## **Endnotes**

#### Chapter 1

# The New England Offshore Environment and the Need for Ocean Planning

- Exec. Order No. 13547, 75 Fed. Reg. 43023 (Jul. 22, 2010), https://www.whitehouse.gov/files/documents/2010stewardship-eo.pdf.
- Hauke Kite-Powell, Charles Colgan, Porter Hoagland, Di Jin, Vinton Valentine, and Brooke Wikgren, Draft Northeast Ocean Planning Baseline Assessment: Marine Resources, Infrastructure, and Economics, prepared for the Northeast Regional Planning Body, 2016, http:// neoceanplanning.org/projects/baseline-assessment/.

## Chapter 2

## Ocean Planning in New England

- Northeast Regional Planning Body, Framework for Ocean Planning in the Northeast US. Adopted by the Northeast Regional Planning Body in January 2014, http://neoceanplanning.org/wp-content/ uploads/2014/02/NE-Regional- Ocean-Planning- Framework-February-2014.pdf.
- These advisory groups, composed of individuals representing a range of different interests, either previously existed to inform state marine policy or were set up to specifically inform the regional plan. The groups include: In Massachusetts, the Ocean Advisory Commission; in Rhode Island, the stakeholder group set up for the Ocean Special Area Management Plan; and in Maine, the Maine advisors group set up for this effort.
- Northeast Regional Planning Body, Northeast Regional Planning Body Charter, adopted by the Northeast Regional Planning Body in 2013, http://neoceanplanning. org/wp-content/uploads/2014/07/Charter-with-Signatories.pdf.

## **Chapter 3**

## Regulatory and Management Actions: Regulatory and Management Context

- National Ocean Council, Legal Authorities Related to the Implementation of Coastal and Marine Spatial Planning (National Ocean Council, 2011), https://www.whitehouse. gov/sites/default/files/microsites/ceq/cmsp\_legal\_ compendium 2-14-11.pdf.
- 30 CFR §320 et. seq. Available at: http://www.nap.usace. army.mil/Portals/39/docs/regulatory/regs/33cfr320.pdf.
- Office for Coastal Management, National Oceanic and Atmospheric Administration, "Federal Consistency. "coast.noaa.gov. https://coast.noaa.gov/czm/consistency/.

## Chapter 3

## Regulatory and Management Actions: Marine Life and Habitat

- Melanie Steinkamp, New England/Mid-Atlantic Coast Bird Conservation Region (BRC 30) Implementation (USFWS, 2008), http://acjv.org/BCR\_30/BCR30\_June\_23\_2008\_ final.pdf.
- 2. For work group overview, see "work groups" at http://neoceanplanning.org/projects/marine-life.
- For the terms of reference describing the role of the EBM Work Group, see http://neoceanplanning.org/ wp-content/uploads/2015/09/EBM-Work-Group-Terms-of-Reference.pdf.
  - For EBM meeting summaries, see "past events" at http://neoceanplanning.org/events/.
- 4. The NROC Habitat Classification and Ocean Mapping Subcommittee is supported by the NROC Ocean and Coastal Ecosystem Health Committee; for additional information, see http://northeastoceancouncil.org/committees/ocean-and-coastal-ecosystem-health/.
- The Marine Life Data and Analysis Team (MDAT) is a collaboration between Duke University, NOAA Northeast Fisheries Science Center, NOAA Centers for Coastal and Ocean Science, and Loyola University.
- Group core abundance/biomass area maps represent overlays of multiple species core abundance/biomass area maps. Species core abundance/biomass areas are defined as the smallest area containing 50% of the predicted abundance/biomass of a species.

- Marine life work groups held a total of nine meetings in 2014 and 2015. Agendas and meeting materials can be found at: http://neoceanplanning.org/ projects/ marine-life.
- The Marine Mammals modeling methodology is described here: http://neoceanplanning.org/wp-content/ uploads/2015/05/MDAT-Final-Work-Plan\_Mammals-Turtles.pdf and in Roberts JJ, Best BD, Mannocci L, Fujioka E, Halpin PN, Palka DL, Garrison LP, Mullin KD, Cole TVN, Khan CB, McLellan WM, Pabst DA, Lockhart GG (2016) Habitat-based cetacean density models for the U.S. Atlantic and Gulf of Mexico. Scientific Reports 6: 22615. doi: 10.1038/srep22615.
- The Birds modeling methodology is described here: http://neoceanplanning.org/wp-content/ uploads/2015/05/MDAT-Final-Work-Plan\_Avian.pdf and in Kinlan, B.P., A.J. Winship, T.P. White, and J. Christensen. 2016. Modeling At-Sea Occurrence and Abundance of Marine Birds to Support Atlantic Marine Renewable Energy Planning: Phase I Report (U.S. Department of the Interior, Bureau of Ocean Energy Management, 2016), http://www.data.boem.gov/PI/ PDFImages/ESPIS/5/5512.pdf.
- The Fish mapping methodology is described here: http:// neoceanplanning.org/wp-content/uploads/2015/05/ MDAT-Final-Work-Plan Fish.pdf.
- The report can be downloaded here: http://neoceanplanning.org/wp-content/uploads/ 2014/08/Marine-Life-Assessment-Inventory\_Draft.pdf.

## **Chapter 3**

## Regulatory and Management Actions: Cultural Resources

- Hauke Kite-Powell, Charles Colgan, Porter Hoagland, Di Jin, Vinton Valentine, and Brooke Wikgren, Draft Northeast Ocean Planning Baseline Assessment: Marine Resources, Infrastructure, and Economics, prepared for the Northeast Regional Planning Body, 2016, http:// neoceanplanning.org/projects/baseline-assessment/.
- 2. Ibid.
- 3. Ibid.

- 4. This list is not intended to be exhaustive. It focuses on elements of the "historic and cultural resources" topic that are most pertinent to the Northeast Ocean Plan. because of their marine focus, link to management through federal statute and regulation, importance in offshore development review, or importance as expressed by stakeholders during the development of the Plan. States also regulate certain historic resources through state law and regulation, found on each state's State Historic Preservation Office (or equivalent) online presence.
- 5. National Working Waterfront Network, "Information for decision and policy makers." wateraccessus.com. http:// www.wateraccessus.com/decisionmakers.html.
- 6. Advisory Council on Historic Preservation, "Section 106 Regulations Summary." achp.gov. http:// www.achp.gov/106summary.html.
- 7. National Preservation Institute, "NEPA and Section 106 of the National Historic Preservation Act." npi.org. http:// www.npi.org/nepa/sect106.
- 8. National Park Service. "Nation Register of Historic Places Program: Research." nps.gov. http://www.nps.gov/nr/ research/.
- 9. Bureau of Ocean Energy Management and National Oceanic and Atmospheric Administration, "Marinecadastre. gov." marinecadastre.gov, http://marinecadastre.gov/.

## Regulatory and Management Actions: Marine Transportation

- 1. Kenneth Steve and Julie Parker, *Highlights of Ferry* Operators in the United States, Special Report (US Department of Transportation, 2014), http://www.rita. dot.gov/bts/sites/rita.dot.gov.bts/files/subject\_areas/ ncfo/highlights.
- 2. Cruise Lines International Association. "Cruise Lines. Passengers Spent \$21 Billion in 2014. Jumping 16 Percent in Four Years and Representing New Peak in U.S. Cruise Industry Expenditures," cruising.org, http://www.cruising. org/about-the-industry/press-room/press-releases/pr/ Cruise-Lines-Passengers-Spent-21-Billion-In-2014.
- 3. Eric Levenson. "Ten Legitimately Fascinating Facts about the Shipping Industry," The Wire, August 12, 2013.

- 4. Journal of Commerce, "Boston to begin dredging in 2017". joc.com. http://www.joc.com/port-news/us-ports/ massachusetts-port-authority/boston- begin-dredging-2017 20151123.html.
- 5. Hauke Kite-Powell, Charles Colgan, Porter Hoagland, Di Jin, Vinton Valentine, and Brooke Wikgren, Draft Northeast Ocean Planning Baseline Assessment: Marine Resources, Infrastructure, and Economics, prepared for the Northeast Regional Planning Body, 2016, http:// neoceanplanning.org/projects/baseline-assessment/.
- 6. United States Coast Guard, "Missions." uscg.gov. http://www.uscq.mil/top/missions/.
- 7. Ports and Waterways Safety Act (PWSA), 33 U.S.C. 1221, Maritime Transportation Security Acts of 1996 and 2003. 46 U.S.C. §§ 53101 et sea.
- 8. Aids to Navigation Authorized, 14 U.S.C. §81.
- 9. Domestic Ice Operations, 14 U.S.C. §2, 14 U.S.C. §93, 14 U.S.C. §101. 14 U.S.C. §141.
- 10. 14 U.S.C. §2, 14 U.S.C. §89, 14 U.S.C. §141.
- 11. Saving Life and Property, 14 U.S.C. §88.
- 12. United States Coast Guard, "U.S. Coast Guard Office of Search and Rescue (CG-SAR), uscq.gov, http://www. uscg.mil/hq/cg5/cg534/.
- 13. 33 CFR §6.04-5.
- 14. Department of Transportation; Organization and Delegation of Powers and Duties: Delegation to the Commandant, United States Coast Guard and Administrator, Maritime Administration, 62 Fed. Reg. 11382 (Mar. 12, 1997) (codified at 49 CFR Pt 1).
- 15. Established by the Deepwater Port Act (DWPA) of 1974, 33 U.S.C. §1501 et seg. as amended.
- 16. Department of Transportation; Organization and Delegation of Powers and Duties, Update of Secretarial Delegations, 68 Fed. Reg. 36496 (June 18, 2003) (codified at 49 CFR Pt 1) and Department of Transportation: Organization and Delegation of Powers and Duties: Delegation to the Commandant, United States Coast Guard and Administrator, Maritime Administration, 62 Fed. Reg. 11382 (Mar. 12, 1997) (codified at 49 CFR Pt 1).
- 17. 33 U.S.C. §1502(9). All currently licensed deepwater ports are designed to import oil or natural gas.
- 18. 33 U.S.C. §1501(a).

- 19. 46 U.S.C. §556.
- 20. Section 405 of the Coast Guard and Maritime Transportation Act of 2012, Pub. Law. No. 112-213, Section 405 (December 20, 2012) expanded the short sea transportation program to include the promotion of short sea transportation and use of U.S.-flag vessels and permits the development of certain strategies to encourage short sea shipping.
- 21. Department of Transportation, "Maritime Sustainability Initiatives." transportation.gov. https://www. transportation.gov/mission/sustainability/maritimesustainability-initiatives.
- 22. AIS is a maritime navigation safety communications system that provides vessel information, including the vessel's identity, type, position, course, speed, navigational status and other safety-related information automatically. The USCG operates the Nation's AIS Network in order to improve security, navigational safety, search and rescue, and environmental protection services, 33 CFR §164.
- 23, 33 CFR §62.
- 24. United States Coast Guard, "Nationwide Automatic Identification System." navcen.uscq.gov. http://www. navcen.uscg.gov/?pageName=NAISmain.
- 25. United States Coast Guard, "Commandant Instruction 16001.1: Waterways Management." uscg.mil. http://www. uscg.mil/directives/ci/16000-16999/CI 16001 1.pdf.
- 26. United States Coast Guard, "Port Access Route Studies." uscq.mil. http://www.uscq.mil/hq/cq5/cq553/ NAVStandards/PARS.asp.
- 27. United States Coast Guard, "Permitting of Regattas and Marine Parades." uscq.mil. http://www.uscq.mil/ directives/cim/16000-16999/CIM 16751 3.pdf.
- 28. United States Coast Guard. "NVIC-100: Guidance for the Establishment and Development of Harbor Safety Committees Under the Maritime Transportation System (MTS) Initiative." usca.mil. https://www.usca.mil/ auxiliary/missions/msep/NVIC%20Circular%201-00.pdf.
- 29. United States Coast Guard, "Bridge Administration Manual." uscg.mil. http://www.uscg.mil/directives/ cim/16000-16999/CIM 16590 5C.pdf.

- United States Coast Guard, "Commandant Instruction 16000.28A: Marine Transportation System Recovery Planning and Operations." uscg.mil. http://www.uscg.mil/ directives/ci/16000-16999/CI 16000 28A.pdf.
- United States Coast Guard, "Local Notice to Mariners." navcen.uscg.gov. http://www.navcen.uscg.gov/ ?pageName=InmMain.
- 32. United States Coast Guard, "Homeport." homeport.uscg. mil. https://homeport.uscg.mil/mycq/portal/ep/home.do.
- 33. United States Coast Guard, "Marine Safety Information Bulletins." uscg.mil. https://www.uscg.mil/msib/.
- 34. United States Coast Guard, "Invitation to the '21st Century/Future of Navigation' Feedback Website." navcen.uscg.gov. http://www.navcen.uscg.gov/pdf/Future\_of\_Navigation\_Feedback.pdf.
- 35. United States Coast Guard, "NVIC-100: Guidance for the Establishment and Development of Harbor Safety Committees Under the Maritime Transportation System (MTS) Initiative." uscg.mil. https://www.uscg.mil/ auxiliary/missions/msep/NVIC%20Circular%201-00.pdf.

## Regulatory and Management Actions: Commercial and Recreational Fishing

- Hauke Kite-Powell, Charles Colgan, Porter Hoagland, Di Jin, Vinton Valentine, and Brooke Wikgren, Draft Northeast Ocean Planning Baseline Assessment: Marine Resources, Infrastructure, and Economics, prepared for the Northeast Regional Planning Body, 2016, http:// neoceanplanning.org/projects/baseline-assessment/.
- 2. Ibid.
- National Marine Fisheries Service, Fisheries of the United States 2014 (National Marine Fisheries Service, 2015), http://www.st.nmfs.noaa.gov/Assets/commercial/fus/fus/4/documents/FUS2014.pdf.
- National Marine Fisheries Service, Fisheries of the United States 2013 (National Marine Fisheries Service, 2014), http://www.st.nmfs.noaa.gov/commercial-fisheries/fus/fus13/index.
- See http://www.nefmc.org/management-plans for a brief description of these fisheries and sources of further information.

- Speed threshold used for vessels reporting in the multi-species fishery as an indicator of vessels engaging in fishing activity rather than transit activity.
- 7. Speed threshold used for vessels reporting in the monkfish fishery as an indicator of vessels engaging in fishing activity rather than transit activity.
- 8. Speed threshold used for vessels reporting in the herring fishery as an indicator of vessels engaging in fishing activity rather than transit activity.
- Speed threshold used for vessels reporting in the scallop fishery as an indicator of vessels engaging in fishing activity rather than transit activity.
- Speed threshold used for vessels reporting in the surf clam/ocean quahog fishery as an indicator of vessels engaging in fishing activity rather than transit activity.
- 11. Speed threshold used for vessels reporting in the squid fishery as an indicator of vessels engaging in fishing activity rather than transit activity.
- 12. Speed threshold used for vessels reporting in the mackerel fishery as an indicator of vessels engaging in fishing activity rather than transit activity.
- Industrial Economics Inc., Technical Documentation for the Vertical Line Model (Industrial Economics Inc. 2014), http://www.greateratlantic.fisheries.noaa.gov/protected/ whaletrp/eis2013/march\_2014\_draft\_vl\_model\_ documentation.pdf.
- See http://neoceanplanning.org/projects/commercial- fishing/ for further description and results of this preliminary project.
- 15. Bureau of Ocean Energy Management, "Guidelines for Providing Information on Fisheries for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585." boem.gov. http://www. boem.gov/Fishery-Survey-Guidelines.
- Bureau of Ocean Energy Management, "Development of Mitigation Measures to Address Potential Use Conflicts between Commercial Wind Energy Lessees/Grantees and Commercial Fishermen on the Atlantic Outer Continental Shelf." boem.gov. http://www.boem.gov/ OCS-Study-BOEM-2014-654/.

 Bureau of Ocean Energy Management, "Guidelines for Proving Information on Fisheries Social and Economic Conditions for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585." boem.gov. http://www.boem.gov/ Social-and-Economic-Conditions-Fishery-Communication-Guidelines/.

## **Chapter 3**

### Regulatory and Management Actions: Recreation

- Hauke Kite-Powell, Charles Colgan, Porter Hoagland, Di Jin, Vinton Valentine, and Brooke Wikgren, Draft Northeast Ocean Planning Baseline Assessment: Marine Resources, Infrastructure, and Economics, prepared for the Northeast Regional Planning Body, 2016, http:// neoceanplanning.org/projects/baseline-assessment/.
- 2. Ibid.
- 3. National Park Service, "National Park Service Visitor Use Statistics." irma.nps.gov. https://irma.nps.gov/Stats/.
- Point 97, SeaPlan, and the Surfrider Foundation, Characterization of Coastal and Marine Recreational Activity in the U.S. Northeast, prepared for the Northeast Regional Planning Body, 2015, http://neoceanplanning. org/wp-content/uploads/2015/10/Recreation-Study\_ Final-Report.pdf.
- Northeast Regional Planning Body, "Recreation and Tourism." neoceanplanning.org. http://neoceanplanning. org/projects/recreation/.
- Hauke Kite-Powell, Charles Colgan, Porter Hoagland, Di Jin, Vinton Valentine, and Brooke Wikgren, Draft Northeast Ocean Planning Baseline Assessment: Marine Resources, Infrastructure, and Economics, prepared for the Northeast Regional Planning Body, 2016, http:// neoceanplanning.org/projects/baseline-assessment/.
- 7. Ibid.
- Point 97, SeaPlan, and the Surfrider Foundation, Characterization of Coastal and Marine Recreational Activity in the U.S. Northeast, prepared for the Northeast Regional Planning Body, 2015, http://neoceanplanning. org/wp-content/uploads/2015/10/Recreation-Study\_ Final-Report.pdf.
- 9. Ibid.

### Regulatory and Management Actions: **Energy and Infrastructure**

- 1. Northeast Gas Association, "The Role of LNG in the Northeast Natural Gas (and Energy) Market." northeastgas.org. http://www.northeastgas.org/ about Ing.php.
- 2. ISO New England, "Key Grid and Market Stats." iso-ne.com. http://www.iso-ne.com/about/what-we-do/ kev-stats/resource-mix.
- 3. Department of Energy, "Offshore Wind Advanced Technology Demonstration Projects." energy.gov. http://energy.gov/eere/wind/offshore-wind-advancedtechnology-demonstration-projects.
- 4. Marc Schwartz, Donna Heimiller, Steve Havmes, and Walt Musial. Assessment of Offshore Wind Energy Resources for the United States (National Renewable Energy Laboratory 2010), http://www.nrel.gov/docs/ fy10osti/45889.pdf.
- 5. Department of Energy, "Maine Deploys First U.S. Commercial. Grid-Connected Tidal Energy Project." energy.gov. http://energy.gov/articles/maine-deploys-first-us-commercial-grid-connected-tidal-energy-project.
- 6. Bureau of Ocean Energy Management, "2017-2022 OCS Oil and Gas Leasing Program." boem.gov. http://www. boem.gov/Five-Year-Program-2017-2022/.
- 7. Department of Energy, "Natural Gas Regulation." energy.gov. http://energy.gov/fe/services/ natural-gas-regulation.
- 8. Bureau of Ocean Energy Management, "Explore More Than 40 Years of Environmental Studies Program Ocean Science." marinecadastre.gov. http://marinecadastre.gov/ espis/#/.
- 9. Department of Energy, "Tethys," http://tethys.pnnl.gov/.
- 10. Bureau of Ocean Energy Management, "BOEM Fact Sheet: Wind Energy Commercial Leasing Process." boem. gov. http://www.boem.gov/Commercial-Leasing-Process-Fact-Sheet/.
- 11. Bureau of Ocean Energy Management, "National and Regional Guidelines for Renewable Energy Activities." boem.gov. www.boem.gov/National-and-Regional-Guidelines-for-Renewable-Energy-Activities.

## Chapter 3

#### Regulatory and Management Actions: Aquaculture

- 1. George LaPointe, NROC White Paper: Overview of the Aquaculture Sector in New England, prepared for the Northeast Regional Planning Body, 2014, http:// neoceanplanning.org/wp-content/uploads/2013/12/ Aquaculture-White-Paper.pdf. Dollars estimated for 2010-2011 time period.
- 2. Ibid.
- 3. National Marine Fisheries Service. Draft Marine Aquaculture Strategic Plan 2016-2020 (National Marine Fisheries Service 2015), http://www.nmfs.noaa.gov/aguaculture/ docs/draft noaa marine aquaculture strategic plan. pdf.
- 4. United States Government Accountability Office. Offshore Marine Aquaculture: Multiple Administrative and Environmental Issues Need to be Addressed in Establishing a U.S. Regulatory Framework (United States Government Accountability Office 2008), http://www. gao.gov/products/GAO-08-594.
- 5. National Science and Technology Council Committee on Science, Interagency Working Group on Aguaculture. National Strategic Plan for Federal Aquaculture Research (2014-2019) (National Science and Technology Council 2014), https://www.whitehouse.gov/sites/default/files/ microsites/ostp/NSTC/aquaculture strategic plan
- 6. National Marine Fisheries Service. "Welcome to the Office of Aquaculture." nmfs.noaa.gov. http://www.nmfs. noaa.gov/aguaculture/.
- 7. National Marine Fisheries Service, Draft Marine Aquaculture Strategic Plan 2016-2020 (National Marine Fisheries Service 2015), http://www.nmfs.noaa.gov/aguaculture/ docs/draft noaa marine aquaculture strategic plan.pdf.
- 8. Ibid.
- 9. Northeast Regional Aquaculture Center, "About the Northeast Regional Aguaculture Center," agresearch. umd.edu. http://agresearch.umd.edu/nrac/about.
- 10. Ibid.
- 11. Gef Flimlin, Sandy Macfarlane, Edwin Rhodes, and Kathleen Rhodes. Best Management Practices for the East Coast Shellfish Aquaculture Industry (East Coast Shellfish Growers Association 2010), http://www.ecsga. org/Pages/Resources/ECSGA BMP Manual.pdf.

- 12. National Marine Fisheries Service, "Surfclam/Ocean Quahog Summary of Regulations." greateratlantic.fisheries. noaa.gov. http://www.greateratlantic.fisheries.noaa.gov/ regs/infodocs/scoginfosheet.pdf.
- 13. National Marine Fisheries Service, "Public Consultation Tracking System," pcts.nmfs.noaa.gov. https://pcts.nmfs. noaa.gov/pcts-web/homepage.pcts.
- 14. National Marine Fisheries Service. "Biological Opinions (ESA Section 7)." nmfs.noaa.gov. http://www.nmfs.noaa. gov/pr/consultation/opinions.htm.

## **Chapter 3**

### Regulatory and Management Actions: Offshore Sand Resources

- 1. Horton, R., G. Yohe, W. Easterling, R. Kates, M. Ruth, E. Sussman, A. Whelchel, D. Wolfe, and F. Lipschultz. Chapter 16: Northeast (US Global Change Research Program, 2014), http://nca2014.globalchange.gov/report/ regions/northeast.
- 2. Melillo, Jerry M., Terese (T.C.) Richmond, and Gary W. Yohe, Eds., Climate Change Impacts in the United States: The Third National Climate Assessment (U.S. Global Change Research Program, 2014), http://nca2014. globalchange.gov/downloads.
- 3. US Army Corps of Engineers, "Continuing Authorities Program." nae.usace.army.mil. http://www.nae.usace. army.mil/Missions/PublicServices/ Continuing Authorities Program. aspx.
- 4. Bureau of Ocean Energy Management, "Explore More Than 40 Years of Environmental Studies Program Ocean Science." marinecadastre.gov. http://marinecadastre.gov/ espis/#/.

## Chapter 3

## Regulatory and Management Actions: Restoration

- 1. K.A. Lellis-Dibble, K. E. McGlynn, and T. E. Bigford, Estuarine Fish and Shellfish Species in U.S. Commercial and Recreational Fisheries: Economic Value as an Incentive to Protect and Restore Estuarine Habitat (National Marine Fisheries Service 2008). http://www.habitat.noaa.gov/ pdf/publications general estuarinefishshellfish.pdf.
- 2. Joint Ocean Commission Initiative. Charting the Course: Securing the Future of America's Oceans

- (Joint Ocean Commission Initiative 2013). http://www.jointoceancommission.org/policypriorities/Reports/charting-the-course.aspx.
- Projects are generally eligible for federal funding through restoration programs if they are not being used as mitigation of impacts of another project.

### Plan Implementation

- 1. 33 CFR §325.1(b) states that: "The district engineer will establish local procedures and policies including appropriate publicity programs which will allow potential applicants to contact the district engineer or the regulatory staff element to request pre-application consultation. Upon receipt of such request, the district engineer will assure the conduct of an orderly process which may involve other staff elements and affected agencies (federal, state, or local) and the public. This process should be brief but thorough so that the potential applicant may begin to assess the viability of some of the more obvious potential alternatives in the application." In New England, the USACE includes pre-application meetings as a topic in its Guide for Permit Applicants.
- US Army Corps of Engineers New England District, Guide for Permit Applicants (US Army Corps of Engineers). http://www.nae.usace.army.mil/Portals/74/docs/regulatory/Forms/PermitGuide.pdf.
- 3. A cooperating agency under NEPA is an agency (which can include a federal, state or local agency) with jurisdiction by law or special expertise on an environmental issue that should be addressed in an environmental impact statement. A lead agency, where appropriate, shall seek the cooperation of a cooperating agency in developing information and environmental analyses. See https://ceq.doe.gov/nepa/regs/40/40p3. htm for more information.
- Bureau of Indian Affairs, "Frequently Asked Questions." bia.gov. http://www.bia.gov/FAQs/. The exact nature of these obligations varies across tribes.
- Environmental Protection Agency, "Region 1 Tribal Program: epa.gov. https://www.epa.gov/tribal/region-1tribal-program#tribes.

- 6. State coastal management programs have lists of federal license or permit authorities that are subject to state CZMA review (federal consistency review). To review listed activities that are located outside of a state's coastal zone, a state must describe (and NOAA must approve) a geographic location description of such activities, unless on timely request, and based on asserted coastal effects, the state receives project-specific authorization from NOAA to receive the project. For additional information, see "The Coastal Zone Management Act and regional ocean plans-a discussion paper" available at http://neoceanplanning.org/wp-content/uploads/2015/10/CZMA-Discussion-Paper.pdf.
- Each federal agency has administrative and /or regulatory guidance that describes how it engages in NEPA review. See A Citizen's Guide to the NEPA, published by the Council on Environmental Quality, available at https://ceq.doe.gov/nepa/citizens\_Guide\_Dec07.pdf. See also: Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations available at https://ceq.doe.gov/nepa/regs/40/40p3.htm.
- 8. New England Regional Dredging Team, "Organizations." nerdt.org, http://nerdt.org/organizations-2/.
- David Kaiser, The Coastal Zone Management Act and Regional Ocean Plans: A Discussion Paper (Office for Coastal Management, NOAA 2015). http:// neoceanplanning.org/wp-content/uploads/2015/10/ CZMA-Discussion-Paper.pdf.
- 10. The Northeast RPB Charter was signed by each RPB member at the beginning of the regional ocean planning process and is available at http://neoceanplanning.org/wp-content/uploads/2014/07/Charter-with-Signatories.pdf. A change in RPB membership does not require execution of a new charter; new members will be asked to sign. A non-federal member may withdraw by providing written notice to RPB co-leads. Withdrawal from this charter by a federal member requires notice to the federal co-chair, and subsequent concurrence by the National Ocean Council.
- 11. NERACOOS is part of the US Integrated Ocean Observing System network, and is an interagency and non-federal partnership; it serves data and synthesis products related to ocean climate, wind and wave forecasts, real-time buoy data, water level forecasts, and many other topics. NERACOOS staff participated in the Portal Working Group and collaborate on data products. More information about NERACOOS is available at www. neracoos.org.

- National Oceanic and Atmospheric Administration, "Northeast Shelf Integrated Ecosystem Assessment." noaa.gov. http://www.noaa.gov/iea/regions/northeast/ index.html.
- 13. The OHI is a quantitative, repeatable, comprehensive approach to assessing the health of the ocean and is intended to inform decision–making by measuring multiple metrics of ecosystem condition using existing data and information. More background on the Ocean Health Index is available at http://www.oceanhealthindex.org/.

#### Chapter 5

#### Science and Research Priorities

- Ecosystem services are the benefits that people obtain from the structure and function of ecosystems and include provisioning services (e.g., food), regulating services (e.g., climate), cultural services (e.g., aesthetic value), and supporting services (e.g., nutrient cycling). For more information see http:// www.millenniumassessment.org.
- The Federal Geographic Data Committee endorsed CMECS in May 2012 (FGDC-STD-018-2012). CMECS provides a comprehensive national framework for organizing information about coasts and oceans and their living systems. For more information on CMECS see https://coast.noaa.gov/digitalcoast/publications/cmecs.
- 3. For more information on coordination of mapping efforts, see https://catalog.data.gov/dataset/u-s-federal-mapping-coordination.