



# Tools for Planners: An Introduction to NOAA's Resources for Planning

American Planning Association  
April 10, 2010

Nancy Beller-Simms, Ph.D.  
Program Director, Sectoral Applications Research Program  
NOAA Climate Program Office  
<http://www.climate.noaa.gov>

A quick look at products available at NOAA including:

- Portals and Websites
- Services
- Guides
- Studies

....then a Commercial Break

## Portals and Websites:

- [www. climate.gov](http://www.climate.gov)
- [www. csc.noaa.gov](http://www.csc.noaa.gov)
- [www. drought.gov](http://www.drought.gov)

# Climate Services Portal

NOAA HOME WEATHER OCEANS FISHERIES CHARTING SATELLITES CLIMATE RESEARCH COASTS CAREERS

 **NOAA** CLIMATE SERVICES  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Prototype 

Explore: [ClimateWatch Magazine](#) | [Data & Services](#) | [Understanding Climate](#) | [Education](#) |  

[Articles](#) | [Images](#) | [Videos](#)

### ClimateWatch Featured Images

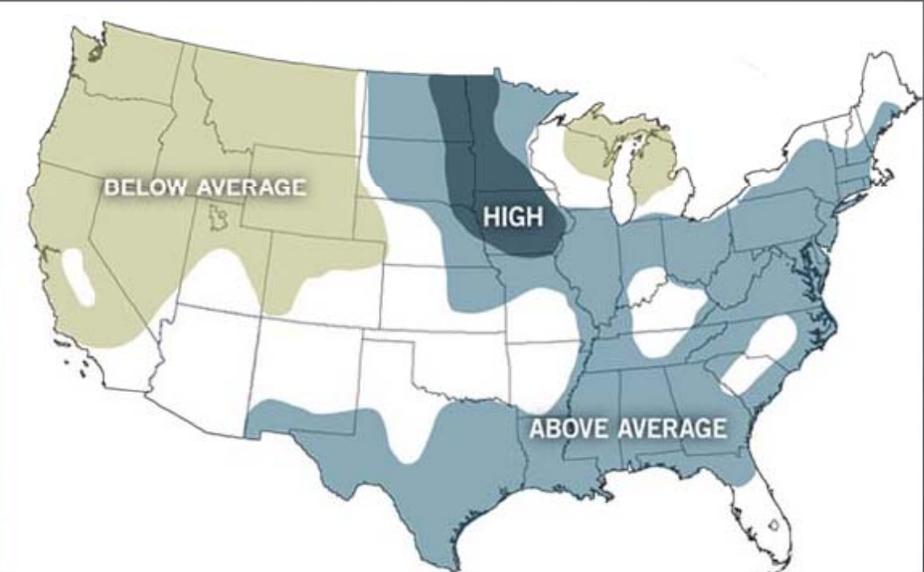


#### Above-average Flood Risk Is Forecast for One-third of U.S.

March 18, 2010  
Image courtesy of NOAA

A snowy, wet winter sets the stage for record floods in some parts of the country this spring.

[CLICK HERE FOR FULL SIZE IMAGE & MORE INFO](#)



[www.climate.gov](http://www.climate.gov)

Explore: ClimateWatch Magazine

Data & Services

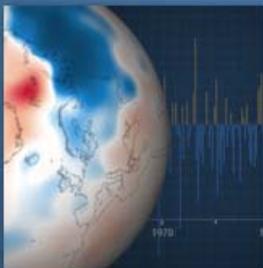
Understanding Climate

Education

Search all of NOAA



### Past & Present Climate ▶



#### Climate at a Glance

Read and explore summaries and digests of recent climate-related phenomena from NOAA's distributed climate service community.

### Predictions ▶



#### Looking Ahead

Explore how climate phenomena are likely to unfold in the coming days, weeks, and months.

### NOAA Partners ▶



#### Locate Climate Expertise

Use an interactive map to find national and regional climate services.

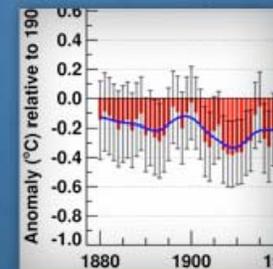
### Climate & You ▶



#### Utilizing Climate Data

Climate information is essential for business and community planning. These resources focus on needs of specific sectors of society.

### Data Library ▶



#### Visualizing & Explore

NOAA is a leading provider of access to data from research projects, stations, and satellites to the nation and the world.

[www.climate.gov](http://www.climate.gov)

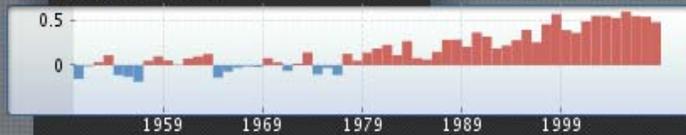
## Global Climate Dashboard

Climate Change

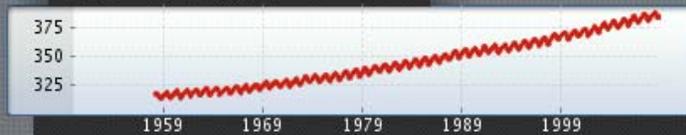
Climate Variability

Adjust the sliders to view different time periods.  
1950   2009  
Click any graph for more information.

### Temperature (C)



### Carbon Dioxide (ppm)



### Sun's Energy (W/m<sup>2</sup>)



### Sea Level (ft)



20852

04-01-2010

Lookup

Results for: Zip code 20852  
Station: WASHINGTON/NATIONAL On: 20100401

Mean Temp:	59.9 F	Min Temp:	46.0 F
Max Temp:	73.9 F	Visibility:	10.0 miles
Precipitation:	0.00 inches	Mean Wind Speed:	3.3 knots
Max Sustained Wind:	8.0 knots	Max Wind Gust:	18.1 knots
Mean Dew Point:	40.0 F	Sea Level Pressure:	1016.0 mb

[Close]

## News

### NOAA: Sixth Warmest February in Combined Global Surface Temperature, Fifth Warmest December-February

Tue, 16 Mar 2010

Last month's combined global land and ocean surface temperature made it the sixth warmest February ever recorded. Additionally, the December 2009 – February 2010 period was the fifth warmest on record averaged for any similar three-month Northern Hemisphere winter-Southern Hemisphere summer season, according to scientists at NOAA's National Climatic Data Center in Asheville, N.C.

### New NOAA Web Site Emphasizes Broader Impacts of Sea Ice Loss

Tue, 16 Mar 2010

Melting sea ice may sound like a regional or local problem, but NOAA's new Arctic Future Web site shows that changes in the Arctic can also influence weather in the mid-latitudes, where a large part of the global human population lives.

### Commerce Department Proposes Establishment of NOAA

[www.climate.gov](http://www.climate.gov)

# NOAA Coastal Services Center (CSC)



**NOAA** Coastal Services Center  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

  
Search >>

Home About Data Tools Training How-To Guides Publications Partnerships Technical Assistance

Monthly Feature

Data

Tools

Training

How-To Guides

Publications

Partnerships

Technical Assistance

**ALL CLIMATE, ALL THE TIME**  
Reliable, user-friendly climate data and information for the world.

WWW.CLIMATE.GOV

The banner features a NOAA logo, a globe, and several climate data maps showing temperature and precipitation patterns.

## Coastal Services Center Linking People, Information, and Technology

As part of the federal government's National Oceanic and Atmospheric Administration (NOAA), the Coastal Services Center works with private and public sector partners to address coastal issues. Many of the Center's products, services, and initiatives are profiled on this website.

- [Read more about the Center](#)
- [Employment Opportunities](#)
- [Staff Directory](#)
- [Upcoming Events](#)



## Regional and State Initiatives



- [Northeast](#)
- [Mid-Atlantic](#)
- [Southeast &](#)

[www.csc.noaa.gov](http://www.csc.noaa.gov)

# DIGITAL COAST

<http://www.csc.noaa.gov/digitalcoast>

[Home](#) [Data](#) [Tools](#) [Training](#) [In Action](#)



## About the Digital Coast

"More than just data," the Digital Coast is a network of diverse partners working together to address coastal issues. Website content is growing with contributions and guidance from the partner network and the user community.

- [Digital Coast Details](#)
- [About the Partners](#)
- [How to Use this Site](#)
- [Submitting Content](#)

## Data

Learn more about the kinds of data available and download data.

## Tools

Use these tools to turn data into useful information your organization needs.

## Training

Update your skills by participating in one of these training programs.

## Digital Coast In Action

See how data and tools are used to address coastal management issues.

## Digital Coast Website

This website provides data required by coastal resource management professionals, as well as the tools, training, and information needed to turn these data into useful information.

## NEW RESOURCE

### Coastal Inundation Toolkit

Helping communities identify and lessen flood-related risks.

## FEATURED TOOL

### Multipurpose Marine Cadastre

Providing a framework for marine spatial planning efforts.

## PARTNER RESOURCE

### Building Resilient Coastal Communities

See how coastal counties can use Digital Coast to build resilient communities.

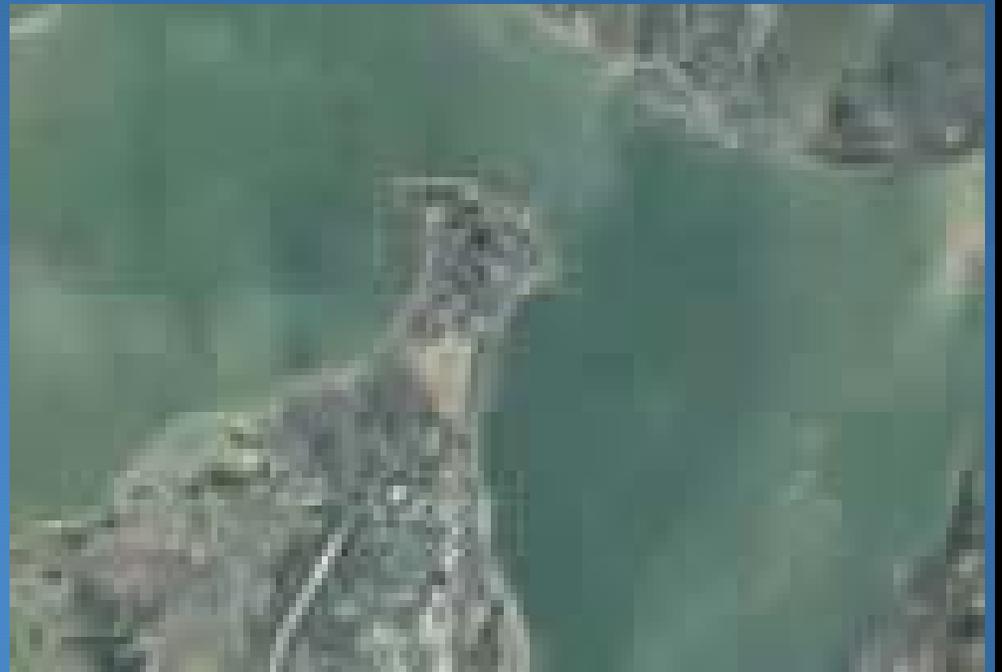


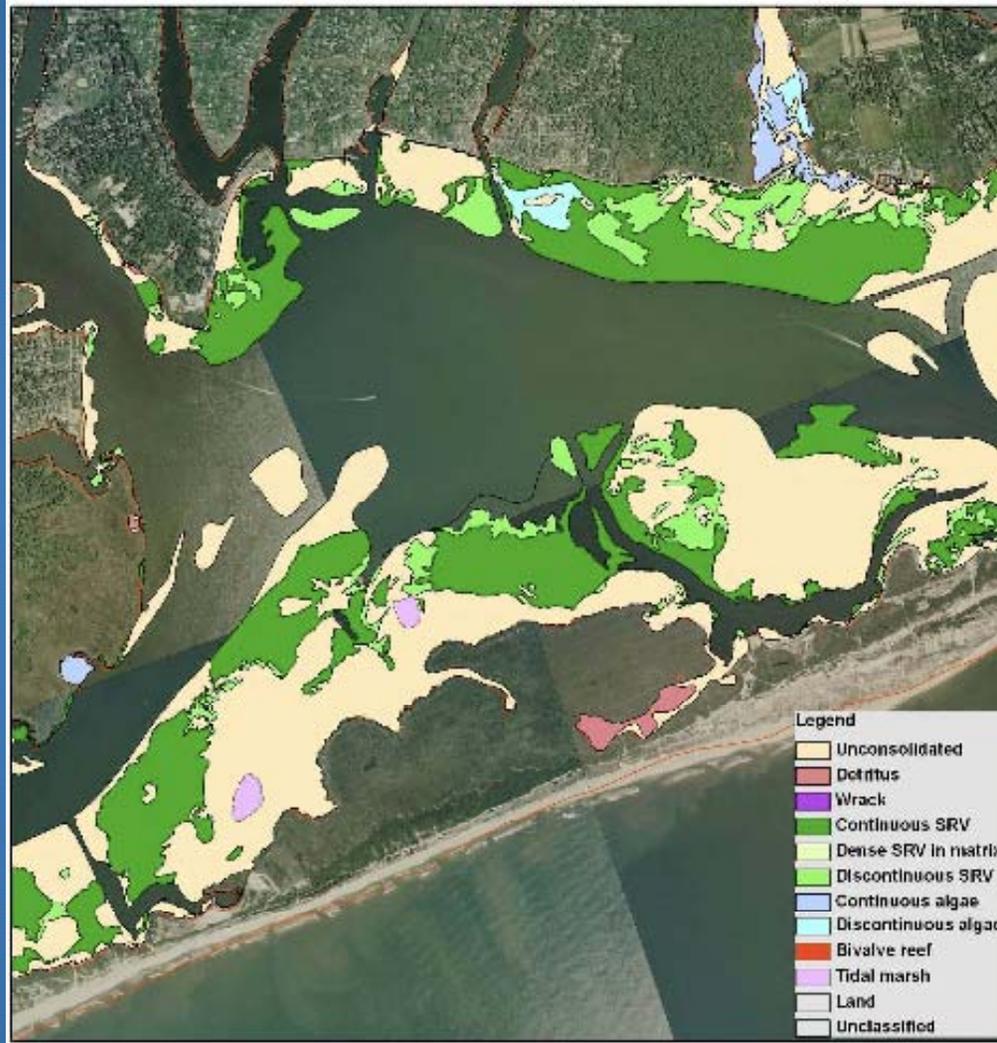
**NOAA Coastal Services Center**  
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

[United States Department of Commerce](#)  
[National Oceanic and Atmospheric Administration](#)  
[National Ocean Service](#)

## Data Choices:

- Orthoimagery
- Elevation
- Socioeconomics
- Land Cover
- Marine Boundaries
- Hydrography
- Benthic





Benthic Habitats of Mriches Bay, NY  
from 2002 aerial photography

Tools:

Analysis: Use data to produce value-added results based on application.

Informational: Provide guidance or 'how to' techniques.

Simulation: Generate visual products that illustrate concepts or issues to a variety of audiences.

Tools:

Data Visualization: Present dynamic views of spatial data. Some may offer data download capabilities.

Data Handlers: Manipulate datasets to improve usability.

# CanVis Visualization Software



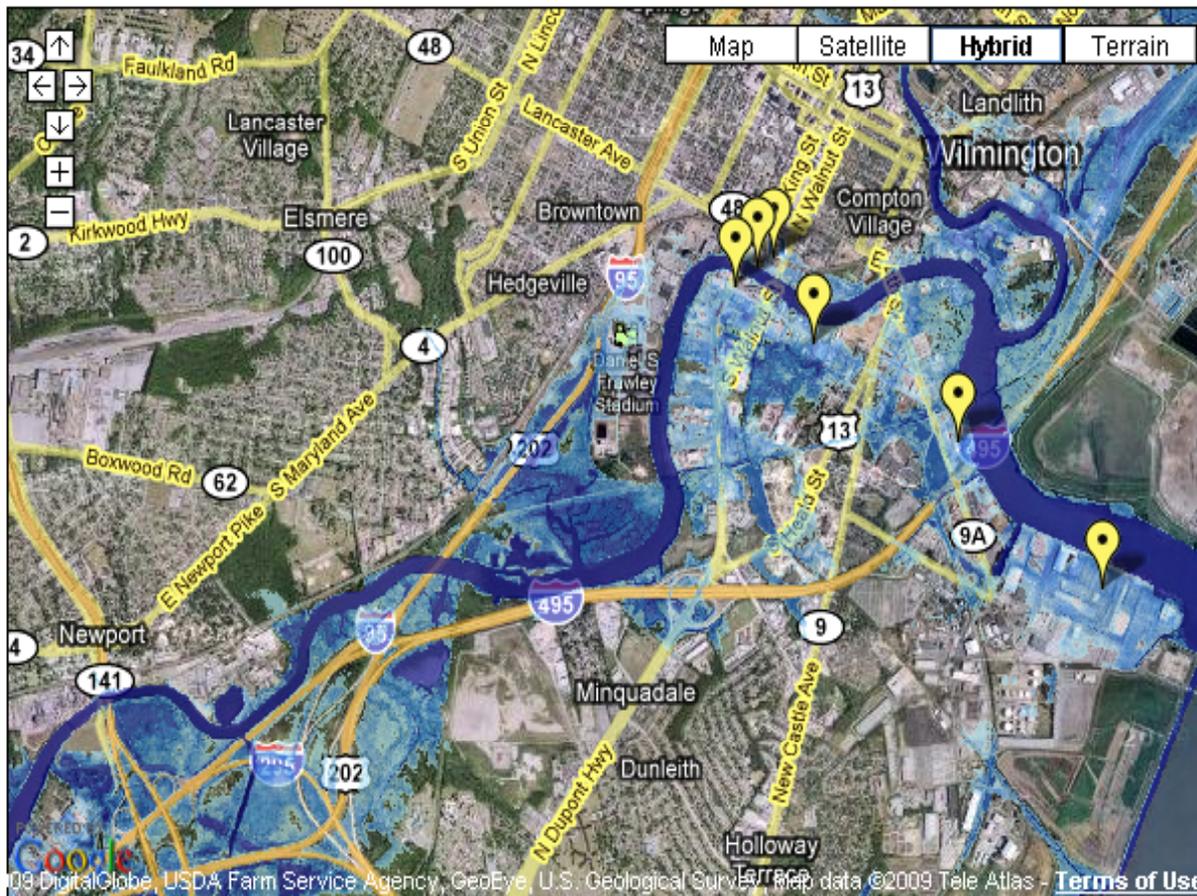
- Easy to use
- No Geographic Information System (GIS) required

- Users insert background graphics and objects
- Web-based training





## SEA LEVEL RISE IMPACTS FOR WILMINGTON, DELAWARE



### Digital Coast Simulation Tool

This map shows potential flooding, or inundation, caused by sea level rise. Use the slider bar to view the extent.

The map illustrates the scale of potential flooding, not the exact location, and does not account for erosion, subsidence, or future construction. Water levels are shown as they would appear during an average high tide (mean high water). Rising sea levels will cause daily high tides to reach farther inland.

Places of interest vulnerable to sea level rise.

**Note:** Flood layers may take a moment to load.

View the [Flood Frequency Predictions](#)

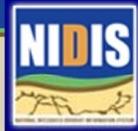
This pilot project is a collaborative effort of NOAA, the U.S. Geological Survey, and the Delaware Department of Natural Resources.

# TRAINING

- Technical
- Topical



# Drought Portal



National Integrated Drought Information System

## U.S. Drought Portal

www.drought.gov

[Contact Us](#) | [Log In](#) | [Te](#)

Search:

- HOME
- WHAT IS NIDIS?
- CURRENT DROUGHT
- FORECASTING
- IMPACTS
- PLANNING
- EDUCATION
- RESEARCH
- RECOVERY

### Area Drought Information

Select State...

Select Region...

### Maps & Tools

- [Map Viewer - updated!](#)
- [GIS Resources](#)
- [Geodata Portal](#)
- [Drought Monitor Graphics](#)
- [Data Visualizations](#)

### Events & Announcements

- [NADM Workshop - April 20-23, 2010](#)
- [Scoping workshop ACF Basin - Lake Blackshear, GA - December 2009](#)
- [Map Viewer now includes US Drought Outlook - New!](#)
- [CRN Soil Data - New!](#)
- [Drought Monitor Forum - Austin 2009](#)

### Featured Products

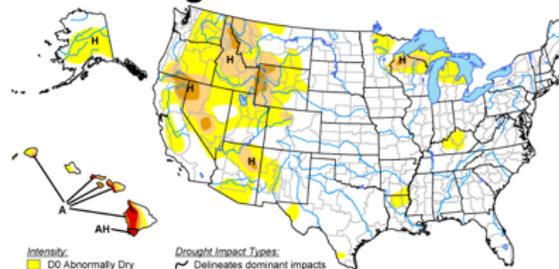
[Where are Drought Conditions Now?](#)

[How is the Drought Affecting Me?](#)

[Will the Drought Continue?](#)

## U.S. Drought Monitor

March 30, 2010  
Valid 8 a.m. EDT



**Intensity:**  
D0 Abnormally Dry  
D1 Drought - Moderate  
D2 Drought - Severe  
D3 Drought - Extreme  
D4 Drought - Exceptional

**Drought Impact Types:**  
A = Agricultural (crops, pastures, grasslands)  
H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



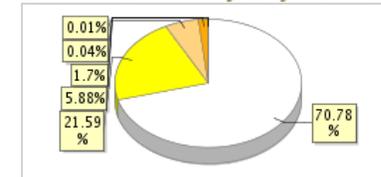
Released Thursday, April 1, 2010

Author: Matthew Rosencrans, NOAA/NWS/NCEP/CPC

### Drought Conditions

% Area for U.S., including, AK, HI & PR  
(As of 3.30.2010)

Info Source: National Drought Mitigation Center



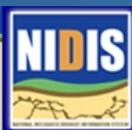
[Drought Classifications](#) | [View Time Series - updated!](#)

### Drought Information Statements



www.drought.gov

# Drought Portal: Map Viewer



National Integrated Drought Information System

U.S. Drought Portal  
www.drought.gov

[Contact Us](#) | [Log In](#) | [Text-Only](#)

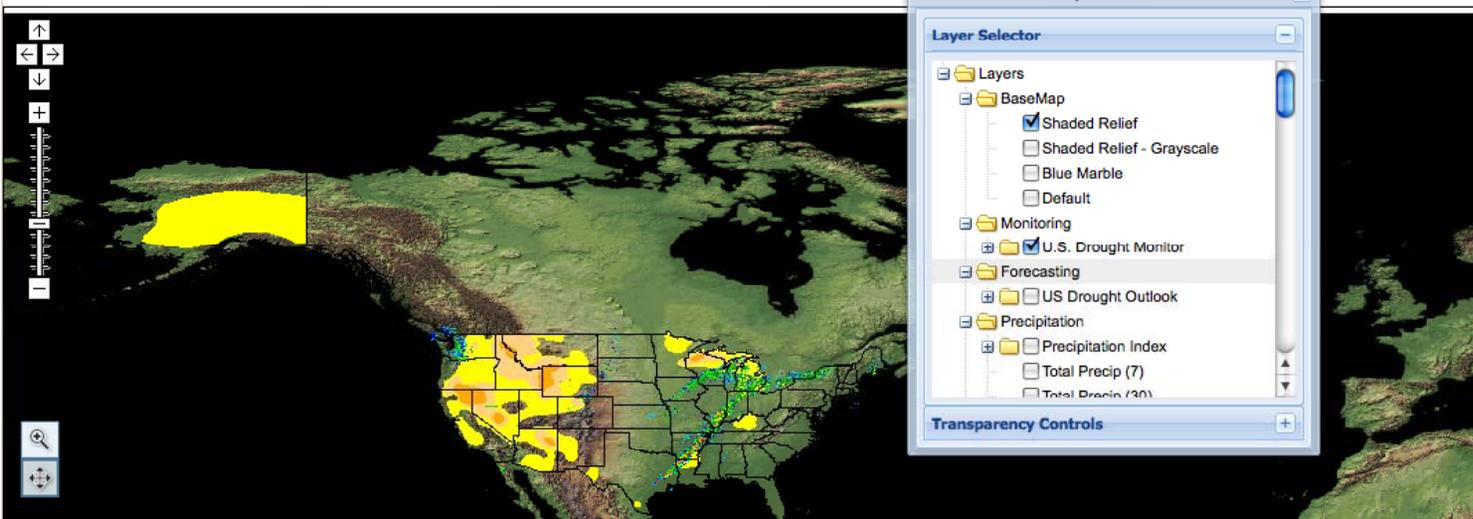
Search:

[HOME](#) [WHAT IS NIDIS?](#) [CURRENT DROUGHT](#) [FORECASTING](#) [IMPACTS](#) [PLANNING](#) [EDUCATION](#) [RESEARCH](#) [RECOVERY](#)

drought.gov > Map Viewer

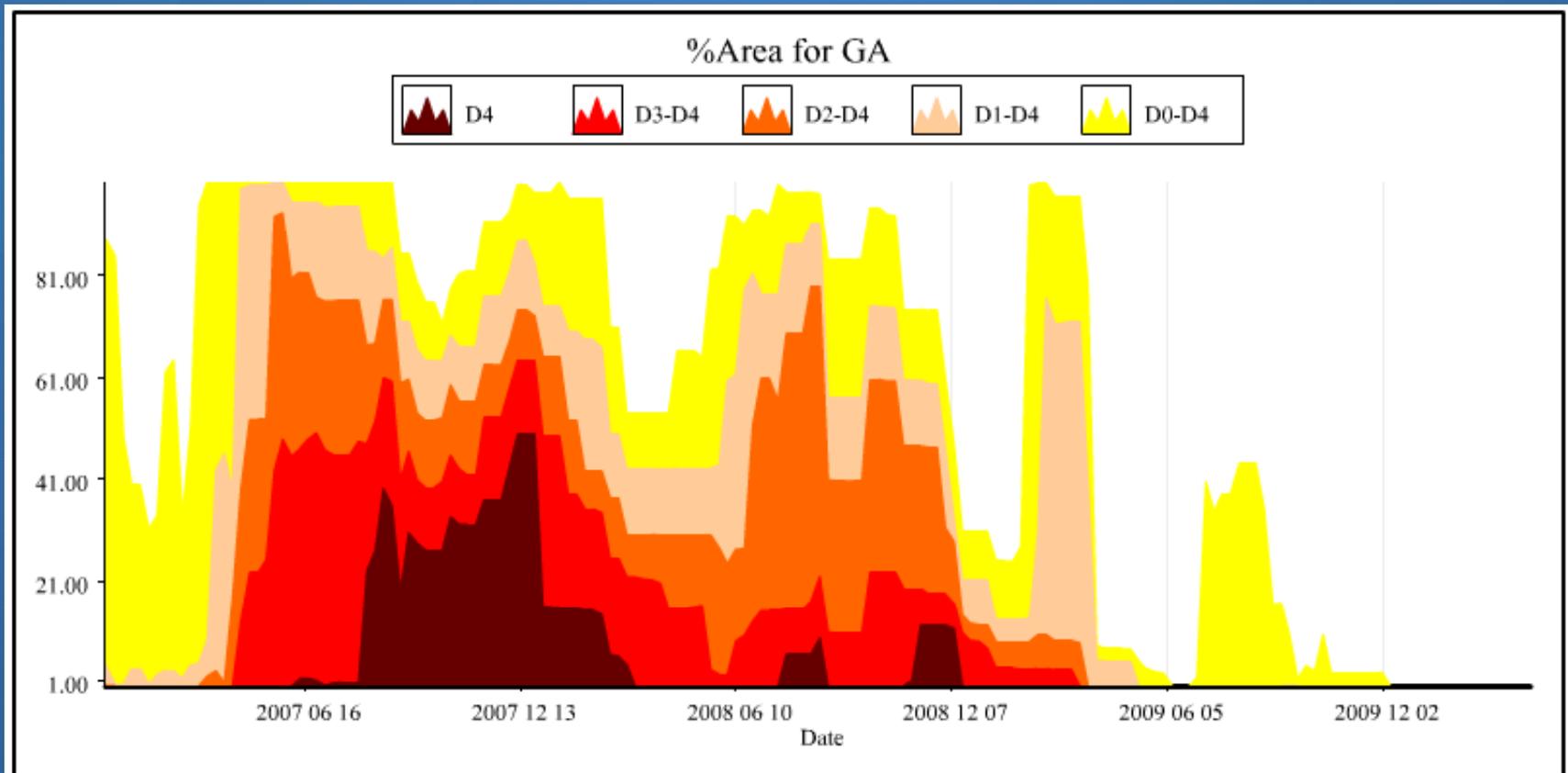
Map Viewer

Select Drought Monitor Date  Zoom to Area  Zoom to Basin



www.drought.gov

# Drought Portal: Drought Monitor Graphics



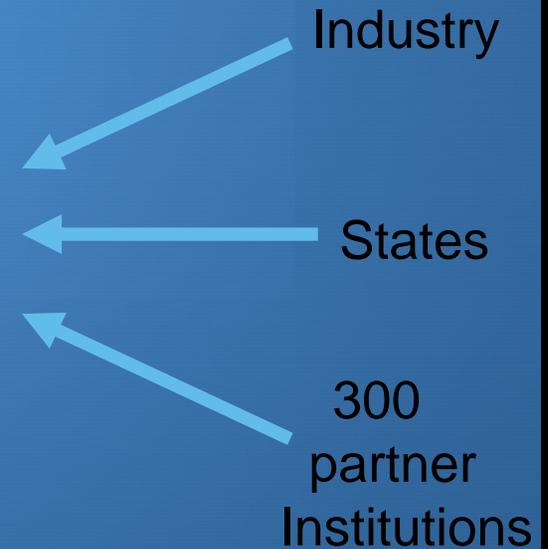
[www.drought.gov](http://www.drought.gov)

# Services

## NATIONAL SEA GRANT COLLEGE PROGRAM



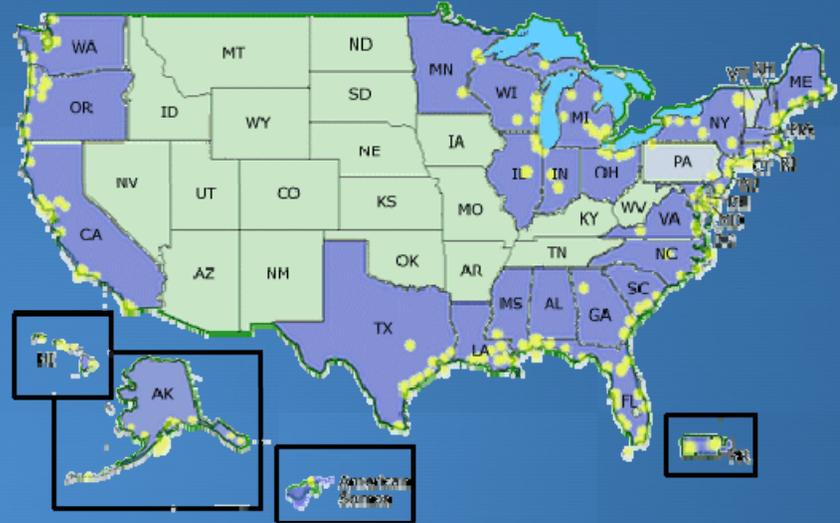
32 University-  
based programs



# 360 Extension Agents across the Nation

## Focus Areas

- 1. Sustainable Coastal Development
- 2. Hazard Resilient Coastal Communities
- 3. Safe Sustainable Seafood Supply
- 4. Healthy Coastal Ecosystems





Accommodating growth while protecting natural resources

[Home](#)

[About NEMO](#)

[What's Happening](#)

[What We Do](#)

[Who We Are](#)

[Resources](#)

[Contact Us](#)

## Resources

### Featured Resources for Local Decision Makers:

- The NEW Watershed Game - an educational tool for you (PDF)
- Green Speak - a glossary of commonly used terms(PDF)
- What is Northland NEMO (PDF)

### Featured Links:

- National NEMO Program
- MPCA Stormwater Program
- U of MN - the latest research on Stormwater
- EPA - Stormwater & Green Infrastructure

### COMING SOON!

#### LOW IMPACT DEVELOPMENT

- Content A
- Content B
- Content C

#### NATURAL RESOURCE BASED PLANNING

- Content A
- Content B
- Content C

#### PERVIOUS PAVEMENT

- Pervious Pavement Fact Sheet by Louise Watson, RWMWD
- EPA Porous Pavement Fact Sheet
- RWMWD pervious Asphalt parking lot
- Stormwater Journal - What I Learned in Pavers School April 2008

#### STREET RECONSTRUCTION

- Content A
- Content B
- Content C

### Charter Member LOGIN

#### RAIN GARDENS

- Fact Sheet
- Case Study- Burnsville, MN
- Minnesota Water - Let's Keep it Clean (for additional information)

#### ORDINANCES & POLICES

- Content A
- Content B
- Content C

#### REDEVELOPMENT & RETROFIT

- Content A
- Content B
- Content C

#### CHLORIDES

- Content A
- Content B
- Content C

\*\* Each resource topic only has a few key articles listed so if you are unable to find information you need, please contact [John Bilotta](#).

## **Planning related extension agent specialties :**

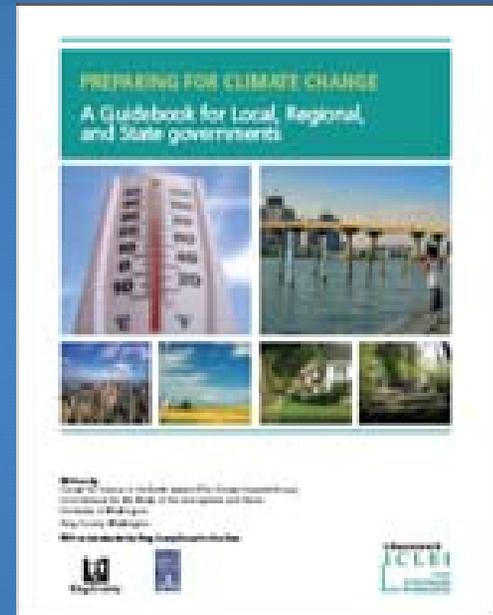
- Land use and planning, policy changes and ordinances
- Sustainable tourism
- Working waterfronts and coastal access
- Green infrastructure & brownfield development
- Water supply / quality and conservation
- Watershed management
- Renewable/alternative energy
- Vulnerability and risk assessment
- Hazard mitigation and adaptation planning

**Contact your local Sea Grant program to  
find an extension agent near you!**

**[www.seagrants.noaa.gov](http://www.seagrants.noaa.gov)**

# Guides

## Preparing for Climate Change: A Guidebook for Local, Regional and State Governments



<http://www.cses.washington.edu/cig/fpt/guidebook.shtml>

## Table of Contents

Ch 4: Scope the Climate Change Impacts to your Major Sectors

Ch 6: Build your Climate Change Preparedness Team

Ch 7: Identify your Planning Areas Relevant to Climate Change

Ch 8: Conduct a Climate Change Vulnerability Assessment

Ch 9: Conduct a Climate Change Risk Assessment

## Studies

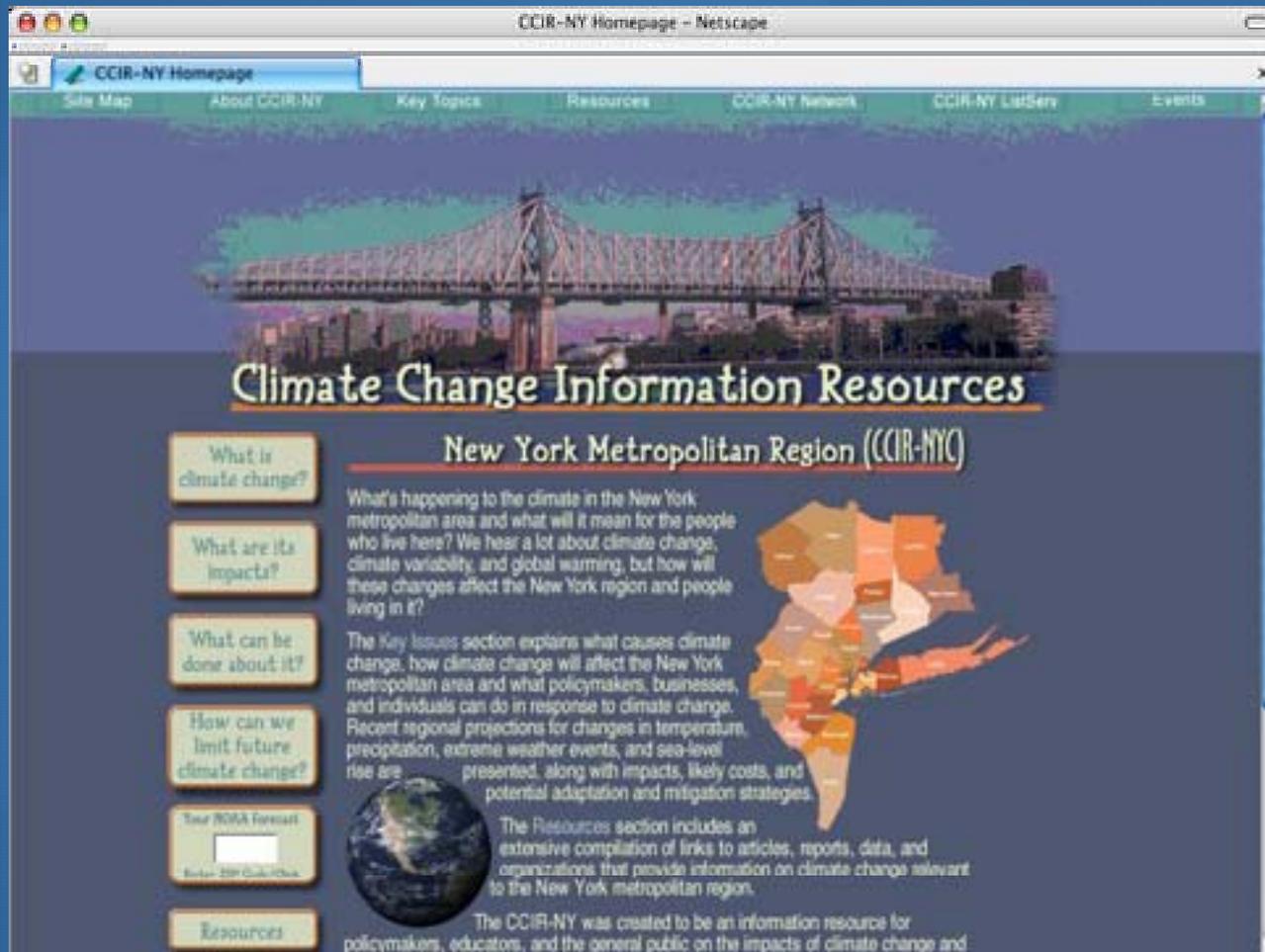
### Sensitivity of Boulder Colorado's Water Supply to Climate Change

Lead PI: Joel Smith



Purpose: Using the paleoclimate record and climate change models to evaluate the risks from both climate change and climate variability to produce an improved tool for water resources planning.

*Researchers from Stratus Consulting, Hydrosphere, the University of Colorado, and the City of Boulder, working together to create a decision support tool that relies on climate forecast information and that will be used in future city planning.*



## Anticipated Users

- City, municipal & county planners
- Natural resource managers (e.g. National Park Service, Army Corps)
- Transportation Managers (e.g., Port Authority of NY & NJ)
- Water & waste managers
- Educators & citizens

Climate Change Information For Urban Policy And Decision-Making

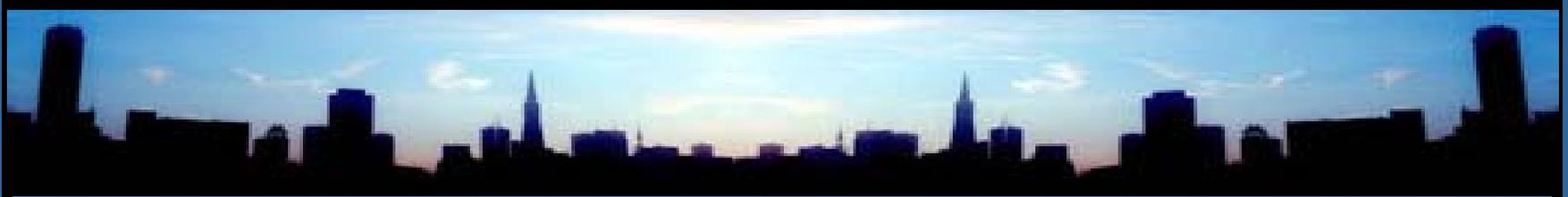
Roberta Balstad, C. Lenhardt, R. Downs, C.a Rosenzweig, & W. Solecki

## Commercial Message

Visit NOAA Booth

Apply for new grant:

[www.climate.noaa.gov/opportunities](http://www.climate.noaa.gov/opportunities)



**Thank You!**