U.S. Fish and Wildlife Service

Monomoy National Wildlife Refuge

Draft Comprehensive Conservation Plan and Environmental Impact Statement

Executive Summary

April 2014

Front cover:
Monomoy Lighthouse at sunset

Ravin Thomasson

This blue goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.

The U.S. Fish and Wildlife Service (Service) is the principal Federal agency responsible for conserving, protecting, and enhancing fish, wildlife, plants, and their habitats for the continuing benefit of the American people. The Service manages the National Wildlife Refuge System comprised of over 150 million acres including over 560 national wildlife refuges and thousands of waterfowl production areas. The Service also operates 70 national fish hatcheries and over 80 ecological services field stations. The agency enforces Federal wildlife laws, manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, administers the Endangered Species Act, and helps foreign governments with their conservation efforts. It also oversees the Federal Assistance Program which distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to state wildlife agencies.

This document summarizes the draft Comprehensive Conservation Plan (CCP) and Environmental Impact Statement (EIS) for Monomoy National Wildlife Refuge. CCPs provide long-term guidance for management decisions on a refuge and set forth goals, objectives, and strategies needed to accomplish refuge purposes. CCPs also identify the Service's best estimate of future needs. These plans detail program levels that are sometimes substantially above current budget allocations and, as such, are primarily for Service strategic planning and program prioritization purposes. CCPs do not constitute a commitment for staffing increases, operational and maintenance increases, or funding for future land acquisition.

Introduction

The U.S. Fish and Wildlife Service (Service) is pleased to announce the availability of the draft comprehensive conservation plan and environmental impact statement (draft CCP/EIS) for Monomoy National Wildlife Refuge (NWR). The draft plan is being released for a 60-day public review and comment period. Once final, the CCP will provide management direction for the refuge over the next 15 years.

This Executive Summary highlights the information included in the draft CCP/EIS. The full text of the draft plan is available at: http://www.fws.gov/refuge/Monomoy/what_we_do/conservation.html. Copies on CD-ROM, and a limited number of hard copies, are available from refuge headquarters in Chatham, Massachusetts.

The draft plan consists of two volumes. Volume 1 includes six chapters; volume 2 includes appendixes with supporting information. The Reader's Guide on page 9 provides a quick orientation to the draft CCP/EIS's organization.

Peter Paton/USFWS

Terns and gulls in flight

Overview of Monomoy NWR and its Resources

Monomoy NWR is part of the National Wildlife Refuge System, a network of lands and waters dedicated to conserving habitats for wildlife for the benefit of the American people. The 8,321-acre Monomoy NWR stretches for 8 miles off the elbow of Cape Cod in Chatham, Massachusetts. The refuge is one of eight refuges of the Eastern Massachusetts NWR Complex headquartered in Sudbury, Massachusetts.

The refuge was established in 1944 under a Declaration of Taking for the following purpose and under the following authority:

"… for use as an inviolate sanctuary, or for other management purpose, for migratory birds"
—Migratory Bird Conservation Act (16 U.S.C. §715d)

Refuge lands include North Monomoy, South Monomoy, and Minimoy Islands, and 40 acres on Morris Island where the headquarters office and visitor contact station are located. The eastern boundary of the refuge is defined by mean low water, which may shift with natural shoreline changes, while the remainder of the refuge boundary is fixed (see map 1, page 10). Nearly half of the refuge was designated as a federal wilderness area in 1970 (see map 2, page 11). The refuge has other special designations as well: it is a Western Hemisphere Shorebird Reserve Network regional site, a National Audubon Society Important Bird Area, and a National Oceanic and Atmospheric Administration Marine Protected Area. The decommissioned Monomoy Point Lighthouse, oil house, and keeper's house on South Monomoy Island are listed on the National Register of Historic Places.

The refuge's barrier islands are part of a dynamic coastal zone characterized by an ever-changing landscape. There is an impressive array of habitats, supporting many species of conservation concern. The refuge supports about 12 percent of the federally threatened piping plover population nesting in Massachusetts; it supports one of the largest common tern colonies along the Atlantic seaboard and the largest laughing gull colony in Massachusetts; it is one of the most important areas for spawning and nursery habitat for horseshoe crabs in Massachusetts; it provides habitat for large populations of gray and harbor seals; and, it serves as a reintroduction site for the federally threatened northeastern beach tiger beetle.

Issues and Concerns Identified During Plan Development

Throughout the draft CCP/EIS planning process, we documented issues and concerns raised by the public, our partners, and Service personnel. We consolidated those issues and concerns into these categories:

- Refuge boundary addition and management.
- Jurisdiction and management in the waters and submerged lands of the Declaration of Taking.
- Wilderness area management.
- Habitat management for species of conservation concern.
- Hunting opportunities.
- Fishing and shellfishing opportunities.
- Environmental education and interpretative programming.
- Wildlife observation and photography opportunities.
- Other refuge uses.
- Facilities and operations.

We used these issue categories to guide development of the draft plan's management alternatives.

Shorebird research on Monomoy National Wildlife Refuge

Jon Lanza/USFWS

Ruddy turnstone and horseshoe crab molt

USFWS

Alternatives Evaluated in the Draft CCP/EIS

The draft CCP/EIS describes and evaluates three alternative management scenarios for the refuge. It details each alternative's objectives and strategies to conserve wildlife, conduct habitat management, provide visitor opportunities, and protect wilderness resources. It also identifies the staffing and facilities to implement these programs.

Alternative A: Current Management (No Action)
This alternative includes activities previously undertaken, or already planned or approved, and is the baseline for comparing the other two alternatives. Under alternative A, there would be little or no change in our current refuge programs. We would initiate few, if any, new wildlife or habitat management activities. We would not undertake new public recreational opportunities, and there would be no enhancements to existing visitor programs and opportunities. Seasonal closures to protect migratory birds would continue to be implemented. We would continue to protect wilderness resources and the character of the Monomoy Wilderness as a management priority. There would be no change to staffing, and operations and maintenance activities would continue within current funding levels.

Alternative B: Enhanced Management of Habitat and Public Uses (Service-preferred Alternative)
Alternative B represents an extension and progression of all areas of refuge management. Under alternative B, our biological program would focus on inventories and monitoring to increase our knowledge of wildlife populations and habitats in this dynamic coastal environment, enhance our ability to evaluate those resources in a regional context, and anticipate the effects of climate change. The new information would be used to develop a detailed habitat management plan. We would increase habitat and wildlife management activities, evaluate the effectiveness of refuge management, and adapt management as warranted to achieve long-range refuge goals and objectives.

Under alternative B, we would offer existing and new, compatible wildlife-dependent recreational opportunities, consistent with the refuge purposes to protect migratory birds and maintain wilderness character. Providing opportunities for wildlife observation, photography, and fishing would continue to be a priority. A new opportunity for waterfowl hunting is proposed (see map 3, page 12). Some areas would continue to be seasonally closed to visitors to protect migratory birds, and we may need to adapt closures as conditions change. We would also focus more on wilderness in our outreach materials to promote a better understanding of that resource. We propose to use a concessionaire to provide visitor access and programming, and changes to address parking are also planned. Staffing would be modestly increased to accommodate new programs and activities, and the proposed new visitor contact facilities would support these porgrams and provide better access to information.

Yianna Laskaris/USFWS

Federally threatened piping plovers are a species of concern on the refuge.

Alternative C: Natural Processes
Alternative C proposes less intensive management on all refuge lands. It would be guided by a philosophy of allowing natural processes and succession of habitats to progress, consistent with preserving wilderness character. Generally, active management to enhance wildlife populations, and conducting baseline inventories and monitoring, would be reduced from current management levels. Under this alternative, visitor programs offered would be similar to alternative B, except there would be an emphasis on non-motorized access to the Monomoy Wilderness.

The differences between the alternatives are highlighted in the table on pages 5 through 7.

There are many actions that are common to all three alternatives. Some of these actions are required by law or policy, or represent management decisions that have already undergone National Environmental Policy Act compliance documentation and public review. Two examples of common actions that we know are of interest to readers, and which relate to issues raised during the draft CCP/EIS planning process, are:

- **Refuge Boundary Addition and Management**
  Under all alternatives, the Service defines the refuge's boundary as depicted in map 1, which includes a portion of Nauset/South Beach

and all submerged lands and open water in the Declaration of Taking. The addition of a 717-acre portion of Nauset/South Beach to the refuge's eastern boundary is the result of shifting sands. The refuge's eastern boundary extends to mean low water, so it is continuously changing with the moving shoreline. After several years of accumulation, this portion of Nauset/South Beach gradually attached to South Monomoy Island. Coastal properties along dynamic shorelines are often delineated by the principle of "equitable division", or "equitable apportionment". This means that when shoreline accretion (e.g., accumulation) occurs, the landowners who previously had shoreline access are entitled to the same proportion of the new waterfront that they used to have; or, the new shoreline is divided between them. The refuge's eastern boundary depicted on map 1 is our interpretation of equitable apportionment based on the 2012 shoreline. It is only coincidental that the northeastern boundary of the refuge is near the breaks which occurred in February 2013 and January 2014.

Under all alternatives, we will administer the refuge's Nauset/South Beach addition as part of the Monomoy Wilderness since the new area attached to existing wilderness and because the wilderness boundary extends to mean low water coincident with the refuge's eastern boundary. Also under all alternatives, we will work with Cape Cod National Seashore to resolve any jurisdictional issues or concerns due to the overlapping boundary of the National Seashore with parts of South Monomoy Island. A Memorandum of Understanding between the two agencies recently expired, so a new long-term strategy for addressing jurisdiction and management will be pursued.

- **Jurisdiction and Management in the waters and submerged lands in the Declaration of Taking**
  Under all alternatives, the Service affirms authority and jurisdiction over the submerged lands, the open water, and the water surface in the Declaration of Taking. Within this area, state and other federal agencies will continue to regulate fishing activities in the open water, lying above submerged lands. Included fishing activities are: demersal long line fishing; mid-water trawl fishing, hook and line/rod and reel fishing; and lobster, crab, and whelk pot fishing. In an effort to protect eelgrass beds and other sensitive bottom-dwelling communities, no fishing or shellfishing activities that use bottom-disturbing gear and techniques will be allowed under any alternatives in the Declaration of Taking. Also prohibited are mussel and horseshoe crab harvesting, as these species are important food sources for migratory birds. Under all alternatives, the hand harvest of clams from tidal flats will continue to be allowed.

What Happens Next in the Planning Process

After the comment period closes, we will compile and summarize the comments we received. In response, we may update or modify the alternatives, impact analysis, or other features. We will distribute a final CCP/EIS for a 30-day review period. Its availability will be announced in the Federal Register. This final CCP/EIS will address the public's comments. Once that final review period closes, we will share all public comments, our responses, and our final recommendation to our Regional Director. The Regional Director's decision will be documented in a "Record of Decision" and published in the Federal Register.

The final selected alternative will become the primary component of a stand-alone CCP, and implementation can commence upon publication of the decision. Selected management activities and projects will be implemented as funds become available. The final plan does not constitute a commitment for funding, and future budgets could influence implementation priorities and scheduling.

Yianna Laskaris/USFWS

Nesting common tern

Alternatives Comparison Table

Alternative A *Current Management*	**Alternative B** *Service-preferred Alternative*	**Alternative C** *Natural Processes*
Wilderness Area Management		
Continue to: • Protect wilderness character by managing refuge uses and visitor activities. • Manage the two wilderness exclusions consistent with adjacent wilderness. • Maintain the Monomoy Lighthouse, oil house, and keeper's house.	In addition to alternative A actions: • Emphasize wilderness stewardship in interpretive materials and outreach to visitors. • Start to enforce existing prohibition on wheeled carts in the wilderness area.	Similar to alternative B, except: • Prohibit motorized boats from wilderness area. • Document the historic features and values of the Monomoy Lighthouse, oil house, and keeper's house and allow the buildings to deteriorate over time.
Upland, Dune, and Beach Habitat Management		
Continue to: • Manage approximately 30 acres of habitat for common terns and 2 acres for the federally listed roseate terns. • Conduct predator management, using both lethal and non-lethal techniques, where necessary to protect nesting birds of federal concern. • Provide trail corridors for public to access open areas on the refuge. • Protect sensitive nesting areas through seasonal closures.	• Increase actions to protect, manage, and help recover federally listed species such as the roseate tern, piping plover, red knot, and northeastern beach tiger beetle. • Potentially expand predator management when and where necessary to protect nesting birds of federal concern. • Increase habitat management for common terns (75 acres instead of 30 acres) and roseate terns (10 acres instead of 2 acres). • Increase management to protect nesting piping plovers by closing available high quality habitat to the public. Timing and locations of seasonal closures will vary year to year based on wildlife use and habitat. • Provide trail corridors for public to access open areas on the refuge.	• Allow natural succession processes to dominate, generally with very limited management or intervention • Monitor and protect federally listed species, but without the expansion in alternative B. • Conduct predator management, using both lethal and non-lethal techniques, where necessary to protect nesting birds of federal concern.
Marsh and Intertidal Habitat Management		
Continue to: • Use symbolic fencing for seasonal closures for nesting birds. Timing and locations of seasonal closures will vary year to year based on wildlife use and habitat.	• Use symbolic fencing to expand the area of seasonal closures to protect nesting, migrating, and staging birds, and to protect adult and juvenile horseshoe crabs. Timing and locations of seasonal closures will vary from year to year based on wildlife use and habitat. • Conduct monitoring of the salt marsh on the islands to evaluate how sea level rise is affecting the marshes, and to determine the suitability of the marshes for salt marsh sparrow nesting.	• Same as alternative B
Marine Habitat Management		
Continue to: • Prohibit harvest of horseshoe crabs. • Follow trends in where eelgrass and other submerged aquatic vegetation beds are located using data from refuge partners. • Follow trends in sea turtle entanglements using data from refuge partners.	In addition to alternative A actions: • Protect existing eelgrass and other submerged aquatic vegetation beds as a priority, and determine through monitoring if additional management activities are warranted to protect or expand beds on the refuge. • Prohibit the use of jet skis, kiteboards, and any activities, including fishing and moorings, that may damage eelgrass and other submerged aquatic vegetation beds or benthic communities. • Closely monitor the impacts of fishing pots on sea turtles on the refuge.	• Same as alternative B

Alternative A *Current Management*	**Alternative B** *Service-preferred Alternative*	**Alternative C** *Natural Processes*
	Hunting	
• No hunting is currently allowed on the refuge.	• Allow waterfowl hunting in designated areas along the western side of North and South Monomoy Islands (see map 3). Prior to opening refuge to hunting, complete an opening package required by Refuge System policy.	• Same as alternative B
	Finfishing, Lobstering, Crabbing, and Whelking	
Continue to: • Allow fin fishing from all refuge lands otherwise open to public use, from ½ hour before sunrise to ½ hour after sunset, in accordance with Massachusetts and federal regulations. • Prohibit any fishing activity using bottom-disturbing gear and techniques. • Allow fishing in the open waters, above submerged lands, under state and federal regulations. Included fishing activities are: demersal long line fishing; mid-water trawl fishing; hook and line/rod and reel fishing; and lobster, crab, and whelk pot fishing.	In addition to alternative A actions: • Allow commercial fishing guides under special use permits or concessionaire.	• Same as alternative B
	Shellfishing	
Continue to: • Allow the hand harvest of scallops. • Allow non-mechanized, hand harvest of clams according to town and State regulations.	In addition to alternative A actions: • Prohibit the use of artificial extraction methods, such as using salt or chlorine. • Prohibit the harvest of mussels, an important food source for migratory shorebirds. • Start to enforce existing prohibition on wheeled carts in the wilderness area.	• Same as alternative B
	Environmental Education and Interpretation	

Continue to:
• Offer current environmental education and interpretive programs, including:
  ▪ Host school trips on an opportunistic basis.
  ▪ Maintain existing interpretative panels along Morris Island Trail.
  ▪ Conduct seasonal interpretive programs, by refuge staff and volunteers.
• Issue permits for commercial tours.
• Maintain Web site and brochures.
	In addition to alternative A actions:
	• Develop curriculum-based programs focused on the refuge for local and regional school districts.
	• Host up to two teacher workshops each year.
	• Develop interpretive opportunities such as virtual geocaching, letterboxing, podcasts, and text tours
	• Develop a self-guided interpretive kayak tour.
	• Offer additional guided programs, walks, and lectures on- and offsite.
	• Update brochures and other materials.
		• Same as alternative B, except fewer programs and materials would be developed.

Alternative A *Current Management*	**Alternative B** *Service-preferred Alternative*	**Alternative C** *Natural Processes*
Wildlife Observation and Photography		
Continue to: • Maintain the existing Morris Island Trail. • Issue permits for wildlife tours and/or commercial photography. • Sponsor an annual photography contest.	In addition to alternative A actions: • Add an observation/photography blind along the Morris Island Trail. • Offer additional guided wildlife observation/ photography programs, walks, and lectures on and offsite.	• Same as alternative B
Other Refuge Uses		
Continue to: • Allow swimming and beachcombing. • Prohibit dogs on North, South, and Minimoy Islands, but allow them on leash on Morris Island.	• Allow swimming and beachcoming. • Allow jogging on Morris Island only. • Prohibit dogs and other pets from all areas of the refuge, including Morris Island properties. • Prohibit beach sports, grilling, kite flying, jet skis, and other activities that are not wildlife-dependent. • Discontinue parking permits in Stage Island lot 7b. • Discontinue dinghy storage permits on Stage and Morris Islands.	• Same as alternative B
Facilities and Operations		
Continue to: • Maintain current staffing levels, including continuing to employ seasonal and term staff and interns. • Maintain existing refuge headquarters/visitor contact station, dormitory, and maintenance buildings. • Offer free parking at the Morris Island headquarters site on a first come-first served basis.	• As funding allows, fill seven additional full-time positions, and continue to employ seasonal and term staff and interns. • Expand or relocate the headquarters building. • Establish a downtown visitor contact facility. • Operate an offsite shuttle service from satellite parking areas, including from the proposed visitor contact facility. • Charge a parking fee at the Morris Island headquarters site (seasonal, coinciding with shuttle services (June 15 through September 15).	• Similar to alternative B, except charge a refuge entrance fee instead of a parking fee.

How to Submit Comments

The draft CCP/EIS will be available for a 60-day public review and comment period, and will be advertised through special mailings, newspaper articles, internet posts, and other media announcements. The comment period ends July 9, 2014. We also invite the public to attend our two public open houses and the public hearing:

Open Houses
When: April 24, 2014 - 3 to 7 pm
Where: Chatham Community Center
702 Main Street
Chatham, MA 02633

When: May 21, 2014 - 3 to 7 pm
Where: Chatham Community Center
702 Main Street
Chatham, MA 02633

Public Hearing
When: June 17, 2014 - 6 to 9 pm (Rescheduled; originally planned for May 29)
Where: Chatham High School
425 Crowell Road
Chatham, MA 02633

Submit comments, or request more information, by any one of the following methods:

- E-mail: *northeastplanning@fws.gov*. Include "Monomoy NWR Draft CCP/EIS" in the subject line of the message.
- Fax: Attention: Libby Herland, Project Leader, 978–443–2898.
- U.S. Mail: Attention: Libby Herland, Project Leader, Eastern Massachusetts National Wildlife Refuge Complex, 73 Weir Hill Road, Sudbury, MA 01776.
- In-Person Drop Off: You may drop off comments during regular business hours at the above address or at the refuge's Chatham office.

USFWS

Reader's Guide
Volume 1 - Chapter Narratives

Chapter 1—Purpose of, and Need for, Action
This chapter explains in detail what a CCP is and why it is required for a refuge. It also lists the refuge's establishment purposes, vision statement, and draft goals; describes the planning process; and lists the issues, concerns, and opportunities identified during the planning process.

Chapter 2—Affected Environment
This chapter describes the current physical, biological, and socioeconomic environment. It provides details on the refuge's existing habitats and wildlife resources, administrative facilities and staffing, and recreational opportunities.

Chapter 3—Alternatives Considered, Including the Service-preferred Alternative
This chapter provides detailed descriptions of the three management alternatives developed and evaluated, including the "current management" alternative and the Service's-preferred alternative B. These three alternatives present different scenarios for managing the refuge over the next 15 years. A table at the end of the chapter summarizes and compares the three alternatives.

Chapter 4—Environmental Consequences
This chapter describes the anticipated beneficial and adverse impacts to the refuge and surrounding environment from implementing each of the three alternatives. A table at the end of the chapter summarizes and compares these impacts.

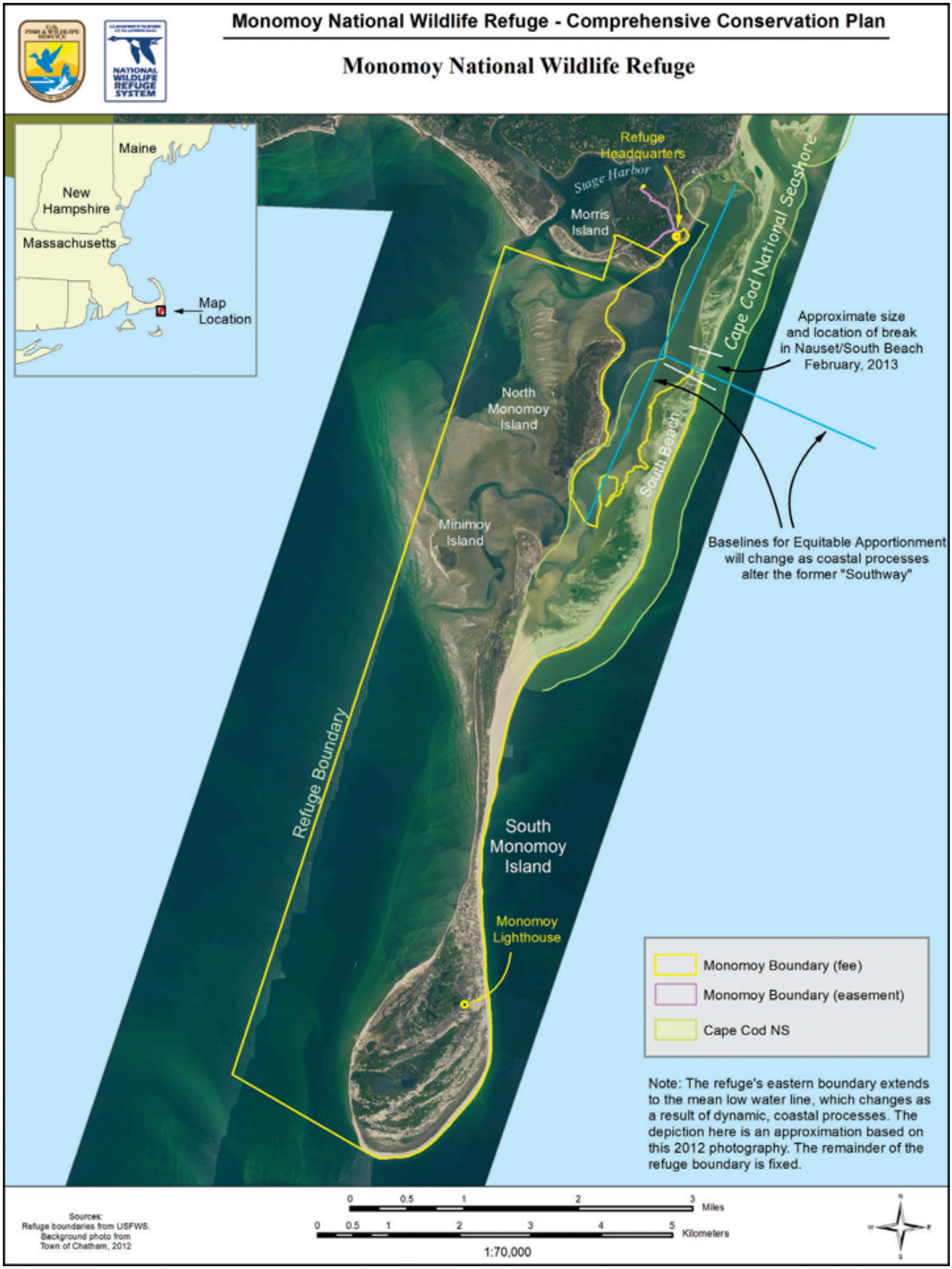
Chapter 5—Consultation and Coordination
This chapter describes how we involved partners and the public in the development of the draft CCP/EIS.

Chapter 6—List of Preparers
This chapter lists the people directly involved in the development of the draft CCP/EIS, including U.S. Fish and Wildlife staff and representatives from State and Tribal agencies.

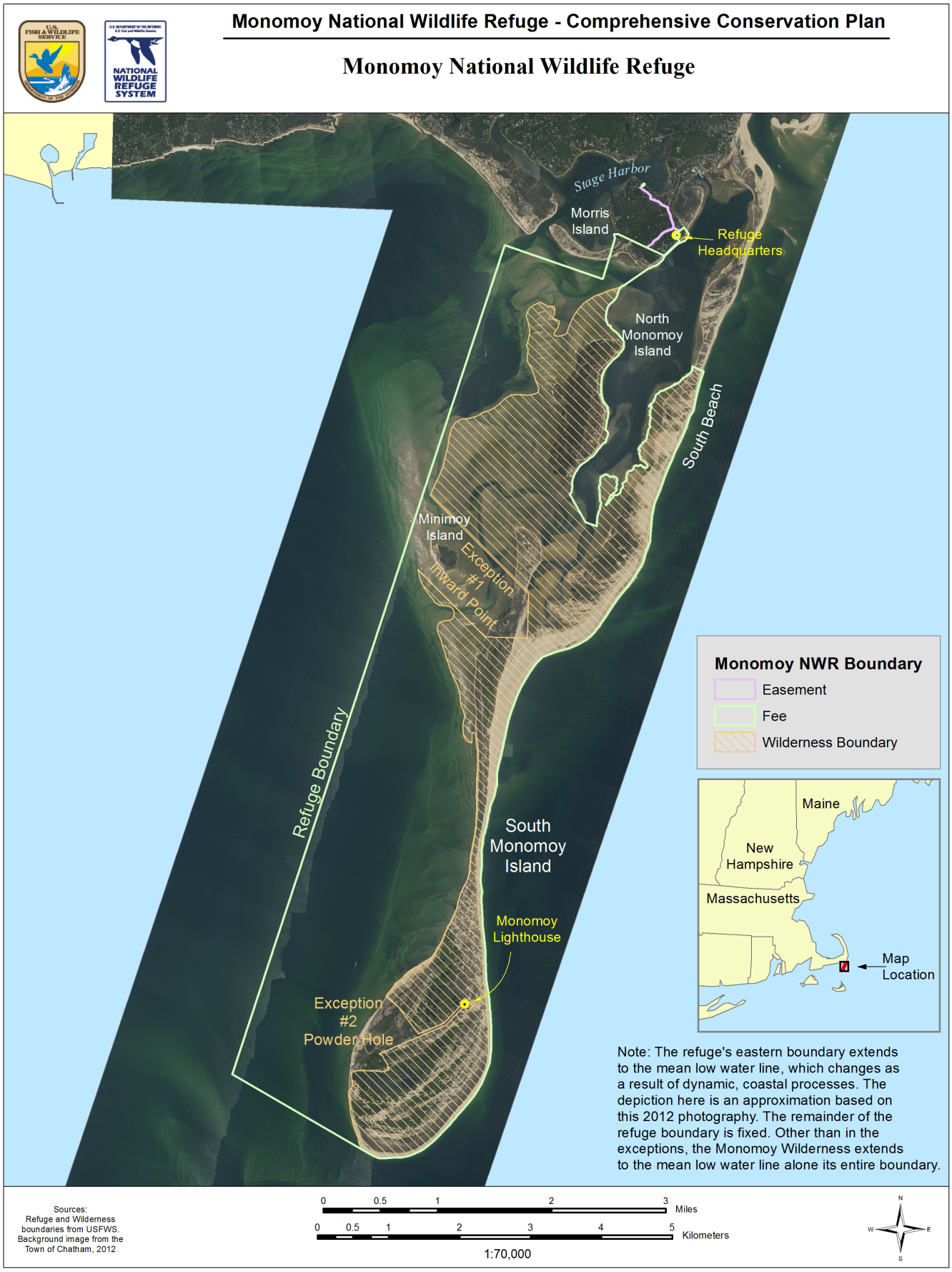
Volume 2 - Appendixes

Appendix A—Animal Species Known or Suspected on Monomoy National Wildlife Refuge
Appendix B—Plant Species Known or Suspected on Monomoy National Wildlife Refuge
Appendix C—Vegetation Alliances and Associations of Monomoy National Wildlife Refuge
Appendix D—Findings of Appropriateness and Compatibility Determinations *(e.g., what uses we propose to allow and prohibit under the Service-preferred alternative B)*
Appendix E—Wilderness Review of Monomoy National Wildlife Refuge
Appendix F—Fire Management Program Guidance
Appendix G—Refuge Staffing Charts
Appendix H—Refuge Operations Needs System (RONS) and Service Asset Maintenance Management System (SAMMS) *(e.g., priority projects and anticipated costs associated with the Service-preferred alternative B)*
Appendix I—A Geomorphological Analysis of the Monomoy Barrier System
Appendix J—Predator and Competitor Management Plan for Monomoy National Wildlife Refuge

Map 1


Monomoy National Wildlife Refuge - Comprehensive Conservation Plan
Monomoy National Wildlife Refuge
Maine
New Hampshire
Massachusetts
Map Location
Refuge Headquarters
Stage Harbor
Morris Island
Cape Cod National Seashore
Approximate size and location of break in Nauset/South Beach February, 2013
North Monomoy Island
South Beach
Minimoy Island
Baselines for Equitable Apportionment will change as coastal processes alter the former "Southway"
Refuge Boundary
South Monomoy Island
Monomoy Lighthouse
Monomoy Boundary (fee)
Monomoy Boundary (easement)
Cape Cod NS
Note: The refuge's eastern boundary extends to the mean low water line, which changes as a result of dynamic, coastal processes. The depiction here is an approximation based on this 2012 photography. The remainder of the refuge boundary is fixed.
Sources: Refuge boundaries from USFWS. Background photo from Town of Chatham, 2012
0 0.5 1 2 3 Miles
0 0.5 1 2 3 4 5 Kilometers
1:70,000

Map 2


Monomoy National Wildlife Refuge - Comprehensive Conservation Plan
Monomoy National Wildlife Refuge
Stage Harbor
Morris Island
Refuge Headquarters
North Monomoy Island
South Beach
Minimoy Island
Exception #1
Inward Point
Refuge Boundary
South Monomoy Island
Monomoy Lighthouse
Exception #2 Powder Hole
Monomoy NWR Boundary
Easement
Fee
Wilderness Boundary
Maine
New Hampshire
Massachusetts
Map Location
Note: The refuge's eastern boundary extends to the mean low water line, which changes as a result of dynamic, coastal processes. The depiction here is an approximation based on this 2012 photography. The remainder of the refuge boundary is fixed. Other than in the exceptions, the Monomoy Wilderness extends to the mean low water line alone its entire boundary.
Sources: Refuge and Wilderness boundaries from USFWS. Background image from the Town of Chatham, 2012
0 0.5 1 2 3 Miles
0 0.5 1 2 3 4 5 Kilometers
1:70,000
N
W
E
S

Monomoy National Wildlife Refuge - Comprehensive Conservation Plan

Proposed Waterfowl Hunting Area

Sources:
Refuge and Wilderness boundaries from USFWS.
Background image from the Town of Chatham, 2012

0 0.5 1 2 3 Miles

0 0.5 1 2 3 4 Kilometers

1:65,000

N W E S

Monomoy National Wildlife Refuge
c/o Eastern Massachusetts
National Wildlife Refuge Complex
73 Weir Hill Road
Sudbury, MA 01776
978/443 4661 extension 11
978/443 2898 Fax
northeastplanning@fws.gov
http://www.fws.gov/northeast/monomoy

Federal Relay Service
for the deaf and hard-of-hearing
1 800/877 8339

U.S. Fish and Wildlife Service
1 800/344 WILD
http://www.fws.gov

April 2014