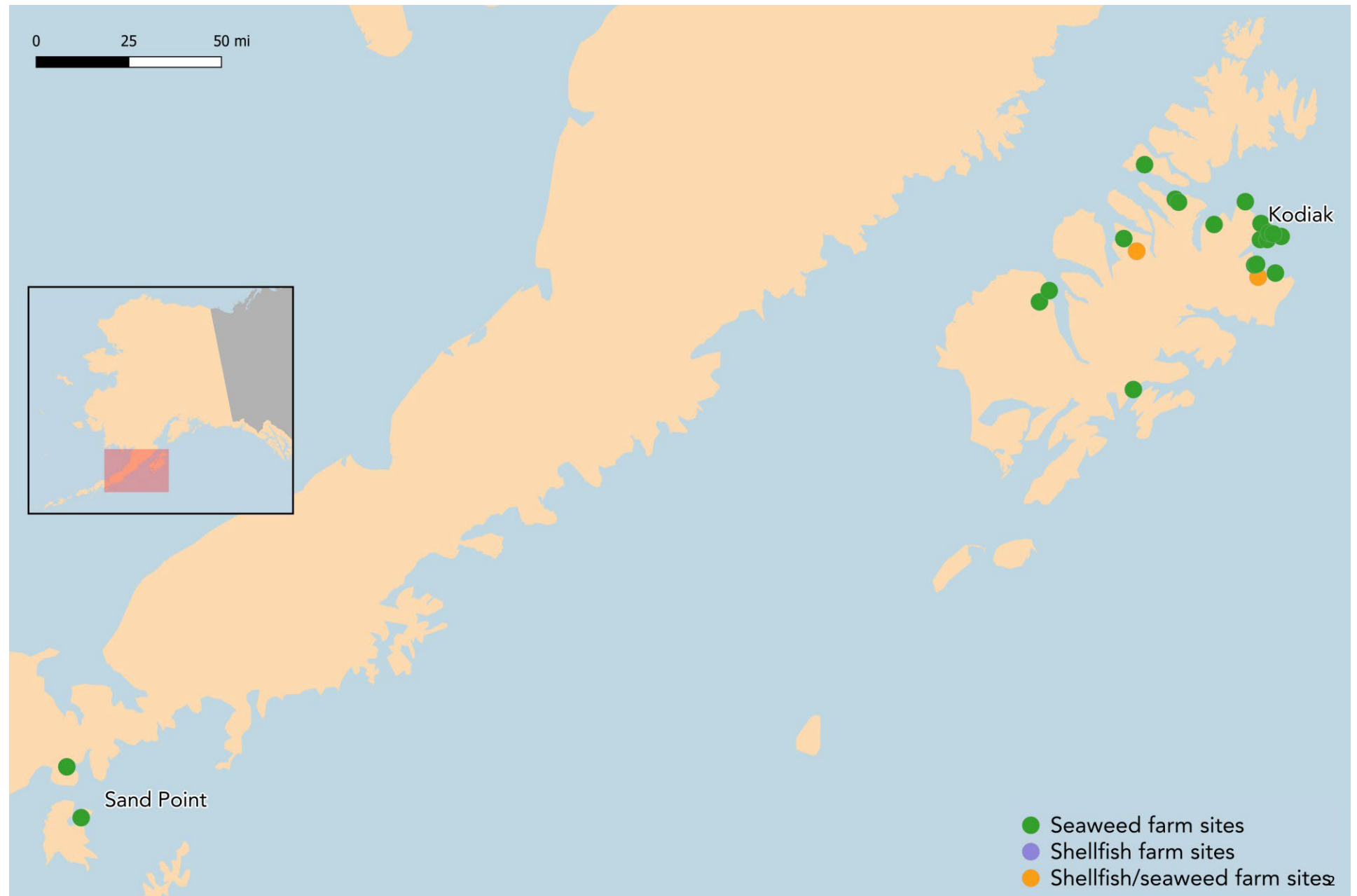


Presentation Outline

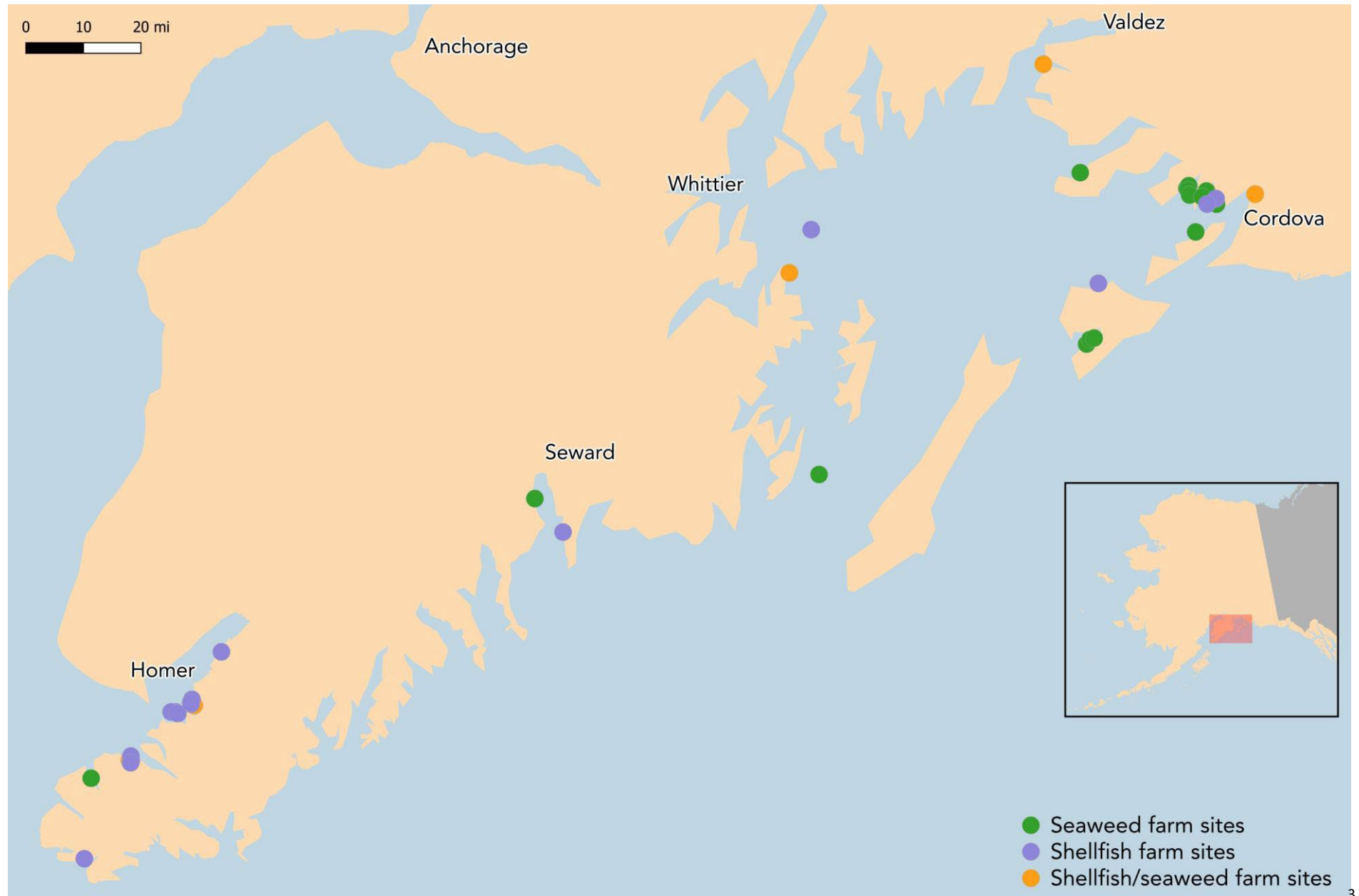
- Current Mariculture Industry
- Possible Growth Scenarios
- Alaska Mariculture Cluster BBBRC Grant goals and strategies
- Carbon sequestration project



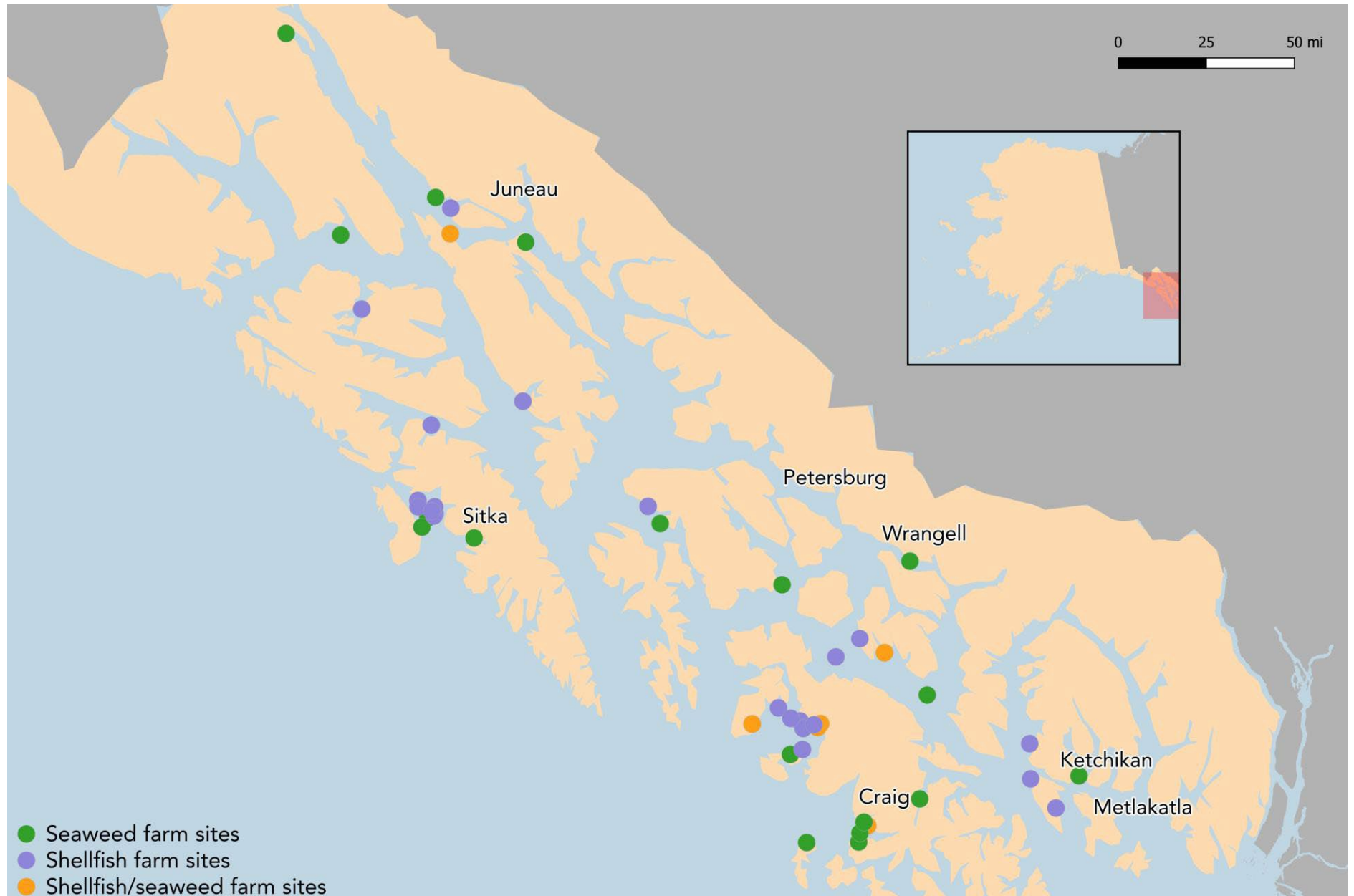
Kodiak/ Aleutians



Cook Inlet/ Prince William Sound



Southeast

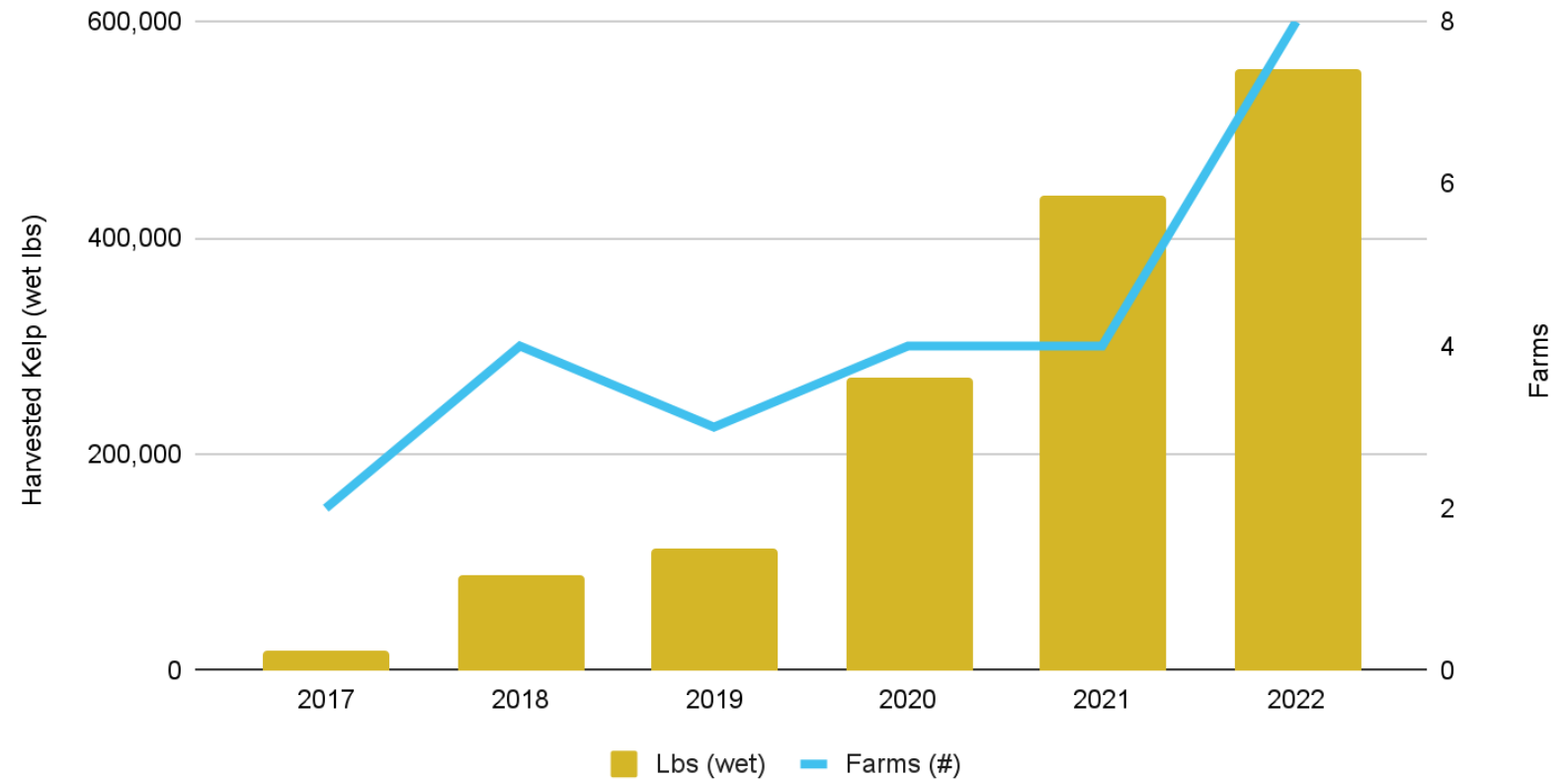


Alaska Seaweed Sector Overview

- 8 producing farms in 2022
- 24 permitted
- 23 under review
- 560,000 pounds in 2022
- 80,000+ pounds wild harvest

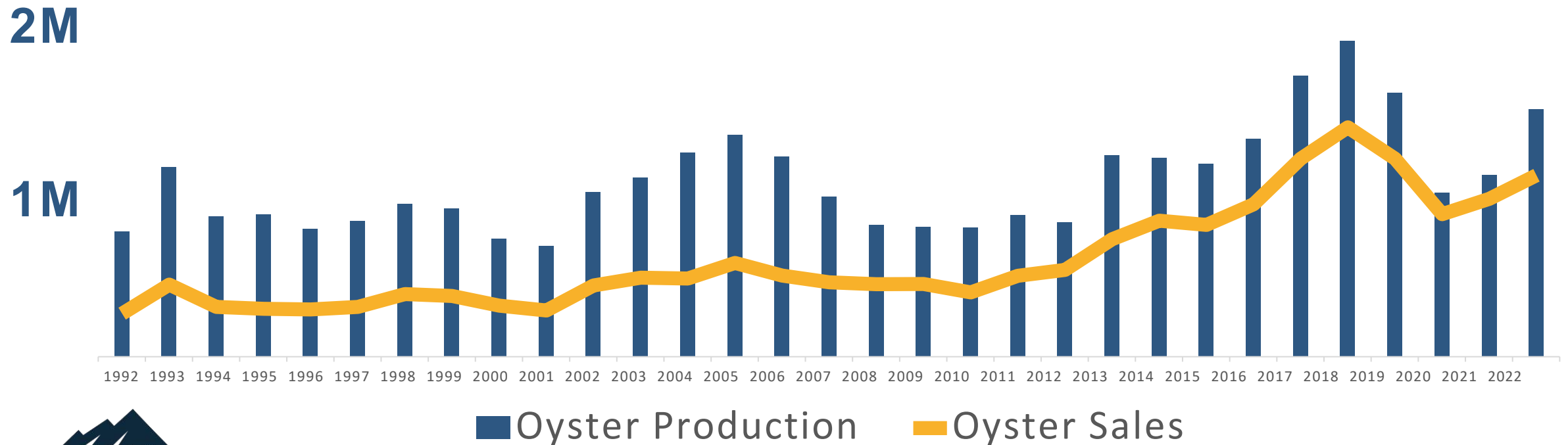
Alaska: Kelp harvest

Wet lbs, 2017-22



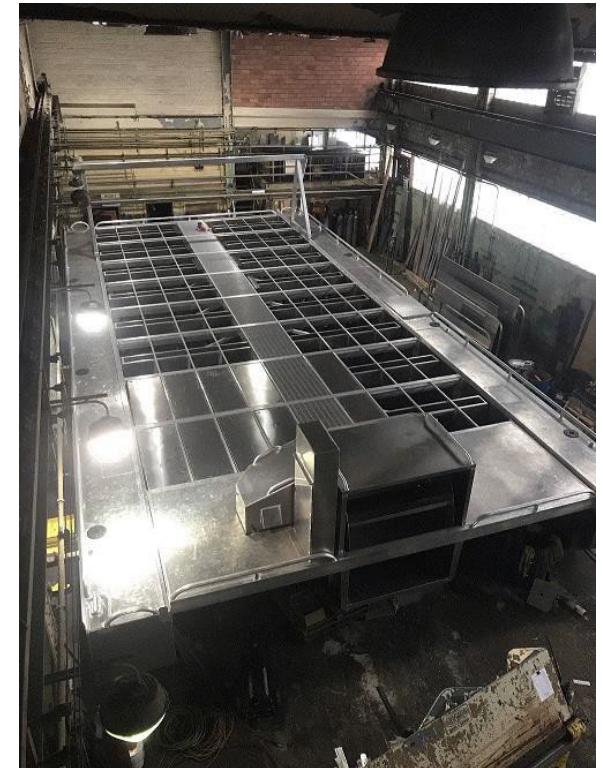
Alaska Oyster Sector Overview

- \$1.1 million in sales in 2022 at roughly 13 farms



Mariculture Hatchery and Nursery Sector Overview

- 4 seaweed hatcheries
 - 420,000 feet seeded string in Fall 2021
- 6 oyster nursery/FLUPSY operators
 - Currently using imported larvae/seed
 - ~9 million oyster seeds for farms
- Technologies in flux
- Various other species being tested



Presentation Outline

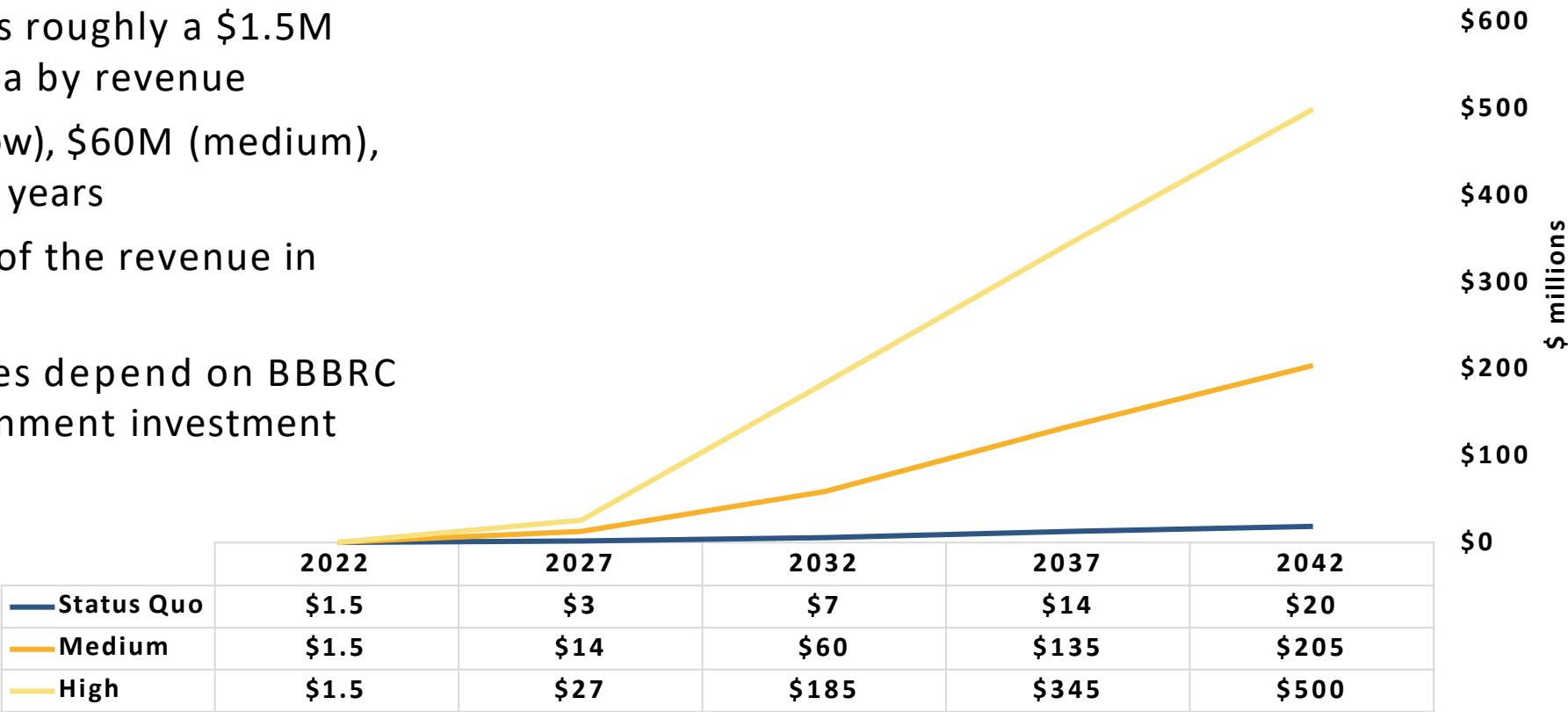
- **Current Mariculture Industry**
- Possible Growth Scenarios
- Economic Impacts of **Alaska Mariculture Cluster BBBRC Grant**

\$1.5 million

\$49 million

Industry Development Trajectory - Sales

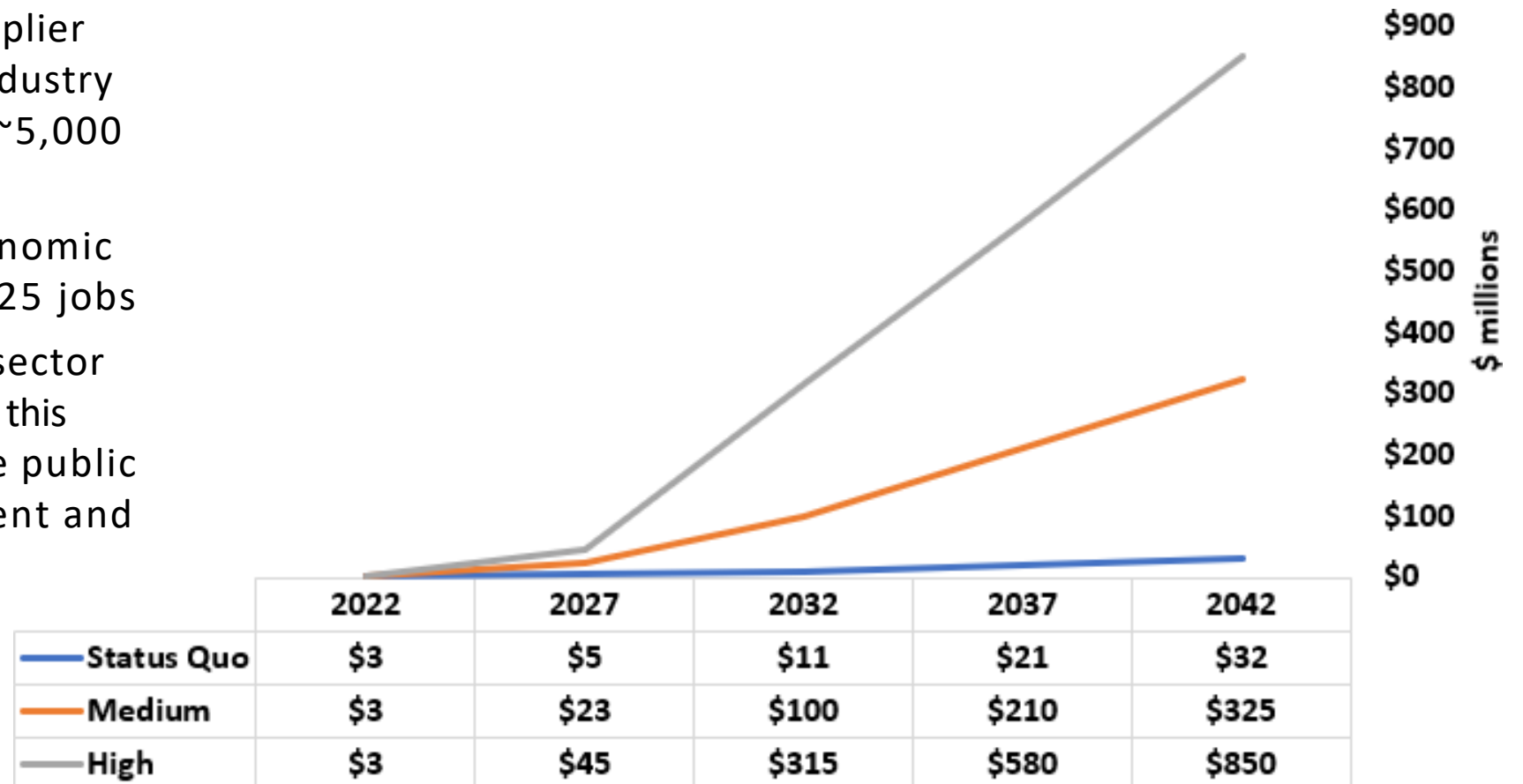
- Currently mariculture is roughly a \$1.5M dollar industry in Alaska by revenue
- Could grow to \$7M (low), \$60M (medium), or \$185M (high) in ten years
- Seaweed the majority of the revenue in these models
- Medium and High cases depend on BBBRC award or similar government investment



Alaska Mariculture Industry Revenue Projections (\$millions)

Industry Development Trajectory - Economic Output

- Economic Output with multiplier effects up to \$850 million industry in 20 years (high case) with ~5,000 jobs
- Medium case is \$325 in economic output in 20 years with ~1,825 jobs
- \$100s of millions in private sector investment needed achieve this growth as well as aggressive public sector economic development and policy support



Project #4 Research and Development

- Carbon sequestration program development - \$1+ million
 - Increase readiness for Alaskans to participate in seaweed-related carbon markets as/if they develop
 - Ocean modeling to identify where along Alaska's coast there is the most potential; ocean carbon dynamics and reservoirs that could be leveraged for long term storage
 - Identify regulatory, permitting, and policy barriers and issues
 - Build local capacity to partner with national and global measurement, reporting, and verification (MRV) efforts

Thank you!

Send questions to:

dan@seconference.org

<https://www.alaskamariculturecluster.org>



Project #7 Equipment & Technology

\$26 million

- \$16 million EDA grant funds
 - \$9 million equipment purchases (SEC)
 - \$6 million subawards and contracts
- \$10 million in-kind match
 - DEC – personnel costs
 - Valdez – grain terminals
 - Chugach Regional Resources Commission – facility maintenance

Project #7 Equipment & Tech



- \$4 million – nursery/hatchery equipment
 - Algae production systems, kelp hatchery equipment and supplies, oyster FLUPSYs, oyster and shellfish nursery equipment and supplies, etc.
- \$3 million – processing equipment
 - Kelp washing, blanching, drying, etc.
 - Oyster tumbling, sorting
 - Freezing, cooling, materials handling, etc.
- \$2 million – DEC toxin testing equipment

Project #7 Equipment & Tech

- \$6.2 million in subawards and contracts
 - DEC toxin testing – \$1.2 million (subaward)
 - Processing feasibility studies - \$1 million (RFPs forthcoming)
 - Research into new mariculture species – \$1 million (RFPs forthcoming)
 - Kelp and oyster seed services – \$3 million (RFPs forthcoming)

Economic Impacts of Alaska Mariculture Cluster Grant

	Jobs Created	Economic Output	Private Investment Leveraged
Year 4			
Annual Economic Impacts of Spending of BBBRC Grant Funding	191	\$15.4M	-
Annual Impacts at Year 4 of Moving from Status Quo to Medium Industry Size	127	\$17.9M	\$42M
Total Estimated Annual Economic Impacts at Year 4	318	\$33.3M	\$42M
Year 10			
Annual Impacts at Year 10 of Moving from Status Quo to Medium Industry Size	495	\$87.5M	\$134M
Year 20			
Annual Impacts at Year 20 of Moving from Status Quo to Medium Industry Size	1,665	\$294.3M	\$268M

Note: Jobs and output numbers include direct, indirect, and induced impacts.