

# NSW Lobster Fishery Harvest Strategy

## Fact Sheet



### **What is a Harvest Strategy?**

A harvest strategy provides a transparent decision-making framework that defines agreed management objectives for a fishery or species, and actions necessary to achieve the objectives.

### **What species and fisheries does the NSW Lobster Fishery Harvest Strategy encompass?**

The NSW Lobster Fishery Harvest Strategy applies to the NSW Eastern Rock Lobster stock (*Sagmariasus verreauxi*), a species largely endemic to NSW waters and harvested by commercial, recreational and Aboriginal fishers.

The largest harvest component is taken via the NSW Lobster Share Management Fishery, which is primarily managed under a Total Allowable Catch (TAC) and Individually Transferrable Quota (ITQ) management system. For recreational and Aboriginal fishers, harvest is primarily managed through size, bag and possession limits.

### **Why do we need a Harvest Strategy for the NSW Lobster Fishery?**

Harvest strategies are a best-practice approach to fisheries management decision making, and an effective way to balance ecological, economic, social, and Aboriginal cultural considerations in a single framework. The harvest strategy provides transparency and certainty for fishery stakeholders and the community about agreed management objectives for the NSW lobster stock,



**The Goal of the Lobster Fishery Harvest Strategy is:**  
*'To maintain a robust, sustainable eastern rock lobster stock biomass to support a profitable commercial lobster fishery, ongoing social, cultural and economic benefits for Aboriginal and recreational stakeholders, and ongoing benefits to the community.'*

establishing how the fishery will be monitored and assessed, and how decisions will be made to achieve the objectives.

The harvest strategy is designed to ensure the lobster stock remains around a target biomass that will support ongoing sustainable harvest and benefits to all stakeholders and the broader NSW community.

#### **What is Optimum Sustainable Yield (OSY)?**

*The NSW Lobster Fishery Harvest Strategy aims to maintain stock biomass around the level supporting OSY. This is a level of biomass that provides robust sustainability and good profitability and fishing opportunity across the whole fishery for all stakeholders.*

### **How was the NSW Lobster Fishery Harvest Strategy developed?**

The NSW Lobster Fishery Harvest Strategy was developed through the expert-based Lobster Harvest Strategy Working Group.

The working group process engaged DPI and independent experts, fishers and key stakeholders in the strategy design process, supporting collaboration for agreed management objectives and other strategy elements for the multi-sector lobster fishery.

Public consultation was also undertaken as part of the development process, inviting submissions from key stakeholders and the community on the draft strategy before final review and implementation.

### **What is the policy basis for the NSW Lobster Fishery Harvest Strategy?**

The harvest strategy has been developed under the NSW Fisheries Harvest Strategy Policy and Guidelines.

The Policy and Guidelines provide for the development and implementation of fishery-specific harvest strategies, to further the objectives of the *Fisheries Management Act 1994* and *Marine Estate Management Act 2014*, consistent with Australia's *National Strategy for Ecologically Sustainable Development 1992*.

### **What are the core elements of the Lobster Harvest strategy?**

Harvest Strategies including the NSW Lobster Fishery Harvest Strategy contain a number of elements that work together to define and operationalise management objectives for the fishery.

These elements provide a framework for assessing fishery performance and defining management actions required to meet the strategy objectives. The core elements of a harvest strategy include:

#### **Ecologically sustainable development**

Risk assessments are undertaken to ensure major risks to the fishery and from the fishery are considered. The NSW Lobster Fishery Harvest Strategy recognises risk assessments already undertaken and will consider any new assessments or risks identified in the future.

#### **Defined operational objectives**

Operational Objectives are established to provide specific and measurable management and performance targets and limits for the fishery. These flow from the higher-level harvest strategy Goal and Strategic Objectives.

Operational objectives for the NSW Lobster Fishery Harvest Strategy aim to maintain spawning biomass around a target reference point supporting Optimum Sustainable Yield across all fishing sectors. The Operational Objectives support increased harvest if the biomass is above the target and increasing management response to reduce harvest if biomass falls below the target.





## Fishery indicators

Primary and Secondary Fishery indicators are established to measure fishery and strategy performance against the strategy objectives.

The primary indicator for operational objectives is current spawning biomass depletion relative to unfished spawning biomass. This indicator is used by the strategy decision rules to guide decisions for changing TAC.

Secondary indicators are also monitored to measure strategy performance, including catch and catch per unit effort (CPUE) trends, recruitment of pueruli and new individuals to the exploitable and spawning biomass, inshore abundance, and economic trends in the commercial sector.



### What are Pueruli?

The larval 'phyllosoma' stage metamorphoses into the 'puerulus' post-larval stage before settling on nearshore rocky reefs and recruiting into the fishery 2-3 years later.

## Reference points

Reference points are established to provide a management target, trigger and limit for indicators used in the operational objectives, defined as:

1. A target level of spawning biomass that supports Optimum Sustainable Yield across all sectors,
2. A trigger level of spawning biomass at and below 25% of the unfished biomass, where management action (i.e. TAC reduction) is strengthened,
3. A limit level of spawning biomass at 20% of the unfished biomass, where a rebuilding strategy is implemented,

### What is Unfished Spawning Biomass?

*The unfished spawning biomass is the amount of lobsters that would have been in the fishery if no fishing or harvesting had been undertaken.*

4. A zero-catch level of spawning biomass at 15% of the unfished biomass, where commercial and recreational harvest ceases, and only Aboriginal cultural fishing may continue.



## Monitoring strategy

A monitoring strategy is defined to ensure appropriate data is available to assess fishery performance against objectives, indicators and reference points. The monitoring strategy includes collection of a range of fishery dependent and independent data.

### Why is fisheries data important?

Fishery data underpins future management of the lobster stock by informing performance against fishery objectives and indicators, status of the stock relative to reference points, and application of harvest strategy decision rules.

## Assessing fishery performance

An annual assessment of fishery performance is undertaken as part of the process for setting the TAC that can be taken. The assessment includes comparison of indicators to reference points and fishery performance against strategy objectives.

## Decision rules

Decision rules are established to specify pre-agreed management actions to be undertaken in accordance with current levels of fishery performance.

The decision rules determine the TAC, being the total harvest by all sectors, with additional rules providing:

1. Total Allowable Commercial Catch (TACC) as a component of TAC,
2. Changes to recreational bag and possession limits in proportion to changes in TACC,
3. Arrangements relevant to Aboriginal Cultural fishing.

### What is Total Allowable Catch (TAC)?

TAC is the total catch that can be taken by all sectors. The TAC for the lobster fishery is determined annually by the independent Total Allowable Fishing Committee and can be adjusted up or down in accordance with decision rules to maintain biomass at the target reference point.

$$\text{Total Allowable Catch (TAC)} = \text{Aboriginal Cultural Harvest} + \text{Recreational harvest} + \text{Illegal / unreported harvest} + \text{Total Allowable Commercial Catch (TACC)}$$

## How do the reference points and decision rules work together?

Reference points are used by decision rules to determine management actions to be undertaken according to different levels of fishery performance against the operational objectives of the harvest strategy (See figure 1).

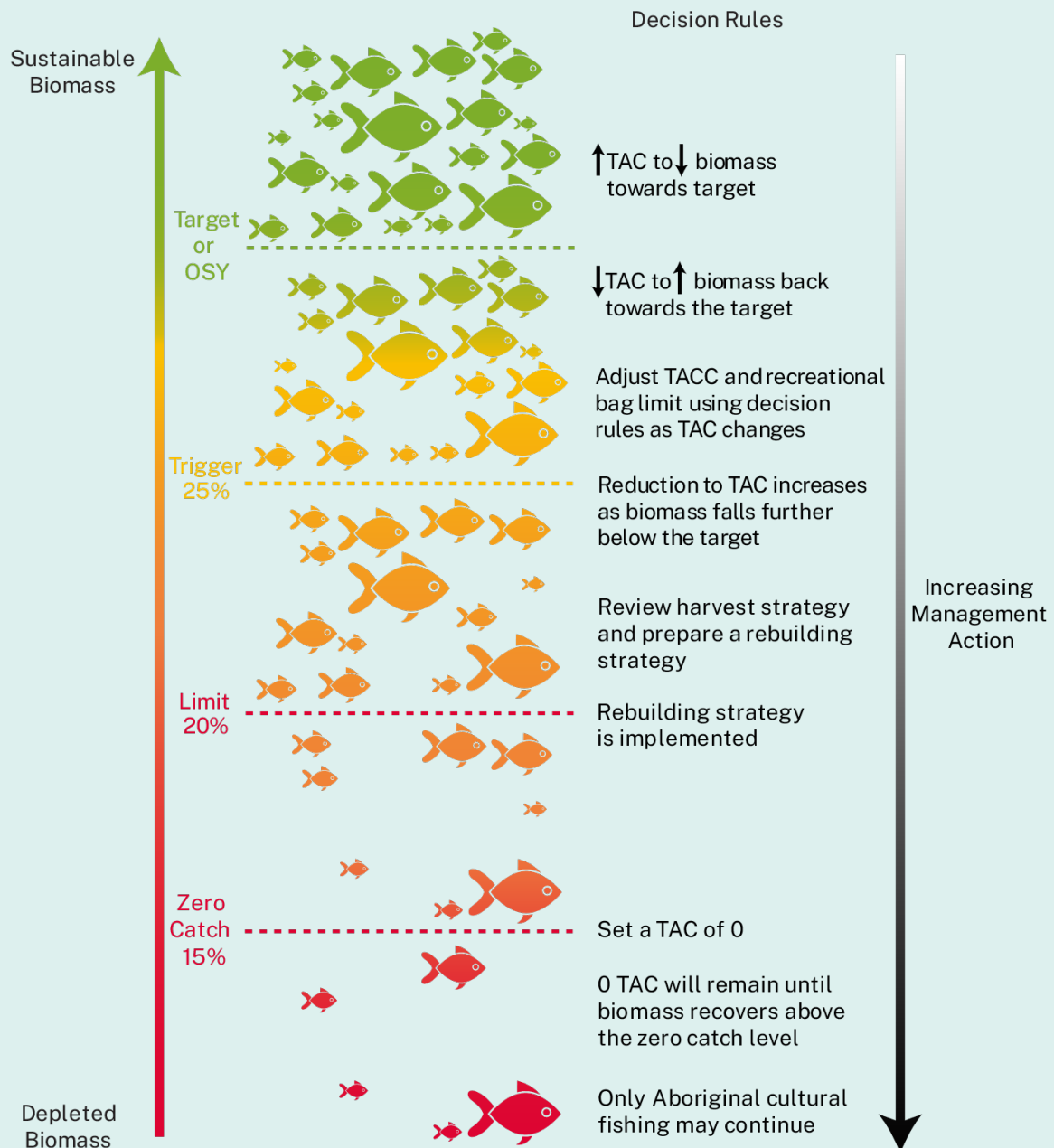
When spawning biomass is around the target reference point and above the trigger reference point, the decision rules provide continuous adjustment to TAC to keep stock biomass around the target level.

In the unlikely case of stock decline to or below the trigger reference point, management response will be increased through stronger reductions in TAC. Other measures to support rebuilding of the stock will be implemented should biomass breach the limit and zero-catch reference points. These measures are included to support the future of the fishery should unexpected stock impacts occur such as through unforeseen environmental events.





**Figure 1 Lobster Fishery Harvest Strategy reference points and decision rules**



### Where can I find more information on Harvest Strategies?

You can find general and specific information about this and other Harvest Strategies on the DPI website, as well as a number of other useful links:

[www.dpi.nsw.gov.au/fishing/harvest-strategies](http://www.dpi.nsw.gov.au/fishing/harvest-strategies)

<https://www.fish.gov.au/report/295-Eastern-Rock-Lobster-2020>

<https://www.dpi.nsw.gov.au/fishing/commercial/fisheries/lobster-fishery>

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