DEPT. COMM. NO. 41

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CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
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LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 1, 2016

The Honorable Ronald D. Kouchi,
President
and Members of the Senate
Twenty-Eighth State Legislature
State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Joseph M. Souki, Speaker
and Members of the House of
Representatives
Twenty-Eighth State Legislature
State Capitol, Room 431
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Souki, and Members of the Legislature:

For your information and consideration, I am transmitting a copy of the Implementation Of Chapter 190D, Hawaii Revised Statutes Ocean And Submerged Lands Leasing report, as required by Section 12 of Act 176, Session Laws of Hawaii 1999. In accordance with Section 93-16, HRS, a copy of this report has been transmitted to the Legislative Reference Bureau and the report may be viewed electronically at http://dlnr.hawaii.gov/reports/.

Sincerely,

SUZANNE CASE, Chair
Board of Land and Natural Resources

Enclosure

ORIGINAL

DEPT. COMM. NO. 41

REPORT TO THE TWENTY-NINTH LEGISLATURE
STATE OF HAWAII
2017 REGULAR SESSION

IMPLEMENTATION OF CHAPTER 190D, HAWAII REVISED STATUTES OCEAN AND SUBMERGED LANDS LEASING

PREPARED BY:
DEPARTMENT OF AGRICULTURE
AND
DEPARTMENT OF LAND AND NATURAL RESOURCES

IN RESPONSE TO SECTION 12 OF ACT 176, SESSION LAWS OF HAWAII 1999

November 2016

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1.0 Introduction

Act 176, Session Laws of Hawaii 1999, went into effect on July 1, 1999, allowing greater use of Hawaii's ocean resources for research and commercial development of open ocean aquaculture. In addition the law requires the Department of Land and Natural Resources (DLNR) in cooperation with the Department of Agriculture (DOA), to submit a report to the Legislature prior to each regular legislative session. This report, the thirteenth in the series, highlights related national activities and addresses the progress in implementing ocean leasing for open ocean aquaculture during 2011.

2.0 The National Scene

The NOAA Office of Aquaculture has continued to define its priority areas which include regulation and policy, science and research, outreach and education, and international activities. Each priority area is explained below.

Regulation and Policy

The purpose of this effort is to enable domestic aquaculture production within the context of NOAA's marine stewardship responsibilities, which include the protection of the marine environment while balancing multiple uses of coastal and ocean waters. NOAA's role in aquaculture regulation include:

- consultations with the U.S. Army Corps of Engineers on permitting
- consultations with the Environmental Protection Agency on endangered species, fish habitat, and marine mammal protection
- issuing permits under the Magnuson-Stevens Fishery Conservation and Management Act
- developing guidance and working with regional Fishery Management Councils on a regulatory framework for aquaculture in federal waters.

Science and Research

The goal of the research initiatives is to provide science knowledge for the agency's regulatory and resource management decisions and foster innovative and sustainable approaches to aquaculture.

The program's current research initiatives focus on:

- strengthening aquaculture research capabilities at the agency's regional Fisheries Science Centers;
- in-house research focused on genetics, alternative feeds for marine fish, restoration of threatened and endangered species, and stock enhancement; and

Outreach and Education

Outreach and education activities include disseminating scientific and general aquaculture information and NOAA research at public meetings and conferences, through the Sea Grant and USDA Aquaculture Extension networks, and through the web and social media.

The program's primary audiences for this information are coastal communities, research scientists, the aquaculture and seafood industries, commercial and recreational fishermen, fishery management councils and commissions, other government agencies, academia, and interested non-governmental organizations.

International Activities

The NOAA Aquaculture Program is involved in a variety of international bilateral research exchanges, including a Living Marine Resources Exchange with China, an ongoing scientific exchange program with Korea, and the U.S.-Japanese Cooperative Program in Natural Resources (UJNR). The program also works with policymakers and researchers from France, Norway, and Canada on an ongoing basis.

3.0 Hawaii Activities

3.1 Commercial Development Progress

3.1.1 Keahole Point Fish

In 2016, Keahole Point Fish completed a project to modernize the larval production facility in its marine finfish hatchery at NELHA. The company also installed three new net pens at its offshore mariculture facility and stocked four new cohorts of Hawaiian Kanpachi (Seriola rivoliana) during the year. The Company's primary product continues to be Hawaiian Kanpachi sold to markets in Hawaii and California, with additional sales to the U.S. East Coast.

3.1.2 Hawaii Oceanic Technology, Inc.

Hawaii Oceanic Technology, Inc. continues with plans to deploy its first Oceansphere at its 250 acre permitted lease site off Hawaii Island. The company offers a patented system for domesticating seafood production in the open ocean. The Oceansphere is designed to operate in deep ocean waters that are safer for the environment and a much healthier environment for raising seafood, which promotes faster growth and lower food conversion ratios. The Oceansphere is a highly automated, self-positioning, submersible and is un-tethered to the ocean floor allowing for reduced labor, rapid deployment, easy relocation and minimal environmental impact. A centralized cloud based command, control and monitoring capability further reduces costs and labor, providing operators with critical environmental and fish health information, emergency response to predation, poaching and piracy and regulatory compliance data. The Oceansphere is designed to stay in geostationary position

submerged below the surface, reducing impact from surface wind and waves. It is very large, 55M in diameter, allowing the production of up to 3,000 tons of seafood protein per Oceansphere, depending upon the species. The Board of Land and Natural Resources granted another two-year extension to the construction condition of the company's permit allowing construction to commence bye October 2017.

3.2 Other Activities and Major Developments

4.0 Conclusions

The continued expansion by Keahole Point Fish Co is a promising sign for the offshore sector. Hawaii must find at least two more sustainable operations to establish a sustainable industry that will generate significant tax revenue and protein production.

5.0 Recommendations

The proper infrastructure must be established to balance environmental concerns with opportunities for development. Areas for focus are governance, environmental impact and health management. Governance is crucial because there is a current lack of clear federal responsibility and jurisdiction in governing the open ocean space and a lack of standards to protect the marine environment. Funding needs to be secured to support research and the implementation of protocols to identify and mitigate environmental and health risks for aquaculture products. Additionally, a system to disseminate authoritative information needs to be implemented to support further expansion of the aquaculture industry.