

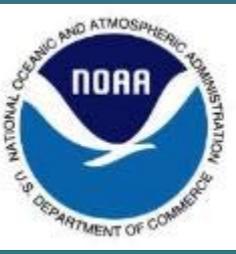
# **Integrating the Social Sciences into NOAA's Mission**

**Tracy Rouleau**  
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**[tracy.rouleau@noaa.gov](mailto:tracy.rouleau@noaa.gov)**

***NOAA Science Advisory Board***  
***April 29, 2016***



# Outline



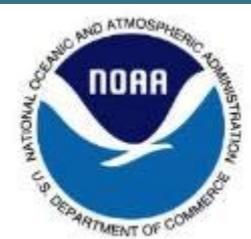
- Purpose
- Recap
- Social Science Vision and Strategy
- In the spotlight
- Looking ahead



# Purpose

An informational briefing to:

- Update the SAB on work to implement social science across NOAA
- Discuss next steps



# What is Social Science?

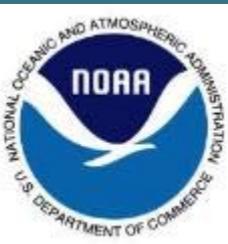
*“Social science is the process of describing, explaining and predicting **human behavior** and institutional structures **in interaction with their environments...**”*

*NOAA Science Advisory Board.*





# How can Social Science help NOAA's Mission?

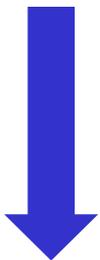


- ✓ Managing, mitigating and communicating risk – ***integrated risk assessment, risk communication and behavior***
- ✓ Valuing NOAA's products and services and valuing what is at risk - ***economic statistics and valuation studies***
- ✓ Enhancing and valuing stewardship (resources, protection) – ***valuing ecosystem services***
- ✓ Linking earth systems to human wellbeing (housing, job security, clean water access) - ***social indicators***
- ✓ Measuring long-term successes and societal impacts - ***performance metrics***



# We've Come a Long Way

**2003 NOAA SAB Social  
Science Review Panel Report**

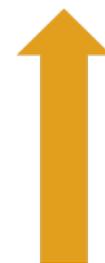


**2009 Social Sciences  
Working Group Report**



**2013 Social Science  
Needs Assessment**

**2014 Social Science Tiger  
Team Recommendations**



**2015 Social Science  
Vision and Strategy**



# VISION

NOAA's mission and priorities more effectively drive positive environmental, societal, and economic change.

## STRATEGY

Integrate Social, Behavioral, and Economic science end-to-end in NOAA's mission and priorities.

Make communities more resilient

Evolve the Weather Service

Invest in observational infrastructure

Achieve organizational excellence

### GOAL 1

NOAA's impact on society is defined and measured.

**Quantify** and promote the value and impact of NOAA's products and services in serving communities and meeting its mandates.

**Standardize** approaches for defining and measuring high profile economic data.

**Strengthen** the impact of investment by valuing improvements in NOAA products and services.

### GOAL 2

NOAA's products and services strengthen societal decision-making.

**Incorporate** social science research in management decisions to increase community resilience.

**Use** social science methods to assess and communicate risk while reducing vulnerability to changing environmental conditions.

**Consistently collect** social science data and information to strengthen the implementation of ecosystem-based management.

### GOAL 3

Institutionalize social science to further NOAA's mission.

**Integrate** social science in program planning and budgeting.

**Apply** social science methods in internal agency operations and decision-making.

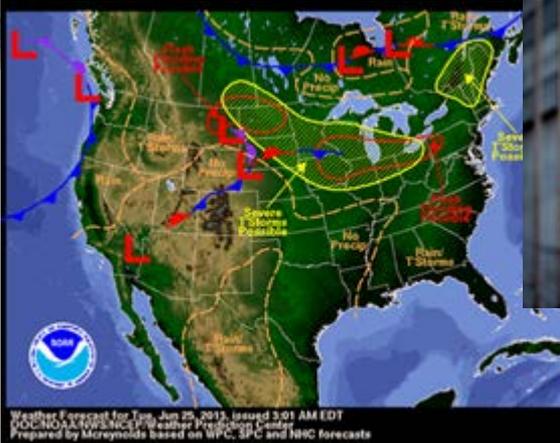
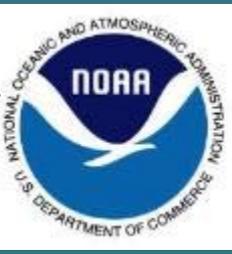
**Use** only the most high-quality, robust, and innovative social science in NOAA products and services.

Science, Service, and Stewardship





# Measuring and Defining NOAA's Impact on Society Spotlight: Value of Information Workshop/COP



NEWS - CIO BRIEFING - EMERGING TECH - CLOUD - CYBER

## NOAA TRIES 'ODDBALL' APPROACH TO HARNESSING BIG DATA



NOAA Administrator Kathryn Sullivan // Sue Ogrocki/AP File Photo

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Imagine a world where the world's environmental data were as easy to access as sports scores.

That's the future envisioned by leaders at the National Oceanic and Atmospheric Administration, the world's leading producer of what they termed "environmental intelligence."

NOAA collects terabytes of weather data per day and publicly shares a good chunk of it – more than



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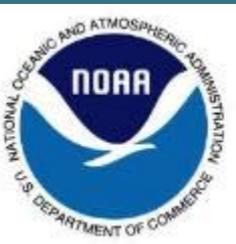
Science, Service, and Stewardship





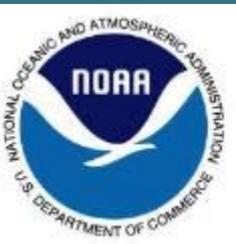
# Strengthen Societal Decision Making

## Spotlight: Ecosystem Services



- OMB memo “Incorporating Ecosystem Services into Federal decision making”
- OSTP Report “Research Needs for Coastal Green Infrastructure”





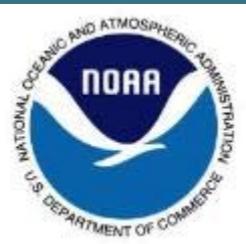
# NOAA's Goals for ES

- Integrate ecosystem services approaches into relevant NOAA priorities
- Strengthen connections between NOAA's ecosystem research and ecosystem services information needs
- Integrate needed support for ecosystem services approaches into existing policies
- Support the development and appropriate use of existing methods and tools
- Effectively communicate, within NOAA and externally, ecosystem services concepts and project outcomes to promote collaboration and deliver management outcomes



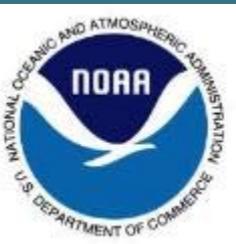


# Immediate Actions (Pre-Guidance)



- Target grant programs initially
  - Regional Coastal Resilience Grant Program
  - Coastal Ecosystem Resiliency Grant Program
  - Sea Grant National Strategic Investment Grants

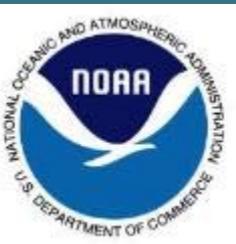




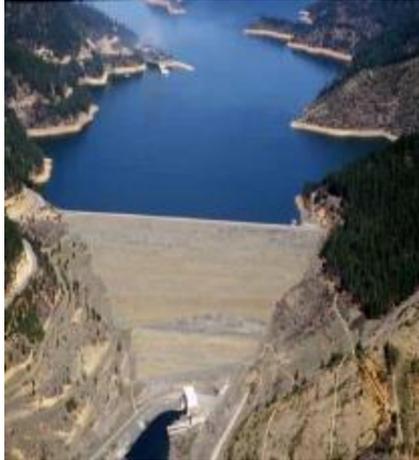
# Post-Guidance Actions

- Undertake a comprehensive review of policies and programs
- Provide senior-level direction to integrate an ES approach, where appropriate





# Principles



1. Tie ecosystem services work to decision making
2. Measure changes in ecosystem services and value them
3. Communicate results and clarify management impacts of ecosystem services information
4. Leverage ongoing new action
5. Support existing priorities





# Strengthen Societal Decision Making

## Spotlight: Risk Communication and Behavior



### Turn Around Don't Drown

**Hurricane Floyd 10 Year Anniversary**  
More than half of the 56 deaths from hurricane Floyd in 1999 occurred when vehicles were either driven into high water or swept away by rapidly rising water



### TSUNAMI HAZARD ZONE



IN CASE OF EARTHQUAKE, GO TO HIGH GROUND OR INLAND

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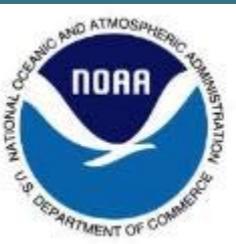
# Institutionalize Social Science to Further NOAA's Mission





# Institutionalize Social Science to Further NOAA's Mission

## Spotlight: Performance Metrics



GET THE INFORMATION  
YOU NEED...24 HOURS A  
DAY... GET A **NOAA  
WEATHER RADIO!**

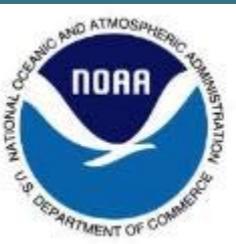


Mark Trail Image courtesy of North America Syndicate, Inc., World Rights Reserved

- Purpose: Pilot societal outcome indicators to track NWS progress
- 4 metrics
  - Become better informed
  - Get prepared
  - Take action
  - Avoid injuries
- Draft report to be released soon



# NOAA and NSF MOA



- Purpose: Share information about projects and areas of mutual interest
- Current/potential cooperation areas:
  - National Water Center
  - Activities and research at NSF and/or NOAA observatories, centers, and networks
  - Nexus of Food, Energy, and Water Systems solicitations





# Looking Ahead





# Thank you!



**Tracy Rouleau**

Deputy Chief Economist

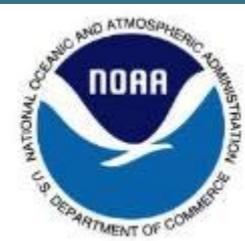
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[ppi.noaa.gov/economics](http://ppi.noaa.gov/economics)

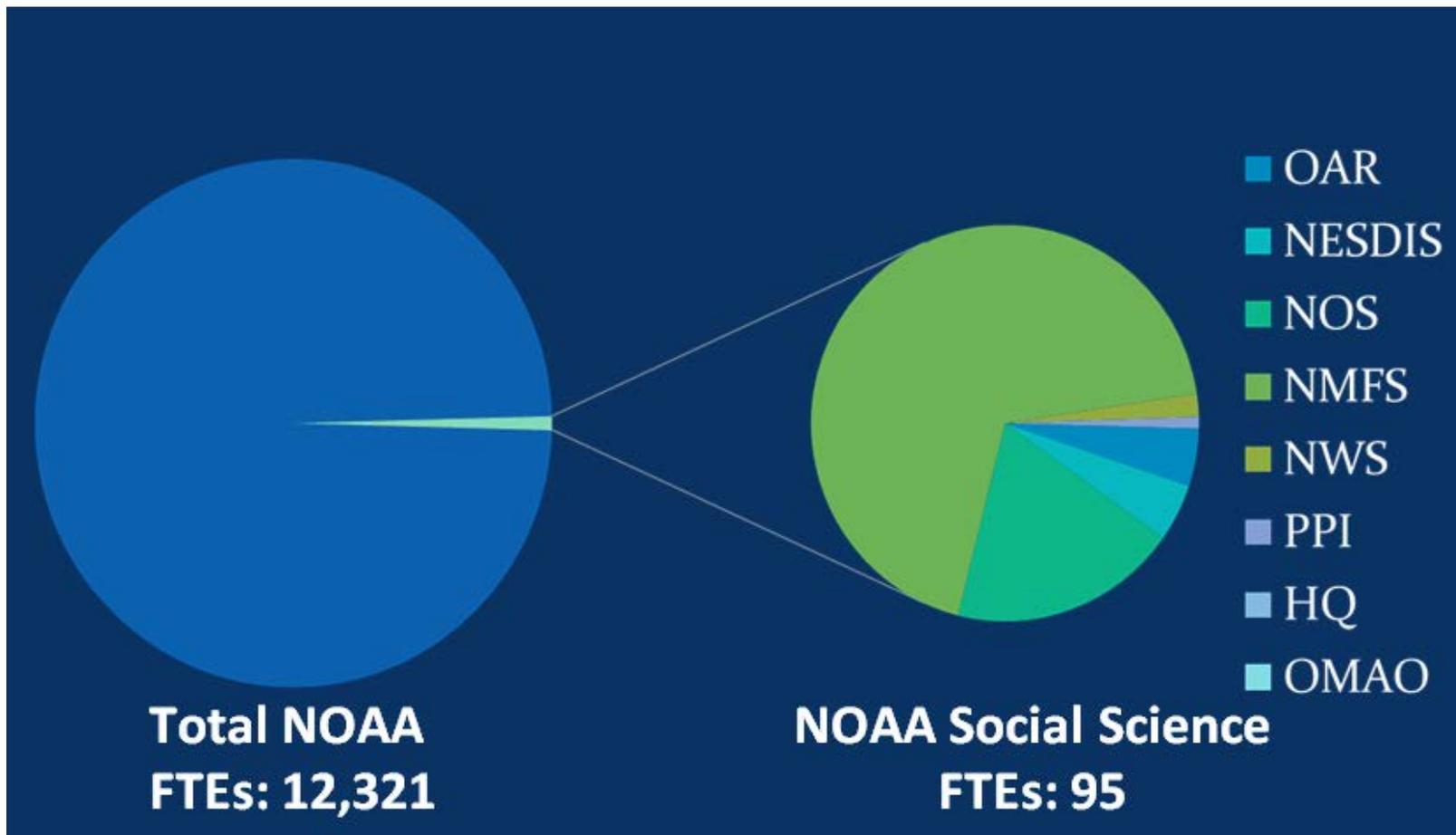


# BACKUP SLIDES



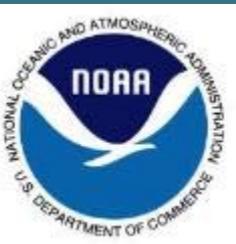


# NOAA's Social Science Workforce





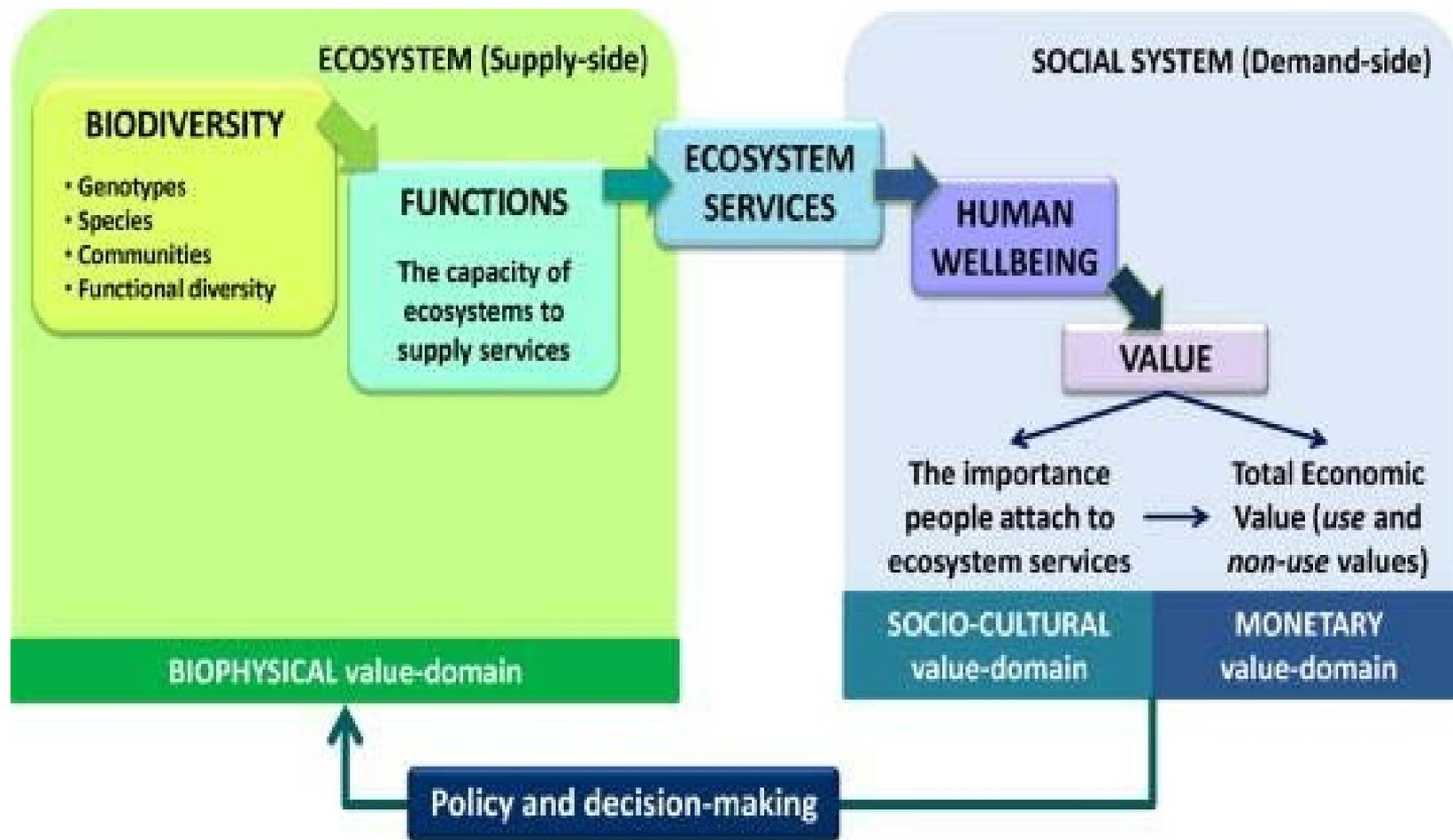
# Ecosystem Services Team Members



- NOAA Chief Economist (*Vacant*)
  - Tracy Rouleau (PRSS)
  - Valerie Were (PRSS)
  - Suzanne Bricker (NOS)
  - Marie Bundy (NOS)
  - Peter Edwards (NOS)
  - Ariana Sutton Grier (NOS)
  - Jason Murray (NOS)
  - Peter Wiley (NOS)
  - Doug Lipton (NMFS)
  - Rita Curtis (NMFS/OST)
  - Giselle Samonte (NMFS/OHC)
  - Laura Henson (USEC/IA)
  - Chris Hayes (OAR)
  - LaToya Myles (OAR)
  - Elizabeth Rohring (OAR)
  - Daniel Pollak (General Counsel)
- Other Participants:
- Jordan Creed (PPI/NEPA Liaison)
  - Rachel Krasna (PPI/NEPA Liaison)

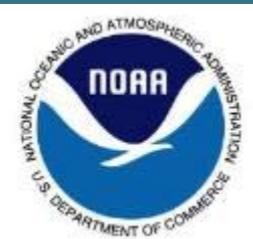


# What are Ecosystem Services?





# Other Social Science Priorities



## *Catalyze:*

- *Value of Information*
- *Nat Cap Business Roundtables*
- *New Blue Economy*
- *Ocean Satellite Account*

## *Empower:*

- *Risk Communication and Behavior*
- *Social Science newsletter*
- *Implement/Annual Report on SSV&S*

## *Coordinate:*

- *Ecosystem Services work across agency*
- *Interagency SBE Committees*
- *Social Science Committee*
- *Billion Dollar Weather and Climate Disasters*
- *NASA ROSES proposal on Socio-economic Benefits of Satellite Observations*