

BC Shellfish Industry
Strategic plan
April 2011



BOSGA
BC Shellfish Growers Association

ACKNOWLEDGEMENTS

The BC Shellfish Grower's Association (BCSGA) is pleased to present this report on behalf of the shellfish industry and shellfish farmers of British Columbia. Comments and enquiries about the report should be directed to the Executive Director of the BCSGA as indicated below.

The BCSGA would like to thank former Manager of Seafood Development with the BC Ministry of Agriculture Al Castledine for his contributions and guidance during the development of the original plan.

To the members of the industry who attended meetings and gave willingly of their time and knowledge to make this plan possible, the BCSGA is most grateful. There is a sense of optimism about the future of this industry. The stage is set to continue the development of a strong and viable shellfish industry in British Columbia.

The suggestions and conclusions in this report were reached using the knowledge and experience of producers involved in the industry. The strategic plan is a living document whose first draft was finished in March 2006, and this current draft which was done in April 2011 after BCSGA board review and input.

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1 SUMMARY

The purpose of this Strategic Plan is to recognize problems, identify opportunities and appropriate strategic initiatives to support British Columbia (BC) shellfish industry development.

The shellfish industry faces numerous challenges including a considerable regulatory burden, marketing issues, knowledge development and communications, and some fundamental opposition to the industry from special interest groups and anti-farming non-governmental organizations. Also, there is difficulty obtaining adequate capital investment in the industry because of low profit margins and burdensome regulations that stunt outside investment. Adequate return on investment is critical for industry success.

This Strategic Plan addresses the future of the industry by assessing its position at this time and identifying the vision, goals and strategic directions to take forward the development of the industry.

The Strategic Plan identifies:

- action items
- timelines for a five-year implementation
- an implementation strategy, including strategies for achieving some funding to assist the industry with ongoing development.

1.1 VISION

The following is the **vision** for the future of the BC shellfish industry:

BC shellfish farmers – working together for a sustainable and competitive industry.

Originally formed as the BC Oyster Grower's Association in 1948, the British Columbia Shellfish Growers Association (BCSGA) has been the voice of the shellfish industry for over 55 years. In 1990, the name of the Association was changed to better reflect the diversification of the industry. The Association is non-profit and represents 71% of shellfish growers in BC in addition to suppliers and service providers to the industry.

Vision:

The BC shellfish industry will be an innovative, competitive economic sector that is a world leader in sustainable shellfish culture.

Mission:

To advance the sustainable growth and prosperity of the BC shellfish industry in a global economy by providing leadership and advocacy to members and stakeholders while maintaining the integrity of the marine environment.

The goals of the BCSGA are:

- To build effective support structures and relationships among industry stakeholders.
- To ensure a secure business climate that promotes greater investment and profits.
- To increase the growth and diversity of opportunities for the shellfish industry.
- To ensure scientific research and technological development is industry-driven
- To ensure that the BC Shellfish Growers Association will be a strong, representative industry association
- To promote BC shellfish as a sustainable seafood option amongst the culinary industry and general public

Other priorities of the Association include:

- Support of water quality activities, programs and advocacy
- Support of the implementation of industry based Environment Management System Code of Practice
- Development of both a domestic and international marketing program for BC shellfish

- Monitoring and input on emerging and existing industry regulations at both the federal and provincial level
- Development of on farm food safety programs for quality assurance
- A working relationship with the Centre for Shellfish Research in Deep Bay

1.2 STRATEGIC DIRECTIONS

Discussions and meetings were held with industry representatives prior to the writing of the Strategic Plan. Five key strategic priorities or directions emerged from these discussions:

- 1) Communication
- 2) Environmental & Quality Management
- 3) Association Governance
- 4) Marketing Initiatives
- 5) Training and Education

Within each of the five direction areas, a series of action items was discussed. More detail on these action items is identified in “The Future of the Industry” section in this Strategic Plan.

2 INTRODUCTION

BC shellfish farmers want adequate returns on their labour and investment. The industry is facing some difficult problems as growers grapple with rules and regulations imposed by all three levels of government; anti-farming organizations and negative publicity campaigns; lack of investment capital; marketing challenges and the difficulty of a homogenous membership divided by access to regular lines of communication due to the remoteness of many farms.

The purpose of this Strategic Plan is to provide a progressive working document that will rally growers and processors around common themes and strategies designed to help everyone in the industry. The Strategic Plan is also expected to facilitate opportunities for funding to support the shellfish industry’s efforts in marketing and promotion.

3 THE PROCESS FOR PLAN DEVELOPMENT

This Plan was started on the initiative of the BCSGA and was developed using a review of previous plans and consultation with shellfish farmers.

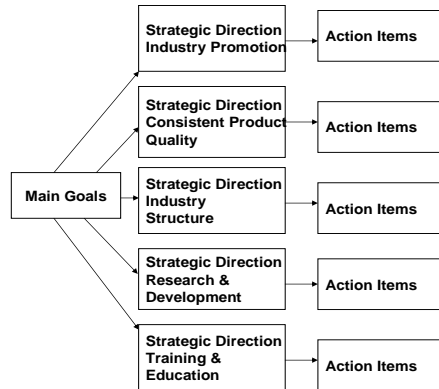
3.1 THE IMPORTANT PLANNING QUESTIONS

In developing this Strategic Plan for the industry, the following questions were addressed.

- A. Where has the industry been? Where is it now?
- B. Where does the industry want to go?
- C. How is the industry going to get there?
- D. How will the industry know when it has arrived?

3.2 RELATIONSHIP BETWEEN PLANNING TERMS

To ensure clarity in the use of the plan, the following relationship between the main planning terms was applied:



The *Vision* for the future captures the overall direction for the industry and a plan to achieve it.

The *Main Goals* are building blocks for the vision.

The *Strategic Directions* emerge from the Main Goals. They are the broad categories within which actions are developed.

The *Action Items* are derived from the strategic direction areas. Action items are the more specific activities that the industry will implement to realize the long-term vision.

3.3 STEPS IN DEVELOPING THE PLAN

The following steps were used to develop this Strategic Plan:

- 1) Review background materials and other studies and prepare an annotated bibliography of recent studies
- 2) Conduct an initial planning meeting with the Board of Directors of the BCSGA
- 3) Conduct tours and hold meetings with shellfish farmers and industry leaders
- 4) Develop a Draft Summary of the Strategic Plan
- 5) Mail notice of the development of the Strategic Plan and a copy of the Draft Summary of the Strategic Plan to the entire BC industry (over 300 mailed)
- 6) Conduct workshop and receive feedback on the Draft Summary of the Strategic Plan at the BCSGA Annual General Meeting in October, 2005
- 7) Receive acceptance in principle of the Draft Summary of the Strategic Plan at the AGM
- 8) Prepare revisions and additions using industry member feedback and feedback from the BCSGA Board to further develop a more detailed Draft Strategic Plan
- 9) Receive feedback on the Draft Strategic Plan from the BCSGA
- 10) Prepare further adjustments to the Strategic Plan as required
- 11) Submit the Final Strategic Plan to the BCSGA
- 12) BCSGA updates the Strategic Plan on an ongoing basis:
 - June 2006
 - April 2008
 - April 2010
 - April 2011

4 BACKGROUND AND CURRENT SITUATION

4.1 MAIN INDUSTRY COMPONENTS

4.1.1 The BC Shellfish Farmers

The shellfish industry, located primarily on Vancouver Island, is comprised of approximately 315 licensed marine shellfish companies controlling over 489 culture sites on crown land leased from the provincial government. Currently, there are about 3,000 hectares of foreshore land tenured in BC for shellfish farming. The main shellfish products are oysters and clams but there is a limited, though increasing production of geoduck clams, mussels and other shellfish products such as sea cucumber, sea urchin, and abalone.

The BC shellfish industry is relatively small, being about 1/6 the size of the industry in Washington State and smaller than just the mussel industry in Prince Edward Island. On the other hand, the growing conditions and natural attributes of BC are excellent and provide the setting for significant industry expansion. Regardless, the industry has decreased in number of farms and companies in the last few years, while the amount of product sold has risen. The peak year for sales of shellfish was 2003.

The BC shellfish industry is a farming industry. Shellfish growers are farmers and are not part of the wild catch sector.

4.1.2 Industry Processors

In 2006, the last year when data was available, there were 36 recognized companies processing shellfish products in BC.

Twelve main industry shellfish product processors account for more than 90% of all industry sales. The five main processors for the industry, Mac's Oysters, Evening Cove Oysters Processing, Taylor Shellfish, Limberis Seafood Processing Ltd and Blundell Seafoods Ltd account for 75% of all industry sales.

There are a limited number of shellfish companies competing at the international level. Those companies provide consistent quality product for specialized markets. Most of the shellfish processors are smaller operations, many with developed local markets.

4.1.3 The BCSGA

Originally formed as the BC Oyster Growers Association in 1948, the British Columbia Shellfish Growers Association (BCSGA) has been the voice of the shellfish industry for almost 60 years. In 1990, the name of the Association was changed to better reflect the diversification of the industry. The Association is non-profit and the

only organization specifically representing shellfish farmers in BC. The BCSGA membership includes growers, processors, shellfish aquaculture equipment suppliers and service providers. In 2007 there were 183 members.

The goals of the BCSGA are:

- To build effective support structures and relationships among industry stakeholders.
- To ensure a secure business climate that promotes greater investment and profits.
- To increase the growth and diversity of opportunities for the shellfish industry.
- To ensure scientific research and technological development is industry-driven
- To ensure that the BC Shellfish Growers Association will be a strong, representative industry association
- To promote BC shellfish as a sustainable seafood option amongst the culinary industry and general public

Other priorities of the Association include:

- Support of water quality activities, programs and advocacy
- Support of the implementation of industry based Environment Management System Code of Practice
- Development of both a domestic and international marketing program for BC shellfish
- Monitoring and input on emerging and existing industry regulations at both the federal and provincial level
- Development of on farm food safety programs for quality assurance
- A working relationship with the Centre for Shellfish Research in Deep Bay

4.1.4 The Centre for Shellfish Research

The Centre for Shellfish Research (CSR) is part of the Institute for Coastal Research established by Vancouver Island University. The CSR was created to facilitate the emergence of the BC shellfish

aquaculture industry as a sustainable economic engine for healthy, vibrant coastal communities.

The CSR is a dynamic organization designed to support and respond to the research needs BC shellfish aquaculture industry. These needs have been classified by the CSR as:

- Enhancing industry competitiveness
- Investigating environmental interactions
- Addressing issues of social license, including governance and policy development
- Facilitating training and technology transfer
- Enhancing shellfish research capacity in British Columbia

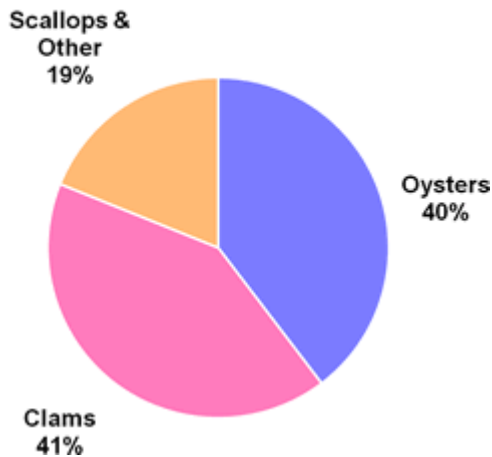
4.2 MAIN PRODUCTS OF THE INDUSTRY

The three main shellfish products are oysters, clams and scallops with limited but increasing production of geoduck clams and mussels and potential for other shellfish products such as sea cucumber, sea urchin, and abalone. Oysters make up more than 80% of the provincial farmed shellfish harvest and clams from farms now exceed those harvested in the wild. In 2009, the total wholesale value of BC shellfish was \$205.5 million with cultured oysters being the most widely grown product.

B.C. Aquaculture Harvests and Values 2007 - 2009						
Species	Harvest (‘000 tonnes)			Farmgate Value (\$millions)		
	2007	2008	2009	2007	2008	2009
Shellfish	9.9	7.5	7.3	21.3	16.2	16.4

B.C. Shellfish Aquaculture Harvests and Values 2009		
Species	Production (‘000 in-shell tonnes)	Farmgate Value (\$millions)
Oysters	5.4	6.5
Clams	1.2	6.8
Scallops & Other	0.7	3.1
Total	7.3	16.4

2009 B.C. Shellfish Aquaculture by Value



- 322 companies
- 508 sites
- 3,535 hectares in BC

4.2.1 Oysters

The Pacific Oyster is not native to BC but is now the species most widely cultivated in BC and the Pacific Northwest. The oyster-growing industry in British Columbia has been revolutionized over the past twenty years and increasingly production is moving from intertidal to deep water. The development of off-bottom growing methods for oysters has significantly increased productivity.

4.2.2 Clams

The species that dominates clam farming in BC is the Manila clam. Manila clams have been harvested along the British Columbia coast since the 1970's but only since 1985 have they been farmed.

The latest statistics show the value of the farmed clam industry exceeding the wild fishery for the 5th year in a row.

4.2.3 Scallops and Mussels

Scallop farming has only recently been developed in BC. Although the potential for a large viable culture industry is significant, the production of farmed scallops remains relatively small. Several species of mussel are farmed in BC's coastal waters and they are sought on local menus as a premium product. Access to mussel seed seems to be one of the limiting factors in advancing this species development.

4.2.4 Other Products

While the main commercial species are oysters and clams, a variety of other shellfish species are being cultured in small or experimental quantities including blue mussels, sea cucumber, sea urchin, geoduck clam, abalone and spot prawns. The opportunity for abalone culture cannot be realized until they are removed from the species at risk act and DFO allows harvesting of animals for broodstock programs. Geoduck farming present a lucrative opportunity to BC shellfish farmers but federal regulations favouring wild harvesting are severely hampering industry attempts to commercially farm geoduck.

4.3 THE MAIN ISSUES, STRENGTHS AND WEAKNESSES OF THE INDUSTRY

4.3.1 Main Issues, Problems and Concerns

The shellfish industry faces numerous challenges including a considerable regulatory burden, marketing and selling issues, knowledge development and communications, and some fundamental opposition to the industry from special interest groups and anti-farming non-governmental organizations. Also, there is difficulty obtaining adequate capital investment in the industry because of perceived high risk and challenges in industry organization and representation.

4.3.2 Strengths of the Industry

BC Shellfish farmers are a resilient breed who persevere with their industry despite challenges and setbacks. The industry contains a significant base of competent farmers who are knowledgeable about the industry and skilled in growing methods. The industry would like to see younger people entering the business but the combination of restrictive regulations, high start up costs and First Nation consultation rights make it extremely difficult for emerging farmers to enter the industry.

BC Shellfish farmers are highly regulated but have also shown a capacity for recognizing the need for regulations in their industry. Building on the reputation of shellfish farmers as motivated environmental stewards, the BCSGA developed an Environmental Management System and Code of Practice in 2001. The aim of this document is to develop and foster "good neighbour farming practices". The intended result is a working partnership with the general public to address nuisance issues and to protect and enhance marine resources.

The good water quality and sheltered bays of the BC coastline provide excellent growing conditions and there is considerable room for industry expansion.

There are opportunities for the export of shellfish products and there are large markets available in close proximity to the BC shellfish industry. There is currently a world shortage of shellfish products and considerable market potential may be available to be addressed by increased BC production.

British Columbia Seafood – Top Five Markets



4.3.3 Weaknesses of the Industry

The BC shellfish industry is not short of studies and reports. The industry has been advised frequently about the directions that should be taken. The industry has generally failed to take action, possibly because limited effort has been directed to implementation of changes that could move the industry forward. With so many options for action, inertia has set in.

Obtaining access to working capital has been a constant challenge for shellfish farmers. Because of the many challenges facing the industry, it has been difficult to gain the necessary confidence of the investment community and this has restricted industry expansion.

Although quality products are generally being produced, processors have noted a lack of consistency in product quality. Without the ability to produce a quality product consistently, an expectation in the marketplace, it has been difficult to establish and maintain markets.

Shellfish farmers are not working together effectively enough to develop and grow their industry. Indeed, farmers and processors have differing views on what is needed to meet the requirements of the marketplace.

Lack of seed production capacity is a significant weakness of the industry that BC farmers have identified. While there are now only two shellfish hatcheries in the Province, farmers are limited due to the small size of the existing shellfish industry. Currently, seed is obtained from other jurisdictions, mainly the US, which not only makes the industry highly vulnerable to trade disputes or supply issues but makes it heavily reliant on foreign sources of seed that come at a higher price.

4.3.4 Threats to the Survival of the Shellfish Farming

There are numerous regulations and regulating agencies involved with shellfish farming and there is a need for farmers to cooperate in order to meet the regulatory requirements. In BC alone, there are over 14 federal, provincial and municipal departments and agencies directly and indirectly involved in the regulatory and management process of aquaculture.

The potential for producers to cause disease outbreak, or create consumer backlash from the production of an unwholesome product, emerged as important threats to the industry.

The farms are highly dependent on labour and shellfish farmers are finding it increasingly difficult to obtain quality labour at reasonable cost. With the current state of the BC economy, it is expected labour shortages will continue and this factor could seriously threaten the ability of the farmers to meet any increased market demand. The BCSGA will seek support from appropriate government agencies to allow shellfish farmers to operate consistent with the labour code requirements used by other farmers. The

shellfish industry will be protected from nuisance complaints by the Farm Practices Protection Act or “Right to Farm” legislation. The industry will operate consistent with all production guidelines and standards as required.

Some shellfish farming practices have created legitimate nuisance issues which can be easily addressed and which the industry is committed to addressing. Anti-farming environmental organizations and special interest groups which have campaigned against salmon farming are increasingly focusing on shellfish farming. This increased focus, and the negative salmon farming campaigns, have served to confuse the general public who are not generally aware of the distinctions between salmon and shellfish aquaculture. This distinction has been even further blurred recently as the Department of Fisheries and Oceans has taken over management of the shellfish industry and placed shellfish farming within the fishing category.

4.3.5 Opportunities

Increasing global and local demand for shellfish products represents an opportunity for the BC shellfish industry and recent increased demand is arguably one of the most important factors that have kept many shellfish farmers in the business.

Observation of how positively similar shellfish aquaculturists in other countries have performed, such as the green shell mussel industry in New Zealand, has kept many BC farmers involved, optimistic about the potential, and committed to their industry.

The BC shellfish farms are mainly focused on oysters and clams but there is significant opportunity in other species. The geoduck clam and scallops have potential to become highly profitable farmed species and BC has abundant suitable growing areas for production. Besides the vast coastline, the adjacent access to a powerful market, Asia, puts BC in an advantageous position.

The BC shellfish industry has identified multiple Canadian markets that are ripe to import BC shellfish products. The majority of shellfish consumed east of Alberta is obtained from the east coast of Canada and buyers are increasingly turning their attention to the west coast as a supplier. Marketing initiatives would further enhance the opportunities to increase sales and therefore

production in these areas but a lack of funding for these initiatives remains an obstacle.

5 THE FUTURE OF THE INDUSTRY

5.1 THE INDUSTRY IN FOCUS

As identified earlier, the BC shellfish industry faces numerous challenges including a complicated and expensive regulatory environment, marketing and selling issues, some fundamental industry opposition from sections of the general public and anti-farming non-governmental organizations and lack of capital investment due to low profit margins.

The BC shellfish industry is relatively small, being about 1/6 the size of the industry in Washington State and smaller than the mussel industry in Prince Edward Island. However, the growing conditions and natural attributes of BC are excellent and provide the potential for significant industry expansion. The two main shellfish products are oysters and clams but there is a limited and increasing production of geoduck clams, scallops and mussels with potential for other shellfish products such as sea cucumber, sea urchin, and abalone.

The industry is driven by technology changes and competitive factors from other jurisdictions, as are most industries. Currently, the industry remains highly dependent on labour. The farms provide year-round employment opportunities but attracting and retaining employees is challenging due to the manual nature of the work and relatively low average salary levels. Limits in capitalization reduce opportunities for technology to be used to lessen labour needs. As the sector grows and becomes more specialized and diversified, it is anticipated more higher-end employment opportunities will be the result.

There are a limited number of shellfish companies competing at the international level. Those companies provide a consistent quality product for specialized markets.

5.2 POTENTIAL IMPACT OF THE INDUSTRY

By working more closely together and focusing on the steps necessary to produce a quality product in a consistent manner, there would appear to be significant opportunity for growth. The potential of this environmentally sustainable BC industry was summarized in a 1997 report by Coopers & Lybrand. “On the basis

of market trends, productivity increases, and the estimates of capable lands, the shellfish farming industry could contribute substantially to the provincial economy and the balance of trade with seafood. The BC shellfish farming industry has the potential to become as large as, or larger than, the Washington State shellfish farming industry”.¹

Increasing global and local demand for shellfish products represents an opportunity for the BC shellfish industry and increased demand is arguably one of the most important factors that have kept many shellfish farmers in the business.

5.3 GOALS

The **main goals** of the BC shellfish industry are to:

- *Ensure appropriate and effective regulation and continuing access to farm land by improving communication, awareness and support of the industry among consumers, the general public and government leaders. These efforts will also be supported by exceeding environmental guidelines and by emphasizing the farming nature of the industry*
- *Create a domestic marketing platform that will increase consumer confidence and knowledge about BC grown shellfish as a sustainable seafood choice option*
- *Increase market share for BC shellfish growers in all product categories by ensuring quality products consistently grown.*
- *Introduce positive changes in industry structure that will lead to increased communication and cooperation among growers on areas of mutual concern.*
- *Enable growers to access training and develop expertise on modern growing practices and training to ensure succession*

5.4 STRATEGIC DIRECTIONS AND ACTION ITEMS

Discussions and meetings were held with industry representatives prior to the writing of this Strategic Plan. Five key strategic priorities or directions emerged from these discussions:

- 1) Communication

¹ Department of Western Economic Diversification Canada, “Economic Potential of the British Columbia Aquaculture Industry”, produced by Coopers and Lybrand, 1998. Page 26

- 2) Environmental & Quality Management
- 3) Association Governance
- 4) Marketing
- 5) Training and Education
- 6) Research and Development

5.4.1 Industry Promotion

One of the first tasks will be a full review of the industry and the development of an appropriate marketing strategy and plan. This work will include the development of a more complete industry profile, including current volumes of production and appropriate and realistic consumer sales estimates for BC, and for national and international markets.

The BCSGA will be the liaison between government and industry to lobby for fair and meaningful regulations that foster industry growth.

The BCSGA is well aware of the need to develop markets in a consistent and realistic manner and understands the dangers of developing markets without the capacity to deliver quality products as required.

The shellfish sector will foster compliance with their code of practice which will be updated regularly. Shellfish farmers recognized the importance of producing a quality product in an environmentally sustainable manner. Supporting this environmental initiative is expected to further demonstrate to the consuming public the responsible production practices of the sector.

Shellfish sector communication is emphasized in this plan. It is generally recognized by the shellfish industry that shellfish consumption is not “mainstream” among consumers and many consumers only recognize the appeal of shellfish products as a luxury item. With the growing food movement to eat local, combined with the nutritious and sustainable nature of BC shellfish, there are boundless opportunities to promote shellfish products in cooperation with other sectors such as the BC wine producers and the BC tourism industry. One such successful example of this is the yearly BC Shellfish Festival which aims to promote BC shellfish through connecting with restaurants and chefs who serve the end user and are always looking for the most sustainably raised food available. This initiative, while a good beginning, has the opportunity to evolve into a much bigger

marketing tool for the industry as a whole with the proper external funding.

Public appreciation for shellfish farming will be achieved through promotional events. Each growing region will be encouraged to consider farm tours, the use of local shellfish products in selected restaurants and other tourist-related promotion efforts. Annual shellfish gala dinners and festivals will promote the farms regionally.

There may be significant industry promotion and education opportunities available through the participation in an Interpretation Centre. The Centre, currently called the “Discovery Centre) will provide explanations about the shellfish sector and will make an important contribution to tourism. The Centre may also feature the important role of First Nations involvement with shellfish farming.

Consumer and general public information about shellfish farming will be supported. The farmers recognizes the need for appropriate public relations to help those who share the shellfish farming areas to understand the role of the sector and its strict adherence to environmental guidelines. Consideration will be given to the creation of selected information courses about the industry to assist local people to better understand the industry and its methods of operation.

Action Items

- 1) Lobby government to streamline regulations and foster economic viability of industry by enabling sector growth and expansion.
- 2) Initiate, in cooperation with shellfish farmers and processors, a comprehensive marketing and promotion strategy that focuses on the continuing development of markets using the approach of fostering local markets first, provincial markets second and other Canadian and international markets third.
- 3) Work closely with Tourism BC, the Ministry of Transportation, municipalities and the federal government to access funding to promote our shellfish through culinary lines and local oyster festivals, charity benefits, tradeshow and food events.
- 4) Review, with Tourism BC and others, opportunities that may exist to have appropriate signage available to promote local shellfish farming and processing operations where tours and other public buying opportunities may be available.
- 5) Develop sector communication more fully by continuing to improve the BCSGA website. The website is expected to

emerge as the main communication vehicle for the industry. *Tidelines*, the industry newsletter, will be available on the website and all members of the industry will be encouraged to access it regularly. A larger more elaborate publication will be distributed in the summer utilizing a publishing firm.

- 6) Promote the development of a Shellfish industry Interpretation Centre that might be developed in partnership with shellfish farmers, First Nations, interested community members and the BC tourism sector.
- 7) Coordinate the participation of members in tradeshow and festivals and other promotion venues and ensure participation in Ladysmith (June), Tofino (November), Powell River (May) and Comox in June. Encourage shellfish farmers to work closely with local Chambers of Commerce and other local agencies and groups. Board level participation on the Comox Valley Economic Development Council to highlight local aquaculture.
- 8) Develop a transparent, respectful communication plan that encourages and fosters open dialogue amongst farmers, First Nations, Federal and Provincial Governments, and coastal communities.

5.4.2 Environmental and Quality Management

Marketing farmed shellfish products successfully requires consistent product quality. Also required is the capacity to demonstrate consistent product quality resulting from growing and processing guidelines. The BC shellfish industry recognizes the need for quality standards and will work closely with the Canadian Food Inspection Agency (CFIA) and the Canadian Aquaculture Industry Alliance (CAIA) to match or exceed quality guidelines and operational Codes of Practice.

Twelve main industry shellfish product processors account for more than 90% of all industry sales. The six main processors for the industry, Mac's Oysters, Stellar Bay Shellfish, Taylor Shellfish, Evening Cove Oysters Processing, Limberis Seafood Processing Ltd and Blundell Seafoods Ltd account for 75% of all industry sales. These processors will be encouraged to lead the industry in the development of quality standards for shellfish products. Similar to other mainstream agricultural products such as chicken, a certification program will be introduced for all shellfish farmers and the ability to market product will be tied closely to the certification program.

The consuming public expects appropriate quality and safety guidelines for the production of agricultural products. An excellent

system for tracking products (“trace back” system) produced by individual shellfish farmers is already in place and is a part of the quality and safety measures developed in the industry codes of practice. In addition to the expected benefits from appropriate quality guidelines that relate to food product safety, the BCSGA quality production guidelines training program was also recognized as relevant to industry promotion efforts.

The ongoing problem with shellfish farming equipment ending up in the marine environment is one of the largest concerns for the sector. The BCSGA will monitor the clean up requirements throughout the shellfish farming regions, and coordinate efforts amongst shellfish farmers to keep beaches clean. Farmers will volunteer to monitor and clean designated regions. The public will know who these farmers are and be encouraged to support their efforts by requesting product from their farms.

Action Items

- 1) Provide a forum for dialogue among all shellfish processors to establish appropriate quality guidelines for major products produced in each geographic area of BC.
- 2) Revisit the existing Code of Practice and prepare revised guidelines consistent with the need to meet all food safety and environmental stewardship guidelines and to certify growers in a way that is simple yet consistent with the rigours of food quality, safety and environmental stewardship. Make sure that farmers take responsibility to keeping growing area shorelines free from any debris by hosting clean up drives.
- 3) Initiate, in cooperation with the BCMAL and other regulating agencies, both Provincial and Federal, a full review of the role of all inspection and regulatory requirements in the shellfish industry. The BCSGA will participate in this review from the perspective of endorsing quality and environmental guidelines that are appropriate for ensuring safe products.
- 4) The BCSGA is the lead contact for the developing Aquatic Animal Health Program with the RDC coordinating efforts to develop a sound program which will allow BC shellfish to be sold into the European Union.

5.4.3 Association Governance

In the short term the BCSGA Board will initiate two standing committees, the Standing Committee on Strategic Initiatives and the Standing Committee on Communications. Both of these committees will be chaired by a member of the BCSGA Board but will involve at least two farmers who are currently not members of

the BCSGA. This will ensure that all BC farmers maintain involvement with the BCSGA and are aware of industry initiatives being led by the BCSGA. Over time, it is hoped that all shellfish farmers in BC will become active members of the BCSGA.

All shellfish farmers will be contacted and provided information about this Strategic Plan and other initiatives being undertaken by the BCSGA. This plan is posted on the BCSGA and is accessible to anyone interested in reading it. All shellfish farmers will be encouraged to join the BCSGA, to work on committees, and through other means to help with the development of the industry.

The BCSGA board of directors constitute the Standing Committee on Strategic Initiatives and are responsible for all industry issues involving strategic directions and will be responsible for providing a “forward thinking” directional agenda for the industry. This Committee will also be responsible for leadership of the industry in the development of all processes and procedures to exceed the demands of government guidelines and regulations and for ensuring the key performance indicators for the industry are established and maintained.

The Standing Committee on Communications will be responsible for public information about the sector and will lead the industry in all promotion and other outreach activities identified in this Strategic Plan.

Action Items

- 1) Continue to maintain an appropriate office location and encourage shellfish farmers to use the office as a place to meet and discuss the future needs of their industry. An open door policy will prevail.
- 2) Encourage all shellfish farmers to become members of the BCSGA and maintain capacity for Strategic Plan update and review.
- 3) The BCSGA will seek support from the appropriate government agencies to allow shellfish farmers to operate consistent with the labour code requirements used by other farmers.
- 4) Conduct industry meetings to explore the benefits of forming a BC Shellfish Industry Council to assist the industry with research and promotion initiatives.
- 5) The BCSGA will continually explore opportunities for benefits to membership.

5.4.4 Research and Development

The sector is in need of ongoing and well-funded research and development that will focus on the development side. Working closely with the Centre for Shellfish Research (CSR) and the University of Victoria the industry will continue to fund research directed to shellfish farming needs. The process of supporting research that leads to commercialization in a relevant and timely manner will be the result of a consultative process between the BCSGA and various funding agencies.

Appropriate research and development was identified as one of the important keys to future success with this sector. Operating in a global environment, the sector must achieve a leadership position in terms of product quality and the capacity to produce quality products while exceeding all guidelines related to food safety and environmental stewardship, including water quality.

A research and development committee has been formed within the BCSGA to provide liaison and recommendations to the CSR and University of British Columbia Centre for Aquaculture and the Environment, and to work closely with the RDC. Guidelines are being prepared to assist with research project decision-making and to ensure research projects build on the identified needs of the industry.

Development and tech transfer will be conducted to ensure shellfish farmers employ the latest in technology designed to reduce the impact of the industry on the environment. Every effort will be made to improve product quality and increase economic viability of the industry.

Support for research will be encouraged at all levels. It is anticipated that internal industry innovations, often developed at considerable cost to individual shellfish farmers, will be increasingly supported thru R&D grants and tax credits to encourage greater innovation at the total industry level.

Action Items

- 1) Establish a BCSGA Research Committee and work closely with the RDC to prepare appropriate guidelines for research project decision-making and to ensure the necessary relationships are maintained with research bodies by:
 - Identifying important questions for the sector that may be answered by appropriate research

- Commissioning studies to identify relevant research related to the identified questions for the BC shellfish farming sector
 - Identifying research gaps relevant to the BC shellfish farming sector
 - Find opportunities to update technical papers of importance to the farming sector
 - Seeking partnerships with other jurisdictions to commission targeted research studies and programs
 - Identifying other research opportunities through discussion with research bodies such as BC Universities, the CAIRDN and others.
- 2) Work closely with the CSR, Simon Fraser University, University of British Columbia, University of Victoria, and the Centre for Aquatic Health Sciences to focus research activity to ensure future shellfish farming innovation and production strategies are consistent with all product quality and environmental stewardship guidelines.
 - 3) Ensure all research findings are made available to shellfish farmers by focusing on the newsletter *Tidelines* and the BCSGA website as a means of communicating with the industry. Through the use of the media, efforts to communicate scientific research findings to the public will be increased. By hosting workshop for association members, farmers will be updated.

5.4.5 Training and Education

Like most agriculture industries in BC, there is a need to encourage new entrants to shellfish farming. Much of this encouragement can be had by making the sector an attractive place to work and an industry that operates in an environmentally-friendly way that provides a fair economic return on investment.

In addition, other training and education opportunities will be expanded. The farming sector will continue to offer quality assurance workshops for all growers and at every opportunity will provide workshops and other training sessions on innovative production methods and environmental issues. Education seminars outlining production methods in other competitive jurisdictions will be encouraged.

Vancouver Island University (VIU) will be encouraged to continue the training of people for the shellfish industry and the BCSGA will actively participate with VIU to provide input to training requirements. In cooperation with the CSR, the BCSGA will

investigate the merits of providing appropriate scholarship opportunities to encourage entrants to the shellfish sector.

There is a need to address shellfish business management and other production issues and the BCSGA, in cooperation with the CSR, VIU and shellfish farmers, will develop a shellfish training certificate program suitable for new entrants to the industry and for continuing education for existing shellfish farmers. Through support of the CSR Coastal Community Shellfish Aquaculture certification of shellfish farmer workers will be supported. The program will be developed with modules appropriate for delivery at different locations throughout the province and will be eventually available for distribution and sale to other shellfish jurisdictions.

Industry training on the Aquatic Animal Health Program will be provided for farmers at the fall annual general meeting workshop. This training will allow farmers to gain access to markets in the EU and understand the guidelines for disease testing certification.

The shellfish farming sector will support the Environmental Farm Planning initiative currently under way in the province and being led by the BC Agriculture Council (BCAC). Shellfish farmers recognized the importance of producing a quality product in an environmentally sustainable manner. Supporting this environmental initiative is expected to further demonstrate to the consuming public the responsible production practices of the industry.

Action Items

- 1) Provide quality assurance and shellfish disease workshops for shellfish farmers.
- 2) Work closely with the CSR and VIU to explore the opportunities that may be available to partner in the development of appropriate training and other education programs.
- 3) Introduce a system of short, practical training bulletins, in cooperation with the CSR and VIU. These training bulletins will become an important component of the BCSGA website and *Tidelines*.
- 4) Introduce a mentor program in order to encourage new entrants and to provide shellfish expertise to younger people interested in the industry. The mentoring program will be an important way to contribute to other education programs being developed on practical shellfish farming requirements.

5.5 STRATEGY FOR IMPLEMENTATION OF THE PLAN

The preparation of a Strategic Plan for the future of the shellfish industry must address issues related to financial self-sufficiency and processes and procedures for ongoing industry development.

5.5.1 Funding

Two main factors will determine the success of this Strategic Plan and the industry directions identified in it. One will be the commitment and energy of the shellfish farmers and the BCSGA to create the appropriate climate for action and results. The other key factor is having funds available for the action items identified within the five key strategic direction areas.

The Executive committee will review funding requirements and recommend ways to obtain the necessary funds for cost-sharing according to the action items identified as priorities.

The BCSGA will provide direction for the management of the funds and projects and appropriate management support will be provided by the Executive Director of the BCSGA.

5.5.2 Partnerships

Working cooperatively with others was considered to be an important strategy for the implementation of this Strategic Plan. The industry promotion efforts, for example, may be enhanced by the development of strategic partnerships with other agriculture sectors and other agencies and groups.

It is recognized by the BCSGA that all shellfish farmers and processors in BC are “partners” in the development of the shellfish farming sector. High levels of cooperation will be sought as the sector moves forward with the implementation of this Strategic Plan.

5.5.3 Plan Review

To ensure this Strategic Plan is implemented, a formal review process will be put in place to review the Strategic Plan and update it annually. The Committee on Strategic Initiatives will be responsible for ensuring this review occurs. The annual review may be part of an annual industry meeting and should involve some industry member feedback and discussion. It is recognized that no plan can fully anticipate the future and an ongoing annual review of the Strategic Plan is necessary to keep the Strategic Plan current and relevant to the shellfish farming sector.

Annual work plans will be prepared as a result of the Plan Review and these annual work plans will focus on selected initiatives and strategies identified in this Strategic Plan.

5.6 KEY PERFORMANCE INDICATORS

This Strategic Plan was developed to address important industry weaknesses and to capitalize on opportunities available to the industry. The Strategic Plan identifies a clear strategy for moving the industry forward.

How will the industry know when progress towards industry development is being made? The following are some suggested performance indicators to assist with the measurement of progress in the industry. These indicators will be further developed during annual plan reviews and during regular reporting on project results.

5.6.1 Selected Numbers and Ratios

Selecting appropriate benchmarking data for the sector was discussed. This data will be compiled by the BCSGA to help assess and monitor industry development. Additional indicators may be developed. The following were the main indicators chosen:

- Total number of shellfish farmers in the province
- Percent of total number of shellfish farmers who are also members of the BCSGA
- Total area, or hectares, of shellfish farms
- Total production and value of shellfish products by product category
- Total production of shellfish products by product category as a percentage of the product category worldwide
- Total new entrants to the industry as a percentage of total number of shellfish farmers and related employment figures in processing
- Attendance at industry workshops as a percent of total number of shellfish farmers
- Usage of the industry website as demonstrated by appropriate monthly statistics
- Progress in public support as measured by the number of public complaints and Farm Industry Review Board adjudications
- Implementation of new industry stewardship activities ie. Waste reduction, strategies, nuisance abatement

programs, beach cleanup campaigns and community outreach initiatives

- Growing water quality initiatives and the amount of area closed due to fecal contamination.

5.6.2 Selected Program Evaluations

How effective are the sector development activities being undertaken by the BCSGA? It was recognized during the development of this Strategic Plan that some evaluation of industry development activities was necessary but, with limited budgets, all programs could not be evaluated. It is suggested the following programs be reviewed after implementation, one year after program completion:

- The role of the RDC in the development of appropriate research initiatives for the shellfish industry.
- The impact of the industry website and newsletter for industry promotion and public awareness.
- Progress in certification of farmers as compliant with the Codes of Practice.

5.6.3 Selected Client and Industry Member Surveys

To develop the shellfish farming sector profile recommended as a benchmarking requirement for the industry, industry members will be surveyed to determine current operations. It is suggested this survey be conducted every second year to maintain appropriate industry information and to assist with monitoring progress.

As part of the industry promotion efforts, some benchmarking should be done with customers of shellfish products to determine product acceptance and to obtain data to assist with further industry promotion. A survey will be initiated in the fifth year of this Strategic Plan