METCALF INSTITUTE FOR MARINE & ENVIRONMENTAL REPORTING

Peter B. Lord Seminars on the Environment
Climate Change Impacts in Southern New England

October 12, 2012
Coastal Institute Hazard Seminar Room
University of Rhode Island Graduate School of Oceanography
Narragansett, R.I.

Resources

Climate Change in General

American Security Project. (2011). Pay Now, Pay Later: Rhode Island. http://americansecurityproject.org/resources/pnpl/Rhode%20Island%20FINAL.pdf
This report compares the costs of action and inaction on mitigating climate change effects in the state of Rhode Island. It calls for Rhode Island to take action on climate change impacts in order to work towards economic sustainability.

Brewer, J. (2008). New Directions in Climate Change: Vulnerability, Impacts, and Adaptation Assessment. National Research Council. http://books.nap.edu/openbook.php?record_id=12545&page=R1

Brook, E. (2008). Paleoclimate: windows on the greenhouse. *Nature*, 453(7093): 579-581. http://0-www.nature.com.helin.uri.edu/nature/journal/v441/n7093/pdf/441579a.pdf

Coumou, D. and S. Rahmstorf. (2012). A decade of weather extremes. *Nature Climate Change* 2.7 (491-496).

Frumhoff, P. C., J.J. McCarthy, J.M. Melillo, S.C. Moser, and D.J. Wuebbles. (2007). Confronting Climate Change in the U.S. Northeast: Science, Impacts, and Solutions. Synthesis report of the Northeast Climate Impacts Assessment (NECIA). Cambridge, MA: Union of Concerned Scientists.

Hansen, J., M. Sato, and R. Reudy. (2012, March 29). Perception of climate change. *Proceedings of the National Academy of Sciences*. http://www.pnas.org/content/early/2012/07/30/1205276109.abstract

Harvey, F. (2012 September 5). Climate change is already damaging global economy, report finds. *The Guardian*. Retrieved October 8, 2012 from http://www.guardian.co.uk/environment/2012/sep/26/climate-change-damaging-global-economy

Karl, T.R., J.M. Melillo and T.C. Peterson. (2009). Global Climate Change Impacts in the U.S. A report of the U.S. Global Change Research Program. http://library.globalchange.gov/products/assessments/2009-national-climate-assessment/global-climate-change-impacts-in-the-u-s-highlights-booklet

Kloor, K. (2011). Can Journalists Better Capture the Nuances of Climate Science? The Yale Forum on Climate Change & The Media. http://www.yaleclimatemediaforum.org/2011/11/can-journalists-better-capture-the-nuances-of-climate-science/

Kloor , K. (2012). Who Do You "Outsource" to on Climate Science? The Yale Forum on Climate Change & The Media. http://www.yaleclimatemediaforum.org/2012/03/who-do-you-%E2%80%98outsource%E2%80%99-to-on-climate-science/

Liu, J.P., J.A. Curry, H. Wang, M. Song, and R.M. Horton. (2012). Impact of declining Arctic sea ice on winter snowfall. *Proceedings of the National Academy of Sciences*. 109(17): 6781-6783. http://www.pnas.org/content/109/11/4074

Meehl, G.A., Arblaster, J.M., Fasullo, J.T., Hu, A., Trenberth, K.E. (2011). Model-based evidence of deep-ocean heat uptake during surface-temperature hiatus periods. *Nature Climate Change* 1.7 (360-364).

Milly, P., et al. (2008). Climate change: stationarity is dead: whither water management? *Science, 319*(5863), 573-574. Claims that current water resource management techniques are insufficient due to climate change.

National Wildlife Federation. (2012). Ruined Summer: How Climate Change Scorched the Nation. http://www.nwf.org/News-and-Magazines/Media-Center/Reports/Archive/2012/%7E/media/E8C0B13B0C224945A655C2EC8F30A415.ashx

Pew Center on Global Climate Change. Climate Change 101: Understanding and Responding to Global Climate Change (Overview).
Link to full series: http://www.pewclimate.org/global-warming-basics/climate_change_101

Rhode Island Sea Grant. Climate Change in Rhode Island. http://seagrant.gso.uri.edu/climate/index.html
This weblink includes a climate change science summary, information about the Wastewater Management Workshop facilitated by Jon Boothroyd and David Vallee, and PowerPoint presentations from November 2011 and May 2011 symposiums on climate change in the state of Rhode Island.

The Stern Review on the Economics of Climate Change, a 2006 report by Nicholas Stern of the U.K. concluding enormous economic opportunities in low carbon economics. http://apo.org.au/research/stern-review-economics-climate-change

The Ultimate Climate Change FAQ. Compiled by The Guardian.
http://www.guardian.co.uk/environment/series/the-ultimate-climate-change-faq

Union of Concerned Scientists. Rhode Island: Confronting Climate Change in the U.S. Northeast.
http://www.climatechoices.org/assets/documents/climatechoices/rhode-island_necia.pdf

U.S. Climate Change Policy Action at the State Level.
This list, compiled by the Center for Climate and Energy Solutions, provides links to climate change legislation, statewide climate change commissions, and climate action plans around the U.S. The list is not exhaustive, but provides a good starting point for additional information.
http://www.c2es.org/what_s_being_done/in_the_states/state_legislation.cfm

U.S. Global Change Research Program National Climate Assessment.
(The next National Climate Assessment is scheduled to be completed in 2013.)
Information about the current assessment: http://www.globalchange.gov/what-we-do/assessment

The University Corporation for Atmospheric Research (UCAR). Frequently asked questions about global warming and climate change. https://www2.ucar.edu/faq/very-frequently-asked

Woods Hole Research Center. Understanding Climate Change: A Primer.
http://www.whrc.org/resources/primer_home.html

Shoreline Change

Barlow, Paul M. Ground Water in Freshwater-Saltwater Environments of the Atlantic Coast. USGS.
http://pubs.usgs.gov/circ/2003/circ1262/

Climate change threatens drinking water, as rising sea penetrates coastal aquifers. ScienceDaily. (2007 November 7). Retrieved October 8, 2012 from http://www.sciencedaily.com/releases/2007/11/071106164744.htm.
Reports on salt water intrusion due to sea level rise.

Crow, C. (2010). Establishing Vertical Control & Geospatial Infrastructure for Monitoring Sea Level Rise. National Geodetic Survey. http://www.edc.uri.edu/monumentation/Resources/CACOKickOff/Crow.pdf

De Souza, M. (2008). Adapting to a changing climate; Documents sent to Transport and Infrastructure by federal experts warn that water resources are particularly vulnerable to changes in the climate and urge Ottawa to offer more support, guidance and leadership. *The Gazette* (Montreal), 12/16/08.

Ford, K.H. (2003). Assessment of the Rhode Island Coastal Lagoon Ecosystem. Dissertation. University of Rhode Island.

Freedman, Janet. (2012). Losing Ground: Coastal Erosion in Rhode Island.
http://seagrant.gso.uri.edu/z_downloads/climate_losing_ground_2012.pdf
This presentation by Janet Freedman, coastal geologist with the R.I. Coastal Resources Management Council, describes some of the erosion threats Rhode Island's coastal areas are facing, as well as efforts the state is undertaking to help municipalities and property owners address these problems.

Fuller, R., N. Cofer-Shabica, Z. Ferdana, A. Whelchel, N. Herold, K. Schmid, B. Smith, D. Marcy, and D. Eslinger. (October 2011). Marshes on the Move: A Manager's Guide to Understanding and Using Model Results Depicting Potential Impacts of Sea Level Rise on Coastal Wetlands. NOAA and The Nature Conservancy.
http://www.csc.noaa.gov/digitalcoast/publications/marshesonthemove

Heffner, L., et al. (2012). Climate Change & Rhode Island's Coasts. URI Graduate School of Oceanography and URI Coastal Resources Center. http://seagrant.gso.uri.edu/z_downloads/coast/climate_change_summ_web.pdf
This report elaborates on the current trends and consequences of climate change as seen in the state of Rhode Island. The report includes extensive "Literature Cited" and "Climate Change References" sections that are useful resources for further information.

Herweijer, C. (2008). How do coastal cities fare under rising flood risk? Catastrophic risk management. Retrieved October 8, 2012 from http://www.rms.com/Publications/Cat_Risk_Management_April08_RMS.pdf

Lin, N., K. Emanuel, M. Oppenheimer, and E. Vanmarcke. (2012). Physically based assessment of hurricane surge threat under climate change. *Nature Climate Change*, 2(6): 462-467.
http://www.nature.com/nclimate/journal/v2/n6/abs/nclimate1389.html

Lord, P. (2007 October 17). Coastal planners ready for sea-level rise. *The Providence Journal.*

Meehl, G.A., et al. (2012). Relative outcomes of climate change mitigation related to global temperature versus sea-level rise. *Nature Climate Change*, 2(8): 576-580.
http://www.nature.com/nclimate/journal/v2/n8/full/nclimate1529.html

Navaro, M. (2012 September 10). New York is Lagging as Seas and Risks Rise, Critics Warn. *The New York Times*. Retrieved on October 8, 2012 from http://www.nytimes.com/2012/09/11/nyregion/new-york-faces-rising-seas-and-slow-city-action.html?_r=2

Nicholls, R.J. and A. Cazenave. (2010). Sea-Level Rise and Its Impact on Coastal Zones. *Science*, 328: 1517-1520.
http://www.sciencemag.org/content/328/5985/1517.abstract

(2009). Resilient Coasts: A Blueprint for Action. The Heinz Center, Washington DC.
http://www.google.com/url?sa=t&rct=j&q=resilient%20coasts%20a%20blueprint%20for%20action&source=web&cd=1&cad=rja&ved=0CCIQFjAA&url=http%3A%2F%2Fwww.heinzctr.org%2FMajor_Reports_files%2FResilient%2520Coasts%2520Blueprint%2520for%2520Action.pdf&ei=Zex2UMnaLumM2gW094GABw&usg=AFQjCNHO1_DjAZy6XhT8q1bUElu5Khs2kw

R.I. Sea Level Rise & Climate Change Policy. http://www.crmc.ri.gov/climatechange/RICRMP_145.pdf

Sallenger, A.H., K.S. Doran, and P.A. Howd. (2012). Hotspot of accelerated sea-level rise on the Atlantic coast of North America. Nature Climate Change, doi:10.1038/nclimate1597.
http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate1597.html

Sea Level Rise Scenarios and Coastal Change Science Informs Local and Global Communities,From NewsWave, Spring 2012 (Newsletter of the US Department of Interior).
http://www.doi.gov/pmb/ocean/news/newswave/upload/DOI_Newswave-Spring-2012-final.pdf

Strauss, B.H., R. Ziemlinski, J.L. Weiss, and J.T. Overpeck, (2012). Tidally adjusted estimates of topographic vulnerability to sea level rise and flooding for the contiguous United States. *Environmental Research Letters*, 7(1): 014033 doi:10.1088/1748-9326/7/1/014033

Surging Seas: A Project of Climate Central. http://sealevel.climatecentral.org/

Twohig, T.H. and M.H. Stolt. (2011). Soils-based rapid assessment for quantifying changes in salt marsh condition as a result of hydrologic alteration, *Wetlands*, 31: 955-963.
http://www.springerlink.com/content/w630013666p83263/

United States Geological Survey (2007). Map: National Vulnerability to Sea Level Rise Annual Shoreline Change.
http://woodshole.er.usgs.gov/project-pages/cvi/

U.S. EPA Sea Level Rise Reports
http://epa.gov/climatechange/effects/coastal/slrreports.html

USGS. Coastal Marsh Response to Climate and Land Use Change.
http://www.usgs.gov/climate_landuse/clu_rd/projects/forecast.asp

USGS. (2011). Inventory and Protection of Salt Marshes from Risks of Sea-Level Rise at Acadia National Park, Maine.
https://docs.google.com/viewer?a=v&q=cache:FvHtN_YO7eUJ:pubs.usgs.gov/fs/2011/3015/pdf/fs2011-3015_nielsen_508.pdf+salt+marshes+sea+level+rise+new+england&hl=en&gl=us&pid=bl&srcid=ADGEESj8gf38bBF4cJfFU1TzTFkR0wRURpAh5hNnyV2prdmvwAZD0_PmOb4b87olrk1NQdRXsrrq0ozAeELhLG-6OLJfGRVXhC-A6DG54fKi72JhdVHAVHitnzlnKfwmkakGIpH8hPfo&sig=AHIEtbSkr4olMGgzj-Wz0hjTNRvB7-aV6A

USGS. Sea-level Rise Hazards and Decision Support, Sea-Level Rise. http://wh.er.usgs.gov/slr/sealevelrise.html

Vinhateiro, N. (2008 September 11). Mapping technology needed to assess risk of sea level rise. *South County Independent*. Retrieved on October 8, 2012 from
http://www.ci.uri.edu/ciip/Publications/Vinhateiro_SCInd_OpEd.pdf

Vinhateiro, N. & P. Rubinoff. (2007). The science of sea level rise: overview and policy implications for the state of Rhode Island. Rhode Island Sea Grant/Coastal Resources Center.

Ecosystem Response

Allison, E.H., et al. (2009). Vulnerability of National Economies to the Impacts of Climate Change on Fisheries. *Fish and Fisheries*. 10(2): 173-196. http://www3.interscience.wiley.com/cgi-bin/fulltext/121681399/HTMLSTART

Biello, David. Fish Fin? How Climate Change is Hurting Cold Water Fish. *Scientific American*. January 4, 2007.
http://www.scientificamerican.com/article.cfm?id=fish-fin-how-climate-chan

Cheung, W.W.L, J.L. Sarmiento, J. Dunne, T.L. Frolicher, V.W.Y. Lam, M.L. Deng Palomares, R. Watson, and D. Pauly. (2012, September 30). Shrinking of fishes exacerbates impacts of global ocean changes on marine ecosystems. *Nature Climate Change*.
http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate1691.html

Cochrane, K., C. De Young, D. Soto, and T. Bahri. 2009. Climate change implications for fisheries and aquaculture: overview of current scientific knowledge. FAO Fisheries and Aquaculture Technical Paper. No. 530. Rome, FAO. http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=210&lid=997

Collie, J., A. Wood and H.P. Jeffries. (2008). Long-term shifts in the species composition of a coastal fish community, *Canadian Journal of Fisheries and Aquatic Science*, 65(7), 1352-1365.

The Dukes Lab. Boston Area Climate Experiment. Purdue and UMass Boston. http://web.ics.purdue.edu/~jsdukes/bace.html

Fogarty, M., L. Incze, R. Wahle, D. Mountain, A. Robinson, A. Pershing, K. Hayhoe, A. Richares, and J. Manning. (2007). Potential Climate Change Impacts on Marine Resources of the Northeastern United States. Northeast Climate Impacts Assessment.

Gedan, K.B., A.H. Altieri and M.D. Bertness. (2011). Uncertain Future of New England Salt Marshes. *Marine Ecology Progress Series*, 434: 229-237. http://www.int-res.com/articles/theme/m434p229.pdf

Gibson, M. and C. Oviatt. (2008 August 1). Narragansett Bay turns into the Chesapeake. *The Providence Journal.*

Goldstone, H. (2011 March 2). Climate change threatens New Engalnd's offshore liquid assets – phytoplankton. Climatide. http://climatide.wgbh.org/2011/03/climate-change-threatens-new-englands-offshore-liquid-assets/

Hare, J. A., et al. (2010). Forecasting the dynamics of a coastal fishery species using a coupled climate – population model. Ecological Society of America. *Ecological Applications*, 20(2): 452-464.

Harvard Forest Climate Change Research. Descriptions of long-term research at the Harvard Forest ranging from identification of ragweed hotspots to forests' absorption of atmospheric carbon dioxide to the effects of warming soil. http://harvardforest.fas.harvard.edu/other-tags/climate-change

Harvell, C.D., et al. (2002, June 21). Climate Warming and Disease Risks for Terrestrial and Marine Biota. *Science.* 296: 2158-2162.

Hubbard Brook Ecosystem Study (at Hubbard Brook Experimental Forest in southern NH). Fifty years of data shows a clear record of warming in lower elevations in New Hampshire. They use the small-watershed approach, comparing six parallel stream systems that have been manipulated in differing ways. http://hubbardbrook.org/

Joint Ocean Commission Initiative, (April 2009). Changing Oceans, Changing World http://www.jointoceancommission.org/resource-center/1-Reports/2009-04-07_JOCI_Changing_Oceans,_Changing_World.pdf

Kemp, W.M. et al., Modeling Hypoxia and Ecological Responses to Climate and Nutrients. Website of NOAA's Coastal Hypoxia Research Program. http://northweb.hpl.umces.edu/CHRP/CHRP_home.htm

Kundzewicz, Z.W., L.J. Matta, N.W. Arnell, Döll, P., et al. (2007). Fresh water resources and their management. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK: Cambridge University Press. Retrieved October 8, 2012 from http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter3.pdf (Reports the impacts of climate change on freshwater systems.)

LaFrance, M. and L. Heffner. (2009). Habitat Mapping and Evaluating Ecological Impacts of Sea Level Rise. URI Graduate School of Oceanography. June 2009.

Miller-Rushing, A.J. and R.B. Primack. (2008). Global warming and flowering times in Thoreau's Concord: A community perspective. *Ecology*, 89(2): 332-341. http://www.google.com/url?sa=t&rct=j&q=primack%20concord%20forest&source=web&cd=6&cad=rja&ved

=0CEQQFjAF&url=http%3A%2F%2Ffaculty.bennington.edu%2F~kwoods%2Fclasses%2FEcology%2Freadings%2Fmiller-rushing%2520-%25202008%2520-%2520global%2520warming.pdf&ei=o-92ULG0B8Tg2QWWpIGQBg&usg=AFQjCNE49UQMUwlzRJwqdPvmFl6t0pKxMQ

Nijhuis, M. (2007). Teaming up with Thoreau. Smithsonian Magazine, October 2007. (Features work of Richard Primack in Concord, Massachusetts) http://www.smithsonianmag.com/science-nature/walden.html

Norberg, J., M.C. Urban, M. Vellend, C.A. Klausmeier, N. Loeuille. (2012). Eco-evolutionary responses of biodiversity to climate change. *Nature Climate Change*, 2(10): 747-751. http://www.nature.com/nclimate/journal/v2/n10/full/nclimate1588.html

Nye, J.A., Link, J.S., Hare, J.A. and Overholtz, W.J. (30 October 2009). Changing spatial distribution of fish stocks in relation to climate and population size on the Northeast United States continental shelf. Marine *Ecology Progress Series*, 393: 111-129.

Rustad, L., et al. (2012). Changing climate, changing forests: The impacts of climate change on forests of the northeastern United States and Eastern Canada. General Technical Report NRS-99. http://nrs.fs.fed.us/pubs/41165

Saltmarsh Habitat & Avian Research Program (SHARP). www.Tidalmarshbirds.org
SHARP is a large collaborative initiative to conserve the tidal-marsh bird community of the Atlantic seaboard. In the long-term, the project's goal is to provide a regionally consistent platform for tidal marsh monitoring in the face of anticipated sea-level rise and upland/watershed development. The "Public Downloads" page features maps with historical data, descriptions of field methods, presentations, and relevant literature.

Urban, M.C., L. De Meester, M. Vellend, R. Stoks, and J. Vanoverbeke. (2012). A crucial step toward realism: responses to climate change from an evolving metacommunity perspective. *Evoluationary Applications*, 5(2): 154-167. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3353337/

Wigand, C., et al. (2011). Development and Validation of Rapid Assessment Indices of Condition for Coastal Tidal Wetlands in Southern New England, USA. *Environmental Monitoring and Assessment*. 182: 31-46. http://www.ncbi.nlm.nih.gov/pubmed/21210212

Willis, C.G., B. Ruhfel, R.B. Primack, A.J. Miller-Rushing, and C.C. Davis. (2008). Phylogenetic patterns of species loss in Thoreau's woods are driven by climate change. *Proceedings of the National Academy of Sciences*. 105(44): 17029-17033. http://www.pnas.org/content/105/44/17029.long

Public Health

Centers for Disease Control and Protection. West Nile virus (WNV) activity reported to ArboNet, by state, United States, 2012 (as of September 4, 2012). http://www.cdc.gov/ncidod/dvbid/westnile/Mapsactivity/surv&control12MapsAnybyState.htm

Climate Change and the Urban Environment. (2002). Boston Public Health Commission and the Harvard Medical School Center for Health and Global Environment. A report based on the City Health Directors' Policy Forum on Climate Change, October 27 & 28, 2002, Boston, MA. http://www.bphc.org/programs/cib/environmentalhealth/Forms%20%20Documents/climatechange.pdf

Engelhaupt, E. (2008 August 15). In a changing climate, cities worsen water quality. *Environmental Science & Technology*. American Chemical Society. Retrieved October 8, 2012 from http://pubs.acs.org/doi/abs/10.1021/es8018012

Epstein, P.R. and C. Defilippo. (2001). West Nile Virus and Drought. *Global Change and Human Health* 2 (2), 105-107. http://www.springerlink.com/content/yxjcwlgq0vy6ddcn/?MUD=MP

Epstein, P.R., S. Meginness, J. Rich, R. Swartz, J. McGuire, and J. Auerbach. (2003). Urban Indicators of Climate Change. Center for Health and the Global Environment, Harvard Medical School and The Boston Public Health Commission.

Greene, S., L.S. Kalkstein, D.M. Mills, and J. Samenow. (2011). An Examination of Climate Change on Extreme Heat Events and Climate-Mortality Relationships in Large US Cities. *Weather Climate and Society*, 3(4): 281-292. http://www.as.miami.edu/geography/research/climatology/WCAS-D-11-00055.pdf

Karl, T.R., J.M. Melillo, and T.C. Peterson. (2009). Global Climate Change in the United States. U.S. Global Change Research Program. Cambridge University Press. New York, NY. Section on human health, pp 89-98. http://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf

Kilpatrick, A.M., M.A. Meola, R.M. Moudy, and L.D. Kramer. (2008). Temperature, Viral Genetics, and the transmission of West Nile Virus by *Culex pipiens* Mosquitos. *PLOS Pathogens*, 4(6): e1000092. http://www.plospathogens.org/article/info%3Adoi%2F10.1371%2Fjournal.ppat.1000092

Lemonick, M.D. (2012). Climate is Ripe for Deadly West Nile Virus Attack on Texas. Climate Central. http://www.climatecentral.org/news/climate-is-ripe-for-deadly-west-nile-virus-attack-on-texas-14826/

The Mount Sinai Hospital. (24 February 2011) Experts Warn Us about the Health Consequences of Global Warming. Children's Environmental Health Center. New York, NY. Retrieved on October 8, 2012 from http://www.mountsinai.org/patient-care/service-areas/children/areas-of-care/childrens-environmental-health-center/cehc-in-the-news/news/experts-warn-us-about-the-health-consequences-of-global-warming

Myers, S.S. and A. Bernstein. The Coming Health Crisis. *The Scientist*. January 1, 2011. Retrieved on October 8, 2012 from http://classic.the-scientist.com/?articles.view/articleNo/29429

Reisen, W.K., Y. Fang, and V.M. Martinez. (2006). Effects of Temperature on the Transmission of West Nile Virus by *Culex tarsalis* (Dipetra: Culicidae). *Journal of Medical Entomology,* 43(2): 309-317. Entomological Society of America. http://www.ncbi.nlm.nih.gov/pubmed/16619616

Rogers, D.J., and S.E. Randolph. (2000, September 8). The Global Spread of Malaria in a Future, Warmer World. *Science*, 289: 1763-1766. http://www.sciencemag.org/content/289/5485/1763.full

Shetty, P. Climate change and insect-borne diseases: Facts and Figures. 9 September 2009. SciDev.net. Retrieved on October 8, 2012 from http://www.scidev.net/en/features/climate-change-and-insect-borne-disease-facts-and--1.html

Yu, W.W., et al. (2012). Daily average temperature and mortality among the elderly: a meta-analysis and systematic review of epidemiological evidence. *International Journal of Biometeorology,* 56(4): 569-581. http://www.springerlink.com/content/t8h7601434455986/

Data Sources

Carbon Dioxide information Analysis Center. http://cdiac.ornl.gov

Massachusetts Office of Coastal Zone Management. http://www.mass.gov/czm/

National Drought Mitigation Center. Rhode Island State Drought Planning.
http://drought.unl.edu/Planning/PlanningInfobyState/StatePlanning.aspx?st=ri
Website portal that offers real-time ocean data for various coastal sections of the country.
NOAA. Climate Program Office. Regional Integrated Sciences and Assessments.
http://www.climate.noaa.gov/index.jsp?pg=/cpo_pa/cpo_pa_index.jsp&pa=risa&sub=list_pi.jsp

Northeast Climate Impacts Assessment. http://www.northeastclimateimpacts.org/.

The Northeast Climate Impacts Assessment (NECIA) is a collaboration between the Union of Concerned Scientists (UCS) and a team of more than fifty independent experts to develop and communicate a new assessment of climate change, impacts on climate-sensitive sectors, and solutions in the northeastern United States. Launched in May, 2005, the goal of the assessment is to combine state-of-the-art analyses with effective outreach to provide policymakers, opinion leaders, and the public with the best available science upon which to base informed choices about climate change mitigation and adaptation.

Rhode Island Sea Grant. Sea Level Rise Mapping & Data Tools.
http://seagrant.gso.uri.edu/climate/slr_tools.html
Provides information regarding vulnerability of North Kingstown, RI, to sea level rise including maps, the Sea Level Affecting Marshes Model (SLAMM), and the presentation, "Building blocks for Climate Change – Tools for Assessment and Planning (2011)," which addresses the need for adaption and mitigation in light of the impacts of a changing climate, particularly in North Kingstown.

Other

Conservation Law Foundation, Rhode Island. http://www.clf.org/your-state/rhode-island/

The Nature Conservancy, Rhode Island Chapter.
http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/rhodeisland/contact/providence-office-staff.xml

Richard Primack, Boston University. http://people.bu.edu/primack/

Rhode Island Coastal Resources Management Council. http://www.crmc.ri.gov/climatechange.html

Rhode Island Department of Health.
http://www.health.ri.gov/programs/communityfamilyhealthandequity/index.php/index.php

Rhode Island Sea Grant. http://seagrant.gso.uri.edu/

Perry Sheffield, The Mount Sinai Hospital. http://www.mountsinai.org/profiles/perry-e-sheffield

Seafreeze, Ltd. http://www.seafreezeltd.com/

Town of Bristol, RI. http://www.bristolri.us/

Tupelo Gardenworks Ltd. http://www.tupelogardenworks.com/

University of Rhode Island Coastal Resources Center. http://www.crc.uri.edu/

University of Rhode Island Graduate School of Oceanography. http://www.gso.uri.edu

University of Rhode Island Office of Marine Programs. http://omp.gso.uri.edu/ompweb

U.S. Geological Survey, Howard Ginsberg. http://www.pwrc.usgs.gov/staff/profiles/documents/ginsberg.htm