

Chapter 1



Lake Sunapee shoreline

The Purpose of and Need for Action

- Introduction
- The Purpose of and Need for the Proposed Action
- The Service and the Refuge System Policies and Mandates Guiding our Planning
- Conservation Plans and Initiatives Guiding the Project
- Refuge Establishing Purposes and Land Acquisition History
- Refuge Administration
- Refuge Operational Plans (“Step-down plans”)
- Refuge Vision Statement
- Refuge Goals

Introduction

The John Hay National Wildlife Refuge (NWR, Refuge) was established as a migratory bird and wildlife reservation. It lies on the shores of Lake Sunapee, on the lower slopes of Sunset Hill, one of several hills rising east of the lake, and primarily consists of upland habitat, with forests classified as transition hardwood-conifer.

In 1972, Alice Hay donated the 164-acre summer estate of John Hay, her father-in-law, to the U.S. Fish and Wildlife Service (USFWS, Service, we, our), retaining two life-use reservations. John Hay was a politician and statesman, known for his service to his country as a personal secretary to President Abraham Lincoln, as Ambassador to Great Britain for President William McKinley, and as Secretary of State for Presidents McKinley and Theodore Roosevelt. The life-use reservations consisted of a 21-acre tract for her children, John Hay and Adele Hay Fath, and the other was the remaining 143-acre tract for herself. The 143-acre tract was turned over to the Service in 1987, upon the death of Alice Hay, and the 21-acre tract was turned over to the Service in 1998 when John Hay and Adele Hay Fath relinquished their life use reservations.

From 1987 to 2008, the Refuge was managed by several partners including the New Hampshire State Parks and then The Fells, a non-profit organization dedicated to maintaining the John Hay estate. In 2008, the Refuge transferred 84 acres containing the estate buildings and grounds to The Fells and retained approximately 80 forested acres on the shores of Lake Sunapee in Newbury, New Hampshire as the John Hay National Wildlife Refuge. In exchange for this land transfer, 727 (+/-) acres were appended to Umbagog NWR.

Refuge property extends to the normal high water line. Therefore, when we refer to Service ownership, or describe shoreline Refuge management actions, we generally mean those areas above the normal high water line. The Refuge encompasses its entire approved acquisition boundary (Map 1-1).

This comprehensive conservation plan (CCP) for the Refuge is required by the National Wildlife Refuge System Administration Act of 1996, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law(PL) 105-57; 111 Stat. 1253; Improvement Act). An EA, required by the National Environmental Policy Act of 1969 (42 United States Code (USC) 4321 et seq., 83 Stat. 852; NEPA), was issued for public review in combination with the draft CCP in February 2010.

Following the public review of the CCP, our regional director decided on the components of this final CCP to guide Refuge management decisions over the next 15 years. We will use the CCP to promote understanding of and support for Refuge management among state agencies in New Hampshire, our conservation partners, tribal governments, local communities, and the public.

Chapter 1 explains the purpose of and need for preparing a CCP, and sets the stage for four subsequent chapters and seven appendices. Specifically, it

- defines our planning analysis area,
- presents the need for and purpose of the actions proposed,
- presents the mission, policies and mandates affecting the development of the plan,
- identifies other conservation plans we used as references,
- lists the purposes for which the Refuge was established and its land acquisition history, and
- clarifies the vision and goals that drive refuge management.

Chapter 2, “The Planning Process,” describes our planning process and its compliance with NEPA regulations, and identifies public issues or concerns that surfaced as we developed the plan.

Chapter 3, “Refuge and Resource Descriptions,” describes the physical, biological, and human environments of the Refuge.

Chapter 4, “Management Direction and Implementation,” presents current and future management actions and their objectives and strategies for meeting Refuge goals and addressing public issues.

Chapter 5, “Consultation and Coordination with Others,” summarizes how we involved the public and our partners in the planning process. Their involvement is vital for the future management of this Refuge and all national wildlife refuges.

Seven appendices, a glossary with acronyms, and a bibliography (literature cited) provide additional documentation and references to support our narratives and analysis.

The Purpose of and Need for the Proposed Action

We developed a CCP for the Refuge that, in the Service’s best professional judgment, best achieves the purposes, goals and vision of the Refuge and contributes to the mission of the National Wildlife Refuge System (NWRS, Refuge System), adheres to the Service’s policies and other mandates, addresses identified issues of significance, and incorporates sound principles of fish and wildlife science.

The *purpose* of adopting a CCP for this Refuge is to accomplish the following goals:

Goal 1. Contribute to the biological diversity and integrity of the Atlantic northern forest in the larger context of the Lake Sunapee region and Connecticut River watershed by protecting, enhancing, and restoring the Refuge’s habitats, with an emphasis on breeding, migrating, and wintering birds.

Goal 2. Promote natural resource conservation, stewardship, the mission of the National Wildlife Refuge System, and enjoyment of the John Hay Refuge by providing high-quality, compatible, wildlife-dependent public use opportunities on Refuge lands and neighboring conserved lands and waters.

Goal 3. Communicate and collaborate with local communities, federal and state agencies, The Fells, and conservation organizations throughout the Lake Sunapee region to promote natural resource conservation, stewardship, and the mission of the National Wildlife Refuge System.

The *need* for a CCP is manifold. First, the Improvement Act requires us to write CCPs for all national wildlife refuges by 2012 to help fulfill the mission of the Refuge System. New policies to implement the strategic direction in the Improvement Act have developed since the Refuge was established. A CCP incorporates those policies and develops strategic management direction for the Refuge for 15 years, by:

- stating clearly the desired future conditions for refuge habitat, wildlife, visitor services, staffing, and facilities;
- explaining concisely to state agencies, refuge neighbors, visitors, partners, and other stakeholders the reasons for management actions;
- ensuring that refuge management conforms to the policies and goals of the Refuge System and legal mandates;

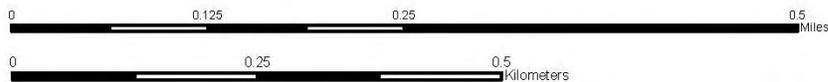


John Hay National Wildlife Refuge - Comprehensive Conservation Plan

John Hay NWR Refuge Boundary



Sources:
Refuge roads, trails and boundaries from USFWS.
Public roads from NH DOT
Basemap 2003 NAIP imagery



- ensuring that present and future public uses are appropriate and compatible;
- providing long-term continuity and direction for refuge management; and,
- justifying budget requests for staffing, operating, and maintenance funds.

Second, this Refuge lacks a master plan to implement that strategic management direction and guide our decisions. The environment of the Refuge has changed since 1972. Most notably, the Refuge has decreased in size from the original 164 acres to approximately 80 acres, allowing the Service to focus its efforts on fulfilling the purpose of the Refuge beyond maintaining the estate buildings and grounds. The economy and patterns of land use and land ownership in local communities are changing. The pressures for public use and access have continued to increase. New ecosystem and species conservation plans have been developed that bear directly on refuge management. The priority of habitat management and restoration to control invasive plants has grown. We also must evaluate the need for administrative and visitor facilities, including their locations, to ensure the best customer service possible. Finally, as responsible stewards of federal lands, conveying our vision and priorities for the Refuge to our partners, local communities, and interested and affected individuals is imperative.

Regional Context

The Refuge sits on the shores of Lake Sunapee, the fifth largest lake in the state of New Hampshire at 4,090 acres (Map 1-2). This lake and the surrounding hills form the headwaters of the Sugar River which emanates from the western shore of the lake in the Town of Sunapee. The Sugar River flows west for 27 miles, along Route 103, eventually draining into the Connecticut River west of Claremont. Both Lake Sunapee and the Sugar River are part of the Connecticut River watershed. The Connecticut River is the largest river system in New England, with a watershed of 7.2 million acres across four states (Map 1-2).

The Service and the Refuge System: Policies and Mandates Guiding Planning

The U.S. Fish and Wildlife Service and its Mission

As part of the Department of the Interior (DOI), the Service administers the National Wildlife Refuge System. The Service mission is “*Working with others, to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.*”

Congress entrusts to the Service the conservation and protection of these national natural resources: migratory birds and fish, federal-listed endangered or threatened species, inter-jurisdictional fish, wetlands, certain marine mammals, and national wildlife refuges. We also enforce federal wildlife laws and international treaties on importing and exporting wildlife, assist states with their fish and wildlife programs, and help other countries develop conservation programs.

The Service Manual, <http://www.fws.gov/policy/manuals/>, includes internal directives on implementing authorities. We publish special directives that affect the rights of citizens or the authorities of other agencies separately in the Code of Federal Regulations (CFR); the Service Manual does not duplicate them (see 50 CFR 1–99 at <http://www.gpoaccess.gov/cfr/index.html>).

The National Wildlife Refuge System and its Mission and Policies

The Refuge System is the world’s largest collection of lands and waters set aside specifically for the conservation of wildlife and the protection of ecosystems. More than 550 national wildlife refuges and 37 wetland management districts encompass more than 150 million acres of lands and waters in all 50 states and several island territories. Each year, more than 40 million visitors hunt, fish, observe and photograph wildlife, or participate in environmental education and interpretation on refuges.



John Hay National Wildlife Refuge - Comprehensive Conservation Plan Location of John Hay National Wildlife Refuge



Sources:
Connecticut River watershed and
Refuge Boundaries from USFWS.
Basemap USGS 1:250,000 DEM's
Bathymetry from MassGIS

0 50 100 Miles

0 50 100 200 Kilometers



In 1997, President Clinton signed into law the National Wildlife Refuge System Improvement Act (16 USC 668dd(a)(2)). That act establishes a unifying mission for the Refuge System, a new process for determining the compatibility of public uses on refuges, and requires us to prepare a CCP for each refuge. The act states that the Refuge System must focus on wildlife conservation. It also states that the mission of the Refuge System, coupled with the purpose(s) for which each refuge was established, will provide the principal management direction on that refuge. The mission of the Refuge System is

“...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

—National Wildlife Refuge System Improvement Act

The Refuge Manual contains policy governing the operation and management of the Refuge System that the Fish and Wildlife Service Manual does not cover, including technical information on implementing refuge policies and guidelines on enforcing laws. You can review that manual at <http://www.fws.gov/policy/manuals/part.cfm?series=600&seriestitle=LAND%20USE%20AND%20MANAGEMENT%20SERIES>.

These are a few noteworthy policies instrumental in developing this CCP.

Policy on the National Wildlife Refuge System Mission, Goals and Purposes

This policy (601 FW 1) sets forth the Refuge System mission noted above, how it relates to the Service mission, and explains the relationship of the Refuge System mission and goals, and the purpose(s) of each unit in the Refuge System. In addition, it identifies the following Refuge System goals.

- Conserve a diversity of fish, wildlife, and plants;
- Develop and maintain a network of habitats;
- Conserve those ecosystems, plant communities, and wetlands that are unique within the United States;
- Provide and enhance opportunities to participate in compatible, wildlife-dependent recreation; and,
- Help to foster public understanding and appreciation of the diversity of fish, wildlife, and plants and their habitats.

This policy also establishes management priorities for the Refuge System.

- Conserve fish, wildlife, and plants and their habitats;
- Facilitate compatible wildlife-dependent recreational uses; and,
- Consider other appropriate and compatible uses.

Policy on Refuge System Planning

This policy (602 FW 1, 2, 3) establishes the requirements and guidance for Refuge System planning, including CCPs and step-down management plans. It states that we will manage all refuges in accordance with an approved CCP that, when implemented, will help:

- achieve refuge purposes;
- fulfill the Refuge System mission;

- maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System;
- achieve the goals of the National Wilderness Preservation System and the National Wild and Scenic Rivers System; and,
- conform to other applicable laws, mandates, and policies.

That planning policy provides step-by-step directions and identifies the minimum requirements for developing all CCPs. Among them, we are to review any existing special designation areas such as wilderness and wild and scenic rivers, specifically address the potential for any new special designations, conduct a wilderness review, and incorporate a summary of that review into each CCP (602 FW 3).

Policy on the Appropriateness of Refuge Uses

Federal law and Service policy provide the direction and planning framework for protecting the Refuge System from inappropriate, incompatible or harmful human activities and ensuring that visitors can enjoy its lands and waters. This policy (603 FW 1) provides a national framework for determining appropriate refuge uses to prevent or eliminate those that should not occur in the Refuge System. It describes the initial decision process the refuge manager follows when first considering whether to allow a proposed use on a refuge. An appropriate use must meet at least one of the following four conditions.

1. The use is a wildlife-dependent recreational use as identified in the Improvement Act.
2. The use contributes to fulfilling the Refuge purpose(s), the Refuge System mission, or goals or objectives described in a refuge management plan approved after October 9, 1997, the date the Improvement Act became law.
3. The use involves the take of fish and wildlife under State regulations.
4. The use has been found to be appropriate after concluding a specified findings process using 10 specific criteria included in the policy.

Policy on Compatibility

This policy (603 FW 2) complements the appropriateness policy. The refuge manager first must find a use appropriate before undertaking a compatibility review of that use. If the proposed use is not appropriate, the refuge manager will not allow it, and a compatibility determination is unnecessary. However, the refuge manager must evaluate an appropriate use further, through a compatibility determination. The direction in 603 FW 2 provides guidance on how to prepare a compatibility determination. Other guidance in that chapter follows.

- The Improvement Act and its regulations require an affirmative finding by the refuge manager on the compatibility of a public use before we allow it on a national wildlife refuge.
- A compatible use is one “that will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuge.”
- The act defines six wildlife-dependent uses that are to receive enhanced consideration on refuges: “hunting, fishing, wildlife observation and photography, and environmental education and interpretation.”
- The refuge manager may authorize those priority uses on a refuge when they are compatible and consistent with public safety.

- When the refuge manager publishes a compatibility determination, it will stipulate the required maximum reevaluation dates: 15 years for wildlife-dependent recreational uses; or, 10 years for other uses.
- However, the refuge manager may reevaluate the compatibility of a use at any time: for example, sooner than its mandatory date, or even before we complete the CCP process, if new information reveals unacceptable impacts or incompatibility with refuge purposes (603 FW 2.11, 2.12).
- The refuge manager may allow or deny any use, even one that is compatible, based on other considerations such as public safety, policy, or available funding.

Policy on Wildlife-dependent Public Uses

Part 605 Chapter 1 of the manual presents specific guidance on implementing direction, including the following criteria for a quality, wildlife-dependent recreation program:

1. promotes safety of participants, other visitors, and facilities;
2. promotes compliance with applicable laws and regulations and responsible behavior;
3. minimizes or eliminates conflict with fish and wildlife population or habitat goals or objectives in an approved plan;
4. minimizes or eliminates conflicts with other compatible wildlife-dependent recreation;
5. minimizes conflicts with neighboring landowners;
6. promotes accessibility and availability to a broad spectrum of the American people;
7. promotes resource stewardship and conservation;
8. promotes public understanding and increases public appreciation of America's natural resources and our role in managing and conserving these resources;
9. provides reliable/reasonable opportunities to experience wildlife;
10. uses facilities that are accessible to people and blend into the natural setting; and,
11. uses visitor satisfaction to help to define and evaluate programs.

Policy on Maintaining Biological Integrity, Diversity, and Environmental Health

This policy (601 FW 3) provides guidance on maintaining or restoring the biological integrity, diversity, and environmental health of the Refuge System, including the protection of a broad spectrum of fish, wildlife, and habitat resources in refuge ecosystems. It provides refuge managers with a process for evaluating the best management direction to prevent the additional degradation of environmental conditions and restore lost or severely degraded components of the environment. It also provides guidelines for dealing with external threats to the biological integrity, diversity, and environmental health of a refuge and its ecosystem.

Other Mandates

Although Service and Refuge System policy and the purpose(s) of each refuge provide the foundation for its management, other federal laws, executive orders, treaties, interstate compacts, and regulations on conserving and protecting natural and cultural resources also affect how we manage refuges. Our "Digest

of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service” describes many of them at <http://www.fws.gov/laws/lawsdigest/ind.c.html>.

Federal laws require the Service to identify and preserve its important historic structures, archaeological sites, and artifacts. NEPA mandates our consideration of cultural resources in planning federal actions. The Improvement Act requires the comprehensive conservation plan for each refuge to identify its archaeological and cultural values.

The Antiquities Act of 1906 as amended (PL 59-209; 34 Stat. 225; 16 USC 431-433) is the earliest and most basic legislation for protecting cultural resources on Federal lands. It provides misdemeanor-level criminal penalties to control unauthorized uses. Appropriate scientific uses may be authorized through permits, and materials removed under a permit must be permanently preserved in a public museum. The 1906 Act is broader in scope than the 1979 Archaeological Resources Protection Act, which partially supersedes it. Uniform regulations at 43 CFR Part 3 implement the Act.

The Historic Sites, Buildings and Antiquities Act (16 USC 461-462, 464-467; 49 Stat. 666) of August 21, 1935, popularly known as the Historic Sites Act, as amended by Public Law 89-249, approved October 9, 1965, (79 Stat. 971), declares it a national policy for the first time to preserve historic sites and objects of national significance, including those located on refuges. It provides authorization to the Secretary of the Interior through the National Park Service to conduct archaeological surveys, and to designate, acquire, administer, protect, and purchase properties of historic significance. Among other things, National Historic and Natural Landmarks are designated under the authority of this act, which are eventually incorporated into the National Historic Register under the 1966 National Historic Preservation Act.

The Archaeological and Historic Preservation Act (16 USC 469-469c; PL 86-523), approved June 27, 1960, (74 Stat. 220) as amended by Public Law 93-291, approved May 24, 1974, (88 Stat. 174) carries out the policy established by the Historic Sites Act (see above). It directs federal agencies to notify the Secretary of the Interior whenever they find that any alteration of terrain caused by a federal or federal-assisted licensed or permitted project may cause the loss or destruction of significant scientific, prehistoric or archaeological data. This expands the number of federal agencies responsible for carrying out this law. The act authorizes the use of appropriated, donated or transferred funds for the recovery, protection and preservation of that data.

The National Historic Preservation Act of 1966 (16 USC 470-470b, 470c-470n), PL 89-665, approved October 15, 1966 (80 Stat. 915) and repeatedly amended, provides for the preservation of significant historical properties (buildings, objects and sites) through a grant-in-aid program to the states, and establishes State Historic Preservation Offices. It establishes a National Register of Historic Places and a program of matching grants under the existing National Trust for Historic Preservation (16 USC 468-468d). This act establishes an Advisory Council on Historic Preservation, which became a permanent, independent agency in Public Law 94-422, approved September 28, 1976 (90 Stat. 1319). The act created the Historic Preservation Fund. It directs federal agencies, and any state, local, or private entity associated with a federal undertaking, to conduct a Section 106 Review, or to identify and assess the effects of their actions on items or sites listed or eligible for listing on the National Register. Most significantly, this act established that archaeological preservation was an important and relevant component at all levels of modern society, and it enabled the federal government to facilitate and encourage archaeological preservation, programs and activities in the state, local, and private sectors.

The Archaeological Resources Protection Act (16 USC 470aa-470ll; PL 96-95) approved October 31, 1979, (93 Stat. 721), referred to as ARPA, largely supplanted the resource protection provisions of the Antiquities Act of 1906 for archaeological items. ARPA establishes detailed requirements for issuance of permits for any excavation for or removal of archaeological resources from federal or Native American lands. It also provides detailed descriptions of prohibited actions, thereby strengthening enforcement capabilities. It establishes more severe civil and criminal penalties for the unauthorized excavation, removal, or damage of those resources; for any trafficking in those removed from federal or Native American land in violation of

any provision of federal law; and for interstate and foreign commerce in such resources acquired, transported, or received in violation of any state or local law.

Native American Graves Protection and Repatriation Act of 1990, as amended (PL 101-601; 104 Stat. 3048; 25 USC 3001 et seq.) establishes rights of Indian tribes and Native Hawaiian organizations to claim ownership of certain cultural items, including human remains, funerary objects, sacred objects, and objects of cultural patrimony, held or controlled by Federal agencies and museums that receive Federal funds. It requires agencies and museums to identify holdings of such remains and objects, and to work with appropriate Native Americans toward their repatriation. Permits for the excavation and/or removal of cultural items protected by the act require Native American consultation, as do discoveries of cultural items made during Federal land use activities. The Secretary of the Interior's implementing regulations are at 43 CFR Part 10.

The Service also owns and cares for museum properties. The most common are archaeological, zoological, botanical collections, historical photographs, historic objects, and art. Each refuge maintains an inventory of its museum property. Our museum property coordinator in Hadley, Massachusetts, guides the refuges in caring for that property, and helps us comply with the Native American Grave Protection and Repatriation Act and federal regulations governing federal archaeological collections. Our program ensures that those collections will remain available to the public for learning and research.

Other resource laws also are integral in developing a CCP. The Wilderness Act of 1964 (16 USC 1131–1136; PL 88–577) establishes a National Wilderness Preservation System (NWPS) that is composed of federally owned areas designated by Congress as “wilderness areas.” The act directs each agency administering designated wilderness to preserve the wilderness character of areas within the NWPS, and to administer the NWPS for the use and enjoyment of the American people in a way that will leave those areas unimpaired for future use and enjoyment as wilderness. The act also directs the Secretary of the Interior, within 10 years, to review every roadless area of 5,000 acres or more and every roadless island (regardless of size) within National Wildlife Refuge and National Park systems for inclusion in the National Wilderness Preservation System. Service planning policy requires that we evaluate the potential for wilderness on refuge lands, as appropriate, during the CCP planning process (610 FW 1).

The Wild and Scenic Rivers Act of 1968, as amended, selects certain rivers of the nation possessing remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, preserves them in a free-flowing condition, and protects their local environments. Service planning policy requires that we evaluate the potential for wild and scenic rivers designation on refuge lands, as appropriate, during the CCP planning process.

Chapter 4 in the draft CCP/EA, “Environmental Consequences,” evaluated this plan’s compliance with the acts noted above, and with the Clean Water Act of 1977 as amended (33 USC 1251, et seq.; PL 107–303), the Clean Air Act of 1970 as amended (42 USC 7401 et seq.), and the Endangered Species Act (ESA) of 1973 (16 USC 1531–1544), as amended. Finally, we designed the draft CCP/EA to comply with NEPA and the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500–1508).

Conservation Plans and Initiatives Guiding the Project

Strategic Habitat Conservation

The Service has a goal of establishing and building capacity for science-driven landscape conservation on a continental scale. Our approach, known as Strategic Habitat Conservation, applies adaptive resource management principles to the entire range of species, groups of species, and natural communities of plants and animals. This approach is founded on an adaptive, iterative process of biological planning, conservation



© Len Medlock

Chestnut-sided warbler

design, conservation delivery, monitoring, and research. The Service is refining this approach to conservation in a national geographic framework. We will work with partners to develop national strategies to help wildlife, with a focus on declining species populations, adapt in a climate-changed world. This geographic frame of reference will also allow us to more precisely explain to partners, Congress and the American public why, where, and how we target resources for landscape-scale conservation and how our efforts connect to a greater whole.

Birds of Conservation Concern 2008 Report

The Service developed this report (USFWS 2008a) in consultation with the leaders of ongoing bird conservation initiatives and such partnerships as Partners In Flight (PIF), the North American Waterfowl Management Plan (NAWMP) and Joint Ventures, the North American Waterbird Conservation Plan (NAWCP), and the U.S. Shorebird Conservation Plan. It fulfills the mandate of the 1988 amendment to the Fish and Wildlife Conservation Act of 1980 (100 PL 100–653, Title VIII), requiring the Secretary of the Interior, through the Service, to “identify species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973.”

The report contains 46 lists that identify bird species of conservation concern at national, regional, and landscape scales. It includes a principal national list, regional lists corresponding to the regional administrative units of the Service, and species lists for each of the 35 bird conservation regions (BCRs) designated by the North American Bird Conservation Initiative (NABCI) in the United States, and two additional BCRs we created to fulfill the purpose of the report that include island “territories” of the United States. NABCI defined those BCRs as ecologically based units in a framework for planning, implementing, and evaluating bird conservation. We hope those national and regional reports will stimulate federal, state, and private agencies to coordinate, develop, and implement integrated approaches for conserving and managing the birds deemed most in need of conservation. This is one of the plans we used in identifying species of concern in Appendix A and developing management objectives and strategies in Goal 1. The report is available on line at http://library.fws.gov/Bird_Publications/BCC2008.pdf. The Refuge lies in the Atlantic Northern Forest (BCR 14). Of the 29 bird species on the list for BCR 14, two species, wood thrush (*Hylocichla mustelina*), and Canada warbler (*Wilsonia canadensis*), breed on the Refuge.

North American Waterfowl Management Plan (update 2004) and Atlantic Coast Joint Venture Implementation Plan (ACJV 2005)

Originally written in 1986, the NAWMP describes a 15-year strategy among the United States, Canada, and Mexico to restore and sustain waterfowl populations by protecting, restoring, and enhancing habitat. The plan committee, including representatives from each nation, has modified the 1986 plan twice to account for biological, sociological, and economic changes that influenced the status of waterfowl and the conduct of cooperative habitat conservation. The most recent modification, in 2004, (NAWMP 2004) updates the needs, priorities, and strategies for the next 15 years, increases stakeholder confidence in the direction of its actions, and guides partners in strengthening the biological foundation of North American waterfowl conservation. You may review the plan at <http://www.fws.gov/birdhabitat/NAWMP>. To convey goals, priorities, and strategies more effectively, NAWMP 2004 is comprised of two separate documents: Strategic Guidance and Implementation Framework, the former for agency administrators and policy makers who set the direction and priorities for conservation. The latter includes supporting technical information for use by biologists and land managers.

The plans are implemented at the regional level in 14 habitat Joint Ventures and three species Joint Ventures: Arctic goose, black duck, and sea duck. Our project area lies in the Atlantic Coast Joint Venture (ACJV), which includes all the Atlantic Flyway states from Maine to Florida and Puerto Rico. The waterfowl goal for the Atlantic Coast Joint Venture is “*Protect and manage priority wetland habitats for migration, wintering, and production of waterfowl, with special consideration to black ducks, and to benefit other wildlife in the joint venture area.*”

In 2005, a revision of the original ACJV Implementation Plan (ACJV 2005) was completed. The ACJV 2005 plan presents habitat conservation goals and population indices for the ACJV consistent with the NAWMP update, provides status assessments of waterfowl and their habitats in the joint venture, and updates focus area narratives and maps for each state. That document is intended as a blueprint for conserving the valuable breeding, migration and wintering waterfowl habitat present within the ACJV boundary based on the best available information and the expert opinion of waterfowl biologists from throughout the flyway. You may review the ACJV 2005 at <http://www.acjv.org/resources.htm>.

The Black Duck Joint Venture plan also relates to our project. Black ducks (*Anas rubripes*) can be found in the nearshore waters and along the Refuge shoreline, primarily during the breeding and migration seasons. The Black Duck Joint Venture Plan, Final Draft Strategic Plan (USFWS and CWS 1993) can be viewed at <http://www.pwrc.usgs.gov/bd/jv/>.

We used these plans in identifying species of concern in Appendix A, and in developing management objectives and strategies under Goal 1. Although the Refuge does not support sizeable, suitable habitat for breeding or wintering waterfowl, the undisturbed lakeshore may be important for migrating waterfowl such as black duck, mallard (*Anas platyrhynchos*), and wood duck (*Aix sponsa*).

Atlantic Northern Forest Bird Conservation Region (BCR 14) Implementation Plan (Dettmers [revised 2006])

The Refuge lies in the Atlantic Northern Forest BCR 14 which provides important resources for migratory birds whose ranges span the western hemisphere. Northern temperate forests are characteristic of this BCR, including northern hardwoods and mixed deciduous-coniferous habitat types. Lake Sunapee is part of the more than 3 million acres of freshwater habitat that provides crucial resources for many migrating birds as they journey from their breeding sites in the north to non-breeding sites in Mexico, Central America, the Caribbean, and South America.

Unfortunately, most of the lands in BCR 14 have been altered from their historic condition. Urban development and agriculture dominates much of the landscape. The loss or degradation of habitat, particularly early successional forests (e.g., by fragmentation, development, and invasive species), are the greatest threats to bird populations in BCR 14. The Implementation Plan identifies the bird species and

habitats in greatest need of conservation action in this region, activities thought to be most useful to address those needs, and geographic areas believed to be the most important places for those activities. This plan is meant to start a regional bird conservation initiative of partners across BCR 14 communicating their conservation planning and implementation activities to deliver high-priority conservation actions in a coordinated manner. You may view the BCR 14 Blueprint at http://www.acjv.org/documents/BCR_14_%20Blueprint.pdf.

We used this plan in identifying species of concern in Appendix A, and in developing management objectives and strategies under Goal 1. The Refuge supports several species of concern on the BCR 14 list: American woodcock (*Scolopax minor*), wood thrush, veery (*Catharus fuscescens*), yellow-bellied sapsucker (*Sphyrapicus varius*), American redstart (*Setophaga ruticilla*), black-throated-blue warbler (*Dendroica caerulescens*), eastern wood-pewee (*Contopus virens*), purple finch (*Carpodacus purpureus*), chestnut-sided warbler (*Dendroica pennsylvanica*), Canada warbler, Blackburnian warbler (*Dendroica fusca*), black-throated-green warbler (*Dendroica virens*), brown creeper (*Certhia americana*), and ovenbird (*Seiurus aurocapillus*). The abundance and distribution of each of these species on the Refuge varies over time depending on the habitat conditions.

North American Waterbird Conservation Plan (Version 1, 2002)

This plan (Kushlan et al. 2002) is the result of an independent partnership among individuals and institutions with the interest in and responsibility for conserving water birds and their habitats. The plan is just one element of a multi-faceted conservation program. Its primary goal is to ensure that the distribution, diversity, and abundance of populations and habitats of breeding, migratory, and non-breeding water birds are sustained or restored throughout the lands and waters of North America, Central America, and the Caribbean. It provides a framework for conserving and managing colonially nesting water-dependent birds. In addition, it will facilitate continent-wide planning and monitoring, national, state, and provincial conservation, regional coordination, and local habitat protection and management. The plan may be accessed at http://www.pwrc.usgs.gov/nacwcp/pdfs/plan_files/introduction.pdf.

In 2006, the Mid-Atlantic New England Working Group developed the Waterbird Conservation Plan for the Mid-Atlantic/New England/Maritimes (MANEM) Region (MANEM Waterbird Working Group 2006). This plan is being implemented between 2006 and 2010. It consists of technical appendices on (1) waterbird populations including occurrence, status, and conservation needs, (2) waterbird habitats and locations within the region that are crucial for waterbird sustainability, (3) MANEM partners and regional expertise for waterbird conservation, and (4) conservation project descriptions that present current and proposed research, management, habitat acquisition, and education activities. Summarized information on waterbirds and their habitats provides a regional perspective for local conservation action. You may access the plan at <http://www.fws.gov/birds/waterbirds/manem/index.html>.

The Refuge's extensive shoreline provides potential waterbird habitat, especially during migration. Although little shorebird or wading bird use has been documented, this plan was used to help frame the habitat goals and objectives. We used this plan in identifying species of concern in Appendix A, and in developing management objectives and strategies under Goal 1.

Partners In Flight Bird Conservation Plans

In 1990, PIF began as a voluntary, international coalition of government agencies, conservation organizations, academic institutions, private industries, and citizens dedicated to reversing the population declines of bird species and "keeping common birds common." The foundation of PIF's long-term strategy is a series of scientifically based bird conservation plans using physiographic areas as planning units.

The goal of each PIF plan is to ensure the long-term maintenance of healthy populations of native birds, primarily non-game birds. The plan for each physiographic area ranks bird species according to their conservation priority, describes their desired habitat conditions, develops biological objectives, and

recommends conservation measures. The priority ranking factors in habitat loss, population trends, and the vulnerability of a species and its habitats to regional and local threats.

Physiographic Area 27—Northern New England (Hodgman and Rosenberg 2000). Our project area lies in Physiographic Area 27, the Northern New England Region. We referred to this plan in developing our list of species of conservation concern in Appendix A, as well as our habitat objectives and strategies under Goal 1. Specifically two of the priority habitats and their associated species occur on the Refuge or have potential to occur there: northern hardwood-mixed forest (wood thrush, Canada warbler, blackburnian warbler, black-throated-blue warbler) and early successional forest (chestnut-sided warbler). This plan can be accessed at http://www.blm.gov/wildlife/plan/pl_27_10.pdf.

Partners in Amphibian and Reptile Conservation, National State Agency Herpetological Conservation Report (Draft 2004)

The combination of wetland and upland habitats on the Refuge, although small in size, provides potential habitat for declining herpetofauna of the region. The wood turtle (*Glyptemys insculpta*) and blue-spotted salamander (*Ambystoma laterale*) are two species of conservation concern in the region that could potentially occur on the Refuge (Appendix A).

Partners in Amphibian and Reptile Conservation (PARC) was created in response to the increasing, well-documented national declines in amphibian and reptile populations. Many consider it the most comprehensive effort in herpetofaunal conservation. PARC members come from state and federal agencies, conservation organizations, museums, the pet trade industry, nature centers, zoos, the power industry, universities, herpetological organizations, research laboratories, forest industries, and environmental consultants. Its five geographic regions—Northeast, Southeast, Midwest, Southwest, and Northwest—can focus on national and regional challenges in herpetofaunal conservation. Regional working groups allow for region-specific communication. The Northeast working group has developed “Model State Herpetofauna Regulatory Guidelines” which we consulted as we developed our strategy, this document can be found at (<http://www.pwrc.usgs.gov/neparc/products/modelherpregs.htm>).

The National State Agency Herpetological Conservation Report (NHCR) is a summary report (PARC 2004) sponsored by PARC that provides a general overview of each state wildlife agency’s support for reptile and amphibian conservation and research through September 2004. It lists amphibian and reptile species of concern for each state. Each state report was compiled in cooperation with its agency’s lead biologist on herpetofaunal conservation. That report can be accessed at <http://www.parcplace.org/documents/PARCNationalStates2004.pdf>. Its purpose is to facilitate communication among state agencies and partner organizations throughout the PARC network to identify and address regional and national herpetological priorities.

PARC intends to expand the scope of the NHCR to include other states, provinces, and territories. It will include other state agencies that are supporting herpetofaunal conservation and research, such as transportation departments, park departments, and forest agencies. The next NHCR report will integrate a list of the Species of Conservation Concern into each state’s comprehensive conservation wildlife strategy (see below).

New Hampshire Wildlife Action Plan (October 2005)

In 2002, Congress created the State Wildlife Grant Program (SWG), and appropriated \$80 million in state grants. The purpose of the program is to help state and tribal fish and wildlife agencies conserve fish and wildlife species of greatest conservation need. The funds appropriated under the program are allocated to each state according to a formula that takes into account its size and population.

To be eligible for additional federal grants, and to satisfy the requirements for participating in the SWG program, each state and U.S. territory was charged with developing a statewide “Comprehensive Wildlife Conservation Strategy” and submitting it to the National Advisory Acceptance Team by October 1, 2005.

Each plan must address eight required elements, and each plan is to identify and focus on “species of greatest conservation need,” yet address the “full array of wildlife” and wildlife-related issues, and “keep common species common.”

The New Hampshire plan (New Hampshire Fish and Game Department (NH FGD) 2005), commonly referred to as the New Hampshire Wildlife Action Plan (NH WAP), resulted from that charge. It creates a vision for conserving New Hampshire’s wildlife and stimulates other states, federal agencies, and conservation partners to think strategically about their individual and coordinated roles in prioritizing conservation.

In addressing the eight elements below, the NH WAP helps supplement the information we gathered on species and habitat occurrences and their distribution in our area analysis, and helps us identify conservation threats and management strategies for species and habitats of conservation concern in the CCP. The expertise convened to compile this plan and its partner and public involvement further enhance its benefits for us. We used the NH WAP in developing our list of species of concern in Appendix A, and the management objectives and strategies for Goal 1. These are its eight elements:

1. information on the distribution and abundance of species of wildlife, including low and declining populations as the state fish and wildlife agency deems appropriate, that are indicative of the diversity and health of the state’s wildlife;
2. descriptions of locations and relative condition of key habitats and community types essential to the conservation of species identified in element 1;
3. descriptions of problems that may adversely affect species identified in element 1 or their habitats, and priority research and survey efforts needed to identify factors which may assist in restoration and improved conservation of these species and habitats;
4. descriptions of conservation actions necessary to conserve the identified species and habitats and priorities for implementing such actions;
5. plans proposed for monitoring species identified in element 1 and their habitats, for monitoring the effectiveness of the conservation actions proposed in element 4, and for adapting those conservation actions to respond appropriately to new information or changing conditions;
6. description of procedures to review the plan at intervals not to exceed 10 years;
7. plans for coordinating, to the extent feasible, the development, implementation, review, and revision of the plan strategy with federal, state and local agencies, and Native American tribes that manage significant areas of land and water within the state, or administer programs that significantly affect the conservation of identified species and habitats; and,
8. plans for involving the public in the development and implementation of plan strategies.

The State of New Hampshire completed its final WAP, with no changes from its draft, in October 2005. You may view it at http://www.wildlife.state.nh.us/Wildlife/wildlife_plan.htm.

Other Information Sources

We also consulted the plans and resources below as we refined our management objectives and strategies, especially those with a local context.

Continental or National Plans

- National Wetlands Research Center Strategic Plan: 2010-2015. (U.S. Geological Survey (USGS) 2009); available at <http://www.nwrc.usgs.gov/about/5-year-plan.htm>

- National Audubon Society Watchlist (National Audubon Society 2007); available at <http://web1.audubon.org/science/species/watchlist/>
- Ducks Unlimited's International Conservation Plan (Ducks Unlimited 2005); available at <http://www.ducks.org/Conservation/ConservationPlan/1516/InternationalConservationPlan.html>

Regional Plans

- Management Plan for the Lake Sunapee Watershed (Sunapee Area Watershed Coalition (SAWC) 2008); available at <http://www.sunapeewatershed.org>

State Plans

- New Hampshire Outdoors 2008-2013 Statewide Comprehensive Outdoor Recreation Plan (SCORP; New Hampshire Office of Energy and Planning 2007); available at http://www.nh.gov/oep/programs/recreation/SCORP_2008-2013/index.htm
- New Hampshire Forest Resources Plan (New Hampshire Division of Forests and Lands 1995); available at <http://www.ceinfo.unh.edu/Pubs/ForPubs/NHFRP01.pdf>
- New Hampshire's Changing Landscape (Society for the Protection of New Hampshire Forests 2005); available at <http://forestsociety.org/research/research-projects.asp#nhcl>
- Regional Forest Management Plan for Fee Ownership in Vermont, New Hampshire, Maine, Massachusetts, and Connecticut. (New England Forestry Foundation 2006); available at <http://www.newenglandforestry.org/sustainable/rfmp.pdf>

Local Plans

- Town of Newbury, NH Townwide Conservation Plan (Poole 2008)
- Vision 2020: The Fells Master Plan (The Fells 2006)

Individual Species Plans

- American Woodcock Conservation Plan (Kelley et al. (eds) 2008); available at <http://timberdoodle.org/>
- Canada Warbler Population Status, Habitat Use, and Stewardship Guidelines for Northeastern Forests. (Lambert and Faccio 2005).; available at <http://www.vinsweb.org/assets/pdf/CAWAreport05.pdf>
- Eastern Brook Trout: Status and Threats (Trout Unlimited 2006); available at <http://www.easternbrooktrout.org/publications.aspx>

Refuge Establishing Purposes and Land Acquisition History

The Refuge was established in 1972 via a donation from Alice Appleton Hay to the Service for the following purposes and under the following authorities.

"...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds...."
16 USC §715d (*Migratory Bird Conservation Act*).

“...for public use as an inviolate sanctuary for migratory birds, as a migratory bird and wildlife reservation to be known as the John Hay National Wildlife Refuge, and for other conservation purposes consistent therewith.” (Deed between Alice Appleton Hay and the U.S. Government, December 11, 1972)

Map 1-1 above depicts the current Refuge boundary. Table 1.1 below summarizes the land acquisition history of the Refuge.

Table 1.1. History of Land Transactions at the John Hay Refuge

<i>Year</i>	<i>Acres</i>	<i>Land Transaction</i>
1972	164	Donation by Hay family
2008	84	Land exchange with The Fells
Total Refuge Acres	80	

Refuge Administration

We administer the John Hay Refuge as part of the Silvio O. Conte National Fish and Wildlife Refuge Complex (Conte Complex, Refuge Complex), which also includes the Stewart B. McKinney National Wildlife Refuge (McKinney NWR) located in Connecticut. The Refuge Complex headquarters is located in Sunderland, Massachusetts.

This Refuge Complex now has 12.5 permanent staff including a project leader, two refuge managers, two wildlife refuge specialists, two outdoor recreation planners, two biologists, a forester, an administrative support assistant, and two park rangers (law enforcement), one of which is shared with Umbagog National Wildlife Refuge which spans the border of New Hampshire and Maine. Temporary staff positions include two student trainees located at the Sunderland Headquarters and the Nulhegan Basin Division, a forestry technician at the Pondicherry Division, and two park rangers (interpretation) at the Sunderland Headquarters and the Great Falls Discovery Center. The Refuge Complex sponsors Youth Conservation Corps crews at McKinney NWR, the Fort River Division, the Pondicherry Division, the Mohawk River Division, and the Nulhegan Basin Division. In addition, the Refuge Complex hires seasonal technicians, and brings on a number of volunteers and interns each year during the field season. The number of these short-term positions varies, but typically is about 10, distributed among McKinney NWR (six), Sunderland headquarters (one), Nulhegan Basin Division (one) and Great Falls Discovery Center (two).

Refuge Operational Plans (“Step-down Plans”)

Refuge planning policy lists more than 25 step-down management plans that may be required on refuges. Those plans contain specific strategies and implementation schedules for achieving refuge goals and objectives. Some plans require annual revisions; others require revision every 5 to 10 years. Some require additional NEPA analysis, public involvement, and compatibility determinations before we can implement them. The only approved step-down plans are Fire Management Plans for Nulhegan Basin and Pondicherry divisions, a Visitor Services Plan for the Nulhegan Basin Division, and a Hunt Plan for the Pondicherry Division. Chapter 4 provides more information about the additional step-down plans needed and their schedule for completion.

We plan to complete the following step-down plans (see Chapter 4). Additional plans may be required depending on the alternative selected for the final CCP.

- Habitat Management Plan (HMP), which we will immediately begin working on following CCP approval
- Annual Habitat Work Plan (AHWP), annually after CCP approval
- Inventory and Monitoring Plan (IMP), within 2 years of CCP approval
- Visitor Services Plan, within 3 years of CCP approval
- Law Enforcement Plan, within 3 years of CCP approval
- Safety Plan, within 3 years of CCP approval
- Fire Plan, within 5 years of CCP approval
- Facilities and Sign Plan, within 5 years of CCP approval
- Integrated Pest Management Plan (IPM), within 5 years of CCP approval

Refuge Vision Statement

Our planning team developed this vision statement to provide a guiding philosophy and sense of purpose in the CCP.



Aerial view of the Refuge and The Fells

John Hay NWR is a unique setting and destination in the Lake Sunapee region. It is situated between the lake and a larger network of conserved forestland extending throughout Sunset Hill. Together with adjacent conservation lands, Refuge forests provide important habitat for migratory birds and other forest wildlife in the midst of increased development in the region. The Refuge provides an extensive, undeveloped shoreline, as well as public ownership, amidst the predominantly privately developed lake community. We will continue to maintain its unique character within the context of the region, and provide important habitat for wildlife.

John Hay NWR provides a valuable mature forest ecological component to this larger network of conserved forest lands. Through local and state partnerships, it contributes to the natural resource management and environmental education opportunities in the region. The Refuge supports large majestic trees exemplary of a mature northern pine and hardwood forest habitat that complement the younger, more diverse and actively-managed lands of its adjacent conservation partners. The Refuge will

continue to contribute to the biological integrity and diversity of the Atlantic northern forest and Lake Sunapee region.

The John Hay NWR showcases the legacy of the late statesman John Hay and honors the wishes of his daughter-in-law, Alice Hay, who donated the land for the conservation of migratory birds. It provides a special place where people come to experience the beauty of the undeveloped Lake Sunapee shoreline and the majestic Atlantic northern forest. Together with our partners, we will continue to provide increasing opportunities for outreach to the community and a broad array of visitors to raise awareness about the Refuge's wildlife stewardship mission, and the broader network of conserved lands in the region.

Refuge Goals

We developed these goals after considering the vision statement, the purposes for establishing the Refuge, the missions of the Service and the Refuge System, and the mandates, plans, and conservation initiatives above. These goals are intentionally broad, descriptive statements of purpose. They highlight elements of the vision for the Refuge that we will emphasize in its future management. The biological goals take precedence; but otherwise, we do not present them in any particular order. Each offers background information on its importance.

Goal 1. Contribute to the biological diversity and integrity of the Atlantic northern forest in the larger context of the Lake Sunapee region and Connecticut River watershed by protecting, enhancing, and restoring the Refuge's habitats, with an emphasis on breeding, migrating, and wintering birds.

Goal 2. Promote natural resource conservation, stewardship, the mission of the National Wildlife Refuge System and enjoyment of the John Hay Refuge by providing high-quality, compatible, wildlife-dependent public use opportunities on Refuge lands and neighboring conserved lands and waters.

Goal 3. Communicate and collaborate with local communities, federal and state agencies, The Fells, and conservation organizations throughout the Lake Sunapee region to promote natural resource conservation, stewardship and the mission of the National Wildlife Refuge System.