



VANCOUVER ISLAND

UNIVERSITY

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

- Discussion Document -

Authorized by:

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Deep Bay Marine Field Station Five-Year Strategic Planning & Operational Review

Message from the Provost:

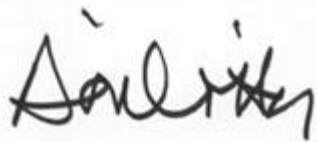
The university is in the process of conducting an overall strategic planning and operational review of the Deep Bay Marine Field Station (DBMFS). The original primary goal of the DBMFS was to cluster scientific, environmental, economic and public engagement programming into one facility; creating a centre of excellence and innovation to support sustainable shellfish aquaculture development; and assist in preserving coastal ecosystems. This consultative process is exploring the ways and means to ensure that this goal is addressed. To that end, we have met with many of our stakeholders and surveyed your individual perceptions of the DBMFS in achieving its current research, education and public outreach objectives.

As part of this review we were also very interested in learning about what, if any, suggestions stakeholders may have for enhancing the research and delivery of education and public programs over the next five years.

In follow-up to these meetings and discussions, we would like to share our proposed future planning goals and objectives based on what we have heard and to seek your feedback regarding future goals.

The Deep Bay Marine Research Station is an important part of VIU's vision and we look forward to receiving your continued input as we determine our next five-year development strategy for this important outreach facility.

Sincerely,



David R. Witty, PhD, MRAIC, FCIP, RPP
Provost and Vice-President Academic
Vancouver Island University

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Hay ch qa' sii'em siye'yu mukw mustimuxw.

Vancouver Island University students, staff, faculty and administration acknowledge and thank the Snuneymuxw First Nation, Tia'amin First Nation, Kwallicum First Nation and Cowichan Tribes for welcoming students, staff, faculty and administration to teach, learn, live and share educational experiences on the traditional territories of these nations.

**Vancouver Island University
- Vision -**

Purpose

As a leader in providing high-quality learning, Vancouver Island University supports the well being of the people of Vancouver Island and coastal British Columbia by promoting a high quality of life for their communities through commitment to student success, community engagement and associated scholarship.

Visionary Goal

Through the promotion of excellence in learning, we inspire our students and the people of Vancouver Island and coastal British Columbia as a trusted educational partner in the search for sustainable cultural, economic, environmental and social prosperity.

Deep Bay Marine Field Station Five-Year Strategic Planning & Operational Review

Deep Bay Marine Field Station Vision, Mission and Mandate

Vision

The visionary goal of VIU and the DBMFS is *to promote excellence in learning by inspiring students and residents of Vancouver Island and coastal British Columbia, about sustainable cultural, economic, environmental and social prosperity through education and research.*

Mission

The overall mission of the DBMFS is *to cluster scientific, environmental, economic and public engagement programming into one facility; thereby creating a centre of excellence and innovation to support sustainable shellfish aquaculture development and assist in preserving coastal ecosystems.*

Mandate

The DBMFS's core mandate is *to support shellfish aquaculture businesses through training and mentoring, strengthen innovation by increasing interaction between researchers and industry, accelerate the use of new knowledge by linking research and training and support coastal economies. The long-term goal of the intended research is to support the growth of the shellfish industry and spur on the creation of new jobs on Vancouver Island and the Sunshine Coast, benefiting communities and First Nations.*

Deep Bay Marine Field Station Five-Year Strategic Planning & Operational Review

Strategic Goals and Objectives

The following twelve strategic goals and associated strategic objectives for the next five years are based on the results of the Phase One stakeholder survey and the additional response of several VIU senior staff members to over seventy additional survey questions.

Strategic Goal #1

Accumulate and integrate multidisciplinary research and local knowledge in order to provide a baseline from which to evaluate regional environmental change for the benefit of academia, industry and government.

Strategic Objectives

Become a central monitoring site for ecological, environmental and aquaculture operations throughout Baynes Sound.

Become the central monitoring site for ecological, and environmental studies throughout the Salish Sea and to participate in longitudinal research projects.

Be a living laboratory and work in partnership with other Universities interested in ecological, environmental and aquaculture operations throughout Baynes Sound and the Salish Sea.

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Strategic Goal #2

Transform the lives of students of all ages and serve as a training ground for the next generation of scientific leaders.

Strategic Objectives

Become an Aquaculture Demonstration Farm focused on raising awareness about ecological, environmental and aquaculture research.

Develop graduate studies programs that help support the aquaculture industry through applied research.

Develop graduate studies programs that focus on the environmental and ecological health of the Salish Sea and Baynes Sound.

Develop undergraduate courses & research programs to be delivered at DBMFS.

Develop training programs for First Nation students that support coastal resource management.

Develop undergraduate training programs that help support the aquaculture industry.

Provide undergraduate research opportunities, particularly 491 courses.

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Strategic Goal #3

Work closely with industry in areas of applied marine research that is important for preserving a sustainable aquaculture industry.

Strategic Objectives

Explore the offering of office space to the BC Shellfish Grower's Association and to participate in Shellfish Grower's Association meetings as needed.

Conduct short-term aquaculture studies that are of specific interest to VIU and the Shellfish Grower's Association.

Conduct longitudinal aquaculture studies that are of specific interest to VIU and the Shellfish Grower's Association.

Offer training and development workshops for aquaculture industry personnel.

Secure a Natural Sciences and Engineering Research Council (NSERC) Industrial Chair.

Deep Bay Marine Field Station Five-Year Strategic Planning & Operational Review

Strategic Goal #4

Serve as a platform for multiple scientists and research programs related to Deep Bay's mandate.

Strategic Objectives

Facilitate and support the study of the effects of ocean acidification on early developmental stages of the pacific oyster (*Crassostrea gigas*) in aquaculture environments.

Research and monitoring of '*Vibrio parahaemolyticus*' which is a naturally occurring bacterium in coastal waters that can cause human illness and thrives in warmer water during the summer months.

Conduct research studies on the herpes virus that is a virulent viral disease of the Pacific oyster *Crassostrea gigas*.

Study genetic variations in brood stock and annual survival rates of Pacific Oyster, *Crassostrea gigas* in Baynes Sound.

Conduct research into scallop survival and mortality rates.

Conduct scientific studies that is of specific interest to Government Agencies.

Consider conducting scientific research studies that is of specific interest to private companies.

Examine and identify other appropriate research opportunities.

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Strategic Goal #5

Promote evidence-based decision-making.

Strategic Objectives

Support government, industry and NGO led research projects.

Offer site-monitoring programs for government agencies.

Offer site-monitoring programs for industry.

Acquire research funds to support evidence-based decision-making.

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Strategic Goal #6

Promote the local marine environment through the communication of science to the general public.

Strategic Objectives

Develop public interpretive programs featuring hands-on science (touch tanks, tours, daily talks and activities).

Support Citizen Science projects that promote understanding of the issues affecting shellfish aquaculture.

Offer periodic public lectures and public Open Houses on a quarterly basis.

Pursue special projects such as the ‘Cool Science’ classroom that help support community engagement.

Develop robust communication and marketing plans for the DBMFS.

Develop a community engagement strategy.

Support student outreach in regional school districts.

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Strategic Goal #7

Act as a centre for innovation by providing platforms for development, testing and the deployment of marine sensing technology.

Strategic Objective

Conduct research into new technologies and their use in aquaculture environments.

Promote the DBMFS as an innovation hub by partnering and collaborating with Innovation Island.

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Strategic Goal #8

Serve as a culinary educational training and research centre for the study of coastal and ocean seafood growth, use and sustainability.

Strategic Objectives

Develop a culinary seafood science program.

Support the establishment of food related research projects.

Integrate the second year VIU Culinary program with the DBMFS.

Conduct research on coastal foods.

Utilize all bulk buying food services programs available to support food purchasing at DBMFS.

Offer catering services for VIU community events.

Develop and offer robust public education programs such as Foraging for Wild Edibles.

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Strategic Goal #9

Promote collaborative opportunities to increase public awareness about the environment and VIU programs by sharing available resources.

Strategic Objective

Continue developing a closer working relationship with Milner Gardens, MABR, First Nations, local governments, and NGOs.

Strategic Goal #10

Work with the Mount Arrowsmith Biosphere Region to expand its watershed boundaries and provide multidisciplinary researchers reliable access to the marine environment associated with the Mount Arrowsmith Biosphere Reserve, and inform and educate the public and decision makers about the research.

Strategic Objectives

Immediately request a biosphere watershed boundary adjustment to incorporate the DBMFS in the Mount Arrowsmith Biosphere Reserve.

Undertake marine related biosphere studies related to the Mount Arrowsmith Biosphere Region if the watershed boundary is adjusted to incorporate the DBMFS.

**Deep Bay Marine Field Station
Five-Year Strategic Planning & Operational Review**

Strategic Goal #11

Support the infrastructure at the DBMFS so that researchers, graduate students and undergraduate students are able to access high quality research, education and training programs.

Strategic Objectives

Access national granting agency funding to develop high quality research and classroom space.

Add dormitories for field researchers and students.

Explore and promote better road access to meet the needs of the Deep Bay community residents and better serve the needs of the DBMFS.

Market DBMFS through new signage installed in Deep Bay, along the Old Island Highway, and at the Deep Bay Exit on the Inland Highway.

Strategic Goal #12

Ensure that the DBMFS is fulfilling the proposed mission and mandate on behalf of VIU.

Strategic Objective

Put in place appropriate mechanisms to oversee the operation of DBMFS.