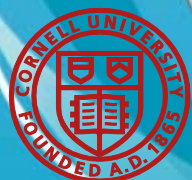




STATE UNIVERSITY OF NEW YORK
College of Environmental and Forestry

Northeast
Regional
Climate
Center



Cornell University

NEW YORK CLIMATE CHANGE SCIENCE CLEARINGHOUSE

Lisa Rector, NESCAUM

November 7, 2013

NESCAUM



NOAA

NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION
UNITED STATES DEPARTMENT OF COMMERCE

Need for Clearinghouse

- ❧ Climate change is already affecting New York
- ❧ Decision-makers need to incorporate this reality into planning
- ❧ Wide range of entities are collecting data and conducting climate research
- ❧ No resource exists to easily access this knowledge to inform scientifically sound and cost-effective policy decisions



New York Climate Change Science Clearinghouse



- ❧ NYSERDA is funding the development of web-based portal for climate change science information
- ❧ Clearinghouse will serve as a repository and interface for efficient accessing of data and information from existing sources
- ❧ Clearinghouse targets New York for initial start but long term vision is a regional resource for Northeast

Clearinghouse Functions



- ❧ Create an interface for accessing data and information with bi-directional information flow
- ❧ Identify and prioritize data based on quality and relevance
- ❧ Tailor information for specific end-users
- ❧ Promote information sharing
- ❧ Identify data gaps to inform future research
- ❧ Leverage and improve upon the capabilities of existing state, regional and federal climate-related sites

Target Audiences



❧ Primary Audience

- ❧ State and Local policy-makers and decision-makers

- ❧ Public

❧ Additional audiences:

- ❧ Researchers

- ❧ Private sector

- ❧ Non-governmental organizations

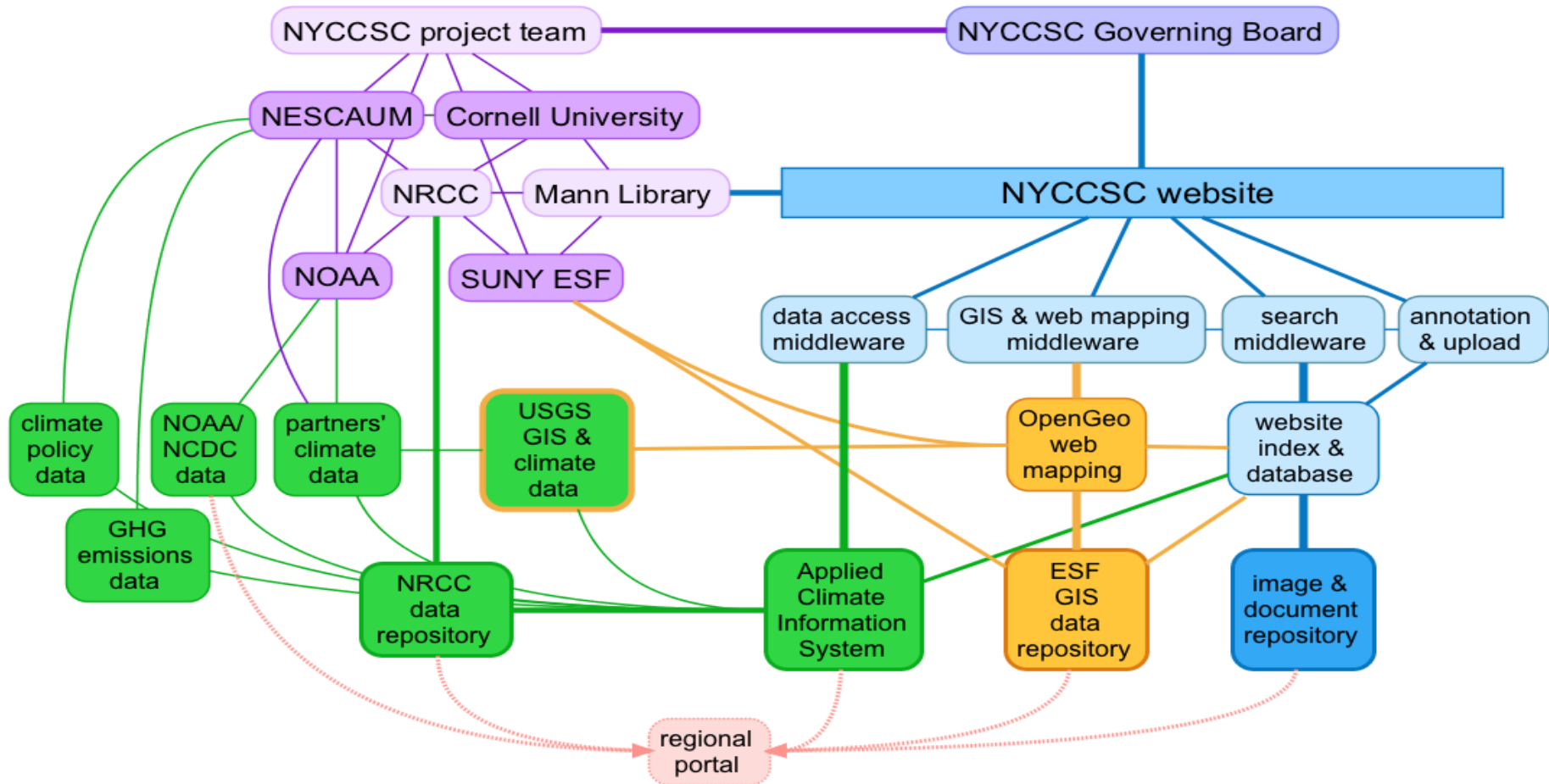
Clearinghouse Components



- ❧ Climate analysis tools
- ❧ Web mapping interface
- ❧ Document repository
- ❧ Directory of researchers and projects
- ❧ Website moderator

How it will be developed

2013-10-29



Vision...



☞ We have identified many data sets BUT we want your input on data, tools, design

☞ Contact us on how to participate!!!

Station-based climate data	Current and historical daily maximum and minimum air temperature, precipitation, snowfall and snow cover, back to late 1800s, from NOAA US COOP Observer Network for ~1000 locations. ☐ Daily data from specialized networks – e.g., CoCoRAHS, a national citizen science rain gauge network, SNOTEL, Network for Environment and Weather Applications ☐ Gridded historical 5 km daily maximum and minimum temperature, precipitation ☐ Gridded historical NOAA/NWS/NCEP reanalysis grids for comparing model simulations with historical data ☐ Monthly US Historical Climatology Network data (basis for National Climate Assessment will be added to ACIS with instrument/station and land use adjustments)
Downscaled daily climate model projections	☐ 50 km resolution, dynamically downscaled GCM simulations for historical and future periods from the suite of model runs included in the NARCCAP archive. ☐ Gridded downscaled GCM projections based on other downscaling methods and scenarios as indicated by user and Governing Body recommendations
Specialized Data Sets	☐ Extreme Precipitation Intensity duration curves based on ongoing NRCC and NOAA/NWS research ☐ Monthly frequency of nor'easter occurrence and measure of storm strength ☐ High-resolution gridded estimates of recent trends in temperature, precipitation, growing season length, thaw-freeze, drought and other related bioclimatic indices ☐ Data generated from ongoing NYSEDA climate adaptation projects
Linked Data Sets	☐ USGS stream discharge ☐ USGS and DOI/NECSC sea-level rise visualization datasets ☐ NOAA tidal and storm surge data ☐ DOI/LCC wildlife habitat classification maps
GIS data layers	The web map will access spatial data from several locations, internal and external to the site. The local GIS database will store an extensive library of layers drawn from authoritative sources, including (but not limited to) land cover/land use, transportation, natural resources, water, agriculture, census, sea level rise and coastal infrastructure will be covered. Remotely-sensed data, including LiDAR, will be incorporated as available.
Scientific literature	The initial scientific literature database will reflect the bibliography of four recent climate assessments. Responding to Climate Change in New York (Rosenweig et al. 2011), City of New York Climate Change Assessment and Action Plan (ref). Confronting Climate Change in the U.S. Northeast: Science, Impacts, and Solutions (Frumhoff et al. 2007), and the draft technical input for the Northeastern United States Chapter of the 2013 National Climate Assessment.
GHG Emissions Data	☐ US EPA EGrid database and State Inventory Tool ☐ US Department of Energy, Energy Information Administration databases ☐ New York Department of Conservation emissions inventories ☐ The Climate Registry (voluntary GHG reporting) ☐ Organization-level sustainability reports
Climate Policy and Research	☐ Unique project team database that stores climate-relevant projects, activities, assessments, etc.

Timeline



- ❧ Governing Body
 - ❧ Meetings throughout project period
- ❧ End User Focus Group Meetings
 - ❧ Meetings in Winter 2014
- ❧ Sector Group
 - ❧ Meetings Fall 2014 through Winter 2015

- ❧ Alpha Testing
 - ❧ Fall 2014
- ❧ Beta Testing
 - ❧ Spring 2015
- ❧ Site Launch
 - ❧ Fall 2015

Project Contacts



❧ Cornell University

❧ Art DeGaetano

❧ Jon Corson-Rikert

❧ NESCAUM

❧ Lisa Rector lrector@nescaum.org

❧ NOAA

❧ Ellen Mecray

❧ SUNY ESF

❧ Colin Beier