# BLUE ECONOMY CRC PROJECT 2.25.001

# Identifying profitable deep water Tasmanian oyster farming leases

# WORK PACKAGE 4 REPORT

# Policy and administrative settings for profitable deep-water and open-ocean oyster farming

Draft for steering committee review

August 2026


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# 1 Executive summary

This Report examines the policy and administrative settings that affect whether deep-water and open-ocean oyster farming can be commercially viable. It compares policy approaches to oyster growing, considers their effects on fees, compliance costs and farming flexibility, assesses their application to farming at depth, and identifies best practice.

The report considers 27 policy areas:

**State policy**

1. Marine farm lease law and administration

2. Spatial identification of future leases, shore bases and operating corridors

3. Default open-ocean approval to operate

4. Stamp duties

5. Food-safety classification of new areas

6. Fees for developing new areas

7. Licence to farm

8. Planning and regulation of land bases

9. Planning and regulation of access channels

10. Interstate translocation

11. Intrastate relaying

12. Food-safety charges

13. Funding of public-interest monitoring

14. Pollution responsibility

15. Wet storage and depuration

**National policy**

16. Food-safety program guidance

17. ASQAP's relevance to farming at depth

18. Training support

**Commonwealth policy**

19. National targets

20. Export standards

21. Tasmanian Freight Equalisation Scheme

22. Migrant worker access

23. Importing oyster genetics

24. Agricultural levies and grower representation

25. Marine disasters and climate adaptation

26. Ecosystem protection

27. R&D tax incentive

The report makes 31 recommendations across these 27 areas. Taken together, they describe a policy environment in which oyster farming can expand into deeper and more exposed water without weakening food safety, biosecurity or navigation protection.

Marine-farm tenure would be financeable, digitally administered and charged only for efficient administration; governments would identify deep-water opportunities, shore bases and operating corridors before individual investment; open-water farming would be approved by default; transaction duty and development-stage fee hurdles would not impede activation of underused assets; and new harvest areas would be classified early and at public cost.

A separate licence to farm would not be required, while land-base and access-channel approvals would be expressly designed for shellfish aquaculture. Interstate movement rules would follow biological pathways rather than State borders, relaying would remain available during food-safety closures, and POMS settings would reflect industry appetite for a commercial risk informed by current surveillance.

Food-safety charges would sit transparently within food-safety law; public and recreational beneficiaries would fund their share of integrated monitoring; polluters and public pollution-control systems would bear appropriate pollution costs; and wet storage and depuration would be available through clear risk-based pathways. Guidance would be provided by a short national food-safety program template, ASQAP would require sampling where the oysters grow, and training support would be sector-blind.

At the Commonwealth level, policy would target increased oyster production; export rules would follow ASQAP except where an importing country requires more; freight equalisation would directly address the Bass Strait disadvantage; access to migrant workers would be sector-blind; controlled access to overseas genetics would be possible; a production levy would fund RD&E, marketing and representation under grower control; shellfish would compete fairly for marine-disaster, climate and ecosystem-service grants; environmental policy would only regulate demonstrated impacts; and the R&D Tax Incentive would be used more effectively by farms, hatcheries and breeding programs.

The combined effect would be a more investable, adaptable and accountable oyster industry capable of using existing and future deep-water opportunities while preserving the public protections that matter.

## 2 Recommendations

**Recommendation 1**. Marine-farm lease law should enable registration, discharge and protection of mortgages, charges and other security interests, with notice and appropriate protection for secured parties before prejudicial dealings, cancellation or non-renewal.

**Recommendation 2**. Lease charges should relate only to efficient tenure administration. Marine-farm lease and any retained licence processes should be fully digitised; service standards should apply to transfers, subleases, variations and licence decisions; and inspection frequency should be risk- and performance-based, with less routine inspection of established compliant low-risk farms.

**Recommendation 3**. Jurisdictions should spatially identify existing and prospective oyster-development capacity, including deep-water opportunities, and map the shore bases, boat ramps, operating corridors, bathymetry, exposure, navigation constraints, food-safety considerations and other material site characteristics needed to make that capacity usable. Where this work has already been undertaken it should be maintained and used, rather than repeated for each proponent.

**Recommendation 4**. Within well-flushed open-water development areas, shellfish farming should be approved by default, with only navigation, lost-gear recovery and decommissioning requirements to be imposed. Production and spacing limits should not apply as there is no effective competition for nutrients. The same principle should inform any future commercial shellfish regime in adjacent Commonwealth waters, although the immediate opportunity is principally in State waters.

**Recommendation 5**. Transaction duties should not apply to transfers of oyster-farm assets.

**Recommendation 6**. New shellfish harvest areas should be classified through a clear, early process integrated with site development. Classification of an area that will be available to multiple present or future growers should be publicly funded rather than charged to the first proponent.

**Recommendation 7**. Regulatory charging should not create a cash-flow hurdle before oysters can mature and be sold. New or newly activated oyster areas should therefore face no lease, licence or equivalent annual development charge for at least the first year of farming and, where the production cycle requires it, until the first commercial crop can be sold.

**Recommendation 8**. A lease or equivalent tenure approval should ordinarily be sufficient permission to farm oysters. A separate requirement to have a farming licence should be removed. If a jurisdiction retains a licence, one licence should be capable of covering multiple compatible lease areas; its term should be co-extensive with the lease or indefinite; adverse decisions should be reasoned and reviewable; conditions should not duplicate lease or other statutory obligations or include controls designed for wild fisheries that exploit a native exhaustible resource; and record and reporting requirements should be retained only where they serve a demonstrated regulatory use.

**Recommendation 9**. Planning law should expressly recognise shellfish aquaculture and protect strategically important shore bases, boat ramps and operating corridors. Low-risk and reversible land-base works should move to permitted, deemed-consent or no-permit pathways.

**Recommendation 10**. For oyster shore bases on Crown land, the Crown landlord should regulate only matters within a defined landlord or statutory function, avoid duplicating other regulators, and decide any remaining landlord-consent applications within a short period.

**Recommendation 11**. Once the footprint, method and relevant risks of recurring silt removal or maintenance of an established oyster access channel have been assessed, approval should be standing or open-ended, with reassessment only when those matters materially change.

**Recommendation 12**. State-border-based oyster movement rules should be replaced by source-area, destination-area, species, life-stage and pathogen-specific rules. Interstate movements should face no greater restriction than materially equivalent intrastate movements. States should permit movement of Pacific oyster spat, juveniles and broodstock where destination-specific biosecurity requirements are met, including direct movement of broodstock to biosecure breeding facilities; Tasmania should also provide a pathway for commercial Sydney Rock oyster farming. States should agree to protocols that use common pathogen-host matrices and area-health classifications and recognise that recent detection does not prove recent introduction, genetic difference is not itself harm, competition must be demonstrated, and pathogen controls should reflect host and carrier competence.

**Recommendation 13**. Food-safety closures for E. coli, rainfall, sewage contamination or marine biotoxins should control harvest and sale, not automatically prohibit movement of stock. Additional movement restrictions should require a distinct biosecurity pathway by which the movement materially increases the probability of establishment of a harmful organism or bloom; possible carriage of algal cells or cysts alone is insufficient. POMS movement risk should be treated principally as a commercial production risk of the introduced Pacific oyster industry, with the substantive level of restriction set in line with industry preferences. Government disease surveillance should provide contemporary evidence to inform those choices and any area classifications.

**Recommendation 14**. Compulsory food-safety charges should be imposed and justified under food-safety legislation. Charging should transparently distinguish the commercial harvest-assurance function from public-health functions.

**Recommendation 15**. Where shellfish monitoring supplies material benefits beyond commercial harvest assurance - including harmful-algal-bloom warning, recreational shellfish safety or broader contaminant surveillance - the public or recreational share of benefits should be publicly funded or funded from an appropriate beneficiary-based source. Periodic beneficiary and cost analysis should determine the shares rather than placing the whole integrated network cost on commercial growers.

**Recommendation 16**. Pollution policy for shellfish waters should follow polluter-pays principles. Governments should prevent and investigate sewage, agricultural, industrial, chemical and metal contamination; recover costs from identifiable polluters where the law permits; publicly fund monitoring and investigation needed for the public pollution-control function; and provide a simple compensation or remediation pathway where preventable failure of public pollution infrastructure or control causes mandatory closures and material grower loss.

**Recommendation 17**. Wet storage and depuration should have clear, standard and risk-proportionate approval pathways. Requirements should be tied to the hazard controlled and validated process performance, rather than unnecessary site, equipment or paperwork prescriptions that do not improve food safety.

**Recommendation 18**. Australia should maintain a short, modular, nationally consistent oyster food-safety-program template under the cooperative ASQAP framework. It should incorporate ASQAP and Food Standards Code requirements and require forms and records only where they serve an identified food-

safety, traceback or verification function. States should allow registration of a food safety program where the template is adopted, require reapproval only for material changes to hazards, processes or alternative controls, and direct audits to effective operation of material controls rather than superfluous paperwork, with required audit frequency being a function of a business's audit history.

**Recommendation 19**. ASQAP water-quality and relevant environmental sampling should represent the water actually filtered by the shellfish. For deep-water culture, requirements to sample 30 centimetres below the surface should be replaced by sampling at the oyster-growing depth or representative depth band, with multiple depths required only where evidence demonstrates material vertical stratification.

**Recommendation 20**. Commonwealth and State training support should be sector-blind. Accredited maritime and seafood training providers should have access to public training support on terms no less favourable than TAFEs, and apprenticeship or structured-training assistance should not depend on a sector winning a shortage-list or lobbying contest.

**Recommendation 21**. The Australian Government should adopt a national target for increased oyster production and treat expansion of low-input shellfish aquaculture, including deep-water production, as part of national food, regional-development and blue-economy policy.

**Recommendation 22**. Commonwealth oyster and mussel Export Standards should remain aligned with the cooperatively developed national ASQAP standard except where a verified importing-country requirement requires a departure. Validated environmental criteria should be able to reopen environmentally closed areas without routine meat testing; relay should not attract automatic pre- and post-relay meat testing, and should not require a fixed long residence period unrelated to validated risk, relaying should be allowed for sewage-events; and validated biotoxin sentinel networks should be able to represent multiple harvest areas with reopening based on threshold-plus-confirmation rather than an additional mandatory declining-trend test.

**Recommendation 23**. The Tasmanian Freight Equalisation Scheme should directly offset the structural Bass Strait freight disadvantage through a simple benchmark model: freight forwarders should ordinarily claim northbound assistance; product-code eligibility tests should be removed; separate dry and refrigerated assistance should use periodically audited average wharf-to-wharf benchmarks rather than each customer's individual price; route-scaling and sliding-scale distortions should be removed; southbound exclusions based solely on an Australian equivalent or age of an import should be removed; reusable packaging returns should qualify; and air freight should be eligible up to the equivalent sea-freight benchmark.

**Recommendation 24**. Skilled-migration settings should be sector-blind. Employer-sponsored access should turn on the ordinary visa requirements applying across the economy rather than whether aquaculture or a particular occupation has won an annual shortage classification. Government should not ration access among industries according to which sector makes the strongest shortage claim.

**Recommendation 25**. The Commonwealth should establish a purpose-built, risk-based pathway for importing overseas Pacific oyster genetic resources for breeding. The objective should be to permit genetic improvement where biosecurity risks can be controlled, as occurs under managed pathways in other oyster-producing countries.

**Recommendation 26**. Establish a Commonwealth oyster production levy with separate RD&E, marketing and expressly authorised policy/industry-representation components; retain Commonwealth matching of eligible RD&E; and allow agreed funds to flow to State peak bodies for State-level delivery.

**Recommendation 27**. Require bodies spending material oyster levy revenue to be controlled by levy-paying growers in proportion to contributions; amend constitutions where necessary. Establishment, material change and discontinuation of industry levies should be controlled by levy payers.

**Recommendation 28**. Existing Commonwealth agricultural and environmental grant programs should expressly include shellfish aquaculture, and new topic-based programs should be designed neutrally so shellfish can compete on merit. Eligible topics should include ecosystem services, marine disasters, harmful algal blooms, acute marine climate events such as heatwaves, and chronic climate adaptation to rising temperature and changing pH.

**Recommendation 29**. Native-shellfish-reef, marine-park and other marine-environment policies should not treat oyster aquaculture as a threat merely because it occurs within or near a protected area. Additional approvals, refusal grounds, operating conditions, exclusion areas or buffers should require credible evidence of a site-specific causal pathway to material harm. Policy should distinguish unfed bivalve farming from aquaculture systems with materially different feed, waste, carbon or habitat effects.

**Recommendation 30**. Commission an independent oyster-industry R&D Tax Incentive review focused on hatcheries and farms, identifying eligible activity that is not being claimed and providing practical sector guidance.

**Recommendation 31**. Structure commercial Sydney Rock oyster and Pacific oyster breeding through genuine industry-controlled taxable companies able to obtain the maximum lawful R&D Tax Incentive benefit, while retaining public research partners; support breeding through an appropriate production-levy allocation under transparent outcome agreements.

# 3 Context and scope

The Project Plan for Blue Economy CRC Project 2.25.001, Identifying profitable deep water Tasmanian oyster farming leases, assigns WP4 the task of ascertaining policy approaches to oyster growing across jurisdictions; assessing their effects on fees, compliance costs and farming flexibility; considering their applicability to open-ocean and deep-water farming; and recommending best practice. WP1 characterises deep-water environments, WP2 develops production and cost/revenue information, WP3 analyses WP1 and WP2 data to produce a guide to profitable deep-water farming and a cost benefit analysis, and WP4 identifies policy settings that allow technically and biologically viable production to become commercially usable.

The principal Australian comparisons are Tasmania, New South Wales and South Australia because each has an established commercial oyster industry but materially different tenure, planning, food-safety and administrative arrangements. Other Australian jurisdictions are used where they provide a useful comparator, and international approaches are considered where they directly illuminate oyster genetics, offshore farming or shellfish sanitation.

# 4 Why regulation has a particular impact on deep-water farming

Australian shellfish regulation developed around an industry that first farmed predominantly in shallow and intertidal water. Pacific oysters themselves are naturally intertidal: they commonly attach to hard substrate that is exposed for part of the tidal cycle. Moving production into permanently submerged, deeper and more

exposed water therefore requires both engineering adaptation and regulatory adaptation. Rules that are innocuous for shallow-water farming can become material constraints when they assume surface sampling, easy shore access, low-cost structures or familiar operating areas.

### 4.1 Capital intensity and irreversibility

Deep-water farming shifts expenditure toward vessels, moorings, anchors, flotation, suspended systems, communications, monitoring and weather-dependent operations. More capital is committed before production revenue is proven, increasing the value of secure tenure, financeable property rights and predictable approvals.

### 4.2 Exposure to operating constraints

A biologically productive deep-water site can still be commercially unusable without suitable wharves, ramps, navigation corridors, grading and dispatch facilities. Policy therefore should treat the water site and its shore interface as one operating system.

### 4.3 New harvest areas and market confidence

Expansion can require new harvest-area classifications, monitoring plans and sampling arrangements. Because oysters are commonly consumed raw, food-safety assurance is part of product value. Best practice is not weaker regulation but regulation that measures the actual hazard, is established early, and avoids requirements that do not add safety.

## 5 Best-practice policy settings

### 5.1 Marine farm lease law and administration

Aquaculture tenure is a productive business asset only if it can be transferred, financed and relied upon. NSW expressly permits endorsement of mortgages, charges and other interests on aquaculture lease documentation, while South Australian reforms strengthened third-party protections and were explicitly linked to financier certainty. These models show that marine tenure can protect the public interest while also giving lenders a visible statutory position. Long lease terms alone are not enough if security interests and administrative dealings remain uncertain. Administrative settings matter as well: lease charges should recover efficient tenure administration rather than become a barrier to holding productive water, and routine processes should be digital, timely and proportionate to compliance risk.

**Recommendation 1**. Marine-farm lease law should enable registration, discharge and protection of mortgages, charges and other security interests, with notice and appropriate protection for secured parties before prejudicial dealings, cancellation or non-renewal.

**Recommendation 2**. Lease charges should relate only to efficient tenure administration. Marine-farm lease and any retained licence processes should be fully digitised; service standards should apply to transfers, subleases, variations and licence decisions; and inspection frequency should be risk- and performance-based, with less routine inspection of established compliant low-risk farms.

### 5.2 Spatial identification of future leases, shore bases and operating corridors

Strategic spatial planning reduces first-mover risk. NSW gives planning recognition to Priority Oyster Aquaculture Areas and protects important shore sites; South Australia uses statutory aquaculture zones; Queensland and Western Australia also use government-led aquaculture development areas or zones. The

transferable principle is to undertake common spatial work once, including deep-water opportunity, access and coexistence constraints, rather than require every grower to rediscover the same information.

**Recommendation 3**. Jurisdictions should spatially identify existing and prospective oyster-development capacity, including deep-water opportunities, and map the shore bases, boat ramps, operating corridors, bathymetry, exposure, navigation constraints, food-safety considerations and other material site characteristics needed to make that capacity usable. Where this work has already been undertaken it should be maintained and used, rather than repeated for each proponent.

## 5.3 Default open-ocean approval to operate

In well-flushed ocean water, the usual terrestrial analogy of competing for a scarce productive input is weak. Oysters filter naturally occurring water and are not fed, so there is no effective competition for nutrients between neighbouring farms in such settings. The relevant public controls are therefore principally navigation, lost-gear recovery and decommissioning. Where those matters are addressed, farming should be approved by default rather than subjected to production or spacing limits directed to nutrient competition. Existing research and international offshore trials show that exposed-water shellfish farming is technically feasible, although engineering and operating costs are higher.

**Recommendation 4**. Within well-flushed open-water development areas, shellfish farming should be approved by default, with only navigation, lost-gear recovery and decommissioning requirements to be imposed. Production and spacing limits should not apply as there is no effective competition for nutrients. The same principle should inform any future commercial shellfish regime in adjacent Commonwealth waters, although the immediate opportunity is principally in State waters.

## 5.4 Stamp duties

Transfer taxes are poorly aligned with productive development because liability is triggered by a transaction rather than by harm or regulatory work. South Australia has abolished duty on many non-land business transactions, while statutory aquaculture transfers continue through published administrative processes. For deep-water development, policy should encourage dormant or underused assets to move to businesses with the capital and capability to develop them. Transaction-based taxes can discourage the movement of leases, businesses and equipment to operators best placed to develop them, particularly where underused deep-water tenure needs new capital or ownership.

**Recommendation 5**. Transaction duties should not apply to transfers of oyster-farm assets.

## 5.5 Food-safety classification of new areas

Classification of a shellfish harvest area is a public-health determination about the area, not a private asset unique to the first grower. NSW and South Australian systems both classify and monitor growing areas within structured shellfish programs. Early classification prevents a proponent from investing in engineering before learning that food-safety monitoring is impractical. Where the classification is reusable by later growers, charging its establishment cost to the first mover creates an avoidable disincentive.

**Recommendation 6**. New shellfish harvest areas should be classified through a clear, early process integrated with site development. Classification of an area that will be available to multiple present or future growers should be publicly funded rather than charged to the first proponent.

## 5.6 Fees for developing new areas

Oysters have a long biological production cycle. Annual charges imposed from the beginning of a trial or activation can fall well before any crop can be sold. That is particularly significant in deep water, where engineering is also being proven. Best practice is to avoid a regulatory cash-flow hurdle during at least the first year of production rather than call the absence of such a charge a discretionary concession.

**Recommendation 7**. Regulatory charging should not create a cash-flow hurdle before oysters can mature and be sold. New or newly activated oyster areas should therefore face no lease, licence or equivalent annual development charge for at least the first year of farming and, where the production cycle requires it, until the first commercial crop can be sold.

## 5.7 Licence to farm

Some jurisdictions separate tenure from a further licence to conduct aquaculture. South Australia, for example, has corresponding leases and licences, although its licence can be co-extensive with the production lease. The policy question is whether the second instrument controls anything not already controlled by tenure, food-safety, biosecurity, navigation and environmental law. Conditions inherited from wild-catch fisheries are particularly ill-suited to farming, because oyster growers cultivate stock rather than extract a native exhaustible public resource.

**Recommendation 8**. A lease or equivalent tenure approval should ordinarily be sufficient permission to farm oysters. A separate requirement to have a farming licence should be removed. If a jurisdiction retains a licence, one licence should be capable of covering multiple compatible lease areas; its term should be co-extensive with the lease or indefinite; adverse decisions should be reasoned and reviewable; conditions should not duplicate lease or other statutory obligations or include controls designed for wild fisheries that exploit a native exhaustible resource; and record and reporting requirements should be retained only where they serve a demonstrated regulatory use.

## 5.8 Planning and regulation of land bases

Deep-water production depends on scarce shore interfaces. NSW Crown Lands expressly recognises land-based oyster sites as strategically located infrastructure and protects them from incompatible use. Planning systems should similarly name shellfish aquaculture, rather than leave it to fit awkwardly within generic rural, industrial or coastal categories. Low-impact works on an already authorised shore base should not repeatedly trigger full discretionary approval. Where the Crown is the landowner, its consent should be confined to matters relevant to any landlord; planning and other regulatory questions should remain with the responsible regulator.

**Recommendation 9**. Planning law should expressly recognise shellfish aquaculture and protect strategically important shore bases, boat ramps and operating corridors. Low-risk and reversible land-base works should move to permitted, deemed-consent or no-permit pathways.

**Recommendation 10**. For oyster shore bases on Crown land, the Crown landlord should regulate only matters within a defined landlord or statutory function, avoid duplicating other regulators, and decide any remaining landlord-consent applications within a short period.

## 5.9 Planning and regulation of access channels

Access channels are operating infrastructure, not one-off development projects. Where a channel has already been assessed and recurring maintenance stays within the approved footprint and method,

repeated applications add transaction cost without changing the risk. Standing approval with reassessment on material change is the proportionate model.

**Recommendation 11**. Once the footprint, method and relevant risks of recurring silt removal or maintenance of an established oyster access channel have been assessed, approval should be standing or open-ended, with reassessment only when those matters materially change.

## 5.10 Interstate translocation

A State border has no biological significance to a pathogen. NSW hatchery protocols already demonstrate that interstate oyster movements can be managed through source, testing, hatchery and destination conditions rather than absolute exclusion. Tasmania's internal POMS zoning likewise demonstrates the logic of epidemiological areas rather than whole-State categories. Climate change also strengthens the value of keeping species options open, including Sydney Rock oysters in Tasmania.

**Recommendation 12**. State-border-based oyster movement rules should be replaced by source-area, destination-area, species, life-stage and pathogen-specific rules. Interstate movements should face no greater restriction than materially equivalent intrastate movements. States should permit movement of Pacific oyster spat, juveniles and broodstock where destination-specific biosecurity requirements are met, including direct movement of broodstock to biosecure breeding facilities; Tasmania should also provide a pathway for commercial Sydney Rock oyster farming. States should agree to protocols that use common pathogen-host matrices and area-health classifications and recognise that recent detection does not prove recent introduction, genetic difference is not itself harm, competition must be demonstrated, and pathogen controls should reflect host and carrier competence.

## 5.11 Intrastate relaying

A food-safety closure determines whether oysters may be harvested for consumption; it does not by itself establish that moving livestock creates a biosecurity hazard. E. coli, sewage and biotoxin events therefore need separate movement analysis. Harmful algal blooms require environmental conditions beyond mere carriage of cells or cysts. POMS is different again: it affects Pacific oysters and is not a human food-safety risk, so the level of commercial protection should principally reflect industry preference informed by current surveillance.

**Recommendation 13**. Food-safety closures for E. coli, rainfall, sewage contamination or marine biotoxins should control harvest and sale, not automatically prohibit movement of stock. Additional movement restrictions should require a distinct biosecurity pathway by which the movement materially increases the probability of establishment of a harmful organism or bloom; possible carriage of algal cells or cysts alone is insufficient. POMS movement risk should be treated principally as a commercial production risk of the introduced Pacific oyster industry, with the substantive level of restriction set in line with industry preferences. Government disease surveillance should provide contemporary evidence to inform those choices and any area classifications.

## 5.12 Food-safety charges

Food-safety charges should be legally and conceptually separated from voluntary or industry levies. The relevant question is what regulatory food-safety function government is performing and how its cost should be allocated. This prevents statutory public-health regulation from being treated as though it were a service purchased through industry-governance arrangements.

**Recommendation 14**. Compulsory food-safety charges should be imposed and justified under food-safety legislation. Charging should transparently distinguish the commercial harvest-assurance function from public-health functions.

## 5.13 Funding of public-interest monitoring

Integrated shellfish monitoring can protect commercial consumers, recreational harvesters and the wider public at the same time. Best practice is functional cost allocation. Commercial businesses can fund the share needed for their harvest assurance and market access; public or recreational beneficiaries should fund the additional public-health surveillance they receive.

**Recommendation 15**. Where shellfish monitoring supplies material benefits beyond commercial harvest assurance - including harmful-algal-bloom warning, recreational shellfish safety or broader contaminant surveillance - the public or recreational share of benefits should be publicly funded or funded from an appropriate beneficiary-based source. Periodic beneficiary and cost analysis should determine the shares rather than placing the whole integrated network cost on commercial growers.

## 5.14 Pollution responsibility

Oysters can be among the first businesses affected by pollution because harvest areas close when water quality is unsafe. NSW expressly applies polluter-pays principles in environmental regulation. Growers should not become the residual financier of pollution control merely because their product is a sensitive indicator. Prevention, source investigation, enforcement and compensation for preventable public-system failure should align costs with responsibility.

**Recommendation 16**. Pollution policy for shellfish waters should follow polluter-pays principles. Governments should prevent and investigate sewage, agricultural, industrial, chemical and metal contamination; recover costs from identifiable polluters where the law permits; publicly fund monitoring and investigation needed for the public pollution-control function; and provide a simple compensation or remediation pathway where preventable failure of public pollution infrastructure or control causes mandatory closures and material grower loss.

## 5.15 Wet storage and depuration

Wet storage and depuration are food-safety and product-handling tools that can support routine operations as well as resilience during temporary closures. The regulatory task is to validate the process and control the relevant hazard, not to prescribe unnecessary physical or documentary details. NSW's separate wet-storage program template illustrates that the activity can be treated as a defined module rather than as an exceptional business model.

**Recommendation 17**. Wet storage and depuration should have clear, standard and risk-proportionate approval pathways. Requirements should be tied to the hazard controlled and validated process performance, rather than unnecessary site, equipment or paperwork prescriptions that do not improve food safety.

## 5.16 Food-safety program guidance

The Food Standards Code and ASQAP already establish the core national shellfish food-safety architecture. NSW provides shellfish-specific food-safety templates, including variants for harvest-and-hold and wet storage, while Queensland provides a useful broader example of reaccreditation being associated with major process change. A national modular template can therefore reduce duplicated text and forms while

preserving HACCP-based control. Audit frequency should also respond to a business's audit history, so sustained compliance reduces unnecessary repeat burden while poor performance attracts closer oversight.

**Recommendation 18**. Australia should maintain a short, modular, nationally consistent oyster food-safety-program template under the cooperative ASQAP framework. It should incorporate ASQAP and Food Standards Code requirements and require forms and records only where they serve an identified food-safety, traceback or verification function. States should allow registration of a food safety program where the template is adopted, require reapproval only for material changes to hazards, processes or alternative controls, and direct audits to effective operation of material controls rather than superfluous paperwork, with required audit frequency being a function of a business's audit history.

## 5.17 ASQAP's relevance to farming at depth

A fixed near-surface water sample is a convenient convention for shallow farming but can be unrepresentative of oysters several metres below the surface. Deep water may be vertically stratified by salinity, temperature, phytoplankton and microbial contamination. The scientifically relevant sample is the water filtered by the oyster. International shellfish sanitation systems likewise focus on representative growing-area risk rather than treating one sampling geometry as an end in itself.

**Recommendation 19**. ASQAP water-quality and relevant environmental sampling should represent the water actually filtered by the shellfish. For deep-water culture, requirements to sample 30 centimetres below the surface should be replaced by sampling at the oyster-growing depth or representative depth band, with multiple depths required only where evidence demonstrates material vertical stratification.

## 5.18 Training support

Training support is shaped by both Commonwealth and State policy. Oyster and maritime businesses can require specialised practical training that is not always delivered through TAFE. Public support should follow the training delivered rather than the institutional label of the provider. The same neutrality principle applies to occupation-based apprenticeship support: industries should not have to win an annual shortage contest to access baseline training assistance.

**Recommendation 20**. Commonwealth and State training support should be sector-blind. Accredited maritime and seafood training providers should have access to public training support on terms no less favourable than TAFEs, and apprenticeship or structured-training assistance should not depend on a sector winning a shortage-list or lobbying contest.

## 5.19 National targets

Oysters are unfed, low-input food production with regional employment, export and environmental-service potential. A national production target would make expansion an explicit policy objective and provide a reference point against which Commonwealth biosecurity, grants, research, trade and environmental settings can be evaluated. It need not prescribe where production occurs or override State planning.

**Recommendation 21**. The Australian Government should adopt a national target for increased oyster production and treat expansion of low-input shellfish aquaculture, including deep-water production, as part of national food, regional-development and blue-economy policy.

## 5.20 Export standards

The Commonwealth Export Standards should not become a second, more restrictive shellfish code without a market-access reason. The national ASQAP standard is cooperatively developed and already manages shellfish hazards. Additional export controls are justified where an importing country requires them; otherwise divergence adds testing, closure time and paperwork without necessarily improving safety. In particular, export rules should not impose routine meat testing, fixed relay periods or sewage-event relay prohibitions unless those requirements are justified by importing-country conditions.

**Recommendation 22**. Commonwealth oyster and mussel Export Standards should remain aligned with the cooperatively developed national ASQAP standard except where a verified importing-country requirement requires a departure. Validated environmental criteria should be able to reopen environmentally closed areas without routine meat testing; relay should not attract automatic pre- and post-relay meat testing, and should not require a fixed long residence period unrelated to validated risk, relaying should be allowed for sewage-events; and validated biotoxin sentinel networks should be able to represent multiple harvest areas with reopening based on threshold-plus-confirmation rather than an additional mandatory declining-trend test.

## 5.21 Tasmanian Freight Equalisation Scheme

The purpose of freight equalisation is to offset the structural disadvantage created by the absence of an interstate road or rail connection across Bass Strait. Administrative tests unrelated to that disadvantage dilute the scheme. A benchmark model based on average wharf-to-wharf dry and refrigerated freight costs is simpler, more predictable and less dependent on individual commercial pricing arrangements.

**Recommendation 23**. The Tasmanian Freight Equalisation Scheme should directly offset the structural Bass Strait freight disadvantage through a simple benchmark model: freight forwarders should ordinarily claim northbound assistance; product-code eligibility tests should be removed; separate dry and refrigerated assistance should use periodically audited average wharf-to-wharf benchmarks rather than each customer's individual price; route-scaling and sliding-scale distortions should be removed; southbound exclusions based solely on an Australian equivalent or age of an import should be removed; reusable packaging returns should qualify; and air freight should be eligible up to the equivalent sea-freight benchmark.

## 5.22 Migrant worker access

Annual shortage classifications can move faster than business investment and can reward lobbying intensity rather than establish a neutral labour-market rule. Aquaculture occupations have moved between shortage classifications while remaining relevant to employer-sponsored migration settings. Baseline migration access should therefore be governed by economy-wide visa rules rather than sector-by-sector scarcity contests.

**Recommendation 24**. Skilled-migration settings should be sector-blind. Employer-sponsored access should turn on the ordinary visa requirements applying across the economy rather than whether aquaculture or a particular occupation has won an annual shortage classification. Government should not ration access among industries according to which sector makes the strongest shortage claim.

## 5.23 Importing oyster genetics

Australia's Pacific oyster population was founded from imported stock and is genetically distinct. International oyster-producing countries, including Canada and the United Kingdom, operate controlled pathways for movement or import of live shellfish or aquatic animals subject to health and quarantine

controls. France's oyster industry itself arose from historic introductions. The policy question is therefore whether genetic material can be imported safely for breeding, not whether overseas genetics must be categorically excluded. A purpose-built pathway could manage risk through reproductive material, post-entry quarantine, controlled breeding and other mitigation rather than treating breeding material as routine importation of live commercial stock.

**Recommendation 25**. The Commonwealth should establish a purpose-built, risk-based pathway for importing overseas Pacific oyster genetic resources for breeding. The objective should be to permit genetic improvement where biosecurity risks can be controlled, as occurs under managed pathways in other oyster-producing countries.

## 5.24 Agricultural levies and grower representation

A production levy aligns collective contribution more closely with industry scale than licence numbers, lease area or employment. Farmed prawns already provide an Australian aquaculture precedent for a Commonwealth production levy. Other seafood industries of comparable scale have invested more heavily in generic marketing and policy capacity. Direct grower payment also strengthens accountability: those funding RD&E, marketing and representation have a clearer basis to control priorities and demand results.

**Recommendation 26**. Establish a Commonwealth oyster production levy with separate RD&E, marketing and expressly authorised policy/industry-representation components; retain Commonwealth matching of eligible RD&E; and allow agreed funds to flow to State peak bodies for State-level delivery.

**Recommendation 27**. Require bodies spending material oyster levy revenue to be controlled by levy-paying growers in proportion to contributions; amend constitutions where necessary. Establishment, material change and discontinuation of industry levies should be controlled by levy payers.

## 5.25 Marine disasters and climate adaptation

Marine primary production is exposed to disasters that do not resemble drought: marine heatwaves, harmful algal blooms, disease events and prolonged mandatory closures. Oysters also provide nutrient-cycling and other ecosystem services and produce food without feed inputs. Grant architecture designed around terrestrial agriculture can therefore omit shellfish even when the policy objective - disaster resilience, climate adaptation or ecosystem service - squarely applies.

**Recommendation 28**. Existing Commonwealth agricultural and environmental grant programs should expressly include shellfish aquaculture, and new topic-based programs should be designed neutrally so shellfish can compete on merit. Eligible topics should include ecosystem services, marine disasters, harmful algal blooms, acute marine climate events such as heatwaves, and chronic climate adaptation to rising temperature and changing pH.

## 5.26 Ecosystem protection

Environmental effects depend on species, farming method and site. Unfed oyster farming has materially different feed, waste and carbon characteristics from fed finfish aquaculture, and oyster structures can provide habitat. Reef restoration and marine-park policy should therefore regulate demonstrated causal impacts rather than assume that oyster aquaculture is inherently inconsistent with native reef protection or marine conservation.

**Recommendation 29**. Native-shellfish-reef, marine-park and other marine-environment policies should not treat oyster aquaculture as a threat merely because it occurs within or near a protected area. Additional

approvals, refusal grounds, operating conditions, exclusion areas or buffers should require credible evidence of a site-specific causal pathway to material harm. Policy should distinguish unfed bivalve farming from aquaculture systems with materially different feed, waste, carbon or habitat effects.

### 5.27 R&D tax incentive

The R&D Tax Incentive can be valuable to commercial hatcheries and farms undertaking genuine experimental work, but uptake may be uneven. Public-sector breeding can forgo a company tax incentive, while a breeding company controlled by exempt entities may not obtain the same usable refundable outcome as an eligible taxable industry company. Structure matters. Breeding governance should preserve scientific capability while allowing lawful access to the tax incentive and transparent levy support.

**Recommendation 30**. Commission an independent oyster-industry R&D Tax Incentive review focused on hatcheries and farms, identifying eligible activity that is not being claimed and providing practical sector guidance.

**Recommendation 31**. Structure commercial Sydney Rock oyster and Pacific oyster breeding through genuine industry-controlled taxable companies able to obtain the maximum lawful R&D Tax Incentive benefit, while retaining public research partners; support breeding through an appropriate production-levy allocation under transparent outcome agreements.

## 6 Conclusion

Best-practice oyster policy is not a single institutional model. It is a set of functional rules: protect public health, biosecurity, navigation and genuine environmental interests, while removing costs and permissions that do not correspond to a material public risk. The 27 policy areas considered in this report show how that principle can be applied consistently across oyster-growing jurisdictions.

Marine-farm tenure would be financeable, digitally administered and charged only for efficient administration; governments would identify deep-water opportunities, shore bases and operating corridors before individual investment; open-water farming would be approved by default; transaction duty and development-stage fee hurdles would not impede activation of underused assets; and new harvest areas would be classified early and at public cost. A separate licence to farm would not be required, while land-base and access-channel approvals would be expressly designed for shellfish aquaculture. Interstate movement rules would follow biological pathways rather than State borders, relaying would remain available during food-safety closures, and POMS settings would reflect industry appetite for a commercial risk informed by current surveillance. Food-safety charges would sit transparently within food-safety law; public and recreational beneficiaries would fund their share of integrated monitoring; polluters and public pollution-control systems would bear appropriate pollution costs; and wet storage and depuration would be available through clear risk-based pathways. Guidance would be provided by a short national food-safety program template, ASQAP would require sampling where the oysters actually grow, and training support would be sector-blind. At the Commonwealth level, policy would target increased oyster production; export rules would follow ASQAP except where an importing country requires more; freight equalisation would directly address the Bass Strait disadvantage; access to migrant workers would be sector-blind; controlled access to overseas genetics would be possible; a production levy would fund RD&E, marketing and representation under grower control; shellfish would compete fairly for marine-disaster, climate and ecosystem-service grants; environmental policy would only regulate demonstrated impacts; and the R&D Tax Incentive would be used more effectively by farms, hatcheries and breeding programs. The combined

effect would be a more investable, adaptable and accountable oyster industry capable of using existing and future deep-water opportunities while preserving the public protections that matter.

These settings have a particular importance for deep-water farming because the industry and much of its regulation developed around shallow and intertidal production, while Pacific oysters are naturally intertidal. Deep-water production requires greater engineering adaptation, more capital before revenue, reliable shore access and food-safety monitoring that represents the water experienced by the oysters. A policy framework designed around those realities would allow biological and technical opportunity to translate into investment and production rather than leaving viable deep-water sites stranded by rules developed for a different production model.