

*Final Report*

Shellfish Industry  
Mission, Priorities and Communications  
Planning Session - Outcomes  
January 9 and 10, 2006

## **Background**

The Alaska shellfish industry is a relatively new industry for Alaska. In comparison, it is an established industry in many parts of the nations and world. The purpose of the gathering of industry professionals and leaders on January 9 and 10<sup>th</sup>, 2006, was to take a hard look at the current situational analysis of the industry (strengths, weaknesses, opportunities, threats, competitive environment) establish a mission for the industry and review the common goals, objectives and future vision of the industry.

A critical part of this assessment and discussion was the review of industry opinions and views relating to how the State of Alaska has and will continue to be a support to the shellfish industry. Specific topics discussed included:

- Infrastructure including the Aluttiq shellfish hatchery in Seward
- Research & Development
- Logistics/transportation
- Labor
- Farm site selection

Through this process the industry members present developed a mission for the direction they would like to see the industry head.

## **Shellfish Industry Mission**

Create a collaborative environment for shellfish growers to have the opportunity and capacity to operate profitable businesses.

## Key Areas of Emphasis

The shellfish industry identified the following key areas that the State of Alaska can provide direct assistance to the Shellfish industry.

### Key Task 1:

Identify sources of funding and fund infrastructure needs.

- Ensure continued operations of a hatchery through funding and development of the hatchery strategic long-term goals and objectives

### Key Task 2:

Explore the creation of and access to state and federally led funding programs to support the start-up and expansion of individual business endeavors

### Key Task 3:

Establish a mariculture development program

- Seek the Governors support in creating within the Department of Economic Development a lead person or department that guide and promote the mariculture industry.
- Establish an industry advisory group.
- Develop systems to encourage a more business friendly permitting and licensing process and cooperative focus

### Key Task 4:

Assist with species diversification efforts

- Identify new and/or alternative species, test how to spawn and grow-out species, identify and test harvest equipment, explore value added product development

Did I miss any key priorities?

## Situational Analysis

The shellfish industry reviewed the existing situation of the industry and current conditions impacting individual business as well as industry operations and resulting profitability. Following is an overview of the strengths, weaknesses, opportunities and threats identified through discussion.

### Strengths Priority

- Clean abundant, cold coastal waters, not polluted (high quality/nutrient rich)  
Brings uniqueness to the shellfish industry products
- Alaskans (fortitude and tenacity, talented, resourceful, knowledgeable)
- HB 208 – example of good government working relationships
- AK image – mystique quality product and brand equity
- Opportunity to expand industry – compared to nation and international

### Strengths Additional

- Government and government agencies supportive
- Greater availability and easier access to sites & growing areas (HB 208)
- Perception – industry ready to grow
- Developed infrastructure over 10-15 years - how to work things (oysters)
- Regulatory program reform 15 years
- Food producing industry
- Quality stocks and shellfish – disease free and healthy
- Hatchery – world class facility
- State is in the Seafood industry
- Kachemak Bay Cooperative (14 farmers) long-term successful history
- Alaskan Shellfish Growers Association (ASGA) long-term history
- University Alaska – some presence and interest – graduate students
- Marine Advisory Program (MAP) – research provider

Weakness Priority –

- Small independent businesses/farm operators
- Diversity of species – lack of
- Under capitalization – financially constrained
- Labor (availability, trained, productivity, financial)
- Hatchery - financial sustainability

Weakness Additional -

- Reliability of delivery – volume of product, consistent quality and provided on specific timeframe, in desired amounts
- Financing – largely individual farmers manage by self
- HB 208 - not enough time to get site assessments
- Lack of marketing strategy with funding
- Lack of cooperative marketing and sales
- Business risk great – predators, financial, many unknowns, etc.
- Remoteness of Alaska (lack of infrastructure – cost of getting to town, transport of product, and lack of communications)
- High entry costs (combination of things – wait a long time before harvest and sell product)
- Costs – complying with Government regulations - Health and Safety issues etc.
- Labor (availability, expense, productivity and quality)
- Restricted to indigenous species
- Under marketed – want to tap into Alaska Seafood Marketing Institute (ASMI)
- Difficult to impossible to grow blue mussels (sea otter predation)
- High cost of yearly production – much cheaper to do on bottom
- Difficult to obtain use of beaches
- Mariculture given low priority of use – compared to other users
- No single agency responsible for mariculture advocacy
- Infancy of the industry
- Environmental opposition to mariculture industry
- Some training exists, but no formalized structure
- Marine Advisory Program (small organization)
- Lack of cooperative effort within industry (hard to pull them together) Cooperatives – better for those where close proximity of farmers, start ups, coinciding and compatible.
- Lack of economies of scale to increase industry efficiencies
- Paralytic Shellfish Poisoning (PSP) – cost of testing and program implementation

## Opportunities

- Worldwide seafood demand increasing - consumers become more health conscious
- Increasing employment in rural communities
- Clean cold water – can't control really an opportunity not strength
- Marketing new areas - target regional special areas – marketing development
- Look at area plans
- New product development (new species, new product forms, packaging)  
Fishery Industrial Technology Center (FITC) working with new way  
(seal coating protein cover) – freezing

## Threats

- Climate changes
- Competitive world environment and economies
- Changing regulations
- Predators – growing concern
- Army Corp of Engineers – national work
- Diseases – human and shellfish
- Oil spill
- Industry growth
- Vessels– ballast and waste water discharges and invasive species introduction
- Range extension
- Changing political climate
- Cadmium levels 2 parts per million levels would eliminate AK oysters from the Asian markets (all pacific oysters contain this)

### **Key Areas of Focus**

The following key areas were identified by the shellfish industry as requiring specific focus in order to move the entire industry forward in a positive and more profitable direction.

- Infrastructure Support and Development
- Business Environment (Financing)
- Business Environment (Small Business Operations)
- Research and Development
- Research and Technology Transfer
- Human Capital Development
- Marketing and Sales

Following is a more comprehensive discussion of specific discussion and outcomes relating to these key areas.

## **Infrastructure**

### **Rationale:**

Infrastructure such as - hatchery, nursery, processing facilities, reliable transportation, wet-storage and a research development and training facility are necessary for the industry to continue and to support growth. Discussion stemmed around both the support of existing infrastructure as well as the development of new infrastructure. One issue is the fact that existing infrastructure such as the hatchery is currently underutilized. Other concerns expressed centered around the fact that infrastructure needs vary greatly by region and products harvested.

### **Desired Actions:**

Task 1: Identify sources of funding or fund infrastructure needs.

- Ensure continued operations of a hatchery through funding and development of the hatchery strategic long-term goals and objectives

Task 2: Conduct an economic model and analysis of the several development alternatives including – state owned facilities, combination of state and private industry owned facilities and all owned and operated industry run facilities.

Task 3: Review and develop hatchery strategic long-term goals and objectives. Seek industry input into the direction the hatchery evolves.

Task 4: Explore and identify options for private farmers or cooperatives to meet matching fund requirements.

### **Success Indicators:**

A hatchery that operates profitably or with minimal state subsidy and industry members having basic stock from the hatchery to meet production needs.

### **Obstacles/Constraints:**

Many complex questions require answering –

- Should a new hatchery and/or nursery be developed? Can industry support?
- Should the hatchery manage offsite nurseries?
- Should farmers be taxed to assist with hatchery funding?
- Should a cooperative group take over the operations of the hatchery?
- Should individual farmers be responsible for their own seed development?

**Costs (Dollars, Personnel, Time):** To be determined.

**Entities Involved:** State Department of Commerce, Community and Economic Development



**Business Environment  
Small Business Operations**

**Rationale:**

The length of time between when a farmer purchases seed stock and plants a crop to when a farmer harvests their first crop can be anywhere between three and five years depending on the crop. Farmers are unable to self fund the research and development, equipment and seed needs of businesses oftentimes without some outside financial assistance. Commercial bankers are reluctant to loan to these operations without higher interest rates and non-farm related collateral. Furthermore, terms need to be spread over a longer period to enable growers an opportunity to bring product on-line prior to repayment occurring.

**Desired Actions:**

Task 1: Explore the creation of and access to state and federally led funding programs to support the start-up and expansion of individual business endeavors

Task 2: Offer incentives to encourage formation of cooperatives as well as stimulating informal partnerships

Task 3: Identify who is willing and able to loan funds to shellfish farmers.

**Success Indicators:**

Unique funding requirements of shellfish farmers are better understood and alternative funding solutions identified.

**Obstacles/Constraints:**

**Costs (Dollars, Personnel, Time):** To be determined.

**Entities Involved:**

Division of Investments, Rural Development Initiative Fund

## **Business Environment Small Business Operations**

### **Rationale:**

At times, existing governmental structures serve as impediments to shellfish farming operations. Discovery and elimination of these impediments will encourage additional business growth. Small business management issues typical to most any business enterprise exist. Shellfish businesses need access to resources such that appropriate technical assistance can be provided.

### **Desired Actions:**

Task 1: Establish a mariculture development program

- Seek the Governors support in creating within the Department of Economic Development a lead person or department that guides and promotes the mariculture industry.
- Establish an industry advisory group.
- Develop systems to encourage a more business friendly permitting and licensing process and cooperative focus

Task 2: Identify agencies with ability to provide technical assistance specific to this industry. Encourage commerce to provide greater assistance to small business operators. Needs include – workers comp, crop insurance and operational issues and taxes

Task 3: Pursue near shore shellfish aquaculture related benefits relating to the USDA farm bill

Task 4: Reclassify workers comp category with the State of Alaska – Dept. of Labor.

Task 5: Support the development of cooperatives and encourage individual farmers to participate in cooperative activities. This may be accomplished through the providing of industry incentives, etc.

Task 6: Explore the pros and cons of privatization of site inspections

### **Success Indicators:**

Friendly state agencies that positively encourage business development and a streamlined permitting and business entry process. From these increases to farm production levels and additional numbers of shellfish farmers entering the industry.

### **Obstacles/Constraints:**

**Costs (Dollars, Personnel, Time):** To be determined.

**Entities Involved:** Small Business Development Center, UA – Center for Economic Development, Marine Advisory Program-Fish Biz

## **Research and Development**

### **Rationale:**

Currently industry research is lacking. The University of Alaska does not have a aquaculture researcher. The FRED system was eliminated and now no agency is taking the lead on aquaculture industry research.

Science based research projects would improve business operations for the mariculture industry. Examples of research topics include new species diversification and development, PSP testing demonstration projects, natural growth studies, and enhancement projects.

### **Desired Actions:**

Task 1: Species Diversification – identify new and/or alternative species, test how to spawn and grow-out species, identify and test harvest equipment

Task 2: New Product Development – explore new value added products and improved shipping procedures to add value to existing product lines. Assist with development and testing the market for product desirability and acceptance. Conduct feasibility analysis for new operational procedures, etc.

Task 3: Establish an enhancement program.

Task 4: Explore the development of “high quality” and “affordable” seeds.

### **Success Indicators:**

The development of an industry advisory group may aid in the determination or decision making process of what gets done by whom, when.

### **Obstacles/Constraints:**

### **Costs (Dollars, Personnel, Time):**

To be determined.

### **Entities Involved:**

University of Alaska, Marine Advisory Program

## **Research and Technology Transfer**

### **Rationale:**

Shellfish farming in Alaska has a high-cost associated with operation and production, driven largely by high overhead and labor costs. Technology transfer leading to alternative production methods and ultimately decreasing these costs will be necessary for farmers to remain competitive.

### **Desired Actions:**

Task 1: Develop a structure to explore, research and develop recommendations for mechanized technology to improve efficiency and productivity

Example developments may include –

Tumble Sorter  
Mechanical Planters  
FLUPSY  
Remote Setting

Task 2: Promote the development, testing and fruition of the ideas that are coming from industry

### **Success Indicators:**

Equipment is identified and prototypes developed such that industry is able to utilize the new technology. This could be accomplished through cooperative ownership or agreements that allow the machinery to be developed and moved from farm to farm.

### **Obstacles/Constraints:**

Farmers have historically operated independently.

**Costs (Dollars, Personnel, Time):** To be determined.

### **Entities Involved:**

University of Alaska, Marine Advisory Program

## **Human Capital Development (Workforce)**

### **Rationale:**

The shellfish farming industry desires a trained and reliable workforce in order to become most competitive. Shellfish farming requires a highly specialized skills set, is physically strenuous, may require living in remote areas, requires a unique individual who can operate a farm, interact with markets, deal with significant regulatory affairs, and many other matters.

### **Desired Actions:**

Task 1: Establish a Mariculture Development Program

Task 2: Develop a training program (2 weeks and/or 3 day workshop - intensive)  
Gain actual farm experience – intern/apprenticeships onsite  
Access to real life experiences on actual farms

Task 3: Develop and teach Best Practice Standards  
Review standards used in Canada and lower 48.  
Influence husbandry practices  
Fund an entity to conduct research and develop recommendations

Task 4: Update Ray RaLonde's "how to" books

Task 5: Team with Future Farmers of America (FFA) to establish an aquaculture program to begin the development of future industry leaders.

Task 6: Explore cooperative organization to move trained labor from farm site to farm site.

### **Success Indicators:**

A workforce having necessary skills for shellfish farming employment (Best Practices, HAACP, Basic Seamanship, Divers for Geoducks, Regulatory, Seafood Safety). Furthermore, the industry is rapidly changing.

### **Obstacles/Constraints:**

Shellfish farming jobs are low paying, in remote locations and highly demanding positions. A farm will only support one to two workers per harvest season.

**Costs (Dollars, Personnel, Time):** To be identified

**Entities Involved:** University Alaska – Marine Advisory Program – Sea Grant; Department of Labor; Alaskan Shellfish Grower's Association

## **Marketing and Sales**

### **Rationale:**

Shellfish mariculture industry would benefit from representation by and inclusion into generic marketing programs through the Alaska Seafood Marketing Institute (ASMI). Marketing assistance through marketing specialist will improve farmer's access to new markets.

### **Desired Actions:**

Task 1: Encourage relationship with Alaska Seafood Marketing Institute (ASMI) and generate presence on website and within brochures

Task 2: Identify agencies with the ability to provide marketing assistance

Task 3: Pursue greater involvement in USDA Cooperative and Business Development marketing programs

Task 4: Conduct market research to identify new markets that may lead to greater industry market diversification, brand development and improved financial returns from product sales. Explore – organic certification requirements, Alaska Grown and ASMI relationship building. Explore web marketing and sales options.

### **Success Indicators:**

Increased demand for Alaskan shellfish.

### **Obstacles/Constraints:**

**Costs (Dollars, Personnel, Time):** To be determined.

### **Entities Involved:**

Alaska Seafood Marketing Institute  
State Department of Commerce, Community and Economic Development

## **Parked Conversations**

Several topics warrant future conversations and discussion, but were too uncertain or potentially decisive to the group to discuss in any great detail. Future goals and tasks may stem from these discussion areas and should be discussed more completely at industry related gatherings.

- Genetics Policy
- On Bottom Culture
- Integrating Hatchery into Business Costs

## Meeting Participants

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