

Chapter 1



Edward Henry/USFWS

The Wallkill River in spring

The Purpose and Need for Action

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Introduction

This draft Comprehensive Conservation Plan (CCP) and Environmental Assessment (EA) for the Wallkill River National Wildlife Refuge (refuge) combines two documents required by federal laws:

- a CCP, which creates a vision and serves as a mid- to long-term planning document, required by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105–57) (Refuge Improvement Act); and,
- an EA, required by the National Environmental Policy Act of 1969 (NEPA), for the purposes of assessing the impacts associated with the alternatives developed by this CCP and obtaining public input in examining them.

The alternatives provide a range of potential goals and objectives that the U.S. Fish and Wildlife Service (Service, we, our) could use to manage the refuge, including a status quo approach. The CCP also conforms to U.S. Fish and Wildlife Service policy and legal mandates (see “National and Regional Mandates, Policies, and Plans Guiding the Project,” below).

Our regional director’s final decision, based on this combined CCP/EA document, will produce a CCP to guide management decisions and actions on the refuge during the next 15 years. We will also use it as a tool to help the public, natural resource agencies of New Jersey and New York, and our other conservation partners understand and support refuge management priorities.

Chapter 1, “The Purpose and Need for Action,” sets the stage for chapters 2 through 4. It

- describes the purpose and need for a CCP/EA for the refuge,
- identifies national and regional mandates and plans that influenced this document,
- highlights establishing purposes and land acquisition history of the refuge,
- presents our vision and goals for the refuge,
- explains the planning process we followed in developing this document, and
- describes the key issues, concerns, and opportunities it addresses.

Chapter 2, “Description of the Affected Environment,” describes the physical, biological, and human environment.

Chapter 3, “Alternatives Considered, Including the Service-Preferred Alternative,” describes varying management strategies for meeting refuge goals and objectives and responding to key issues of conservation and public use.

Chapter 4, “Environmental Consequences,” evaluates the environmental consequences of implementing each of the proposed management alternatives.

Chapter 5, “Consultation and Coordination with Others,” summarizes how we involved the public and our conservation partners in the planning process.

Chapter 6, “List of Preparers,” credits Service and non-Service contributors.

Appendixes provide additional documentation and reference information we used in compiling this document.

The Purpose and Need for Action

Our goal, which is directly connected with the Refuge Improvement Act, is to develop a CCP for the Wallkill River refuge that attains its vision and goals; best achieves its establishing purposes; contributes to the mission of the National Wildlife Refuge System (Refuge System); adheres to relevant Service policies and mandates; addresses key public and conservation issues, and uses sound principles of fish and wildlife science.

As NEPA requires, this draft CCP/EA evaluates a reasonable range of management alternatives and describes their foreseeable impacts on the socioeconomic, physical, cultural, and biological environments in the project area. We designed each alternative with the potential to be fully developed into a final CCP.

Developing a CCP is vital for the future management of every national wildlife refuge. The *purpose* of this CCP is to provide strategic management direction for the next 15 years by

- providing a clear statement of desired future conditions for habitat, wildlife, visitor services, staffing, and facilities;
- providing state agencies, refuge neighbors, visitors, and partners with a clear understanding of the reasons for management actions;
- ensuring refuge management reflects the policies and goals of the Refuge System and legal mandates;
- ensuring the compatibility of current and future public use;
- providing long-term continuity and direction for refuge management; and,
- providing direction for staffing, operations, maintenance, and annual budget requests.

In addition to the requirements of the Refuge Improvement Act, the *need* for a CCP arises partly from the outdated nature of the 1993 Station Management Plan. Since its publication, the refuge land base has more than doubled, and our management priorities have evolved. The northern population of the bog turtle (*Glyptemys [Glyptemys] muhlenbergii*), which inhabits the refuge, was federal-listed as threatened in 1997, and is now a management priority. The 1993 master plan also lacked sufficient state, public, and local community involvement.

Regional Context and Project Analysis Area

The refuge encompasses a portion of the Wallkill River, which flows north from Lake Mohawk in Sparta, New Jersey, to the Hudson River near Kingston, N.Y., via the Rondout Creek. Map 1-1 depicts the Wallkill River watershed and the location of the refuge within it. The refuge lies in the Kittatinny Valley in northwestern New Jersey, between the Kittatinny-Shawangunk Ridges to the west and the Hudson Highlands to the east (see map 1-2).

The 1990 law (Pub. L 101-593) that created the refuge established a boundary of approximately 7,500 acres, using a compilation of tax maps from the townships of Wantage, Vernon, and Hardyston in Sussex County, N.J., and the township of Warwick in Orange County, N.Y. Subsequent GIS calculations and surveys of the tax parcels that make up the refuge estimate the original defined boundary at closer to 6,700 acres. Categorical exclusions, a regulatory method for adding a limited amount of land that is important to the refuge, yet lies outside the approved boundary, have expanded the refuge boundary by approximately 350 acres, bringing the current refuge boundary to approximately 7,100 acres (see map 1-3). We have acquired 5,106 acres within that 7,100-acre boundary. Most of that approved boundary is located in Sussex County, N.J.; 147 acres is located





in Orange County, New York. The refuge headquarters is in Vernon Township, New Jersey.

The Shawangunk Grasslands National Wildlife Refuge, a satellite refuge administered by the Wallkill River refuge, is located in Ulster County, New York. In fall 1998, we started one CCP for both refuges. However, we decided in 2002 that separating that plan into two CCPs, one for each refuge, would be more efficient. The Service completed the CCP for Shawangunk Grasslands NWR in 2006.

In 2004, Wallkill River refuge was administratively complexed with Great Swamp National Wildlife Refuge in Basking Ridge, N.J., to reduce costs and create management efficiencies.

The Service and the Refuge System

Policies and Mandates Guiding the Planning

This section presents hierarchically, from the national level to the local level, highlights of Service policy, legal mandates, and existing regional, state, and local resource plans that directly influenced development of this draft CCP/EA.

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

The Service, part of the Department of the Interior, 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 the Service with the conservation and protection of national resources such as migratory birds and fish, Federal-listed endangered or threatened species, inter-jurisdictional fish, and certain marine mammals. The Service also manages national wildlife refuges and national fish hatcheries, enforces federal wildlife laws and international treaties on importing and exporting wildlife, assists with state fish and wildlife programs, and helps other countries develop wildlife conservation programs.

The Service manual contains the standing and continuing directives to implement its authorities, responsibilities and activities. You can access it at <http://www.fws.gov/directives/direct.html>. Special Service directives affecting the rights of citizens or the authorities of other agencies are published separately in the Code of Federal Regulations, and are not duplicated in the Service manual.

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 conserving wildlife and protecting ecosystems. More than 545 national wildlife refuges encompassing more than 95 million acres are part of the national network today, in every state and several island territories. Each year, more than 34 million visitors hunt, fish, observe and photograph wildlife, or participate in environmental education or interpretation activities on refuges.

In 1997, Congress passed the National Wildlife Refuge System Improvement Act. That act establishes a unifying mission for the Refuge System, a new process for determining compatible public use activities on refuges, and the requirement to prepare CCPs for all refuges. It states that first, the Refuge System must focus on wildlife conservation. It further states that the mission of the Refuge System, coupled with the purpose(s) for which a refuge was established, will provide the principal management direction for 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.” (Refuge Improvement Act; Public Law 105–57)

In addition, the Service released its mission policy. Among its main points are conserving a diversity of fish, wildlife, plants and a network of their habitats; conserving unique ecosystems within the nation; providing and enhancing opportunities for compatible, wildlife-dependent recreation; and, fostering public understanding and appreciation of those resources.

Fulfilling the Promise

A yearlong process involving teams of Service employees who examined the Refuge System within the framework of Wildlife and Habitat, People and Leadership culminated with “Fulfilling the Promise: The National Wildlife Refuge System,” a vision for the Refuge System. The first-ever Refuge System Conference in Keystone, Colo., in October 1998 was attended by every Refuge Manager in the country, other Service employees, and scores of conservation organizations. Many “Promises Teams” formed to develop strategies for implementing the 42 recommendations of the conference report. Information from such teams as Wildlife and Habitat, Goals and Objectives, Strategic Growth of the Refuge System, Invasive Species, and Inventory and Monitoring helped guide the development of the goals, strategies and actions in this draft CCP/EA.

Refuge System Planning Policy

This policy establishes 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 which, when implemented, will achieve refuge purposes; help fulfill the Refuge System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System; help achieve the goals of the National Wilderness Preservation System and the National Wild and Scenic River System; and conform to other mandates [Fish and Wildlife Service Manual (602 FW 1,2,3)].

Appropriate Refuge Uses Policy

This policy provides a national framework and procedure for Refuge Managers to follow in deciding whether uses are appropriate on a refuge. It also clarifies and expands on the compatibility policy (603 FW 2.10D), which describes when Refuge Managers should deny a proposed use without determining compatibility. When we find a use is appropriate, we must then determine if the use is compatible before we allow it on a refuge. This policy applies to all proposed and existing uses in the Refuge System only when we have jurisdiction over the use, and does not apply to refuge management activities or situations where reserved rights or legal mandates provide we must allow certain uses (603 FW 1). Appendix B further describes the Appropriate Refuge Uses Policy and describes its relationship to the CCP process. To view the policy and regulations online, visit <http://policy.fws.gov/library/00fr62483.pdf>.

Compatibility Policy

Federal law and Service policy provide the direction and planning framework to protect the Refuge System from incompatible or harmful human activities and ensure that Americans can enjoy its lands and waters. The Refuge System Improvement Act is the key legislation regarding management of public uses and compatibility. The act declares that all existing or proposed public uses

of a refuge must be compatible with refuge purpose(s). The Refuge Manager determines compatibility after evaluating an activity's potential impact on refuge resources, and insuring that it supports the Refuge System mission and does not materially detract from, or interfere with, refuge purpose(s). The act also stipulates six wildlife-dependent public uses that are to receive enhanced consideration in CCPs: hunting, fishing, wildlife observation and photography, and environmental education and interpretation. That Compatibility Rule changed or modified Service regulations contained in chapter 50, parts 25, 26, and 29 of the Code of Federal Regulations. Compatibility determinations may be revisited sooner than the mandatory date if new information reveals unacceptable impacts with refuge purposes. The compatibility determinations for the Wallkill River refuge can be found in appendix B along with additional information on the process.

Maintaining Biological Integrity, Diversity, and Environmental Health Policy

This policy 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 found 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 to restore lost or severely degraded environmental components. It also provides guidelines for dealing with external threats to the biological integrity, diversity, and environmental health of a refuge and its ecosystem (601 FW 3).

Wildlife-Dependent Recreation Policy

The Refuge Improvement Act establishes that compatible wildlife dependent recreational uses (hunting, fishing, wildlife observation and photography, and environmental education and interpretation) are the priority general public uses of the Refuge System, and are to receive enhanced consideration over other public uses in refuge planning and management. The Wildlife Dependent Recreation Policy explains how we will provide visitors with opportunities for those priority public uses on units of the Refuge System and how we will facilitate them. We are incorporating this policy as Part 605, chapters 1–7, of the Fish and Wildlife Service Manual.

Other Mandates

Although Service and Refuge System policy and each refuge's purpose provide the foundation for management, the administration of national wildlife refuges conforms to a variety of other federal laws (including the Migratory Bird Treaty Act, Endangered Species Act, Wilderness Act, Archaeological Resources Protection Act, National Historic Protection Act), Executive Orders, treaties, interstate compacts, and regulations pertaining to the conservation and protection of natural and cultural resources. The "Digest of Federal Resource Laws of Interest to the USFWS" lists them (online at <http://laws.fws.gov/lawsdigest/index.html>).

Bird Conservation Region 28

North American Bird Conservation Initiative (NABCI) is a coalition of a great number of governmental agencies, private organizations, academic organizations, and private industry leaders in Canada, the United States, and Mexico. It was formed to address the need for coordinated bird conservation that will benefit "all birds in all habitats." NABCI aims to ensure the long-term health of North America's native bird populations by increasing the effectiveness of existing and new bird conservation initiatives, enhancing coordination among the initiatives, and fostering greater cooperation among the continent's three national governments and their peoples.

NABCI's approach to bird conservation is regionally-based, biologically driven, and landscape-oriented. It draws together the major bird conservation plans already in existence for waterbirds, shorebirds, waterfowl, and landbirds, fills in knowledge gaps, and builds a coalition of groups and agencies to execute the plans.

Bird Conservation Regions (BCRs) are ecologically distinct regions in North America with similar bird communities, habitats, and resource management issues. The Wallkill River refuge lies within BCR 28 (The Appalachian Mountains). This region includes the Blue Ridge, the Ridge and Valley Region, the Cumberland Plateau, the Ohio Hills, and the Allegheny Plateau. Ecologically, this is a transitional area, with forested ridges grading from primarily oak-hickory forests in the south to northern hardwood forests farther north. Pine-oak woodlands and barrens and hemlock ravine forests are also important along ridges, whereas bottomland and riparian forests are important in the valleys, which are now largely cleared for agricultural and urban development. BCR 28 is further broken down into smaller physiographic regions by Partners In Flight (PIF) (see below).

The primary purposes of BCRs, proposed by the mapping team in 1998 and approved in concept by the U.S. Committee in 1999, are to

- facilitate communication among the bird conservation initiatives;
- systematically and scientifically apportion the U.S. into conservation units;
- facilitate a regional approach to bird conservation;
- promote new, expanded, or restructured partnerships; and
- identify overlapping or conflicting conservation priorities.

As integrated bird conservation progresses in North America, BCRs should ultimately function as the primary units within which biological foundation issues are resolved, the landscape configuration of sustainable habitats is designed, and priority projects originate.

North American Waterfowl Management Plan (update 2004)

The goal of the Atlantic Coast Joint Venture is to

“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.”

This updated plan among the United States, Canada, and Mexico outlines their strategy to restore waterfowl populations through habitat protection, restoration, and enhancement. Its implementation will be accomplished at the U.S. regional level in 11 habitat Joint Venture Areas and three species Joint Venture: arctic goose, black duck, and sea duck. You can access those plans at http://www.nawmp.ca/eng/pub_e.html. We used them as a basis for evaluating waterfowl management opportunities on the refuge.

Joint venture partnerships involving federal, state and provincial governments, tribal nations, local businesses, conservation organizations, and individual citizens are assembled for the purpose of protecting habitat within those areas. The Wallkill River refuge lays in the Atlantic Coast Joint Venture, one of seven priority focus areas for waterfowl management in New Jersey, including the Wallkill River bottomlands.

Partners In Flight Bird Conservation Plan: Physiographic Area 17, Northern Ridge and Valley

In 1990, Partners in Flight (PIF) was conceived as a voluntary, international coalition of government agencies, conservation organizations, academic institutions, private industry, and other citizens dedicated to reversing the trends of declining bird populations and to “keeping common birds common.” The foundation of PIF’s long-term strategy for bird conservation is a series of scientifically based bird conservation plans, using physiographic provinces as planning units. Wallkill River refuge lays in the Northern Ridge and Valley Physiographic Province, Bird Conservation Area 17.

The goal of each PIF plan is to ensure long-term maintenance of healthy populations of native birds, primarily non-game landbirds. Within each physiographic area, the plans rank bird species according to their conservation priority, describe desired habitat conditions, develop biological objectives, and recommend conservation actions. Habitat loss, population trends, and vulnerability of a species and its habitats to regional and local threats are all factors used in the priority ranking. The top 17 priority species identified in the Area 17 PIF plan do not form a cohesive habitat type, but instead require a balanced mix of grasslands, shrub-scrub, forested wetlands, non-forested wetlands and forested upland habitats.

You can access the final Area 17 PIF plan at <http://www.partnersinflight.org>. We referred to that plan as we considered management opportunities on the refuge.

Region 5 Birds of Conservation Concern (December 2002)

This plan, updated every 5 years by our Division of Migratory Birds, identifies nongame migratory birds that, without conservation action, are likely to become candidates for listing under the Endangered Species Act of 1973. The BCC compiles the highest ranking species of conservation concern from these major nongame bird conservation plans: PIF (species scoring >21), U.S. Shorebird Conservation Plan (species ranking 4 or 5), and North American Waterbird Conservation Plan (species ranking 4 or 5).

We used the BCC list in compiling Appendix A, “Species of Conservation Concern,” and to help us focus on which species might warrant special management attention.

Regional Wetlands Concept Plan – Emergency Wetlands Resources Act (Emergency Wetlands Resources Act of 1986, 16 U.S.C. 3901(b))

In 1986, Congress enacted the Emergency Wetlands Resources Act to promote the conservation of our nation’s wetlands. The Act directs the Department of the Interior to develop a National Wetlands Priority Conservation Plan identifying the location and types of wetlands that should receive priority attention for acquisition by federal and state agencies using Land and Water Conservation Fund appropriations.

In 1990, our Northeast Region completed a Regional Wetlands Concept Plan to provide more specific information about wetlands resources in the Northeast. It identifies 850 wetland sites that warrant consideration for acquisition to conserve wetland values in our region. Sites identified within the Wallkill River watershed include the refuge and the remainder of the river in Sussex County, Woodruffs Gap Fen, and Hyper Humus Fen. Also identified was the Little Cedar Pond in Orange County, N.Y. We used this plan to help us identify areas in need of long-term protection in the watershed, and to prioritize wetlands habitat management on the refuge.



Wallkill River NWR staff track bog turtle movements via transmitters.

Bog Turtle Northern Population, Recovery Plan (May 2001)

The bog turtle is the only federal-listed species known to be present on the Wallkill River refuge. There is one active site on Service-owned lands, one active site within the current acquisition boundary (on private land), and an estimated ten suitable sites within the current acquisition boundary, some of which are on Service-owned lands and some of which are on inholdings. The northern population of the bog turtle (*Glyptemys [Glyptemys] muhlenbergii*) was federally listed as a threatened species in November 1997. The overall objective for the recovery plan is to protect and maintain existing populations of this species and its habitat, enabling its eventual removal from the federal list of endangered and threatened wildlife and plants. Five bog turtle recovery units and their subunits are identified. The refuge lies in the Hudson River/Housatonic Unit, Wallkill River Watershed Subunit.

Four recovery criteria set the threshold for determining when the recovery objective has been met. Those relate to population and habitat goals, monitoring programs, illicit trade, and habitat management. One criterion for the Wallkill River Watershed Subunit is to protect at least 10 viable bog turtle populations and sufficient habitat to ensure they can be sustained.

In addition to listing goals and criteria and describing bog turtle ecology and life history, the Recovery Plan identifies 10 specific recovery tasks. The tasks are specific actions that, when fully implemented, should lead to meeting the recovery objective. Refuge staff will contribute to the following recovery tasks on the refuge, within their authority and in cooperation with the recovery team.

- 1) Protect known and extant populations/habitat using existing regulations.
- 2) Secure long-term protection of bog turtle populations.
- 3) Conduct surveys of known, historical, and potential bog turtle habitat.
- 4) Investigate the genetic variability of the bog turtle throughout its range.
- 5) Reintroduce bog turtles into areas from which they have been extirpated or removed.
- 6) Manage and maintain bog turtle habitat to ensure its continuing suitability for bog turtles.
- 7) Conduct an effective law enforcement program to halt illicit take and commercialization of bog turtles.
- 8) Develop and implement an effective outreach and education program about bog turtles.

Refuge staff will also work with the Service's New Jersey Field Office to conduct an intra-Service Section 7 consultation on all actions related to bog turtles in this draft CCP/EA.

Recovery Plan for Mitchell's Satyr Butterfly (USFWS 1998)

Mitchell's satyr butterfly (*Neonympha mitchellii mitchellii*) was listed by the Service as an endangered species in 1992. The majority of the current and historic population sites are clustered in southern Michigan and adjacent northern Indiana, but some isolated populations historically were present in northern New Jersey. Two well-known sites within Sussex and Warren counties supported the species in the recent past. The confirmed sites are both fens located in areas of limestone bedrock in the same watershed, similar to habitats used by the federal-listed threatened bog turtle.

The recovery plan goal for New Jersey is to establish one metapopulation in that state. Because the refuge is located in Sussex County, where extant populations of the butterfly were found, we will follow the actions recommended in the recovery plan to try to meet the goal for New Jersey.

Dwarf Wedgemussel Recovery Plan (USFWS 1993)

The dwarf wedgemussel (*Alasmidonta heterodon*) was federal-listed as an endangered species in March 1990. Its Recovery Plan identifies this goal: “maintain and restore viable populations to a significant portion of its historical range in order to remove the species from the Federal list of threatened and endangered species.” It also identifies two recovery objectives: (1) down-list to threatened status; and, (2) delist.

The Wallkill River refuge includes potential habitat for the dwarf wedgemussel. Our New Jersey Field Office started surveys of the Wallkill River in August 2000, but found no mussels. Additional surveys are needed to fully determine their presence, absence, or the possibilities for their introduction. One of the mussel’s host fish, the tessilated darter (*Etheostoma olmstedi*), was observed during the 2000 survey.

Besides listing goals and objectives and describing mussel ecology and life history, the Recovery Plan identifies specific, major recovery tasks. Refuge staff will contribute to the following recovery tasks, within their authority and in cooperation with the recovery team:

- Collect baseline data needed for protection of *Alasmidonta heterodon* populations;
- Encourage protection of the species through development of an educational awareness program; and
- Determine the feasibility of re-establishing populations within the species’ historic range and, if feasible, introduce the species into such areas.

Recovery Plan for the Indiana Bat (USFWS 2007)

In 1967, the federal government listed the Indiana bat (*Myotis sodalis*) as endangered because of declines in their numbers documented at their seven major hibernacula in the Midwest.

At the time of their listing, Indiana bats numbered around 883,300. Surveys in 2005 numbered the population at 457,374. Although population numbers are down by about half, surveys in most states’ hibernacula indicate that populations increased or at least remained stable in 2004 and 2005, resulting in a 16.7 percent increase over 2003 population estimates. The 2005 population number is almost at the level of bat populations in 1990. However, surveyors did not have an estimated confidence interval when the 2005 population numbers were released, and some changes in methodology occurred between 2003 and 2005.

Indiana bats were found in 2005 hibernating in three areas near Hibernia, N.J., about 20 miles south of the refuge. They also were found at the Great Swamp refuge in Basking Ridge, south of Hibernia. Additional hibernacula sites have been found north of the refuge in Ulster County, N.Y. No Indiana bats have been documented on the Wallkill River refuge, but the refuge has not yet conducted species-specific surveys for Indiana bat. The bat’s summer focus area—where bats could potentially occur during the summer months (April 1–September 30)—includes the entire refuge. In addition, the refuge’s riparian, forested, and upland habitats have high potential for supporting

wintering, foraging and roosting habitats for Indiana bats. Should the bats be found on the refuge, we would implement recovery plan tasks.

State of New Jersey Wildlife Action Plan (New Jersey 2007)

In 2005, state fish and wildlife agencies were required to develop Comprehensive Wildlife Conservation Strategies focusing on “species of greatest conservation need” in order to be eligible for funds from the State Wildlife Grant program. That program provides federal funds to states for conservation efforts aimed at preventing fish and wildlife populations from declining, reducing the potential for these species to be listed as endangered.

New Jersey’s plan, called the New Jersey Wildlife Action Plan (WAP), was revised several times; the latest revision occurred in 2007. The plan divides the state into four physiographic provinces and then further into five landscape regions for the state. The refuge is located in the landscape region known as the Skylands, which includes the Valley and Ridge Province, where the Wallkill River refuge lays. In identifying species of greatest conservation need, the New Jersey plan incorporates priorities from all national plans including PIF, North American Landbird Conservation Plan, the U.S. Shorebird Conservation Plan, the North American Waterfowl Management Plan, USFWS, species of conservation concern plan, and various recovery plans for federally threatened and endangered species. The Indiana bat, bog turtle, dwarf wedgemussel and Mitchell’s satyr butterfly are all identified as wildlife of greatest conservation need within the Skylands landscape. Although the bog turtle is the only listed species known to occur on the refuge, the Valley and Ridge Province is home to current or historic occurrences of the other three species. Therefore, our proposed action in the CCP contains objectives and strategies directly related to those four species.

New York State Comprehensive Wildlife Conservation Strategy (New York 2006)

New York’s Comprehensive Wildlife Conservation Strategy (CWCS 2006) was also used as part of this CCP process. New York’s portion of the Wallkill River refuge lays within the Lower Hudson River watershed basin, which covers all or part of 20 counties and about 7.5 million acres (11,700 square miles). Major water bodies include the Ashokan Reservoir, Esopus Creek, Rondout Creek, and Wallkill River. The landscape is dominated by the Catskill Mountains and Hudson River Valley. This watershed basin contains many of the same habitat types as New Jersey’s Skylands region. Forested habitats include the Shawangunks, located south of the Catskills and west of the Hudson River, which contains a forest matrix of chestnut-oak forest (chestnut oak, red oak), hemlock. northern hardwood forest, and pitch pine-oak heath rocky summit interspersed with vernal pools and wetland habitat. The forested habitats are important migratory corridors for raptors and other migratory birds. The lower Hudson River Valley, where the northern portion of the current refuge boundary lay, is a hot spot for amphibian and reptile biodiversity in New York State. This area contains high quality habitat for wetland dependent species and some of the best bog turtle habitat in the Hudson River Valley. Important habitats include red maple-hardwood swamp, floodplain forest, fens, and shallow emergent marsh. The Upper Hudson River Basin contains natural and human-created (i.e., pasture, hay land) grassland habitats that support grassland species of conservation concern including upland sandpiper, vesper sparrow, and grasshopper sparrow. Shrub-dominated fields in agricultural landscapes are important for rare shrub land nesting birds.

New York’s plan names the Indiana bat, bog turtle and dwarf wedgemussel as three of its species of greatest conservation need. We used information about important habitats and species in New York to help us form objectives and strategies for the CCP.

The Landscape Project, New Jersey Endangered and Nongame Species Program, New Jersey Department of Environmental Protection (Niles et.al., 2004)

In 1994, the New Jersey Division of Fish, Game and Wildlife's Endangered and Nongame Species Program (ENSP) adopted a landscape level approach to rare species protection. The goal is to protect New Jersey's biological diversity by maintaining and enhancing rare wildlife populations within healthy, functioning ecosystems. Five landscape regions have been identified; the Wallkill River refuge lies within the Skylands Region. Using an extensive database that combines rare species location information with land cover data, the ENSP has identified and mapped areas of critical habitat for rare species (state- and federal-listed threatened or endangered species) within each landscape region. Critical areas are ranked by priority. A GIS database provides baseline information to conservation partners for help in prioritizing habitat protection, open space acquisition, and land management planning. This information was utilized in our land protection planning.

Sussex County Strategic Growth Plan and Sussex County Open Space Plan

The Sussex County, New Jersey Board of Chosen Freeholders received a grant in 1999 from the New Jersey Department of Community Affairs to develop an alternative to the "State Plan" that provides guidance for the county's growth using "smart growth" principles. The 1999 Sussex County Strategic Growth Plan, available at <http://www.sussex.nj.us/documents/planning/6%20sgp.pdf>, identifies both areas suitable for development and those with environmental constraints throughout the county. It provides recommendations on open space acquisition, zoning, and land use practices to protect sensitive natural areas, while promoting economic development.

The Sussex County Open Space Plan provides specific criteria for the protection of open space at the municipal and county level, and considers the location and purpose of state-, federal-, and non-profit-protected lands in the county. The refuge is an active partner in the development and implementation of both plans.



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Wallkill River in winter.

Wallkill River Watershed Management Program

The Sussex County Municipal Utilities Authority, in concert with a Public Advisory Committee, is responsible for conducting the Wallkill River Watershed Management Program. Included in this program is the collection and interpretation of water quality data through a sampling plan which leads to recommendations to ensure that the quality of the Wallkill River is maintained or improved. The refuge is an active partner in this

process, as refuge staff participates in the Land Use Committee and the Open Space sub-committee.

Refuge Purposes and Land Acquisition History

Wallkill River Refuge Establishing Legislation

Refuges can be established by Congress through special legislation, by the President through Executive Order, or administratively by the Secretary of Interior (delegated to the Director of the Service), who is authorized by Congress through legislation. Refuge System lands have been acquired under a variety of legislative and administrative authorities.

Congress established the Wallkill River refuge by law on November 16, 1990 (Section 107 of H.R. 3338; P.L. 101-593), approving a 7,500-acre refuge along a 9-mile stretch of the Wallkill River.

Wallkill River Refuge Purposes

The refuge was established with these purposes: (1) to preserve and enhance the refuge’s lands and waters in a manner that will conserve the natural diversity of fish, wildlife, plants, and their habitats for present and future generations; (2) to conserve and enhance populations of fish, wildlife, and plants within the refuge, including populations of black ducks and other waterfowl, raptors, passerines, and marsh and water birds; (3) to protect and enhance the water quality of aquatic habitats within the refuge; (4) to fulfill international treaty obligations of the United States with respect to fish and wildlife and their habitats; and (5) to provide opportunities for compatible scientific research, environmental education, and fish and wildlife-oriented recreation (104 Stat. 2955).

Refuge Operational Plans (“Step-Down” Plans)

The U.S. Fish and Wildlife Service Manual, Part 602, Chapter 4 (Refuge Planning Policy) lists more than 25 step-down management plans that generally are required on refuges. Those plans “step down” general goals and objectives to specific strategies and implementation schedules. Some require annual revisions; others are revised on a 5- to 10-year schedule. Some require additional NEPA analysis, public involvement, and compatibility determinations before they can be implemented.

The following step-down plans are completed and up-to-date.

- Hunt Plan (reviewed annually)
- Sport Fishing Plan (reviewed annually)
- Fire Management Plan
- Zebra Mussel Control Plan
- Safety Plan
- Continuity of Operations Plan
 - Chronic Wasting Disease Plan
 - Hurricane Plan
 - Avian Influenza Response Plan
 - Nexus Statement (Law Enforcement area of jurisdiction)

The following step-down plans need to be completed; unless otherwise noted, these plans are to be completed for the Wallkill River refuge.

- Habitat Management Plan (the highest priority plan to complete)
- Visitor Services Plan
- Inventory and Monitoring Plan
- Law Enforcement Plan
- Integrated Pest Management Plan (including annual furbearer management program plan)

■ Facilities Plan

■ Sign Plan

An environmental assessment for the Visitor Services Program on the Wallkill River refuge was completed and approved in 1997; however, a final Visitor Services Plan was not completed because of pending Regional Office guidance on developing consistency in these plans. The regional guidance was never promulgated. Completion of the plan was further delayed with initiation of the CCP process. The final CCP will provide strategic guidance for visitor services programs on the refuge; a Visitor Services Plan will be developed when a visitor services specialist is on staff.

Refuge Vision Statement

Early in the planning process, our team developed the following vision statement to provide a guiding philosophy and sense of purpose for our planning.

The Wallkill River National Wildlife Refuge promotes the environmental health and works to strengthen the biological diversity of associated habitats within the Wallkill Valley. Through active management, the refuge protects and conserves wetland-dependent species, especially the federally listed bog turtle. We also support protection for state-listed species, migratory birds and regionally rare plant communities.

Local communities realize quality of life benefits as residents and visitors enjoy the refuge's natural beauty and biological diversity. Visitors engage in a variety of wildlife-dependent activities including hunting, fishing, wildlife observation and photography, and environmental education and interpretation. Through these programs, we share the ecological significance of the Wallkill River Valley and the refuge's links with other natural areas.

We value and seek the support of conservation partners and the public as we further acquire and manage exceptional wildlife habitats that contribute to the mission of the National Wildlife Refuge System.

Refuge Goals

Our planning team developed the following goals for the refuge after a review of legal and policy guidelines, the Service mission, regional plans, refuge purposes, our vision for the refuge, and public comments. All of these goals fully conform with and support national and regional mandates and policies.

- 1) Protect and enhance habitats for federal trust species and other species of special management concern, with particular emphasis on migratory birds and bog turtles.
- 2) Promote actions that contribute to a healthier Wallkill River.
- 3) Increase or improve opportunities for hunting, fishing, environmental education, interpretation, wildlife observation and wildlife photography.
- 4) Cultivate an informed and conservation-educated public that works to support the goals of the refuge and the mission of the National Wildlife Refuge System.

The Comprehensive Conservation Planning Process

Planning Process

We began combined planning for both Wallkill River and Shawangunk Grasslands refuges in late fall 1998. In February 1999, our planning team met for the first time. Service employees from the refuge, our Northeast Regional office, our Ecological Services field offices, and employees of state agencies attended.



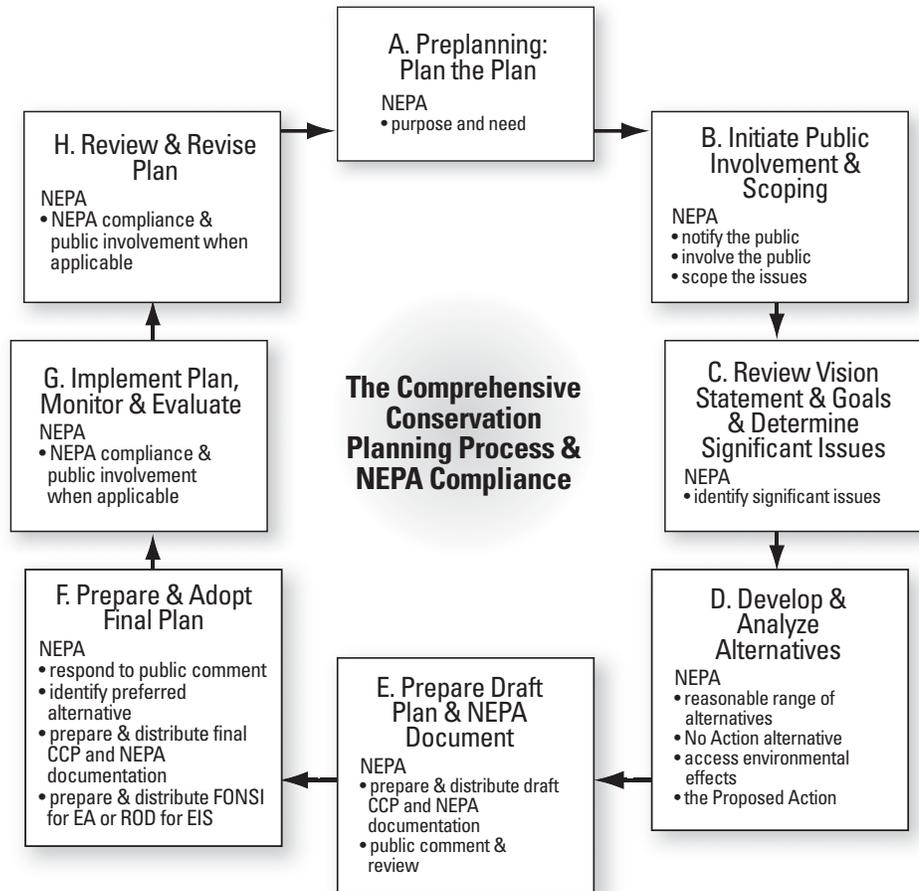
USFWS

The CCP planning process involves endangered species, their habitat, and people.

Our early meetings consisted of getting acquainted with the planning process and collecting information on natural resources and public use. We identified preliminary issues and management concerns, and developed refuge vision statements and preliminary goals. Figure 1.1 describes the steps of the planning process and how it integrates NEPA compliance. We also compiled a mailing list of about 3,000 names, including organizations, elected officials, state agencies, individuals, and adjacent landowners, to ensure that we would be contacting a diverse sample of interested groups as planning progressed.

In May 1999, we developed issues workbooks to solicit written comments on topics related to the management of the refuges. We recognized that not everyone could attend our Open House meetings planned later in May and in June, so the issues workbooks provided opportunities to reach a larger audience. We sent them to everyone on our mailing list, distributed them at refuge headquarters, and offered them every time refuge staff participated in a public function. We received 337 completed workbooks. Their responses on protecting resources and providing public use strongly influenced our development of issues and alternatives.

Figure 1.1. The Comprehensive Conservation Planning Process and its relationship to the National Environmental Policy Act of 1969.



In May and June 1999, we held seven Open Houses: two in Sparta, N.J.; two in Vernon, N.J.; two in Wallkill, N.Y.; and, one in Warwick, N.Y. We advertised them locally in news releases, radio broadcasts, and in notices to our mailing list. More than 50 people attended. We also organized several meetings with conservation partners and state agencies to share information about specific issues.

In October 1999, we released a “Fall 1999 Planning Update” to everyone on our mailing list. That update summarized the public comments we had received from meetings and issues workbooks, identified the key issues we would be dealing with in the CCP, and shared its revised vision statement and goals.

Once we had firmed up the key issues in October, we began to develop alternative strategies for addressing and resolving each one. We derived the fully developed management alternatives in chapter 3 from those strategies, public comments, and refuge purposes and goals. In 2000, we held follow-up meetings with conservation partners, state agencies, and the public to share our proposed alternatives. Chapter 5, “Consultation and Coordination with Others,” provides a detailed summary of each public involvement activity. In January 2002, we released our “Winter 2002 Planning Update” to our mailing list. That update included a matrix highlighting our draft alternatives. Later that year, we determined that separating our planning for Wallkill River and Shawangunk Grasslands refuges would be more efficient. In 2003, the Director of the Service approved our Preliminary Project Proposal to consider an expansion of the Wallkill River refuge acquisition boundary by 16,000 acres. We met with our land protection partners at the refuge in July 2005 to discuss lands now protected and lands in need of protection in and around Sussex County. That discussion included staff from local congressional offices, state, county and municipal offices, and representatives of the National Park Service, the New Jersey Conservation Foundation, The Trust for Public Land, New Jersey Audubon and The Nature Conservancy.

In October 2005 we distributed a Planning Update to our general mailing list and the hunter mailing list. That newsletter described where we are in the planning process, provided a timeline for completing the plan, and summarized its draft alternatives.

After the 30-day public review that follows our publication of this draft CCP/EA, we will review and analyze all written and oral comments on it, and summarize them and our disposition of their concerns in an appendix of the final CCP. The final CCP will identify our preferred alternative. Once approved by the Regional Director, we will write a Finding of No Significant Impact (FONSI) to certify that the final CCP met agency compliance requirements, will achieve refuge purposes, and will help fulfill the Refuge System mission. We will then submit the final CCP and FONSI to our Regional Director for review and approval. We will simultaneously submit the Land Protection Plan for Director’s approval. Once the FONSI, the CCP and the LPP have been approved, we will make them available to all interested parties. We can start implementing the final CCP as soon as our Regional Director has approved it.

We will evaluate our accomplishments under the CCP each year. More intensive monitoring is proposed for each program area, depending on the alternative selected. If future monitoring or new information results in the predication of a significant impact, additional analysis would be required.

From the issues workbook, public and focus group meetings, and planning team discussions, we developed a list of issues, concerns, opportunities, or other items requiring a management decision. We sorted them into two categories:

Issues and Opportunities

Key issues—The key issues, together with refuge goals, form the basis for developing and comparing the different management alternatives we analyze in chapter 3. The wide-ranging opinions on how to address key issues and conform with goals and objectives generated those varying alternatives. Also, key issues are those the Service has the jurisdiction and authority to resolve. We describe them in detail below.

Issues and concerns outside the scope of this analysis—These do not fall within the scope of the “Purpose and Need for Action” in this plan, or fall outside the jurisdiction and authority of the Service. We discuss them after “Key Issues,” below, but this plan does not address them further.

Key Issues

We derived the following key issues from public and partner meetings and further team discussions. How they are addressed and how well they support refuge goals primarily distinguishes the three management alternatives in chapter 3.

1. Which species should be a focus for management, and how will the refuge promote and enhance their habitats? In particular, what will be the management emphasis for federally listed species such as the dwarf wedgemussel, bog turtle and Indiana bat?

Federal trust species are mandated as management priorities where they occur on refuges. Appendix A identifies the federal trust resources that are now found or that could be found on the refuge. Other species and habitats of special management concern also are listed.

Managing the refuge to support recovery goals for the federally listed threatened bog turtle is a priority. Each alternative identifies actions to insure its protection. The northern population of the bog turtle has experienced a 50 percent reduction in range and numbers over the past 20 years (USFWS 2001). The greatest threats to its survival include the loss, degradation, and fragmentation of its habitat, compounded by the increasing take of long-lived adult animals from wildlife populations for the illegal wildlife trade. The shallow wetlands that these species prefer are easily drained or impounded to create farm ponds or reservoirs. Either situation displaces bog turtles.

Management for this species is at a critical point, especially in northern New Jersey, where residential development is occurring at a significant rate, and 90 percent of the bog turtle habitat is privately owned (USFWS 2001). Long-term recovery is based on the protection and conservation of bog turtle population analysis sites (PAS). One of the recovery objectives of the sub-unit in our planning area is to maintain at least five PAS's in the Wallkill River watershed. Coordinated management and land acquisition and protection by federal, state, and local agencies will be essential in achieving that objective and reversing the decline of this species.

The federally listed endangered dwarf wedgemussel may become a future management priority at the refuge. The damming, channeling, high sediment loading, and increased agricultural, domestic, and industrial pollution of rivers are the primary reasons for that species' decline throughout its range (USFWS 1993). Surveys began in August 2000 to determine whether potential habitat for this species exists in the Wallkill River and its tributaries. The surveys found no dwarf wedgemussels, but the presence of one of their host fish, the tessellated darter, is promising. More surveys are needed to determine with certainty whether they are present, and the potential for their introduction.

Until we know more, our ability to support recovery objectives on the refuge is limited.

In 2005, Indiana bats were found hibernating in three areas near Hibernia, N. J., about 20 miles south of the Wallkill River refuge. The refuge will need to conduct species-specific surveys for Indiana bats to determine whether this federal-listed endangered species lives on the refuge. The riparian, forested and upland habitats on the refuge have high potential for supporting wintering, foraging and roosting habitats. Should Indiana bats be found on the refuge, we would implement the recovery plan tasks.

Mitchell's satyr butterfly was listed by the Service as an endangered species in 1992. Two well-known sites within Sussex and Warren Counties supported the species in the recent past. The confirmed sites are both fens located in areas of limestone bedrock within the same watershed, similar to habitats used by the federal-listed threatened bog turtle.

Migratory birds are also a federal trust resource. The challenge with migratory bird management is determining how each refuge can contribute significantly to the conservation of migratory bird species of concern. One important question we address is "Which migratory bird species and associated habitat types should be a priority for management on these refuges?" Management emphasis on certain species or species group may preclude management for other migratory bird species of concern. On the refuge, for example, managing for grassland-dependent bird nesting habitat would likely reduce the habitat potential for interior forest nesting birds. Migratory bird species associated with both habitat types are in decline throughout PIF Area 17.

Management for waterfowl is also a Service priority, and is one of the purposes for which the refuge was established. The refuge does not have high concentrations of nesting waterfowl, but is important during the spring and fall migration season.

Each of the alternatives identifies the migratory bird species of management emphasis, associated management and land protection, and their impacts on other species of concern. Addressing this issue will help support Goal 1.

2. How will the refuge manage invasive, exotic, and overabundant species?

Invasive plant species such as purple loosestrife, *Phragmites* (common reed), garlic mustard, Canada thistle, multiflora rose, reed canary grass, and Japanese knotweed threaten refuge habitats by displacing native plant and animal species, degrading wetlands and other natural communities, and reducing natural diversity and wildlife habitat values. They out-compete native species by dominating light, water, and nutrient resources, and are particularly menacing when they impact threatened or endangered species habitats, as when purple loosestrife invades bog turtle wetland sites.

Their abilities to establish themselves easily, reproduce prolifically, and disperse readily, make their eradication difficult. Once they have become established, getting rid of them is expensive and labor-intensive. Many cause measurable economic impacts, especially in agricultural fields. Preventing new invasions is extremely important for maintaining biological diversity and native plant populations. The control of existing, affected areas will require extensive partnerships with adjacent landowners, state, and local governments. The

alternatives vary in the actions they propose and the varying levels of resources they commit to invasive plant control.

We suspect that several wildlife species on the refuge are adversely affecting natural biological diversity. Native species such as deer, resident Canada geese, and small furbearing mammals such as beavers, raccoons, woodchucks, and muskrats can become problems when their populations exceed the range of natural fluctuation and the ability of their habitat to support them. In particular, issues surface when these animals directly impact Federal trust species or degrade natural communities. Small mammalian predators have been known to decimate bog turtle nest sites or destroy Neotropical migratory bird nests. Although we expect some predation in a natural system, concerns arise when it prevents our meeting conservation objectives.

When deer or Canada geese forage excessively on landscaping or agricultural fields, or when beavers and muskrats affect water quality, degrade water control structures, or cause flooding where it is not desirable, they cause adverse economic impacts. When deer populations become excessive, they can also compromise human health and safety. An increase in vehicle-deer collisions or the incidence of Lyme disease raises community concerns. Those may rise as development forces animals to concentrate on or near the refuge. The measures for controlling each species are potentially controversial. They may include lethal removal, visual and acoustic deterrents, and destroying nesting or den sites. Addressing this issue will help support Goals 1 and 2.

3. What hunting opportunities will the refuge provide?



USFWS

Turkey hunting is one of the main hunt seasons on the refuge.

Wallkill River NWR has a rich and diverse hunting heritage, as demonstrated by the number of hunters and hunter visits made to the refuge. In recognition of this, the refuge has had hunting identified as an “area of emphasis” by the region. The refuge, which lies in both New Jersey and New York, previously has held hunts for deer, turkey, migratory waterfowl, woodcock, and winter resident Canada geese, under their respective state seasons. For any future hunting, including a black bear hunt that will be held as part of a New Jersey statewide hunt program, refuge staff would like to evaluate the quality of the hunting experience and our ability to manage the hunts as required by Service policy. The alternatives will consider a range of hunting opportunities on the refuge, and will evaluate the resources necessary to administer safe, quality hunts. Addressing hunting opportunities will help support Goal 3.

Opinions on hunting varied widely. They cover the full spectrum from totally opposed to hunting to opening the refuges to all state seasons. A segment of the local community continues to oppose hunting based on concerns about safety, disturbance, harm to non-target wildlife, and the impact on visitors engaged in other priority public uses. Others opposed to hunting felt that the refuge should function as a sanctuary for all species and that hunting is incongruous with such management.

Others support hunting only when it is needed, to control and manage populations, but not as a recreational activity. Still others, including state fish

and wildlife agencies, fully support hunting, and would like to see the refuge increase opportunities to conform to state hunting seasons.

4. Will the refuge be open to bear hunting?

After years of debate, the New Jersey Fish and Game Council re-established a bear hunt in 2005 (but the state rejected a hunt for 2006 and 2007). The question of whether or not to hunt bear has been an ongoing debate, especially in northwest New Jersey, where most of the state's black bear population is found. The public at large is divided on this issue, as are people who visit the refuge. During public scoping, some respondents expressed concerns over allowing a bear season, while others wanted us to pursue bear hunting on the refuge. The refuge's position has always been that we would open Service-owned lands in New Jersey to bear hunting whenever the state decides to have an open bear season. (Service-owned lands in New York are closed to hunting). The refuge was unable to complete the necessary administrative procedures for the 2005 season; however, we hope to open the refuge to bear hunting through this CCP/EA process provided that hunting is found to be a compatible use on the refuge and that it is not inconsistent with any applicable laws or public safety. Current Service policy requires that a refuge submit a new hunt package, consistent with 605 FW1, if a major change to the hunt program is proposed. A major change is defined for this purpose as a new hunting activity, adding a new species to the program, or opening a new area to hunting. In this case, the major change is adding a new species (bear) to the refuge's hunt program. Therefore, we plan to submit a new hunt package for the refuge as we go through the CCP/EA process.

5. How will the refuge provide opportunities for compatible, wildlife-dependent uses, realizing that these uses occasionally conflict?

The Refuge System Improvement Act does not establish a hierarchy among the six priority uses of refuges; nor does it establish any clear process for determining such a hierarchy. Unfortunately, those uses sometimes conflict with each other in time, space, or the allocation of resources. One example is environmental education and interpretation programs on an area open to hunting at the same time. In the Northeast Region, however, we have established "areas of emphasis" to identify where each refuge may make its greatest contribution to the "Big 6" recreational activities associated with wildlife-dependent recreation. Wallkill's areas of emphasis are hunting and interpretation.

Some people express concerns when refuge resources are disproportionately allocated toward one use, and opportunities for other uses suffer. An additional challenge for the Refuge Manager is determining the carrying capacity of the refuge to support these uses and still provide a quality experience. The alternatives evaluate providing different levels and combinations of priority public use activities and identifying the resources to support them. Addressing this issue will help support goals 3 and 4.

6. What additional lands will the refuge protect or acquire?

New Jersey is the most densely populated state in the nation. One of the consequences of that distinction is the extreme pressure it places on natural resources. Previously undeveloped lands are being developed rapidly. Northern New Jersey and southeastern New York have become bedroom communities for the New York City metropolitan area. Commuting two hours to the city is now commonplace. That growth threatens natural areas. Many are becoming isolated islands of habitat, so fragmented that they can no longer support the full diversity of native wildlife and plant species. Without the protection of large, contiguous natural areas, species that require large expanses of habitat will

be the first to suffer. As we mentioned above, the decline of species such as the federally listed threatened bog turtle can be attributed directly to the loss and fragmentation of its habitat.

During our public scoping process, many individuals encouraged us to expand the refuge for a variety of reasons. Many expressed concern over the rapid rate of development, the increased burden on their communities' services brought on by development, and their communities' loss of rural character. Some spoke of the direct benefits, and even the necessity, of maintaining land in its natural state, which the refuge exemplifies. For example, they recognize that wetlands are essential habitat for wildlife, lessen the damage from flooding, and naturally break down contaminants in the environment. Also, forests and grasslands protect the quality of our drinking water, help purify the air we breathe, and provide important areas for outdoor recreation.

On the other hand, some individuals are concerned that increasing federal ownership will greatly impact property tax revenue to towns and counties. Federal lands are not taxed. Instead, the Service manages the Refuge Revenue Sharing Payments Program to help offset that loss of tax revenue.

To officially plan for a possible expansion, the refuge submitted in 2001 a Preliminary Project Proposal to the Service Director that identified approximately 16,000 acres for potential inclusion into the Wallkill River refuge in Sussex County, N. J. and Orange County, N.Y. The proposal was developed in cooperation with state agencies and other conservation groups during the initial planning phase of the CCP. The refuge received Director's approval in 2003 to move forward with detailed planning for the proposed 16,000-acre expansion.

The management alternatives in chapter 3 explore various levels of land protection, including new land acquisition, conservation easements, and cooperative management of privately owned lands. Although none of the alternatives propose the 16,000-acre expansion as requested in the 2001 proposal, Alternative B, "The Service-Preferred Alternative," proposes an expansion area consisting of portions of the Focus Areas identified in the original proposal. The Focus Areas were refined in response to development by private landowners or acquisition by conservation partners. We also used the regional and ecosystem plans mentioned earlier in this chapter to help prioritize our land acquisition proposals. Addressing this issue will help support goals 1, 2, and 3.

7. How will the refuge cultivate an informed and educated public to support the mission of the Service and the purposes for which the refuge was established?

Community involvement in support of our Refuge System mission is both very important and very rewarding. Outreach ties the refuge to local communities, inspiring an interest in the Refuge System and in natural resource conservation and stewardship. It is important that people understand what we are doing, why we are doing it, and how we can work together to improve our communities. Our challenge lies in determining how best to reach out, raise the visibility of the refuge in the local community and "cultivate" a relationship. Some people advocate increasing the number of refuge programs open to the public; others promote a "Friends of the Refuge" group; while still others promote refuge staff involvement in established community events, government committees, and conservation organizations. The alternatives will explore those options and evaluate the resources necessary to implement them. Addressing this issue will help support goal 4.

8. How will the refuge obtain the staffing and funding necessary to complete priority projects?

Some people expressed concerns about our ability to maintain the existing infrastructure of the refuge and implement plans already in place, given the current levels of staffing and funding. They were also concerned that any new proposals in this CCP will elevate our proposed budget substantially above current allocations, thus raising unrealistic expectations. They pointed out that budgets can vary widely from year to year, because they depend on annual Congressional appropriations. Others supported our pursuit of new management goals, objectives, and strategies in the hope that the CCP will establish new partnerships and funding sources. It was suggested that the Friends Group can help to obtain funding assistance.

In developing each alternative, we identified the levels of staffing positions and funding necessary to implement our proposed actions over the next 15 years. Appendix E, “RONS and SAMMS”, and Appendix F, “Staffing Charts,” present the management and staffing needs to support Alternative B, “The Service-Preferred Alternative.” Ultimately, whatever funding resources are allocated to the Service (by Congress or other source), they will be better used due to having an approved CCP.

9. How will we preserve, protect, and interpret cultural resources on refuge lands?

By law, we must consider the effects of our actions on archeological and historic resources. No matter which alternative is selected, we will comply with Section 106 of the National Historic Preservation Act (NHPA) before disturbing any ground. That compliance may require a State Historic Preservation Records survey, literature survey, or field survey.

Our review of State Historic Preservation Office site files in both New Jersey and New York identified 63 archeological sites in the area. Of those, 25 lay within the refuge boundary; the other 38 lay within 3.2 miles of it. They represent both prehistoric and historic periods, and include structural remains as well as buried archeological deposits. Although minimum compliance with the Section 106 of the NHPA is assured, some people expressed an interest in seeing the Service pursue additional, in-depth site surveys, research, and restoration.

The alternatives explore a range of options for interpreting and providing additional protection for the refuge’s cultural resources. Addressing this issue will support goal 4.

Issues Outside the Scope of this Environmental Assessment

1. Urban Sprawl

The rate of growth in Sussex County, N. J., and Orange County, N.Y., averaged about 10 percent over the past decade. Many workbook respondents and participants at our planning meetings indicated they are greatly concerned about urban sprawl, the rate and location of development, and increased habitat loss and fragmentation near refuge lands. They expressed a desire that lands be zoned agricultural or something other than residential/commercial. The authorities of the Service do not extend to local zoning. However, although we have no control over county or township zoning, we are actively engaged in working with towns to identify important wildlife habitats in need of protection.

2. Water Quality

Many respondents expressed concerns about the water quality of the Wallkill River. Many believe water quality has declined in past decades. Many expressed concerns about the use of herbicides and pesticides on agricultural fields near the river and their impacts on its water quality. Some noted that their concern is substantiated by the fact the river has the highest DDE levels of any tributary of the Hudson River.

Others expressed concerns with town wastewater treatment outputs into the river and adjacent farm dumping and remnant mining operations. The Service has no direct jurisdiction or authority to control those practices unless they are directly affecting federal trust resources. However, refuge staff will continue to work on the Wallkill River Watershed Plan, and with the Wallkill River Task Force and municipal boards and committees, to influence best management practices and restoration activities that benefit water quality and the wetlands in or near the river or its tributaries.

3. Non-priority public uses

There are some non-priority public uses that are either currently allowed on the refuge or that we propose to allow through this CCP/EA process. We must go through a stringent process before allowing these uses to ensure that they are consistent with any applicable laws or public safety. In fact, some of these uses are proposed to protect public safety. For example, we propose in this CCP/EA to allow dog walking on the Liberty Loop trail so that visitors walking their dogs on the Appalachian Trail are not forced to walk their dogs on a busy roadway (see appendix B for more details). Some non-priority public uses are allowed in order to facilitate priority public uses. For example, cross-country skiing and snowshoeing are not themselves priority public uses, but we allow these uses because they facilitate wildlife observation and photography (which are priority public uses) during the winter months when foot access is difficult. There are other non-priority public uses such as jogging, bicycling or horseback riding that some visitors would argue also facilitate priority public uses. These activities, however, generally take place at a time of year when wildlife use the refuge for feeding, resting, migrating or breeding. Furthermore, these activities have been found to cause unacceptable disturbance to wildlife. Finally, there are ample opportunities for the public to partake in these kinds of activities on state-owned or private lands not far from the refuge.

Plan Amendment and Revision

Periodic review of the CCP will be required to ensure that objectives are being met and management actions are being implemented. Ongoing monitoring and evaluation will be an important part of this process. Monitoring results or new information may indicate the need to change our strategies.

At a minimum, CCP's will be fully revised every 15 years. We will modify the CCP documents and associated management activities as needed, follow the procedures outlined in Service policy and NEPA requirements.