)(a) of the *Fisheries Management (General) Regulation 2002* and *Fisheries Management (Estuary Prawn Trawl Share Management Plan) Regulation 2006*, large- and small-toothed flounder and black sole were authorised to be retained by Hawkesbury River EPT fishers as they were not a prohibited size class of fish (i.e. did not have a minimum legal length). The imposition of a minimum legal length now prevents Hawkesbury River EPT fishers from legally retaining these species.

#### DPI position

The changes were formulated in light of the findings of environmental assessments of the relevant fisheries based on the best available science, the results of the National Recreational and Indigenous Fishing Survey (2000/01), the Palmer inquiry into illegal fishing, advice from expert committees of stakeholders and more than 3300 public submissions.

Attachment 4 summarises some existing NSW fishery data relating to the landings of flounder and sole species.

**Outcomes**

For discussion.

**Agenda Item 8****Industry****Issue**

Opening and closing times Hunter River EPT.

**Background**

Hunter River EPT fishers have submitted a proposal to DPI to commence commercial prawning in the Hunter River, 3 days after the full moon in October and Sections 1 & 2 closing Easter Thursday, with the rest of the river open until the end of April (weekdays only with no public holidays – 6 am to 6pm). The proposal also recommends that DPI investigate recreational prawning season dates and bring them into line with that of EPT season dates.

Refer to Attachments 5 and 6 for information supplied by Hunter fishers.

**DPI position**

DPI supports a review of the seasonal arrangements for the Hunter River and the introduction of new arrangements, if so determined, for the 2009/2010 season.

With respect to the harvesting of prawns DPI is considering a legislative framework that provides for Industry to adaptively manage where and when prawning takes place to maximise profitability (of the industry as a whole) and to respond to changes in abundance of bycatch etc. Such a program could also be used by Industry to determine, on the basis of trials if needed, when the season opens and closes each year with minimal interference from Government. Under such a scheme DPI would adopt an auditing role and instigate action only where necessary. Such an approach would reduce Government intervention and costs associated with continually changing regulation.

Alternatively, it would be cost effective for DPI to regulate for fixed opening and closing dates and then rely on the prawn count and incidental catch ratio program to adaptively manage where and when prawning takes place, as currently occurs, provided those dates are determined with minimal DPI intervention and do not change regularly.

**Outcomes**

For discussion.

**Agenda Item 9****Industry****Issue**

Brooklyn Sewerage Treatment Plant.

**Background**

Hawkesbury River EPT fishers have raised concern regarding the operation of the STP at Brooklyn.

Attachment 7 is a copy of a letter sent to all Hawkesbury River EPT fishers from the NSW Food Authority.

**Outcomes**

For discussion.

**Agenda Item 10**

**Industry**

**Issue**

Hawkesbury EPT issues paper.

**Background**

Hawkesbury River EPT fishers have submitted an issues paper for discussion .

Refer to Attachment 8 for background information.

**Outcomes**

For discussion.

**Agenda Item 11**

**NSW DPI**

**Issue**

Other business.

**Background**

**Outcomes**

**Agenda Item 12**

**NSW DPI**

**Issue**

Chairperson's summary and next meeting date

**Background**

**Outcomes**

For information

**A Quantitative Analysis of Prawn Harvesting Strategies in NSW – Matt Ives**

The monitoring and assessment of prawn populations in New South Wales (NSW), Australia, has been identified as a continuing research priority by both the fishing industry and the fisheries managers. My dissertation presents a series of dynamic population models developed to evaluate the status of the eastern king prawn (*Melicertus plebejus*) and eastern school prawn (*Metapenaeus macleayi*) populations within NSW and to analyse the relative performance of a number of alternative management strategies involving the three fisheries that target these species. Monthly commercial prawn catch and effort data from 1984 to 2006 were used to calibrate the stock assessment models. Where possible, the results of previous research were used to develop the structure of the model and to provide estimates of biological parameters. A process of increasing model complexity, including the addition of physical processes, such as river discharge events and economic considerations, was undertaken in an attempt to develop the most appropriate model for the analysis of management strategies.

The first model presented was used to undertake a single-species assessment of the eastern king prawn stock and was based on a delay-difference population model with four different representations of recruitment. This model was calibrated to observations using the Bayesian sampling/importance re-sampling method and used to test the effect of significant changes in the future catch on the stock. The second model presented is a size-based metapopulation model which incorporated the dynamics of school prawns over three habitats, being harvested by three different fishing methods. This model was used to test the effect of alternative climate variability scenarios on the stock. The third model presented is a multi-species, multi-fishery bioeconomic model. This model was used to examine the impact of nine alternative economic scenarios, incorporating various combinations of input costs and product prices.

The results from the use of these models indicated that neither of the prawn population appeared to be over-exploited. The analyses also indicated that none of the alternative management strategies were found to stand-out enough to justify a move away from the current management strategy of input controls and spatio-temporal closures, even under a range of future scenarios including climate change and large movements in input costs and product prices.

**Growth and mortality of school prawns – Dr Steve Montgomery**

This FRDC funded project to quantify the growth and mortality of school prawns has completed two years of surveying the sizes of prawns in the Clarence River and will complete similar work in the Hunter River in January 2008. This will mark the end of the field work component of this project. These data will be used to model the growth of school prawns and together with information about mortality will be used to provide information about “optimal” biological conditions for harvesting school prawn populations. It is envisaged that a draft report to FRDC will be ready by mid 2008.

**Mortality of discards from NSW estuarine fishing gears – Dr Matt Broadhurst***Non-technical summary*

In addition to the targeted species, many of the commercial fishing gears used throughout NSW estuaries also catch unwanted organisms (collectively termed 'bycatch'), which are subsequently discarded. During the past 15 years, considerable research has been done to reduce bycatches, mostly via physical modifications to gears. Many of these modifications have been effective in reducing unwanted catches by up to 90%. However, because of the quantities of bycatches, and especially by prawn trawls (i.e. 1000's of individuals per deployment), there remains considerable discarding and, potentially, unwanted mortalities. Other management strategies, such as changes to operational and/or post-capture handling procedures, might help to minimize mortalities to this remaining component of discarded bycatch. Our aims in this three-year project, therefore, are to (i) quantify the immediate and short-term (up to 5 days) fate of key discards from the main estuarine fishing gears, and (ii) test the utility of simple operational and post-capture handling modifications that maximise survival.

Since the project started 2 years ago, data have been collected for more than 20 species discarded from several estuarine gears (fish hauls and mesh nets and prawn seines, hauls and trawls). This work has demonstrated that many factors have differential impacts on mortalities, depending on the gears used and the discarded species of concern. In general, irrespective of the fishing method, soft-bodied fish such as silver biddy and southern herring have incurred substantial scale loss and high mortalities, whereas other more hardy species of fish like catfish and the harder-scaled yellowfin bream and tarwhine, or crustaceans like school prawns and crabs were more resilient with mortalities nearly always less than 50%, and in some cases only around 20%. The survival of these later species, and especially school prawns, after being discarded from towed gears (e.g. seines and trawls) was considerably improved by shorter gear deployments and quickly sorting in water.

These results are quite promising, both in terms of the survival of some key species currently released after being caught by commercial estuarine fishers in NSW, but also for reducing mortalities. Further work is being done to more closely examine the utility of other modifications to operational and post-capture handling procedures. It is anticipated that isolating such simple strategies will contribute towards the sustainability of local fisheries resources.



## **Marine pests and their relevance for the Estuary Prawn Trawl Fishery**

Marine pests are plants or animals, usually introduced from overseas, that have a significant impact on our marine industries and environment. They can include mussels, crabs, seaweeds, sea stars and other marine species. However, not all marine pests are from outside Australia. Some are native to other regions of our country and have been transported into NSW.

Marine pests have been introduced to and moved around Australia by a variety of human-induced means. These include ballast water and sediments, biofouling (marine organisms that attach to objects immersed in salt water, such as ships hulls), aquaculture operations and aquarium imports.

### **How could marine pests affect the commercial fishing industry?**

Marine pests can cause considerable economic damage and environmental impacts to many marine industries, including commercial fishing. For example, black striped mussels were introduced to Darwin harbour in 1999. Clean up costs incurred were in the order of \$2.2 million. The marina was closed to all vessels for four weeks. Other pests may compete with or prey upon native species, entangle in boat anchors, fishing nets and trawling gear leading to increased catch sorting times and reduced efficiency. Populations of European Green Shore Crabs have been found in southern areas of NSW. This species in Tasmania is a major cause of decline in native crab and mollusc populations. In NSW, some areas have been closed to netting due to the presence of the invasive green seaweed *Caulerpa taxifolia*.

### **Significant marine pests in NSW**

Significant marine plant and animal pests already established in NSW include:

- Aquarium Caulerpa (*Caulerpa taxifolia*)
- European/ Green shore crab
- New Zealand screw shell and
- European fan worm
- Wild growing populations of Pacific Oyster

There are other introduced species which have become established in marine waters outside of NSW, and are considered a potential threat to our marine biodiversity and fishing industry if transported here. These include the Northern Pacific seastar, Japanese seaweed / wakame, European clam and Asian green mussel.

### **What is the government doing?**

In order to protect industry and the environment, NSW Department of Primary Industries is working collaboratively with the Australian Government and other state and territory governments to implement a National System for the Prevention and Management of Marine Pest Incursions.

The National System has three major components:

1. Prevent the introduction and movement of marine pests within Australian waters
2. Provide a coordinated emergency response to new incursions and translocations and
3. Manage and control marine pests already in Australia

A communications program is part of the National System. This program will focus on raising community awareness on marine pests and what different industries can do to help protect themselves from marine pests.

### **How can industry protect itself?**

### **ATTACHMENT 3**

Many operators are ahead of the game and already take actions which help prevent the spread of marine pests. However, we'd like to encourage operators in your fishery to learn and practice what extra they can do to protect their livelihood. The fishing industry is developing voluntary best practice guidelines to help prevent the invasion and spread of marine pests to ports and fishing grounds. DPI will be communicating further with fishers once these are finalised.

Please encourage operators to:

1. Learn and follow the best practice guidelines to protect your fishery from invasive marine pests.
2. Learn how to recognise marine pests and report sightings.

These actions will assist in preventing a major marine pest incursion which could affect your fishery.

**Fishery data – soles and flounders**

Between 1992 and 2006 the average annual reported landings of soles and flounders by Hawkesbury River EPT fishers are:

Soles – **0.2 t**

Flounders – **1.0 t**

There are no data available to investigate the size distribution of these landings.

An observer survey of the Hawkesbury River EPT fishery was conducted between 1989 and 1992. Over 3500 flounders and soles combined were captured in 150 observer trips. Overall, less than **1%** of large- and small-toothed flounders captured during the survey were above the current minimum legal length of 25cm.

Between 1998 and 2006 the average annual reported landings of soles across all NSW fisheries is approximately **10.8 t**, with approximately 95% of the harvest from the Ocean Trawl fishery.

Between 1992 and 2006 the average annual reported landings of flounders across all NSW fisheries is approximately **32.9 t**. Data on the breakdown by fishery is not available but a reasonable assumption is that the harvest is predominantly from the Ocean Trawl fishery.

## Opening and Closing of the Estuary

The following would be for a five (5) year plan.

Our proposal is that the River open the first Monday after the full moon in October. Our document has looked at all aspects for a management plan for 5 years I look forward to discussing this issue at the Port meeting on 29 April 2004.

By starting at this time after the full moon, will allow prawns to continue their movements down the river. This is to "protect populations during their time of spawning"<sup>1</sup>. Other goals of Time and area closure in the FMS are also applicable (Section 4.F)

This will also allow recreational fishers a period of unobstructed access to product prior to commercial's trawling. Recreational fishers have been gazetted as allowed to commence operations on the 1 October until the end of May each year 2002-2007. These times will "avoid conflict between stakeholder over the use of the resource and ensure it is equitably shared"<sup>2</sup>

The season would then continue till Easter Thursday when Sections 1 & 2 would be shut and the rest of the river open until the end of April.

Due to the downward movement of small prawns on the Easter moon, this closure will allow unobstructed movement/growth of these prawns in Sections 1 & 2. The final closure will occur on the last Friday of April. After this time it has been documented that juvenile prawns and large quantities of juvenile finfish move upstream to nursery grounds.

It has been said that "The Hunter River is closed during winter to conserve prawn stocks and stocks of juvenile finfish. This estuary contains mostly small prawns during winter, when the prawns grow very little and tend to stay in the estuary before moving to sea over summer and autumn"<sup>3</sup>

Research conducted into this issue found that "The capture of small prawns is viewed as a major cross fishery issue. Initiatives directed at minimising the capture of small prawns and ensuring greater returns to fishers by maximising the saleable quantity of the catch include the development of gear solutions and the introduction of flexible opening and closing arrangement which correlate the opening of estuaries with the availability of **marketable** sized prawns".<sup>4</sup>

## Sustainability of the Product

NSW Fisheries have stated that School Prawns are designated fully fished. This is defined as " the appraisal of a stock which suggests that current catches are sustainable and close to optimum levels. .... In a fully fished fishery, significant increases in fishing effort above current levels may lead to overfishing"<sup>5</sup>.

So far as NSW Fisheries are concerned, if the effort is maintained there are no foreseen problems.

<sup>1</sup> Fishery Management Strategy, Estuary Prawn Trawl Fishery, February 2003 pp 43-44

<sup>2</sup> Fishery Management Strategy, Estuary Prawn Trawl Fishery, February 2003 pp 43-44

<sup>3</sup> Fishery Management Strategy, Estuary Prawn Trawl Fishery, February 2003 p 44

<sup>4</sup> Commercial Fishing Industry Summit Proceeding 1999. NSW Fisheries. Page 19

<sup>5</sup> Fishery Management Strategy, Estuary Prawn Trawl Fishery, February 2003 pp 30-31

## ATTACHMENT 5

From another document, Steve Montgomery is quoted, as saying when talking about landings of school prawns in ocean waters, "The fall in the size of the ocean stocks requires close monitoring, as these are the spawning populations".<sup>6</sup> We feel that under no circumstances should May be commercially worked due to the size of prawns.

### **Commercial Viability**

Any later than an October start, takes away the financial viability of the industry. This can be supported by financial figures that are available and in fact have been supplied to NSW Fisheries previously.

In fact, the Consultation Paper states "Records of declared school prawn catches during October and November from 1997 to 2001 show that up to 30% of the total Hunter River school prawn catch is taken during these months<sup>7</sup>". This period of time also produces the most consistent marketable size and price of any time during the season.

### **Prawn Trawling Trials in 2002-03 and 2003-04**

The failure of these trials proves that they were undertaken at the incorrect time and location. This is backed by the 30% figure of catch history. The prawns must be somewhere during that time period.

### **Equitable Access**

The Consultation Paper states: "During October and November prawns are more abundant in the upper reaches of the Hunter River. The prawns begin moving downstream dispersing more evenly through the River during late spring/early summer." This is not exactly true and the prawns constantly move throughout the estuary each month in response to the moon phases. The time to steam from one end of the estuary to the other is only approximately 1 ½ hours so is not unreachable by any fisher and each endorsement allows the fisher to work anywhere within the estuary.

### **Existing prawn count criteria and prohibited size class of fish bycatch criteria is required to be met.**

Prawn count criteria has already been established as being 150/500g. Fish bycatch is controlled by BRD's at this stage. Ongoing research is required to establish the most suitable catch ratio.

Decisions and gazetting of recent seasons have limited the achievement of fishers to sustain a financially viable commercial industry. As the object of the Fisheries Management Act 1994 state:

- (d) to promote viable commercial fishing and aquaculture industries,
- (e) to promote quality recreational fishing opportunities,
- (f) to appropriately share fisheries resources between the users of those resources,
- (g) to provide social and economic benefits for the wider community of NSW.<sup>8</sup>

We believe this is the only program that is sustainable under cost recovery and share management both of which are to be brought in by NSW Fisheries. Previous programs have neither looked at these aspects or setup an approach to prepare for the implementation of the Fisheries Management Strategy for the Estuary Prawn Trawl Fishery, February 2003.

<sup>6</sup> Juvenile Prawn Summit 2000. NSW Fisheries. Page 29

<sup>7</sup> Opening and Closing Arrangements for Hunter River EPT Consultation Paper, March 2004 p 1

<sup>8</sup> Fishery Management Strategy, Estuary Prawn Trawl Fishery, February 2003 p 16

## Opening and Closing of the Estuary Prawn Trawl in the Hunter River

### History

Hunter River Estuary Prawn Trawl (EPT) has long been split over the opening and closing of the season. Various methods have been implemented to determine this. Most often a “democratic” vote has been carried out with a method of preferences used. Generally there is a group that would like to start at the time of a full moon in October and finish around Easter, and another group requiring a December start (first Monday Dec – last Fri May) and another option of compromise has been suggested to start at the beginning of November – end April. All with a 6 month season.

This compromise was suggested for 2004/05 and voted out 14-10 with a December start.

Fisheries decided to put a plan into action the following year and gave fishers the opportunity to have opening and closing arrangements in place for 5 years. In the closure notice dated 12 July 2004 it states 2004/2005 – 2009/2010 when in fact this plan should be reviewed in 2008/2009 and new arrangements for 2009/2010.

Whilst discussing the proposed share management plan no dates were mentioned for review and 1<sup>st</sup> Mon December – last Friday May was in as the season. I brought this matter up with a number of DPI staff and they all said it would be OK. At a meeting I chaired prior to the implementation of shares it was unanimously agreed to change the dates when the 5 year plan ended. This was also supported by fishers in their submissions to DPI at the time. In fact out of 42 submissions (total) 12 were from Hunter River EPT and maybe 1 didn't have mention about the season. In responses by DPI – Extend the Hunter EPT Season – This matter can be carried forward and the plan amended in the future if required. .... the current closure would remain in place for 5 years after which it would be reviewed.

### Now

I have had representations made by a fisher to again put a plan to DPI in relation to the season dates and I have chased data to substantiate the claim.

A proposal was put to DPI in 2004 in response to a consultation paper on future opening and closing arrangements with a meeting 29 April 2004. I have included a copy of that proposal.

Data has been provided by DPI on the closures that have occurred since 2001 in the Hunter. This shows the date, count, section and how long it was closed for or due to open. This shows that the majority of times that small prawns occur is in the later part of the season (April & May) and it also shows that with so many smaller counts around in May 2005 and the disturbance of small prawns it is now starting to impact on what is left to grow/breed for the beginning of the next season. By having Section 1 closed from 19/12/06 – 7/3/07 there is no equitable access for fishers. The major reason for stalling the opening of the season has been to let prawns grow and to have them distributed evenly throughout the river for equitable access.

**Poaching**

In the past, the start of the recreational season was always the same as ours. It was believed that recreational prawners would not be amenable to a later start than October so they have continued with the earlier start than commercial operators. Since the opening of rec in October this year it is rumoured that 10 people have been apprehended in closures or with excess bag limits. This also is not equitable. At least 2 of the illegal prawners come from commercial fishing families. When commercial trawling started in line with rec, these issues were much less commonplace.

**My Proposal**

That DPI investigate the proposal to commence commercial prawning in the Hunter River, 3 days after the full moon in October and Sections 1 & 2 closing Easter Thursday with the rest of the river open until the end of April (Weekdays only with no public holidays – 6 am to 6pm). Also investigate recreational prawners season dates and bring them into line with commercial.

I believe that as the object of the Fisheries Management Act 1994 state:

- (d) to promote viable commercial fishing and aquaculture industries,
  - (e) to promote quality recreational fishing opportunities,
  - (f) to appropriately share fisheries resources between the users of those resources,
  - (g) to provide social and economic benefits for the wider community of NSW.
- full investigation and implementation is essential.

9 November 2007

Name  
Address  
Address

Dear Hawkesbury River Prawn Fisher

**Brooklyn Sewage Treatment Plant – Discharge of Treated Effluent**

Sydney Water is about to commence operations at the Brooklyn Sewage Treatment Plant (STP). Later this month it is anticipated that discharge of treated effluent from the plant will commence.

Based on information contained in the project's environmental impact statement the Food Authority believes that the plant will be good for river health. In particular the retirement of older sewage management systems and the decommissioning of hundreds of septic tanks will improve water quality.

Despite the improved water quality it is unacceptable to cook or cool prawns in water taken from adjacent to an effluent discharge point. During the public consultation about the plant NSW Food Authority officers discussed with representatives of Hawkesbury River fishers the implementation of a "no cook – no cool" zone for prawns in the vicinity of the Peats Ferry Road Bridge.

Given the commencement of STP operations it is now appropriate to introduce the "no cook – no cool" zone.

**Prawns must not be cooked or cooled in river water sourced from an exclusion zone within 500 metres of the Peats Island Road Bridge.**

I encourage fishers to define the exclusion zone on charts, by use of GPS or by noting appropriate landmarks. For example the following landmarks might prove convenient:

- The upstream boundary could be defined by a line drawn from the western end of Peat Island due south to the southern river bank.
- The downstream boundary could be defined by a line drawn from the highest point on Spectacle Island due south to Long Island.



**ATTACHMENT 7**

Sydney Water has a program to monitor the quality of waters receiving treated effluent. The results of testing will allow continuing review of the size of the exclusion zone.

If you have any questions about the exclusion zone please call Bruce Nelan on 9741 4713.

Yours sincerely

A handwritten signature in black ink, appearing to read 'E Kraa', with a long horizontal stroke extending to the right.

Ed Kraa  
A/Executive Director  
CIE Branch

## Hawkesbury Prawn Trawl Issue Paper EPT MAC meeting – 23 November 2007

Prepared by: Mary Howard

### **Issue:**

Addressing the managerial gaps of NSW Fisheries State legislation and regulations that protect the productivity, health, food safety and survival of all migratory prawns.

### **Background**

Over time, since 1935, NSW Fisheries management has progressively adjusted by utilising a range of Acts and regulations that are primarily designed to manage the commercial fisheries and impacts on those fisheries. The Fisheries Act 1935, Fisheries Management Act 1994, Fisheries Management (General) Regulation 1995, Fisheries Management and Environmental Assessment Legislation Amendment Act 2000 and subsequent changes to 2007. These Acts and regulations are designed to give industry and the Government tools that will provide for a sustainable and viable industry into the future. They have failed industry and the people of NSW who rely on the commercial fishing industry to provide fish as an essential food.

Progressively over time, the industry has been reduced, restricted, removed, and contained all in the interest of a sustainable and viable industry into the future, while population and demand grows.

Within these Acts are numerous committees and structures for a department that looks at compliance of the Acts.

NSW has continued to grow, with an estimated 1000 people a week entering Sydney, the coastal development continues to expand. Drought is influencing development, water demands are increasing. Effluent disposal and stormwater are now becoming new water sources for a changing climate and population growth in the State.

Ninety Nine percent of the 50,000 industrial, agricultural and veterinary chemicals available for use in Australia are old system chemicals that have never been assessed for human health acceptance let alone environmental and aquatic ecosystem survival. *(NCheMN: A National Framework for Chemicals Management in Australia – discussion paper)*

Guidelines are developed for the management and treatment of water that primarily concentrate on impacts to human health. These guidelines are used to develop infrastructure across the state.

Integrated water management plans do not identify fisheries productivity as a relevant evaluation tool. The prime focus in planning and use of the water from catchments is for human consumption not fish health or productivity.

NSW Fisheries are yet again reviewing five fisheries with a mandate and evaluation of sustainability and viability of these fisheries.

### **Discussion:**

The Viability and survival of our Industry is reliant on the productivity of the fish resources of our oceans, rivers, estuaries, lakes, creeks which are all integrated and reliant on healthy water and sufficient flows. Prawns are not only a food source for humans they are a part of the whole food chain. They are found in the Zooplankton

column of our oceans, Lakes and Bays. They migrate through whole systems and are influenced by flow volumes, salinity and temperatures.

In NSW, there exists numerous closures, fish kills, habitat loss, aquatic weed invasion, productivity loss, food safety concerns, restrictions to access, commercial fishing removal and buyouts, income loss, flow disruption and so on. Year after year the impacts increase under the present legislative system and Acts that are failing to deliver healthy Aquatic ecosystems.

The Acts governing the industry to not provide for the industry to defend or protect its interests and viability or sustainability, they solely focus on the industries impacts and its environmental impact management. In most forums the industry fails to have a voice at the table that highlights the impacts that poor environmental management inflicts on the industry. E.g. transferring of water from coastal rivers to inland rivers and fishing viability. Mega litres of effluent daily entering waterways.

There is a major gap in the management of water, waste water, chemical use, flow management and sharing water in the state and the recognition of the impacts on the fish resources in the state. Total ecosystem management is nonexistent and poorly understood.

Water resources are not adequately linked to the health needs of humans and the consumption of healthy fish.

The Oyster industry has moved forward with legislative environmental recognition. The prawn trawl fishery similarly is in need of recognition but more importantly the survival of prawns.

New National Guidelines for the management of water that states and companies are and will be adopting into the future do not protect the aquatic environment they are primarily focused on human health and use of water.

Environmental flows do not have sufficient links and assessment in modelling to assess the productivity of aquatic species in their evaluations. Environmental flows are subject to abuse and extraction if protection is not available.

**Recommendation:**

1. That there is a provision for environmental status recognition at Fisheries legislative and management level that recognises the impacts on the viability of industry from external developments. We need to have a voice and some protection provision that influences the continued degradation, overall health and allocation and sharing of water resources. We need legislative recognition similar to that provided for the Oyster Industry.
2. That research is instigated to identify the gaps and impacts that presently exist in total ecosystem management. This should be specific to the environmental balance and aquatic ecosystem survival and harvesting of water for human consumption, disposal of wastes to aquatic environments, licences to pollute, treatment processes and disposal of brine in catchments.

3. A review of the gaps in chemical knowledge and management and guidelines that control and regulate disposal levels into aquatic environments.