Board of Trustees Meeting

Friday, July 24, 2026
via Zoom Conference Call: Join Zoom Meeting
10:00 a.m. to noon Pacific Time; 1:00 p.m. to 3:00 p.m. Eastern Time

Agenda

1. Meeting called to order/Quorum noted	Mr. Stewart
2. Welcome and introductions	Mr. Stewart
3. Motion to waive reading of the Minutes of the April	Mr. Stewart
4. Nominating Committee	Mr. Stewart
• Passing of Bob Fletcher • Board List	
5. Science Committee	Dr. Dold
• Dr. Michael Rust will present on the CIFARM	
6. Corporate and Government Relations Committee	Mr. King
7. Finance Committee	Mr. Gardner
8. Development Committee	Ms. Thompson
- Review of priority proposals	
9. Press Packet	Mr. Kent
10. Past Business	Mr. Stewart
11. Future Business	Mr. Stewart
- Next Meeting: Friday, October 30, 2026	
12. Adjournment	

HUBBS–SEAWORLD RESEARCH INSTITUTE

Board of Trustees Meeting — Minutes

April 24, 2026

1. Call to Order and Quorum

Ian (Chairman) called the meeting to order. A roll count confirmed 11 members present, constituting a quorum.

2. Approval of Minutes

On a motion by Bill, seconded by Paul, the board voted unanimously to waive the reading of the July minutes.

3. Nominating Committee

No new nominations. The current board slate remains unchanged; members were asked to suggest candidates with relevant skills as the organization's strategy evolves.

4. Committee Assignments

Michelle, Linda, and Amber were proposed for the Government Relations Committee, which Ian suggested broadening to also cover communications given the coming strategic emphasis on marketing and messaging.

5. Science Committee Report (Jeff)

- Cash constraints continue to limit reimbursable science spending, so programs are prioritizing cost savings alongside fundraising.
- Florida secured a new ~$1 million appropriation for Phase 2 of the Indian River Lagoon Restorative Aquaculture Station; nearly $3.7 million in new grants were submitted this quarter, with over $1 million still under review.
- Two peer-reviewed publications, 25+ actively funded projects, and over 3,000 people reached through community outreach this quarter.
- Program milestones: the 3-millionth White Sea Bass released, halibut releases surpassing 21,000, 11 acres of seagrass planted, ongoing marine mammal rescues, and continued growth of the Sea Bass in the Classroom program (12 schools).

6. Corporate and Government Relations (Michael)

- Proposed federal budget cuts threaten funding across most departments; several Florida state/federal appropriations and earmarks are in progress or pending.
- The MARA Act has been reintroduced federally, and a decision on the CIFARM/Cooperative Institute partnership is expected imminently.
- The board discussed a draft comment letter (in the board packet) supporting aquaculture as part of California's Ocean Protection Council review, aiming to build a broad industry coalition to counter a smaller but vocal anti-aquaculture contingent. Don and Michael will pursue additional signatories and outreach contacts.

7. Development Committee (Laurilee/Don)

- No dedicated development staff currently; senior science staff continue to lead fundraising.

- Social media followers grew ~25% across platforms; a part-time hire will help establish a more consistent posting schedule.
- Top capital priorities: the offshore fish farm (viewed as a prerequisite for other investment), hatchery renovation (~$200,000 estimated), and near-term partnerships (Port of San Diego, seaweed culture, larvae sales). The Blue Foods Innovation Laboratory remains a longer-term goal.

8. Finance Committee (Dave/Lenell)

- Q3 FY2025–26 (nine months ended March 31, 2026): income of $4.4M (+18% YoY), expenses of $4.6M, and a net loss of $256,000 — a $900,000 improvement over the prior year. Cash stood at $341,000, aided by segregating restricted funds.
- Staffing has been cut sharply (science from 38 to 29; G&A from 11 to 5, effectively 2 paid), driving much of the improvement; board members cautioned that the positive headline numbers mask unsustainable practices, including deferred maintenance and unpaid/accruing salaries (roughly $60,000–65,000 per pay period).
- A new $300,000 line of credit has been secured. Lenell expressed confidence the organization can pay all staff through year-end even without the pending Cooperative Institute award, though the current indirect cost recovery rate is elevated and not considered sustainable long-term.
- Balance sheet: total assets of $7.75M, total liabilities of $823,000, total equity of $6.75M. Contributions grew from $355,000 to $722,000 YoY, aided by a $200,000 board gift.
- Bill cautioned that despite improved metrics, the organization's underlying financial position remains serious and current stopgap measures are not sustainable indefinitely.

9. Strategic Plan Discussion

Don presented a condensed summary of the organization's 24-page strategic plan. The core proposal: move away from a grant-dependent model, align overhead with realistically recoverable revenue, and prioritize aquaculture as the strongest path to sustained funding, with all programs expected to be financially self-supporting over time. Near-term steps already underway include cost reductions, the new line of credit, and stricter grant/spending discipline; mid- and long-term steps include faster invoicing, cash reserves, new commercial partnerships, scaling the offshore farm, and rebuilding development and governance capacity.

Board discussion reflected broad support for a stronger aquaculture focus and clearer messaging, with some divergence on scope and pace:

- Paul urged committing fully to aquaculture as the organization's core identity, potentially phasing out programs that aren't self-supporting.
- Chris favored monetizing existing assets and pursuing investment, but cautioned that the aquaculture payoff has been described as imminent before without materializing, and argued the real gap is marketing and development investment rather than scope.
- Bill and Laurilee noted that Florida's marine mammal stranding and seagrass programs are self-funding and generate significant goodwill, and should not be discontinued even under a sharper aquaculture focus.
- Michelle and Linda emphasized the need for a financial forecast, a clearer public storytelling/communications strategy, and a defined organizational spokesperson to support fundraising.
- Michael raised open questions about how a shift toward aquaculture investment (versus sponsorship) might affect public funding eligibility.
- Lenell voiced strong confidence in the aquaculture opportunity given market dynamics and prior major donor interest, while affirming that other science would continue alongside it.

Paul proposed a board vote on committing to an aquaculture-first focus. Ian and Chris noted the board lacks sufficient program-level financial data to vote today. Consensus: no vote was taken; the Executive Committee will work with Don and Lenell over the next 4–5 weeks to develop supporting data and a refined proposal, to be brought back at a dedicated board meeting before the next regularly scheduled session.

10. Action Items

Action Item	Owner	Target Timing
Schedule Executive Committee meeting to frame scope of financial/strategic analysis	Don, Lenell, Exec. Committee	Within 1 week
Distribute scheduling poll for Executive Committee meeting	Liz	Immediately
Compile program-level financial data to support strategic scope decision	Don, Lenell	~4–5 weeks
Develop financial forecast to anchor fundraising campaign	Lenell, Development	Prior to next board meeting
Finalize and circulate CA aquaculture comment letter for signatures	Don, Michael	ASAP
Pursue additional coalition signatories and government affairs contacts	Don, Michael, Ian	Next 2–4 weeks
Report outcome of Cooperative Institute proposal decision to board	Don	As soon as known
Prepare revised strategic plan for board vote	Exec. Committee, Don, Lenell	Special board meeting, ~4–6 weeks

11. Closing

Several members, including Bill, described this as one of the most substantive board discussions in recent years. Ian thanked the board for its engagement and indicated a follow-up meeting would be scheduled ahead of the next regular session.

Meeting adjourned.

Q4 Nominating Committee Highlights

- Passing of Bob Fletcher
- Board List

HSWRI Slate Jul 2026

	HSWRI Board of Trustees Board Slate (Apr. 2026)	Trustee Since	Executive	Nominating	Audit		Finance	Science	Government Relations	Development
1	Tyler Carter	Jan-25		X	X		X			
2	Chris Dold	Sep-16	X	X				Chair		
3	Paul Fruchbom	Apr-20					X	X		
4	David Gardner	Sep-93	X				Chair			
5	Reese Jarret	Apr-25								
6	Michael King	Jun-22							Chair	
7	Laura MacKinnon	Jun-22		X						X
8	Michelle Murrell	Oct-26								
9	Linda Pazin	Oct-25								
10	Justin Quis Quis	Jul-25								
11	Bill Shedd - Past Chair	Apr-94	X							X
12	Cody Shedd	Oct-25					X			
13	Ian Stewart - Chair	Jan-21	Chair	Chair					X	
14	Amber Ter Vrgut	Jan-26								
15	Laurilee Thompson	Sep-16	X	X				X	X	Chair
16	Robert Weiner	Jan-21			Chair					
17	Louis Zimm	Jul-13						X		

Trustees Emeriti	
Dede Alpert	George Gildred (deceased)
Art DeFever (deceased)	Dr. Clark Hubbs, Science Committee Chair Emeriti (deceased)
Char DeMotte	Cpt. Wally Schirra, USN, Retired (deceased)
Robert Fletcher (deceased)	Milton Shedd, Chairman Emeriti (deceased)

Officers									
Donald B. Kent, CEO/President		Ex Officio	Ex Officio			Ex Officio	Ex Officio	Ex Officio	Ex Officio
Lenell Carter, CFO/Secretary				Ex Officio		Ex Officio			
Vacant, CSO/SrVP							Ex Officio		
Vacant, VP Development									Ex Officio

FY26 Q4

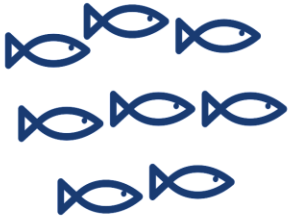
Science Highlights

Grants & Contracts

- Submitted $1.96M across 5 new proposals
- $997k FL state appropriation vetoed by Gov. DeSantis

Infrastructure & Capacity Building

- Building WSB DNA archive
- Completed 60% design plan for Coconut Point shoreline



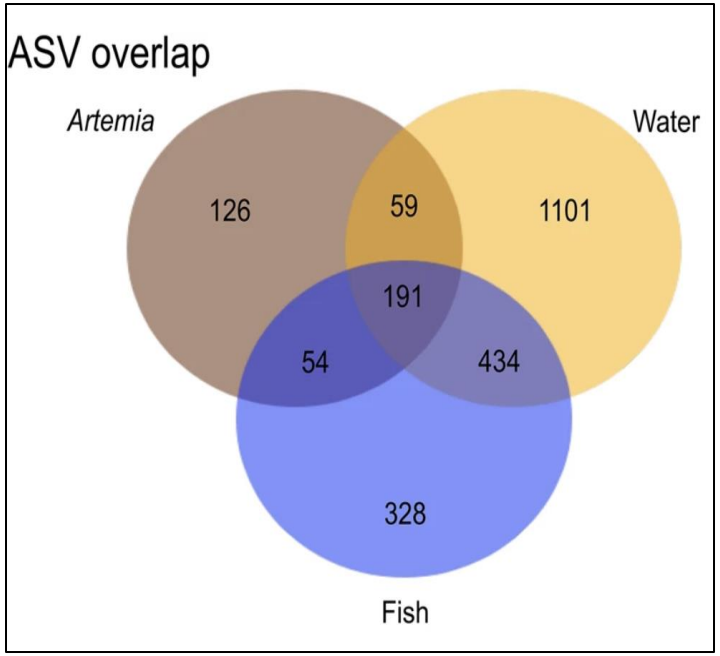
Impact

- Mike Shane interviewed on the Rod & Reel Radio Show
- Yuanzi submitted two IMTA manuscripts for review with student co-authors

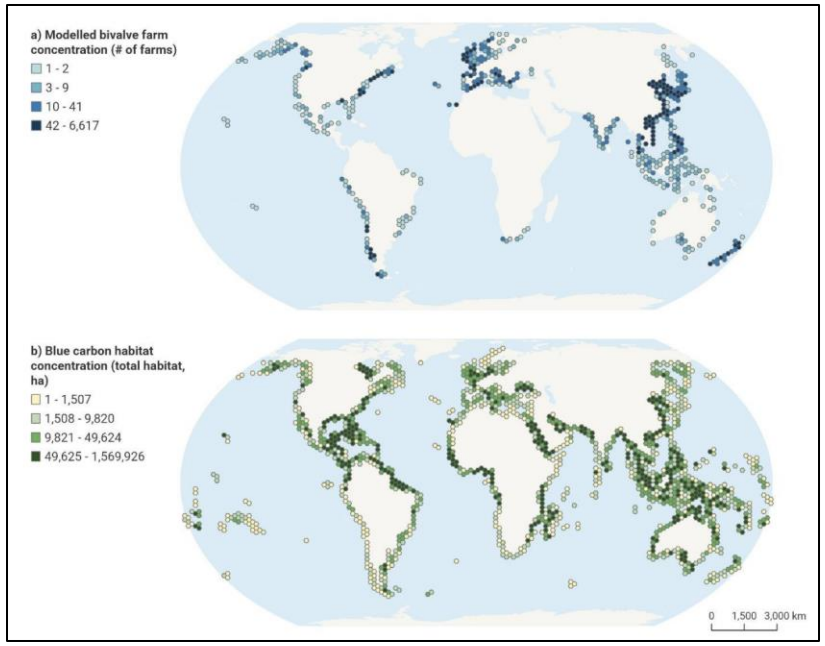
FY26 Q4

Science Impact

FY26 Q4
Science Highlights
Publications



Temporal dynamics of the larval microbiota in hatchery-raised white seabass…



Sizing blue carbon risks & benefits from bivalve aquaculture…

FY26 Q4

Science Highlights

Conservation Activity

Population Enhancement

White Seabass Released

quarter: **0**

total: **3,022,558**

Halibut Released

quarter: **0**

total: **21,392**

Habitat Restoration

Seagrass Planted

quarter: **9.9 acres**

total: **97.4** (since 2025)

BREVARD ZOO

SEA & SHORELINE aquatic restoration

Marine Mammal Rescue

Marine Mammal Strandings

quarter: **10**

total: **>2000**

Dolphin Entanglements

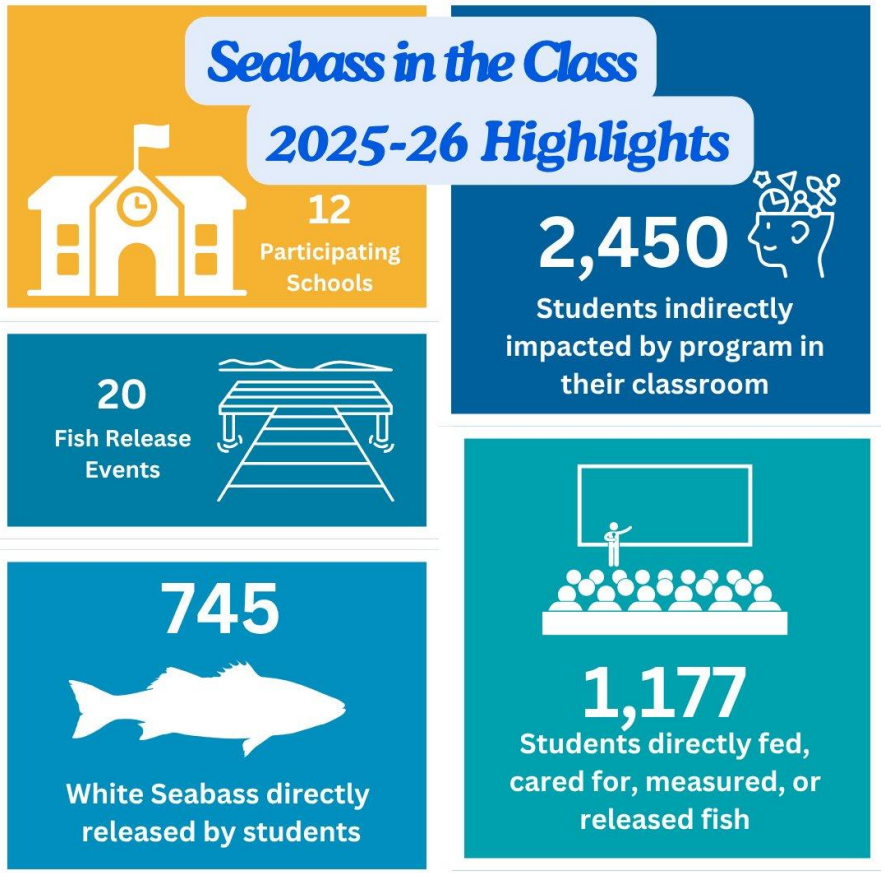
quarter: **2**

FY26 Q4

Education and Outreach

Inspiring a love for science

Major Quarterly Activities



School	School Type	Title 1	Minority Enrollment
Helix	HS	Yes	75%
Madison	HS	Yes	88%
Miramar	CC	MSI	69%
Carlsbad	HS	No	40%
San Clemente	HS	No	37%
Warner	MS	Yes	97%
El Modena	HS	No	94%
Sycamore	MS	Yes	97%
Orange Coast College	CC	MSI	70%
Edison	HS	No	41%
Mar Vista	HS	Yes	81%
La Costa Canyon	HS	No	30%
Port of LA	HS	Charter	91%

CIFARM-W HSWRI Board Talking Points

What is CIFARM-W?

- CIFARM-W is the Western regional component of the new NOAA Cooperative Institute for Aquaculture Research and Marketing (CIFARM).
- Its purpose is to build long-term regional aquaculture capacity—not simply fund individual research projects.

Why it Matters

- NOAA created CIFARM to strengthen aquaculture research, technology development, workforce training, and decision-support capabilities across the United States.
- The goal is to convert stakeholder needs into practical tools, technologies, training programs, and production opportunities.

CIFARM-W Year 1 Priorities

1. Listen – conduct needs assessments and stakeholder workshops.
2. Organize – establish working groups and regional plans.
3. Build – develop test beds, shared datasets, and workforce capacity.
4. Advise – provide science support for economics, permitting, engineering, and siting.
5. Demonstrate – test finfish, shellfish, seaweed, and IMTA production technologies.
6. Transfer – deliver reports, tools, workforce programs, and outreach products.

HSWRI's Role

- HSWRI was selected because of its track record, facilities, collaborative history, and staff expertise.
- HSWRI will help lead strategic planning, workforce development, test-bed activities, economics, permitting support, and production technology demonstrations.

Take-Home Message

CIFARM-W is an opportunity for HSWRI to help build the West Coast aquaculture innovation ecosystem—connecting stakeholders, science, technology, workforce development, and NOAA priorities into a coordinated regional program.

"We start by listening, build regional capacity, and turn stakeholder priorities into practical solutions for sustainable aquaculture."

CIFARM

Cooperative Institute Fostering Aquaculture Research and Marketing

CIFARM-W

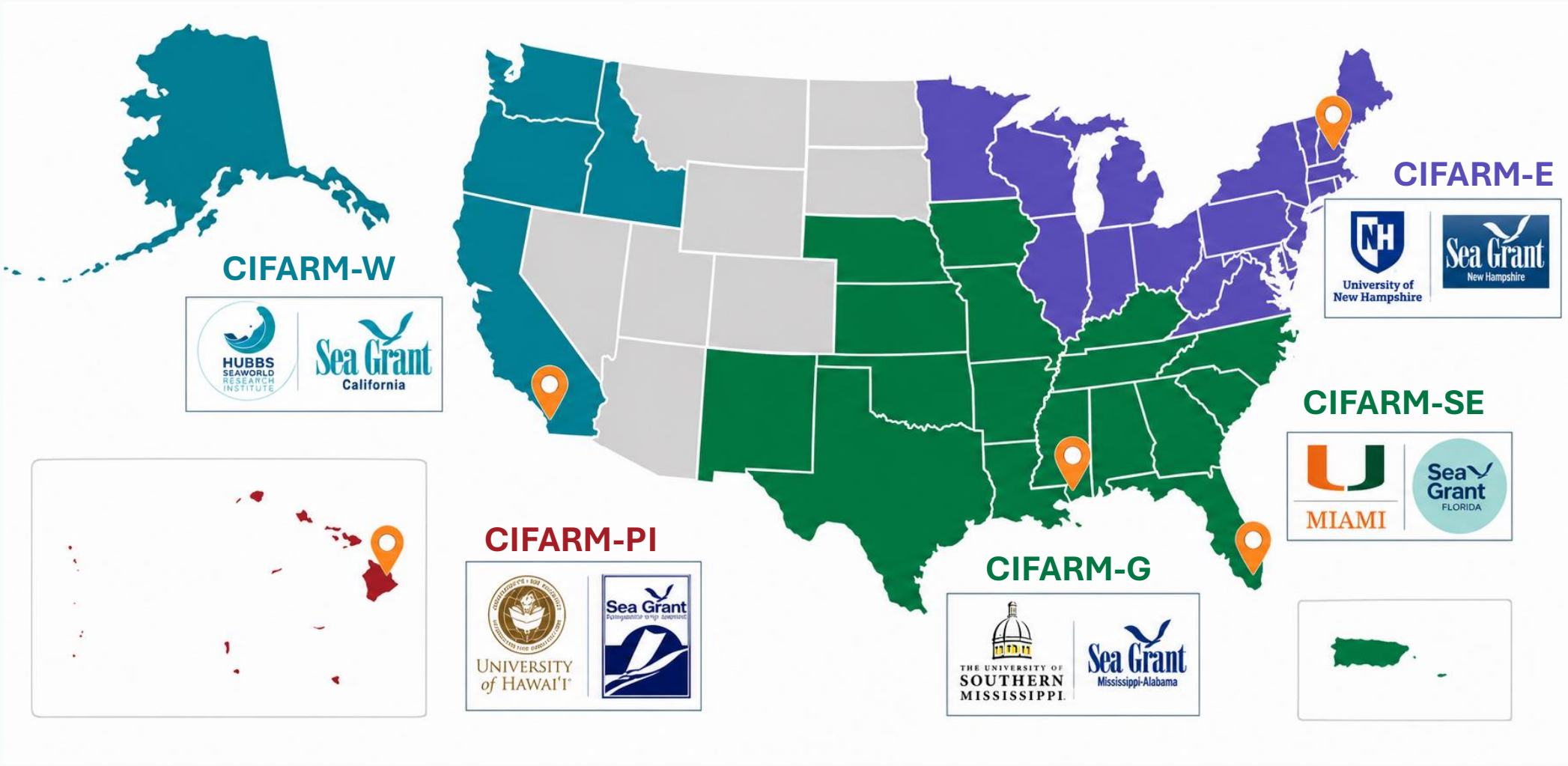
Mark Drawbridge, HSWRI
Mike Rust, HSWRI
Luke Gardner, CSG

Strategic Planning, Economics and Marketing, Aquaculture Permitting Tools, Test Bed Facilities, and Workforce Development

Partner institutes and Sea Grant programs

University of New Hampshire Sea Grant New Hampshire → HUBBS SEAWORLD RESEARCH INSTITUTE Sea Grant California | MIAMI Sea Grant FLORIDA | THE UNIVERSITY OF SOUTHERN MISSISSIPPI Sea Grant Mississippi-Alabama | UNIVERSITY of HAWAI'I Sea Grant

One national network, five regional CIFARMs



Regional structure more or less follows NOAA Fisheries regional geography and partner capacity.*

What is a Cooperative Institute?

A NOAA Cooperative Institute is a long-term mission partnership - not simply a stand-alone grant.

Cooperative Institute

A long-term NOAA Fisheries mission partnership that combines:

Institute Research capacity, Education and Facilities with NOAA collaboration

Mission alignment

Research is directly related to NOAA-Fisheries long-term mission needs and NOAA strategic priorities.

Partnership structure

Work is conducted through a cooperative agreement with NOAA scientific and programmatic involvement.

Consortium capacity

A CI may include multiple institutions and coordinates resources across non-government partners.

Education + workforce

CIs support graduate education, postdoctoral scientists, professional training, and student interaction with NOAA.

Adaptive mechanism

CIs give NOAA a flexible pathway for emerging needs and evolving research priorities.

Shared Resources

NOAA gains external capability and reach; partner institutions expand research capacity and facilities.

Example - **Cooperative Institute for Marine, Earth, and Atmospheric Systems (CIMEAS)**
Lead institution: Scripps Institution of Oceanography

If it is not a strait grant, what is CIFARM?

The proposal is a two step process (Cuisine<->Menu->Meal).

- **Step 1 (T1) proposed the people, places and expertise for possible projects that advance CIFARM themes in partnership with NOAA.**
- **Step 2 (T3) is a series of proposals fund the projects.**

NOAA gives us the *Cuisine* –Aquaculture……We prepare a *Menu*……NOAA chooses the *meal*

What NOAA Asked for:

- Marine Aquaculture Demonstration
- Aquaculture Engineering and Technology Development
- Environmental Observations, Modeling, Forecasting and Aquaculture Management
- Risk Management and Vulnerability Assessments
- Seafood Market Analysis
- Education, Outreach and Engagement

Step 1 (T1) Program intent

Provide flexibility for multidisciplinary aquaculture research with NOAA scientists.

Pursue high-performance research supporting NOAA mission goals and strategic plan.

Plan and execute strategic partnerships to maximize impact.

Step 2 (T3) CI project framework

Mostly Task II: ongoing direct collaboration with NOAA scientists; substantial NOAA involvement.

A few Task III: research with minimal NOAA collaboration, including other NOAA competitive programs.

CIFARM is intended to create usable regional capacity - not just bunch of isolated research projects.

Source: NOAA-NMFS-CIPO-2026-33582 CIFARM NOFO.

Basic CIFARM Framework for Funding

- Five-year program with option to renew for an additional five years
- Current level of appropriations = $5 million per year
- $300 million ceiling for first five years (for potential growth)
  - Growth from Congress or other Agencies
  - General (e.g. aquaculture) or specific (e.g. oysters) purposes
- T3 Proposals for 1-5 year projects possible on a rolling basis (not programmed) pending funding and based on priorities

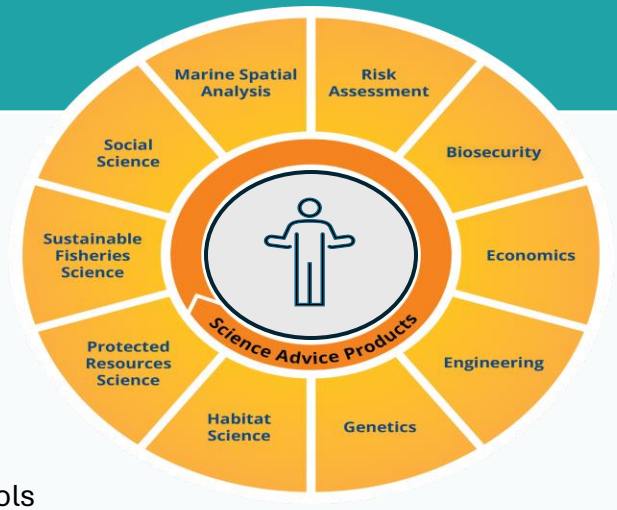
Activity Groups for the first T3 proposal covering three years of CIFARM

Infrastructure + Education*

- Management & regional workshops
- Test beds
- Workforce and education

Science Advice

- AI tools & datasets
- Permitting (NEPA)
- Markets and economics
- Engineering and other Science Advice products



Production Technology

- Finfish, Shellfish , Seaweed and IMTA research & production

*Education focus for HSWRI will be on K-14 and Culinary Schools

Infrastructure + Education

The management backbone, test beds, and workforce pipeline.

Management + strategic planning

Regional workshops, needs assessments, advisory input, performance metrics, and coordination across CIFARM regions.

Test beds

Identify or establish facilities for innovation where tools, candidate species, gear, monitoring, training, and production concepts can be tested.

Workforce + education

Use the infrastructure to train students, technicians, producers, agency staff, and extension networks in applied aquaculture skills.

Stakeholder needs → **Regional/Topical work plans** → **Demonstration capacity** → **Trained workforce**

Infrastructure is not just facilities; it is the organized portfolio of projects, people and infrastructure that turns stakeholder priorities into usable outputs.

Science Advice

Turning information into practical, credible decision support for permitting, governance and industry decision making.

AI tools + datasets

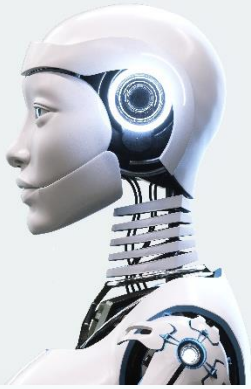
Organize data streams, metadata, workflows, data gaps, and AIAA-ready knowledge products.

Markets + economics

Evaluate species, products, price, supply chain, economic feasibility, and investment logic.

Engineering + permitting

Provide science support for offshore engineering, siting, environmental review, and permitting tools.

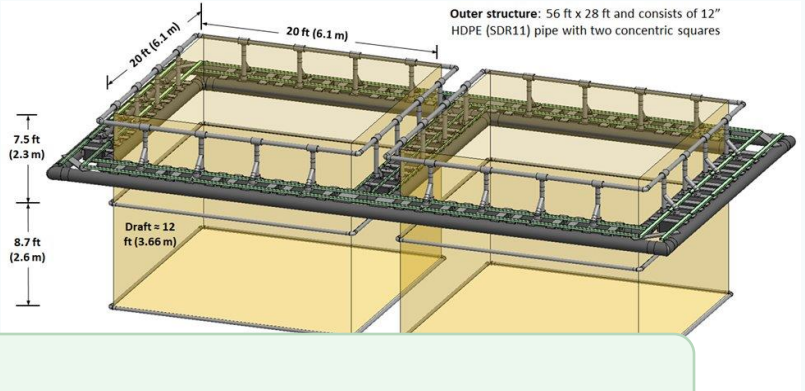


Human in the loop ⟷ Artificial Intelligent Aquaculture Agent (AIAA)

Science Advice products can be regional or national: technical reports, assessment frameworks, data products, model inputs, market/economic summaries, standards, recommendations, and decision-support tools.

Production Technology

Research, Test bedding and Demonstration



Finfish, Shellfish, Seaweeds and IMTA

- Genetics
- Nutrition
- Disease
- Applied Physiology
  - Non-reproductive organisms
  - Bioenergetics

All life stages

- Broodstock
- Hatchery/Nursery
- Grow-out
- Marketing
- Pilot to commercial scale
- Aquafort as a model with replicates in each region

Shared success criteria: commercially relevant data, reproducible methods, credible environmental performance, workforce training value, improved advice and clear pathways to adoption.

What stakeholders can get from CIFARM

Producers

Market information, test-bed access, production methods, environmental data, workforce support, improved permitting efficiencies

Agencies

Best available science, permitting tools, risk frameworks, engineering standards, review-ready products

Seafood sector

Candidate species assessment, buyer feedback, supply-chain analyses, product quality information

Communities + Tribes

Transparent engagement, local priorities, training pathways, social/economic context

Researchers

Shared datasets, working groups, field sites, methods coordination, NOAA engagement

Students + workforce

Internships, hands-on training, regional career pathways, applied skills

Why did UNH want to include HSWRI?

- Extensive track record of success
- Long history of being a quality collaborator
- Unique facilities on land and at sea
- …and it’s the People







CIFARM-W in the first year

1 Listen

Needs assessments, workshops, advisory input

2 Organize

Regional plans, working groups, shared milestones

3 Build

Test beds, datasets, training capacity

4 Advise

Economics, permitting, engineering, siting, risk

5 Demonstrate

Finfish, shellfish, seaweed, IMTA production technology

6 Transfer

Reports, tools, workforce programs, stakeholder outreach

CIFARM-W activities will expand from SoCal as needs assessments and regional plans are conducted starting in Year 1

Questions?


University of New Hampshire
MIAMI
THE UNIVERSITY OF SOUTHERN MISSISSIPPI
HUBBS SEAWORLD RESEARCH INSTITUTE
UNIVERSITY of HAWAI'I
Sea Grant New Hampshire
Sea Grant FLORIDA
Sea Grant Mississippi-Alabama
Sea Grant California
Sea Grant UNIVERSITY OF HAWAII


NOAA
NOAA FISHERIES

EXTRA SLIDES FOLLOW FOR QUESTIONS

AQUACULTURE INFORMATION EXCHANGE

The collaboration platform for CIFARM working groups and communities of practice.

Open communities of practice

Broad communication, training, knowledge sharing, emerging needs, and stakeholder engagement.

And

Formal working groups

Defined charge, Terms of Reference, chair, membership, milestones, products, and reporting.

AI-ready secretariat functions

Meeting summaries, action-item tracking, document retrieval, portfolio reporting, and cross-activity synthesis.

Management dashboard

Common backend reporting for outputs, decisions, timelines, milestones, and standardized performance metrics.

AIE is where regional work becomes a coordinated national portfolio.

Artificial Intelligence Aquaculture Agent

Previous Science Advice Docs

AI ready new science

Domain Specific Training Data

Other TBD

\+

Generative Pre-Trained Transformer

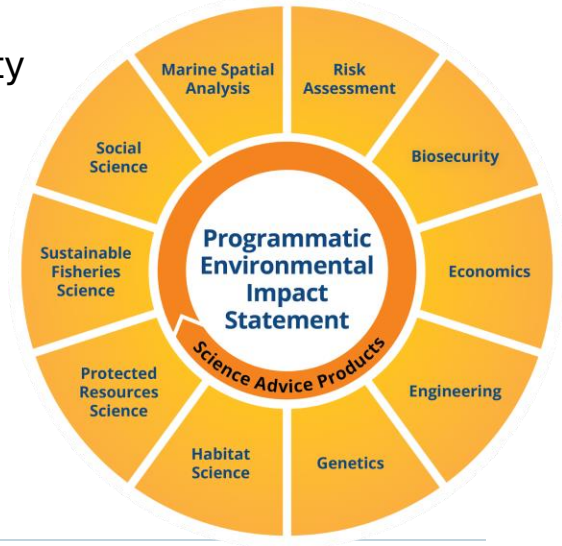
Draft documents

Human Review

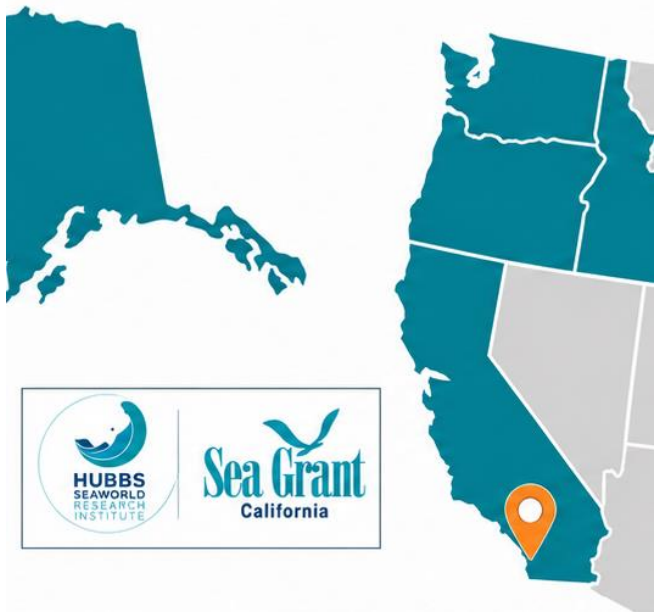
Final Document

CIFARM-W (Initial activities and outcomes)

- ***Activity 1: CIFARM Management and Regional Center Workshops for Strategic Planning***
  - Needs assessment and strategic planning – coordinating with WRAC, Industry groups (e.g. PCSGA), Agencies (e.g. OPC)
  - Establish priority working groups
- ***Activity 2: Market Assessment and Economic Feasibility of Candidate Marine Species***
  - Coordination of national and regional CIFARM A2 activities
  - Production data for west coast species for use in economic assessments
- ***Activity 3: Aquaculture NEPA Tool/Dataset Development and Application***
  - Establish AIAA and human roles on information quality
- ***Activity 4: Establish/identify Test Bed(s)***
  - Enlist existing regional facilities
  - AquaFort to AOA efforts.



CIFARM-W (Initial activities and outcomes - Continued)



- ***Activity 5: Finfish Research and Production***
  - Sterile Seed
- ***Activity 6: Workforce and Education Programs***
  - Technical Colleges
  - Culinary Programs
- ***Activity 7: Science Support for Offshore Permitting***
  - Habitat value of offshore structures
- ***Activity 8: Shellfish and IMTA Research and Production***
  - West Coast IMTA – land to sea
  - Shellfish industry priorities
  - Seaweed industry priorities

CIFARM recap:

Use this as a transition or summary for regional stakeholder versions.

1. CI platform

A NOAA Cooperative Institute provides a long-term partnership mechanism with substantial NOAA involvement.

→

2. NOAA ask

CIFARM responds to the NOFO with multi-year Task II/III projects tied to NOAA goals.

→

3. Regional network

Five regional CIFARMs surface stakeholder needs and adapt solutions to local production, policy, and workforce conditions.

4. Three functional pillars

Infrastructure + Education; Science Advice; Production Technology.

→

5. AIE working groups

Virtual groups use Terms of Reference, defined outputs, timelines, membership, and reporting discipline.

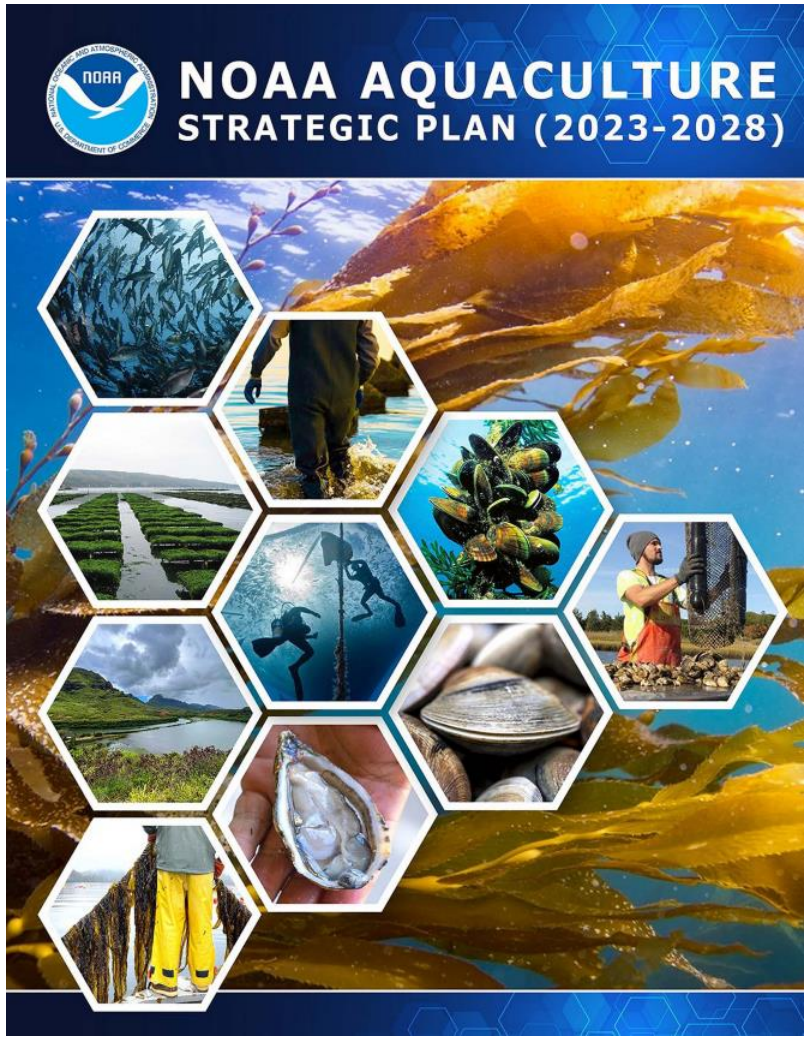
→

6. Stakeholder value

CIFARM turns regional needs into test beds, tools, training, production methods, and decision support.

Working message: CIFARM converts regional priorities into coordinated science, technology, training, and adoption pathways.

Cooperative Institute Fostering Aquaculture Research and Marketing - CIFARM



NOAA Aquaculture Program

These organizations partner across NOAA to advance sustainable aquaculture in the United States through policy, outreach, science, research, grants, and extension.

NOAA Fisheries

- Office of Aquaculture
- Regional Offices
- Science Centers

National Ocean Service

- National Centers for Coastal Ocean Science

Oceanic & Atmospheric Research

- National Sea Grant College Program

Cooperative Institute Fostering Aquaculture Research and Marketing - CIFARM

1. Provide a long-term institutional relationship between NOAA and external academic partners to support research directly linked to NOAA's mission, particularly where NOAA has insufficient internal capabilities or capacity.

2. Support graduate education and professional scientific training of a workforce well-versed in NOAA disciplines and provide opportunities for students to interact with NOAA scientists.

3. Promote strong collaborations between NOAA and academic scientists, particularly when groups of CI and NOAA scientists are needed.

4. Provide a mechanism for allowing external partners to address emerging needs and evolving NOAA research priorities.

5. Competitively established with institutions with outstanding national and international expertise in NOAA-relevant disciplines.

6. Promote long-term relationships at the highest level between university administrators and NOAA leadership.

Cooperative Institute Fostering Aquaculture Research and Marketing - CIFARM

NOAA FISHERIES

ALASKA

Alaska Fisheries Science Center

Alaska Fisheries Science Center
7600 Sand Point Way N.E., Building 4
Seattle, WA 98115

Office: (206) 526-4000
Email: afsc.webmaster@noaa.gov
Fax: (206) 526-4004

NEW ENGLAND/MID-ATLANTIC

Northeast Fisheries Science Center Contact Information

Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543

Office: (508) 495-2000

PACIFIC ISLANDS

Pacific Islands Fisheries Science Center

Pacific Islands Fisheries Science Center
1845 Wasp Boulevard
Building 176
Honolulu, HI 96818

SOUTHEAST

Southeast Fisheries Science Center

75 Virginia Beach Drive
Miami, FL 33149

Office: (305) 361-4200
Email: sefsc.webmaster@noaa.gov
Fax: (305) 361-4499

WEST COAST

Northwest Fisheries Science Center

Northwest Fisheries Science Center
2725 Montlake Blvd. East
Seattle, WA 98112

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WEST COAST

Southwest Fisheries Science Center

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La Jolla, CA 92037-1508

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CIFARM Research Themes

(1) Marine Aquaculture Demonstration

a) Pilot projects and Offshore Test Beds
b) NOAA Aquaculture Opportunity Areas
c) Best Practices for Open Ocean Aquaculture

(2) Aquaculture Engineering and Technology Development

a) Engineering and Gear Innovations
b) Engineering to minimize Protected Species Interactions
c) Accelerated Technology Development and Transfer

(3) Environmental Observations, Modeling, Forecasting, and Aquaculture Management

a) Standardize Environmental and Cultural Resource Surveys
b) Technology and frameworks for cost-effective environmental compliance monitoring
c) Tools for farm management

(4) Risk Management and Vulnerability Assessment

a) Disease Prevention and Biosecurity Measures
b) Economic Strength Analysis
c) Environmental Risk Assessment and Modeling
d) Risk Assessment for Investment and Insurance
e) Increasing Profitability through Risk Reduction

(5) Seafood Markets

a) Market Research and Economic Analysis
b) Market Strength and Business Planning
c) Market Access and Waterfront Infrastructure
d) Community Integration and Market Acceptance

Proposed "broad based" Activities

A1: CIFARM Management and Regional Workshops for Strategic Planning.

A2: Market Assessment and Economic Feasibility of Candidate Marine Species.

A3: Aquaculture AI Tool/Dataset Development and Application.

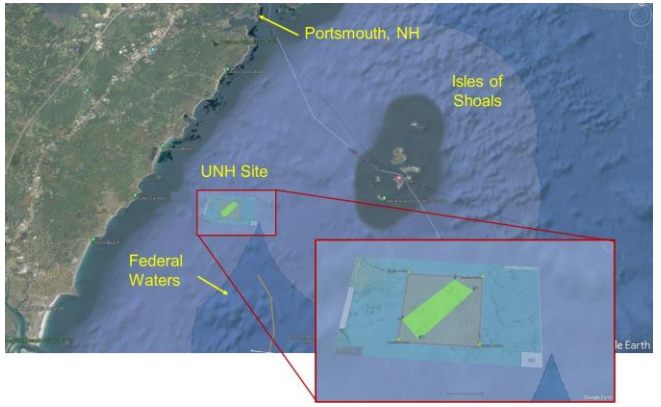
A4: Establish/Identify Test Beds.

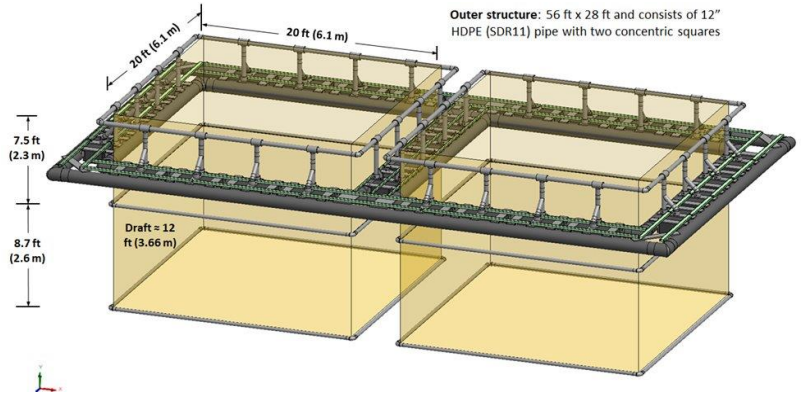
A5: Finfish Research and Production.

A6: Workforce and Education Programs.

A7: Science Support for Offshore Engineering and Permitting.

A8: Shellfish and IMTA Research and Production.


Portsmouth, NH
Isles of Shoals
UNH Site
Federal Waters


Outer structure: 56 ft x 28 ft and consists of 12" HDPE (SDR11) pipe with two concentric squares
20 ft (6.1 m)
20 ft (6.1 m)
7.5 ft (2.3 m)
8.7 ft (2.6 m)
Draft ≈ 12 ft (3.66 m)

University of New Hampshire
School of Marine Science and Ocean Engineering
Center for Sustainable Seafood Systems

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

UNIVERSITY of HAWAI'I HILO

HUBBS SEAWORLD RESEARCH INSTITUTE

Sea Grant New Hampshire

Sea Grant UNIVERSITY OF HAWAI'I

Sea Grant California

HUBBS SEAWORLD RESEARCH INSTITUTE | Sea Grant California

Sea Grant Mississippi-Alabama

Cooperative Institute Fostering Aquaculture Research and Marketing - CIFARM

NOAA FISHERIES

University of New Hampshire
School of Marine Science and Ocean Engineering

Center for Sustainable Seafood Systems

UNIVERSITY OF MIAMI
ROSENSTIEL SCHOOL of MARINE, ATMOSPHERIC & EARTH SCIENCE

AQUACULTURE

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

School of Ocean Science and Engineering

Thad Cochran Marine Aquaculture Center

UNIVERSITY of HAWAI'I

HAWAI'I PACIFIC UNIVERSITY
Oceanic Institute

HUBBS SEAWORLD RESEARCH INSTITUTE

Sea Grant New Hampshire

Sea Grant FLORIDA

Sea Grant Mississippi-Alabama

Sea Grant UNIVERSITY OF HAWAI'I

Sea Grant California

Q4 Corporate and Government Relations Committee Highlights

- NOAA announced the Cooperative Institute Fostering Aquaculture Research and Marketing
- HSWRI provided comments to the Ocean Protection Council regarding its Aquaculture Action Plan
- Michael King also provided comments
- NOAA Office of Protected Resources sent our Florida team an acknowledgement for their work in helping with stranded marine mammals
- The FL lab's appropriation proposal for State funding FY27 for a IRL seatrout replenishment program and lab upgrades was line-item vetoed by the governor before the budget was approved.
- The Marine Aquaculture Research for America (MARA) Act is in Committee for review

HUBBS SEAWORLD RESEARCH INSTITUTE

THRIVING OCEANS
FOR A HEALTHIER WORLD

June 15, 2026

Mr. Eric Sklar President,
California Fish and Game Commission
COPCpublic@resources.ca.gov

Re: Statewide Marine Aquaculture Action Plan

President Sklar and Members of the Commission:

I am writing on behalf of the Hubbs-SeaWorld Research Institute regarding the proposed **Statewide Marine Aquaculture Action Plan** scheduled for your consideration.

At the outset, I would like to acknowledge the significant effort undertaken by the Ocean Protection Council and participating agencies to improve coordination, permitting transparency, environmental oversight, and long-term planning for marine aquaculture in California. Many of the proposed actions, including development of a consolidated permitting process, standardized monitoring frameworks, aquaculture science planning, and pilot-scale permitting, are constructive and deserve support.

However, I am deeply concerned that the Action Plan, while presented as a framework for marine aquaculture development, effectively eliminates consideration of marine finfish aquaculture in California state waters without the best available scientific research being fully evaluated and before meaningful demonstration projects have been allowed to occur.

The Plan defines marine aquaculture in state waters as the cultivation of shellfish and seaweed while limiting finfish culture to land-based systems. In practice, this establishes a policy outcome that excludes marine finfish farming from future consideration regardless of the present advances in technology, siting methodologies, environmental monitoring, or adaptive management could demonstrate acceptable environmental performance.

This approach is inconsistent with the stated principles of science-based decision making that underlie the Action Plan itself.

The environmental concerns commonly cited regarding marine finfish aquaculture, such as nutrient enrichment, disease transmission, effects of escapes of wild fish, habitat impacts, and interactions with wildlife are legitimate issues requiring careful evaluation. However, they are not unresolved questions. They have been the subject of extensive scientific investigation over several decades throughout North America, Europe, Australia, and New Zealand. Modern regulatory frameworks,

engineering standards, site-selection methodologies, vaccination programs, monitoring protocols, and adaptive management approaches have been developed specifically to address these concerns.

The scientific literature increasingly demonstrates that environmental performance depends less on the type of species being cultured and more on how, where, and under what conditions aquaculture is conducted. A categorical exclusion of marine finfish aquaculture therefore represents a policy judgment rather than a scientific conclusion.

California imports the overwhelming majority of the seafood consumed by its residents, including substantial quantities of farmed finfish produced under environmental and regulatory standards over which California has little influence. Refusing to investigate whether marine finfish aquaculture can be conducted sustainably in California waters does not eliminate demand for farmed seafood. It simply exports production, jobs, economic benefits, and environmental accountability to other jurisdictions.

The Commission should instead adopt a science-based pathway for evaluation.

Notably, the Action Plan itself recognizes the importance of adaptive management, pilot-scale aquaculture permits, scientific research, monitoring, and the development of an Aquaculture Science Plan. It specifically proposes evaluating a Pilot-Scale Aquaculture Permit Program to test new species, technologies, and farming practices while generating data to inform future decision making.

That concept should be expanded to include marine finfish aquaculture.

Rather than precluding marine finfish farming, California should establish a carefully controlled demonstration program modeled after approaches currently being discussed at the federal level through the **Marine Aquaculture Research for America** (MARA) Act framework. Such a program would authorize a limited number of commercial-scale demonstration projects operating under rigorous scientific oversight and transparent public reporting.

These projects should be designed specifically to answer the questions that remain most relevant to California policymakers, including:

- Water quality effects;
- Benthic impacts;
- Fish health and disease management;
- Escape prevention and genetic risk;
- Wildlife interactions;
- Greenhouse gas emissions;

- Seafood production efficiency;
- Socio-economic impacts on coastal communities;
- Effects on commercial and recreational fisheries; and
- Overall ecosystem performance.

Such projects should include independent scientific review, continuous environmental monitoring, adaptive management requirements, and predefined performance thresholds that would trigger corrective actions if necessary.

This is how science-based regulation is supposed to work.

If California genuinely wishes to be guided by the best available science, then it should create opportunities to generate that science under California conditions rather than prohibit investigation of the question altogether.

The Action Plan repeatedly emphasizes adaptive management, scientific evaluation, and evidence-based governance. Those principles are difficult to reconcile with a framework that effectively removes marine finfish aquaculture from consideration before demonstration projects have been allowed to establish whether environmental impacts can be avoided, minimized, or mitigated.

California has historically been a leader in environmental innovation. Leadership does not mean refusing to evaluate emerging technologies. Leadership means establishing rigorous standards, demanding transparent scientific evidence, and allowing facts, not assumptions, to guide public policy.

I therefore respectfully urge the Commission to recommend modifications to the Statewide Marine Aquaculture Action Plan that:

1. Removes language that effectively forecloses consideration of marine finfish aquaculture in state waters.
2. Direct development of a science-based marine finfish demonstration program under intensive environmental oversight.
3. Incorporate marine finfish aquaculture into the proposed Aquaculture Science Plan.
4. Work with industry experts to use Marine Spatial Planning tools to assess areas where different forms of marine aquaculture (i.e., seaweed, shellfish and finfish) are most appropriate.
5. Utilize pilot-scale and commercial-scale demonstration projects to generate California-specific environmental and socioeconomic data.
6. Require transparent public reporting and independent scientific review of demonstration projects.
7. Finalize the draft Programmatic EIR that was mandated by law over 16 years ago by developing a collaborative group of marine farming industry and

research experts to work with a qualified environmental engineering consulting firm.

8. Allow future policy decisions regarding marine finfish aquaculture to be based on measurable outcomes rather than assumptions regarding potential impacts.

California should not decide the future of marine finfish aquaculture before the appropriate research has been conducted. Instead, California should become the place where that research is performed under the most rigorous environmental standards in the world.

Thank you for your consideration.

Sincerely,

Donald B. Kent
President/CEO
Hubbs-SeaWorld Research Institute

cc: Senator Mike McGuire, Chair, and Assemblymember Diane Papan, Vice Chair, Joint Committee on Fisheries and Aquaculture.
California Aquaculture Development Committee

May 13, 2026

Secretary Wade Crowfoot, Chair, and Members of the Ocean Protection Council

Re: Comments on California Aquaculture Action Plan

Dear Secretary Crowfoot and OPC Members:

Thank you for the opportunity to provide comments on the proposed framework for aquaculture development in California. My name is Michael King and I am writing on behalf of King's Seafood Company – more about our company below. We write to emphasize that **public sentiment, scientific evidence, and global food system realities all support the responsible expansion of aquaculture,** including finfish, shellfish, and seaweed, as a critical component of California's environmental and economic future. While we respect the intent to protect marine ecosystems, a categorical ban on finfish farming in State waters is not supported by the best available science, is inconsistent with California's environmental leadership, and ignores both global food system realities and the State's own policy objectives.

King's Seafood Company is a family-owned and operated restaurant and seafood distribution company based in Costa Mesa, California, with restaurants in California, Nevada, Arizona, Colorado and Washington. The company's restaurants include six unique restaurant brands across the five states in 23 locations: King's Fish House (12), Water Grill (7), Pier Burger and three steakhouses (555 East, Lou & Mickey's and Meat On Ocean). All offer iconic dining experiences in great locations with menus that change daily. King's Seafood Company was founded by cousins Sam King and Jeff King in 1984. Sam and Jeff followed in the footsteps of their fathers who began operating restaurants in Los Angeles in 1945. Based in Southern California, the company is committed to the community, leveraging over 80 years of strong relationships to source from local seafood providers. Stewards of the ocean and dedicated to our Guests, we exclusively handpick, cut and supply the highest quality product available to our own restaurants through our own distribution company, King's Seafood Distribution. Out of our 23 restaurants, 18 are located here in California and, as you can see, responsibly sourced seafood is important to us – whether it is wild or a product of aquaculture.

Public Support for Aquaculture in California

Recent findings from a California aquaculture attitudes survey[1] finds that opposition to aquaculture is limited to a small minority of respondents. Specifically:

- Approximately 66% of respondents support or strongly support aquaculture development in California

[1] U.S. Pacific Region Residents' Awareness of and Attitudes Toward Aquaculture

- About 22% neither support nor oppose aquaculture
- Only 6% expressed opposition or concern about its appropriateness

This indicates that the **vast majority of Californians recognize aquaculture as appropriate and beneficial when conducted responsibly**. Public policy should reflect this broad support.

Aquaculture as the Most Environmentally Efficient Animal Protein

A substantial body of scientific literature demonstrates that aquaculture is among the most environmentally efficient forms of animal protein production.

The *Blue Frontiers* report[2] shows that:

- Aquaculture systems are **more resource-efficient than terrestrial livestock**, particularly in feed conversion, land use, and emissions
- Producing fish protein requires **far less feed than any terrestrially farmed source of animal protein**
- Aquaculture generates **lower nutrient pollution and greenhouse gas emissions per unit of protein** than beef and pork
- Aquaculture can **reduce pressure on wild fisheries by meeting growing seafood demand**, is far more adaptable to climate change than wild fish harvest and minimizes adverse interactions with protected resources

The report concludes that aquaculture has **clear environmental advantages over other animal protein systems**.

Global Demand Requires Expansion of Aquaculture

The FAO's *State of World Fisheries and Aquaculture 2020*[3] makes clear that aquaculture must expand to meet global demand:

- Aquaculture already supplies **46% of total fish production and over half of fish consumed by humans**
- Global production reached **~179 million tonnes**, with demand continuing to grow
- Fish provides **20% of animal protein for more than 3.3 billion people**
- Wild fisheries have plateaued, meaning **future supply must come from aquaculture**

In short, aquaculture is not optional, it is essential.

The Case for Including Finfish Alongside Shellfish and Seaweed

The American Fisheries Society Policy on Aquaculture[4] supports the expansion of finfish aquaculture as a necessary and sustainable way to meet growing seafood demand, particularly given the limits of wild capture fisheries and increasing pressures from climate change. AFS advocates for a clear, consistent regulatory framework and continued investment in research and innovation to ensure

[2] http://www.worldfishcenter.org/global_aquaculture/
[3] https://doi.org/10.4060/ca9229en
[4] https://fisheries.org/2020/07/american-fisheries-society-position-on-aquaculture/

aquaculture development minimizes environmental and social impacts. AFS emphasizes that responsible aquaculture and healthy wild fisheries can coexist, strengthening domestic seafood production while reducing reliance on imports.

While shellfish and seaweed aquaculture are widely recognized for their environmental benefits, **finfish aquaculture must also be included as part of California's strategy**.

Finfish already represent a major component of seafood consumed in California and the United States, and **are extensively imported from global aquaculture operations**. As such:

- Finfish consumption is already **socially accepted and embedded in the market**
- The key policy question is not whether finfish aquaculture should exist, but **where and how it is produced**

By developing **domestic finfish aquaculture under California's stringent environmental and public health standards**, the State can:

- Ensure **its environmental and health standards are used**
- Improve **traceability, food safety, and labor standards**
- Reduce the **carbon footprint associated with international transport**
- Support **local economic development, working waterfronts and food resilience**

Addressing Concerns Through Proven Mitigation Measures

We recognize that aquaculture development raises some environmental concerns. However, an extensive review of the peer-reviewed scientific literature[5] reports that these concerns are **well understood and can be effectively mitigated through modern practices and regulatory oversight**.

Key concerns and corresponding mitigation strategies include:

1. Water Quality and Nutrient Impacts

- Implementation of **site-specific carrying capacity analyses**
- Use of **advanced feeds and feeding practices** to minimize waste
- Regular **water quality monitoring and adaptive management**

2. Benthic and Habitat Effects

- Careful **site selection away from sensitive habitats**
- **Fallowing practices and rotational use** of sites
- Ongoing **benthic monitoring programs**

3. Escapes and Genetic Interaction

- Use of **robust containment systems and engineering standards**

[5] https://doi.org/10.1080/23308249.2021.1980767

- Use of recently developed population models that assess impacts of escapements on wild population genetic variability
- Deployment of **sterile or non-reproductive stocks where appropriate**
- Emergency response protocols

4. Disease and Biosecurity

- Strict **biosecurity protocols and health management plans**
- Reduced reliance on antibiotics through **best management practices and vaccination**
- Adhering to existing water quality and FDA regulations governing the use of therapeutic treatments
- Monitoring aligned with state and federal health standards

5. Feed Sustainability

- Continued transition toward **alternative feeds** reducing reliance on wild fish inputs
- Innovation in **plant- and algae-based feed ingredients**

These mitigation strategies are already widely used in leading aquaculture regions and can be **codified into California's regulatory framework to ensure high performance and accountability**.

The Need for a Clear, Coordinated Regulatory Pathway

One of the most significant barriers to aquaculture development in California is not environmental feasibility, but **regulatory fragmentation and uncertainty**.

We strongly recommend establishing a **coordinated, concurrent permitting framework** in which:

- All relevant agencies (e.g., Coastal Commission, State Lands Commission, Regional Water Boards, CDFW, NOAA, USACE) **work in parallel rather than sequentially**
- Applicants can pursue permits through a **single, structured process with clear timelines**
- Regulatory requirements are **consistent, transparent, and science-based**
- Monitoring and compliance standards are **clearly defined upfront and uniformly enforced**

A streamlined process does not mean reduced rigor, but rather **greater efficiency, predictability, and accountability**, benefiting both regulators and applicants.

Conclusion

Consistent with its history of environmental stewardship, innovative technology development and food production supremacy, California has an opportunity to lead in developing a **modern, science-based aquaculture sector** that aligns with public support, environmental sustainability, and global food system needs. California should not defer its environmental responsibilities to other nations. We should lead by demonstrating that marine aquaculture can be conducted sustainably, transparently, and responsibly under the most rigorous standards in the world. If aquaculture is to play the essential role that science and global food systems demand, California must play a central role in shaping its future.

It is in the nature of this State to lead and to innovate—not to retreat.

To do so, the State should:

- Recognize and act on **strong public support for aquaculture**
- Establish a **coordinated, concurrent permitting framework** across agencies
- Define **clear timelines and performance metrics** for permit review
- Implement a **centralized permitting pathway**
- Advance **pilot-scale aquaculture programs** on a near-term basis
- Strengthen the **formal advisory role of the Aquaculture Development Committee**
- Ensure **monitoring and accountability standards are defined upfront**
- Work with industry experts from the Aquaculture Development Committee contract with the National Ocean Service to undertake **Marine Spatial Planning of California coastal waters** to ascertain what types of aquaculture could be conducted in which areas and where it should not occur
- Complete development and approval of the legislatively **mandated Programmatic Environmental Impact Report**
- Embrace aquaculture as a **highly sustainable protein source**
- Support development across **finfish, shellfish, and seaweed systems**

By taking these steps, California can ensure that aquaculture development occurs **responsibly, transparently, and in alignment with the State's environmental leadership goals**.

Thank you for the opportunity to provide comments.

cc: Aquaculture Development Committee
Fish and Game Commission
GoBiz
Joint Committee on Fisheries and Aquaculture

Regards,

Michael King
Vice President of Development
King's Seafood Company

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
1315 East-West Highway
Silver Spring, Maryland 20910

June 8, 2026

Mr. Donald Kent
President/CEO
Hubbs-SeaWorld Research Institute
2595 Ingraham Street
San Diego, CA 92109

Dear U.S. Atlantic Stranding Network Large Whale Responders,

NOAA Fisheries launched the *Species in the Spotlight* initiative in 2015 as a strategic approach to endangered species recovery. Through this initiative, we have been able to focus efforts and resources on species at high risk of extinction and for which immediate, targeted actions can be taken to halt their decline and stabilize their populations. We know we cannot do this work alone: partnerships are essential to endangered species conservation and recovery. In 2017, we started the *Partner in the Spotlight* award to recognize the exceptional efforts of our partners who have gone above and beyond to advance the recovery of these highly endangered species.

We are pleased to recognize the U.S. Atlantic Stranding Network Large Whale Responders as our 2025 *Partner in the Spotlight* for your contributions to the recovery of North Atlantic right whales. The U.S. Atlantic Stranding Network Large Whale Responders have been instrumental in fostering collaborative efforts that support key conservation needs identified in the *Species in the Spotlight* Priority Action Plan.

As a key member of the U.S. Atlantic Stranding Network Large Whale Responders, your organization has continuously assisted NMFS to prioritize response and thorough investigation of reported injured or dead right whales. You have devoted significant time, training, resources, and expertise to ensure an effective response to each incident. The network of large whale responders along the U.S. East Coast currently consists of 29 individual, non-NOAA partner organizations. Your ongoing collaboration with other network partners to train, respond to stranded large whales, collect important health data, and conduct necropsies enhances our ability to maintain readiness with the specialized expertise required to carry out these important investigations. Your efforts to maintain specialized training and 24/7 on-call status, as well as responding to logistically complex cetacean (dolphins, whales, and porpoises) incidents has built response expertise and capacity contributing to thorough and professional right whale stranding responses. The critical data collected is not only used by NOAA, it supports other agencies and

organizations to improve our ability to monitor the species, understand the cumulative impacts of stressors on the population, inform potential mitigation strategies and priorities, and refine conservation initiatives for right whales and other protected species. We are happy to acknowledge all of our Large Whale Stranding Network Members in the U.S. Atlantic for their dedication to right whale welfare and recovery efforts. In particular, HSWRI is a long-standing, dedicated member of the Network who continues to increase their response-readiness in Florida for responding to live and dead large whales. We are grateful for their continued work and willingness to support their partners.

We are honored to present U.S. Atlantic Stranding Network Large Whale Responders with the 2025 *Partner in the Spotlight* award, and we thank you for your continued support and contributions to the recovery of North Atlantic right whales. Your dedication motivates and inspires us, and we look forward to continuing our work together to stabilize and recover protected species.

Sincerely,

Kimberly Damon-Randall
Director, Office of Protected Resources

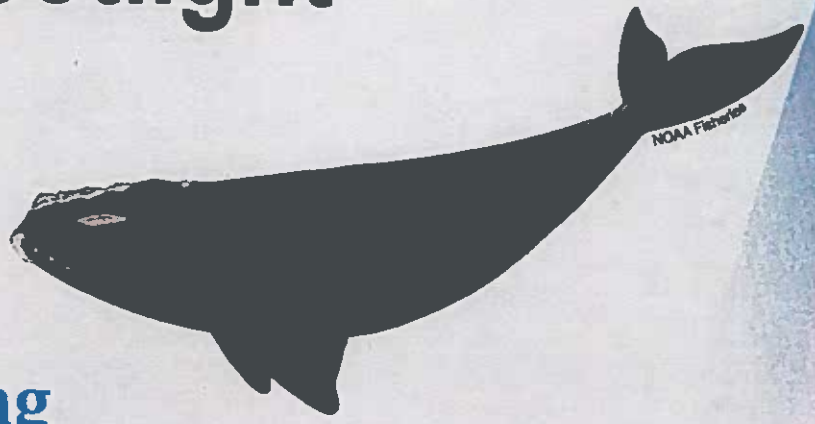
NOAA FISHERIES

SPECIES *in the* SPOTLIGHT

Species in the Spotlight

Partner in the Spotlight

North Atlantic Right Whale



Presented to

U.S. Atlantic Stranding Network Large Whale Responders

For exceptional efforts related to the conservation and recovery of NOAA Fisheries Species in the Spotlight

Samuel D. Rauch III, Deputy Assistant Administrator for Regulatory Programs

March 26, 2026

Date

FY26 Q4
Year-End Financial Committee Report
Full Fiscal Year: July 1, 2025 – June 30, 2026

FY26 Q4
A Tumultuous Year, Stabilized

Financial Highlights — FY2025-26 Full Year

BUDGET-TO-ACTUAL SWING

+$982K

Budgeted ($680K) loss; delivered
$301,683 surplus

CONTRIBUTED SUPPORT

-66.5%

Fell $1.96M vs. FY25 — SeaWorld/Chevron
were part of a broader donor decline

CASH & BANK, YEAR-END

+100.2%

$366K to $732K — cash more than
doubled year-over-year

What Happened

- As of 7/1/25, HSWRI carried administrative headcount not tied to specific funded programs; the indirect cost rate could not absorb the burden, so prepaid/advance program funds covered the resulting salary gap.
- Contributed support (gifts, donations, HFOF) fell year-over-year — SeaWorld (~$500K typical) and Chevron (~$200K typical) not renewing were the two largest named drivers; development brought in only ~$75K, not enough to cover its own cost.
- Management responded with layoffs, $1.3M in prepaid-liability extinguishment, $150K in emergency gap gifts, and a line of credit increased from $300K to $1M — delivering a $301,683 full-year surplus against a budgeted ($680,051) loss.

FY26 Q4
Full-Year P&L — Actual vs. Budget

July 1, 2025 – June 30, 2026 | CFO-confirmed final

Line Item	FY25-26 Actual	FY25-26 Budget	Over/(Under)	% of Budget
Total Income	$6,034,997	$5,915,031	+$119,966	102.0%
Total Expense	$5,834,578	$6,926,082	($1,091,504)	84.2%
Net Ordinary Income	$200,419	($1,011,051)	+$1,211,470	—
Net Other Income (capex addback)	$101,264	$331,000	($229,736)	30.6%
NET INCOME	**$301,683**	**($680,051)**	**+$981,734**	—

The story in one line: the FY26 budget assumed a ($680,051) net loss, built around the known SeaWorld/Chevron shortfall and cost structure heading into the year. Actual results delivered a $301,683 surplus — a $981,734 favorable turnaround, driven primarily by expenses landing 16% under budget (layoffs, leadership pay cuts, right-sizing) while revenue still finished 2% ahead of budget.

Prior year comparison: FY24-25 full fiscal year — Income $6,361,660 / Expense $6,611,716 / Net Income $146,582. FY26 Total Income is down 5.1% year-over-year (see Revenue Mix Shift, next slide) but Net Income is up $155,101 (+105.8%) on expense discipline.

FY26 Q4
Revenue Mix Shift — Donors Out, Programs In

FY2025-26 vs. FY2024-25 | Full Fiscal Year

Revenue Type	FY25-26	FY24-25	$ Change	% Change
Contributed Support (gifts, HFOF, in-kind)	$985K	$2,942K	($1,957K)	-66.5%
Earned Revenue (grants & contracts)	$5,050K	$3,420K	+$1,630K	+47.7%
TOTAL INCOME	**$6,035K**	**$6,362K**	**($327K)**	**-5.1%**

FY26 Contributed Support Mix

- Board Gifts: $225K
- Foundation/Business: $368K
- Individual & Major Gifts: $70K
- HFOF Proceeds: $283K
- Donated Services/In-Kind: $38K

The real story behind the ~$700K SeaWorld/Chevron shortfall: total philanthropic contributed support fell year-over-year — a much larger collapse than the two anchor funders alone. Grant and contract revenue (earned revenue) grew $1,630,000 (+47.7%), largely offsetting the gap and holding Total Income to a 5.1% decline rather than a much deeper shortfall. This is the central strategic question for FY2026-27: philanthropy needs to be rebuilt even as program revenue (CIFARM, Lund) continues to grow.

FY26 Q4
Expense Overview — FY2025-26 vs. FY2024-25

Full Fiscal Year | CFO-confirmed final, both years

HUBBS SEAWORLD RESEARCH INSTITUTE

Category	FY25-26	FY24-25	$ Change	% Change
Salaries & Fringe (net)	$3,470K	$4,029K	($559K)	-13.9%
Equipment & Supplies	$965K	$1,165K	($200K)	-17.2%
Occupancy	$424K	$463K	($39K)	-8.3%
Outside Services	$416K	$291K	+$125K	+43.2%
Travel & Meetings	$35K	$101K	($66K)	-65.6%
All Other (Indirect net / Depreciation / Business)	$525K	$563K	($39K)	-6.9%
TOTAL EXPENSE	**$5,835K**	**$6,612K**	**($777K)**	**-11.8%**

Every major category came down year-over-year except Outside Services, which rose $125K (+43%) on increased consultant and legal support during the restructuring. Salaries & Fringe — still ~59% of total spend — fell $559K (-13.9%) from layoffs and leadership pay cuts. Total Expense finished 11.8% below FY24-25 and 16% under the FY26 budget.

FY26 Q4
Balance Sheet – Final

June 30, 2026 vs. June 30, 2025 | CFO-confirmed final

Line Item	Jun 30, 2026	Jun 30, 2025	$ Change
Checking/Savings	$732,484	$365,947	+$366,537
Accounts Receivable	$1,707,777	$993,255	+$714,522
Other Current Assets	$1,312,771	$1,482,313	($169,542)
Total Current Assets	**$3,753,032**	**$2,841,515**	**+$911,517**
Fixed Assets (net)	$4,478,379	$4,722,148	($243,769)
Other Assets	$12,163	$12,163	$0
TOTAL ASSETS	**$8,243,574**	**$7,575,826**	**+$667,748**
Total Liabilities	$1,141,239	$775,176	+$366,063
Total Equity	**$7,102,335**	**$6,800,651**	**+$301,684**

Ties to the P&L

Equity grew $301,684 — matching confirmed Net Income of $301,683 almost to the dollar.

Cash more than doubled (+100.2%).

Other Current Liabilities rose to $952,098 (from $535,537), consistent with the LOC draw and any remaining prepaid balances — sub-detail not broken out in this summary.

FY26 Q4

Cash Position & Liquidity Bridge

Actions Taken to Sustain Operations Through FY2025-26

HUBBS SEAWORLD RESEARCH INSTITUTE

CASH & BANK, 6/30/26

$732K

vs. $366K a year ago — +100.2%

PREPAID LIABILITY EXTINGUISHED

$1.3M

Via salary-match savings, full fiscal year

EMERGENCY GAP GIFT

$150K

Bill Shedd + Paul Fruchbom, combined

LINE OF CREDIT — INCREASED TO

$1.0M

Raised from $300K during FY26

Liquidity Notes

- Cash & bank accounts more than doubled year-over-year, from $365,947 (6/30/25) to $732,484 (6/30/26) — the clearest single sign that the corrective actions worked.
- The line of credit — opened at $300K and later increased to $1M — provided a cash bridge during the periods when SeaWorld and Chevron support did not materialize and A/R collection lagged; the $1.3M prepaid-liability extinguishment reduced future drawdown risk.
- Other Current Liabilities grew to $952,098 (from $535,537) — consistent with the LOC draw and any remaining prepaid balances. Sub-detail isn't broken out in the current export; worth a follow-up ask if the Committee wants the split.

FY26 Q4

Looking Ahead: FY2026-27 Outlook

From Stabilization to Growth

CIFARM — NOAA Cooperative Institute

HSWRI is a partner institution in the newly established Cooperative Institute Fostering Aquaculture Research and Marketing (CIFARM) — a NOAA cooperative institute with ~$13.5M in initial funding, hosted by the University of New Hampshire alongside partners including the University of Miami and University of Southern Mississippi. Leadership characterizes the cooperative-institute structure as securing a long-term (10-year), non-competed funding relationship.

Lund Family Foundation — $3M One-Time Grant

The Lund Family Foundation has committed a one-time $3,000,000 grant to advance HSWRI's aquaculture initiative — a major forward commitment supporting the organization's science infrastructure.

Florida Appropriation

HSWRI lost a Florida state appropriation this cycle. The underlying Florida program otherwise remains stable and continues operating.

Q4 Development Committee Highlights

- Reminder: No Development staff since January
- Aquaculture branding/messaging
- USD Marketing Strategy
- Financials in the Finance Report
- Social Metrics

Aquaculture Branding Language

Framing the Core Issue

- As a scientific institution, our role is not to avoid complex or controversial topics. It is to apply rigorous science to solve them responsibly.
- Many of the world's most important environmental advances were initially controversial. The question is not whether aquaculture has critics; the question is whether sustainable aquaculture is necessary to feed a growing population while reducing pressure on wild fisheries.
- If responsible scientific institutions step away from aquaculture because it is controversial, the field does not disappear. It simply becomes driven by less science, less transparency, and less conservation oversight.

Aquaculture Branding Language

Science vs. Public Perception

- Public perception often lags behind scientific innovation. Historically, fisheries enhancement, hatcheries, offshore wind, desalination, and even renewable energy all faced significant skepticism before science and best practices matured.
- The existence of controversy is not evidence that the science is unsound. In many cases, controversy reflects the importance and scale of the issue.
- Our responsibility is not to make decisions solely based on what is currently popular. It is to evaluate the best available science, long-term societal need, and where HSWRI can provide credible leadership.
- The real strategic risk may not be engaging in aquaculture, but rather it may be failing to engage while global seafood systems rapidly evolve around us.

Aquaculture Branding Language

Aquaculture as a Necessity, Not an Option

- "Global seafood demand is increasing while many wild fisheries remain fully exploited or stressed. Science-based aquaculture is increasingly viewed internationally as a necessary complement to wild capture fisheries."
- "Virtually every major global food security organization, including NOAA, FAO, USDA, and many leading marine science institutions, recognizes sustainable aquaculture as an essential component of future protein supply."
- "The debate today is no longer whether aquaculture will exist. It already does and will continue to expand globally. The real question is whether institutions like HSWRI help shape it responsibly."

Aquaculture Branding Language

HSWRI's Unique Position

- HSWRI is uniquely positioned to influence what 'good aquaculture' looks like because of our existing expertise in genetics, fish nutrition, ecosystem science, conservation biology, and fisheries enhancement.
- We are not entering aquaculture from a purely commercial perspective. We are approaching it through the lens of stewardship, sustainability, ecosystem health, and applied science.
- An institution with HSWRI's credibility can help distinguish responsible, science-driven aquaculture from poorly managed practices that created much of the controversy in the first place.

Aquaculture Branding Language

Leadership and Strategic Relevance

- Avoiding controversial but important scientific fields can unintentionally marginalize an institution over time. Leadership often requires engaging difficult issues thoughtfully rather than avoiding them.
- The institutions shaping the future of marine science over the next 20 years will likely be those integrating conservation, climate resilience, food security, and sustainable production systems together.
- Aquaculture sits at the nexus of those areas and is precisely where scientific relevance and funding momentum are moving.

Aquaculture Branding Language

A Balanced Position

- Supporting aquaculture does not mean endorsing every aquaculture practice. In fact, HSWRI' role could be to advance the science that improves environmental performance, fish welfare, and ecosystem compatibility.
- The strategic opportunity is not to become advocates for unchecked expansion. The opportunity is to become trusted scientific leaders helping define sustainable standards and evidence-based practices.
- The more complex and publicly debated an issue becomes, the more valuable trusted scientific institutions become.

Strong Closing Statement

- If HSWRI believes sustainable aquaculture can help reduce pressure on wild fisheries, improve food resilience, support coastal economies, and advance ocean stewardship, then the Institute has both an opportunity and arguably a responsibility to contribute scientifically - even if the topic remains politically or socially debated.

Hubbs SeaWorld Research Institute
Draft Strategy Plan
Last updated: July 13, 2026

Goal: Develop a strategic marketing and public outreach program for the proposed Pacific Ocean Fresh offshore yellowtail aquaculture facility.

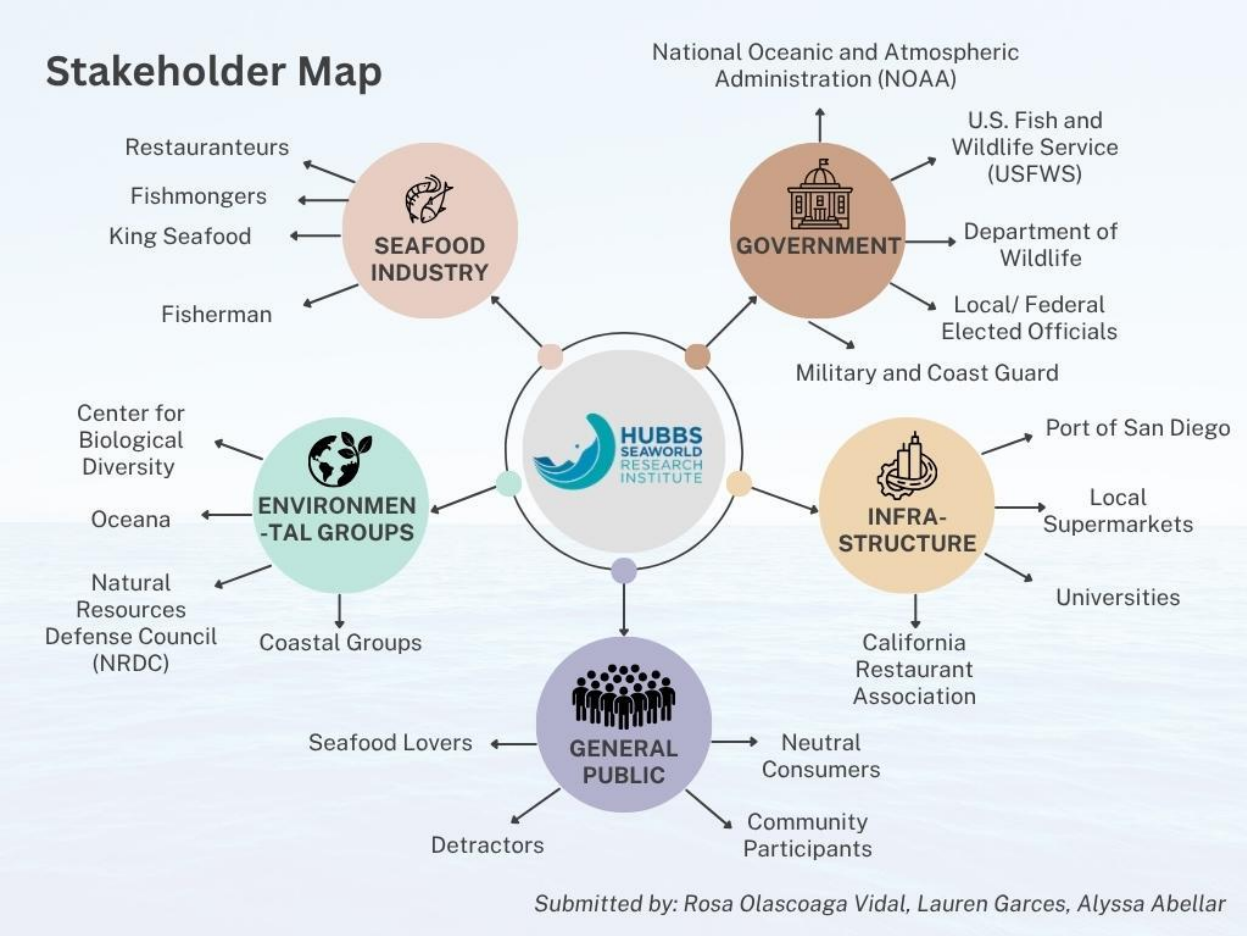
Strategies:

- Focus on staged approach (Steps of growth for validation)
    - Minimize impact on environment and diminishing any negative claims
    - Demonstrate sustainability of approach
    - Planning and Timeline is key
- Foundation for Public Knowledge
    - Real scientists. Real people. Better food.
    - Platforms
        - Website
        - Social Media
        - Influencer Partnerships
    - Emphasizing certifications
        - Aquaculture Stewardship Council (ASC)
    - Showcasing awards + research publications
- Industry/ Government
    - Guided Tours
    - Webinars/ Town Halls
- Public Comment
    - Engaging community activists
    - Engaging industry representatives and partnerships
        - Chefs
        - Purchasers
        - Port of San Diego
    - Online Petitions
- Events
    - Party by the Bay
    - Partnership with Regional Chamber of Commerce
- Media Blitz
    - News Tours
    - Op Eds
    - Twitter Storms
    - Email Campaigns
    - PR Company Recommendations

Hubbs SeaWorld Research Institute
Draft Strategy Plan
Last updated: July 13, 2026

Targets:

- General Public
- Government
- Industry
    - Hospitality and purchasing departments in the tourism and restaurant industry
- Environmental Groups
- Infrastructure
- Media outreach



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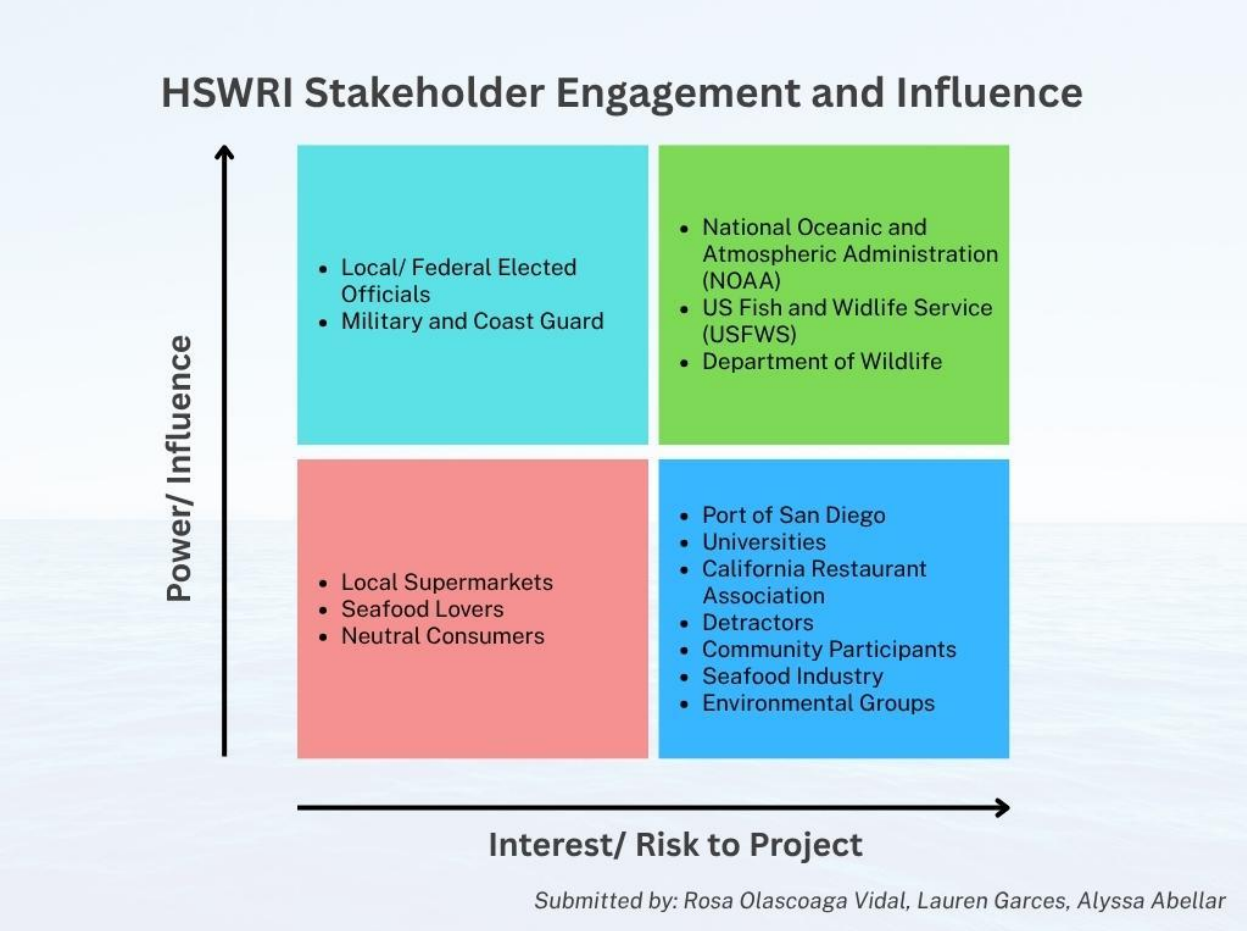


Timeline of Dates: (Timing of when to release things)

Date	What's happening	Organizing goal & strategy	Comms goal & strategy	Status
June 2026	Restart Permitting			
		Pump stories into organic media - Goal of one major publication a month leading to April		
April 2027	DEIS Public Review			

May 2027	DEIS Public Review			
February 2028	FEIS Appeal Period		Focus on videos, data, and science	

Messaging (Crafted for each target audience):

- **Main organizing goal**
- **Values to highlight:**

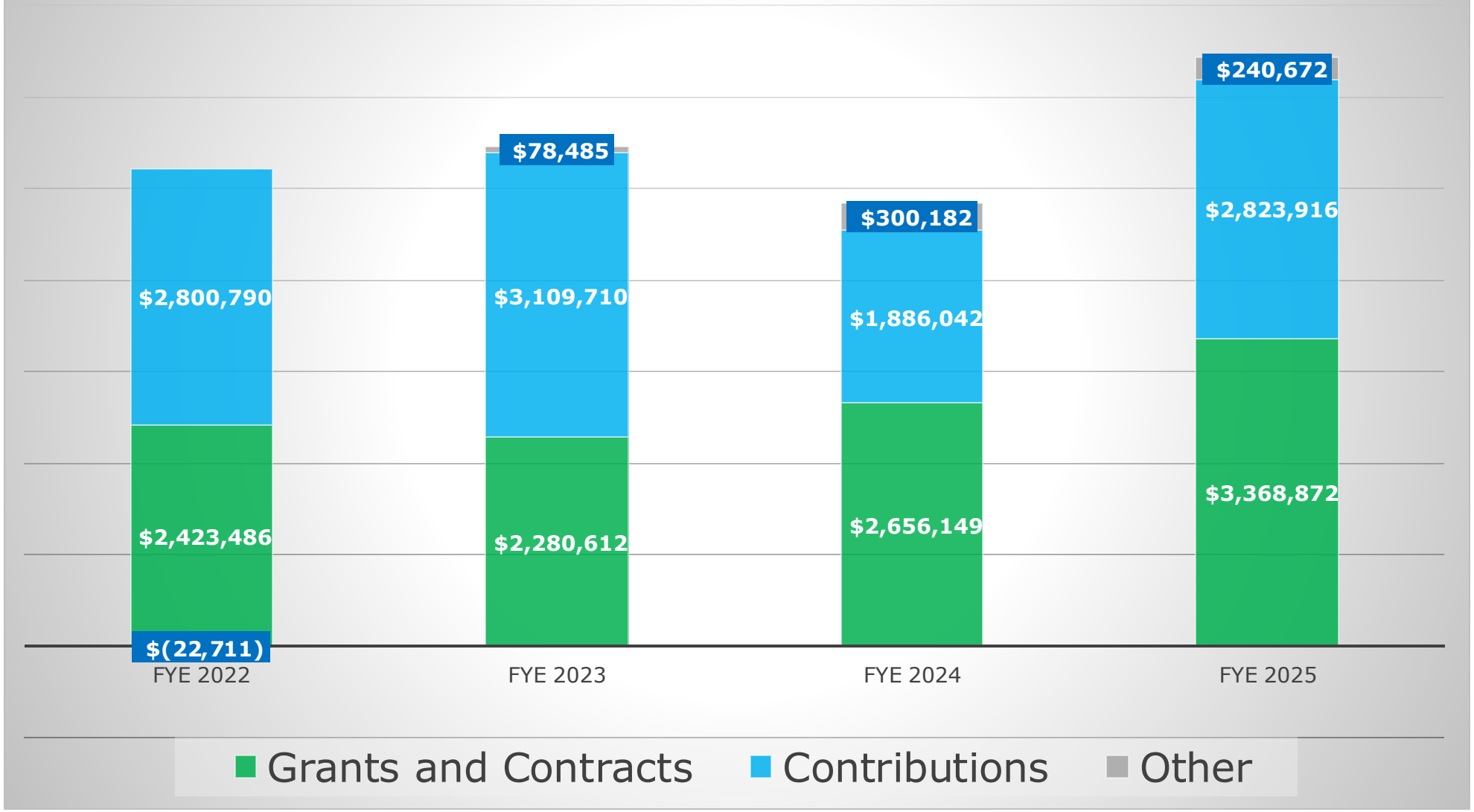
Sustainability- having food produced near your home

- **Top-line message:**
- **The problem:**
- **Talking points:** support top-line message and are chosen based on target audience

Anti Aquaculture Messaging:

- Main goal
- Values to highlight:
- Top-line message:
- The problem:
- Talking points:
    - Anti group example: Don’t Cage Our Oceans

Relative to Annual Operating Income



Social Media Metrics

HUBBS SEAWORLD RESEARCH INSTITUTE

Followers:

- LinkedIn: 2,023 Followers (+23)
- Instagram: 5,370 Followers (+384)
- Facebook: 11,372 Followers (+336)
- X: 1,285 Followers

Social Media Metrics

HUBBS SEAWORLD RESEARCH INSTITUTE

Highlights:

- Facebook Views up 15% and Engagement up 42% since last quarter
- Over 35K views and 40 new followers from first WSB Head Recapture post on Instagram
- Started new “WSB Recapture” highlight archiving all head return stories, getting strong engagement

Press Highlights

- **CIFARM –** NOAA strengthens commitment to aquaculture through new cooperative institute

- **Marine Mammal Rescue Milestone** - SeaWorld Rescue Just Hit A Milestone 43,000 Animals Helped