



Grower Consultation at 2022 Shellfish Futures for a Long-Term Industry Blueprint

This report delivers on a commitment given by Oysters Tasmania to Natural Resources and Environment Tasmania (the Department), under the ShellMAP Industry Development Grant, to prepare a grower consultation report to underpin the preparation of a long-term industry blueprint by June 2023.

Oysters Tasmania prepared a presentation on a long-term industry blueprint, shared this with the Department on 22 August 2022, and presented this at the Shellfish Futures Conference in St Helens on 2 September 2022. The presentation is at Appendix A.

Growers in attendance at Shellfish Futures were invited to contribute ideas under various headings to contribute to a long-term industry blueprint. The headings reflected drivers of sustainable profitability — the primary objective of Oysters Tasmania. The input represents industry's starting point for a long-term industry blueprint, in the knowledge that a finalised long-term industry blueprint will be a joint production with government and will reflect broader societal goals beyond the sustainable profits of the industry.

The sustainable profits of the industry would be boosted by doing better on:

- prices,
- inputs and their costs,
- productivity, and
- scale.

Productivity would be boosted by:

- better predicting, detecting and adapting to natural conditions;
- dealing better with pollution (prevention, prediction, detection, adaptation, compensation);
- better breeding;
- better hatchery and nursery operations; and
- better on-farm operations.

Initial grower input on each of these topics is set out below.

Growers are invited to provide further input by Wednesday 30 November 2022, at which time Oysters Tasmania will commence discussions with the Department towards the joint production of a long-term industry blueprint by June 2023.



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Oyster farming's contribution to Tasmania

Tasmania's oyster farmers, farming the 'Pacific' oyster, pay respect to Indigenous Tasmanians, who have been maintaining, harvesting and enjoying native 'Angasi' oysters for millenia. Oyster reefs are a natural part of our coastline, and Aboriginal middens (concentrations of shell, bone, botanical remains, ash, and charcoal) can be found all around Tasmania's coast.

Oyster farms are part of the Tasmanian community. Tasmania's oyster farms are 100% Australian-owned. We are locals who live and work in the community.

Tasmania's oyster farming industry employed 326 Tasmanians in 2020-21 to produce around 40 million oysters, with a farm gate value of around \$37 million.

Around \$29 million of wages and profits were earned on oyster farms in 2020-21. After capturing the flow-on effects for related industries, Tasmania's oyster industry generated around \$41 million in wages and profits, and 430 jobs.

We pay more than \$1 million in industry-specific fees and levies to the State Government, and we ensure that Tasmanian oysters are always available to Tasmanians.

Oyster farming is sustainable, low impact farming. We put nothing in our baskets except our oysters. Oysters are filter-feeders that get all their nutrition from the natural environment. Oysters help maintain the health of our estuaries and coastal waters. Oyster farms provide habitat for other species, supporting a multi-species ecology. Our farmers do regular shore clean-ups, with most of the rubbish we collect being urban waste.

Oyster farming is climate friendly. Oysters sequester carbon in their shells. Farming oysters involves lower greenhouse gas emissions than the farming of all other meat, fish, and crustaceans.

Oyster farmers produce a delicacy that is healthy and safe. Tasmanian oysters are a great source of protein, omega 3, iron and magnesium. We regularly test our oysters and the waters they grow in to ensure that any oysters put on the market are safe to eat. We widely share our test results so that all Tasmanian seafood benefits.

With the right regulatory arrangements, the oyster farming industry can be a booming industry of which Tasmania can be proud, producing ever increasing numbers of our high-value, environmentally-friendly delicacy.



Achieving strong prices for Tasmanian oyster growers

Achieving strong prices for Tasmanian oyster growers will boost the returns to the industry and its employees, with second-round effects across the Tasmanian community, as well as increased revenue collections for the Tasmanian Government.

One option to ensure strong prices for Tasmanian oyster growers is:

1. Ensuring Tasmanian growers share price information so as to counteract the information advantage that a small number of large wholesalers have over disparate Tasmanian growers.

Further options to ensure strong prices for Tasmanian oyster growers involve ensuring strong demand for Tasmanian oysters by:

2. Ensuring Tasmanian oysters are safe and are perceived as safe.
 - a. Current and future on-farm food safety practices should be seen as fundamental to maintaining our markets and prices over the long term.
 - i. On-farm food safety practices include packaging and temperature tracking practices that maximise the chances that Tasmanian oysters continue to be safe even after product leaves the farm.
 - b. Ensuring the safety of Tasmanian oysters is not enough to ensure perceptions of safety. What is also required is accurate traceability for oysters from all growing areas across the nation, so that any mainland oysters associated with a food safety incident are not falsely attributed to Tasmania.
3. Ensuring Tasmanian oysters have a consistent size and (high) quality.
 - a. High quality can be assisted through innovative breeding.
4. Ensuring consumers know their oyster is a Tasmanian oyster.
 - a. Perceptions that Tasmanian oysters are safe and are of a high quality will not fully translate into higher prices for Tasmanian oyster growers if their oysters are not labelled as Tasmanian.
5. Ensuring that Tasmanian growers can consistently service their existing customers.
 - a. Reliability of supply is assisted by minimising closures and the duration of closures, ensuring useable relaying, wet storage and depuration arrangements, and diversification across growing areas.
6. Gaining new customers for Tasmanian oysters within markets we can legally sell to.
 - a. A marketing campaign for Tasmanian oysters may be cost-effective. Distinguishing features are Tasmania's lower water temperatures, (perceived) water quality, and general positivity towards Tasmania.
7. Expanding the markets where we can legally sell Tasmanian oysters.



- a. It may be that access to new international markets is granted to specific growing areas rather than all of Australia.

Some options that support prices for both Tasmanian and mainland oyster growers could be worth pursuing, such as:

8. Ensuring all Australian growers share price information so as to counteract the information advantage that a small number of large wholesalers have over disparate growers.
9. Ensuring all Australian oysters are safe and are perceived as safe.
 - a. Unless and until we achieve perfection in traceability, any food safety incidents associated with mainland oysters will detract from demand for oysters generally.
10. Expanding the markets where we can legally sell Australian oysters.

Achieving quality inputs and containing input costs

Achieving quality inputs and containing input costs will boost the returns to the industry and its employees, with second-round effects across the Tasmanian community, as well as increased revenue collections for the Tasmanian Government.

- Investing in worker development will benefit those workers both while they remain in the industry and beyond.
- Many of the non-labour inputs to oyster production are not produced in Tasmania, so containing those costs is very much in the State's interests.

Inputs to production for the Tasmanian oyster industry — including hatcheries and the breeding company — include finance, staff, land, water, equipment, vessels, vehicles, fuel, freight, regulatory services. Each of these inputs have their costs. The industry also faces tax costs unrelated to an industry-specific service. There are various options to improve the quality of inputs and to reduce various costs.

Finance

Strengthening the property rights that oyster growers have over their farms can improve access to finance and reduce the cost of finance.

The property rights that oyster growers have over their farms are weaker, and are less useful as collateral, compared to the property rights of farmers on land.

Some farmers on land have freehold title over their farms, an option not available to farmers on water.

Other farmers on land have leasehold title, which is the only option for farming on land. In some respects, leases over water and leases over land are similar. Both can be cancelled for breaches of conditions, for failure to make payments, and for 'public purposes', in which case compensation is payable. But in numerous respects, leases over water provide weaker property rights and are less useful as collateral compared to leases over land. This is the case because, unlike with leases over land, leases over water:

- can be varied without the lessee's consent if the lessee is convicted of an offence under the relevant legislation,
- must be cancelled if the lessee is convicted of offences that meet a certain threshold under the relevant legislation,
- can be cancelled, or reduced in area, if the Minister is satisfied that they are not being sufficiently or effectively used for marine farming,
- can have conditions inserted into them after their commencement, by way of a change in the relevant marine farming development plan — meaning that there is always a risk of a new condition that harms farm profitability or viability, or that increases the potential for breaches leading to lease cancellation,
- can be cancelled if the lessee does not retain a licence.



- Marine farming licences do not last as long as marine farming leases, and the Minister can refuse to renew a marine farming licence for various reasons, including that the Minister does not consider renewal to be appropriate. This creates a risk that a marine farming licence is not renewed, leading to a cancellation of a marine farming lease before its expiration.
- The Minister may vary a marine farming licence, including by changing an existing condition or adding a new condition, without the licence holder's consent, and without the licence holder being entitled to bring an action for damages. This means there is always a risk of a new condition that harms farm profitability or viability (so reducing the value of the lease), or that increases the potential for licence cancellation (in which case, the lease is cancelled).
- Marine farming licences can be cancelled (leading to the cancellation of the lease) if the licence holder is convicted of an offence under the relevant legislation, if a licence condition is breached, if a record is not kept, or if a fee is not paid.

It is in the interests of the industry to get rid of each of these factors that reduce the property rights, and useful as collateral, of leases over water compared to leases over land.

Specific practices in the granting and administration of marine farming leases also reduce the property rights, and usefulness as collateral, of these leases.

- It is common practice when granting a marine farming lease to give the Minister the right to cancel a lease if the lessee experiences certain forms of financial distress (i.e. administration, insolvency). This is unwarranted, as the continuation of the lease could assist both the lessee and the lessee's creditors in times of financial distress, whereas a cancellation exacerbates the financial distress.
- The Department does not provide a standard form for lessees to register a financial institution as having an interest in a lease. Registration means that the Department will not allow the transfer of a lease without obtaining the consent of the financial institution. Registration is of value to lessees, as a financial institution may not lend to the lessee if the lease that might serve as collateral can be sold without the financial institution's consent.

It is in the interests of the industry for these specific practices to be reversed.

Staff

Maintaining high quality staff while containing payroll costs will benefit industry profitability as well the prospects of workers, for the long-term benefit of the broader community.

Developing interest in the industry is important, and can occur through including our industry in career pathways promoted in schools, and through offering school children work experience in the industry, so that the oyster industry becomes a recognised trade and career.

Ongoing training and professional development is required to ensure that staff who have the interest and potential in becoming farm managers, and owning farms in their own right, can do so.



Government support for the training and professional development needs of the industry should be at least as generous as support that is provided to other industries via TAFE.

Land

Oyster growers cite increasing difficulty in accessing appropriately zoned land, accessing boat ramp access, and obtaining relevant development approvals. It will be important to obtain recognition from local government that long-standing oyster farmers are as much a part of their community as households, and that it is in the interests of Tasmanians for Tasmania to have production and jobs.

Water

The area of marine farming waters available to the industry is discussed in the section on the industry's scale below.

With respect to the costs of leases, limiting these costs will benefit industry profitability with second-round benefits for the broader community.

These costs include initial lease costs, annual lease fees, fees for varying, transferring and renewing leases, and stamp duties (which the State Revenue Office is no longer applying to marine farming lease transactions).

It can be useful to use auctions to determine initial lease costs, so that they are limited to the value of alternative use.

Equipment, vessels, vehicles, fuel

Improved quality of equipment, software, vessels, vehicles, packaging, and lower costs, will benefit industry profitability with second-round benefits for the broader community.

RD&E can play a role. Better software can improve stock management. Better plastics mean longer lasting in-water equipment, that is still recyclable. Better equipment for moving oysters, including oyster boxes, can cut down on handling costs. Better, environmentally-friendly packaging can appear to customers.

Collective action can potentially constrain costs, such as through bulk buying of equipment and industry-wide negotiations on insurance including workers compensation, electricity, and fuel.

It will be important to maintain fuel tax credits so that fuel excise continues in effect as a consumer tax that does not inflate business costs.

Note that a key, costly, input is refrigeration.

Freight

The freight equalisation scheme needs to be maintained.

Regulatory services

Given the significant fees involved, it will be important for industry profitability to ensure that regulatory fees relate to services received. The ShellMAP levy is clearly related to particular



activities, but the accreditation fee and licence fee are less clearly related to particular services received.

Where regulatory services serve all industry evenly, it is important to align the distribution of fees across growers with the distribution of profits, to minimise the extent to which regulatory fees make or break business viability.

Improving productivity through predicting, detecting, and responding to natural conditions

Industry productivity, and hence industry profitability, can be boosted through better prediction of, detection of, and adaptation to natural conditions.

Knowing more about our fluctuating natural conditions — including water temperatures, algae counts, seagrass growth, dissolved oxygen, pH, salinity, tides and waves, weather, rainfall and hydrodynamics — will enable better analysis on their relationship with oyster growth and conditioning. Knowing more involves doing the measurements required, such as through sensors, storing the data, and analysing the data. All of this then enables the next step of predicting when and where favourable conditions will occur, so we can improve growth and conditioning in the future.

Better prediction of natural conditions includes better prediction of the natural conditions that lead to farm closures. So better prediction can assist in managing when to harvest.

Productivity can also be improved by combining an improved understanding of the natural conditions leading to closures with better responses to impending closures, namely putting mature oysters into depuration and wet storage.

Knowing more about long term trends in natural conditions, including climate change, also creates the potential to adapt to these long-term trends.

Pacific oyster growth outside of oyster farms can be considered as part of natural conditions or as a form of pollution. In some instances feral Pacific oyster reefs can be thought of as providing beneficial habitat, while in other instances they can be considered a nuisance to community and can reduce the nutrients available to oyster farms. In such instances productivity would be improved through the removal of feral Pacific oyster reefs.

Similarly, if introduced or native-but-not-endangered seagrasses are not providing beneficial habitat, cutting these seagrasses without disturbing the sediment could potential improve nutrient availability and farm productivity.



Improving productivity through better water quality

Industry productivity, and hence industry profitability, can be boosted through preventing pollution, better predicting, detecting, and responding to what pollution continues to occur, and achieving compensation for what pollution continues to occur.

Water quality in oyster growing areas can be adversely affected by livestock, other agriculture, forestry, industrial, and sewage activities.

Prevention, including compensation

Regular comprehensive State of the Environment reporting would outline the breadth of sources of pollution affecting oyster growing areas.

This would inform State water quality policy, which should protect marine farms from terrestrial users.

Pollution from livestock can be prevented by keepings stock out of streams and by providing riparian buffers.

More broadly, pollution from agriculture, forestry, and industry can be prevented through effective regulation including regulation on the use of chemicals.

There should be no discharge of untreated or partially treated sewage into oyster growing areas. TasWater should avoid spills by using its powers to disconnect stormwater from networks designed solely for sewage, planning for contingencies including power outages, and having appropriate storage and provision of pump trucks. Compensation to oyster growers whenever a spill occurs would appropriately motivate TasWater to avoid spills. Compensation would allow otherwise viable farmers to continue in business and continue providing employment while subject to spill-prompted closures.

Achieving all of these measures to prevent pollution would involve finding partners to lobby for change.

Prediction, detection, and responding

Whenever pollution cannot be prevented, the hit to productivity can be minimised by better predicting, detecting, and responding to the pollution.

Pollution is washed into oyster growing areas by rain. Better understanding of the relationship between rain and pollution can assist farmers to know if they will be hit by pollution, and if so, when.

Hydrodynamic studies and dye testing can improve our understanding of how far and how fast pollution travels, potentially leading to fewer areas being closed in response to a pollution event,



and to closures happening later than at present, giving growers an opportunity to harvest, put stock in wet storage or depuration, or relay stock to another site.

NSW has funded dye testing, with contributions from sewage authorities.

Prompt and straight-forward approval processes for wet storage and depuration equipment and facilities would support industry productivity.

Better detection of pollution includes faecal source tracking, which can pinpoint the industries or sectors requiring attention.



Improving productivity through better breeding

The oyster industry grows spat in hatcheries and nurseries, grows mature oysters in open waters, and selects mature oysters to serve as brood stock for hatcheries. Hatcheries can select their own brood stock, but a grower-owned company, ASI, offers a brood stock selection service that controls for in-breeding and selects for desired traits.

Improvements in the selection of brood stock can improve industry productivity and profitability.

Tying the revenues of ASI to its performance can underpin strong ASI performance.

The grower peak bodies that own ASI can better monitor ASI performance.

The ASI service can be improved through better communication with hatcheries and growers to discern the traits most desired.

Desired traits can include late spawning, to keep growers in the market longer.

Consideration can also be given to selecting brood stock that sequesters more carbon, and that better copes with warmer water temperatures and higher ocean acidity.



Improving productivity through better hatchery and nursery operations

The oyster industry grows spat in hatcheries and nurseries, grows mature oysters in open waters, and selects mature oysters to serve as brood stock for hatcheries.

Improvements in the operations of hatcheries and nurseries contribute to the productivity and profitability of the entire industry.

The option for hatcheries to select their own brood stock rather than use brood stock supplied by ASI can serve as a discipline to ensure the ASI offers improvements generation after generation, and to ensure that ASI clearly communicates its provision of genetic diversity and avoidance of in-breeding.

The overall oyster industry is well served by having multiple hatcheries to avoid over-reliance on a single hatchery.

Nonetheless, some coordination between hatcheries, such as on standardisation of sizes, could be of benefit.

Moreover, there is a minimum scale that hatcheries would need to achieve to provide a value-for-money product.

Avoiding unnecessary costs within hatcheries would assist the overall industry. As such, it is important to ensure that biosecurity regulation of hatcheries is outcome-focussed rather than being prescriptive about how to run a hatchery.



Improving productivity through better on-farm operations

The oyster industry grows spat in hatcheries and nurseries, grows mature oysters in open waters, and selects mature oysters to serve as brood stock for hatcheries.

Improvements in on-farm operations contribute to the productivity and profitability of the entire industry.

Numerous ways to improve on-farm operations are set out in the discussion on the 'Inputs' to the industry.

In addition, on-farm improvements can involve selling more than just oysters. If old equipment could be used for other plastic products, and if shells could be sold for pharmaceutical and other purposes, industry productivity and profitability would increase.

A costly process faced by farmers is the process of product recalls. These costs can be limited by first limiting the frequency of recalls through best-practice food safety, and secondly by ensuring quick notification of food-borne illnesses across the nation, with as much specificity as possible.



Maintaining and increasing the scale of the industry

The sustainable profits of the industry, with flow on benefits for the broader Tasmanian community, would be boosted by maintaining and increasing the scale of the oyster industry.

Tasmania's coastline of 2,827 kilometres compares to NSW's coastline of 1,973 kilometres, and NSW's coastline is much more heavily populated than Tasmania's. Yet oyster production in NSW can be nearly double that of Tasmania. It should be a matter of state pride for Tasmania's oyster production to exceed oyster production in NSW.

There should be a comprehensive survey to assess the viability of oyster farming across Tasmania's vast coastline.

There needs to be recognition that access to water needs to be accompanied by access to a land base. This includes coordination of marine farm lease arrangements and land use planning processes. There also needs to be consideration of the logistics of moving product between water and land and to markets.

Coastal development should be managed to ensure maximum benefit to all Tasmanians.

The reputation of the industry needs to be safeguarded by ensuring that growers support continued recreational navigation around Tasmania's waterway, and ensuring that growers not generate marine debris.

The growth of the industry would also be assisted by reducing barriers to the growth of small growers into bigger growers that engage in more value-adding.



Long Term Industry Blueprint

Industry & Government



- State Government funding OT to prepare a long-term industry blueprint by June 2023
- Blueprint to be underpinned by:
 - grower consultation
 - an assessment of growth potential
 - Growth assessment to compare Tasmania to other oyster growing areas/jurisdictions

Blueprint Components

- How can we do better, re:
 - Price
 - Costs
 - Productivity
 - Natural conditions
 - Pollution
 - Breeding
 - Hatchery and nursery operations
 - On-farm operations
 - Scale

