



# **NOAA's Aquaculture Program: Overview and Office of Aquaculture Reviews and Planning Efforts**

A Presentation to the  
NOAA Science Advisory Board

Jonathan Pennock  
Director, National Sea Grant College Program  
For the Office of Aquaculture, Sea Grant & NCCOS

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# One NOAA Aquaculture Program



- NOAA Fisheries: Regulatory/Management, Science Centers, SK and SBIR Grants
- OAR/National Sea Grant College Program: external Grants and Extension
- NOS/National Centers for Coastal Ocean Science and other Science Centers





# One NOAA Aquaculture Program



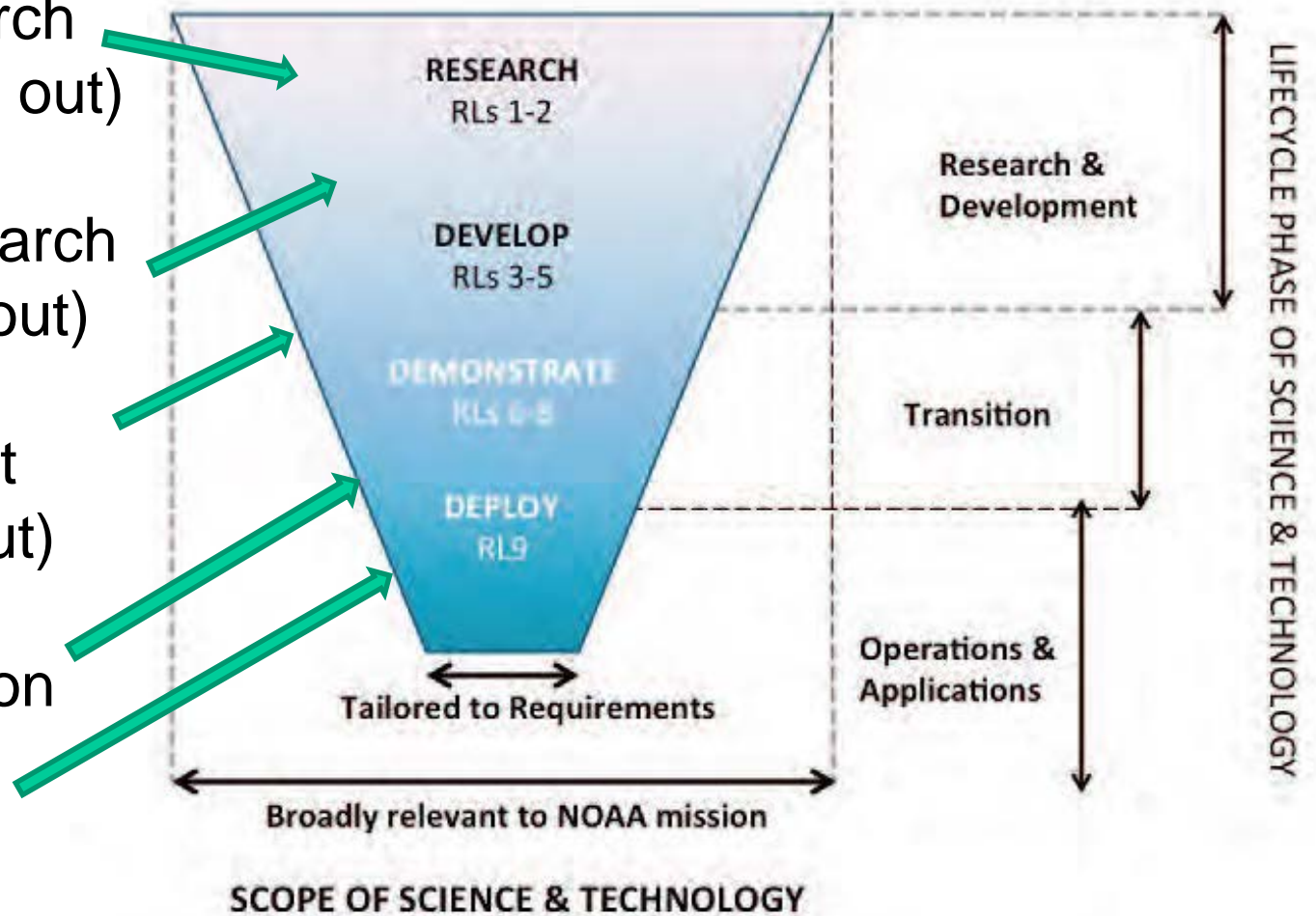
Early Research  
(10-20 years out)

Middle Research  
(5-15 years out)

Development  
(0-5 years out)

Demonstration

Deploy





# Current NOAA Aquaculture Funding



	FY15	FY16	FY17	FY18
<b>NMFS</b>				
Aquaculture PPA*	\$5,700	\$6,300	\$9,300	\$15,000
Fisheries Research and Management**	\$2,571	\$2,441	\$2,961	≥FY17
Product Quality and Safety**	\$1,873	\$1,696	\$1,791	≥FY17
Subtotal NMFS	\$10,144	\$10,437	\$14,052	~\$20,000
<b>OAR/Sea Grant - Marine Aquaculture *</b>	\$4,500	\$9,000	\$9,500	\$11,500
<b>NCCOS ***</b>	\$750	\$750	\$750	\$750
<b>TOTAL NOAA Aquaculture Program</b>	<b>\$15,394</b>	<b>\$20,187</b>	<b>\$24,302</b>	<b>~\$32,250</b>
* Appropriated/Pres Bud				
** Project funds (post overhead recissions etc.)				
*** Approximate				
Figures in thousand dollars				



# One NOAA Aquaculture Program



## Aquaculture Investment Benefits

- Sea Grant Network reported over \$200M in economic impacts for 2012-2015
- About 8,000 jobs were created or sustained in the industry as a result of Sea Grant's work
- Impact of SK, Labs and SBIR has not been determined



Image: Maryland Sea Grant



# Purpose

- *To provide an overview of NOAA's integrated aquaculture program as it stands today with particular focus on NMFS Office of Aquaculture*
- *To explore how NOAA's integrated aquaculture program partners can assist the SAB in developing their aquaculture work plan*



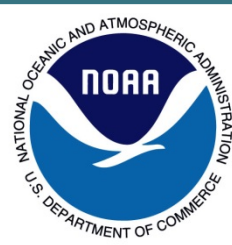


# Issue

- *Changing economic, political and social drivers around Aquaculture makes it timely to consider NOAA's approach to:*
  - Ensuring best science and optimal use of resources, institutions and assets
  - Serving industry as customers of NOAA Aquaculture Science
  - Serving regulators as customers of NOAA Aquaculture Science



# Changing Context around Aquaculture



- Secretary Ross highlighted his desire to “correct” the \$14 billion seafood trade deficit. (now up to \$15B deficit)
- Congressional appropriations increases in FY17 and FY18
- Aquaculture Bill Introduced to Congress
- Congressional interest, particularly in shellfish
- Aquaculture and Seafood initiative at DOC – PISCES
- ENGO’s interest turning positive
- Industry growth

*Science is key to increase sustainable seafood production through Aquaculture*







# NOAA and Inter-Agency Coordination



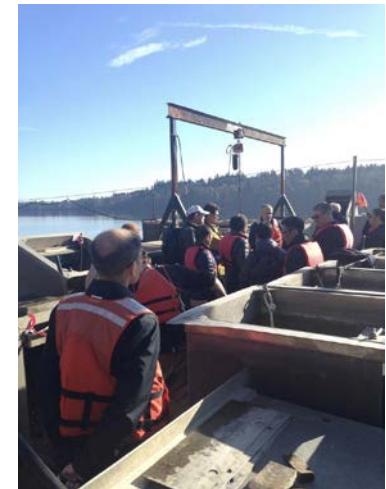
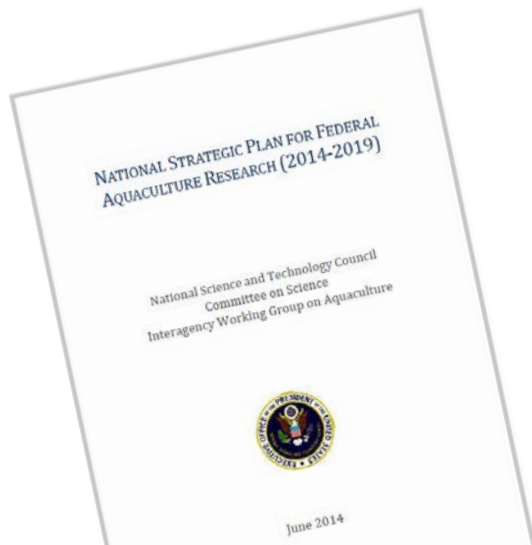
- Coordination with:
  - NMFS (OAq), OAR, NOS as leads
  - NOAA TTO, SAB, MAFAC and NMFS Regional Aquaculture Coordinators as advisors/first reviewers
  - IWG-A, Industry groups, ENGOs other DOC, and USDA programs as final reviewers
  - Other as recommended by SAB



# Reviews and Plans to Date

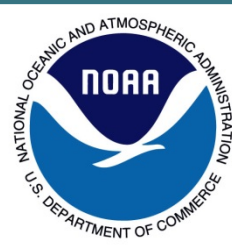


- IWG-A
- NOAA and DOC Plans
- National Ocean Plans...
- Sea Grant Visioning Document
- NMFS and NOS Science Center Review





# NOAA's Guidance Documents on the Same Page

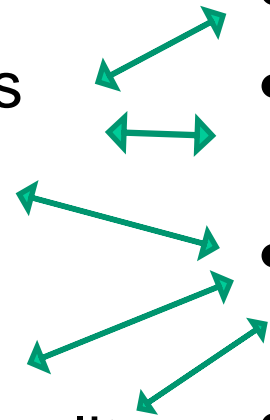


## *Sea Grant 10-year Vision*

- Commerce
- Permitting and Policies
- Current and emerging Species
- Production Systems
- Seafood Safety and Quality

## *NOAA Aquaculture Goals*

- Regulatory Efficiency
- Tools for Sustainable Management
- Technology Development and Transfer
- Informed Public





# NMFS and NOS Science Center Review Results



## Findings:

- Productive programs in NOS, NWC and NEC but are at minimum levels of funding and staffing
- Smaller dynamic programs at SWC and AKC to be encouraged
- No programs in PIC or SEC despite industry need
- Lack some key expertise/programing especially in
  - Economics and Social Science (commerce and informed public)
  - Animal and Plant Health (epidemiology/modelling)
- Don't decrease funding at NWC, NEC and NOS to build new programs due to issues of critical mass

## Conclusions:

- Lack full geographic and topical coverage
- Under resourced for needs



# Strategic Aquaculture Science Plan (SASP)



## Develop a NOAA vision and strategic plan for research and development that addressees:

- Needs for aquaculture science in the US by geography, expertise and infrastructure
- Considers full R2X of science flow
- Using internal labs, partnerships, extension, and external grant programs
- Recommends and identifies facilities needed for world-class science, extension, industry development and workforce training (including public managers)
- Integrates leverage through partnerships or other administrative structures (e.g. Consider roles of ICES and other international bilateral agreements)
- At the level of the current budget vs. \$25-40M increase

***How to deliver science, science-based tools and technology to managers and industry?***



# Desired Outcome



*Combined at end of NOAA presentations.*