

## Coastal Zone Management Program—Enhancement Grant Assessments and Strategies

## AQUACULTURE

## State Assessment and Strategy Overview

The Coastal Zone Enhancement Program, authorized under the Coastal Zone Management Act (CZMA), encourages states and territories to conduct self-assessments of their Coastal Management Programs and develop strategies to improve management of the following areas: wetlands, coastal hazards, public access, marine debris, cumulative and secondary impacts, special area management planning, ocean/Great Lakes resources, energy and government facility siting, and aquaculture. Every five years, states assess their management of all nine areas and develop enhancement strategies for their highest priority issues. The assessments highlight past successes and identify needs that will help improve coastal resource management.

We hope these summaries will be used to generate discussion and new ideas, target existing products and services, guide new project development in NOAA and the states, and promote partnerships and information sharing. Please use the contact information at the end to follow up with any ideas or questions.

## Assessment Findings and Recent Trends

The marine aquaculture industry is growing and is considered an economically important contributor to many state economies. Aquaculture in Florida totals \$100 million a year, and in many states even a modest amount of shellfish farming produces revenues in the

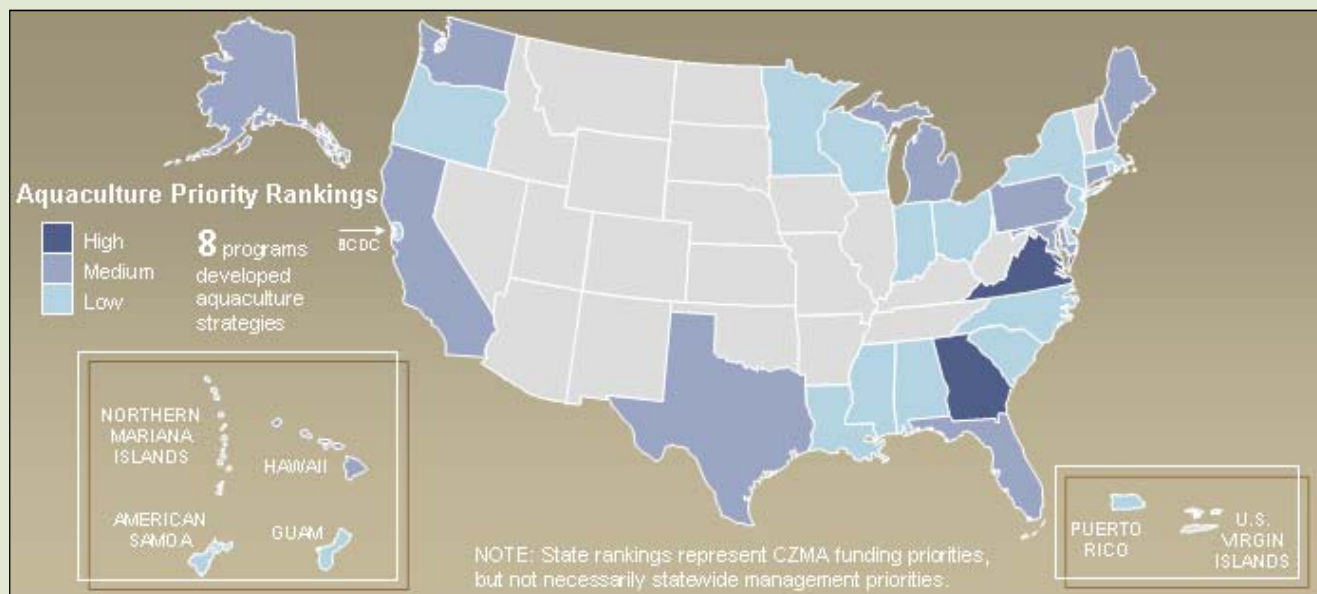
\$10-\$20 million range. Both freshwater and marine aquaculture have experienced significant growth over the last 20 years, in part due to the decline in commercial (or wild fishery) fishing activities. Aquaculture is also conducted for public purposes (stock enhancement, commercial or sport fishing, endangered species restoration, or for improving water quality).

Some marine aquaculture activities (such as the Atlantic salmon farms in Maine and Washington) are large businesses, but more commonly, states like Virginia and Florida have hundreds of small family businesses, typically raising shellfish on small (3-5 acre) submerged leased plots. New submerged net pen technology has been successfully demonstrated in NH, HI, and PR and is likely to increase to commercial size operations in both State and Federal offshore waters. In addition, requests to use oil and gas platforms off California, Texas and Alabama represent a new trend.

Addressing the emerging types of aquaculture, and focusing on minimizing the negative ecological or aesthetic impacts has become a significant objective in aquaculture management, and is providing new challenges for Coastal Zone Management Programs.

## Primary Needs and Information Gaps

State Coastal Zone Management Programs were asked to identify their primary needs and information gaps for aquaculture. The following is a list of the most commonly identified needs:



- Need to **revise outdated laws** to accommodate new technologies and emerging needs of the industry
- Need to address problems with **leasing authorities** for private operations in public waters and bottom lands
- Need to better **coordinate** federal, state and local governments, all of whom have different authorities for different objectives
- Need to update fragmented and often inconsistent **permitting processes**
- Need to complete better **inventories** of their coastal resources to identify potential sites that would minimize the conflict between resource protection and industry expansion
- Need for strong **collaborative interagency partnerships** and initiatives to coordinate, monitor, evaluate and oversee aquaculture activities
- Need support for **education and training** programs

## Recent Successes

For most state coastal management programs, 2005-2006 was the fourth cycle of self assessments and strategy development. Below are a couple examples of strategies implemented by the states that demonstrate successes in improving aquaculture management:

- The **Virginia Coastal Zone Management Program** supported the development of an industry-based BMP for shellfish farming on the Eastern Shore, and is in the process of developing a set of BMPs for all of Virginia waters to eventually allow the development of reliable permit license conditions relevant to the BMPs.
- The **Rhode Island Coastal Resource Management Program (CRMP)** developed a comprehensive aquaculture management plan for the state's coastal waters including aquaculture coverage under their GIS program, designation of specific areas within tidal waters appropriate for aquaculture, and developed and adopted changes to specific sections of their CRMP. Additionally, they established the position of an Aquaculture Coordinator in the CRMP with diverse duties associated with coordination (NGOs, agencies, applicants), permit processing, and pursuing additional funding mechanisms to improve aquaculture permitting and processing.

## Promising Strategies for 2006–2010

As part of the State Enhancement Grant Program, state coastal management programs are asked to develop strategies to address their high priority resource

management issues identified in the assessment. Below are a few examples of strategies proposed for aquaculture:

- The **Maine Coastal Management Program** will support a strategy that focuses on three issue areas including fish health for new species and associated new practices; environmental health associated with shellfish aquaculture and polyculture operations as well as impacts to seabird populations; and greater efforts to provide the public with information on aquaculture operations.
- The **Washington Coastal Management Program** plans to address two of their four key unresolved aquaculture issues (declining water quality that adversely affects commercial shellfish beds, and conflicts between abutting residential and aquaculture land/water uses) in conjunction with their strategy for cumulative and secondary impacts where they will be amending local shoreline master programs.
- The **Connecticut Coastal Management Program** plans to integrate their authorities for habitat protection, restoration, and regulation of activities within the tidal and coastal waters of the state with other agencies that regulate aquaculture activities. To improve multi-agency coordination, the Program will develop a guidance document and disseminate it to appropriate state and federal agencies, municipal shellfish and harbor management officials, and potential applicants, to establish a straightforward regulatory system and minimize potential confusion associated with multi-agency authorities.



A net pen sits aside an oil rig, demonstrating just a couple uses of our offshore waters.

Questions, ideas or for more information:  
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