MADE IN ALASKA

MARICULTURE

Alaska Mariculture Initiative Phase 2

Presented to:

Commonwealth North - Food Security Group

July 23, 2020

Presented by:

Julie Decker, AFDF & Mariculture Task Force

Alaska Fisheries Development Foundation, Inc.

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Alaska Fisheries Development Foundation, Inc.

Since 1978

Mission - to identify opportunities common to the Alaska seafood industry & develop efficient, sustainable outcomes that provide benefits to the economy, environment and communities

Creating Value

Areas of focus:

1) Alaska Symphony of Seafood (product development)
2) 100% Club (full utilization)
3) Sustainability certification (RFM, MSC, social responsibility)
4) Fishing vessel energy efficiency
5) **Alaska Mariculture Initiative**

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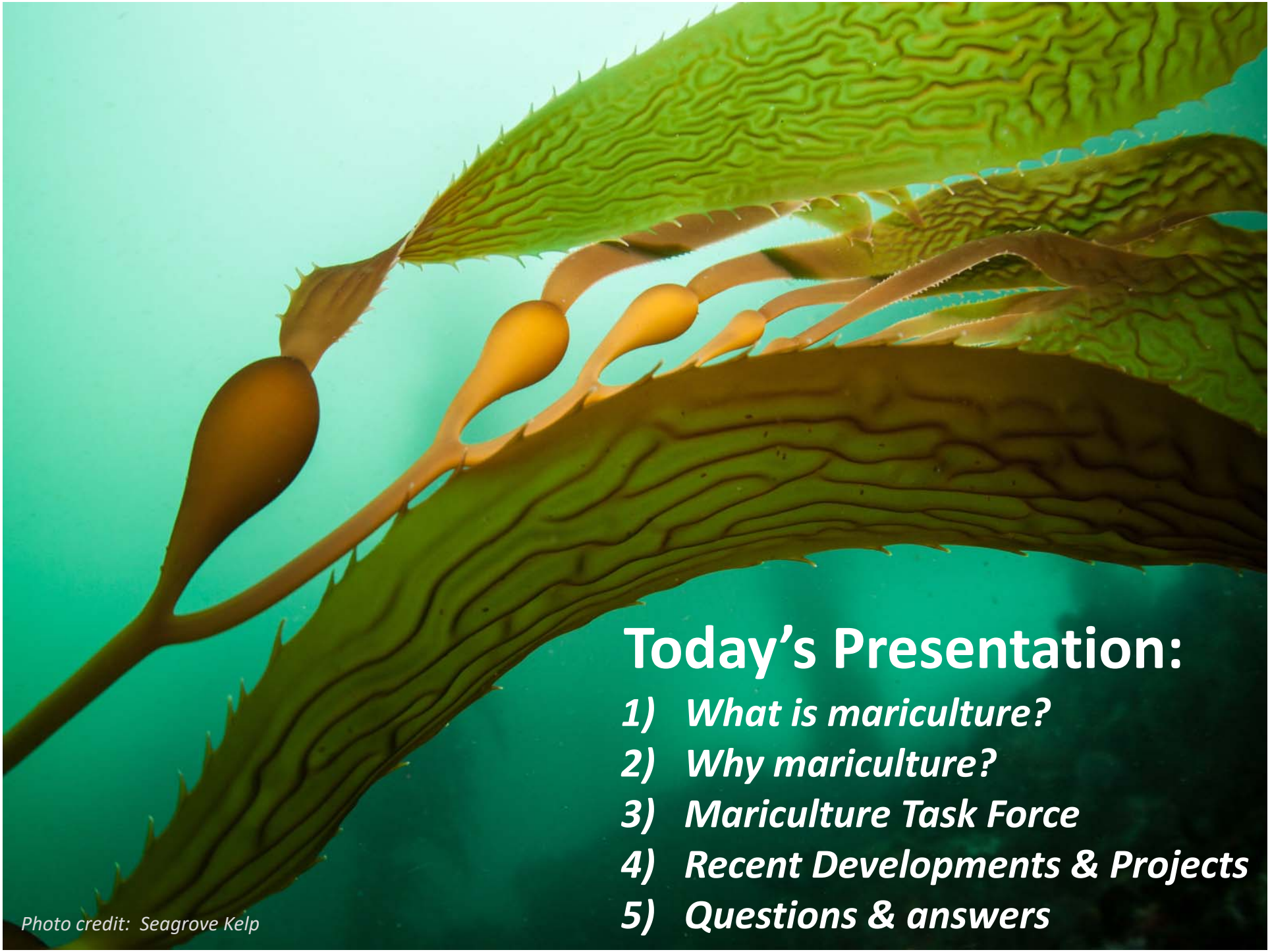

Today's Presentation:
1) What is mariculture?
2) Why mariculture?
3) Mariculture Task Force
4) Recent Developments & Projects
5) Questions & answers
Photo credit: Seagrove Kelp

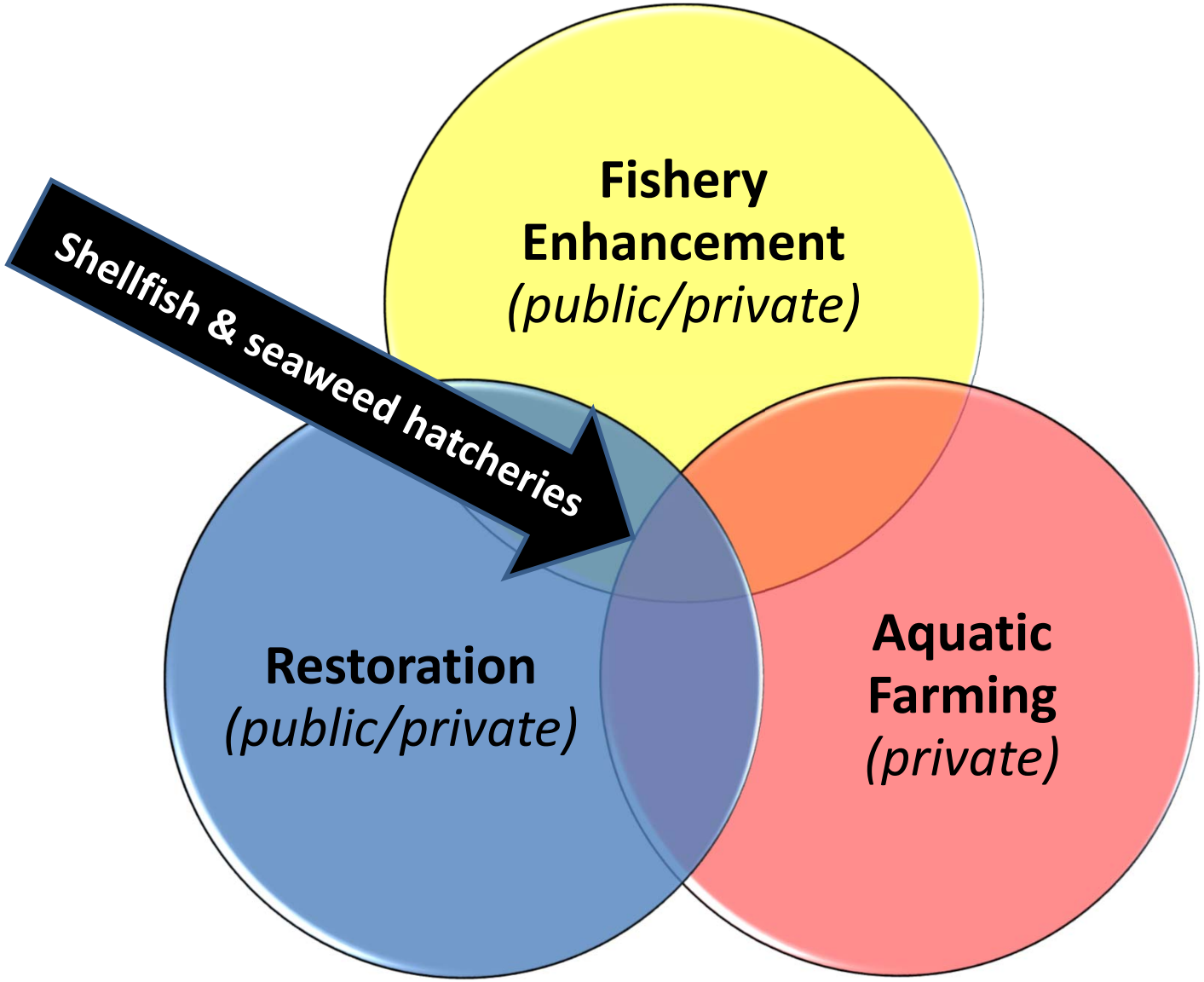
What is Mariculture?

In Alaska, mariculture is NOT…

Finfish farming is prohibited by Alaska Statute 16.40.210.

Mariculture is…
enhancement, restoration and farming of shellfish and seaweeds.

Mariculture is…



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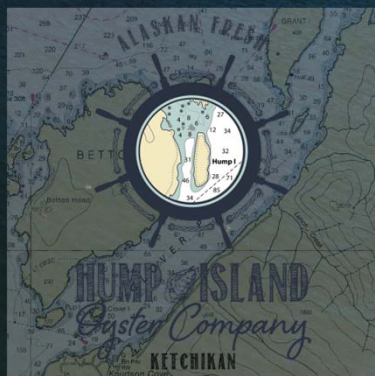
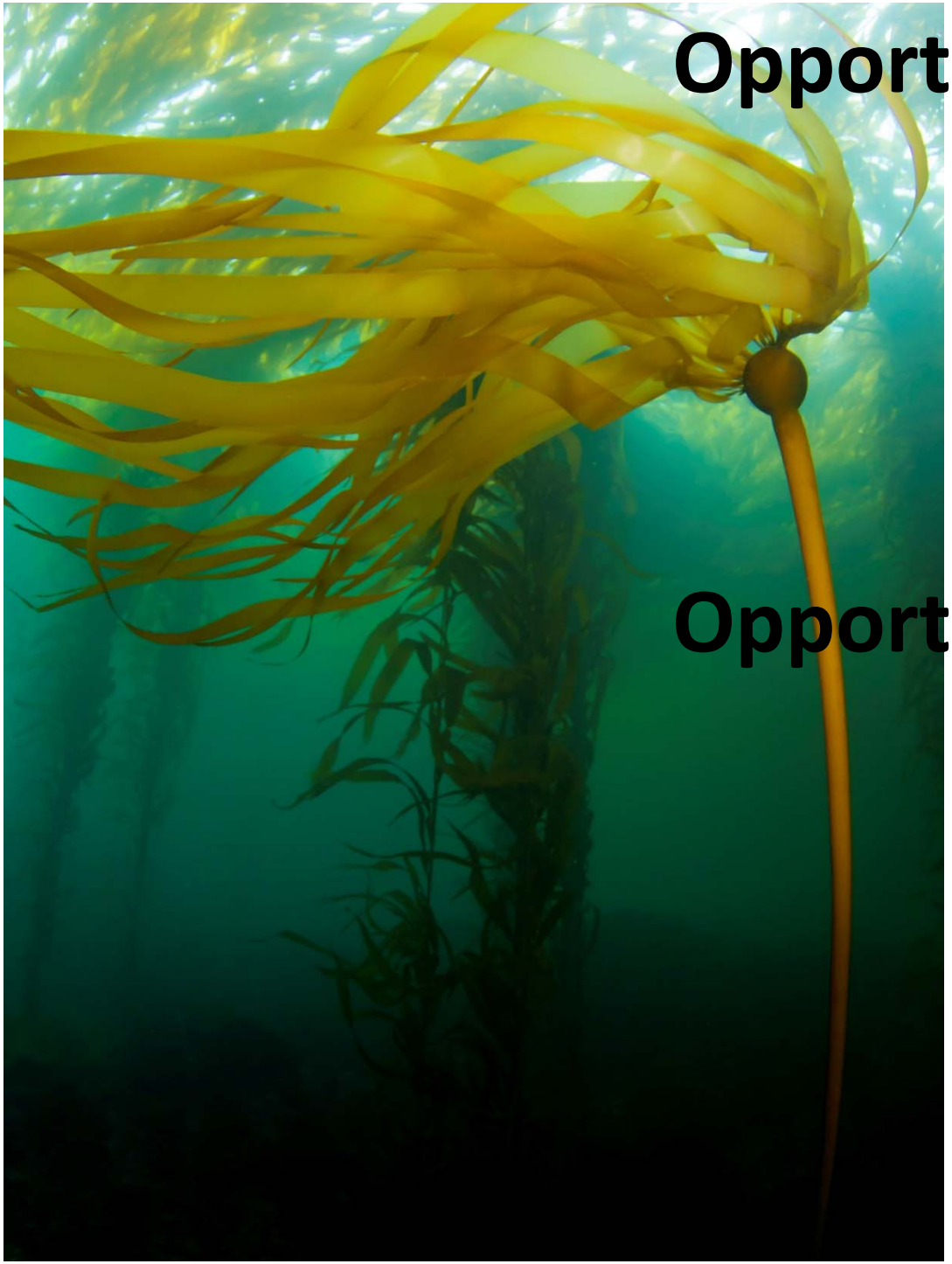
Why Mariculture?

Opportunities & Benefits:
Economic

Hump Island Oyster Co.
Wins 2016 Entrepreneur of the Year from
Ketchikan Chamber of Commerce





Opportunities & Benefits:

Food Security

Increases access to local foods

Opportunities & Benefits:

Cultural

Connects Alaskans with traditional food sources, harvesting activities & skills

Opportunities & Benefits:
Industrial

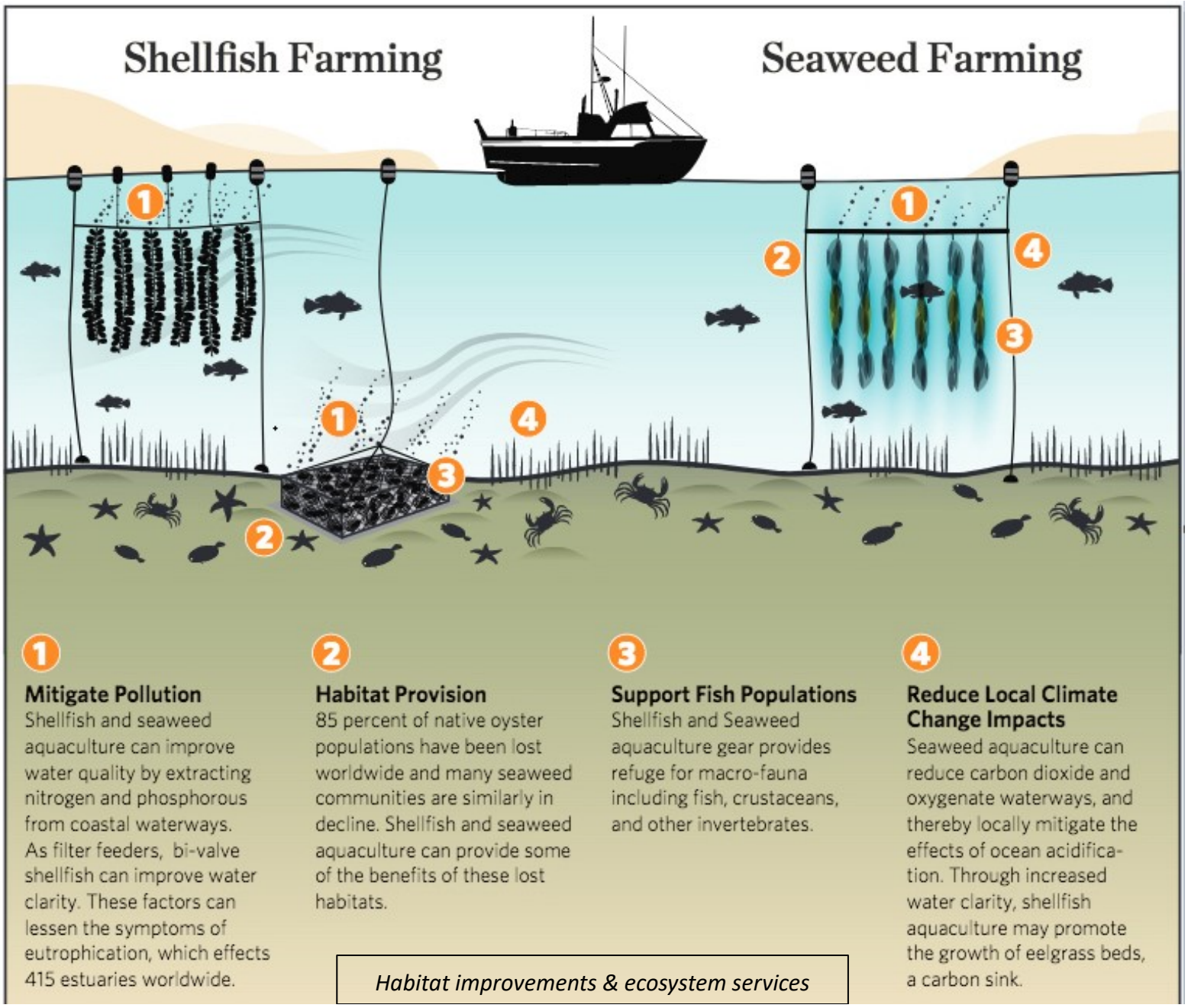
- Compliments & expands existing $6 billion seafood industry
- Builds on assets – vessels, plants, sustainable fisheries, salmon hatcheries, Alaska seafood brand & ASMI

Salmon hatchery – Prince William Sound

Commercial fishing vessels – Bristol Bay

Processing plant – Kodiak

Opportunities & Benefits: Environmental



Habitat improvements & ecosystem services

Opportunities & Benefits: Environmental

Growing shellfish and seaweed does NOT require:

- **Land**
- **Fresh water**
- **Feed**
- **Fertilizer**

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Mariculture Task Force

Administrative Orders: By request of industry leaders, Governor Walker established the Alaska Mariculture Task Force (MTF) by **AO #280 in 2016** and extended it by **AO #297 in 2018**.

AO #297 Directive – *"…The Task Force shall make recommendations to present to the Governor by May 1, 2021, along with a report regarding progress toward the Plan's goal to grow a $100 million mariculture industry in 20 years."*

- ✓Mariculture Task Force (11 members)
- ✓5 Advisory Committees (15+)
- ✓Webpage on ADFG website
- ✓Completed 2-yr comprehensive planning process in 2018
- ✓Included iterative economic analyses
- ✓Includes dozens of recommendations, in eight categories
- ✓Includes five priority recommendations

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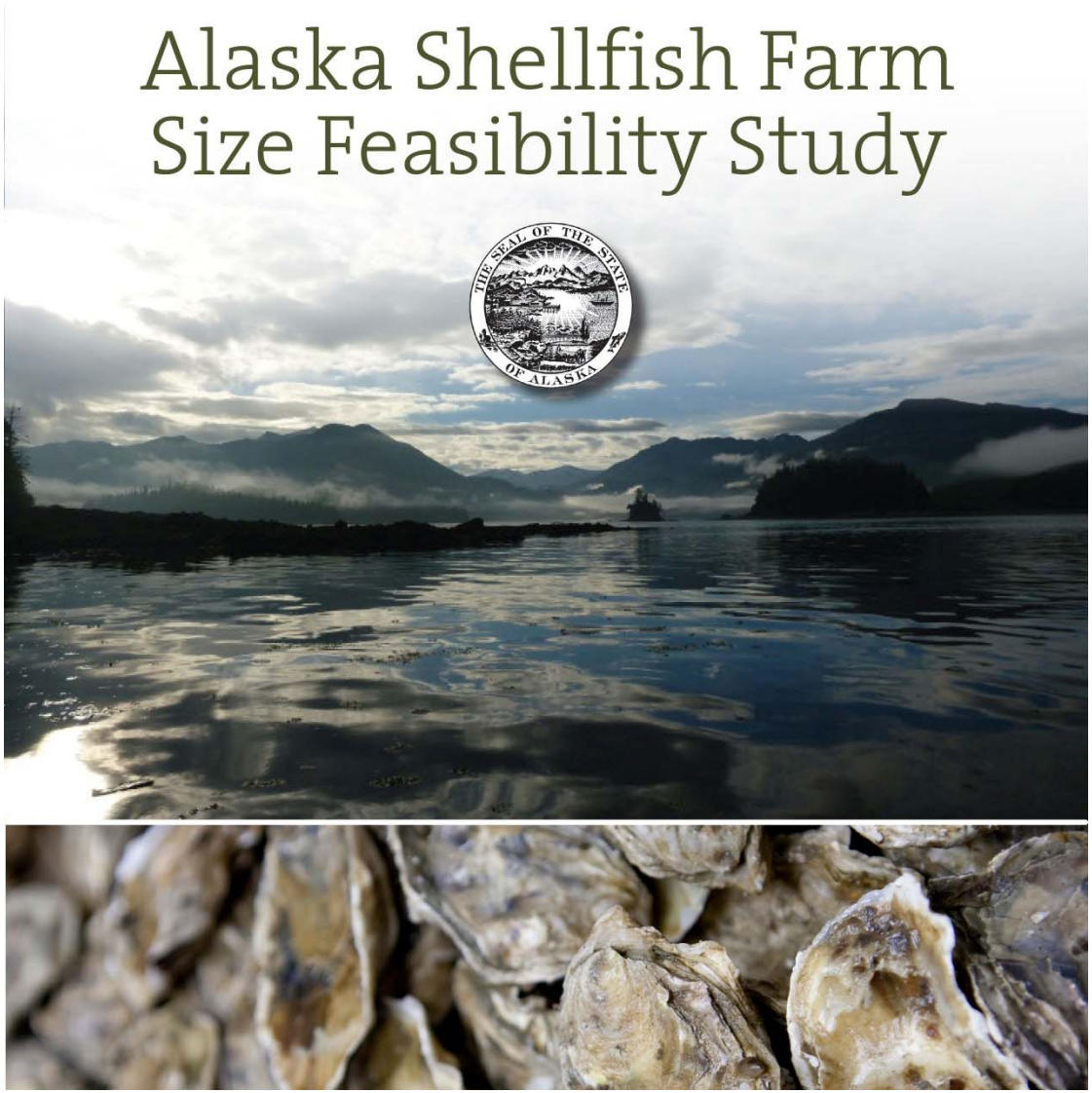
Collaborative Planning Process

PACIFIC SHELLFISH INSTITUTE

OceansAlaska
MARINE SCIENCE CENTER

DNFUUDE



KEY FINDING

- *"Regardless of farm type, larger farm size scenarios demonstrated better short and long term profitability than smaller farm sizes…new entrants into the Alaska shellfish farming industry should consider investments in medium and large scale farms."*

Completed by:

ALASKA
NORTH TO OPPORTUNITY

Economic Analysis to Inform the Alaska Mariculture Initiative:

Phase 1 Case Studies

Prepared for

Alaska Fisheries Development Foundation

March 2015

Northern Economics

In association with

Pacific Shellfish Institute

Maine Shellfish Research and Development

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KEY FINDING

Six key elements for successful mariculture development:

1) Pre-existing seafood industry
2) Public acceptance & support
3) Favorable growing areas
4) Existing development plan w/ coordinated R&D strategy
5) Successful business plans & growing technology
6) Workforce development

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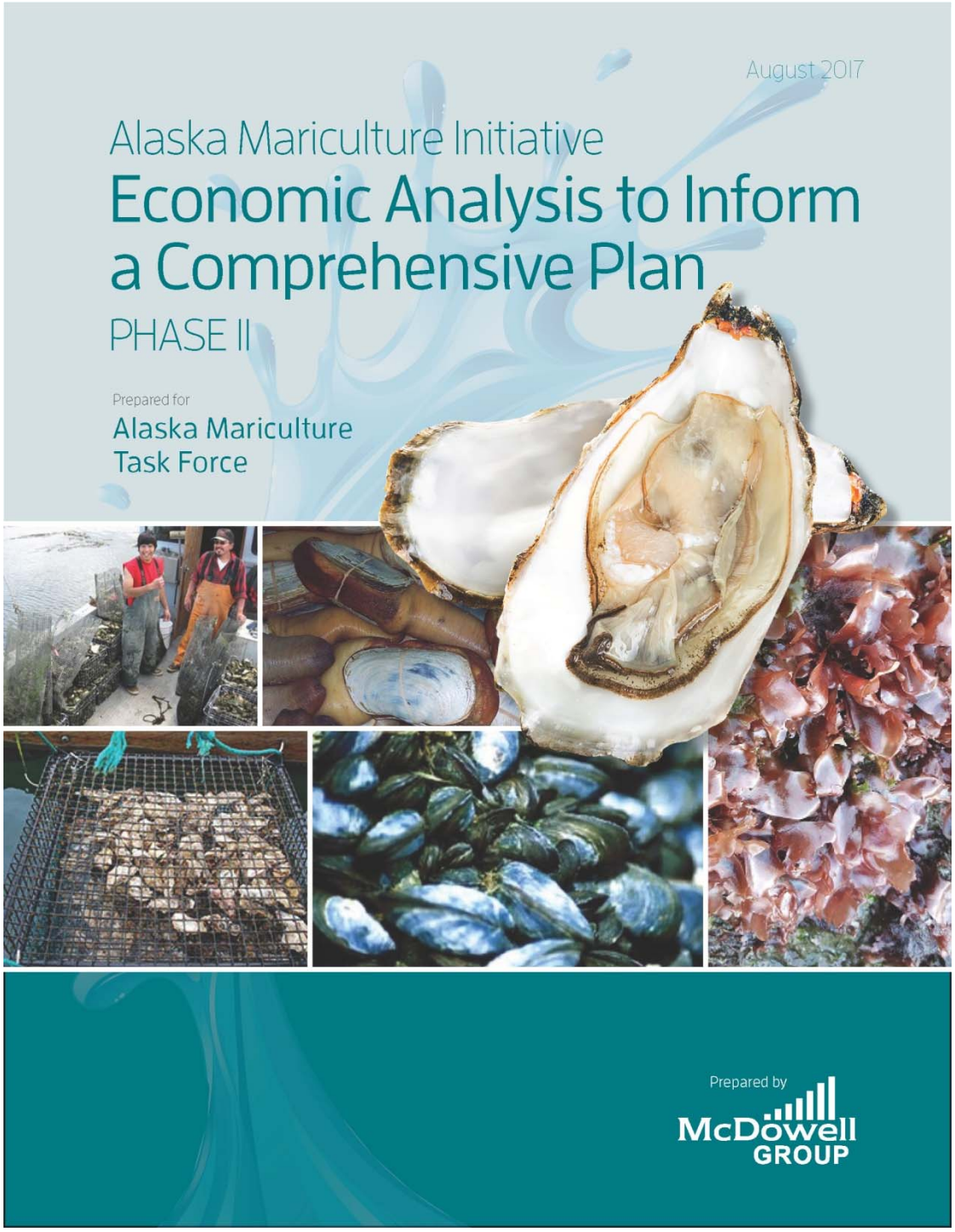

ECONOMIC FRAMEWORK

- Six primary species
- 5, 10, 20, 30, 40, 50 yr targets
- Annual production & value
- Total economic output:

= $100 million in 20 years
= $275 million in 30 years
=$445 million in 40 years
= $570 million in 50 years

not adjusted for inflation

"Growth from the current $1 million industry to almost $6 million in five years…may be the most difficult phase along the trajectory…" McDowell Group

Funded by:

E·D·A U.S. ECONOMIC DEVELOPMENT ADMINISTRATION

THE SEAL OF THE STATE OF ALASKA

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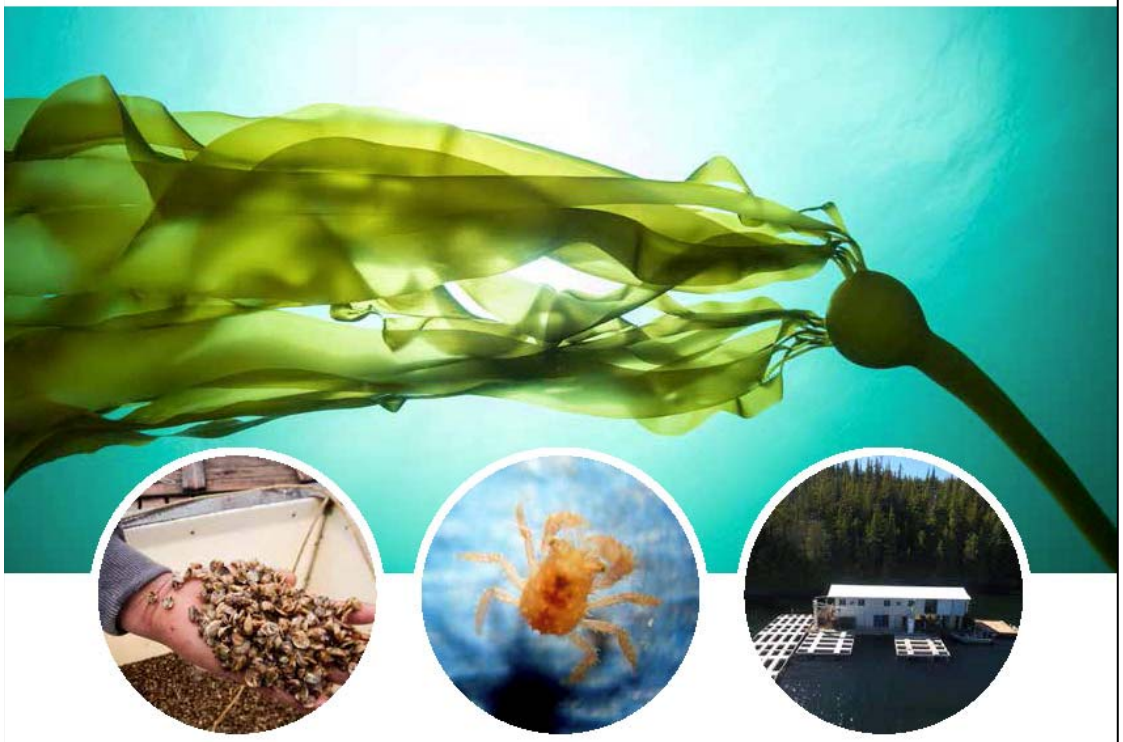
ALASKA MARICULTURE DEVELOPMENT PLAN



STATE OF ALASKA
MARCH 23, 2018

Completed in 2018

Also available at: www.afdf.org

Alaska Mariculture Development Plan

VISION

Develop a viable and sustainable mariculture industry producing shellfish and aquatic plants for the long-term benefit of Alaska's economy, environment and communities.

GOAL

Grow a $100 million mariculture industry in 20 years.

Mariculture: Legislative

HB 76 signed into law; amended Mariculture Revolving Loan Fund

HB 41 stuck in S-Finance when session was recessed early in 2020 for COVID

Mariculture: Latest Developments

Demonstration Farm

- ✓OceansAlaska in Ketchikan permitted seaweed demo farm
- ✓Collaboration with Seagrove Kelp, Metlakatla & local schools

Mariculture: Latest Developments

Tourism

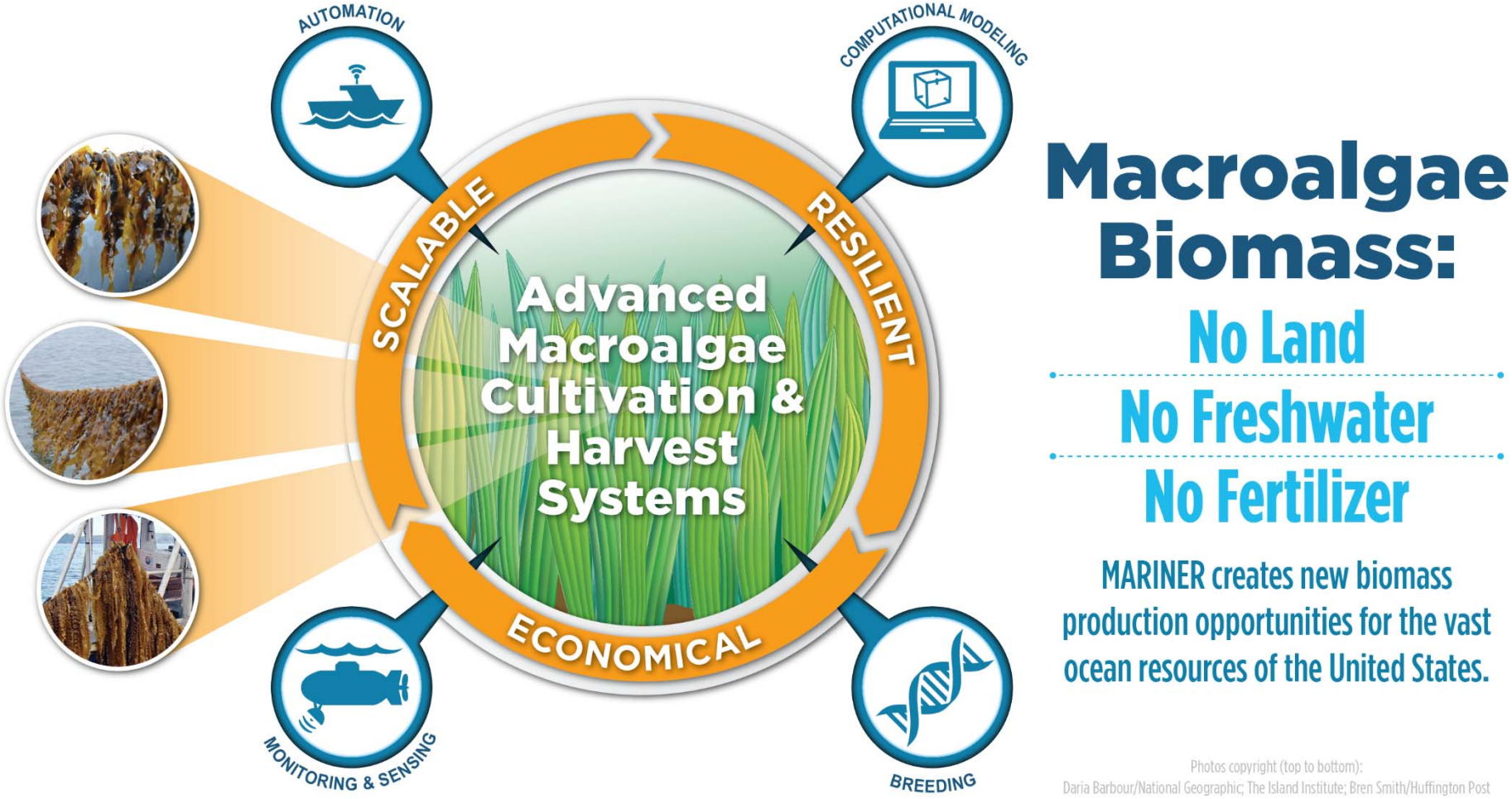
Tourism partnership between Hump Island Oyster Company (Ketchikan) and Princess Cruises.

Mariculture: Latest Developments

Kodiak Seaweed Cluster

- ✓BE/NOAA/seaweed hatchery
- ✓Blue Evolution & Ocean Beauty processing seaweed
- ✓Trident developing products
- ✓New farm sites on Kodiak Is.
- ✓Part of ARPA-E Team

Demo farm and vessels in Kodiak



ARPA-E 2020: *UAF Team receives $2.5 M to focus on growing and harvesting seaweed efficiently & cost-effectively.*

New Food Products

Kelp Beer from Kodiak!

Blue Evolution™
BACK TO THE SOURCE

ALASKA SYMPHONY of SEAFOOD®

2020
Grand Prize Winner

Also, winner of Retail category & Juneau People's Choice

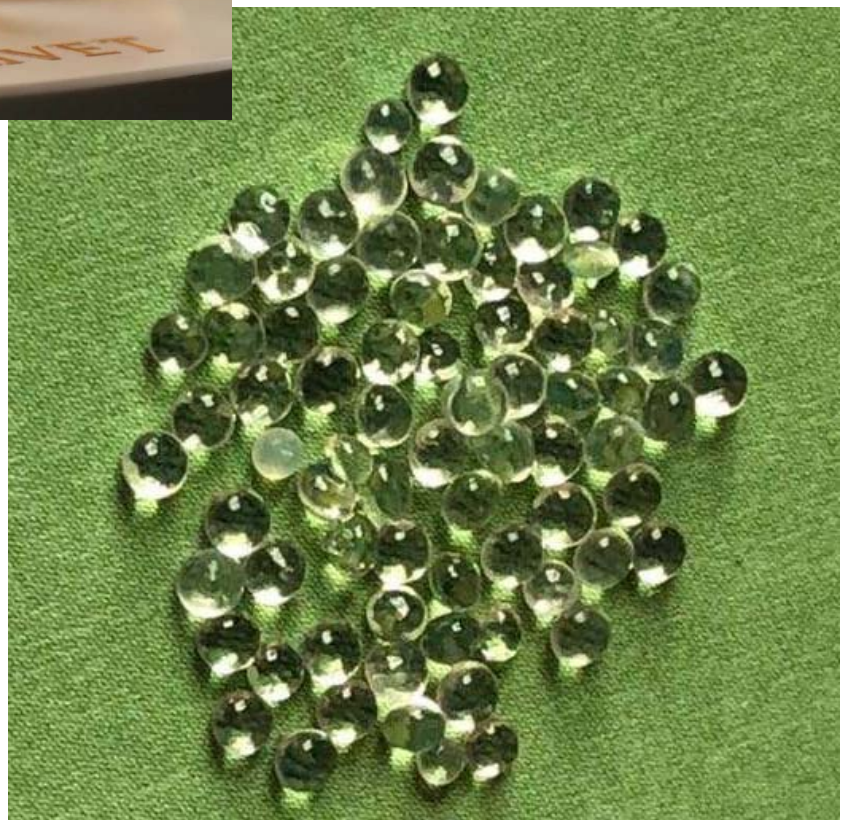
A NATIVE CORPORATION
SEALASKA

Also, new partnership announced between Barnacle Foods & Sealaska

OCEANIUM

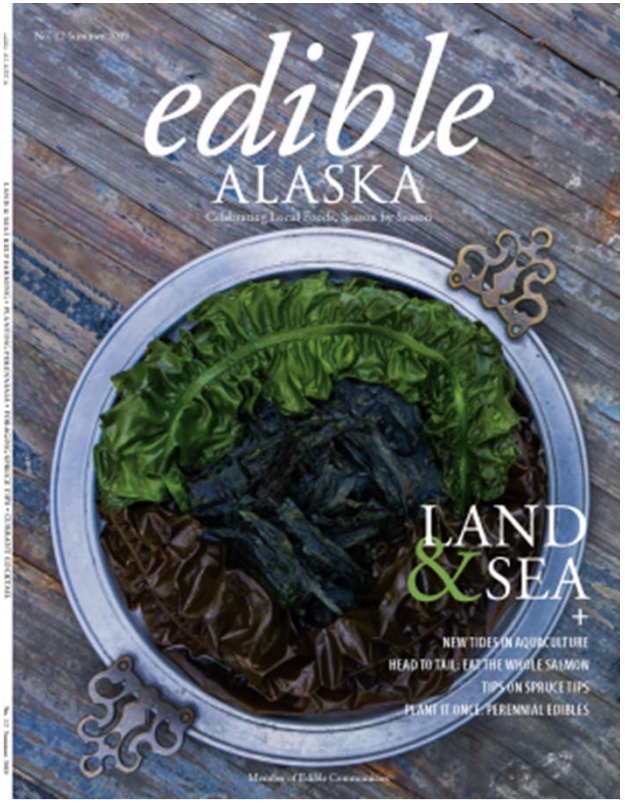
Accelerating the Blue Economy

kelp THE WORLD™



Seaweed as Bio-Plastic

Mariculture: Media



MORE In 2021!

Seaweed Farm Start-Up Workshops Held in Kodiak, Ketchikan & Sitka

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Mariculture: New Farm Applications 2017-2020

- 400% increase in annual new farm applications to DNR:
  - Pre-2017=1 to 4; 2017=16; 2018=14; 2019=12; 2020=17
  - 2,100+ acres of new farms = ~$200,000 of new revenue to state in annual lease fees
- Scale of farms increasing from mom-&-pop/family farms to medium-scale:
  - Premium Aquatics approved 127-acre farm site near Craig/Klawock
  - Silver Bay Seafoods approved 182-acre farm site near Sitka for oysters
  - Plans for $5-10 million initial investments are developing
- Alaska seafood processors are taking interest in processing and farming
  - Silver Bay Seafoods, Trident Seafoods, Ocean Beauty Seafoods
- Clusters of development emerging in multiple regions of the state:
  - Ketchikan/POW/Sitka, PWS, Homer, Kodiak, Sand Point
- New interest by CDQ Groups and Alaska Native Corporations
- Fishermen interested in diversifying into seaweed farming
- New companies buying seaweed and developing new products

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Seagrove
KELP CO.
Questions?