



UNITED STATES DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION



# Regional Climate Services

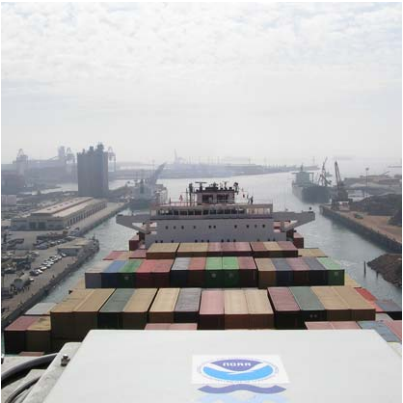
Eileen L. Shea  
NOAA National Climatic Data Center  
CPASW; March 2010

An open white door is set within a dark grey frame. The door is slightly ajar, revealing a bright blue sky with scattered white clouds. The text 'NOAA Climate Services' is printed in a bold, blue, sans-serif font on the upper portion of the door. A silver handle is visible on the right side of the door. A bright light source from the right casts a long, soft shadow of the door onto the dark grey floor.

**NOAA  
Climate  
Services**



# The Rising Demand for Climate Services



Commerce



Coasts



Recreation



Ecosystems



Hydropower



Farming



Wind Energy

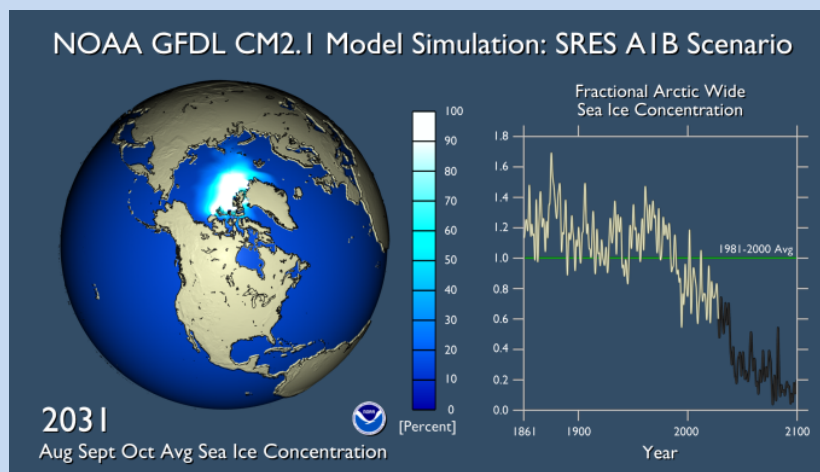
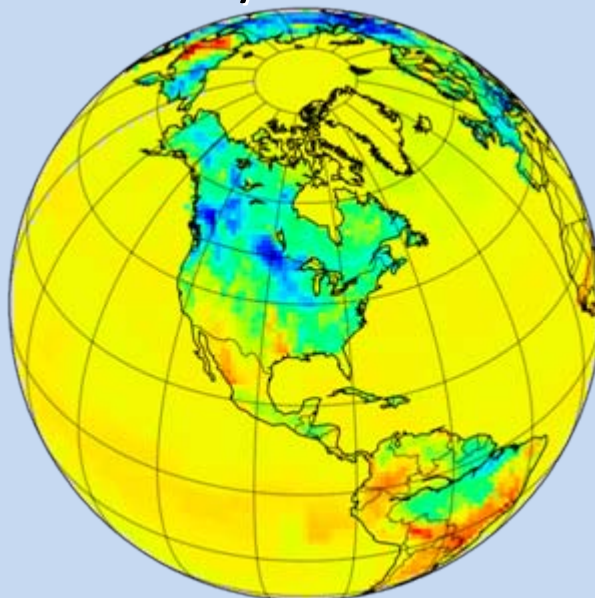


Private Sector

# Meeting the Rising Demand for Climate Services

1. NOAA's existing framework is not optimized for climate service delivery.
2. To meet climate service demands, NOAA must:
  - ✓ Connect users to existing climate products and services
  - ✓ Provide understandable, usable and accessible climate information
  - ✓ Actively engage users in service development.
3. NOAA must maintain leadership in observing, research, modeling and assessments, while delivering climate services

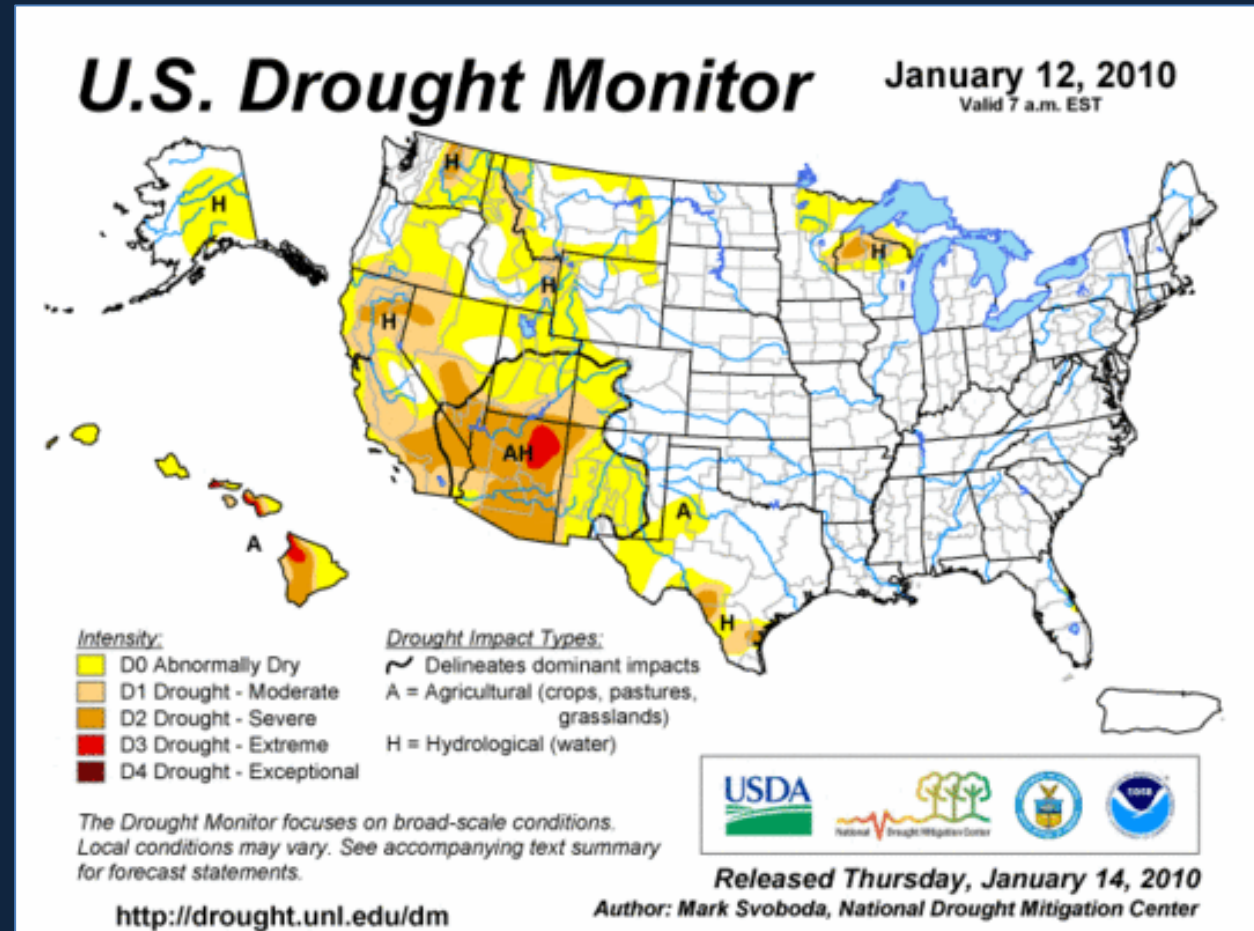
*“If America is to avoid the most damaging effects of climate change, we have to first understand it – and that is where the Department of Commerce is instrumental.” - Secretary of Commerce, Gary Locke*



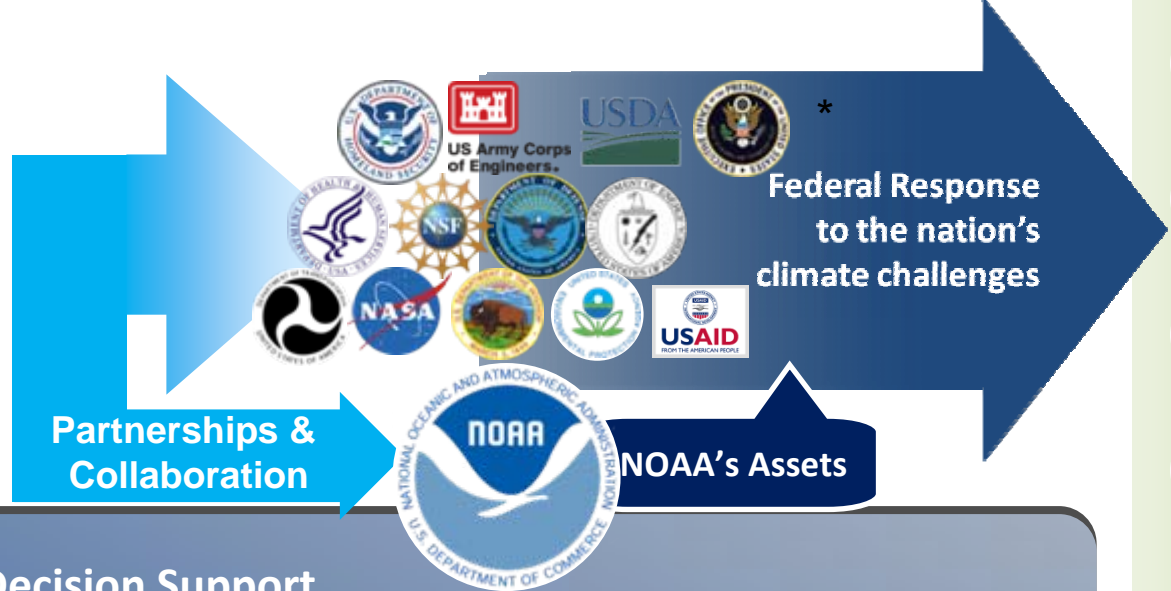
# NOAA's Strategic Climate Goals

1. Delivery of Sustained & Effective Services
2. Promoting Collaborative Partnerships
3. Advancing Climate Science

Continue to *Build, Evaluate and Adapt* NOAA's Core Competencies in Three Key Strategic Areas



# NOAA commits to providing critical assets in science and service to a Federal partnership



## Information Delivery and Decision Support

*NOAA uses its national and regional infrastructure to deliver climate services today*

## Assessments of Climate Change and Impacts

*NOAA is a leader in national and regional climate impact assessments  
Over 70% of Federal IPCC AR4 WG1 authors were from NOAA*

## Climate Change Research and Modeling

*Internationally recognized models of the global climate*

## Climate Observations and Monitoring

*NOAA operates over 90 observation and monitoring systems  
NOAA is mandated to monitor and provide access to climate data and information*



Security



Forestry



Water



Health



Infrastructure



Global



Land Management



Oceans



Energy



Other

# NOAA Climate Service Proposal

## VISION

NOAA Envisions an Informed Society Anticipating and Responding to Climate and its Impacts

## MISSION

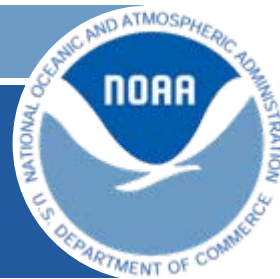
Inform mitigation and adaptation decisions needed to respond to the impacts of the changing climate

- ✔ Support decision makers regionally to globally, on time scales of weeks to decades, in areas including public policy, resource management, infrastructure investment, business development, and decisions of individuals in their daily lives

## GOALS

Continue to Build, Evaluate and Evolve NOAA's Core Competencies in Three Key Areas:

- ✔ Deliver Sustained & Effective Services
- ✔ Promote Partnerships
- ✔ Advance Climate Science



# NOAA's Role in a National Strategy

## International:

- *All nations* must recognize the need for climate services, and continue on the progress made at the WCC-3.
- **NOAA is internationally recognized as advancing the state of climate knowledge, for leadership in GEOSS, and is viewed as critical to developing regional scale impact assessments.**

## National:

- *All agencies* must consider climate change impacts as it relates to their mission areas, and commit to work within a cooperative and collaborative *interagency strategy*.
- **NOAA provides core capabilities to national climate services through NOAA's decades of expertise in observing, monitoring, research, modeling, assessments, and existing service delivery structures.**

## Regional:

- *All agencies* must engage in a *Regional Climate Service Enterprise* to ensure users have the climate information they need.
- **NOAA's regional service capacity, with over two centuries of experience, is delivering services today through public and private partnerships, and is ready to engage in the national climate service strategy.**



# Federal Regional Climate Service Enterprise

## *Connecting Science, Services and People*

### State and Local Engagement, Education & Service Delivery

- Weather Forecast Offices
- Sea Grant Education & Extension
- Marine Sanctuaries, Monuments & Estuarine Reserves
- River Forecast Centers
- Data Centers
- DOC Commerce Connect (in development)
- Other agencies (e.g., National Science Foundation, Dept. of Education, Health & Human Services, Dept. of Energy, Dept of Interior, Dept of Agriculture)
- Dept. of Agriculture Extension
- State Climatologists
- Federal Protect Area Programs
- USGCRP Climate Literacy Partners
- Etc...

### Regional Climate Services Partnerships

- NOAA Regional Climate Service Programs
- Weather Service Regions
- Regional Climate Centers
- Coastal Services Center
- River Forecast Centers
- Regional Collaboration Teams
- Data Centers
- Relevant Regional Offices from other agencies (e.g., Environmental Protection Agency, Dept. of Agriculture, Dept. of Interior, Health and Human Services, Dept. of Transportation, Dept of Energy, etc.)

### Regional Climate Science

- Regional Integrated Science & Assessments (RISA)
- NOAA Labs
- Sea Grant
- Cooperative Institutes
- Applied Research Centers
- Data Centers
- Other agencies (e.g., National Aeronautics and Space Administration, Dept. of Interior, Dept. of Agriculture, National Science Foundation & other USGCRP agencies)
- Etc...

### USER ENGAGEMENT

- Development, Delivery & Evaluation of Products & Tools
- Understanding and Translating User Needs
- Informing Program Requirements

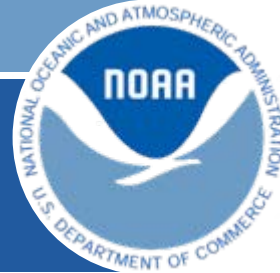


Government  
Private Sector  
Academia  
NGO's



## State, Local and Tribal Engagement, Education & Service Delivery

- Build a robust, *service-centric* program that ensures that *users are actively engaged* in service development through sustained engagement, dialogue and collaboration with users
- Improve the integration of climate science and services across the nation's climate service enterprise by promoting partnerships that *leverage the assets of all levels of government, academia, NGOs and the private sector*



# Regional Climate Products and Services

- Develop, deliver and communicate *problem-focused* products, information services and decision support tools
- Connect users to existing climate products and services while continuing to develop new, authoritative, reliable services



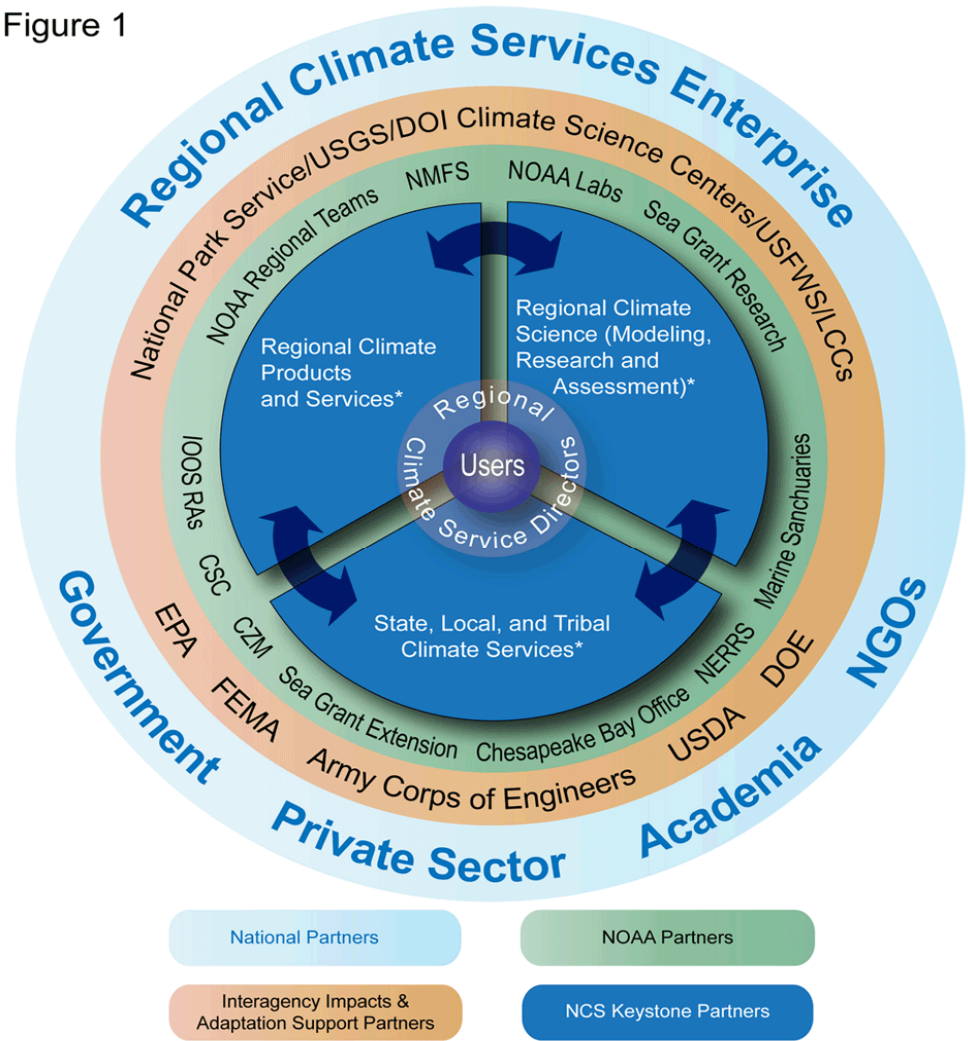
# Regional Climate Science

- Support decision-making by providing *place-based information and assessments* that advance understanding of regional and sectoral climate impacts and risks in coordination with USGCRP and other national and regional programs
- *Promote scientifically-based adaptation and mitigation support* by building and integrating NOAA's climate science capabilities



# Regional Climate Services Enterprise: A Conceptual Pearl

Figure 1

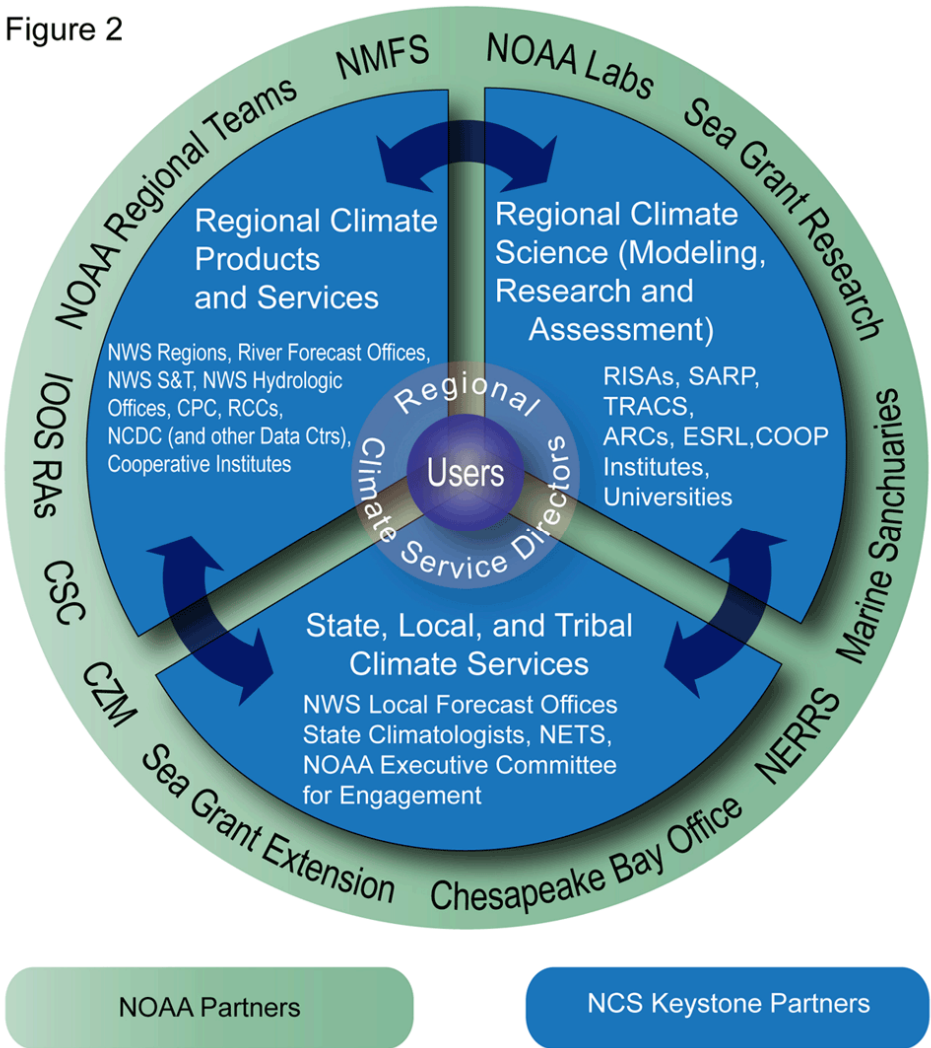


\*See Figure 2 for details



# Regional Climate Services OP: A NOAA View

Figure 2



# Establishment of New Regional Positions

- NOAA has created 6 new Regional Climate Service Director positions
- Announcements are posted on USAJOBS (February 9<sup>th</sup>, 2010)
- The primary functions include:
  - Responsibility for providing leadership in the development of an integrated NOAA program of climate services on a regional scale that responds to the needs of stakeholders and draws upon agency-wide assets and capabilities.
  - Management of the development and execution of a Regional Climate Services Strategic Plan that combines the unique assets and special capabilities of NOAA programs working with regional partners in other Federal agencies, state, local and tribal governments, universities, the private sector and NGOs.