



Appendix E. Changes to Existing CCMP Action Plans

The following table shows Action Items from the previous Barnegat Bay CCMP as well as the status of those Action Items. Review of CCMP actions is required with each update or revision to ensure continual progress is being made toward program goals.

Bold text = high priority

 Completed Action Item

 No Action

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|---|--|----------|--|--|---------------|---|
| Water Quality and Water Supply Action Plan | | | | | | |
| 5.01 | Development of Total Maximum Daily Loads (TMDLs) for areas listed on the 303 (d) list of impaired waterbodies. | High | NJDEP | Ongoing | \$ 300K | Nutrient TMDL a high priority included in revised CCMP via WQ1-1. |
| 5.02 | Complete a high-intensity Natural Resources Inventory to identify pollution sources from land use information and site conditions. | High | OCSCD, NRCS, OCPD, municipalities | Completed in some municipalities; ongoing in others. | \$ 375K | Related priority actions included in revised CCMP through WMPs (WQ1-2). |
| 5.03 | Retrofit retention or detention basins, and retrofit stormwater basins to increase infiltration and recharge of rainfall runoff. | Medium | NJDEP, OCPD and OCSCD | Ongoing | \$ 200K | Ongoing; long-term action included in revised CCMP via WQ1-4. |
| 5.04 | Implement Phase II Municipal Stormwater Rules in the Barnegat Bay Watershed. | High | NJDEP, OCPD, BBNEP, Envir. Joint Ins. Fund | Ongoing | Base Programs | Ongoing; long-term action included in revised CCMP via WQ1-4. |

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| 5.05 | Encourage native species landscaping to minimize water use and fertilizer and pesticide application. | Medium | BBP/ OCSCD; NJDEP | Ongoing | Base Programs; NJDEP grant | JFY website developed; action included in revised CCMP via LR3-6 |
| 5.06 | Develop a financial incentives mechanism, " <i>Water Quality Rebate</i> ," for implementing BMPs on non-federal, non-agricultural lands. | Medium | OCSCD | No Action | \$ 75K | Lack of funding; changing and conflicting perspectives. |
| 5.07 | Institute the Nonpoint Education for Municipal Officials (NEMO) program within the Barnegat Bay watershed. | Medium | Rutgers Cooperative Extension (RCE), OCPD | Ongoing. | \$ 65K | Included in CCMP via WQ4-1 and in revised CEC Communication Plan of revised CCMP implemented by partners with DEP funding. |
| 5.08 | Promote existing technical and financial assistance programs to implement soil management practices on agricultural lands. | Medium | USDA-NRCS, OCPD and OCSCD | No action; dropped from CCMP. | \$ 20K | Changing priorities; agriculture < 1% of watershed land use. No longer a CCMP priority. |
| 5.09 | Identify & reduce water quality problems from livestock farms & manure piles | Low | USDA-NRCS, OCPD, OCSCD, DEP/DWM | Completed | \$ 66K | Action item included in WQ1-9. |
| 5.10 | Develop a management strategy to reduce the congregation of Canada Geese populations in urban areas. | Medium | Ocean County Health Department (OCHD) | Ongoing | | Related action included in revised CCMP via WQ1-9. |

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| 5.11 | Sample and analyze water to evaluate fertilizer and pesticide residues introduced into surface water systems. | Medium | Rutgers Cooperative Extension (RCE) | Completed | \$ 37K | Action addressed in part via statewide fertilizer law; activities incorporated into revised CCMP via Actions WQ1-3 and 1-6 |
| 5.12 | Continue publication of "Pesticides for NJ" to include site-specific recommendations for the use of pesticides on golf courses & public lands. | Medium | Rutgers Cooperative Extension (RCE) | No action as proposed; related actions completed. | \$ 1K | Related action addressed through statewide fertilizer law; include in revised CCMP via WQ1-6. |
| 5.13 | Promote <i>Home *A*Syst for the Barnegat Bay Watershed</i> (RCE, 1998) through widespread distribution. | Medium | Rutgers Cooperative Extension (RCE) | No action; dropped from CCMP. | \$ 7K | Lack of funding and changing priorities. |
| 5.14 | Periodically examine technical and permit data on small point source discharge permit holders in order to promote and maintain understanding of their relationship to the overall ecological health of the bay. | Medium | Barnegat Bay Estuary Program (STAC) | No action; dropped from CCMP. | \$ 1,500 | Low priority; few point sources. |
| 5.15 | Periodically examine technical and permit data on the Oyster Creek Nuclear Generating Station in order to promote and maintain an understanding | Medium | NJDEP, BBP STAC | Ongoing | \$ 2,500 | OCNGS closure assessment to be Included in revised CCMP via LR3-7. |

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| | of its relationship to the overall ecological health of the bay. | | | | | |
| 5.16 | Eliminate the discharge of boat sewage into the bay by promoting the use of sewage pumpout facilities. | High | NJDEP CVA/CMP; NJMSC; OCPD; MTA | Ongoing | Base Programs | To be included in revised CCMP; critical to replace pumpout capacity lost due to Sandy; see WQ1-8. |
| 5.17 | Acquire a sewage pumpout boat for Barnegat Bay & its major tributaries. | High | New Jersey Clean Vessel Program (CVA), OCPD | Completed | \$ 57K | Model program continued since inception; included in revised CCMP via WQ1-8. |
| 5.18 | USEPA designation of Barnegat Bay as a No Discharge Zone. | High | New Jersey Marine Sciences Consortium, OCPD | Completed in 2003 | \$ 15K | Action remains in place but no longer in CCMP via WQ1-8. |
| 5.19 | Develop Clean Marinas Program | High | MTA; OCPD | Completed; ongoing | \$ 10K | Program developed but needs funding; critical to replace pumpout capacity lost due to Sandy. Included in WQ1-8. |
| 5.20 | Establish a comprehensive water supply plan for the Barnegat Bay watershed that will guide water supply development, use, and reuse through the year 2040 and, to the maximum extent possible, maintain the natural hydrology of the watershed. | High | NJDEP, OCPD and OCSCD | Ongoing | \$ 500K | Statewide Water Supply Master Plan released, but key BB issues (e.g., determination of minimum ecological flows) to be included in revised CCMP via WS1-5. |

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| 5.21 | Develop a workplan and institute controls for management of water demand/water conservation. | High | NJDEP, OCPD and OCSCD | No action. | \$ 125K | Original action complicated and costly to develop and implement; modified action included in revised CCMP via WS1-4. |
| 5.22 | Integrate existing shallow groundwater protection programs. | High | NJDEP | Some information in State Water Supply Master plan; also, related DEP rulemaking; no integration of efforts; related actions included in CCMP. | | Related actions in new CCMP via WS3-1. |
| 5.23 | Establish a network of three weather stations in the watershed tied to the South Jersey Resource Conservation & Development RISE network. | Low | South Jersey Resource Conservation & Development (SJRCDD), OCPD | Completed; ongoing. | \$ 7K | Network of local weather stations in place; local weather stations expanded for wetland monitoring via LR3-2 |
| 5.24 | Establish a demonstration project for wastewater reuse, which will be discharged back to the watershed, and which alleviates the need for potable water for irrigation | Medium | OCUA, OCPD | Considered from 2001-2004 by OCUA; proposed pilot project considered | | Continued in new CCMP via WS5-1. |

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| | of lawns, golf courses, or other public areas. | | | costly and impractical. Related efforts ongoing | | |
| 5.25 | Assist municipalities in their involvement in the NJDEP Shellfish Waters & Bathing Beaches protection strategies for the Barnegat Bay watershed. | High | Toms River, Seaside Heights, NJDEP, BBP STAC | Ongoing | \$ 500K | Included in revised CCMP via WQ3-1. |
| Habitat and Living Resources Action Plan | | | | | | |
| 6.01 | Protect & improve vegetated buffer zones adjacent to coastal wetlands & freshwater tributaries to maintain continuous riparian corridors, for habitat protection & low-impact recreational pursuits. | High | NJDEP OCPD | Ongoing | \$ 37K | Coastal resilience projects to be included in revised CCMP via LR1-1, LR3-3, and LU1-4. |
| 6.02 | Conduct a Barnegat Bay ecosystem restoration feasibility study. | High | USACE, NJDEP | Portions Completed; ongoing via USACE Back Bay Feasibility Study. | \$ 2,500K | Two fish ladders were installed and 2 dredged holes were restored. They have also done a draft report, as well as plans and specifications, for fish ladders at Lake Pohatcong and Manahawkin Lake. In 2003-2004 approximately \$534K spend by USACE and NJDEP on Barnegat Bay restoration projects and \$100K by USACE on Mordecai Island restoration. USACE Back Bay Feasibility Study included in CCMP via LR1-2 and LR2-2 and LU1-1. |

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| 6.03 | Control erosion in threatened shoreline areas. | Low | NJDEP, OCPD | Ongoing | \$ 75K | Follow up actions (post-Sandy coastal resilience) to be included in revised CCMP via LR1-2, LR1-4, LU2-1 and LU2-2. |
| 6.04 | Manage tidal wetlands to preserve unditched wetlands & to rehabilitate wetlands that have been ditched or otherwise altered. | Low | USFWS, OCPD | Ongoing | \$ 15K | Follow up actions (post-Sandy coastal resilience) to be included in revised CCMP via LR1-2, LR1-4, LU2-1 and LU2-2. |
| 6.05 | Maintain intact large blocks of Pinelands habitat within state parks & forests & other publicly owned lands. | Medium | NJDEP, OCPD | Ongoing | \$ 25K | Included in revised CCMP via LR1-2, LR1-4, LR1-5, and LU2-4. |
| 6.06 | Implement more effective LE of regulations regarding sensitive coastal habitats. | Medium | State & federal LE | Completed | \$ 50K | Follow-up actions to be included in revised CCMP via LR1-5. |
| 6.07 | Coordinate and integrate management of federal lands for natural habitat values. | Medium | USDOD/ MAFPE | Related state-county LE ongoing | \$ 50K | Related follow-up actions to be included in revised CCMP via LR1-4. |
| 6.08 | Facilitate partnerships for habitat protection & restoration projects | High | NJDEP, OCNLT, NRCS, ONLM, TPL, OCPD | Ongoing | | Included in revised CCMP via LR1-2, LR1-4, LR1-5, and other actions. |
| 6.09 | Revise municipal master plans to encourage subwatershed planning to minimize impervious coverage & maintain | High | NJDEP, OCPD, municipalities | Ongoing | \$ 100K | To be included in revised CCMP via LU3-2. |

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| | natural habitat & landscape values | | | | | |
| 6.10 | Assess the effectiveness of CAFRA II regulations within the Barnegat Bay Coastal Zone Boundary | Low | NJDEP | Completed; CAFRA reviewed and revised in 2014 | | Planning coordination in revised CCMP via LU1-1, LU2-5, and 3-3. |
| 6.11 | Identify and manage impaired sub-watersheds through local government cooperation to address water resource issues that cross municipal boundaries. | Medium | US Environmental Protection Agency (USEPA), OCPD | Ongoing | \$ 50K | To be included in revised CCMP via WQ1-1 and LU3-2. |
| 6.12 | Develop a cooperative approach among the Pinelands Commission, state parks, state wildlife management areas, state forests, and other state agencies to coordinate watershed protection on state lands. | Medium | NJDERP, PC, OCPD | Ongoing | \$ 50K | To be included in revised CCMP via LU2-2. |
| Human Activities and Competing Uses Action Plan | | | | | | |
| 7.01 | Draft a Barnegat Bay personal watercraft (PWC) management strategy, thereby setting an example for statewide policy. | High | PWC Task Force | Completed | \$ 10K | Alternative approach to managing sensitive habitats and other actions; to be included in revised CCMP via LR1-5 and LR2-1. |
| 7.02 | Promote the use of the "Boater's Guide to Barnegat Bay and Little Egg Harbor" | Medium | RCEOC, MTANJ, OCPD | Completed | \$ 20K | Related/follow-up actions to be included in CCMP via LR1-5, LR2-1, LR5-1, LR5-2, LR5- |

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| | to protect sensitive areas by mitigating boater impacts to water quality and natural resources. | | | | | 3, LR5-4, and LR5-6, and also the CEC Communication Plan. |
| 7.03 | Follow-up the Municipal Outreach Project with continued production of "Community Connection" newsletter & with a community awards program. | Medium | BBWEF | Discontinued | \$ 10K | JFY follow-up actions included in revised CCMP via WQ1-3, WQ4-2, and LU5-5. |
| 7.04 | Use environmental commissions to foster the watershed approach | Medium | BBEP, municipal environmental agencies | Ongoing | Base Programs | Municipal outreach included in CCMP via LU5-1, LU5-2, and LU5-5. |
| 7.05 | Support the Barnegat Bay Watershed and Estuary Foundation (BBWEF) to protect Barnegat Bay and its watershed resources | High | Municipal and county governments, OCPD | In review as part of CCMP | \$ 55K | To be considered in development of CCMP Financial Strategy. |
| 7.06 | Establish a Barnegat Bay Blue Card certification program on soil health, low-input landscapes, and balancing the water cycle. | Low | OCSCD OCPD | Completed; ALS Bay Scape program | \$ 75K | JFY follow-up actions included in revised CCMP via WQ1-3, WQ4-2, and LU5-5. |
| 7.07 | Use data & information from the Natural Resources Inventory (NRI) to promote the use of Best | Low | OCSCD | Some related actions completed; ongoing | \$ 75K | JFY follow-up actions included in revised CCMP via WQ1-3, WQ4-2, and LU5-5. |

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| | Management Practices (BMPs). | | | | | |
| 7.08 | Design and construct environmentally sensitive demonstration gardens in all municipalities. | Low | Rutgers Cooperative Extension (RCE), OCPD | Ongoing | \$ 35K | JFY follow-up actions included in revised CCMP via WQ1-3, WQ4-2, and LU5-5. |
| 7.09 | Construct an environmentally sensitive demonstration lawn for homeowners to use as a model for landscaping plans. | Medium / | RCEOC, OCSCD, NJDEP, BBP | Completed; ongoing | \$ 6,500 | JFY included in revised CCMP via WQ1-3, WQ4-2, and LU5-5. |
| 7.10 | Conduct shellfish resource survey of the bay to examine potential causes of stock decline and meat discoloration in hard shell clams and explore resource enhancement strategies so that an adequate supply of shellfish exists to reap the benefits of improved water quality resulting from Action Item 5.24 in the Water Quality/Water Supply Action Plan. | Medium | NJDEP | Completed | \$ 190K | Completed; related actions ongoing; to be included in revised CCMP via LR3-4 and CCMP Habitat Restoration Plan. |
| Public Participation & Education Action Plan | | | | | | |
| 8.01 | Post the Pinelands Curriculum Guide Lessons | Low | Pinelands Commission | Complete | \$ 20K | To be included in revised CCMP as part of CEC Communication Plan (see Pinelands Website). |

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| | for Grades 4-6 & 7-8 on the World Wide Web. | | | | | |
| 8.02 | Conduct two, two-day summer teacher workshops through the Ocean County Vocational-Technical School (OCVTS) that focus on the Barnegat Bay Estuary and watershed. | Medium | OCVTS | Ongoing | \$ 5,100 | Ongoing via partner efforts (e.g., JCNERR); to be included in CEC Communication Plan as part of revised CCMP. |
| 8.03 | Revise & reprint the Barnegat Bay Watershed Educational Resource Guide. | Medium | Barnegat Bay Environmental Education Roundtable | Completed. | \$ 5K | No interest due to availability of online resources. |
| 8.04 | Conduct an annual Environmental Educators Roundtable. | Medium | OCSCD | Completed; Ongoing | \$ 3K | To be included in revised CCMP as part of CEC Communication Plan. |
| 8.05 | Support the <i>Sea Grasses for Classes</i> Project-Institute of Marine & Coastal Sciences (IMCS), Rutgers University. | High | RU/ JCNERR | Completed. | \$ 55K | Related activities (e.g., Coastal Training Program) included in CEC Communication Plan as part of revised CCMP. |
| 8.06 | Develop the Forest Resource Education Center (FREC) as a resource and interpretive center that promotes an understanding of the human & resource connections & a stewardship ethic among | Medium | NJDEP, OCPD | Completed; | \$ 20K | FREC programs to be included in revised CCMP as part of CEC Communication Plan (see NJDEP website). |

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| | students, scouts, & the general public. | | | | | |
| 8.07 | Develop a Barnegat Bay Watershed Education Campaign, to be implemented in elementary schools via a mascot, "Barnie the Crab." | Medium / | Barnegat Bay Watershed & Estuary Foundation (BBWEF) | Completed; discontinued. | \$ 60K | No interest due to availability of online resources. |
| 8.08 | Develop a Barnegat Bay watershed-specific activity guide. | High | OCSCD OCPD | Completed | \$ 60K | Related efforts identified in revised CCMP as part of CEC Communication Plan. |
| 8.09 | Continue the Alliance for a Living Ocean (ALO) Ecotour of a Barrier Island for schoolchildren and the general public. | Medium | Alliance for a Living Ocean (ALO) | Ongoing. | \$ 5K | Related programming of partners included in CEC Communication Plan as part of revised CCMP |
| 8.10 | Promote the development & use of outdoor classrooms. | Medium | OCSCD, OCPD | Ongoing | \$ 5K | Related programming of partners included in CEC Communication Plan as part of revised CCMP |
| 8.11 | Establish a Bay Keeper Program as a public watchdog for the protection of Barnegat Bay. | Low | Water Keeper Program | Previously implemented (ALS); current status unknown | \$ 60K | Related actions identified in CCMP via WQ1-8. |
| 8.12 | Create a Barnegat Bay-specific Educational Guide outlining the natural and cultural ecotourism opportunities in Central New Jersey, with an | Low | NJMSC | Completed | \$ 20K | To be included in CEC Communication Plan as part of revised CCMP. |

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| | emphasis on the Barnegat Bay watershed region. | | | | | |
| 8.13 | Establish one waterway cleanup per year within the Barnegat Bay watershed. | Medium | MTANJ, BBWEF, COA | Ongoing | \$ 10K | Related programming (the Blitz) included in CEC Communication Plan as part of revised CCMP. |
| 8.14 | Provide interpretive exhibits, programs, & activities focusing on the historical human uses of the environmental resources within the Barnegat Bay watershed. | High | Barnegat Bay Decoy & Baymen's Museum | Completed; related educational activities ongoing | \$ 2K | Related actions included in CEC Communication Plan as part of revised CCMP. |
| 8.15 | Provide education & technical training to local government officials & other coastal decision makers in the Barnegat Bay watershed. | High | JCNERR | Ongoing | \$ 893K | CTP and related efforts to be included in CEC Communication Plan as part of revised CCMP; see also CCMP LU5-3 and LU5-4. |
| 8.16 | Revise and reprint the "Low-Maintenance Landscaping Homeowners' Guide." | Medium | OCSCD, RCEOC, OCPD | Completed; ongoing | \$ 35K | Guide periodically revised and distributed; to be included in revised CCMP as part of CEC Communication Plan. |
| 8.17 | Educate professional landscapers, municipal grounds personnel, and facility managers on more efficient and environmentally sensitive use of pesticides. | Medium | Rutgers Cooperative Extension (RCE) | Completed via NJ Fertilizer law; ongoing | \$ 25K | Related actions required by State Fertilizer Law; related actions included in CCMP WQ1-6. |

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| 8.18 | Promote the use of IPM methods. | Medium | RCEOC; OCSCD | Ongoing | \$ 26K | See CCMP WQ1-6, LR4-2, and LU5-5; related programs linked by JFY included in CEC Communication Plan as part of revised CCMP. |
| 8.19 | Incorporate Barnegat Bay Estuary Program outreach & education displays & programs at the Environmental Learning Center (ELC) of Ocean County. | Low | OCVTS; OC Environmental Learning Center (ELC) | Completed; ongoing | \$ 40K | Various related activities with MATES included in revised CCMP as part of CEC Communication Plan. |
| 8.20 | Experience Barnegat Bay, a project of YES | Medium | NREF; | Ongoing | \$ 150K | Related included in CEC Communication Plan as part of revised CCMP. |