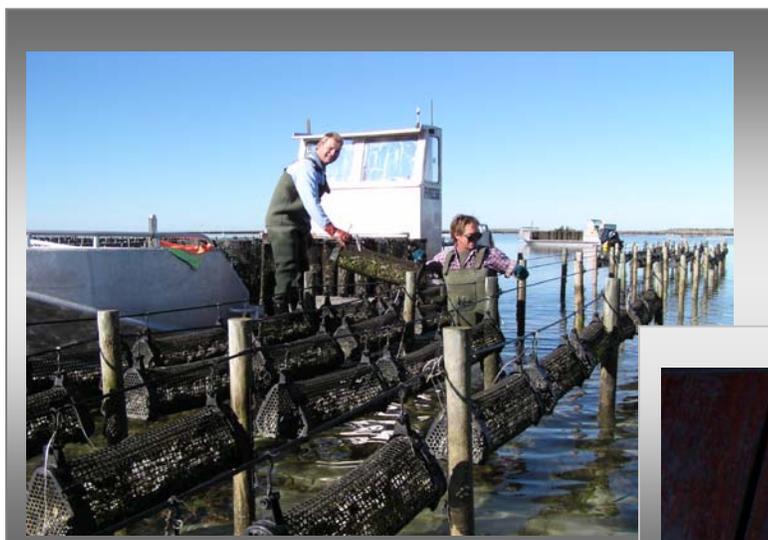


AUSTRALIAN EDIBLE OYSTER INDUSTRY BUSINESS PLAN 2009 – 2014

Prepared by CDI Pinnacle Management Pty Ltd



Project No. 2009/729

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January, 2010

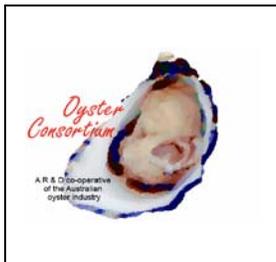
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Cover Photography

Loading baskets onto BST line, Denial Bay, South Australia. Photo courtesy of Garry Seidl, West Eyre Shellfish

Sydney Rock Oysters on Plate. Photo courtesy of Tony Troup, Camden Haven Oysters Pty Ltd

Cooperating Parties



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1. VISION

As an Australian community of oyster growers, guided by a national body for advocacy, research and development, we are passionate about and committed to becoming world leaders in responsible, profitable and sustainable oyster industry production.

2. MISSION STATEMENT

The Australian Seafood Cooperative Research Centre Oyster Consortium (“Oyster Consortium”) is the industry body responsible for the planning, commissioning and management of R&D projects and activities for the benefit of all Australian oyster growers.

In addressing the R&D needs of growers the Oyster Consortium will work closely with federal and state government and industry bodies.

The Oyster Consortium will pursue the formation of an Australian oyster industry body that will better assist growers and industry to meet their objectives.

The Oyster Consortium will assist in activities that can enhance the profitability and sustainability of individual growers businesses where and when identified.

3. OBJECTIVES

In consultation with Australian oyster growers, in addition to providing due recognition to existing state strategic plans, the key objectives for achievement by 2014 for the Australian oyster production industry are:

1. To sustainably increase industry production to 20 million dozen, net profit by 10% and industry Gross Value of Production (GVP) to \$120 million per annum.
2. To increase oyster consumption by 13% to 0.93 dozen per capita and achieve an 80% satisfaction rating from our markets and customers through the supply of consistently high quality oysters.
3. Through the formation of a national industry organization, build capacity, leadership and confidence in the industry through the services it provides to growers and others.

These three objectives seek to address the 9 key areas identified by the Oyster Consortium being:

- Financial performance (Objective 1).
- Production efficiencies (Objective 1)
- Environmental sustainability (Objective 1)
- Human capital (Objective 1)
- Regulatory environment (Objectives 1 & 3)
- Market development (Objective 2)
- Supply chain management (Objective 2)
- Community perception (Objective 3)
- Industry structure (Objective 3).

4. INTRODUCING THE OYSTER CONSORTIUM

The Oyster Consortium was established in 2007.

Each of the principal production states of NSW, South Australia and Tasmania, identified that by pooling R&D levies collected from growers in each of those states, they would be better positioned to leverage federal government funding. Further, the members identified that many of the R&D projects were projects that provided national benefits.

The Oyster Consortium comprises four state based entities, namely:

- New South Wales Aquaculture Research Advisory Committee (ARAC)
- South Australian Oyster Research Council (SAORC)
- Tasmanian Oyster Research Council Ltd (TORC)
- Queensland Oyster Growers Association (QOGA) (joined in 2009).

Each of these entities collect funds from growers for investment into R&D projects.

Further, three other entities are members of the Oyster Consortium and commercial or industry oyster breeding companies. The three companies are:

- Australian Seafood Industries Pty Ltd (ASI)
- Shellfish Culture Ltd
- Select Oyster Company Pty Ltd (SOCO).

Membership of the Oyster Consortium is not compulsory.

Voting on project proposals is in line with the proportion of financial contributions made and not on relative industry size.

The mechanisms by which each state collects levies is varied as is the rates charged to growers. The collection of the levies is not compulsory in all states.

Further, each state contributes a varied proportion of their total levy collection to the Oyster Consortium.

The Oyster Consortium is not permitted to invest in projects that relate to oyster industry marketing and promotion activities, certain supply chain development activities and political lobbying. There is no national (or state) funding mechanism to undertake marketing and promotion activities.

5. EXECUTIVE SUMMARY

The Australian oyster industry comprises approximately 550+ individuals and businesses located principally in three states, NSW, South Australia and Tasmania. A predominately family owned, owner-operated industry in 2007, the industry had a projected net farm gate value of between \$90 and \$100 million. Including owner operators, the industry employs in the vicinity of 2,000 full and part time employees and owners.

This Business Plan provides a national Business R&D plan to the Australian oyster growing sector for the period 2010-2014.

The Business Plan lists 3 core objectives for the Oyster Consortium to address.

1. To sustainably increase industry production to 20 million dozen, net profit by 10% and industry Gross Value of Production (GVP) to \$120 million per annum.
2. To increase oyster consumption by 13% to 0.93 dozen per capita and achieve an 80% satisfaction rating from our markets and customers through the supply of consistently high quality oysters.
3. Through the formation of a national industry organization, build capacity, leadership and confidence in the industry through the services it provides to growers and others.

Beyond traditional R&D activities, growers have clearly articulated a desire to invest in supply chain development and consumer demand building activities (marketing and promotion). Under the current funding arrangements investment in some of these project activities is not permitted.

Further, a proportion of the issues identified by growers as impacting on the financial

performance of their businesses require a national solution, or at least a co-ordinated national approach for resolution eg. labour access, tenure security, access to international markets. Presently, the oyster industry's national body is the Shellfish Industry Council of Australia (SICOA) which in turn is a member of the National Aquaculture Council (NAC). SICOA has limited human and financial resources to address national industry solutions.

Prior to the completion of this Business Plan, the Oyster Consortium had a budgeted surplus of income over committed project expenditure of \$1,170,713 to the end of 2013/14 (see Table 1).

In consideration of this plan, the author and the Oyster Consortium in consideration of this plan have subsequently committed additional expenditure into High Priority project areas of \$1,071,812.

On this basis the Oyster Consortium budgeted surplus is \$90,010. In the absence of improved funding levels from industry:

- a number of High Priority R&D areas are not funded to the level preferred by the Oyster Consortium;
- there is limited or no expenditure into non-permitted Marketing and Promotional activity investment despite being deemed High Priority by industry; and,
- all Medium and Low Priority Action areas are not currently able to be funded.

Members of the Oyster Consortium have acknowledged that they have funding and operational restrictions. This Business Plan in association with other research documents have sought to provide options to the Oyster Consortium which, over time, may permit it (or another body) to better fund on a national basis R&D, marketing and promotion, and consumer and political lobbying / education activities.

The Seafood Cooperative Research Centre (CRC), formed in 2007 and funded until 2013/14 has played a pivotal role in supporting the oyster industry through the implementation and management of a number of cross-sectoral (seafood industry) projects.

6. INDUSTRY SITUATION ANALYSIS

PRODUCTION

In 2007 Australian production of oysters was estimated at 16.446 million dozen with a farm gate value of production of \$90-\$100 million.

Source	Dozen (2007 season)	% of Aust. Production
New South Wales	6,723,294	40.9%
South Australia	6,058,000	36.8%
Tasmania	3,528,501	21.4%
Queensland	136,400	0.8%
Total	16,446,195	100.0%
Plus: Imports	1,266,262	
Minus: Exports	530,000	
Net Australian "Consumption"	17,182,457	

Source: CDI Pinnacle Management

PRODUCT FORMS

Over 97% of oysters sold in Australia are done so fresh in the ½ shell to end users. Little value adding of oysters occurs, with the majority of end users selling them either natural or 'topped' predominately. The remainder of the oysters are sold either live whole or frozen in the ½ shell.

IMPORTS AND EXPORTS

Australia is a net exporter of oysters with nearly 3% of total production exported. In 2007, 87.3% of exports were sold to Hong Kong, Singapore and Japan. The vast majority of shipments were small comprising chilled product. A small number of larger frozen sea freight containers were also sold.

All Australian imports are frozen ½ shell oysters sold predominately in Western Australia and Queensland. In total in 2007, New Zealand imports into Australia represented around 7% of total Australian consumption.

Anecdotal evidence indicates that 'commodity' oysters in export markets are not necessarily sold at a premium to similar domestically marketed oysters.

Recent disease outbreaks in France and the USA have drastically reduced international production of fresh oysters. This may present opportunities for committed exporters (growers or otherwise) to develop new markets provided that necessary EU and US accreditation standards can be met.

SUPPLY CHAIN

Oyster growing is dominated by family units either operating solely or with 1 or 2 staff. Production occurs over multiple leases generally within a single geographic location. Corporate oyster production is limited to two organizations (representing approx 10% of national production).

Beyond growers the oyster supply chain is complex with between two and seven intermediaries required to move oysters from growers to Australian consumers.

The highly complex nature of the supply chain is reflective of the very large number of end users supplying consumers, including chain retailers and independent chain retailers, fishmongers and food service companies (restaurants, fish and chip retailers, pubs and clubs).

A CDI Pinnacle Management report completed in 2009 indicated that food service outlets sold 56% of the oysters in Australia in 2007, fishmongers 32%, chain retailers 7%, with export 3% and direct to consumers from growers 2%.

Most recent production trends show growth in the supply of Pacific oysters, with the SRO industry declining in the wake of a number of flood and disease disasters in NSW impacting on production. Industry production is estimated to be growing at 2.6% per year.

MARKETING CAPABILITY

Australian oysters are a supply limited product with demand generally exceeding supply. This 'belief' is supported by the fact that within a relatively narrow range, oysters are sold for a 'fixed' price to customers.

Variations in price are reflective of the skills of the growers, scale of enterprise and product quality offered.

The lack of national quality standard 'language' is viewed as one factor limiting confidence of the supply chain in the product.

The oyster industry invests no funds in generic marketing and promotion of its product. There are a range of individual activities and regional branding programs in place, with little or no co-ordination of these activities.

Growers have indicated a strong desire to invest in activities that build consumer demand for, and awareness of oysters. The industry does not have funding mechanisms to undertake these activities in place.

In the framework of limiting funding the Seafood CRC and other national organizations do undertake national seafood consumer demand development. Oysters are included in these promotions.

CUSTOMERS

Oyster consumption (excluding tinned) in Australia in 2007 was 0.82 dozen per capita.

A 2003 survey confirmed that:

- 70.7% of consumers were oyster eaters and conversely 29.3% were not.
- 73.0% of consumers prefer to eat oysters fresh.
- Oysters are generally only consumed 2-7 times per year.
- The 40-59 year old age bracket are the most likely to eat oysters with 15-19 year olds the lowest.
- Texture and appearance are the two factors most likely to discourage consumers from eating oysters. Only value adding of oysters will address either of these concerns.

Without any investment in demand building activities, it is unlikely there has been any significant shift in the consumer demand profile.

Due to the global financial crisis consumers are exhibiting changing food consumption patterns. Increasingly, consumers are looking at the 'value proposition' that any product (food or otherwise) provides. There remains considerable choice for the consumption dollar.

COMPETITORS

Luxury food products, such as oysters, must be able to generate a 'value proposition' in terms of satisfying consumers 'wants' even better than any other alternative protein source. The oyster industry does this by addressing the existing major consumer drivers of quality, appearance, convenience, healthiness, differentiation

(compared to other protein food sources), ease of availability and of course price.

Due to their high cost per unit weight, oysters are traditionally regarded as an entrée meal. Consumers, to date, do not purchase oysters to be eaten-at-home as part of a standard meal offering. Rather they are purchased for use as a special occasion product.

Outside food service oysters are purchased by consumers virtually entirely as a fresh ½ shell product. Either whole, live oysters or 'topped' oysters have limited consumer uptake.

New Zealand is potentially a serious price competitor in Australia. They are limited to supplying frozen ½ shell product which competes well in terms of both product quality and price. However, oyster growing in New Zealand is in a state of decline with less than 30 growers operating.

COOL CHAIN

A recent study highlighted deficiencies in the cool chain from growers to the mid-chain and end users. Poor cool chain management results in poor product appearance which impacts negatively on the image of the product when presented to consumers and their suppliers.

Development of new, more distant markets and even maintaining existing markets is dependent on improved cool chain education, right along the chain being delivered and enacted upon.

TECHNOLOGY

Oyster growers use a very diverse range of technologies in the production of oysters ranging from the more traditional stick culture, to semi-automatic containment systems with fixed water infrastructure and technically advanced in-packhouse handling systems. The adoption of 'newer' technologies is highly dependent on the

attitude of growers to risk, tradition, availability of funds and growers awareness of benefits of adopting newer production systems.

A recently completed industry benchmarking study of 15% of growers (by volume) will enable growers in future to objectively examine the performance of different production technologies.

PEOPLE

Oyster growing is dominated by family units either operating solely or with 1 or 2 staff. Production generally occurs over multiple leases within a single geographic location.

In NSW, many of the family owned businesses are multi-generational, often working together in the same business.

In SA and Tasmania, due to the younger age of the industry, growers are generally no more than 2 generations old. Generally initial entrants were involved in some other form of primary production.

The majority of older growers are not tertiary educated, having developed their skills over many years of practical experience. Observations suggest that many of the newer, younger growers entering the industry have undertaken some form of post-secondary training.

Corporate oyster production is limited to two organizations who represent approximately 10% of national production.

The majority of workers in the industry are not tertiary trained, having generally developed their skills from 'on the job' training. Workers are itinerant but can also be long term seafood industry workers moving across sectors.

INDUSTRY PERFORMANCE

A recently completed benchmarking study of 15% of current production in the industry highlighted:

- An average net profit of 13% on turnover,
- Average sales turnover of \$607K per enterprise.
- 26.8ha of water leased per enterprise.
- 82K of income per FTE equivalent per enterprise.
- 13.7 dozens sold per man hour per enterprise
- Average cost structure comprising:
 - a. 35.4% Employee costs
 - b. 14.0% Owners costs
 - c. 15.0% Spat cost
 - d. 8.7% R&M and replacement costs
 - e. 5.7% Administration cost
 - f. 4.0% Finance cost
 - g. 3.2% Licenses & lease fees
 - h. 3.2% Depreciation & Amortisation
 - i. 2.9% Fuel & Oil
 - j. 2.7% Transport
 - k. 5.2% All other

The range in financial performance is growers is wide and is identified as being reflective of:

- Enterprise scale.

- Water quality.
- Level of technology adoption.
- Business owner motivation.
- Customer segmentation
- Vertical integration
- Appropriateness of water 'use' to product mix.
- Size of product offered (for finished product only).

OYSTER CONSORTIUM ORGANISATION

The Oyster Consortium operations are managed by a single Executive Officer engaged as a 0.2 FTE. There are no other staff members.

In its role as managers of the national oyster R&D program the Oyster Consortium comprises 7 organizations. Four of these bodies represent the four principal state based R&D organizations. Input into each state's R&D priorities is provided by way of these elected members to the Oyster Consortium board.

However, at least 2 of the 4 principal states do not have a formal R&D project identification process or Businessplan.

Growers do not become members of the state based R&D organizations or, in fact, in the Oyster Consortium.

Each of the 3 principal production states have separate industry organizations, of which membership is not compulsory.

An oyster grower has to be a member of their respective state industry organization, to be eligible for election to their respective R&D organization.

FUNDING

The Oyster Consortium manages funds for investment in R&D activities and management support received from 4 sources:

1. Levies contributions from each of the four state based R&D organizations.
2. Contributions from the 3 commercial organizations
3. Co-contributions from the Fisheries Research & Development Corporation on a 1:1 basis on eligible funds.
4. Co-contributions from the Seafood CRC on a 0.8:1 basis on eligible funds.

In 2008/09, the total value of funds available for investment was \$549,510.

For each state, the mechanism by which funds subsequently invested into the Oyster Consortium are collected varies and are as discussed below.

State	Funding Source	Mechanism
NSW	NSW ARAC Levy – Annual Research Contribution	\$36 per ha + GST.
SA	FRDC Levy	\$58.76 per ha collected by PIRSA and paid to FRDC.
Tas	Spat Levy	\$1.25 per 1,000 spat with a significant proportion of funds raised going to FRDC as contribution to OC.
QLD	Membership revenue	Contribution a lump sum determined by Qld committee.

In NSW, growers are required under legislation to pay the levy as they are in SA. In Tas, the spat levy is not compulsory and is deducted by hatcheries.

RESEARCH & DEVELOPMENT

Prior to 2007 each of the state industry organizations and their respective R&D organizations has invested in their own project activities. Since 2007, each of the state R&D organizations has contributed all or the vast majority of their R&D raised funds to the Oyster Consortium. This arrangement is not contractual.

A listing of the projects completed by the Seafood CRC, Oyster Consortium and completed projects by other parties is provided on Pages 13 - 16.

TENURE SECURITY

No oyster grower in Australia has Torrens title over the water in which they farm. All water is leased to growers for a period the length of which varies from state to state.

The lack of security presents two issues to growers:

- Growers have no or limited borrowing capacity against their development water asset. Anecdotal evidence indicates that financiers Loan to Valuation Ratio (LVR) on oyster farming assets range from 0% to 40%.
- Growers potentially under-invest in their businesses due to uncertainty with their long term access to water.

In NSW, the Oyster Industry Sustainable Aquaculture Strategy (OISAS) provides growers

with clarity on the government's position on water lease ownership and application processes. The model is seen by many as one that could be extended nationally.

In NSW, Tasmania and certain areas of South Australia, growers also lease land based processing facilities from the Crown. In the vast majority of instances these facilities are immediately adjacent to the water providing easy access to growers. The term period for land based leases again varies from state-to-state, with the major issue being uncertainty in the eyes of growers about having access to affordable and convenient land based processing facilities. Due to the size of many of these family owned businesses, many growers argue they could not afford to develop or access new processing sites if either they were forced to move from their current sites or the fees charged increased significantly. However, there are examples of where co-operation between growers and local government authorities has resulted in a more permanent solution to security of access to land based processing facilities.

- Access to hatchery produced spat.
- Access to capital.
- Access to workers.
- Access to new market segments and driving increased consumer demand.
- Long term guarantee of access to water and land based processing facilities.
- Maintenance of margins as costs of production continue to increase.
- Productivity of water (in some locations).

NATIONAL ORGANISATION

SICOA is the national body representing the interests of Australian oyster growers on the board of the National Aquaculture Council (NAC). The membership of SICOA involves SOAGA, NSW Farmers Federation Oyster Committee and TSEC. Bruce Zippel attends meetings on behalf of industry and communicates outcomes via the state based organizations. This position is unpaid. Therefore has limited proactive input into the national aquaculture agenda.

LIMITATIONS TO GROWTH

- The principal factors limiting growth of oyster production in Australia include:

COMPLETED PROJECTS – OYSTER CONSORTIUM AND / OR CRC FUNDED

Agency/ies	Project Title	Year	Consortium Cost
Oyster consortium	Precursor workshop on selection for condition / survival into a breeding strategy for SRO and Pacific oysters	2008	\$6,960
Oyster consortium	Enhancement of Pacific oyster selective breeding program	2006/2009	\$238,700
Oyster consortium	Securing and enhancing SRO breeding program	2006/2009	\$392,000
Oyster consortium	Overcoming constraints to commercial scale hatchery and nursery production	2005/2008	\$134,700
Oyster consortium	Industry management and commercialization plan for SRO breeding program	2003/2007	\$134,900
CRC	Dr. Pierre Boundry, IFREME, France – CRC visiting fellow	2008	\$0
CRC	WERA Bursary (Tony Troup, Judd Evans)	2008	\$0
CRC	Bursary: Tom Spykers (International hatchery constraints)	2009	\$0
Oyster consortium	Australian oyster industry business plan	2009/2010	\$58,000
Oyster consortium	Industry travel, management and communication of R&D outcomes	2008/2010	\$130,000 estimated
Oyster consortium	Oyster industry benchmarking study	2009	\$103,000
Oyster consortium	Australian oyster industry supply chain analysis	2009	\$45,400

ONGOING AND COMMITTED PROJECTS – OYSTER CONSORTIUM AND / OR CRC FUNDED

Agency/ies	Project Title	Year	Consortium Cost
Oyster consortium	A critical evaluation of supply chain temperature profiles to optimize food safety and quality of Australian oysters	2007/2008	\$77,000
CRC	Desktop review of industry market reports and recommendations	2008	\$0
CRC	High priority export targets for Australian oyster industry	2009	\$0
CRC	Market plan (with industry partners) to address underserviced domestic markets for the Australian oyster industry	2009	\$0
CRC	Market plan (with industry partners) for Australian oyster industry export priorities	2009	\$0
CRC	Seafood entrepreneur program (Greg Carton & Linda Hank)	2009	\$0
CRC	Bursary 2009 (Greg Carton)	2009	\$0
Oyster consortium	Establish the technical and market data to assess the feasibility of live bivalve mollusc access in USA	2007/2008	\$31,100
Oyster consortium	Oyster consortium marketing projects investment meeting	2008	\$7,600

COMPLETED PROJECTS – NON-CRC OR OYSTER CONSORTIUM FUNDED

Agency/ies	Project Title	Year
FRDC	Seafood CRC consortium workshop strategic review	2007
FRDC / NSW DPI	QX resistant oyster challenge trial, 2005-2007	2005
FRDC	Selection of genetic strategies in Pacific oysters to maximize commercial benefit	2005
FRDC / ANU	Dynamics and distribution of food supplies for the SRO	2004
FRDC / SARDI	Reduction in Pacific oyster mortality by improving farming and processing technologies	2003
FRDC / NSW DPI	Enhancing the emergency disease response capability of NSW and Qld	2002
FRDC / Oceanwatch	Adoption of environmental management systems by NSW commercial estuary fishers and oyster farmers	2002
FRDC / SARDI	Development of techniques for quantification of stress induced changes in the haemolymph of the Pacific oyster	2002
FRDC / NSW DPI	Review of hatchery production technology & breeding program for SRO	2001
FRDC / Qld Museum	Validation of DNA based (PCR) diagnostic tests suitable for use in surveillance programs for QX disease in SRO	2001
FRDC / CSIRO	Sustainable genetic improvement in Pacific in Tasmania and SA	2000
FRDC / SED	Development of an automated oyster grading machine	1999
FRDC / NSW DPI	Evaluation of antifoulants on overcatch, other forms of biofouling & mudworms in SRO	1998
DAFF	Aquaplan – Developments in national aquatic health management in Australia, 1997-2002	2002
DAFF / OYSA	Development of a range of branded value added products for the marketplace	2003
DAFF / ASI	Scholarship to investigate new breeding technologies for Pacific oysters	2005
DAFF / TQF	Commercial scale trial for the freezing of high quality oyster products	2001
DAFF / SED	Commercialisation of new grading technology	2002
DAFF / Wilson Inlet Seafood	In-market experience scholarship to build demand for the sale of native flat oysters	2004
NSW DPI	Manual for mass selection of SRO for fast growth and disease resistance	2006

CURRENT & FUTURE PROJECT COMMITMENTS – OYSTER CONSORTIUM, SEAFOOD CRC & STATE ORGANISATIONS

Agency/ies	Project Title	Year	Consortium Cost
CRC / Oyster consortium	Incorporation of selection for condition / survival into a breeding strategy for SRO and Pacific oysters	2009/2013	>\$600,000 estimated
CRC / Oyster consortium	Protecting the safety and quality of Australian oysters with integrated predictive tools	2009/2010	\$60,000
	Quality, shelf-life and value adding of Australian oysters (PhD)	2009/2011	\$38,000
	Protecting the safety and quality of Australian oysters using predictive models integrated with intelligent cold chain technologies	2008/2010	\$0
	Post-doctoral research fellow – SARDI shellfish food safety (building Australian shellfish safety capacity)	2008/2010	\$0
	Human enteric viruses in Australian bivalve molluscan shellfish (PhD)	2009/2011	\$46,000
CRC	Retail transformation project	2009/2010	TBA
Oyster consortium	Oyster consortium marketing projects investment meeting		\$7,600
CRC / Oyster consortium	Omnibus seafood consumer survey	2009/2011	
CRC / Oyster consortium	Market intelligence for export	2009/2013	\$115,000 estimated
CRC / Oyster consortium	Seafood trade, market access forum (export & domestic) and expert panel	2008/2014	
CRC / Oyster consortium	Market access database continuation	2008/2014	
CRC / Oyster consortium	Australian seafood diagnostic capability map and advisory service	2008/2014	
CRC / Oyster consortium	National seafood productivity improvement centre	2008/2014	\$115,000 estimated
CRC	Support tools for implementation of genetic improvement programs and syndicating approach	Not known	
CRC	Genotyping central lab	Not known	
CRC	Marker assisted selection	Not known	
CRC	Cryopreservation gene bank	Not known	

Agency/ies	Project Title	Year	Consortium Cost
CRC	National organization responsible for m'ment and commercialization of genetic data	Not known	
CRC	Seafood entrepreneur program	2009/2012	
Oyster consortium	Benchmarking project officer	Not known	
Oyster consortium	Industry travel, management and communication of R&D outcomes	Not known	

7. SWOT – INDUSTRY ANALYSIS

STRENGTHS

These factors are within the control of the industry to build on and exploit.

Element	Description
Product quality	<ul style="list-style-type: none"> High quality production compared with other international suppliers. SRO and Pacific are highly regarded in the market place.
Production	<ul style="list-style-type: none"> Close to being able to supply consumers with high quality oysters all year round. Existing production matched by demand across majority of year.
Price Consistency	<ul style="list-style-type: none"> Relatively narrow range of prices at which oysters of specific sizes and condition are sold at.
Species	<ul style="list-style-type: none"> SRO and Pacific highly regarded in the market place by consumers.
Pest and disease	<ul style="list-style-type: none"> The principal diseases of SRO, QX and winter mortality are being addressed through genetics research.
Domestic market growth	<ul style="list-style-type: none"> Strong stable demand during periods of economic uncertainty.
Australian owned and run	<ul style="list-style-type: none"> Mostly family owned businesses Significant regional employer and economic development contributor through investment in inputs and payment of wages.
Young industry	<ul style="list-style-type: none"> New, young entrants moving into the industry in all states or coming through as part of family units.
Profitability	<ul style="list-style-type: none"> Some growers generating extremely high levels of profitability. Average profitability acceptable in commercial environment. Family units are able to be profitable.
State industry associations	<ul style="list-style-type: none"> Strong industry association framework already established in each of the major production states.
Consumer awareness	<ul style="list-style-type: none"> Good consumer awareness.
Benchmarking	<ul style="list-style-type: none"> Production, production system and financial benchmarks established in industry. Able to measure benefits of R&D, marketing and promotional activities against existing benchmarking.
Diverse customer base	<ul style="list-style-type: none"> Industry does not have a reliance on single customer / segment.
Marketing opportunities	<ul style="list-style-type: none"> Health benefits. Uniqueness / 'folklore' / production environment associated with oyster production makes the product 'story' easy to be told.
Industry co-operation	<ul style="list-style-type: none"> Uniquely strong levels of grower cooperation within production zones, particularly in South Australia and Tasmania.

WEAKNESSES

These will be factors are within the control of the industry to build on and exploit.

Element	Description
Genetic improvement	<ul style="list-style-type: none"> At the early stages of genetic improvement life cycle.
Research & development funding investment	<ul style="list-style-type: none"> Compared with other agricultural industries investment in R&D, less than optimal.
Marketing & promotion investment	<ul style="list-style-type: none"> No mechanism in place for building consumer demand through marketing, promotion and supply chain development projects.
Membership of state organisations	<ul style="list-style-type: none"> Variable depending on state.
Funding	<ul style="list-style-type: none"> Lack of funding. Lack of sustainable funding models to support R&D programs. No funding mechanism to support marketing and promotional activities.
Product quality	<ul style="list-style-type: none"> Some variability in respect of product quality in the eyes of consumers and other supply chain members. Lack of uniform product descriptors and grade standards adopted by industry Australia-wide.
National organization	<ul style="list-style-type: none"> No functioning national body working with government, consumers and other members of the supply chain on national issues.
Communication mechanisms	<ul style="list-style-type: none"> Lack of a co-ordinated approach between national and state organizations communicating outcomes and industry matters.
R&D prioritization mechanisms	<ul style="list-style-type: none"> Ineffective in capturing grower input future R&D activities.
Consumption	<ul style="list-style-type: none"> Nil or limited growth in consumer demand in recent years. Need to increase the range and channels of ways that oysters are offered to consumers.
Limited range of offer	<ul style="list-style-type: none"> Consumers offered few alternative product types. Limited evidence of value adding outside of the food service industry. Value adding limited to topping.
Expensive	<ul style="list-style-type: none"> Per kg weight expensive compared to other meat protein sources. Price per unit limits the range of offerings a food service outlet can provide to consumers to entrees.
Marketing structures	<ul style="list-style-type: none"> Limited evidence of collaborative approaches to grower marketing. Smaller growers have no or limited marketing power. Limited understanding of the oyster supply chain beyond farm gate or next transaction point.
Consumption	<ul style="list-style-type: none"> 30% of consumers do not eat oysters. Average oyster consumption <0.6kg per capita. Generally an infrequently purchased product by the majority of consumers (every 2-6 months).

Element	Description
Tenure security	<ul style="list-style-type: none"> • Growers not permitted freehold title to water, only leasehold. • Insecurity restricts growers preparedness to invest in their businesses. • Lack of freehold tenure makes industry less attractiveness to external investors. • Lack of freehold tenure restricts sales opportunities for properties when growers wish to exit.
Ability to borrow against assets	<ul style="list-style-type: none"> • Financiers have nil or limited preparedness to provide working capital to growers.
Diverse customer base	<ul style="list-style-type: none"> • Industry does not have a reliance on a single customer base / segment.
Access to labour	<ul style="list-style-type: none"> • Shortage of workers restricting expansion of some businesses. • Poorer quality workers add to production costs.
Production knowledge	<ul style="list-style-type: none"> • Best practice management practices not yet established for the growing and conditioning of oysters.

THREATS

Threats are generally external influences over which industry itself has no control. Some action/s could be taken to reduce their impact.

Element	Description
Disease	<ul style="list-style-type: none"> • Entry or emergence of exotic diseases reducing production levels.
Industry regulation	<ul style="list-style-type: none"> • Government regulations negatively impact on the ability of growers to effectively and efficiently produce oysters. • Government regulation impacts on processing, handling and marketing of oysters.
Water quality	<ul style="list-style-type: none"> • Water quality impacts negatively on production rates and oyster safety.
Environmental impacts from adjacent operations	<ul style="list-style-type: none"> • Lack of enforcement by regional authorities to secure integrity of the production environment.
Tenure security	<ul style="list-style-type: none"> • Security of access for growers to water assets and onshore processing sites.
Access to capital	<ul style="list-style-type: none"> • Approach of financiers to lending to oyster growers.
Imports – International trade	<ul style="list-style-type: none"> • Increased exports of NZ oysters. • Entry permitted of oysters from other low cost of production countries.
Competition	<ul style="list-style-type: none"> • Consumers switch spending on oysters to other protein sources and / or entrée offerings.
Quality control	<ul style="list-style-type: none"> • Lack of uniformity in the quality of the offering impacts negatively on consumer confidence in the product.

Element	Description
Product cost / Consumer preparedness to pay	<ul style="list-style-type: none"> Growers are unable to produce oysters at a cost that consumers are willing to pay, leading to decreased demand.
Food safety	<ul style="list-style-type: none"> An adverse food safety event impacts consumer demand.
Labour costs / management	<ul style="list-style-type: none"> Wage increases subject to a regulatory system which the oyster industry has limited input into. Working conditions in award not reflective of operating environment for oyster growers.
Labour availability	<ul style="list-style-type: none"> Lack of access to an adequate pool of quality workers.
Industry organization	<ul style="list-style-type: none"> Lack of access to high quality skilled committee. Maintaining long term access to committee skills. Lack of grower support. Maintaining relevance to growers given the variation in major issues facing growers across states and the size of growers.
Weather	<ul style="list-style-type: none"> Limited or no control over weather events impacting oyster production eg. temperature, floods, rainfall. Climate change.
Water quality / production environment	<ul style="list-style-type: none"> Growers not able to influence the quality of the water that they farm.

OPPORTUNITIES

Opportunities are external factors that would be beneficial for the industry to capitalize on.

Element	Description
Domestic market	<ul style="list-style-type: none"> Low consumption compared with some countries eg. France. High % of population who are not oyster consumers. Low frequency of purchase of a significant proportion of the domestic population. Limited differentiation of offering beyond just fresh ½ shell. Greater focus on environmental credentials of oyster production.
Export market	<ul style="list-style-type: none"> Production issues in a number of major overseas destinations may present sales opportunities to the Australian industry. The image of Australian produced products is an important lever.
Health benefits / consumer benefits	<ul style="list-style-type: none"> Nutrient profile of oysters beneficial to human health. Seafood seen positively by consumers as a healthy alternative. Effective promotion can increase consumption.
Year round supply potential	<ul style="list-style-type: none"> Better matching of consumer demand to supply through production techniques and breeding.
Value adding	<ul style="list-style-type: none"> Offering generally limited fresh ½ chilled or as 'topped'.

Element	Description
	<ul style="list-style-type: none"> • Nil or low product offering direct to consumer as topped, chilled or otherwise frozen. • High quality freezing of product to ensure demand is met in peak periods.
Grower cooperation	<ul style="list-style-type: none"> • Marketing alliances or groups providing consistency and all year round offer to specific customer segments.
Industry association	<ul style="list-style-type: none"> • Resourced and functioning national organization. • Increased security of funding for R&D activities. • Targetted, specific activities in the absence of prior M&P activities resulting in increased consumption. • National lobbying capability within the national organization. • Develop an national identity in the eyes of government and consumers.
Consumer perception	<ul style="list-style-type: none"> • Greater focus on environmental credentials of oyster production. • Build knowledge on the contribution of oysters to healthy eco-systems. • Build knowledge of on the contribution of oyster production to regional economies and employment.

8. MAJOR ISSUES PRIORITISED

Extensive consultation was undertaken with the oyster industry in the development of this national Business plan. This involved:

- A mailed survey to oyster growers in each of the major production states;
- One-on-one consultations with 47 growers in each of the three major production states; and
- Reviews of recently completed consultancy reports and strategic plans from state oyster industry organizations.

The major issues identified by growers as impacting on their business performance are summarized below.

Priority	New South Wales / Queensland	South Australia	Tasmania
1	Local development impacts & water quality management	Developing new markets & customers	Reducing costs of farming
2	Developing new markets & customers	Genetics / breeding program	Local development impacts & water quality management
3	Genetics / breeding program	Availability of labour & training	Developing new markets & customers
4	Supply chain management	Reducing costs of farming	Tenure security & ability to borrow capital against assets
5	Reducing costs of farming	Tenure security & ability to borrow capital against assets	Availability of labour & training
6	Tenure security & ability to borrow capital against assets	Local development impacts & water quality management	Production optimisation
7	Availability of labour & training		Genetics / breeding program
8			Supply chain management

There was no formal strategic planning consultation with Queensland growers. However, industry leaders however strongly advocated that the issues facing growers in Queensland were very similar to that of NSW growers.

VISION

As an Australian community of oyster growers, guided by a national body for advocacy, research and development, we are passionate about and committed to becoming world leaders in responsible, profitable and sustainable oyster industry growth.

We aspire to be the industry of choice of owners, employees, consumers and government by earning the respect of other stakeholders through integrity, teamwork, seeking and adoption of innovation.

MISSION STATEMENT

The Australian Seafood Cooperative Research Centre Oyster Consortium (“Oyster Consortium”) is the industry body responsible for the planning, commissioning and management of R&D projects and activities for the benefit of all Australian oyster growers.

In addressing the R&D needs of growers the Oyster Consortium will work closely with federal and state government and industry bodies.

The Oyster Consortium will pursue the formation of an Australian oyster industry body that will better assist growers and industry to meet their objectives.

The Oyster Consortium will assist in activities that can enhance the profitability and sustainability of individual growers businesses where and when identified.

OBJECTIVES

1. To sustainably increase industry production to 20 million dozen, net profit by 10% and

industry Gross Value of Production (GVP) to \$120 million per annum.

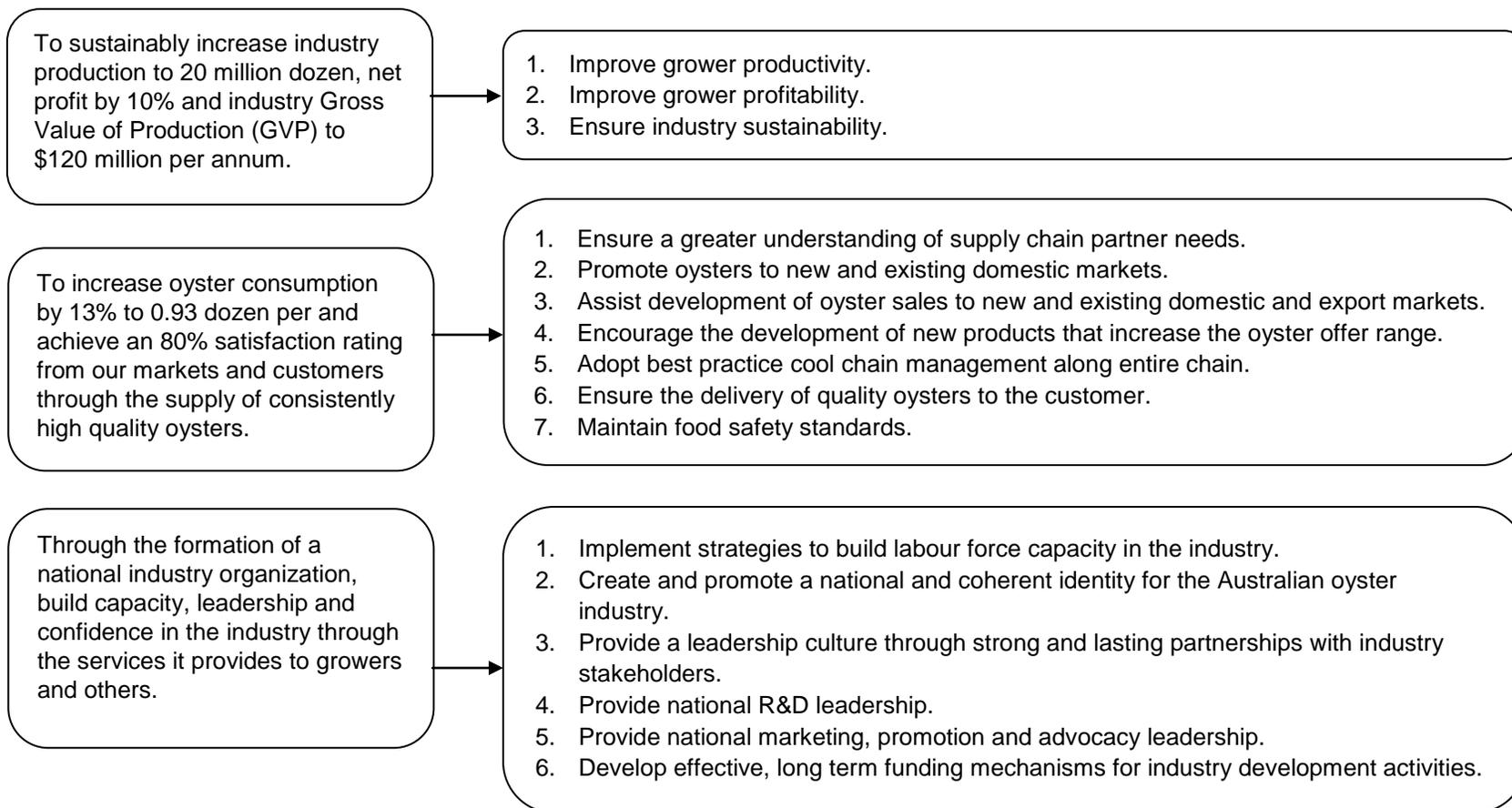
2. To increase oyster consumption by 13% to 0.93 dozen per capita and achieve an 80% satisfaction rating from our markets and customers through the supply of consistently high quality oysters.
3. Through the formation of a national industry organization, build capacity, leadership and confidence in the industry through the services it provides to growers and others.

9. STRATEGIES

To achieve each of the three objectives, the Oyster Consortium has identified a range of strategies which it believes are necessary to meet the industry goals. The strategies against each objective are provided below.

Objectives

Strategies



Strategic Objective 1

To sustainably increase industry production to 20 million dozen, net profit by 10% and industry Gross Value of Production (GVP) to \$120 million per annum.

Key Performance Indicators

By 2014, the key performance indicators that will be used to measure the achievement of Strategic Objective 1 from 2010 to 2014 are:

1. Total volume of the production of oysters increased by 15% to 20 million dozen.
2. Average sales price received by dozen increases by 15%.
3. Net profitability of growers increases by 10%.
4. Total value of the Australian oyster industry at farm gate to be \$120m.

Rationale

Three of the principal issues highlighted by growers were:

- The need to continue with the genetics breeding programs for Pacific and SRO, to continue to achieve greater levels of productivity (reduced times to harvest, greater stocking

densities), improved and greater consistency in conditioning, more even growth rates and selected disease resistance (QX, winter mortality).

- The cost of production of oysters and need to identify ways in which the costs of production can be lower, particularly labour costs.
- Ability of the growers to achieve greater levels of tenure security through being granted Torrens title to the water and land assets.

Growers also highlighted issues around resource sustainability, particularly in NSW, where there is strong competition between different interest groups for access to the land and water resources, around and in which oyster growers farm.

By providing greater resource sustainability growers may become more motivated to invest in their own businesses.

Lower costs of production (assuming constant or improving sales returns) provide both greater incentive and improved ability to invest in their businesses, as does the ability to be more productive.

Strategic Objective 1 - Strategies

To sustainably increase industry production to 20 million dozen, net profit by 10% and industry Gross Value of Production (GVP) to \$120million per annum.

Strategy	Strategy 1 Improve grower productivity	Strategy 2 Improve grower profitability	Strategy 3 Ensure industry sustainability
Actions	<p>Maintain investment in commercially focused Pacific & SRO breeding programs.</p> <p>Facilitate greater levels of knowledge dissemination among growers of successful and unsuccessful production practices.</p> <p>Invest in 'mini' projects to evaluate the cost-benefit of investing in new technologies eg. labour and spat particularly.</p> <p>Collect and collate water analysis results (over time) to generate greater knowledge of the productive capacities of different waterways.</p> <p>Establish new genetics pre-commercialization trail groups.</p> <p>Establish inter- and intra-state protocols for oyster stock movements.</p> <p>Oysters Australia to support state organizations in negotiations with state governments on licenses, fees and permits.</p>	<p>Maintain commitment to industry benchmarking.</p> <p>Develop and implement an effective best practice extension strategy for growers.</p>	<p>Adopt state level natural resource protection and usage plan (similar to OISAS) for oyster industry and catchment stakeholders</p> <p>Assist local environmental management liaison committees to interact with environmental and developmental agencies.</p> <p>Establish a national water testing data collection database.</p> <p>Co-ordinate a national approach to land security for growers.</p> <p>Identify and implement strategies to address climate change issues that may impact on oyster production.</p>

Strategic Objective 2 – KPI's & Rationale

To increase oyster consumption by 13% to 0.93 dozen per capita and achieve an 80% satisfaction rating from our markets and customers through the supply of consistently high quality oysters.

Key Performance Indicators

By 2014, the key performance indicators that will be used to measure the achievement of Strategic Objective 2 from 2010 to 2014 are:

1. 80% satisfaction rating from markets and customers with oyster quality and supply.
2. Increase oyster consumption from 0.82 dozen per year to 0.93 dozen per year per capita.

Rationale

Without consumers continuing to buy oysters there is no oyster industry. Without new consumers or consumers who eat more oysters there is no industry growth.

The Australian oyster industry is in the unique position where oyster prices only marginally fluctuate around a price range. This is reflective of where an industry is not in oversupply.

However, this market position should not be taken for granted. As the oyster industry becomes more productive, more effective use of existing water and development of new water occurs, oyster production can only increase.

By not investing in your existing consumers and developing new ones, the risk presented by maintaining this enviable pricing position is under threat.

Further, particularly now with recent global financial events, the competition for the consumer dollar is particularly fierce. By not seeking to pro-actively understand and then deliver on the demands of consumers, the industry runs the risk of having consumers spend their consumption dollars elsewhere.

Consumers increasingly demand high quality, both in terms of taste and appearance. A failure to deliver on either runs the risk of losing that consumer forever or at least for a considerable period.

Consumers today have plenty of choice in the food products that they choose to eat. Particularly when the food source is comparatively highly priced, as are oysters, there is no margin for error in the need to deliver to consumer expectations.

A recent study has shown that temperature management in a high percentage of oyster supply chains is poor. Poor temperature management = poor quality oysters.

It is not acceptable to say "they were alright when they left here, that's someone else's problem". If a consumer has a poor eating experience, even if it's not due to the grower, the impact will be felt most directly by the grower.

Strategic Objective 2 - Strategies

To increase oyster consumption by 13% to 0.93 dozen per capita and achieve an 80% satisfaction rating from our markets and customers through the supply of consistently high quality oysters.

Strategy	Strategy 1 Ensure a greater understanding of supply chain partner needs	Strategy 2 Promote oysters to new and existing domestic markets	Strategy 3 Assist development of oyster sales to new and existing domestic and export markets	Strategy 4 Encourage the development of new products that increase the oyster offer range	Strategy 5 Adopt best practice cool chain management along the entire chain	Strategy 6 Ensure the delivery of quality oysters to the customer	Strategy 7 Maintain food safety standards
Actions	<p>Provide a regular forum for supply chain members to provide constructive input re product qualities and supply.</p> <p>Provide market and price intelligence to industry in Australian and selected international markets.</p> <p>Undertake regular surveys to develop a greater knowledge of consumer oyster purchasing behavior.</p>	<p>Invest in consumer promotions, make available and promote to supply chain partners generic oyster promotional material.</p> <p>Seek and exploit linkages with other seafood industries to promote seafood offers.</p>	<p>Identify priority market and segments for new supply chain development projects.</p> <p>Identify and commission whole of chain oyster market development projects (domestic and export).</p> <p>Develop an Australian oyster industry brand.</p>	<p>Encourage the development of new stand alone oyster products in a commercially focused environment.</p> <p>Encourage the development of integrated food offers including identifying cross-product linkages with other food industry participants.</p>	<p>Review and investigate cool chain management practices with supply chain members, evaluate the commercial impacts of cool chain management failures and communicate best practice strategies to growers.</p> <p>Promote supply chain technologies to support best practice logistics and cool chain management systems.</p>	<p>Establish and adopt national quality product descriptor language.</p> <p>Establish quality standards and implement national quality systems that reward growers.</p> <p>Identify strategies to maintain traceability of oysters along the supply chain.</p>	<p>Promote greater adoption of the SQAP to growers and industry.</p> <p>Lobby food safety authorities to ensure that they are proactive and vigilant in maintaining food quality standards beyond the farm gate.</p>

Strategic Objective 3 – KPI's & Rationale

Through the formation of a national industry organization, build capacity, leadership and confidence in the industry through the services it provides to growers and others.

Key Performance Indicators

By 2014, the key performance indicators that will be used to measure the achievement of Strategic Objective 3 from 2010 to 2014 are:

1. A national edible oyster industry body formed, funded and operational.
2. All four major production states are members or affiliates of the national organization.
3. The national organization is recognized by oyster growers, other members of the seafood supply chain and all levels of government as the growers national representative body.

Rationale

For decades the oyster industry in Australia has for decades lacked cohesiveness and in some instances exhibited aggressiveness associated with an 'us and them' philosophy. Each state has its own industry organization which until the formation of the Oyster Consortium in 2007, largely acted independently. The Oyster Consortium has highlighted the benefits that a national approach to R&D can provide. Beyond just R&D, the Consortium has contributed to the development of a level of industry cohesiveness not previously experienced.

Strong industries, as evidenced in other forms of agribusiness, are those which have a strong, well funded national body who has developed strong relationships with other members of the supply chain, with government (federal and state), with service and technology providers and consumers.

The strength of these national bodies is embodied by providing high quality services to its members. The bodies are highly skilled communicators and visible to all the participants in the oyster industry. They are also highly effective at being able to leverage the resources contributed to it by its primary clients, growers.

A national oyster body would seek to engender pride in growers as being members of the "Australian oyster industry".

Strategic Objective 3 - Strategies

Through the formation of a national industry organization, build capacity, leadership and confidence in the industry through the services it provides to growers and others.

Strategy	Strategy 1 Implement strategies to improve access to build labour force capacity in the industry.	Strategy 2 Develop and promote a national and coherent identity for the Australian oyster industry	Strategy 3 Provide a leadership culture through strong and lasting partnerships with industry stakeholders	Strategy 4 Provide national R&D leadership	Strategy 5 Provide national marketing, promotion and advocacy leadership	Strategy 6 Develop effective, long term funding mechanisms for industry development activities
Actions	<p>Assist and support NAC to lobby government to introduce overseas labour schemes.</p> <p>Assist and support NAC to work with federal government agencies to identify and target workers suited to the oyster industry.</p> <p>Promote production strategies that enable employment of greater percentages of non-traditional labour sources.</p> <p>Provide employers with information on responsibilities to employees.</p> <p>Inform growers of</p>	<p>Form a national oyster industry organization, Oysters Australia, after due consideration of alternative constitutional and organizational models.</p> <p>Develop a 'membership culture' for Oysters Australia members by providing high quality services.</p> <p>Develop and regularly update data on industry contribution to national, state and regional economies.</p> <p>Oysters Australia to support state organizations on addressing legislative & regulatory matters of state significance.</p>	<p>Establish and maintain personal relationships with federal and state government agencies who impact on oyster growers.</p> <p>Establish and maintain personal relationships with key parties involved in the oyster supply chain.</p> <p>Develop and execute an effective communication strategy for the oyster industry on R&D, marketing and promotion and advocacy matters.</p> <p>Ensure linkages are maintained with state organizations.</p> <p>Seek to engage major industry stakeholders</p>	<p>Oyster Consortium to be 'rolled' into Oysters Australia.</p> <p>Establish ongoing effective processes for growers to provide input into priorities and project areas.</p> <p>The Oyster Consortium to investigate alternative R&D representative structures to that currently in existence.</p> <p>Maintain strong relationships with Seafood Consortium and FRDC.</p> <p>Ensure adequate resources are available for effective management and communication of</p>	<p>Invest resources to provide an effective advocacy model for national issues and priorities.</p> <p>Form two separate Marketing & Promotion and Advocacy committees.</p>	<p>Conduct a feasibility study on the establishment of a national industry levy comprising R&D, marketing & promotion and advocacy components.</p> <p>Establish a grower membership fee to support advocacy services.</p>

Strategy	Strategy 1 Implement strategies to improve access to build labour force capacity in the industry.	Strategy 2 Develop and promote a national and coherent identity for the Australian oyster industry	Strategy 3 Provide a leadership culture through strong and lasting partnerships with industry stakeholders	Strategy 4 Provide national R&D leadership	Strategy 5 Provide national marketing, promotion and advocacy leadership	Strategy 6 Develop effective, long term funding mechanisms for industry development activities
	available training programs and worker training subsidies.		<p>in decision making</p> <p>Oysters Australia to support and work collaboratively closely with state bodies on state issues.</p> <p>Oysters Australia to seek greater financial support of growers from financial organizations.</p>	existing and new R&D project activities.		

10. OYSTER INDUSTRY GOVERNANCE

BACKGROUND

This Business plan has been prepared for the Australian Seafood CRC Oyster Consortium.

The Oyster Consortium is seen as the Australian oyster industry's defacto R&D body. In fact, those sections of the industry who are aware of the industry incorrectly view the body as the national industry body.

This is an incorrect view, with the Oyster Consortium having no role as an advocacy organisation or the scope to directly invest into marketing and promotion focussed activities.

A number of factors however suggest strongly that the issue of industry governance is a critical one which needs to be addressed as part of this Business plan. These factors being:

1. Advocacy. An ability to provide national advocacy support on a range of national and state issues is a characteristic of many successful industry organisations.
2. Grower demand for projects beyond traditional R&D. The consultation undertaken in the development of this Businessplan highlighted the strong grower will to undertake a range of

projects that have the capacity to drive increased consumer demand, and to undertake strategies that have the potential to consistently supply better quality oysters to consumers.

The oyster industry presently relies solely on other organisation, for example, the Seafood CRC and Seafood Experience Australia (SEA) and other private organisational spend, to promote oysters to consumers.

There is no mechanism in place that allows the industry to levy growers to invest in marketing and industry promotion activities.

3. Funding uncertainty. The long term uncertainty and inequity in R&D contributions from each of the states suggests there is a need to investigate the development of more robust and equitable funding mechanisms.
4. Lack of investment. When compared with other similar sized industries the oyster industry is presently under-investing. Based on turnover oysters invests approximately 0.22% of its turnover into R&D, which compares poorly with avocado 2.40%, banana 1.28%, stonefruit 0.85%, citrus 0.65%, vegetables 0.50% and pork 1.10%. These investments by other industries, include R&D, marketing and promotion and advocacy.
5. No effective national oyster industry body. The oyster industry in Australia has no functioning national body. The Shellfish Industry Council of Australia (SICOA) is the oyster industry's national body, but due to the lack of resources it is not seen as so by others. The lack of a national body provides no focal point on which regulators, government, other members of the supply

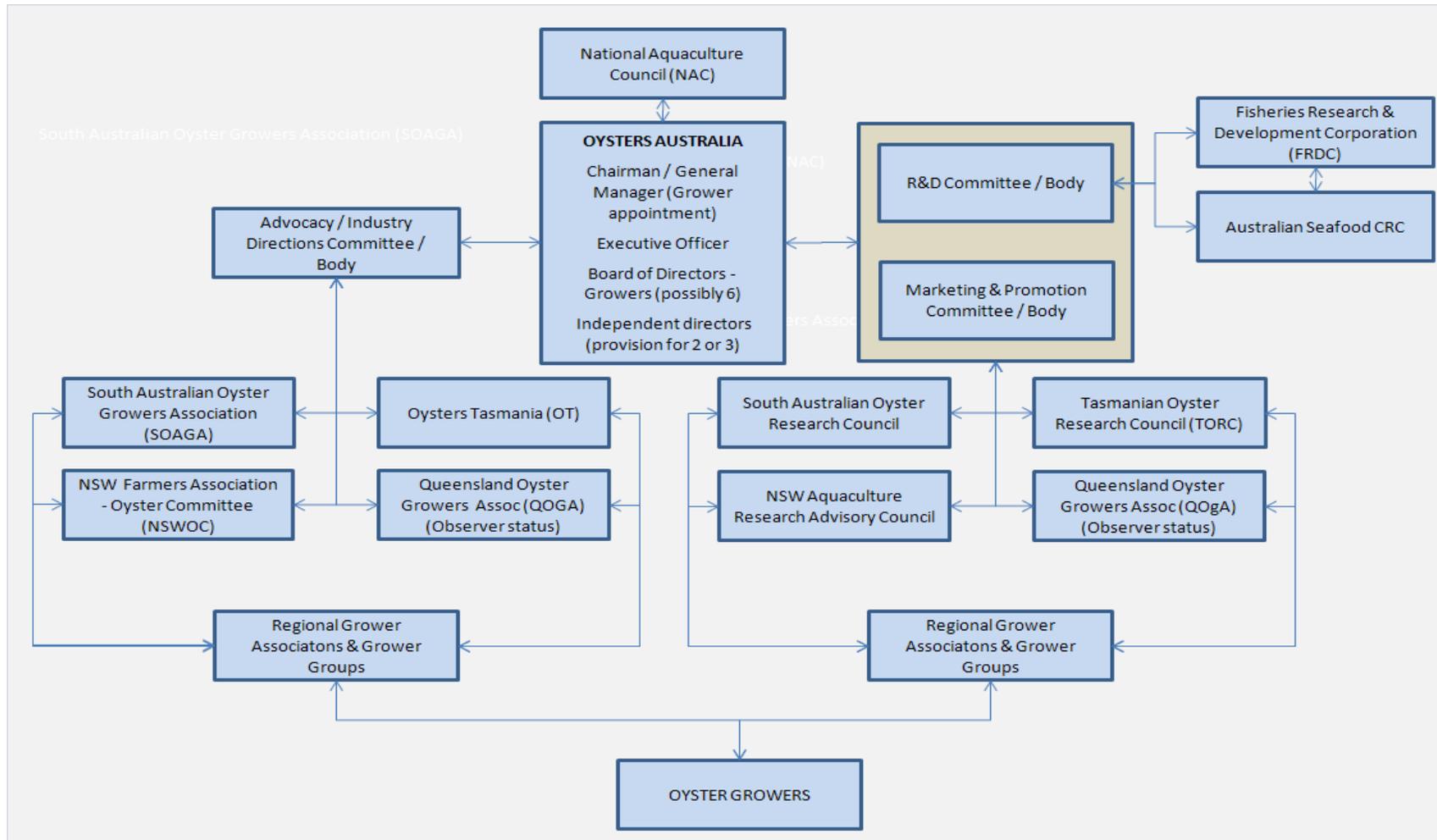
chain and consumers can communicate to oyster growers. In particular, the National Aquaculture Council (NAC) has no effective national oyster industry organisation to which it can refer.

6. Lack of funds for new project investments. A revised budget (see Financial Plan) that the Oyster Consortium may have available \$1,071,170 to invest in new projects during the 4.5 year life of this Business plan. Available funding of this magnitude will restrict investment into new project areas to those identified as High Priority.

AUSTRALIAN OYSTER INDUSTRY REPRESENTATIVE STRUCTURE

Figure 1 provides an outline of the Australian oyster industry representative structure to which the Oyster Consortium will undertake further detailed research into adopting.

Figure 1: Proposed Australian Oyster Industry Representative Structure



The key elements of the representative structure proposed in Figure 1 are:

- There is no change in the representative structures operating in each of the four principal states.
- The Oyster Consortium would be 'rolled into' the new legal entity.
- Oysters Australia comprises 6 grower directors (or otherwise agreed number) and 2 non-grower directors (or an otherwise agreed number).
- The grower directors are elected by each of the state bodies. If 6 directors the finally agreed number, the recommendation would be 2 directors from NSW, South Australia and Tasmania. Queensland representation would be secured by an observer status. Election of each state director will be the responsibility of the respective states. The focus must be determined by the states but there should be a strong focus on a skillful and committed board.
- Non-grower directors would be appointed by the grower directors if and as required.
- Provision for 3 Sub-committees. All of these committees would only be enacted or functioning if and when these roles became central activities of the organization:
 - R&D
 - Marketing and promotion

- Advocacy
- Preferably there would be no further formal sub-division of these committees as currently is the case with the Oyster Consortium, but they may choose to form Working Groups when required.
- Each committee may invite external parties to contribute. For example genetics breeders, however they will not be permitted to have voting rights.

HUMAN RESOURCING

The Oyster Consortium is managed with an Executive Officer officially working 0.2 FTE, although the current role is requiring around 0.4 FTE.

By way of example, similar sized industries would employ the services of a General Manager or Chief Executive Officer and also a R&D Manager or Executive Officer. In a number of the smaller bodies, a single person may be engaged in this role on a full time basis.

Our observations indicate that the oyster industry would benefit from having a General Manager type role undertaking a range of communication and advocacy services however further discussion is required. This person may be an existing or former oyster industry grower who has the ability and willingness to be involved a part-time basis but with the position being paid. Depending on the availability of funds or lack thereof it may be possible that the General Manager

role may be remunerated at less than the rates discussed in the next section.

Our observations would suggest that the R&D Manager / Executive Officer role would not be materially different to that currently being undertaken by Rachel King, however a stronger focus on communication may be required (digitally not necessarily face-to-face) in addition to having an ability to manage marketing and promotional projects.

FINANCIAL RESOURCING

Indicative costs of resourcing Oysters Australia using the proposed resourcing mix may be:

Role – General Manager (0.4 FTE)	
Salary + Super	\$44k
Travel	\$5k
Support costs (<u>no</u> dedicated office)	\$7k
Ancillary Costs	\$3k
Total	\$59k
Role – Executive Officer (0.4 FTE)	
Salary + Super	\$35k
Travel	\$3k
Support costs (<u>no</u> dedicated office)	\$7k
Ancillary Costs	\$2k
Total	\$47k
Role – Directors	
Travel	\$25k

Ancillary Costs	\$5k
Total	\$30k
Grand Total	\$136k

These costs would decrease by \$22k per annum if the General Manager's role was reduced to 0.2 FTE. The 0.4 FTE role may be limited to start up and commissioning of the organization.

Due to the limited funds currently available to the oyster industry, the role of General Manager may not permit time allocation / payment to the levels indicated above.

11. LEVY COLLECTION

EXISTING ARRANGEMENTS

The Oyster Consortium generates funds for investment in R&D activities and management support from 4 sources:

- Levies contributions from each of the four state based R&D organizations.
- Contributions from the 3 commercial organizations.
- Co-contributions from the Fisheries Research & Development Corporation on a 1:1 basis on eligible funds.
- Co-contributions from the Seafood CRC on a 0.8:1 basis on eligible funds.

In 2008/09, the total value of funds generated by the Oyster Consortium was \$549,510.

For each state, the mechanism by which funds subsequently invested into the Oyster Consortium are collected varies and are as described below.

State	Funding Source	Mechanism
NSW	NSW ARAC Levy – Annual	\$36 per ha + GST.

State	Funding Source	Mechanism
	Research Contribution	
SA	FRDC Levy	\$58.76 per ha collected by PIRSA and paid to SAORC.
Tas	Spat Levy	\$1.25 per 1,000 spat with a significant proportion of funds raised going to FRDC as a contribution to the OC.
QLD	Membership revenue	Contribution of a lump sum determined by Qld committee.

None of the funds generated are permitted to be spent on marketing and promotion or advocacy services if the Oyster Consortium wish to have their contributions matched \$ for \$ by the FRDC or the Seafood Consortium.

The state based levy collection system is characterized by:

- Grower Compulsion to Pay. In NSW, under legislation growers are compulsorily required to pay the levy as they are in SA. In Tas, the spat levy is not compulsory and is deducted by hatcheries.

- Inequity. For instance, the rates paid per ha vary between SA and NSW. Further, growers in SA pay both a spat levy (which is used by the SA state body) as well as an area fee.
- Varying Contribution. Each of the state organizations contribute varying percentages of their total levy 'take' to the national organization.
- Long Term Commitment. No state body has a commitment to be a member of the Oyster Consortium. This presents potentially serious consequences in regards to contractual agreements on projects.

LONG TERM FUNDING OPTIONS

There would appear to be 3 options for ongoing funding of R&D, marketing and promotional and advocacy services.

- Maintain the status quo with no increases in current charges and thereby have a limited investment in new projects during the life of this Business plan.
- Maintain the status quo with increases at rates to be determined to permit greater investment into new project areas.
- Consider introducing a national levy system which may present opportunities to increase the levy take and at the same time make more equitable the current rates of levy collections between the states.

- In horticulture, national levies are potentially collected at one of 'transaction' points, namely:
 - Next transaction point;
 - Grower pays; and,
 - Input based.

The author's opinion is that the "next transaction point" levy model is unworkable in the case of the oyster industry. The reasons for this conclusion are:

- Unlike horticultural wholesalers, seafood wholesalers, have not 'grown up' in an environment where government levy collection is a standard part of business practice. We would anticipate a strong adverse reaction to 'imposing' a levy collection mechanism on behalf of growers, particularly given that oysters represent a relatively small component of many wholesalers transactions.
- Other major transaction point sectors, fishmongers and food service are not 'experienced' in collecting levies on behalf of others, particularly where they receive no financial benefit from having to conduct the transaction.
- Some next transaction point entities may prefer to deal with suppliers who are not 'wed' to having the levy collected which will result in discrimination against growers who are happy to pay the levy.

- Collection costs would be enormous given the very large number of next potential transaction points.
- For a combination of the reasons listed above 'funds leakage' or potential for funds leakage would be high.

The reasons why a 'grower pays' model may not be workable include:

- In horticulture there are many examples of leakage of fund collection. Growers simply do not pay. While the LRS is responsible for collection we would anticipate that it would be very difficult to ensure compliance given the geographic spread of growers in this industry.
- Further, the very diverse nature of end user customers would also make it difficult to calculate the true amount that a grower should pay notwithstanding the information that is contained in fish returns.
- Where funds collection is more difficult the LRS charge is higher. We would expect that the industry would want to seek to identify a methodology where it could maximise the funds that it could generate.

Therefore, the authors believe that the only workable levy collection system relates to an inputs based system. In the case of the oyster industry, the three principle inputs are labour, spat / juvenile oysters, bags and 'water'. For obvious reasons a levy can not be put on labour, nor are bags a viable option due to the wide variety of suppliers. The collection process would be too difficult even if they

were prepared to accommodate. We don't consider that spat is feasible either whilst the industry in NSW and Qld still has a large reliance on wild caught spat. Some may argue that you could work a 'wild spat harvest' system where the growers advise how much spat they have caught, but frankly we don't consider that is feasible given our experiences with the benchmarking project, most growers don't know how much wild harvested spat they have caught.

Therefore this leaves 'water' as the only feasible system by which a R&D and marketing and promotion levy (if introduced) could be collected. The factors that support this include:

- This is the system by which growers currently pay for their R&D levy.
- By maintaining the 'levy collection basis', being a levy on area, growers do not necessarily view it as a 'new' tax and so less leakage occurs.
- Growers see the current levy as compulsory due to the nature of the collection mechanism in place, particularly in NSW, SA and Tasmania.
- If there are only 4 collection points (as each state government or organisation collects the levy on behalf of industry) the LRS charge should be very small, thereby maximising the spend that can occur on behalf of the industry.

Some growers will see the current levy collection system as inequitable. Some of the arguments put forward by growers on why it may be equitable are detailed below:

Reason Given	Response
disadvantages growers who farm less productive water.	growers have the option to purchase more productive water.
disadvantages growers who hold significant areas of leases but are not farming them.	this is a business decision by growers to hold water.

ESTABLISHING A NATIONAL LEVY

The process of introducing a national levy is not a simple one. An industry will firstly formulate a levy proposal and present this to growers for discussion. As the same time the body also needs to consult on the proposal with DAFF..

The industry will need to be able to demonstrate to DAFF that at least 75% of the growers in the industry are supportive of the proposal, unless there are special circumstances / exemptions which can be demonstrated and accepted by DAFF for a lower percentage. Previous experience suggests that the industry must be able to present a clear case to growers to support the introduction of the new levy. In the case of the oyster industry it should also demonstrate to growers the benefits that have flowed from past R&D and potentially how marketing and promotional levies have been utilized in other industries for industry benefit.

The government role, through DAFF, is to liaise with industries that want a levy system and implement an effective collection system at minimum cost.

The Levies Revenue Service (LRS) within the Department is responsible for the effective delivery of levies, by administering, collecting and disbursing levies on a cost recovery basis on behalf of industries.

The LRS deducts a collection fee from the funds raised. The fee varies depending on the number of collection points, average transaction sizes and other complexities associated with the collection process. For instance, in the macadamia industry the levy is deducted by around 13 processors and so the fee is low at around 1.5% of the funds collected.

In the case of the horticultural levies the revenue is forwarded to Horticulture Australia Limited (HAL), an industry-owned company that coordinates, invests and manages R&D and promotional programs on behalf of Australia's horticulture levies.

While HAL is responsible for managing industry funds and Australian Government matched funds, it is the industry's responsibility to advise how funds should be allocated. The Industry Advisory Committee (IAC) is a subcommittee of the HAL board. The IAC and the industry advisory group members are the key representatives who recommend to HAL what R&D or marketing and promotion projects should be funded by the national levy.

HAL deducts a fee of 13.1% of all levies raised for operation and management. This fee is uniform across all horticultural industries who have national levies.

The 13.1% is also used to fund cross-sectoral projects, that is, those projects which benefit a range of horticultural industries.

In its levy proposal to growers each industry must outline the share of the levy that will be provided for marketing and promotion, in comparison to that to be spent on R&D. Only R&D levies are eligible for matching funding from the federal government.

HOW MUCH SHOULD THE LEVY BE?

This paper does not provide an answer for that question. The levy to be introduced should be reflective of what the industry expects it will need to spend on R&D and possibly marketing and promotion in the future.

This cost would be dependent on what the Oyster Consortium Business Planning committee decide to 'sign off in of the Five Year Business Plan, including the business model that it wishes to be developed.

Being a national levy it will not be possible or advisable to seek to have different levies applied to different states based on the perceived or actual need, which may differ from state to state.

12. ACTION PLAN FOR 2010-2014

Objective 1: To sustainably increase industry production to 20 million dozen, net profit by 10% and industry Gross Value of Production (GVP) to \$120 million per annum.

Strategy 1: Improve grower productivity									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
1.1.1	Maintain investment in commercially focused Pacific & SRO breeding programs.	High						Supported researchers OC R&D	\$1,250,000
1.1.2	Facilitate greater levels of knowledge dissemination among growers of successful and unsuccessful production practices.	High						Benchmarking officer, Growers, EO	Part of benchmark role, fields days / conferences, articles
1.1.3	Invest in 'mini' projects to evaluate the cost/benefit of investing in new technologies eg. labour and spat in particular.	High						EO, R&D Sub-committee	TBC
1.1.4	Collect and collate water analysis results (over time) to generate greater knowledge of the productive capacities of different waterways.	Medium						EO, R&D Sub-committee	TBC
1.1.5	Establish and maintain new genetics pre-commercialization trial groups.	Medium						Genetics organizations, R&D Sub-committee	Costs largely borne by breeding companies with facilitation by OA
1.1.6	Establish inter- and intra- state protocols for oyster stock movements.	Low						OA CEO, EO, R&D Sub-committee	TBC
1.1.7	Oysters Australia to support state organizations in negotiations with state governments on licenses, fees and permits.	Medium						OA	In kind

Strategy 2: Improve grower profitability									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
1.2.1	Maintain industry commitment to industry benchmarking.	High						EO, R&D Sub-committee	\$40k per year from 2010
1.2.2	Develop and implement an effective best practice extension strategy for growers.	High						EO, R&D Sub-committee	TBC. Possibly an extension of BM role

Strategy 3: Ensure industry sustainability									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
1.3.1	Adopt state level natural resource protection and usage plans (similar to OISAS) for oyster industry and catchment stakeholders.	Medium						EO, R&D Sub-committee	In kind
1.3.2	Assist local environmental management liaison committees to interact with local environmental and developmental agencies.	Medium						EO, R&D Sub-committee	In kind
1.3.3	Establish a national water testing collection database.	Low						EO, R&D Sub-committee	TBC
1.3.4	Co-ordinate a national approach to tenure security for growers.	High						OA CEO, EO	TBC
1.3.5	Identify and implement strategies to address climate change issues that may impact on oyster production.	Medium						EO, R&D Sub-committee	TBC

Strategy 4: National approach to improving land tenure security for growers									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
1.4.1	Co-ordinate a national approach to land tenure security for growers.	High						OA CEO, EO	TBC

Objective 2: To increase oyster consumption by 13% to 0.93 dozen per and achieve an 80% satisfaction rating from our markets and customers through supply of consistently high quality oysters.

Strategy 1: Ensure a greater understanding of supply chain partner needs									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
2.1.1	Provide a regular forum for supply chain members to provide constructive input re product qualities and supply.	Medium						OA CEO, EO, M&P Sub-committee	TBC
2.1.2	Provide market and price intelligence to industry in Australian and selected international markets.	Low						EO, M&P Sub-committee	TBC
2.1.3	Undertake regular surveys to develop a greater knowledge of consumer oyster purchasing behavior.	High						EO, M&P Sub-committee	Funded through CRC

Strategy 2: Promote oysters to new and existing domestic markets									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
2.2.1	Invest in consumer promotions and develop, make available and promote to supply chain partners generic oyster promotional material.	High						EO, M&P Sub-committee	TBC. Dependant on M&P \$ avail.
2.2.2	Seek and exploit linkages with other seafood industries to promote seafood offers.	High						EO, M&P Sub-committee	Part-funded through CRC

Strategy 3: Assist development of oyster sales to new and existing domestic and export markets.									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
2.3.1	Identify priority markets and segments for new supply chain development projects.	High						EO, M&P Sub-committee	TBC. Dependant on M&P \$ avail.
2.3.2	Identify and commission whole of chain oyster market	High						EO, M&P Sub-	TBC.

	development projects (domestic and export).								committee	Dependant on M&P \$ avail. Part funded by CRC already
2.3.3	Develop an Australian oyster industry brand.	Low							EO, M&P Sub-committee	TBC. Dependant on M&P \$ avail.

Strategy 4: Encourage the development of new products that increase the oyster offer range

Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
2.4.1	Encourage the development of new stand alone oyster products in a commercially focused environment.	High						EO, M&P Sub-committee	TBC. Dependant on M&P \$ avail. In association with CRC
2.4.2	Encourage the development of integrated food offers including identifying cross-product linkages with other food industry participants.	High						EO, M&P Sub-committee	TBC. Dependant on M&P \$ avail. In association with CRC

Strategy 5: Best practice adoption of cool chain management practices along supply chain

Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
2.5.1	Review and investigate cool chain management practices with supply chain members, evaluate the commercial impacts of cool chain management failures and communicate best practice strategies to growers.	High						EO, R&D Sub-committee	TBC.
2.5.2	Promote supply chain technologies to support best practice	Low						EO, R&D Sub-	TBC.

	logistics and cool chain management systems.								committee	
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Strategy 6: Ensure delivery of quality oysters to the customer

Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
2.6.1	Establish and adopt national quality product descriptor language.	Medium						EO, R&D Sub-committee	TBC.
2.6.2	Establish quality standards and implement national quality systems that seek to reward quality growers.	Low						EO, R&D Sub-committee	TBC.
2.6.3	Identify strategies to maintain traceability of oysters along the supply chain.	Medium						EO, R&D Sub-committee	TBC.

Strategy 7: Maintain food safety standards

Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
2.7.1	Promote greater adoption of the SQAP to growers and industry.	Medium						OA CEO, EO	In kind
2.7.2	Lobby food safety authorities to ensure that are proactive and vigilant in maintaining food quality standards beyond the farm gate.	Low						OA CEO, EO	In kind

Objective 3: *Through the formation of a national industry organization, build capacity, leadership and confidence in the industry through the services it provides to growers and others.*

Strategy 1: Implement strategies to build labour force capacity in the industry										
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$	
			2010	2011	2012	2013	2014			
3.1.1	Assist and support NAC to lobby government to introduce overseas labour schemes.	High							OA CEO, EO	In kind
3.1.2	Assist and support NAC to work with federal government agencies to identify and target workers suited to the oyster industry.	High							OA CEO, EO	In kind
3.1.3	Promote production strategies that enable employment of greater percentages of non-traditional labour sources.	Low							OA CEO, EO	In kind
3.1.4	Provide employers with information on responsibilities to employees.	Medium							OA CEO, EO	In kind
3.1.5	Inform growers of available training programs and worker training subsidies.	Low							OA CEO, EO	In kind

Strategy 2: Create and promote a national coherent identity for the Australian oyster industry										
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$	
			2010	2011	2012	2013	2014			
3.2.1	Form a national oyster industry organization, Oysters Australia, after due consideration of alternative constitutional and organizational models.	High							OA CEO, EO, All committee members	TBC
3.2.2	Develop a 'membership culture' for Oysters Australia members by providing high quality services.	Medium							OA CEO, EO	OA CEO, OA, All committee members
3.2.3	Develop and regularly update data on industry contribution to national, state and regional economies	Medium							EO	In kind
3.2.4	Oysters Australia to support state organizations to address legislative and regulatory matters of national significance.	High							OA CEO, EO	In kind

Strategy 3: Provide a leadership culture through strong and lasting relationships with industry stakeholders.									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
3.3.1	Establish and maintain personal relationships with federal and state government agencies whom impact on oyster growers.	High						OA CEO	In kind
3.3.2	Establish and maintain personal relationships with key parties involved in the oyster supply chain.	Medium						OA CEO	In kind
3.3.3	Develop and execute an effective communication strategy for the oyster industry on R&D, marketing and promotion and advocacy matters. Ensure linkages are maintained with state organizations.	High						EO with liaison with state bodies	TBC
3.3.4	Seek to engage major industry stakeholders in decision making.	Medium						OA CEO	In kind
3.3.5	Oysters Australia to support and work collaboratively with state bodies on state issues.	High						OA CEO, EO	In kind
3.3.6	Oysters Australia to seek greater financial consideration of growers from financial organizations.	High						OA CEO	In kind

Strategy 4: Continue to develop a national approach to R&D									
Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
3.4.1	Oyster Consortium to be 'rolled' into Oysters Australia.	High						OA CEO, EO, All committee members	TBC
3.4.2	Establish ongoing effective processes for growers to provide input into priorities and project areas.	High						OA CEO, EO, All committee members	In kind
3.4.3	The Oysters Consortium to investigate alternative R&D representative structures to that currently in the Oyster Consortium.	High						OA CEO, EO, All committee members	In kind
3.4.4	Maintain strong relationships with Seafood Consortium & FRDC.	High						OA CEO, EO	In kind

3.4.5	Ensure adequate resources are available for effective management and communication of existing and new R&D project activities.	High						OA CEO, EO, All committee members	TBC
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Strategy 5: Provide national approach marketing, promotion and advocacy leadership

Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
3.5.1	Determine, investigate and allocate resources to provide an advocacy model for national issues and priorities	Medium						EO, All committee members	TBC
3.5.2	Form two separate Marketing & Promotion and Advocacy committees.	Medium						EO, All committee members	TBC

Strategy 6 Develop effective, long term funding mechanisms for industry development activities

Strategy	Action	Priority	Timing					Responsibility	Estimated Budget \$
			2010	2011	2012	2013	2014		
3.6.1	Feasibility study on the establishment of a national levy comprising R&D, marketing & promotion and advocacy components.	High						OA CEO, EO, All committee members	TBC
3.6.2	Establish a grower membership fee to support advocacy services.	Medium						OA CEO, EO, All committee members	TBC

13. FINANCIAL PLAN

EXISTING OYSTER CONSORTIUM BUDGET

The current OC budget is presented in Table 1

Table 1 below provides a summary of the inflows and outflows for the period 2007/08 to 2013/14.

The project outflows are for projects committed for investment by the OC and approved by the Seafood CRC and FRDC.

This budget shows a current surplus at the end of 2013/14 of \$1,170,713.

Important factors which should be noted in this budget include:

- No provision for genetics research beyond 2012/13.
- No provisions for an OC Executive Officer retainer and travel for members of the OC beyond 2010/11.
- No other new project investments.
- No change in the operational structure of the OC.
- Funding from the state bodies and matching contributions from the FRDC and Seafood CRC at the levels budgeted in 2008/09.

Table 1: Existing Oyster Consortium Budget, 2007/08 to 2013/14

Item	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
<u>Source of Funds</u>							
Oyster Consortium Cash Contribution	\$207,000	\$186,760	\$186,760	\$186,760	\$186,760	\$186,760	\$186,760
FRDC Contribution	\$207,000	\$203,000	\$203,000	\$203,000	\$203,000	\$203,000	\$203,000
Seafood CRC Contribution	\$162,810	\$159,750	\$159,750	\$159,750	\$159,750	\$159,750	\$159,750
Balance Carried Forward		\$375,062	-\$6,839	-\$56,703	\$71,742	\$303,443	\$659,669
TOTAL FUNDS AVAILABLE	\$576,810	\$924,572	\$542,671	\$492,807	\$621,252	\$852,953	\$1,209,179
<u>Outflow of Funds</u>							
Communal Projects	\$0	\$38,466	\$38,466	\$38,466	\$38,466	\$38,466	\$38,466
Program 1: Breeding for Profit	\$106,536	\$590,892	\$346,886	\$335,664	\$279,343	\$154,818	\$0
Program 2: Market & Supply Chain	\$73,631	\$217,199	\$147,040	\$20,753	\$0	\$0	\$0
Program 3: Management & Planning	\$21,581	\$84,854	\$66,982	\$26,182	\$0	\$0	\$0
TOTAL ALL COMMITTED PROJECTS	\$201,748	\$931,411	\$599,374	\$421,065	\$317,809	\$193,284	\$38,466
BALANCE AVAILABLE	\$375,062	-\$6,839	-\$56,703	\$71,742	\$303,443	\$659,669	\$1,170,713

Source: Oyster Consortium August,2009.

REVISED OYSTER CONSORTIUM BUDGET

Table 3 on the following page provides a summary of the inflows and outflows for the period 2007/08 to 2013/14 following a review undertaken on the 26th October 2009.

These figures provide a revised net cash surplus of \$90,010.

The 'surplus' of \$90,010 does assume that the "Sources of Funds" are received as budgeted.

This budget is reflective of the following additions from the budget presented in Table 1:

- Programs 1, 2 and 3 include an outline of the project areas for which proposals have been received and which may be supported in the future.
- Programs 1, 2 and 3 also include an outline of the OC's proposed levels of investment into High Priority strategic areas as outlined in the Action Plan and further discussed in the section entitled High Priority Projects. The key new project investment areas and the estimated sums to be invested in each area are summarized in Table 2.

Table 2: OC High Priority R&D Areas and Estimated Funding Levels for 2009/2010 to 2014/15

Strategy	Funding Source	Projected Funding Level
3.4.5	Ensure adequate resources are available for effective management and communication of existing and new R&D project activities.	\$281k
1.1.1	Maintain investment in commercially focused Pacific & SRO breeding programs.	\$250k
1.2.1	Maintain commitment to industry benchmarking	\$250k
1.1.2	Facilitate greater levels of knowledge dissemination among growers of successful and unsuccessful production practices.	
1.1.3	Invest in 'mini' projects to evaluate the cost/benefit of investing in new technologies eg. Labour and spat in particular	\$50k
2.1.3	Undertake regular consumer surveys to develop greater knowledge of consumer behavior in regards oyster purchasing.	\$50k
2.5.1	Review and investigate cool chain management practices with supply chain members, evaluate the commercial impacts of cool chain management failures and communicate best practice strategies to growers.	\$60k
2.4.1	Encourage the development of new stand alone oyster products in a commercially focused environment.	\$50k
2.4.2	Encourage the development of integrated food offers including identifying cross-product linkages with other food industry participants.	
2.3.1	Identify priority markets and segments for new supply chain development projects.	\$80k
2.3.2	Identify and commission whole of chain oyster market development projects (domestic and export).	

Table 3: Revised Oyster Consortium Budget, 2007/08 to 2013/14

Item	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Source of Funds							
Oyster Consortium Cash Contribution	\$207,000	\$203,000	\$203,000	\$203,000	\$203,000	\$203,000	\$203,000
FRDC Contribution	\$207,000	\$186,760	\$186,760	\$186,760	\$186,760	\$186,760	\$186,760
Seafood CRC Contribution	\$162,810	\$159,750	\$159,750	\$159,750	\$159,750	\$159,750	\$159,750
Balance Carried Forward		\$375,082	-\$6,839	-\$176,485	-\$233,852	-\$214,150	-\$44,924
TOTAL FUNDS AVAILABLE	\$576,810	\$924,572	\$542,671	\$373,025	\$315,658	\$335,360	\$504,586
Outflow of Funds							
Communal Projects (Program 1 & 2)	\$0	\$38,466	\$38,466	\$38,466	\$38,466	\$38,466	\$38,466
Program 1: Breeding for Profit							
Program 1: Committed Projects							
2003/209: SRO: hatchery & nursery		\$134,744					
2005/209: SRO program commercialization	\$27,989	\$106,923					
2006/226: SRO program enhancement		\$221,191	\$114,906	\$55,853			
2006/227: Pacific program enhancement	\$78,547	\$85,866	\$74,428				
2008/775: Condition workshop		\$6,900					
Genetic improvement of oysters			\$181,351	\$166,899	\$164,773	\$303,055	\$90,675
Sub-Total Committed projects	\$106,536	\$555,624	\$370,505	\$222,752	\$164,773	\$303,055	\$90,675
Program 1: Existing proposals or new project							

Item	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
investments							
PhD: Vibrio in hatchery							
Genetics education & training							
<i>Genetic improvement of oysters (1.1.1)</i>							\$250,000
Sub-Total Existing proposals or new project investments	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000
GRAND TOTAL PROGRAM 1	\$106,536	\$555,624	\$370,505	\$222,752	\$164,773	\$303,055	\$340,675
Program 2: Marketing / Supply Chain							
Program 2 - Committed Projects							
2007/700: Supply chain temperature profiles	\$61,631	\$15,408					
2007/719: Integrated predictive tools	\$12,000	\$10,500	\$25,500	\$12,000			
PhD: UTAS – Quality index oysters							
PhD: SARDI – Quality & post harvest		\$8,000	\$19,000	\$11,560			
PhD: Human enteric viruses		\$36,773		\$9,193			
2007/706: US access feasibility		\$31,128					
2008/753: Market workshop		\$7,580					
2008/777: Oysters supply chain		\$45,400					
2009/701: Benchmarking		\$21,850	\$87,400				
2009/770: Retail transformation			\$50,000				
Sub-Total Committed projects	\$73,631	\$217,199	\$147,040	\$20,753	\$0	\$0	\$0

Item	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Program 2 - Existing proposals or new project investments							
<i>Benchmarking project officer</i>			\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Uni SA export market scan							
Uni SA market plan for export market							
Uni SA market plan for domestic market							
<i>Production efficiency projects (1.1.2 & 1.1.3)</i>				\$25,000	\$25,000		
<i>Oyster consumption research (2.1.3)</i>			\$25,000			\$25,000	
<i>Cool chain management audit / extension (2.5.1)</i>			\$15,000	\$15,000	\$15,000	\$15,000	
<i>New oyster product development projects (2.4.1 & 2.4.2)</i>			\$10,000	\$20,000	\$20,000		
<i>New oyster market development projects (2.3.1 & 2.3.2)</i>			\$20,000	\$20,000	\$20,000	\$20,000	
Sub-Total Existing proposals or new project investments	\$0	\$0	\$120,000	\$130,000	\$130,000	\$110,000	\$50,000
GRAND TOTAL PROGRAM 2	\$73,631	\$174,099	\$290,900	\$170,193	\$141,560	\$110,000	\$50,000
Program 3: Management & Planning							
Program 3: Committed Projects							
2007/715: Consortium general	\$21,271	\$20,000	\$20,000	\$10,000			
2007/715.01: Executive officer	\$310	\$25,654	\$16,182	\$16,182			

Item	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
2008/798: Business Plan		\$12,610	\$54,740				
Sub-Total Committed projects	\$21,581	\$58,264	\$90,922	\$26,182	\$0	\$0	\$0
Program 3: Existing proposals or new project investments							
<i>Consortium general (travel, accom, ancillary) (3.4.5)</i>				\$20,000	\$30,000	\$30,000	\$30,000
<i>Executive officer retainer (3.4.5)</i>				\$30,812	\$47,000	\$47,000	\$47,000
Sub-Total Existing proposals or new project investments	\$0	\$0	\$0	\$50,812	\$77,000	\$77,000	\$77,000
GRAND TOTAL PROGRAM 3	\$21,581	\$58,264	\$90,922	\$76,994	\$77,000	\$77,000	\$77,000
TOTAL ALL COMMITTED PROJECTS	\$201,748	\$826,453	\$670,793	\$327,593	\$214,799	\$341,521	\$129,141
TOTAL ALL EXISTING PROPOSALS OR NEW PROJECT INVESTMENTS	\$0	\$0	\$120,000	\$180,812	\$207,000	\$187,000	\$377,000
TOTAL ALL	\$201,748	\$826,453	\$790,793	\$508,405	\$421,799	\$528,521	\$506,141
BALANCE AVAILABLE	\$375,062	\$98,119	-\$143,164	-\$102,059	\$25,652	\$46,641	\$90,010

HIGH PRIORITY PROJECTS

On initial estimates the Australian oyster industry has \$1,170,713 of funds available for investment into new projects from now until 2013/14. No new funding streaming are budgeted to be received. Through the extensive consultation process undertaken in the development of this Business plan, growers have indicated there a wide range of issues which they wish to have addressed. Grower issues collated by state are summarized in Section 8. This section provides a summary of the High Priority project areas for new investment and a brief explanation of the factors that have contributed to this determination.

Readers must note that this section only refers to R&D projects which have a High Priority ranking. This section does not consider High Priority projects identified by the Oyster Consortium which relate specifically to marketing and promotional or advocacy areas. Presently, the investment of levy funds into these project areas is not permitted.

On the 23rd November, 2009 the Oyster Consortium met to consider the Business Plan. Table 4 provides a summary of each of the High Priority R&D areas for new project funding by the Oyster Consortium, the projected level of funding and an outline of factors identified that support the determination that these actions are the correct ones for the industry to invest in. Readers should note that the projected funding levels are an estimation of the funds that will be applied to each action area and may vary depending on the project proposals provided to the Oyster Consortium.

Actual investment into each of these High Priority areas will need to be negotiated with the Seafood CRC based on:

1. CRC's assessment of the 'corporate R & D' versus commercial business nature of the project.
2. Actual project budget based on project concept detail.
3. The industry's assessment of new proposals and opportunities against its High Priority areas.
4. Additional funds being made available in excess of the current budget from industry or direct commercial sources.

Table 4: Justification for Project Funding Levels for High Priority R&D Activities

Strategy	Action	Projected Funding Level	Basis of Estimation	Justification
3.4.5	Ensure adequate resources are available for effective management and communication of existing and new R&D project activities.	\$281k	<u>Executive Officer</u> <ul style="list-style-type: none"> • \$35k retainer • \$3k travel • \$7k support costs • \$2k ancillary costs <u>Directors / Committee Persons</u> <ul style="list-style-type: none"> • \$25k travel • \$5k ancillary costs 	<ul style="list-style-type: none"> • Current EO support paid at the rate of 0.2 FTE although the role on average involves providing more than 0.4FTE as a minimum. • Management of R&D projects including reporting, communication of findings, in addition to facilitation, coordination, attendance and reporting on meetings all required activities by an organization such as the Oyster Consortium. • Directors / Committee persons budget required for travel and attendance at strategic direction meetings.
1.1.1	Maintain investment in commercially focused Pacific & SRO breeding programs.	\$250k	<ul style="list-style-type: none"> • Approx average of previous 5 years expenditure on genetics research. Expenditure budgeted for 2013/14 only. 	<ul style="list-style-type: none"> • Spat represents 17.2% of total production costs. A 20% decrease in mortality will reduce spat costs by 3.44%. A 20% reduction in the time period from stocking to harvest will increase sales turnover by 20% approximately (assuming same returns) which, on a net margin of 15%, represents a 3% net gain in profits. • Oyster breeding at an early stage of development, with history showing breeding in other animal or horticultural industries requiring long lead times to fully exploit the genetic gain potential. • Potential still exists for catastrophic production events eg. QX or winter mortality which results in losses of up to 100%. Research capacity required to develop resistance to those diseases and at the same time produce oysters with similar or enhanced production characteristics eg. growth rates, conditioning. It will not be possible beyond current funded project commitments (to 2013) for all genetics manageable issues can be addressed. • Limited expansion in production site availability will necessitate production growth per unit area from existing sites.

Strategy	Action	Projected Funding Level	Basis of Estimation	Justification
1.2.1	Maintain commitment to industry benchmarking.	\$250k	<ul style="list-style-type: none"> Budgeted expenditure of \$50k per year for retention of Benchmarking Industry officer with a time commitment of 0.4 FTE @ \$90k per year plus a travel and communication budget of \$14k per annum <u>or</u> Expenditure budgeted on 45 days retention of a consultant @ \$1,000 per day + travel costs to compile and analyse data from existing growers and at least 10 new growers per year. 	<ul style="list-style-type: none"> A 2% increase in average net margin (from 13% to 15% for example) will increase the industry net margin by \$1.9 million per annum based on an average sales turnover of \$95 million per annum. Benchmarking project <1 year old so unable to directly calculate grower benefits through involvement in the benchmarking program. Evidence exists of initial outputs being used to modify production strategies. Strong and positive grower feedback from industry that the program is a useful management tool. Very strong positive feedback from existing growers and new growers enquiring about participation in the project. Provides clear evidence to industry of focal points for investment of grower levy funds. Over time it will be possible to demonstrate the impact of changed grower business behavior on bottom lines.
	Facilitate greater levels of knowledge dissemination amongst growers of successful and unsuccessful production practices.			
1.1.2	Invest in 'mini' projects to evaluate the cost/benefit of investing in new technologies eg. labour and spat in particular.	\$50k	<ul style="list-style-type: none"> Small scale consultancy projects undertaken over 2 years in 2010/11 and 2011/12. 	<ul style="list-style-type: none"> Labour and spat combined represent 70.5% of total production costs when the cost of the owners labour is included. A 5% reduction in labour costs will reduce the costs of production by \$2.2 million per year based on a current industry turnover of \$95 million, net margin of 15% and labour % cost of 55%. The oyster industry has a wide ranging level of adoption of labour saving production and processing techniques. Little communication of innovation exists beyond 'bay' level. Grower reluctance to change major production techniques generally reflective of fear and inability to quantify the cost / benefit associated with making the change. Other industries have demonstrated that a major change driver is the ability to demonstrate to growers in \$ and cents terms the impacts of changing production practices. The major focus of 'mini' projects should be where labour costs are able to be reduced or lowering of mortality levels can be achieved. Projects must have a national focus.
1.1.3				
2.1.3	Undertake regular consumer surveys to develop greater knowledge of consumer	\$50k	<ul style="list-style-type: none"> Two projects undertaken within the 5 year term of the Business Plan. 	<ul style="list-style-type: none"> Existing knowledge of consumer preferences / drivers to oyster consumption limited to studies >5 years of age.

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	behavior in about oyster purchasing behaviour		<ul style="list-style-type: none"> Two smaller scale research projects which will be aligned with the Omnibus survey. 	<ul style="list-style-type: none"> Industry is currently in the position of having a supply limited resource across a yearly period. With improved productivity resulting from genetics and other on-farm projects, industry wants to have a detailed knowledge of consumers so demand development strategies are targeted for maximal potential success. Demand development strategies will need to ensure that there is as close a match as possible between supply and demand so as not to drive oyster prices significantly higher leading to the development of 'rise and fall' pricing cycles as evidenced in other industries.
2.5.1	Review and investigate cool chain management practices with supply chain members, evaluate the commercial impacts of cool chain management failures and communicate best practice strategies to growers.	\$60k	<ul style="list-style-type: none"> Two projects undertaken within the 5 year term of the Business Plan. Two research projects with a strong focus on extension and cost / benefit calculations. 	<ul style="list-style-type: none"> A recent study completed by Madigan et al concluded that more than 50% of oyster consignments in the study suffered temperature abuse from grower to end user. Quantitative assessment of product losses and sales losses has not been undertaken however anecdotally they are reported to be significant. Visual appearance has been identified by studies of existing consumers as a major issue impacting on purchasing decisions. Until the Madigan study was completed there was limited knowledge of cool chain abuses apparent in the industry. Any project will involve a significant extension phase to provide knowledge to all members of the supply chain. The project will also seek to identify cost / benefits of improved temperature management practices.
2.4.1	Encourage the development of new stand alone oyster products in a commercially focused environment	\$50k	<ul style="list-style-type: none"> No specific projects identified. Project investment will be on a case by case as submitted. May involve extension of R&D effort following completion of Retail Transformation project. 	<ul style="list-style-type: none"> A limited range of offer of oysters beyond ½ shell at retail. Studies have highlighted that by providing a wider range of offer of oysters where consumers can purchase them demand may be improved. Significant existence of previously conducted research has not been successfully commercially adopted. Due to the structure of the oyster supply chain and the comparatively low importance of oysters in the overall seafood 'offer', commercial adoption of research outcomes may be questionable. A comparatively low level of investment in this project area as traditionally the majority of this type of research is undertaken by commercial organizations.
2.4.2	Encourage the development of integrated food offers including identifying cross-product linkages with other food industry participants.			

Strategy	Action	Projected Funding Level	Basis of Estimation	Justification
2.3.1	Identify priority markets and segments for new supply chain development projects.	\$80k	<ul style="list-style-type: none"> No specific projects identified. Project investment will be on a case by case as submitted. May involve an extension of R&D effort following completion of Retail Transformation project. 	<ul style="list-style-type: none"> Industry currently in the position of having a supply limited resource across a yearly period. With improved productivity resulting from genetics and other on-farm projects, industry wants to be prepared to be able to support the development of new market segments. Imports represent 7% of the Australian industry consumption. Markets are serviced by imported product due to cost and product format constraints. Commercial parties have undertaken limited investment in developing new market areas due to the supply resource nature of industry and cost / benefit associated with these activities. Each project will be evaluated in terms of potential sales of new Australian oyster sales and the cost / benefit associated with servicing them.
2.3.2	Identify and commission whole of chain oyster market development projects (domestic and export).			