

Appendix A

**Cherry Valley National Wildlife Refuge
Study Act of 2006**

**TITLE VI—CHERRY VALLEY NATIONAL
WILDLIFE REFUGE**

SEC. 601. SHORT TITLE.

This title may be cited as the “Cherry Valley National Wildlife Refuge Study Act”.

SEC. 602. FINDINGS.

The Congress finds the following:

(1) The scenic Cherry Valley area of Northeastern Pennsylvania is blessed with more than 80 special-concern animal and plant species and natural habitats.

(2) In a preliminary assessment of Cherry Valley, United States Fish and Wildlife Service biologists ranked Cherry Valley very high as a potential national wildlife refuge.

(3) Six species that are listed as endangered species or threatened species under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) have been documented within or near Cherry Valley: The bog turtle (possibly the most significant population of the listed subspecies), the dwarf wedge mussel, the northeastern bulrush, the small whorled pogonia, the bald eagle, and the Indiana bat (a historic resident, with efforts underway to re-establish favorable conditions).

(4) Cherry Valley provides habitat for at least 79 species of national or regional concern, which either nest in Cherry Valley or migrate through the area during critical times in their life cycle, including—

(A) neo-tropical migratory birds such as the Cerulean Warbler, the Worm-eating Warbler, and the Wood Thrush, all of which nest in Cherry Valley;

(B) waterfowl such as the American Black Duck;

(C) several globally rare plants, such as the spreading globeflower; and

(D) anadromous fish species.

(5) The Cherry Valley watershed encompasses a large segment of the Kittatinny Ridge, an important migration route for birds of prey throughout the Northeastern United States. Every migratory raptor species in the Northeast is regularly observed along the Kittatinny Ridge during the autumnal migration, including the bald eagle, the golden eagle, and the broad-winged hawk.

(6) The Kittatinny Ridge also includes a long segment of the Appalachian Trail, a nationally significant natural-cultural-recreational feature.

(7) Many of the significant wildlife habitats found in the Cherry Valley, especially the rare calcareous wetlands, have disappeared from other localities in their range.

(8) Ongoing studies have documented the high water quality of Cherry Creek.

(9) Public meetings over several years have demonstrated strong, deep, and growing local support for a Cherry Valley National Wildlife Refuge, as demonstrated by the following:

(A) Area landowners, business and community leaders, media, and elected officials have consistently voiced their enthusiasm for a Cherry Valley National Wildlife Refuge.

(B) Numerous local communities and public and private conservation entities share complementary goals for protecting Cherry Valley and are energetically conserving wildlife habitat and farmland. Along with State landmanagement agencies and the National Park Service, these local entities represent potential strong partners for the United States Fish and Wildlife Service, and view a Cherry Valley National Wildlife Refuge as a complement to existing private, county, municipal, and State efforts.

(C) A number of local landowners have already put their land into conservation easements or other conservation arrangements.

(D) A voter-approved Monroe County Open Space Fund and a voter-approved Stroud Township municipal land conservation fund have contributed to many of these projects.

(10) Two federally owned parcels of land are contiguous to the area to be studied under this title as for acquisition and inclusion in a future Cherry Valley National Wildlife Refuge: The Delaware Water Gap National Recreation Area and a 700-acre segment of the Appalachian Trail owned by the National Park Service.

SEC. 603. STUDY OF REFUGE POTENTIAL AND FUTURE REFUGE LANDACQUISITION.

(a) **STUDY.**—The Secretary shall initiate within 30 days after the date of the enactment of this Act a study to evaluate the fish and wildlife habitat and aquatic and terrestrial communities located in Northeastern Pennsylvania and identified on the map entitled, “Proposed Cherry Valley National Wildlife Refuge— Authorization Boundary”, dated February 24, 2005, for their potential acquisition by the United States Fish and Wildlife Service through donation, exchange, or willing seller purchase and subsequent inclusion in a future Cherry Valley National Wildlife Refuge.

(b) **CONSULTATION.**—The Secretary, while conducting the study required under this section, shall consult appropriate State and local officials, private conservation organizations, major landowners and other interested persons, regarding the identification of eligible lands, waters, and interests therein that are appropriate for acquisition for a national wildlife refuge and the determination of boundaries within which such acquisitions should be made.

(c) **COMPONENTS OF STUDY.**—As part of the study under this section the Secretary shall do the following:

(1) Determine if the fish and wildlife habitat and aquatic and terrestrial communities to be evaluated are suitable for inclusion in the National Wildlife Refuge System and management under the policies of the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd et seq.).

(2) Assess the conservation benefits to be gained from the establishment of a Cherry Valley National Wildlife Refuge including—

(A) preservation and maintenance of diverse populations of fish, wildlife, and plants, including species listed as threatened species or endangered species;

(B) protection and enhancement of aquatic and wetland habitats;

(C) opportunities for compatible wildlife-dependent recreation, scientific research, and environmental education and interpretation; and

(D) fulfillment of international obligations of the United States with respect to fish, wildlife, and their habitats.

(3) Provide an opportunity for public participation and give special consideration to views expressed by local public and private entities regarding lands, waters, and interests therein for potential future acquisition for refuge purposes.

(4) The total area of lands, water, and interests therein that may be acquired shall not in the aggregate exceed 30,000 acres.

(d) REPORT.—The Secretary shall, within 12 months after date of the enactment of this Act, complete the study required by this section and submit a report containing the results thereof to the Committee on Resources of the House of Representatives and the Committee on Environment and Public Works of the Senate. The report shall include—

(1) a map that identifies and prioritizes specific lands, waters, and interests therein for future acquisition, and that delineates an acquisition boundary, for a potential Cherry Valley National Wildlife Refuge;

(2) a cost estimate for the acquisition of all lands, waters, and interests therein that are appropriate for refuge status; and

(3) an estimate of potentially available acquisition and management funds from non-Federal sources.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary \$200,000 to carry out the study.

SEC. 604. DEFINITIONS.

In this title the term “Secretary” means the Secretary of the Interior acting through the Director of the United States Fish and Wildlife Service.

Appendix B

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**Conceptual Management Plan for a
Proposed Cherry Valley National Wildlife Refuge**

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Introduction

The proposed Cherry Valley National Wildlife Refuge lies approximately 60 miles northwest of New York City, and 60 miles north of Philadelphia, Pennsylvania, in the southeastern section of Monroe County, Pennsylvania and northeastern Northampton County, Pennsylvania. If established, a refuge would protect a combination of wetland and upland habitat supporting several nationally-rare ecosystems. The area is home to several federally-listed threatened or endangered species, a wealth of migratory birds, and numerous plant and animal species listed as threatened or endangered by the Commonwealth of Pennsylvania. It is recognized as one of the most unique and important areas for the federally-listed, threatened bog turtle (*Clemmys muhlenbergii*), and is a key corridor for migrating raptors and other migratory birds. Unique habitats of the valley include mid-Atlantic calcareous fens, the Kittatinny Ridge, pitch pine/scrub oak barrens, kettle hole bogs and caves, and Cherry Creek. Cherry Valley contains large contiguous blocks of wildlife habitat including riparian corridors, ponds, emergent marshes, fens, scrub-shrub wetlands, wooded swamps, mixed hardwood upland forests, grasslands, and farmlands. Should the recommended alternative to establish a Cherry Valley National Wildlife Refuge move forward, the refuge would be comprised of up to 20,466 acres of wildlife habitat that is protected, in perpetuity through fee acquisition or by conservation easements.

This document, the Conceptual Management Plan (CMP), provides further detail on the U.S. Fish and Wildlife Service's (Service, we, our) proposed action and how the lands identified therein would be administered should a refuge be established in Cherry Valley.

Purpose of Conceptual Management Plan

The Cherry Valley Study Feasibility Study and draft Environmental Assessment (Study Report) examines the feasibility of establishing a national wildlife refuge (refuge; NWR) in Cherry Valley, Pennsylvania. In Chapter 3 of the Study Report, three Alternatives were described and considered for a potential refuge, with Alternative B (Diverse Habitat Complex) presented as the Service's proposed action. This alternative will not be implemented until it has been officially reviewed and authorized.

If approved, Alternative B, the "Diverse Habitat Complex" alternative, would create an acquisition boundary of up to 20,466 acres within the 31,500 acre study area, containing portions of 13 of Cherry Valley's and ridge's defined ecosystems (for more specific information see Chapter 3 of the Study Report). Acquisition of lands would be done through fee title (about percent of the acres) and conservation easements (about 50 percent of the acres). The Service concludes that acquiring these habitat areas over time would provide the protection of rare and unique habitats envisioned by the Study Act and the coalition of organizations and individuals that advocate the consideration of

a refuge in the valley. It would also provide ample opportunities for wildlife-dependent recreation, new and dynamic partnerships, and scientific research.

The Service developed this CMP to describe the management direction for a proposed Cherry Valley National Wildlife Refuge, as defined in Alternative B, and outline possible interim habitat management priorities and compatible public uses on newly acquired lands, should a refuge be approved. The activities described in this CMP will direct the way we pursue and manage acquisitions, conservation easements, and other land interests until a comprehensive conservation plan (CCP) is developed. By Service policy, a CCP must be developed within 15 years of the actual establishment of the refuge (i.e., acquisition of first land parcel). Any major changes in the activities described in this CMP, any new activities, and our development of the CCP would be subject to public review and comment in accordance with the provisions of Service refuge planning policy (602 FW 1, 2 and 3) and Service and U.S. Department of the Interior policy implementing the National Environmental Policy Act (NEPA) of 1969 (Department of Interior Manual 516, Appendix 1).

Mission of the Service and the National Wildlife Refuge System

The mission of the Service is working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. As part of the Department of the Interior, we manage all refuges within the National Wildlife Refuge System (Refuge System), as well as 66 national fish hatcheries, 78 ecological services field stations, and 64 fish and wildlife assistance offices. We also enforce federal wildlife laws, honor international treaties, assist foreign governments in their conservation efforts, and oversee the Wildlife and Sport Fish Restoration Program (formerly known as Federal Assistance), which distributes hundreds of millions of dollars from excise taxes on fishing and hunting equipment to state fish and wildlife agencies.

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. The Refuge System now comprises over 100 million acres on more than 548 national wildlife refuges and 3,000 waterfowl production areas. More than 40 million visitors each year participate in such outdoor pursuits as hunting, fishing, wildlife observation and photography, and environmental education and interpretation on refuge lands. Lands acquired through conservation easements, partnerships, etc. are managed as part of the Refuge System.

Background and Rationale for the Establishment of a Cherry Valley NWR

Pennsylvania's Cherry Valley is rich in natural resources and wildlife diversity. Cherry Valley is largely defined by Cherry Creek which flows through southern Monroe County in northeastern Pennsylvania, and into the Delaware River. For generations, local

landowners and conservation organizations safeguarded the valley's clean waters and important natural communities. However, recent rapid residential and commercial growth in Monroe County, has outpaced efforts to protect these resources. The county is within a two-hour drive of 25 million people.

The community took action several years ago to encourage permanent protection of Cherry Valley as part of the Refuge System. As a result, U.S. Representatives Paul Kanjorski (D-11th) and Charles Dent (R-15th) co-sponsored a bill to study the area for potential inclusion in the Refuge System. The 109th U.S. Congress passed the Cherry Valley National Wildlife Refuge Study Act (Study Act) in 2006. The Study Act directs the Service to evaluate the biological value of natural communities within Cherry Valley to determine if the area merits protection as a refuge. To facilitate the study, the Service convened a Cherry Valley Study Team (CVST). The CVST includes members from the Service, The Nature Conservancy, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, Pennsylvania Natural Heritage Program, Monroe County conservation and planning administrators, National Park Service, and local academic institutions including Northampton County Community College and East Stroudsburg University. The CVST held an initial meeting in October 2007 and met regularly during the preparation of the planning documents.

The 31,500-acre study area harbors nationally significant ecosystems and many protected plants and animals, including federally listed threatened and endangered species. Species of concern documented to be present in the valley include bog turtle¹, northeastern bulrush², small-whorled pogonia¹, and American eel³. A historical record for Indiana bat², in conjunction with appropriate summer foraging and roosting habit, and the proximity of bat hibernacula, are strong indicators that the species may still be represented in the valley. Dwarf wedgemussel², striped bass³, and American shad³, are documented to be present nearby in the Delaware River. Although it is uncertain if dwarf wedgemussel occurs in Cherry Creek, and striped bass and American Shad likely do not, all three species are aided in the Delaware basin by clean, unpolluted water from the Cherry Creek watershed. At a minimum, the Cherry Creek Watershed provides a valuable ecological service in this regard. Kittatinny Ridge, following the creek's path, is a major avenue for migrating birds of prey, songbirds, waterfowl and bats. Unique habitats of the valley include mid-Atlantic calcareous fens, Kittatinny Ridge, pitch pine/scrub oak barrens, kettle hole bogs and caves, and Cherry Creek.

In addition to federal trust resources, numerous state threatened and endangered species inhabit the Cherry Valley. This provides a unique potential opportunity for partnering with state agencies and local conservation groups for the preservation of

¹ Federally listed under the Endangered Species Act as threatened

² Federally listed under the Endangered Species Act as endangered

³ Federal interjurisdictional fish

additional species and habitats. The synergy of these partnerships will allow us to better protect the federal resources that are present.

Laws Guiding the National Wildlife Refuge System

A number of laws, policies and regulations, including the following, govern our acquisition and management of land in the Cherry Valley.

National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act).

This act guides the development and operation of the Refuge System. It clearly identifies the mission of the Refuge System, requires the Secretary of the Interior to maintain the biological integrity, diversity and environmental health of refuge lands, mandates a “wildlife first” policy on refuges, and requires comprehensive conservation planning. It also designates six wildlife-dependent recreational uses as priority public uses of the Refuge System: hunting, fishing, wildlife observation and photography, and environmental education and interpretation. This act amended the National Wildlife Refuge System Administration Act of 1966, which continues to serve as the parent legislation for the Refuge System.

National Wildlife Refuge System Administration Act of 1966. This act defines the Refuge System, including refuges, areas for the protection and conservation of fish and wildlife threatened with extinction, wildlife ranges, wildlife management areas, and waterfowl production areas. It also authorizes the Secretary of the Interior to permit any use of an area, provided the use is compatible with the major purposes for establishing the area.

Migratory Bird Treaty Act. The Migratory Bird Treaty Act protects all migratory birds and their parts (including eggs, nests, and feathers) from illegal trade. The Migratory Bird Treaty Act is a domestic law that acknowledges the United States' involvement in four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. The bird resource is considered shared because these birds migrate between countries at some point during their annual life cycle.

Endangered Species Act (ESA) of 1973 (as amended). This act directs all federal agencies to participate in endangered species conservation by protecting endangered and threatened species and restoring them to a secure status in the wild. Section 7 of the act charges federal agencies to aid in the conservation of species listed as threatened or endangered under the ESA, and requires federal agencies to ensure that their activities will not jeopardize the continued existence of ESA-listed species or adversely modify designated, critical habitats.

National Environmental Policy Act of 1969 (NEPA). NEPA requires that all federal agencies consult fully with the public in planning any action that may significantly

affect the quality of the human or natural environment. The draft Study Report that this document accompanies is formatted to assist the Service in complying with NEPA if the potential refuge moves forward.

Land and Water Conservation Act. The Land and Water Conservation Fund uses monies from certain user fees, the proceeds from the disposal of surplus federal property, the federal tax on motor boat fuels, and oil and gas lease revenues (primarily Outer Continental Shelf oil monies) to fund matching grants to states for outdoor recreation projects and to fund land acquisition for various federal agencies.

Migratory Bird Conservation Act. The Migratory Bird Conservation Act provides for the acquisition of suitable habitats for use as migratory bird refuges, and the administration, maintenance, and development of these areas, under the administration of the Secretary of the Interior.

Archeological Resources Protection Act of 1979 (ARPA). ARPA provides protection for archeological resources on public lands by prohibiting the “excavation, removal, damage or defacing of any archeological resource located on public or Indian lands,” and sets up criminal penalties for those acts. It also encourages the increased cooperation and exchange of information between governmental authorities, the professional archeological community, and private individuals having archeological resources or data obtained before 1979.

National Historic Preservation Act of 1966 (NHPA). NHPA requires all federal agencies to consider the effects of their undertaking on properties meeting criteria for the National Register of historic places, and ensures that historic preservation fully integrates into the ongoing programs and missions of federal agencies.

Purpose of Establishment and Land Acquisition Authority

Refuge lands can be acquired under various legislative and administrative authorities for specified purposes. Land acquisition for the proposed Cherry Valley National Wildlife Refuge would be authorized by the Endangered Species Act of 1973, Fish and Wildlife Act of 1956, the Migratory Bird Conservation Act of 1929, the Refuge Recreation Act of 1962 and Emergency Wetland Resources Act of 1986.

The purposes of a refuge are derived from the legislative authorities under which it was established. The purposes guide the long term management of the refuge, prioritize future land acquisition, and play a key role in determining the compatibility of proposed public uses. The purposes of the Cherry Valley National Wildlife Refuge as proposed in the Study Report called for by the Cherry Valley National Wildlife Refuge Study Act of 2006 would include:

“to conserve (A) fish or wildlife which are listed as endangered species or threatened species...or (B) plants...” 16 U.S.C. §1534 (Endangered Species Act of 1973), and

“for use as an inviolate sanctuary, or for any other management purpose, for migratory birds...” 16 U.S.C. §715d (Migratory Bird Conservation Act), and

“the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ...” 16 U.S.C. §3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986), and

“for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude...” 16 U.S.C. §742f(b)(1) (Fish and Wildlife Act of 1956).

Based on these purposes, the following sections provide more detail on the overall management focus of the refuge.

(1) Management, advancement, conservation, and protection of federally threatened and endangered species.

Bog turtle

The Bog Turtle (*Glyptemys muhlenbergii*) Recovery Plan (USFWS 2001) identifies eastern Pennsylvania as a stronghold of this Federally Threatened species. The area encompassed by the proposed Cherry Valley National Wildlife Refuge includes numerous documented bog turtle wetlands where the species is thriving, and other wetlands where turtles are present but the habitat is in need of restoration. A number of important partnerships between the Service’s Partners for Fish and Wildlife program, The Nature Conservancy, the Pocono Heritage Land Trust, private landowners, and others have resulted in the protection of some of these wetlands, as well as successful bog turtle habitat restoration projects throughout the valley. The proposed refuge will continue and expand upon these partnerships and management opportunities.

Bog turtles live in spring-fed wetlands throughout the Cherry Valley and the existing riparian corridor along Cherry Creek and its tributaries provides good habitat connectivity for this species as well as other species of concern. Although some of the wetlands are in a sense protected due to conservation-focused easements and ownerships, many such wetlands remain unprotected and are therefore in peril. An additional challenge is that springs that provide water to these wetland systems have their genesis on the ridge and mountain slopes that flank the Cherry Valley to the north and south. Unfortunately, only a small amount of these forested slopes is protected. This is of great concern because development or other alterations here would

jeopardize the hydrologic link that supports the valley wetlands and the unique assemblage of species that inhabit them. The Services preferred alternative seeks to protect the wetlands, slopes and riparian corridor areas of Cherry Valley.

Indiana Bat

Indiana bats (*Myotis sodalis*) were once known to occur in the Cherry Valley region of eastern Pennsylvania based on historic records from Hartman's Cave. Currently, two hibernacula are known within close proximity to Cherry Valley and are located in historic mines at Hibernia and Mount Hope, New Jersey, approximately 35 miles away. A thriving summer population of Indiana bats is found at Great Swamp National Wildlife Refuge, approximately 15 miles from these hibernacula sites. During the spring and summer, these bats make their way to the Great Swamp for foraging, and birthing and rearing of young. The habitat at the Great Swamp that supports this activity consists of large dead snags and dying trees that lie within close proximity to open marshes and stream corridors. Based on the proximity of the Cherry Valley region to the hibernacula sites, as well as the presence of high quality summer habitat consistent with that observed at the Great Swamp NWR, and the historical records of Indiana bats in Cherry Valley, there is a high likelihood that the species is present there during the summer months. In addition, there is also a high likelihood that wintering populations could be restored to the area if Hartman's Cave and other similar potential hibernacula sites are protected from disturbance.

The best potential habitat for the Indiana bat in Cherry Valley, aside from the historical roosting area at Hartman's Cave, would be late spring and summer foraging habitat in the riparian corridor of Cherry Creek. Areas where this corridor coincides with large dead and dying snags (for roosting) and wooded and emergent wetlands (for foraging) would be the areas with highest likelihood of occurrence. Survey work of the area would be merited to establish the current presence or absence of the species. Future management of the area to retain and restore appropriate habitat may serve to attract bats to the area and/or expand upon current habitat use. Based on available information, protection and management of appropriate habitat in Cherry Valley has a high potential for aiding in the recovery of this species. Surveys for this species would take on a high priority at the proposed refuge.

Other Federally Threatened and Endangered Species

Other species of concern documented to be present in the Cherry Valley Area include the federally endangered northeastern bulrush and a historical record of federally threatened small-whorled pogonia. Dwarf wedgemussel (Federally endangered), are documented to be present nearby in the Delaware River. Although it is uncertain if dwarf wedgemussel occurs in Cherry Creek current survey efforts being conducted by the Pennsylvania Fish and Boat Commission are evaluating the potential distribution of the species within the watershed.

(2) Management, advancement, conservation, and protection of other federal trust species, nationally significant ecosystems, unique habitats, and other species of concern present in or supported by Cherry Valley.

Other Federal Trust Species

Striped bass and American shad (interjurisdictional fish) are documented to be present nearby in the Delaware River. Striped bass and American shad likely do not occur in the Cherry Creek, however, these species are aided by clean, unpolluted water coming from tributaries to the Delaware River. At a minimum, the Cherry Creek watershed provides a valuable ecological service in this regard.

The American eel, documented in Cherry Creek, is a catadromous (lives in freshwater, reproduces in the Sargasso Sea) interjurisdictional fish. Because the species was thought to be in decline in some areas, a status review was initiated in 2004 to evaluate if Endangered Species Act protection should be extended to the eel. The Service determined in 2007 that although there was compelling evidence of eel decline in some areas, the overall population is not in danger of extinction nor is it likely to become so in the foreseeable future.

State-listed species

The bog turtle, Indiana bat, and dwarf wedgemussel are identified in the Pennsylvania Wildlife Action Plan (WAP) as “Wildlife of Immediate Concern” in addition to their federally threatened or endangered status. At least thirteen of the 37 species identified in the Wildlife Action Plan as Pennsylvania’s species of greatest conservation concern are known to occur in the Cherry Valley study area.

In Pennsylvania, three different agencies share responsibility for administering the threatened and endangered species program as well as and other species of special concern. The Pennsylvania Fish and Boat Commission is responsible for fish, reptiles, amphibians, and other aquatic organisms. The Pennsylvania Game Commission is responsible for wild birds and mammals. The Department of Conservation and Natural Resources is responsible for native wild plants, terrestrial invertebrates, significant natural communities and geologic features.

According to an inventory conducted by The Nature Conservancy and the Pennsylvania Natural Heritage Program, the Cherry Valley area supports 8 state-listed endangered and 7 state-listed threatened species. The state-listed endangered species include the Northeastern bulrush, bald eagle, small-whorled pogonia, grass of Parnassus, brook lobelia, downy willow-herb, variable sedge, Sojak Smith’s bulrush. The state-listed threatened species are the yellow sedge, tin-leaved cotton grass, American holly, matted spike rush, rigid sedge, sageleaf willow, and swamp doghobble.

Ecosystems of Concern

In addition to the individual species listed above, the Cherry Valley area includes three ecosystems that deserve mention. Open Sedge Fens are located in the valley and are considered to be a National Critically Endangered Ecosystem (Pennsylvania Special Concern). The Kittatinny Ridge is considered to be a National Endangered Ecosystem and is a major migration corridor for birds of prey, waterfowl, and song birds. The Riparian Forest Ecosystem is considered to be a National Threatened Ecosystem, and in Cherry Valley provides habitat and habitat connectivity corridors for a great diversity of wildlife.

Two other imperiled ecosystems, Northern Appalachian Acidic Cliff and Acidic Shrub Swamp, are present in Cherry Valley and are designated as Pennsylvania Special Concern Ecosystems.

(3) Management, advancement, conservation, and protection of migratory birds

Migratory Birds

Cherry Valley lies within the Atlantic Flyway in northeastern Pennsylvania. Numerous migratory colonial water birds, songbirds, raptors, freshwater wetland birds, and waterfowl follow the Kittatinny Ridge as a travel corridor and take refuge, forage, and nest in the forest, scrub-shrub, grassland, and wetland habitats that are found there.

The proposed refuge is located in the Northern Ridge and Valley physiographic area, also called Bird Conservation Area 17 in the Partners in Flight (PIF) Bird Conservation Plan. Roughly 50 percent of the undeveloped areas in the Northern Ridge and Valley physiographic area is forested; another 40 percent is agricultural land consisting primarily of old fields and tracts that remain in agricultural production. The proposed refuge area provides a good mix of habitat types and as such provides potential and documented habitat for numerous PIF priority species including:

- Shrub-early Successional (golden-winged warbler, American woodcock, field sparrow, eastern towhee, willow flycatcher, brown thrasher, blue-winged warbler, prairie warbler, etc.)
- Deciduous Oak-Hickory and Riparian Forest (cerulean warbler, worm-eating warbler, wood thrush, Louisiana waterthrush, red-headed woodpecker, eastern wood-pewee, scarlet tanager, Kentucky warbler, Baltimore oriole, etc.)
- Agricultural/Grassland (grasshopper sparrow, bobolink, meadowlark, etc.)
- Northern hardwood-mixed forest (eastern wood-pewee, wood thrush, Canada warbler, olive-sided flycatcher, Louisiana waterthrush, scarlet tanager, yellow throated vireo, etc.)

- Freshwater Wetlands (American black duck, wood duck, bald eagle, etc.).

To the best of our knowledge, the majority of these species are well represented. Indeed, Cherry Valley is recognized as a premiere birding location in the Northeast and is commonly traversed by birders, academic classes from local education institutions, and others.

Much of the land already managed or protected in this physiographic area is forested (Delaware Water Gap National Recreation Area, Appalachian Trail corridor, State Game Lands, state forests and parks). The proposed refuge would hold a unique position of offering a mosaic of habitats that aid a greater diversity of avian species. One of the greatest opportunities in this regard may be the presence of larger non-forested tracts that could be managed for shrubland birds. Scrub-shrub habitat is a high priority in the Northern Ridge and Valley, primarily because it continues to support numerous breeding populations of golden-winged warblers, one of the highest priority species in the Area 17 PIF Plan. The PIF plan considers managing for this species as a high priority wherever feasible. Other shrubland species have undergone significant population declines in this physiographic area due to the overall loss of early successional habitats.

The landscape composition around the proposed refuge also presents a great opportunity to make significant contributions to the conservation of grassland birds. Grasslands throughout the physiographic area are being significantly degraded by succession and through colonization of these areas by invasive plant species. The expansion of fast spreading invasives such as multi-flora rose and autumn olive into grassland habitats very quickly makes these habitats unsuitable for grassland bird species. A well planned and organized invasive species control program would be crucial to grassland management, as well as management of the other habitats at the proposed refuge.

Mature hardwood forest is the top conservation priority in Area 17. With much of the existing forestland in this physiographic area lying on ridges, bottomland forests are comparatively rare. Managing for forested bottomland corridors along the Cherry Creek and its tributaries would constitute a significant contribution to the overall goals for Area 17. Management of forested upland habitat and forested wetland habitats would support nesting interior-forest-dwelling birds of concern.

Management of non-forested wetland habitat would provide spring and fall migratory waterfowl and shorebird habitat. Extensive pockets of suitable waterfowl and shorebird habitat are present along the entire length of the Cherry Creek riparian corridor and elsewhere in Cherry Valley.

(4) Fish and wildlife-oriented recreational opportunities

The Refuge Improvement Act establishes six priority public uses on refuges. Those priority uses depend on the presence, or the expectation of the presence of wildlife. These uses are: hunting, fishing, wildlife observation and photography, and environmental education and interpretation. Although these priority uses must receive our consideration in planning for public use, they also must be compatible with the purpose for which the refuge was established and the mission of the NWRs. Compatibility determinations, which evaluate the impacts of the use in the context of species or habitats, aid in making those decisions. As lands are acquired in the Cherry Valley, compatibility determinations would be used to decide the public use opportunities that may be permitted.

Public use opportunities contribute to the long term protection of wildlife resources by promoting understanding, appreciation and support for wildlife conservation. The six priority public uses would be accommodated where they do not have a significant negative impact on wildlife. All the proposed public use activities are contingent upon availability of staff and funding to develop and implement these programs. We would promote opportunities for volunteers and develop community appreciation and public support for the refuge. We would work with school districts and teachers to develop an environmental education program featuring unique species or communities at the refuge. We would open newly acquired lands for hunting if they can biologically, ecologically, and safely accommodate hunting within state guidelines. Newly acquired lands that traditionally have been hunted would remain open until we have completed our planning process. Before closing any newly acquired lands, we would complete a separate public review process.

An increase in public use would result from the new trails, parking areas, fishing accesses, interpretive overlooks and observation platforms that would be a part of the preferred alternative. We would allow public access for day use on many of the newly acquired lands outside the sensitive bog turtle and bird nesting habitats. Generally, we would allow hunting, based on the Pennsylvania State seasons consistent with the refuge Annual Hunt Plan. We would allow fishing along Cherry Creek where accessible. Working with state and local agencies, we would study the feasibility of converting existing historic logging roads into public use trails. The refuge also would provide interpretive and environmental education programs and increase partnership opportunities to interpret the refuge and the watershed.

The plans for increased public use opportunities may cause concern for refuge neighbors due to the perception that new visitors to the Cherry Valley may have adverse impacts on privacy, traffic, frequency of trespass on non-refuge owned lands, etc. The Service evaluates impacts of public uses, not only to wildlife, but also to neighboring landowners and the local community. This “good neighbor policy” strives to avoid such potential conflicts by careful placement of public use areas and trails, clear posting of

refuge boundaries, open communication with our refuge neighbors, and a refuge-based law enforcement presence. In the absence of a refuge law enforcement officer, cooperative agreements with local and state police and conservation officers help to eliminate such conflicts.

Administration

The proposed refuge may be managed as a stand alone refuge or as part of a refuge complex. Generally, a stand alone refuge has a dedicated staff and equipment and is managed locally. As part of a complex, Cherry Valley would likely have less on site staff and would share staff and equipment with other refuge(s). Sometimes, refuges in their early stages are part of a complex, but as they grow in size and complexity, are then split off to be stand alone. Under the “complex” scenario, the refuge staff of another refuge would have the responsibility for the management of the newly established refuge. During the interim period, the Service would seek funding to station staff in Cherry Valley. A staff likely consisting of a refuge manager, wildlife biologist, and maintenance worker would be phased in at that time. In the long term, the Region would evaluate the need for additional full time staff based on management needs, project loads, public use activities, etc. and could move forward with providing additional staff when justified. The ability to fill staff positions would depend on availability of funds.

The Proposed Cherry Valley National Wildlife Refuge has good access via state and local roads. PA Route 611, PA Route 191, and PA Route 33 run north-south on the eastern edge, middle, and western edge of the proposed refuge, respectively. All of these roads connect to Interstate 80 just north of the proposed refuge area. To the south, these roads connect to Routes 22 and Interstate 78. East-west running roads in the Cherry Valley area include Cherry Valley Road, Middle Road, and Poplar Valley Road, among others. Existing access roads on acquired properties would be evaluated for use depending on access needs, presence of sensitive species and/or habitats, public use, and other potential future needs. Some roads may be retained and improved while others may be abandoned and removed. A legal access to inholdings and homes would be maintained.

Throughout the remainder of this document the reader will be introduced to the terms “compatibility”, “compatible uses”, etc. A “compatible use” is a proposed or existing wildlife-dependent recreational use or any other use of a national wildlife refuge that, based on sound professional judgment, will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the national wildlife refuge. The refuge manager would not initiate or permit a new use of a national wildlife refuge or expand, renew, or extend an existing use of a national wildlife refuge unless it has been determined that the use is consistent with the mission of the Refuge System and the purposes of each specific refuge. Further, the same use may be deemed compatible on some refuges but not others due to refuge-specific differences.

Facilities

Because no actual lands have been acquired as of yet, it is difficult to discuss specifics of facilities and improvements that may be appropriate to effectively manage the refuge. This document will discuss general approaches adopted by the Service elsewhere when establishing a new refuge. As such, the Service may opt for the following when and where compatible:

Conversion of existing trails or logging roads, etc. to public use and/or refuge management access corridors. Such roads may also be abandoned to limit access to sensitive habitats and protected species. Roads and trails may only be open during certain times of year, etc. to be protective of wildlife resources.

Small gravel parking areas may be constructed in some areas to provide for adequate and safe parking of vehicles in potential public use areas.

A refuge headquarters/visitor contact station may be established through the adaptive reuse of buildings potentially acquired through land acquisition, e.g. a farm house may be used as a refuge office building; a pole building or barn may be used for equipment storage.

No new facilities are proposed for the refuge at this time. In the long term, the Service would establish permanent facilities in or near Cherry Valley through reuse of existing structures for use as a refuge administrative office and maintenance shop. Other potential future on-site improvements, including additional trails, improved access roads, observation platforms, photography blinds, etc. may be discussed in a future Comprehensive Conservation Plan. The construction of new facilities or conversion of existing structures is contingent upon availability of funds and acquisition of appropriate land.

Generally, public use areas would be open from dawn to dusk and wildlife management areas would be closed to the public and others (except emergency, police, and fire response). Special Use Permits would be issued to researchers, educational groups, etc. on an as needed basis providing that the activities were compatible with refuge management goals and aided with biological survey or baseline data needs. Wildlife Management Areas, although normally closed to public access, may at times be opened to meet refuge goals. Hunting, environmental education, and interpretive walks are some examples where this is likely to occur.

Funding

We would maintain a current inventory of management needs in the Service Maintenance Management System and Refuge Operating Needs System databases, and update their costs and priorities annually. Those databases provide a mechanism for each unit of the Refuge System to identify its essential staffing, mission-critical projects

and major needs and form a realistic assessment of the funding needed to meet each station's goals, objectives and strategies.

Staffing

As mentioned above, the staffing situation on National Wildlife Refuges is based on a number of factors including refuge size and complexity, proximity to other refuges, and funding. Based on these and other factors, the proposed refuge may be managed as a stand alone refuge or as a unit of a refuge complex. A stand alone refuge has a dedicated staff and equipment and is managed locally whereas a unit of a complexed refuge would share staff and equipment with other refuge units. At this time it is difficult to delineate staffing specifics for the proposed Cherry Valley National Wildlife Refuge because of uncertainties associated with the refuge's size, complexity, resource issues, funding, etc. Because of this uncertainty, two staffing models and a Case Study on the Growth of Cape May National Wildlife Refuge has been included in Appendix A to better illustrate how these variables interact to determine levels of staffing. These models and the case study may serve to guide how Cherry Valley NWR may grow in staff over time.

The staffing strategy for the Cherry Valley refuge under the individual refuge scenario identifies several new positions to ultimately be established. A refuge manager would provide direction and supervision for all activities, and ensure the effective oversight and community outreach for the successful management of acquisitions, easements and perhaps a cooperative "private lands" program. A wildlife biologist would assist in delivering the full range of wildlife conservation and restoration projects on public land, provide technical assistance, assist in the restoration and management of new acquisitions, and monitor and inventory wildlife and habitat use and condition. A maintenance worker/engineering equipment operator position would assist in meeting the maintenance and heavy equipment work obligations of the refuge. In the long term, the Region would evaluate the need for additional full time staff based on management needs, project loads, public use activities, etc. and could move forward with providing additional staff if justified.

Partnerships

Public use areas of the refuge would be open to the public year-round from dawn to dusk. We may restrict access at times because of the incompatibility of a use, concerns about human safety, or illegal activities and law enforcement investigations. Staff would establish formal, cooperative agreements with local law enforcement departments and the county sheriff and state police, to provide protection, enforcement and appropriate law enforcement response. Conservation law enforcement personnel from the Service, Pennsylvania Game Commission, and Pennsylvania Fish and Boat Commission would also likely patrol intermittently and monitor hunting, fishing, and other public uses. We would also establish fire suppression agreements with local volunteer fire departments to coordinate fire suppression

activities. The Fish and Wildlife Service Fire Program would also be actively involved in this regard. Fire staff are currently located at Wallkill River NWR in Sussex, NJ, approximately 45 miles away and would be available to assist in these activities.

We recognize the inability of any one organization to solve the problems of habitat fragmentation and land acquisition. Therefore, we would work to combine our efforts with those of many partners, such as The Nature Conservancy, Friends of Cherry Valley, Ducks Unlimited, Trout Unlimited, Pennsylvania Audubon, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, National Park Service, Pennsylvania Department of Conservation and Natural Resources, Natural Resource Conservation Service, Monroe County, Stroud Township, Hamilton Township, Smithfield Township, Ross Township, Pocono Heritage Land Trust, Pocono Wildlife Rehabilitation Center, Brodhead Watershed Association, as well as numerous other partners yet to be identified. Staff would also look for opportunities to work with farmers and landowners to manage the land in ways that benefit the goals and interests of the refuge and its neighbors.

Management of Cherry Valley National Wildlife Refuge

Goals of Cherry Valley National Wildlife Refuge

The following goals for the proposed Cherry Valley National Wildlife Refuge were developed within the framework of the Refuge System's mission statement, the Refuge Improvement Act, the refuge's primary purposes, and other Service policy and directives. The goals are intentionally broad statements that describe desired future conditions, and would guide the management of the refuge in the interim period and the development of management objectives and strategies for the CCP.

- Protect and enhance habitats for federal trust species and species of management concern, with special emphasis on migratory birds and species listed under the ESA, along with protection of wetlands and the Kittatinny Ridge.
- Create opportunities for hunting, fishing, wildlife observation and photography, and environmental education and interpretation, while promoting activities that compliment the purposes of the refuge and other protected lands in the region.
- Promote science, education, and research through partnerships to inform land management decisions and encourage continued responsible stewardship of the natural resources of Cherry Valley.

Wildlife and Habitat Management

Recent survey work by partners, literature review, and reconnaissance surveys suggest that Cherry Valley is a unique area that supports a great diversity of habitats and wildlife. In the interim period between acquisition of property and the development of the CCP, baseline surveys and monitoring efforts would be crucial to ensuring science-

based decisions for the management of the refuge. Priorities for management during this interim period would include: Monitoring and inventory of threatened and endangered species, migratory birds, and unique plant communities, and building community support. The objectives outlined below give specific directions in the management of the refuge during the interim period. The priorities may change as new information and Service policies are revised.

Objectives

- Work with partners to survey for threatened and endangered plant and animal species that potentially occur within the approved refuge boundary.
- Work with partners to inventory fish and macroinvertebrate species in Cherry Creek.
- Work with partners to inventory and monitor neotropical migratory birds, waterfowl, mammals, amphibians and reptiles of concern.
- Work with partners to monitor and eradicate exotic or invasive plant and animal species to preclude threats to the integrity of the ecosystem.
- Work with partners to inventory vegetative communities and develop a vegetation map of the study area using GIS tools.
- Coordinate with adjacent landowners and other partners to protect and enhance the health and integrity of Cherry Creek.
- Monitor deer populations to determine impacts of historical hunting on deer and minimize impacts of deer on vegetation.
- Promote and support research that contributes to refuge goals and objectives, increase understanding of refuge resources, or facilitate resource management.

Acquisition Management

Protection of lands would be accomplished through fee title acquisition (up to 50 percent of the acres) and establishment of conservation easements (up to 50 percent of the acres). The reader is referred to the attached Land Protection Plan (LPP; Appendix E) which identifies the boundary for the proposed Cherry Valley National Wildlife Refuge (refuge). Working with others, we delineated 20,466 acres of biologically significant land in the Cherry Valley watershed. We plan to acquire land throughout this focus area. Of their total acres, we recommend acquiring approximately 10,233 acres in fee title and approximately 10,233 acres in conservation easements.

The Land Protection Plan provides landowners and the public with an outline of U.S. Fish and Wildlife Service policies, priorities, and protection methods for land in the project area, assists landowners in determining whether their property lies within the expanded boundary, and inform landowners about our long-standing policy of acquiring land only from willing sellers. [We will not buy any lands or easements if the owners are not interested in selling.]

Managers are tasked with the responsibility for identifying tracts of land that meet the goals of the refuge. Managers work with private landowners and conservation partners to obtain conservation easements or fee title purchase of lands. As such, identifying and connecting with willing sellers within the approved refuge boundary is an important step in the acquisition process. When land is purchased in fee title it becomes the property of the people, is managed by the United States Government, and is exempt from taxation. As a partial response to this loss of tax revenue, Congress passed the Refuge Revenue Sharing Act, which provides for annual payments to local governments for fee-title land designated as national wildlife refuges. Depending upon the location, the amount of payment often equals or exceeds the value in taxes the town would have collected if the property were in private ownership. The Service pays according to a formula, usually three-quarters of 1 percent of the appraised value of the land, subject to the availability of funds through congressional appropriations, to the unit of local government that levies and collects general purpose and real property taxes.

Federal law requires us to offer fair market value for land. We base our offers on professionally prepared appraisals and comparisons of actual sale prices of comparable properties in the vicinity. Both the refuge manager and a realty specialist from our regional office in Hadley, Massachusetts, would contact private landowners who inform us of their interest in selling easements or land in fee title to the Service. It is the policy of the Service to acquire land only from willing sellers. Cultural resources would be evaluated on a parcel by parcel basis to identify and protect potential archeological and historic sites.

Public Use Management

Appropriate Refuge Uses Policy

The initial decision-making process a Refuge Manager follows when first considering whether or not to allow a proposed use on a refuge involves an evaluation of the appropriateness of a given activity on a national wildlife refuge. The Refuge Manager must find a use to be appropriate before undertaking a compatibility review of the use. If a proposed use is not found to be appropriate, the refuge will not allow the use and will not prepare a compatibility determination. By screening out proposed uses that are not appropriate to the refuge, the Refuge Manager avoids unnecessary compatibility reviews. By following the process for finding the appropriateness of a use, we strengthen and fulfill the Refuge System mission.

Compatibility and Priority Uses

The Refuge Improvement Act establishes six priority public uses on refuges. Those priority uses depend on the presence, or the expectation of the presence of wildlife. These uses are: hunting, fishing, wildlife observation and photography, and environmental education and interpretation. Although these priority uses must receive our consideration in planning for public use, they also must be compatible with the purpose for which the refuge was established and the mission of the NWRS. Compatibility determinations, which evaluate the impacts of a use that has been determined to be appropriate in the context of species or habitats, aid in making those decisions. As lands are acquired in Cherry Valley, compatibility determinations would be used to decide what public use opportunities are compatible and can be permitted.

Public use opportunities contribute to the long term protection of wildlife resources by promoting understanding, appreciation and support for wildlife conservation. The six priority public uses will be accommodated where they do not have a significant negative impact on wildlife. All the proposed public use activities are contingent upon availability of staff and funding to develop and implement these programs. We will promote opportunities for volunteers and develop community appreciation and public support for the refuge. We would work with school districts and teachers to develop an environmental education program featuring unique species or communities at the refuge.

Other Uses and Limitations

In addition to the priority uses described above, many other uses may also be determined to be appropriate and compatible with management of the refuge. Some examples of these types of uses from other refuges include: cross-country skiing, berry picking, haying, grazing of livestock, collection of edible wild plants for personal use, furbearer management, etc. The site-specific conditions and wildlife resources at each refuge will dictate the additional uses that may be permitted. Since these conditions vary from refuge to refuge, particular uses may be permitted at one refuge and precluded at another.

Although a refuge use may be both appropriate and compatible, the Refuge Manager retains the authority to prohibit or modify the use if potential conflicts are perceived. For example, on some occasions, two appropriate and compatible uses may interfere with each other. In these situations, even though both uses are appropriate and compatible, the Refuge Manager may need to limit or entirely restrict one of the uses in order to provide the greatest benefit to refuge resources and the public. For proposed uses that might develop after the preparation of this document, the refuge would apply the same procedure outlined above to make an appropriateness finding without additional public review and comment. If a proposed use is determined to be appropriate, a determination of whether or not

the use is compatible will be made and will include an opportunity for public involvement in the decision making process.

Table 1 summarizes public uses that would likely be allowed during the interim phase and their potential limitations under current conditions in Cherry Valley. Appendix B presents the draft compatibility determinations summarized in Table 1.

Table 1. Summary of the six priority public uses and the proposed interim public uses. All public uses are subject to logistical and biological constraints and the availability of funding and staff.

Public Use Activity	Would this use be provided during the interim phase?
Public hunting	Likely, limited by available hunting areas, some seasons may conflict with presence of species of concern.
Public fishing	Likely, limited by few fishing access areas and presence of species of concern.
Environmental education	Likely, limited due to staffing. Need for partnership development with local schools and conservation groups.
Interpretation	Likely, limited due to staffing. Need for partnership development, perhaps Friends of Cherry Valley.
Wildlife Observation	Likely, limited due to lack of public use areas and safe parking lots. Need for partnership development.
Photography	Likely, limited due to lack of public use areas and safe parking lots. Need for partnership development.

1. **Hunting:** Hunting is a prized activity by many of the residents of Cherry Valley. Private lands are largely posted, greatly limiting hunting access. Non-residents of Cherry Valley are sometimes able to obtain permission from landowners for hunting, but this occurs on a limited basis. In general, select and appropriate lands that would become part of the refuge likely would be open for public hunting, on a permit basis. The issuance of permits allows the refuge to track the numbers of hunters afield to provide for safety and limit other potential impacts. A more thorough review of the various Pennsylvania hunting seasons [(Squirrel, Ruffed Grouse, Rabbit, Pheasant, Bobwhite Quail, Woodchucks, Crows, Starlings and English Sparrows, Wild Turkey, Spring Gobbler, Black Bear, Deer (Archery), Deer (Muzzleloader), Deer (Firearms), and Deer (Flintlock)],

would be required in order to establish compatibility of each of these seasons with the refuge purpose. However, until such time as manageable units are acquired and a detailed hunt plan is written and based on the attached compatibility determination, hunting on parcels acquired as part of the refuge would be allowed to continue on an interim basis at the same level of activity that existed prior to Service acquisition of the land.

2. Fishing: Cherry Creek is a valued trout fishery. At least one fishing club leases land along the Cherry Creek. Like hunting, fishing is limited due to the posting of private land and limited public access. In general, become part of the refuge would be open for public fishing, providing select and appropriate lands that would they are in close proximity to Cherry Creek. It is reasonable to expect, given the habitat diversity in the Cherry Creek that trout, bass, pickerel, American eel, sunfish, crappies, catfish, rock bass, suckers, and carp would be present. Until such time as manageable riparian units are acquired and a detailed public use plan is written and based on the attached compatibility determination, fishing along Cherry Creek on parcels acquired as part of the refuge would be allowed to continue on an interim basis at the same level of activity that existed prior to Service acquisition of the land
3. Wildlife Observation: Cherry Valley provides a wealth of wildlife for observation, however viewing opportunities are limited by access. The narrow state and township roads running through the valley do not provide adequate pull-offs so safety is of the utmost concern. Until such time as better wildlife observation opportunities can be provided and a detailed public use plan is written and based on the attached compatibility determination, wildlife observation would be allowed to continue on an interim basis on parcels acquired by the refuge at the same level of activity that existed prior to Service acquisition of the land.
4. Photography: Until such time as better wildlife photography opportunities can be provided and a detailed public use plan is written and based on the attached compatibility determination, wildlife photography would be allowed to continue on an interim basis on parcels acquired by the refuge at the same level of activity that existed prior to Service acquisition of the land.
5. Environmental Education: Environmental Education is limited by the lack of support facilities in the valley. Shortfalls in environmental education opportunities may be overcome with partnerships with local schools and conservation groups. Until such time as better environmental education opportunities can be provided and a detailed public use plan is written and based on the attached compatibility determination, environmental education would be allowed to continue on an interim basis on parcels acquired by the

refuge at the same level of activity that existed prior to Service acquisition of the land.

6. Interpretation: Interpretation is limited by the lack of support facilities in the valley. Shortfalls in interpretive opportunities may be overcome with partnerships with local schools and conservation groups. Until such time as better interpretation opportunities can be provided and a detailed public use plan is written and based on the attached compatibility determination, interpretative activities would be allowed to continue on an interim basis on parcels acquired by the refuge at the same level of activity that existed prior to Service acquisition of the land.

Operations and Planning

Refuges are managed according to an annual work plan (AWP) that summarizes goals and objectives of the upcoming year. Specific actions for on the ground work such as operation procedures, wildlife inventory plans, habitat management actions, public use, etc. are covered in detail in refuge specific management plans. An annual work plan may generally state, for example, that 150 acres of invasive plant species will be controlled on the refuge, setting a target and goal for invasive species management. The Invasive Species Management Plan would provide more detail, such as various species to be controlled, location of invasive species, control methods, timing of control, monitoring of effectiveness of the application, re-treating areas, monitoring, etc.

Long term planning, outlined earlier, includes the preparation of a comprehensive conservation plan (CCP). A CCP describes the desired future conditions of a refuge and provides long-range guidance and management direction to achieve the purposes of the refuge. A CCP is consistent with and helps fulfill the mission of the Refuge System and acts to maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System. The National Wildlife Refuge System Improvement Act of 1997 mandates that the U.S. Fish and Wildlife Service write CCPs for all national wildlife refuges and reevaluate them every 15 years or as needed. The National Environmental Policy Act (NEPA) mandates that we incorporate, as appropriate, either an environmental assessment or an environmental impact statement in the CCP to satisfy NEPA requirements. The planning project provides a unique opportunity for the Service to involve individuals and local communities in the long-term management of the refuge.

Conclusion

Should the refuge proposal go forward, The Service and the Refuge System will work toward the biological, cultural, and public use goals that have been outlined herein.

Partnerships with landowners, neighbors, conservation organizations, and local, county, state, and other federal government agencies are a crucial component of a successful Cherry Valley National Wildlife Refuge.

**Attachment B.1
Growth of a National Wildlife Refuge
Case Study
Cape May National Wildlife Refuge
Cape May, NJ**

(In progress)

**Attachment B.2.
Compatibility Determinations**

Pre-Acquisition Compatibility Determination Cherry Valley National Wildlife Refuge

(For use on lands included in the proposed Cherry Valley National Wildlife Refuge)

Uses

Wildlife observation and photography, environmental education and interpretation.

Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority.

Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for the Cherry Valley National Wildlife Refuge are pending at the time of this writing, and are contingent on Congressional action regarding the proposed refuge.

National Wildlife Refuge System Mission

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

Description of Use

What is the use?

This pre-acquisition compatibility determination serves as our “statement of intent” to allow wildlife observation and photography, environmental education and interpretation activities to continue, where they are pre-existing and owner-authorized, on lands that will be acquired by the Service, should the refuge proposal go forward.

The specific parcels covered by this compatibility determination have been identified in the draft Cherry Valley National Wildlife Refuge Feasibility Study. Within the proposed refuge acquisition boundary, most of the parcels are privately owned and currently unimproved, and we are aware of only a few existing public use opportunities. As we pursue acquisition of individual parcels we will be able to verify where other opportunities exist.

Are the uses priority public uses?

Yes, wildlife observation and photography, and environmental education and interpretation were identified as priority, wildlife-dependent public uses by the National Wildlife Refuge Improvement Act of 1997 (Refuge Improvement Act, P.L. 105-57).

Where would the use be conducted?

The draft Cherry Valley National Wildlife Refuge Study identifies a proposed acquisition boundary for the refuge. The study also delineates the specific parcels, using township and county tax records, proposed for acquisition by the Service.

When would the use be conducted?

All opportunities would be implemented consistent with the compatibility determinations already in place for other national wildlife refuges. In general, refuges are open from sunrise to sunset for these activities; the only exceptions would be pre-approved environmental education and interpretive programs. Environmental education and interpretation, and wildlife observation and photography activities would occur year-round.

How would the use be conducted?

All opportunities would be implemented consistent with the compatibility determinations already in place for other national wildlife refuges, refuge regulations, and applicable State and local laws.

Why is the use being proposed?

These priority public uses may already be occurring on privately owned lands, with the owner's permission. These uses are also identified as priority uses by the National Wildlife Refuge System Improvement Act of 1997.

Availability of Resources

No additional Refuge resources would be devoted to these uses; that is, no additional infrastructure would be developed to accommodate these new areas until compatibility determinations are revised in response to new information or until we revise individual step-down management plans. Any proposed expenditures for improving public use opportunities in these areas would be identified as projects in a Visitor Services Plan. Acquisition and posting of these parcels would occur regardless of their potential for wildlife-dependent public use.

Anticipated Impacts of Proposed Actions

We expect only minimal impacts from continuing to allow these priority public uses, similar to those impacts described in the compatibility determinations for other national wildlife refuges.

Public Review and Comment

As part of the Cherry Valley National Wildlife Refuge Study, this compatibility determination will undergo extensive public review, including a public comment period, following release of the draft study document. Specific and general comments regarding this compatibility determination or public use opportunities will be addressed following the public comment period.

Determination

The uses are compatible X .

The uses are not compatible ____.

Stipulations Necessary to Ensure Compatibility

The following conditions must all be met before allowing existing, priority, wildlife-dependent public use to continue on an interim basis on newly acquired lands:

- 1) There are no indirect, direct, or cumulative threats anticipated to human health or safety;
- 2) There are no indirect, direct, or cumulative threats anticipated to natural or cultural resources;
- 3) The use is consistent with management of other national wildlife refuges, and Refuge regulations would not be compromised;
- 4) Proposed newly acquired lands represent a meaningful unit within which to manage the activity;
- 5) There are no anticipated, irresolvable conflicts between or among priority public uses; and,
- 6) The land is acquired by the Service and the boundaries are posted.

The Refuge Manager will evaluate parcels of land for these conditions before they are acquired. Existing uses may be allowed if these conditions are found to exist; all refuge

regulations would apply to the newly acquired lands. This pre-acquisition compatibility determination is in effect until the currently approved compatibility determinations for the Refuge are revised. A compatibility determination will be revised when conditions under which the use was first allowed change significantly, or if there is significant new information regarding the effects of the use, or with completion of a CCP. There may also be changes warranted when the Visitor Services Plan is completed. However, at any time, the Refuge Manager retains the authority to modify or cancel any public uses in order to insure compatibility with refuge purposes or to insure the conditions above are met. Significant changes to these compatibility determinations will require another public review period.

Justification

Existing priority, wildlife-dependant recreational uses should be allowed to continue on newly acquired tracts of land as they have been determined appropriate by the 1997 Refuge Improvement Act and, when compatible, are to be facilitated on refuges. These programs support the mission of the National Wildlife Refuge System by promoting an understanding and appreciation of natural and cultural resources and their management within a national system of refuges. Our programs would reach out to all segments of the public to expand support for the refuge system. Individual refuge programs will be consistent with, and fully support, the goals and objectives for the refuge.

Signatures

Refuge Manager

Date

Regional Chief, Concurrence

Date

Mandatory 15 year Reevaluation

Date

Pre-Acquisition Compatibility Determination Cherry Valley National Wildlife Refuge

(For use on lands included in the proposed Cherry Valley National Wildlife Refuge)

Uses

Hunting

Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority. Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for the Cherry Valley National Wildlife Refuge are pending at the time of this writing, and are contingent on Congressional action regarding the proposed refuge.

National Wildlife Refuge System Mission

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

Description of Use

What is the use?

This pre-acquisition compatibility determination serves as our “statement of intent” to allow hunting to continue, where it is pre-existing and owner-authorized, on lands that will be acquired by the Service, should the refuge proposal go forward.

The specific parcels covered by this compatibility determination have been identified in the draft Cherry Valley National Wildlife Refuge Study. Within the proposed refuge acquisition boundary, most of the parcels are privately owned and currently unimproved, and we are aware of only a few existing public use opportunities. As we pursue acquisition of individual parcels we will be able to verify where other opportunities exist. Hunting activities covered under this Compatibility Determination include:

Squirrel, ruffed grouse, rabbit, pheasant, bobwhite quail, woodchucks, crows, starlings and English sparrows, wild turkey, spring gobbler, black bear, deer (archery), deer (muzzleloader), deer (firearms), deer (flintlock), and others consistent with Pennsylvania Game Commission Laws and Regulations.

Are the uses priority public uses?

Yes, hunting has been identified as a priority, wildlife-dependent public use by the National Wildlife Refuge Improvement Act of 1997 (Refuge Improvement Act, P.L. 105-57).

Where would the use be conducted?

The draft Cherry Valley National Wildlife Refuge Study identifies a proposed acquisition boundary for the refuge. The study also delineates the specific parcels, using township and county tax records, proposed for acquisition by the Service.

When would the use be conducted?

All opportunities would be implemented consistent with the compatibility determinations already in place for other national wildlife refuges. In general, refuges are open from sunrise to sunset for these activities; the only exceptions would be pre-approved environmental education and interpretive programs. Hunting activities would occur during seasons and times established by the Pennsylvania Game Commission.

How would the use be conducted?

All opportunities would be implemented consistent with the compatibility determinations already in place for other national wildlife refuges, refuge regulations, and applicable State and local laws.

Why is the use being proposed?

This priority public use may already be occurring on privately owned lands, with the owner's permission. This use is also identified as a priority use by the National Wildlife Refuge System Improvement Act of 1997.

Availability of Resources

No additional Refuge resources would be devoted to these uses; that is, no additional infrastructure would be developed to accommodate these new areas until compatibility determinations are revised in response to new information or until we revise individual step-down management plans. Any proposed expenditures for improving public use opportunities in these areas would be identified as projects in a Hunting or Visitor Services Plan. Acquisition and posting of these parcels would occur regardless of their potential for wildlife-dependent public use.

Anticipated Impacts of Proposed Actions

We expect only minimal impacts from continuing to allow these priority public uses, similar to those impacts described in the compatibility determinations for other national wildlife refuges.

Public Review and Comment

As part of the Cherry Valley National Wildlife Refuge Study, this compatibility determination will undergo extensive public review, including a public comment period, following release of the draft study document. Specific and general comment regarding this compatibility determination or public use opportunities will be addressed following the public comment period.

Determination

The uses are compatible X .

The uses are not compatible _____ .

Stipulations Necessary to Ensure Compatibility

The following conditions must all be met before allowing existing, priority, wildlife-dependent public use to continue on an interim basis on newly acquired lands:

- 1) There are no indirect, direct, or cumulative threats anticipated to human health or safety;
- 2) There are no indirect, direct, or cumulative threats anticipated to natural or cultural resources;
- 3) The use is consistent with management of other national wildlife refuges, and Refuge regulations would not be compromised;
- 4) Proposed newly acquired lands represent a meaningful unit within which to manage the activity;
- 5) There are no anticipated, irresolvable conflicts between or among priority public uses; and,
- 6) The land is acquired by the Service and the boundaries are posted.

The Refuge Manager will evaluate parcels of land for these conditions before they are acquired. Existing uses may be allowed if these conditions are found to exist; all refuge

regulations would apply to the newly acquired lands. This pre-acquisition compatibility determination is in effect until the currently approved compatibility determinations for the Refuge are revised. A compatibility determination will be revised when conditions under which the use was first allowed change significantly, or if there is significant new information regarding the effects of the use, or with completion of a CCP. There may also be changes warranted when the Visitor Services Plan is completed. However, at any time, the Refuge Manager retains the authority to modify or cancel any public uses in order to insure compatibility with refuge purposes or to insure the conditions above are met. Significant changes to these compatibility determinations will require another public review period.

Justification

Existing priority, wildlife-dependant recreational uses should be allowed to continue on newly acquired tracts of land as they have been determined appropriate by the 1997 Refuge Improvement Act and, when compatible, are to be facilitated on refuges. These programs support the mission of the National Wildlife Refuge System by promoting an understanding and appreciation of natural and cultural resources and their management within a national system of refuges. Our programs reach out to all segments of the public to expand support for the refuge system. Individual refuge programs would be consistent with, and fully support, the goals and objectives for the refuge.

Signatures

Refuge Manager

Date

Regional Chief, Concurrence

Date

Mandatory 15 year Reevaluation

Date

Pre-Acquisition Compatibility Determination Cherry Valley National Wildlife Refuge

(For use on lands included in the proposed Cherry Valley National Wildlife Refuge)

Uses

Fishing

Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority.

Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for the Cherry Valley National Wildlife Refuge are pending at the time of this writing, and are contingent on Congressional action regarding the proposed refuge.

National Wildlife Refuge System Mission

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

Description of Use

What is the use?

This pre-acquisition compatibility determination serves as our “statement of intent” to allow fishing to continue, where it is pre-existing and owner-authorized, on lands that will be acquired by the Service, should the refuge proposal go forward.

The specific parcels covered by this compatibility determination have been identified in the draft Cherry Valley National Wildlife Refuge Study. Within the proposed refuge acquisition boundary, most of the parcels are privately owned and currently unimproved, and we are aware of only a few existing public use opportunities. As we pursue acquisition of individual parcels we will be able to verify where other opportunities exist. Fishing activities covered under this Compatibility Determination include:

Trout, bass, pickerel, American eel, sunfish, crappies, catfish, rock bass, suckers, carp, and others consistent with Pennsylvania Fish and Boat Commission Laws and Regulations

Are the uses priority public uses?

Yes, fishing was identified as a priority, wildlife-dependent public use by the National Wildlife Refuge Improvement Act of 1997 (Refuge Improvement Act, P.L. 105-57).

Where would the use be conducted?

The draft Cherry Valley National Wildlife Refuge Study identifies a proposed acquisition boundary for the refuge. The study also delineates the specific parcels, using township and county tax records, proposed for acquisition by the Service.

When would the use be conducted?

All opportunities would be implemented consistent with the compatibility determinations already in place for other national wildlife refuges. In general, refuges are open from sunrise to sunset for these activities; the only exceptions would be pre-approved environmental education and interpretive programs. Fishing activities would occur during seasons and times established by the Pennsylvania Fish and Boat Commission.

How would the use be conducted?

All opportunities would be implemented consistent with the compatibility determinations already in place for other national wildlife refuges, refuge regulations, and applicable State and local laws.

Why is the use being proposed?

This priority public use may already be occurring on privately owned lands, with the owner's permission. This use is also identified as a priority use by the National Wildlife Refuge System Improvement Act of 1997.

Availability of Resources

No additional Refuge resources would be devoted to these uses; that is, no additional infrastructure would be developed to accommodate these new areas until compatibility determinations are revised in response to new information or until we revise individual step-down management plans. Any proposed expenditures for improving public use opportunities in these areas would be identified as projects in a Fishing or Visitor Services Plan. Acquisition and posting of these parcels would occur regardless of their potential for wildlife-dependent public use.

Anticipated Impacts of Proposed Actions

We expect only minimal impacts from continuing to allow these priority public uses, similar to those impacts described in the compatibility determinations for other national wildlife refuges.

Public Review and Comment

As part of the Cherry Valley National Wildlife Refuge Study, this compatibility determination will undergo extensive public review, including a public comment period, following release of the draft study document. Specific and general comment regarding this compatibility determination or public use opportunities will be addressed following the public comment period.

Determination

The uses are compatible X .

The uses are not compatible _____ .

Stipulations Necessary to Ensure Compatibility

The following conditions must all be met before allowing existing, priority, wildlife-dependent public use to continue on an interim basis on newly acquired lands:

- 1) There are no indirect, direct, or cumulative threats anticipated to human health or safety;
- 2) There are no indirect, direct, or cumulative threats anticipated to natural or cultural resources;
- 3) The use is consistent with management of other national wildlife refuges, and Refuge regulations would not be compromised;
- 4) Proposed newly acquired lands represent a meaningful unit within which to manage the activity;
- 5) There are no anticipated, irresolvable conflicts between or among priority public uses; and,
- 6) The land is acquired by the Service and the boundaries are posted.

The Refuge Manager would evaluate parcels of land for these conditions before they are acquired. Existing uses may be allowed if these conditions are found to exist; all refuge regulations would apply to the newly acquired lands. This pre-acquisition compatibility determination is in effect until the currently approved compatibility determinations for the Refuge are revised. A compatibility determination will be revised when conditions under which the use was first allowed change significantly, or if there is significant new information regarding the effects of the use, or with completion of a CCP. There may also be changes warranted when the Visitor Services Plan is completed. However, at any time, the Refuge Manager retains the authority to modify or cancel any public uses in order to insure compatibility with refuge purposes or to insure the conditions above are met. Significant changes to these compatibility determinations will require another public review period.

Justification

Existing priority, wildlife-dependant recreational uses should be allowed to continue on newly acquired tracts of land as they have been determined appropriate by the 1997 Refuge Improvement Act and, when compatible, are to be facilitated on refuges. These programs support the mission of the National Wildlife Refuge System by promoting an understanding and appreciation of natural and cultural resources and their management within a national system of refuges. Our programs reach out to all segments of the public to expand support for the refuge system. Individual refuge programs would be consistent with, and fully support, the goals and objectives for the refuge.

Signatures

Refuge Manager

Date

Regional Chief, Concurrence

Date

Mandatory 15 year Reevaluation

Date

Appendix C

**Lists of Select Mammals, Birds, and Fish
in the area of Cherry Valley,
Monroe County, PA**

Table C-1. Mammal species that are known to occur or likely occur within the Cherry Valley National Wildlife Refuge Study Area, Monroe County, Pennsylvania.

Taxonomic Family	Common name	Scientific name
Marsupial (Pouched mammals)	Opossum	<i>Didelphis virginiana</i>
Soricidae (Shrew)	Short-tailed shrew	<i>Blarina brevicauda</i>
	Masked shrew	<i>Sorex cinereus</i>
	Long-tailed or Rock shrew	<i>Sorex dispar</i>
	Smoky shrew	<i>Sorex fumeus</i>
	Water shrew	<i>Sorex palustris</i>
Talpidae (Mole)	Eastern mole	<i>Scalopus aquaticus</i>
	Hairy-tailed mole	<i>Parascalops breweri</i>
	Star-nosed mole	<i>Condylura cristata</i>
Vespertilionidae (Evening bat)	Big brown bat	<i>Eptesicus fuscus</i>
	Silver-haired bat	<i>Lasionycteris noctivagans</i>
	Red bat	<i>Lasiurus borealis</i>
	Hoary bat	<i>Lasiurus cinereus</i>
	Small-footed bat	<i>Myotis leibii</i>
	Northern long-eared bat	<i>Myotis septentrionalis</i>
	Little brown bat	<i>Myotis lucifugus</i>
	Indiana bat	<i>Myotis sodalis</i>
Lagomorpha (Rabbits and hares)	Snowshoe hare	<i>Lepus americanus</i>
	Eastern cottontail	<i>Sylvilagus floridanus</i>
	Appalachian cottontail	<i>Sylvilagus obscurus</i>
Sciuridae (Squirrel)	Woodchuck or Groundhog	<i>Marmota monax</i>
	Gray squirrel	<i>Sciurus carolinensis</i>
	Eastern chipmunk	<i>Tamias striatus</i>
	Red squirrel	<i>Tamiasciurus hudsonicus</i>
	Northern flying squirrel	<i>Glaucomys sabrinus</i>
	Southern flying squirrel	<i>Glaucomys volans</i>
Castoridae (Beaver)	Beaver	<i>Castor canadensis</i>
Cricetinae (New World rats and mice)	Woodrat or Pack rat	<i>Neotoma floridana</i>
	White-footed mouse	<i>Peromyscus leucopus</i>
	Deer mouse	<i>Peromyscus maniculatus</i>
	Red-backed vole	<i>Clethrionomys gapperi</i>
	Meadow vole	<i>Microtus pennsylvanicus</i>

Taxonomic Family	Common name	Scientific name
Cricetinae (cont.)	Pine vole	<i>Microtus pinetorum</i>
	Muskrat	<i>Ondatra zibethicus</i>
	Bog lemming	<i>Synaptomys cooperi</i>
Murinae (Old World rats and mice)	House mouse	<i>Mus musculus</i>
	Norway rat	<i>Rattus norvegicus</i>
Zapodidae (Jumping mice)	Woodland jumping mouse	<i>Napaeozapus insignis</i>
	Meadow jumping mouse	<i>Zapus hudsonius</i>
Erethizontidae (Porcupine)	Porcupine	<i>Erethizon dorsatum</i>
Canidae (Dog)	Coyote	<i>Canis latrans</i>
	Gray fox	<i>Urocyon cinereoargenteus</i>
	Red fox	<i>Vulpes vulpes</i>
Procyonidae (Raccoon)	Raccoon	<i>Procyon lotor</i>
Ursidae (Bear)	Black bear	<i>Ursus americanus</i>
Mustelidae (Weasel)	Ermine or Short-tailed weasel	<i>Mustela erminea</i>
	Long-tailed weasel	<i>Mustela frenata</i>
	Mink	<i>Mustela vison</i>
	Striped skunk	<i>Mephitis mephitis</i>
	River otter	<i>Lutra canadensis</i>
Felidae (Cat)	Bobcat	<i>Lynx rufus</i>
Cervidae (Deer)	White-tailed deer	<i>Odocoileus virginianus</i>

Table C-2. Priority Bird Species and their Conservation Status in the Cherry Valley National Wildlife Refuge Study Area, Monroe County, Pennsylvania. *

Bird Species	BCC List(s)¹	Pennsylvania State Status	Partners In Flight Status²	Audubon Watchlist^{3,4}
<i>Breeding Species</i>				
American kestrel				
Wood thrush	NE, BCR28		Tier IA	
Prairie warbler	NE, BCR28		Tier IA	Yellow Status
Cerulean warbler	NE, BCR28		Tier IB	Yellow Status
Black-throated green warbler				Yellow Status
Worm-eating warbler	NE, BCR28		Tier IA	
Louisiana waterthrush	BCR 28		Tier IIB	
Ovenbird				
Scarlet tanager			Tier IIB	
Common grackle				61% decline
Field sparrow			Tier IIA	68% decline
<i>Possible Breeding Species</i>				
American woodcock			Tier IB	
Bobolink				
Eastern meadowlark				72% decline
<i>Habitat Users</i>				
Osprey		Threatened		
Peregrine falcon	NE, BCR	Threatened		
Northern harrier		At-Risk		
Red-shouldered hawk				
Bald eagle		Endangered		
<i>Migration</i>				
Black duck				
Northern pintail			Tier IB	
Green-winged teal		PA Rare		77% decline
Wilson's snipe		PA Rare		
<i>Wintering Range</i>				
Rough-legged hawk				

***Please see following page for description of Conservation Status designations**

Table C-2 Description of Conservation Status Designations

- ¹ BCC = U.S. Fish and Wildlife Service Migratory Birds of Conservation Concern
NE = Northeast Region Birds of Conservation Concern BCC 2002 List
BCR 28 = Bird Conservation Region 28 (Appalachian Mountains) BCC 2002 List
(source: U.S. Fish and Wildlife Service. 2002. *Birds of conservation concern 2002. Division of Migratory Bird Management, Arlington, Virginia. 99 pp. [Online version available at <<http://migratorybirds.fws.gov/reports/bcc2002.pdf>>]*)
- ² Tier IA = Species on the Partners in Flight Watch List which are of high continental concern and for which conservation in this region is critical to the overall health of the species
- Tier IB = Species on the Partners in Flight Watch List which are of high continental concern and for which this region can contribute to rangewide conservation objectives where the species is found.
- Tier IIA = Species that are of moderate continental priority (i.e., they are not on the Watch List), but are of high regional concern because they are experiencing population declines in the core areas of their range in this region.
- Tier IIB = Species that are of moderate continental priority (i.e., they are not on the Watch List), but for which this region shares long-term responsibility for conservation.
(source: K. Rosenberg and B. Robertson. 2003. *Partners in Flight Landbird Conservation Plan: Physiographic Area 17: Northern Ridge and Valley. Prepared for the American Bird Conservancy.*
[http://www.partnersinflight.org/bcps/plan/pl_17_10.pdf])
- ³ Yellow Status = this category includes species that are either declining or rare. These typically are species of national conservation concern.
(source: Butcher, G.S., D.K. Niven, A.O. Panjabi, D.N. Pashley, and K.V. Rosenberg. *WatchList: The 2007 WatchList for United States Birds. American Birds 61:18-25.*)
[Online] Retrieved 29 August 2008.
<<http://web1.audubon.org/filerepository/science/speciesprofiles/watchlist/files/TechnicalReport.pdf>>)
- ⁴ Birds with percent decline information are considered common, but do have substantial population declines based on data analyzed by National Audubon Society between 1967 and 2007.
(source: National Audubon Society. 2007. "Common Birds in Decline." [Online] Retrieved March 2008.
<www.audubon.org/bird/stateofthebirds/cbid/browseSpecies.php>

Table C-3. Fish Species Documented in the Cherry Valley National Wildlife Refuge Study Area, Monroe County, Pennsylvania (AC = Aquashicola Creek, BC = Brodhead Creek, CC = Cherry Creek, DR = Delaware River, MaC = Marshalls Creek, and MMC = McMichael Creek) *

Common Name	Scientific Name	River/Creeks	Global Rank¹	State Rank²
American brook lamprey	Lampetra appendix	MaC, MMC	G4	S3
American eel	Anguilla rostrata	BC, CC, DR, MMCK	G5	S5
American shad	Alosa sapidissima	DR	G5	S4
Black crappie	Pomoxis nigromaculatus	DR	G5	S4
Blacknose dace	Rhinichthys atratulus	AC, BC, CC, MMC	G5	S5
Bluegill	Lepomis macrochirus	DR, MMC	G5	S5
Bridle shiner	Notropis bifrenatus	MaC, AC (historical), MMC (introduced)	G3	S1
Brook trout	Salvelinus fontinalis	AC, CC, MMC	G5	S5
Brown bullhead	Ameiurus nebulosus	MMC	G5	S5
Brown trout	Salmo trutta	AC, BC, CC, MMC	G5	SE
Chain pickerel	Esox niger	DR	G5	S5
Channel catfish	Ictalurus punctatus	DR	G5	S3S4
Comely shiner	Notropis amoenus	DR	G5	S4
Common carp	Cyprinus carpio	BC, DR	G5	SE
Common shiner	Luxilus cornutus	AC, CC, DR, MMC	G5	S5
Creek chub	Semotilus atromaculatus	AC, BC	G5	S5
Creek chubsucker	Erimyzon oblongus	AC	G5	S4
Cutlip minnow	Exoglossum maxillingua	CC, MMC	G5	S5
Eastern mudminnow	Umbra pygmaea	MaC, MMC	G5	S3
Fallfish	Semotilus corporalis	AC, BC, CC, DR, MMC	G5	S5
Gizzard shad	Dorosoma cepedianum	DR	G5	S4
Golden shiner	Notemigonus crysoleucas	AC, MMC	G5	S5
Ironcolor shiner	Notropis chalybaeus	MaC, MMC (introduced)	G4	S1
Largemouth bass	Micropterus salmoides	BC, MMC	G5	S5
Longnose dace	Rhinichthys cataractae	AC, BC, CC, MMC	G5	S5
Margined madtom	Noturus insignis	BC	G5	S5
Pumpkinseed	Lepomis gibbosus	AC, CC, DR	G5	S5
Quillback carpsucker	Carpiodes cyprinus	DR	G5	S3S4

Common Name	Scientific Name	River/Creeks	Global Rank¹	State Rank²
Rainbow trout	<i>Oncorhynchus mykiss</i>	CC	G5	SE
Redbreast sunfish	<i>Lepomis auritus</i>	DR	G5	S5
Redfin pickerel	<i>Esox americanus americanus</i>	AC, CC	G5	S4
Rock bass	<i>Ambloplites rupestris</i>	BC, CC, DR	G5	S5
Sea lamprey	<i>Petromyzon marinus</i>	DR, CC, MaC	G5	S3
Shield darter	<i>Percina peltata</i>	BC	G5	S5
Slimy sculpin	<i>Cottus cognatus</i>	CC, MMC	G5	S5
Smallmouth bass	<i>Micropterus dolomieu</i>	BC, DR	G5	S5
Spottail shiner	<i>Notropis hudsonius</i>	DR	G5	S5
Tessellated darter	<i>Etheostoma olmstedi</i>	AC, BC, CC, MMC	G5	S5
Walleye	<i>Sander vitreus</i>	DR	G5	S4
White catfish	<i>Ameiurus catus</i>	DR	G5	S4
White sucker	<i>Catostomus commersoni</i>	AC, BC, CC, DR, MMC	G5	S5
Yellow perch	<i>Perca flavescens</i>	DR	G5	S5

*** Please see following page for description of global and state rank designations.**

Table C-3 Description of Global and State Rank Designations

¹ G3 – Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4 – Apparently Secure – Uncommon but not rare; some cause for long term concern due to declines or other factors.

G5 – Secure – Common; widespread and abundant

² S1– Critically Imperiled—Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.

S2 - Imperiled—Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.

S3 – Vulnerable—Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

S4 – Apparently Secure – Uncommon but not rare; some cause for long term concern due to declines or other factors.

S5 – Secure – Common; widespread and abundant in the nation or state/province.

S3S4 – Range Rank —A numeric range rank is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank.

S3S4 indicates that there is uncertainty if the species is vulnerable (S3) or apparently secure but uncommon (S4).

SE -- An exotic (i.e., non-native species) established in the state; may be native in nearby regions

Sources: NatureServe Explorer (<http://www.natureserve.org/explorer/nsranks.htm>)
Pennsylvania Natural Heritage Program, 2008; Hartzler, 2001;

Appendix D

DRAFT

Economic Assessment for a Proposed Cherry Valley National Wildlife Refuge Pennsylvania

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September 16, 2008

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Introduction

The 109th U.S. Congress passed the Cherry Valley National Wildlife Refuge Study Act in 2006 (Study Act). The Study Act directs the U.S. Fish and Wildlife Service, which administers the National Wildlife Refuge System, to evaluate the biological value of natural communities within the valley to determine if the area merits protection as a national wildlife refuge (refuge).

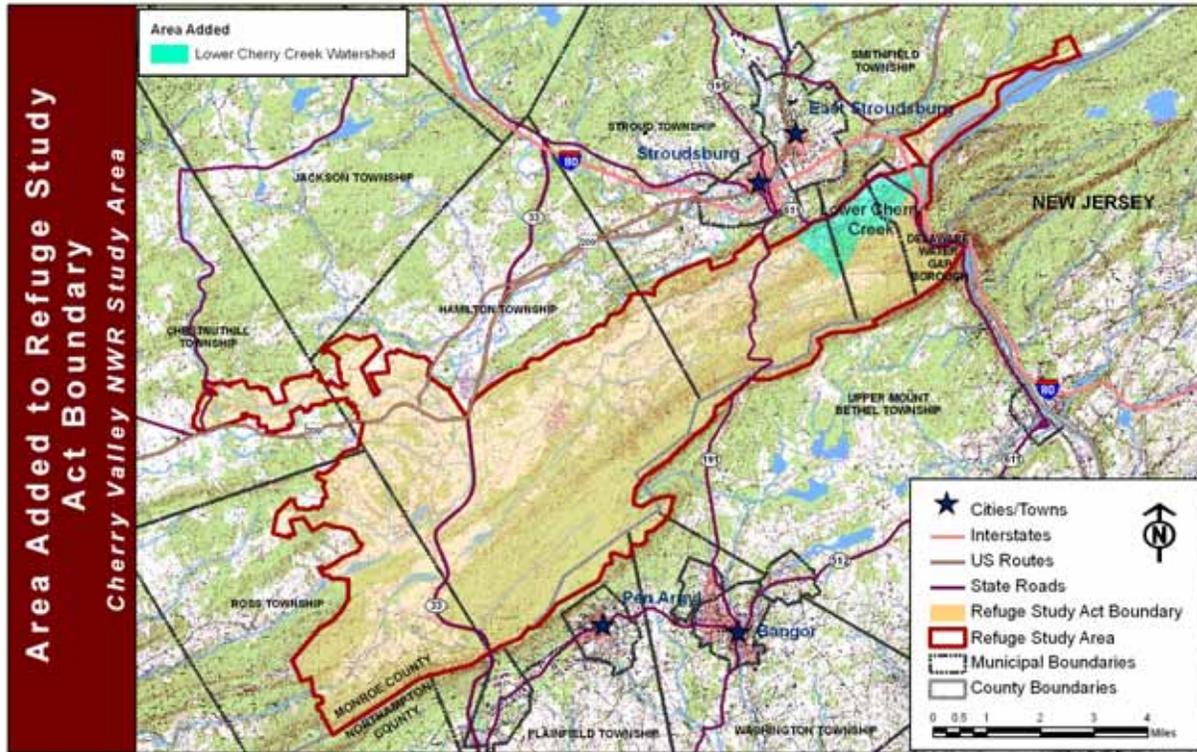
The purpose of this economic assessment is to provide a summary of the economic activities in the vicinity of the proposed refuge and to determine the extent to which such activities may be impacted by the establishment of a refuge.

Except for a narrow strip of land along the top of Kittatinny Ridge, Cherry Valley lies almost entirely within Monroe County, Pennsylvania, in the northeast portion of the State. Monroe County lies 90 miles north of Philadelphia, 75 miles west of New York and 116 miles east of Harrisburg. The county consists of 16 townships and 4 boroughs. The townships are governed by supervisors and the boroughs by councils. Outside of the boroughs, the county's 611 square miles is characterized as rural terrain, rolling hills, and farmlands.

The watershed of Cherry Valley encompasses a large segment of the Kittatinny Ridge, which is an important migration route for birds of prey throughout the Northeastern United States. Two federally owned parcels of land are contiguous to the Study Act boundary (Figure 1): the Delaware Water Gap National Recreation Area and a 700-acre segment of the Appalachian Trail that is owned by the National Park Service.

Figure 1 shows the general location of the refuge study boundary (as defined in the Study Act) within Monroe County. Approximately 30,000 acres fall within the boundary lines. The Service, in consultation with others, determined that a section of Lower Cherry Creek had likely been inadvertently left out of the refuge study boundary as defined in the Study Act. Therefore, an additional 1,500 acres were added to the refuge study boundary defined in the Study Act for our evaluation (Figure 1). We have defined this as the refuge study area (or Study Area). When possible, information from this section was included in the following analyses. The Study Area includes lands in six municipalities: Chestnuthill, Hamilton, Ross, Stroud, and Smithfield townships and Delaware Water Gap Borough.

Figure 1. Cherry Valley National Wildlife Refuge Study Act boundary, as presented in the legislation and the Lower Cherry Creek addition (see text for details).



Population Profile

The population of Monroe County has increased significantly over the years. In fact, development pressure is a primary concern in the area as it threatens the county’s ecology and natural beauty. According to data provided by the U.S. Census, in 2006, Monroe County had a total population of 165,700. Since 2000, the population increased by nearly 20 percent. In contrast, the total State population increased by only one percent over a similar period. Population within the Cherry Valley proposed refuge boundary is estimated to be about 9,300 or approximately seven percent of the county’s 2000 population. Table 1 provides a summary of how population has changed since 2000, within the proposed refuge boundary and compares this change to the overall change for Monroe County and the State of Pennsylvania.

Table 1. Population Estimates for the Cherry Valley National Wildlife Refuge Study Act boundary, Monroe County, and Pennsylvania.

	2000	2006	% change
Study Act Boundary	9,304	n/a	
Monroe County	138,687	165,685	19.5%
Pennsylvania	12,281,054	12,440,621	1.3%

Note – Study Act boundary population estimates based on census block groups and Division of Economics GIS analysis. June, 2008. Study Act boundary population estimate excludes Lower Cherry Valley addition. Source: www.fedstats.gov/qf/states/42/42089.html

A significant amount of population growth is attributable to an influx of workers and families from the greater New York metropolitan area seeking lower cost housing.¹ Monroe County commuting time is over 30 percent higher than the State average. Many of these workers commute via Martz Trailways into Manhattan, nearly a two-hour journey across Interstate 80. The majority of the Monroe County newcomers reside in new housing developments built outside of the Cherry Valley area.

Table 2 presents total population estimates in years 1990 and 2000 for the municipalities within the Study Act boundary along with an estimate of the population residing within the boundary lines. Of the 9,300 individuals residing within the Study Act boundary, over 60 percent resided in either Hamilton or Ross townships. Population increases were greatest in the townships of Chestnuthill, Smithfield and Stroud. For the latter two, population increases within the Study Act boundary were twice that of the townships in general.

Overall, between 1990 and 2000, the population within the Study Act boundary increased 28 percent. This rate was less than the total growth rate for the townships that have property included in the refuge (36 percent) and for Monroe County (45 percent), indicative of the relative rural nature of the area. Nonetheless, a 28 percent change reflects significant change for the area. By comparison, State population changed by only 3.4 percent over a similar period, while overall U.S. population changed by 13 percent, which reflects huge population growth in the Southeast and West.

¹ Next Stop: Martz Trailways Bus from Mount Pocono, Pa., to the Port Authority in Manhattan, by Billie Cohen, The New York Times, January 28, 2008.

Table 2. Population for Monroe County and Municipalities in the Cherry Valley National Wildlife Refuge Study Act Boundary.

	Total Population			Study Act Boundary Population		
	1990	2000	Change	1990	2000	Change
Chestnuthill	8,554	14,598	71%	969	1,642	69%
Delaware Water Gap	436	562	29%	113	52	-54%
Hamilton	6,511	7,004	8%	3,537	3,509	-1%
Ross	3,671	5,768	57%	1,629	2,288	40%
Smithfield	6,106	6,692	10%	470	841	79%
Stroud	11,583	15,515	34%	558	972	74%
Municipality Total	36,861	50,139	36%	7,276	9,304	28%
Monroe County Total	95,709	138,572	45%			
PA Total	11,881,643	12,281,054	3.4%			
U.S. Total	248,709,873	281,421,906	13.2%			

Note: Refuge population estimates exclude Lower Cherry Valley addition.

Source: 1990CensusMuniBnds.xls; CensusBlocks 2000 MuniBounds; US FWS Division of Economics GIS analysis (Monroe County Population). May 29, 2008.

Monroe County Economic Profile

This section provides a general overview of the economic environment of Monroe County. The characterization is based on data collected and summarized by several sources, including the U.S. Census Bureau, the Bureau of Labor Statistics, and the U.S. Department of Agriculture. In general, county-level statistics are the geographically finest level of data readily available. After profiling the economic environment of Monroe County, this analysis will look at land parcel data provided by Monroe County to determine the degree to which economic sectors within the county could be most affected should land use be converted to refuge status.

Employment

Total employment in Monroe County in 2005 was 75,728.² Since 2001, Monroe County has experienced a net increase of over 7,600 new jobs. Over 40 percent of total employment in 2005 occurred in one of three economic sectors – government-related, retail trade, and services. Of the three, government and government enterprises employed the greatest number of workers in 2005, 12,748, which represents almost 17 percent of total employment. Less than one-half of one percent of total county employment (264) worked on farms. Since 2001, farming employment has decreased by about four percent.

The fastest growing employment sectors in the county were educational services, and transportation and warehousing. The total employment in these sectors grew by 88 percent and 43 percent, respectively, since 2001. In addition to farming, Monroe County also saw a decrease in employment in the manufacturing and wholesale trade sectors. All other sectors had a net gain in employment between 2001 and 2005. Table 3 provides detailed description of employment in Monroe County in the years 2001 and 2005.

² Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce; CA25N Footnotes; <http://www.bea.gov/regional/reis/CA25Nfn.cfm>; Accessed December 13 2007.

Table 3. Employment by Industry, Monroe County, PA

	2005	% of total	2001	% of total	% Change 2001 - 2005
Total employment	75,728	100.0%	68,112	100.0%	11.2%
Farm employment	264	0.3%	275	0.4%	-4.0%
Nonfarm employment	75,464	99.7%	67,837	99.6%	11.2%
Forestry, fishing, related activities, and other	65	0.1%	n/a	n/a	n/a
Mining and Utilities	179	0.2%	135	0.2%	32.6%
Construction	5,691	7.5%	4,828	7.1%	17.9%
Manufacturing	5,373	7.1%	5,423	8.0%	-0.9%
Wholesale trade	1,387	1.8%	1,401	2.1%	-1.0%
Retail trade	10,932	14.4%	10,314	15.1%	6.0%
Transportation and warehousing	3,888	5.1%	2,708	4.0%	43.6%
Information, Finance, Insurance, and Real Estate	6,591	8.7%	6,474	9.5%	1.8%
Professional, management, admin & waste services	7,668	10.1%	6,511	9.6%	17.8%
Educational services	852	1.1%	452	0.7%	88.5%
Health care and social assistance	6,375	8.4%	5,192	7.6%	22.8%
Arts, entertainment, and recreation	2,686	3.5%	2,144	3.1%	25.3%
Accommodation and food services	6,831	9.0%	7,339	10.8%	-6.9%
Other services, except public administration	4,198	5.5%	3,750	5.5%	11.9%
Government and government enterprises	12,748	16.8%	11,048	16.2%	15.4%

Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce; CA25N Footnotes; <http://www.bea.gov/regional/reis/CA25Nfn.cfm>
 Accessed December 13 2007

Payroll

Government-related services, manufacturing, and retail trade comprised the highest payrolls of the Monroe County industries. Collectively, these three sectors accounted for over 53 percent of the total employment earnings within the county. None of these industries, however, represented the fastest growing sectors over the previous five years. Total earnings increased the greatest in educational services (161 percent), transportation and warehousing (109 percent) and wholesale trade (76 percent). With the exception of wholesale trade, the pace of the earnings increase mirrored the pace of the job increases. Agricultural earnings in the county were extremely low, less than one-tenth of a percent of total county earnings. Table 4 shows the total earnings for Monroe County by economic sector.

Table 4. Earnings by Industry, Monroe County, PA

	2005 (\$1,000)	% of Total	2001 (\$1,000)	% of Total	% Change
Farm compensation	\$ 787	0.0%	\$ 794	0.0%	-0.9%
Nonfarm compensation	\$ 2,503,292	100.0%	\$ 1,818,099	100.0%	37.7%
Private compensation	\$ 1,797,273	71.8%	\$ 1,328,523	73.0%	35.3%
Mining and Utilities	\$ 9,637	0.4%	n/a	n/a	n/a
Construction	\$ 144,764	5.8%	\$ 108,989	6.0%	32.8%
Manufacturing	\$ 387,123	15.5%	\$ 282,665	15.5%	37.0%
Wholesale trade	\$ 90,302	3.6%	\$ 51,122	2.8%	76.6%
Retail trade	\$ 231,906	9.3%	\$ 186,509	10.3%	24.3%
Transportation and warehousing	\$ 164,079	6.6%	\$ 78,431	4.3%	109.2%
Information, Finance, Insurance, and Real Estate	\$ 122,301	4.9%	\$ 117,841	6.5%	3.8%
Professional, Management, Admin & Waste Services	\$ 171,233	6.8%	\$ 122,087	6.7%	40.3%
Educational services	\$ 15,870	0.6%	\$ 6,079	0.3%	161.1%
Health care and social assistance	\$ 226,030	9.0%	\$ 154,554	8.5%	46.2%
Arts, entertainment, and recreation	\$ 38,799	1.5%	\$ 27,305	1.5%	42.1%
Accommodation and food services	\$ 115,715	4.6%	\$ 122,267	6.7%	-5.4%
Other services, except public administration	\$ 79,474	3.2%	\$ 59,636	3.3%	33.3%
Government and government enterprises	\$ 706,019	28.2%	\$ 489,576	26.9%	44.2%

Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, CA06N Footnotes
<http://www.bea.gov/regional/reis/CA06Nfn.cfm>

Housing

According to the 2000 U.S. Census, Monroe County had a total of 67,581 total housing units.³ By 2006, this number increased to 77,175 units, an increase of 14 percent. In 2000, the Census reported the total number of households to be 49,454, which implied a total of 18,127 vacant housing units. (While this number appears high, it reflects both the high number of existing seasonal units along with new housing construction not yet occupied as opposed.)

Since 2000, Monroe County has permitted slightly over 9,400 new single family homes. The pace of new construction peaked in 2003 at 1,679 permits. In contrast, the average cost of new, single-family residential structures has risen consistently over the years. The latest average cost of a new single family home is \$212,262 compared to \$140,373 in 2000.

The pace of new housing construction has declined significantly in recent years. In 2007, the total number of new permits issued declined by over 30 percent from the year earlier, signifying a strong decline in demand. The county experienced record foreclosures in 2007 and looks to set a new record in 2008. According to a recent article in the Pocono Record there were 1,253 foreclosure filings in 2007.⁴

Table 5. Single Family Home Construction, Monroe County, PA

Year	Permits	Annual Change	Total Cost	Annual Change	Avg Cost	Annual Change
2007	900	-36%	\$191,036,244	-39%	\$212,262	5%
2006	1,399	-13.1%	\$311,573,822	-0.8%	\$222,712	14.2%
2005	1,610	-2.1%	\$314,059,152	2.4%	\$195,068	4.7%
2004	1,645	-2.0%	\$306,610,397	6.9%	\$186,389	9.2%
2003	1,679	6.7%	\$286,709,547	13.2%	\$170,762	6.0%
2002	1,573	4.2%	\$253,352,319	12.9%	\$161,063	8.4%
2001	1,510	2.0%	\$224,358,519	7.9%	\$148,582	5.8%
2000	1,481	8.3%	\$207,892,568	8.4%	\$140,373	0.0%
1999	1,367	21.0%	\$191,829,977	39.6%	\$140,329	15.4%
1998	1,130	0.0%	\$137,446,018	0.0%	\$121,634	0.0%

Source: U.S. Census Bureau, <http://www.census.gov/const/www/permitsindex.html>

³ U.S. Census Bureau, U.S. Department of Commerce, <http://censtats.census.gov/bldg/bldgprmt.shtml>.

⁴ Monroe Smashed Home Foreclosure Record with 1,253 filings in 2007, by David Pierce, Pocono Record Writer, January 2, 2008 and County's Foreclosure Filings May Hit New High in 2008, by David Pierce, Pocono Record Writer, April 13, 2008.

Agriculture

In 2002, Monroe County had a total of 324 farms, up from 257 farms in 1997.⁵ Land in farms also increased, from 29,877 acres in 1997 to 32,938 acres in 2002. The total market value of production from all farms was \$6.6 million. Crop sales accounted for seventy percent of this total (\$4.7 million), livestock the remaining thirty percent (\$1.9 million). Top ranked sales for commodities were for nursery products (\$2.3 million) and aquaculture (\$1.0 million). Table 6 presents latest Census figures for commodity sales.

Table 6. Value of Sales by Commodity Group (\$1,000), Monroe County, PA

Commodity Group	Sales (\$1,000)
Grains, oilseeds dry beans and dry peas	\$882
Tobacco	-
Cotton and cottonseed	-
Vegetables, melons, potatoes, and sweet potatoes	\$641
Fruits, tree nuts, and berries	\$242
Nursery,greenhouses, floriculture, and sod	\$2,348
Cut Christmas trees and short rotation woody crops	\$119
Other crops and hay	\$454
Poultry and eggs	\$17
Cattle and calves	\$324
Milk and dairy	\$360
Hogs and pigs	\$13
Sheep, goats, and related products	\$18
Horses, ponies, mules, burros, and donkeys	\$67
Aquaculture	\$1,014
Other animals and animal products	\$82

Source: 2002 Census of Agriculture, County Profile, U.S. Dept. of Agriculture, PA Agriculture Statistics Service.

Table 7 shows the total breakdown, by acreage, of the top crop items for Monroe County. Slightly less than one-third of agricultural land in the county was used for the production of one of four items. Land use for the production of forage (e.g., hay) topped the list at 5,314 acres.

⁵ 2002 Census of Agriculture, U.S. Department of Agriculture.

Table 7. Top Crop Items (by acres) in Monroe County, PA

Item	Acres
Forage	5,314
Corn (for grain)	3,536
Soybeans	1,843
Oats	771
Nursery stock	684
Total	12,148

Source: 2002 Census of Agriculture, County Profile, USDA.

Cherry Valley Land Use

While specific economic data within the Cherry Valley area is not readily available, Monroe County does collect and maintain data concerning parcel characteristics. Among other characteristics, the parcel data set includes such descriptive characteristics as size, total assessment, ownership, and use. By carefully reviewing this data, one can make some general assumptions concerning the economy of the Cherry Valley area and its relative contribution to the overall larger economy of Monroe County.

Land use within the Study Area can be classified roughly into ten general categories, which are identified in Table 8. For the purposes of this analysis, these categories were further classified into one of two groups: open space parcels and developed space parcels. The exhibit shows that developed parcels, which include residential and industrial properties, collectively account for about one-third of the Study Area. Residential properties, alone, cover nearly 20 percent of the Study Area. Open space parcels, which include agriculture, parks, forest, vacant, and in this case, property owned by utilities, together account for nearly 70 percent of the Study Area.⁶

In total, the Study Area, including the Lower Cherry Valley addition, consists of 4,159 unique parcels. These parcels total over 34,000 acres. Many parcels extend beyond the borders of the proposed refuge, which explains the why the parcel acreage exceeds the acreage of the Study Area.

⁶ Land classified for use by utilities comprises 10 percent of the total. This area is largely reflective of the land holding by PA American Water, which owns over 3,000 acres of nearly contiguous property in the southwestern portion of the proposed refuge boundary. This land remains largely undeveloped.

Table 8. General Land Use Characteristics within the Cherry Valley National Wildlife Refuge Study Area, Monroe County, PA

Land Category	Land Use	Acres¹	Percent of Total
“Open Space” Parcels			
	Agriculture	5,634	16.2%
	Communication/Transportation/Utilities	3,444	9.9%
	Forest	4,879	14.0%
	Public/Private Parks	5,248	15.1%
	Vacant	4,563	13.1%
	subtotal	23,768	68.2%
“Developed” Parcels			
	Hotels/Camps	761	2.2%
	Industrial	2,423	6.9%
	Residential	7,012	20.1%
	Retail/Services	646	1.9%
	Other	259	0.7%
	subtotal	11,101	31.8%
Grand Total		34,869	100.0%

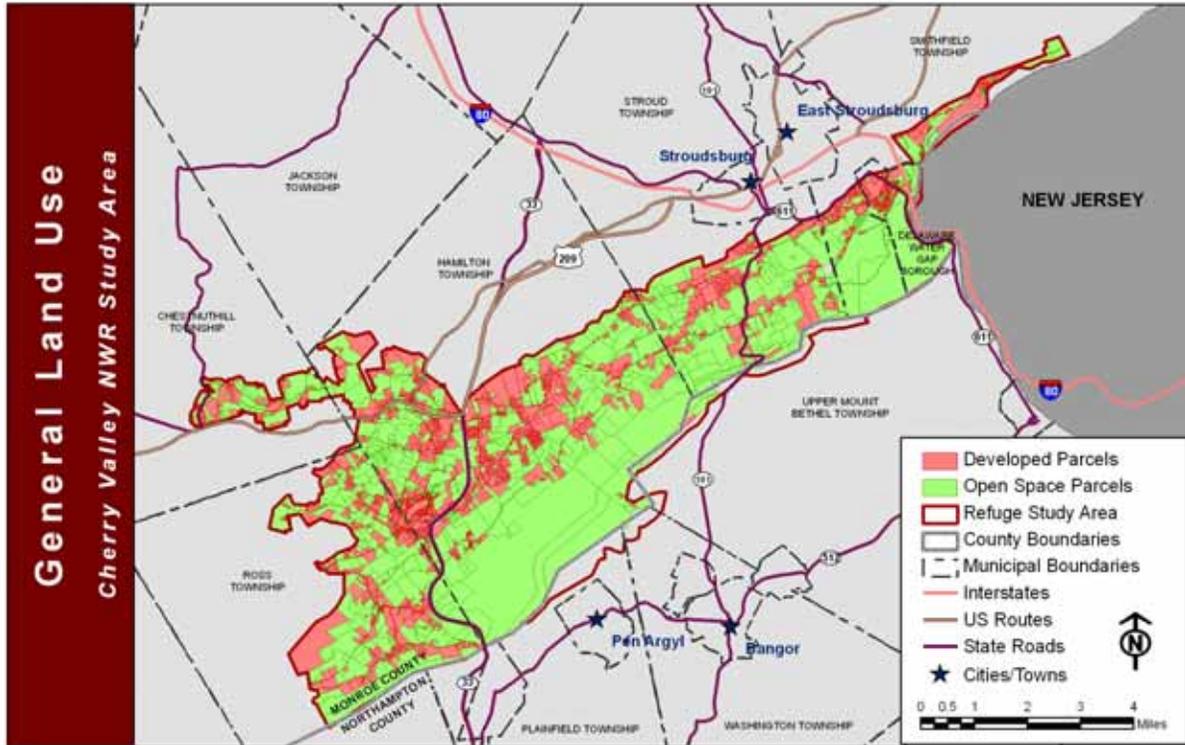
¹ Total acres exceed area of the Study Act boundary because several border parcels extend beyond the Study Act boundary.

Source: Monroe County parcel data, 2007. GIS analysis conducted by U.S. Fish and Wildlife Service, Division of Economics.

Figure 2 shows how land use is generally distributed across the Study Area. The exhibit shows that developed parcels (e.g., residential and industrial) are primarily located along Cherry Valley road and areas to the northeast of the road. Open space parcels generally lie on the southeast side of Cherry Valley road up to Kittatinny Ridge. Hamilton Township, alone, accounts for nearly 50 percent of the total proposed refuge acreage. According to Monroe County assessment records, the total assessed value of parcels within the Study Area was \$100.3 million in 2007. Sixty percent of the total is

associated with a single land use category – residences. A more detailed discussion of general land use characteristics, by land use category, follows.

Figure 2. Location of Developed and Open Space Parcels within the Cherry Valley National Wildlife Refuge Study Area, Monroe County, PA



Source: Monroe County Land Use data. Analysis conducted by Division of Economics, U.S. Fish and Wildlife Service, May 2008.

Developed Land

Industrial Parcels

Industrial parcels are clustered in three main locations within the Study Area. Two clusters lie right on the border of the boundary line. There are 32 industrial parcels, in total and collectively account for 2,423 acres, which amounts to seven percent of the parcel land cover. Total assessment value of these properties is over \$2.3 million.

The first noticeable cluster lies in Ross Township, at the southwest border of the proposed refuge. This cluster consists of three parcels, the largest of which is owned by the Lehigh Portland Cement Company. This parcel is operated as a quarry and is reported to be 1,538 acres in size. The parcel was assessed at nearly \$250 thousand.

The second cluster is located in Hamilton Township, along the northern border of the Study Area. This cluster largely consists of multiple, adjacent parcels owned by Eureka Stone Quarry. The company own 585 acres within the Study Area and their property is currently assessed at \$321 thousand.

The third cluster of industrial property is located just to the southeast of the Eureka parcels. This cluster is approximately 185 acres in size and assessed, in total, at \$177 thousand. Two parcels, totaling 72 acres, are owned by the Hamilton Stone Company, while the remaining parcels are owned by the Herbert Imbt/Fairmont Development Corporation, which is also operated as a quarry.

Table 9. Industrial Lands Within the Cherry Valley Refuge Study Area, Monroe County, Pennsylvania

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	0	0%	\$ 8,240
Delaware Water Gap	34	3%	\$ 853,980
Hamilton	771	5%	\$ 658,710
Ross	1,591	20%	\$ 500,440
Smithfield	27	1%	\$ 336,750
Stroud	0	0%	\$ -
Grand Total	2,423	7%	\$ 2,358,120

Residential Parcels

Residential parcels, in total, occupy over 7,000 acres of the Study Area. This amounts to 20 percent of the Study Area. Distribution of residential parcels is relatively uniform across the municipalities, with the exception of Delaware Water Gap Borough and Smithfield Township. Collectively, residential parcels are assessed at slightly over \$60 million, which computes to about 60 percent of the total assessment value of all the parcels within the Study Area.⁷ There are over 2,500 residential parcels. The median parcel size is slightly over one acre with a corresponding median assessment of \$23,500, which based on Pennsylvania's current market index, computes to a median current market value of \$183,470.⁸

Nearly 30 percent of Chestnuthill Township's acreage within the Study Area is classified as residential. Hamilton, Ross, and Stroud also have about 20 percent of their Study Area acres classified as residential parcels. There are 33 parcels greater than 25 acres. The largest residential parcel is 110 acres and is located in Hamilton Township. Table 10 shows the total amount of residential acres and total value of residential property by township, within the Study Area.

Table 10. Residential Lands Within the Cherry Valley Refuge Study Area, Monroe County, Pennsylvania

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	428	30%	\$ 3,134,470
Delaware Water Gap	89	9%	\$ 3,766,570
Hamilton	3,087	20%	\$ 28,634,750
Ross	1,770	22%	\$ 11,092,620
Smithfield	411	11%	\$ 5,190,540
Stroud	1,228	24%	\$ 8,272,910
Grand Total	7,012	20%	\$ 60,091,860

⁷ Monroe County latest reassessment occurred in 1988 and is the source of the database.

⁸ The State of Pennsylvania uses applies a multiplier of 7.81 to estimate the current market value of assessed property.

Retail/Services

Land parcels associated with retail or service establishments are primarily located near residential areas. Hamilton and Smithfield townships have the greatest amount of acreage in these sectors (290 and 196 acres, respectively). While the Hamilton Township parcels are numerous and contain no large parcels (the largest parcels are less than 50 acres and are associated with church groups), the majority of the acreage in Smithfield consist of a single parcel owned by the Manwalamink Water Company (174 acres). This company is affiliated with the Shawnee on Delaware Corporation. The parcel, while classified as developed, likely supports many refuge-related characteristics.

Table 11. Retail/Service Lands Within the Cherry Valley Refuge Study Area, Monroe County, Pennsylvania

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	65	5%	\$ 1,106,910
Delaware Water Gap	21	2%	\$ 817,910
Hamilton	290	2%	\$ 1,947,660
Ross	27	0%	\$ 403,300
Smithfield	196	5%	\$ 687,090
Stroud	47	1%	\$ 165,320
Grand Total	646	2%	\$ 5,128,190

Hotels/Camps

Hotel and camp parcels collectively comprise 761 acres within the Study Area and have a current assessment of over \$8.7 million. Smithfield Township contains 263 of the acres. Shawnee on Delaware Corporation owns the vast majority of this property. Other large hotel/camp property owners include 181 acres owned by Forte, Inc, at the border of the Study Area in Stroud Township and 85 acres owned by the Saylor's Lake Fishing Association in Hamilton Township. Although initially classified as developed property, much open space area permeates these parcels and may support desirable refuge characteristics.

Table 12. Hotel/Camp Lands Within the Cherry Valley Refuge Study Area, Monroe County, Pennsylvania

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	41	3%	\$ 218,630
Delaware Water Gap	65	6%	\$ 996,860
Hamilton	178	1%	\$ 1,418,660
Ross	17	0%	\$ 220,730
Smithfield	263	7%	\$ 5,175,560
Stroud	196	4%	\$ 722,090
Grand Total	761	2%	\$ 8,752,530

Other Classified Parcels

Approximately 259 acres classified as “otherwise” have development characteristics. Land use in this category may include scrap yards, educational and government services. In total, these parcels account for about two percent of the Study Area. The relatively large percent of parcels in Delaware Water Gap is comprised of property owned primarily by the Delaware River Joint Toll Bridge Commission.

Table 13. Other Classified Lands Within the Cherry Valley Refuge Study Area, Monroe County, PA

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	9	1%	\$ 151,410
Delaware Water Gap	31	3%	\$ 234,380
Hamilton	46	0%	\$ 798,710
Ross	21	0%	\$ 201,160
Smithfield	49	1%	\$ 1,250,430
Stroud	104	2%	\$ 184,230
Grand Total	259	1%	\$ 2,820,320

Open Space

Agriculture

Agricultural parcels occupy a total of 5,634 acres. Collectively, this represents about 16 percent of the total Study Area. These lands primarily lie along the valley floor, north of Cherry Valley Road and to the west of PA 33. There are nearly 140 agricultural parcels that range in size from over 200 acres to an acre. The average agricultural parcel size is about 40 acres. The total assessment of agricultural parcels in the Study Area is about \$6.1 million. Hamilton Township contains the greatest amount (2,907 acres) of agricultural acreage of all the municipalities within the Study Area. Over 20 percent of the parcel acreage in Chestnuthill is classified as agriculture. Hamilton, Ross, and Stroud townships also have high percentages of agricultural use. Table 14 details the breakdown of agricultural land by municipality, along with assessment value.

Table 14. Agricultural Lands Within Proposed Cherry Valley Refuge Study Area, Monroe County, Pennsylvania

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	325	23%	\$ 203,600
Delaware Water Gap	0	0%	\$ -
Hamilton	2,889	19%	\$ 3,458,770
Ross	1,445	18%	\$ 1,153,040
Smithfield	0	0%	\$ -
Stroud	976	19%	\$ 1,222,830
Grand Total	5,634	16%	\$ 6,038,240

Communications/Transportation/Utilities

Over 3,400 acres of the Study Area is classified as either communication, transportation, or utility land. Collectively, these parcels represent about ten percent of the Study Area. However, one company, the Pennsylvania American Water Company owns the majority of this land. Specifically, this company owns about 3,050 contiguous acres in Hamilton Township. This property remains largely undeveloped due to unfulfilled previous development plans. It is currently assessed by the county near \$1.2 million.

Table 15. Communication/Transportation/Utility Lands Within the Cherry Valley Refuge Study Area, Monroe County, Pennsylvania

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill		0%	\$ -
Delaware Water Gap	40	4%	\$ 181,520
Hamilton	3,121	20%	\$ 1,183,910
Ross	242	3%	\$ 118,630
Smithfield	34	1%	\$ 74,850
Stroud	7	0%	\$ 24,100
Grand Total	3,444	10%	\$ 1,583,010

Forestry

There are nearly 5,000 acres of land identified as forests parcels within the Study Area. The majority of the forests lie in Hamilton, Ross, and Stroud townships. Stroud Township has nearly 25 percent of its total Study Area acreage classified as forest. The ownership of these parcels is numerous. There are over 100 forest parcels, the majority of which are owned by individuals. Parcel sizes range from less than one acre to 150 acres. The average parcel size is 30 acres.

Table 16. Forestry Lands Within Proposed Cherry Valley Refuge Study Area, Monroe County, PA

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	235	16%	\$ 357,130
Delaware Water Gap		0%	\$ -
Hamilton	1,902	12%	\$ 2,435,690
Ross	1,302	16%	\$ 1,136,120
Smithfield	82	2%	\$ 111,250
Stroud	1,357	27%	\$ 1,259,460
Grand Total	4,879	14%	\$ 5,299,650

Parklands

There are over 5,000 acres in the Study Area classified as parkland by Monroe County. This constitutes about 15 percent of the total Study Area. The U.S. government owns nearly 4,000 acres of parkland parcels, most of which lie in Smithfield and Stroud townships. The Nature Conservancy is the second largest landowner of park parcels. They own about 400 acres within the Study Area. Other large landowners (i.e., greater than 100 acres) of parklands include the Commonwealth of Pennsylvania, the Pocono Heritage Land Trust, and Smithfield Township.

Table 17. Parklands Within Proposed Cherry Valley Refuge Study Area, Monroe County, Pennsylvania

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	145	10%	\$ 114,340
Delaware Water Gap	542	54%	\$ 312,630
Hamilton	1,970	13%	\$ 757,750
Ross	455	6%	\$ 198,810
Smithfield	1,551	40%	\$ 1,490,050
Stroud	584	11%	\$ 519,380
Grand Total	5,248	15%	\$ 3,392,960

Vacant Lands

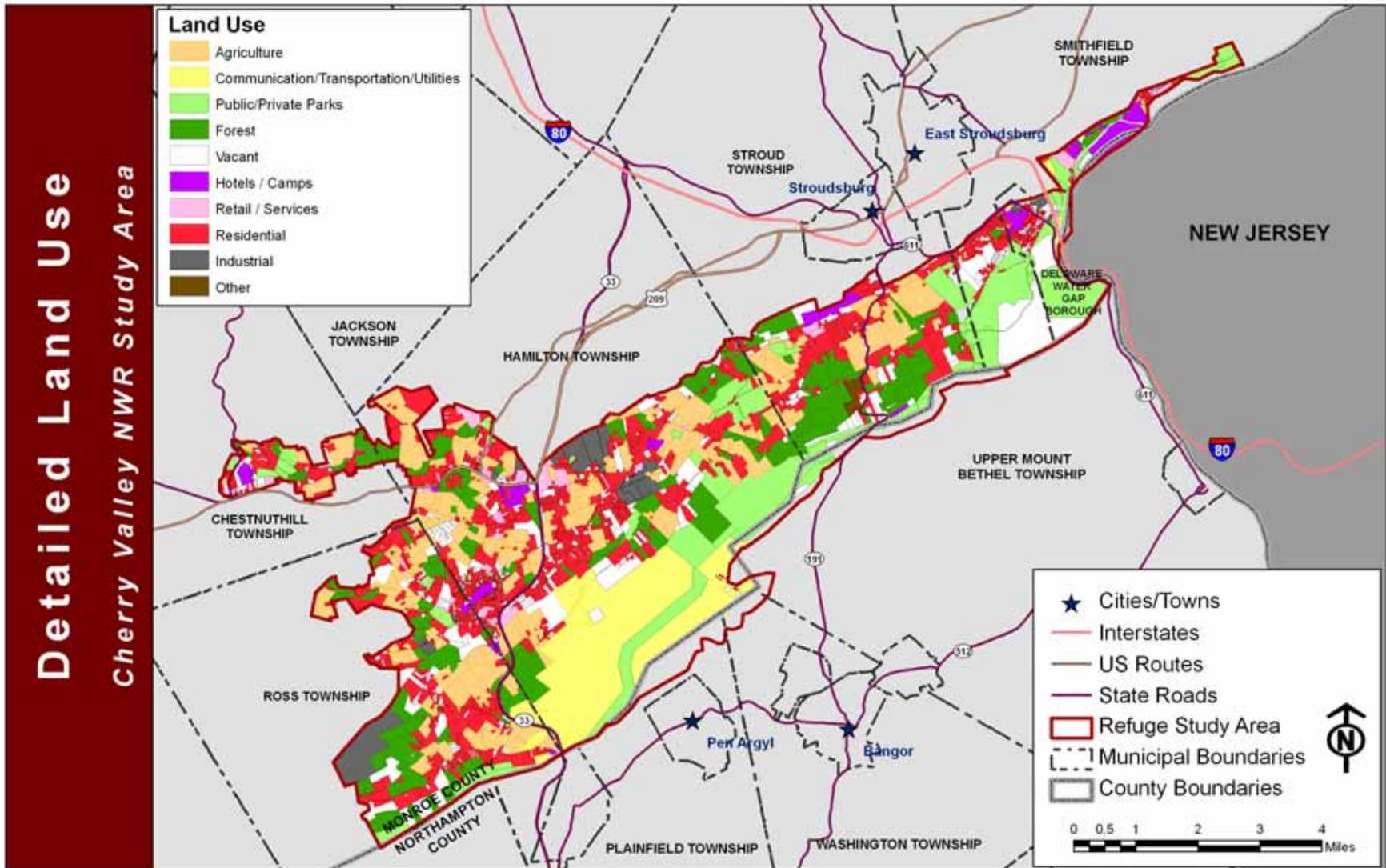
There are 789 parcels classified as vacant by Monroe County within the Study Area. In total, vacant parcels make up about 13 percent of the Study Area. Smithfield Township has the largest percentage of its Study Area acres classified as vacant. The largest parcels are located in Smithfield Township and Delaware Water Gap Borough and are owned by the Borough of Delaware Water Gap. These two adjacent parcels total 660 acres (512 acres and 148 acres, respectively) and are bounded by property owned by the U.S. National Park Service.

Table 18. Vacant Parcels Within Proposed Cherry Valley Refuge Study Area, Monroe County, Pennsylvania

Municipality	Acres	% of Municipal Refuge Area	2007 Total Assessment
Chestnuthill	177	12%	\$ 366,900
Delaware Water Gap	187	19%	\$ 413,240
Hamilton	1,266	8%	\$ 1,849,660
Ross	1,106	14%	\$ 609,340
Smithfield	1,234	32%	\$ 1,011,830
Stround	593	12%	\$ 550,630
Grand Total	4,563	13%	\$ 4,801,600

Figure 3, below, illustrates in greater detail the location of the parcels within the Study Area by specific land-use.

Figure 3. Land Use by Parcel within the Cherry Valley National Wildlife Refuge Study Area, Monroe County, PA



Tax Revenue Impacts

Monroe County and its municipalities derive the majority of their tax revenues through real estate taxes. Real estate taxes fund school districts, libraries, and county and municipal government services. Monroe County uses millage to compute real estate taxes. Each mill represents one dollar in taxes for every \$1,000 in value. Monroe County calculates current market value of property, for tax purposes, to be four times the current assessed value.⁹ The actual current market value of property in Monroe County, based on more recent real estate sales, is estimated at 7.81 times the current assessed value.¹⁰

Table 19 shows the total assessed value and calculated current market value (using the more accurate 7.81 multiplier) for all of the real estate parcels located within the Study Area. Current market value for all parcels is estimated to be \$783 million based on a total assessment of \$100.3 million. Total tax revenue on these properties is about \$63.4 million.

Table 19. Estimated Real Estate Tax Receipts For Parcels lying within the Cherry Valley National Wildlife Refuge Study Area, Monroe County, PA, 2008

Municipality	2007 Assessment	Estimated Market Value ¹	2008 millage ²	Estimated Tax Receipts ³
Chestnuthill	\$ 5,661,630	\$ 44,217,330	0.153	\$ 3,464,918
Delaware Water Gap	\$ 7,577,090	\$ 59,177,073	0.16835	\$ 5,102,412
Hamilton	\$ 43,144,270	\$ 336,956,749	0.15375	\$ 26,533,726
Ross	\$ 15,634,190	\$ 122,103,024	0.1505	\$ 9,411,782
Smithfield	\$ 15,328,350	\$ 119,714,414	0.16952	\$ 10,393,848
Stroud	\$ 12,920,950	\$ 100,912,620	0.16475	\$ 8,514,906
Grand Total	\$ 100,266,480	\$ 783,081,209		\$ 63,421,592

¹ Estimated current market value computed using State multiplier of 7.81 provided by Monroe County Planning Commission, June 2008.

² Millage rates provided by Monroe County Assessors Office, September 2008.

³ Estimated tax receipts computed as follows: (2007 Assessment) * 4 * millage.

The fiscal impact to Monroe County and its municipalities due to the establishment of a refuge will depend on both the quantity of land acquired and the rate at which it is

⁹ Current assessed values are based on Monroe County's last reassessment, conducted in 1988.

¹⁰ Email from George Basila, Monroe County Planning Commission to Edward Maillett, U.S. Fish and Wildlife Service, "Assessment units ?" on 9 June 2008.

acquired. While land owned by the U.S. Government is not taxable by state or local authorities, the federal government has a program in place to compensate local governments for foregone tax revenues. The Refuge System typically makes a revenue sharing payment, annually, to local governments. The payment made depends on the revenues that accrue to the Refuge System and the proportion of those revenues that are appropriated by Congress for revenue sharing purposes. In recent times, the payment has been less than what the government may have received through normal taxation. It should be noted that the property that is most highly assessed within the Study Area (e.g., residential, industrial, and retail) represent those parcels that have the least desirable characteristics, from a national wildlife refuge perspective.

Table 20 shows the total breakdown of the current real estate assessment by land use. Open space parcels account for 21 percent of the total Study Area parcel assessments, while developed parcels account for the remaining 79 percent. This contrasts to the total acreage of open and developed space parcels, which accounted for nearly 70 and 30 percent of the total Study Area, respectively. Consequently, given the likelihood of limited funding and the fact that open space parcels would most likely be targeted, establishing a refuge will likely have minimal fiscal impact on the county and municipalities in the near future.

Table 20. Estimated Tax Receipts by Land Use Classification within the Cherry Valley National Wildlife Refuge Study Area, Monroe County, Pennsylvania

Land Category	Land Use	2007 Assessment	Percent of Grand Total Assessment	Current Market Value¹	Estimated Tax Receipts²
Open Space Parcels	Agriculture	\$ 6,038,240	6.0%	\$ 47,158,654	\$ 3,864,474
	Communication/Transportation/Utilities	\$ 1,583,010	1.6%	\$ 12,363,308	\$ 1,013,126
	Forest	\$ 5,299,650	5.3%	\$ 41,390,267	\$ 3,391,776
	Public/Private Parks	\$ 3,392,960	3.4%	\$ 26,499,018	\$ 2,171,494
	Vacant	\$ 4,801,600	4.8%	\$ 37,500,496	\$ 3,073,024
	subtotal	\$ 21,115,460	21.1%	\$ 164,911,743	\$ 13,513,894
Developed Parcels	Hotels/Camps	\$ 8,752,530	8.7%	\$ 68,357,259	\$ 5,601,619
	Industrial	\$ 2,358,120	2.4%	\$ 18,416,917	\$ 1,509,197
	Residential	\$ 60,091,860	59.9%	\$ 469,317,427	\$ 38,458,790
	Retail/Services	\$ 5,128,190	5.1%	\$ 40,051,164	\$ 3,282,042
	Other	\$ 2,820,320	2.8%	\$ 22,026,699	\$ 1,805,005
	subtotal	\$ 79,151,020	78.9%	\$ 618,169,466	\$ 50,656,653
Grand total		\$100,266,480	100.0%	\$ 783,081,209	\$ 64,170,547

¹ Estimated current market value computed using State multiplier of 7.81.

³ Estimated tax receipts computed as follows: (2007 Assessment)* 4 * average millage rate of .160.

Refuge – Related Impacts

The establishment and operation of a refuge will contribute to the local economy in terms of construction and maintenance expenditures and employment. In addition, the refuge will draw visitors that will spend locally on food, services, and lodging. However, it is not currently feasible to provide a reliable estimate of these economic impacts due to many uncertainties regarding the establishment, size, and operation of the refuge. The following section provides some ancillary information regarding how the establishment of a refuge may impact the local economy.

Visitor-Related Impacts

Absent more detailed information regarding anticipated refuge budget for land acquisition and anticipated management, it is difficult to make any credible estimates regarding refuge visitation. It is anticipated that, should the refuge be established, visitors would be welcomed to enjoy traditional refuge-related activities such as hunting, fishing, and wildlife viewing. Hunting and fishing on U.S. Fish and Wildlife Refuge property would still require a State license.

Pennsylvania has always had a large segment of its population engaged in traditional outdoor activities. Many of these participants visit State Game Lands located in the northern part of Monroe County. The 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation revealed that 4.6 million Pennsylvania residents and nonresidents 16 years old and older fished, hunted, or watched wildlife in Pennsylvania.¹¹ Of the total number of participants, 1.3 million fished, 1 million hunted, and 3.8 million participated in wildlife-watching activities, including observing, feeding, and photographing wildlife.¹² In total, 1.8 million state residents and nonresidents fished or hunted in Pennsylvania. This group comprised 1.3 million anglers (71 percent of all participants) and one million hunters (56 percent of all participants). Among the 1.8 million people who fished or hunted in the state, 784 thousand (44 percent) fished but did not hunt in Pennsylvania. Another 517 thousand (29 percent) hunted but did not fish. The remaining 482 thousand (27 percent) fished and hunted in Pennsylvania in 2001.

In 2001, state residents and nonresidents spent \$3 billion on wildlife recreation in Pennsylvania. Of that total, trip-related expenditures were \$644 million and equipment

¹¹ 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation - Pennsylvania, US Fish and Wildlife Service, February 2003.

¹² The sum of anglers, hunters, and wildlife watchers exceeds the total number of participants in wildlife-related recreation because many individuals engaged in more than one wildlife activity.

purchases totaled \$1.9 billion. The remaining \$462 million was spent on licenses, contributions, land ownership and leasing, and other items and services.

The 2001 survey reported that the average expenditure in Pennsylvania, per participant, was \$582 for hunting, \$321 for fishing, and \$230 for wildlife watching. Table 21 shows the breakdown for each of these figures.

Table 21. Pennsylvania Outdoor Recreation Expenditures for 2001

	Avg. Expenditures per Participant	Percent of Total
Hunting	\$ 582	100%
Food and Lodging	\$ 104	18%
Transportation	\$ 73	13%
Other trip costs	\$ 13	2%
Equipment	\$ 392	67%
Fishing (freshwater, except Great Lakes)	\$ 321	100%
Food and Lodging	\$ 96	30%
Transportation	\$ 64	20%
Other trip costs	\$ 70	22%
Equipment	\$ 92	29%
Wildlife Watching	\$ 230	100%
Food and Lodging	\$ 80	35%
Transportation	\$ 47	20%
Other trip costs	\$ 8	3%
Equipment	\$ 95	41%

Source: 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation - Pennsylvania, US Fish and Wildlife Service, February 2003

Participation in Monroe County

Limited data exist to describe outdoor recreational activity in Monroe County. The Pennsylvania Game Commission does track hunting license sales in the county (Table 22). In 2006, over 7,000 resident adult hunting licenses were sold in the county. The Pennsylvania Fish and Boat Commission reports over 13,000 resident fishing licenses were sold in the county in 2006. These figures support the sense that Monroe County residents are active participants in traditional outdoor sports.

Table 22. Resident Hunting and Fishing License Sales for Monroe County, PA in 2006

Hunting	Sales	% of pop.
Adult	7,011	4.2%
Archery	2,356	1.4%
Fur	1,653	1.0%
Bear	2,001	1.2%
Antlerless	9,965	6.0%
Fishing	13,303	8.0%

Source: PA Game Commission, PA Fish and Boat Commission

Appendix E

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Land Protection Plan

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Introduction and Purpose

This Land Protection Plan (LPP) identifies the land protection boundary for the proposed Cherry Valley National Wildlife Refuge (refuge). Working with numerous partners, the Fish and Wildlife Service delineated 20,466 acres of biologically significant land in the Cherry Valley study area. We plan to protect land throughout this focus area through both fee acquisition and conservation easements. Of the total acreage, we recommend acquiring 10,233 acres (50%) in fee title and 10,233 (50%) acres in conservation easements. The purposes of this LPP are to:

- provide landowners and the public with an outline of U.S. Fish and Wildlife Service (Service, we, our) policies, priorities, and protection methods for land in the project area,
- assist landowners in determining whether their property lies within the expanded boundary, and
- inform landowners about our long-standing policy of acquiring land only from willing sellers. [We will not buy any lands or easements if the owners are not interested in selling.]

The LPP presents the methods the Service and interested landowners can use to accomplish their objectives for wildlife habitat within the refuge boundary. The maps (Attachment G.1) show the study area boundary, the evaluated and preferred alternatives, and the land parcels in the preferred alternative area. A corresponding table identifies each parcel, its tax map number, acreage, and our priority and recommended option for acquiring and protecting its habitat. Attachment G.2 relates our LPP for the refuge to the threshold standards under consideration by the Service Director for determining the strategic growth of the National Wildlife Refuge System (Refuge System).

Project Description

Service Preferred Alternative-Refuge Land Protection Boundary

The proposed Cherry Valley refuge lies approximately 60 miles northwest of New York City, and 60 miles north of Philadelphia, PA, in the southeastern section of Monroe County, PA. and in northeastern Northampton County, PA. The proposed refuge would protect a combination of wetland and upland habitat supporting migratory birds, federal- and state-listed threatened and endangered species, and regionally significant wildlife and plant communities in the Cherry Valley watershed. A rolling valley along the Kittatinny Ridge, Cherry Valley contains riparian (stream side) habitats, ponds, emergent marshes, fens, scrub-shrub wetlands, wooded swamps, mixed hardwood upland forests, grasslands and farmlands.

Migratory bird and threatened and endangered species habitat are among the primary reasons for creating the refuge and guiding its management.

- Cherry Valley lies within the Atlantic Flyway in northeastern Pennsylvania. Numerous migratory colonial water birds, songbirds, raptors, freshwater wetland birds, and waterfowl follow the Kittatinny Ridge as a travel corridor and take refuge, forage, and nest in the forest, scrub-shrub, grassland, and wetland habitats that are found there.
- Cherry Valley provides habitat for many protected plants and animals, including federally listed threatened and endangered species. Species of concern documented to be present in the valley include bog turtle¹, northeastern bulrush², small whorled pogonia¹, and American eel³. A historical record for Indiana bat², in conjunction with appropriate summer foraging and roosting habit, and the proximity of bat hibernacula, are strong indicators that the species may still be represented in the valley. Dwarf wedgemussel², striped bass³, and American shad³, are documented to be present nearby in the Delaware River. Although it is uncertain if dwarf wedgemussel occurs in Cherry Creek, and striped bass and American Shad likely do not, all three species are aided in the Delaware basin by clean, unpolluted water in the watershed. At a minimum, the Cherry Creek Watershed provides a valuable ecological service in this regard.

To this end, the preferred alternative (Alternative C, the “Diverse Habitat Complex” alternative) for the proposed Cherry Valley National Wildlife Refuge established an land protection boundary of approximately 20,466 acres. That acreage figure was developed out of numerous meetings with conservation partners and came from a habitat review based on aerial photography and GIS maps, a familiarity with on-the-ground habitat features on the part of the members of the Study team, and a review of a compilation of tax maps from the townships of Chestnuthill, Delaware Water Gap, Hamilton, Ross, Smithfield, and Stroud in Monroe County, Pennsylvania.

Refuge Purposes

The following draft purposes have been developed for the establishment of the refuge:

“for use as an inviolate sanctuary, or for any other management purpose, for migratory birds...” 16 U.S.C. §715d (Migratory Bird Conservation Act).and

“to conserve (A) fish or wildlife which are listed as endangered species or threatened species...or (B) plants...” 16 U.S.C. §1534 (Endangered Species Act of 1973), and

¹ Federally Threatened

² Federally Endangered

³ Interjurisdictional Fish

“the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ...” 16 U.S.C. §3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986), and

“for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude...” 16 U.S.C. §742f(b)(1) (Fish and Wildlife Act of 1956), and

“for the development, advancement, management, conservation, and protection of fish and wildlife resources....” 16 U.S.C. §742f(a)(4), (Secretarial powers to implement laws related to fish and wildlife).

Status of Resources to be Protected

Wildlife and Habitat Resources

The proposed refuge lies along the Kittatinny Ridge in the Ridge and Valley physiographic province. The area contains fertile soils and has a long history of agricultural activity. Its grassland and related habitat features includes natural grasslands, croplands, pastures, old farm fields, hedgerows, and early successional wood lots. Old farm ponds, limestone fens, wet meadows, and swamps are found throughout the landscape. Although grasslands and open habitats are common throughout much of the valley, large parcels of forest also are scattered throughout and flank the valley along north and south facing ridge and mountain slopes. The upland forest and forested wetland habitats includes stands of deciduous hardwood forest, scrubland and scrub-shrub wetland, vernal pool, and hardwood swamp.

Migratory colonial waterbirds, songbirds, raptors, freshwater wetland birds, and waterfowl funnel through the valley during spring and fall migrations and many forage and take refuge in its grassland, forest and wetland habitats. Forests, forested wetlands, and vernal pools also provide habitat important for a diverse group of reptiles and amphibians and other taxa. Due to the proximity of known hibernacula, the forests and associated swamps and marshes of the valley likely provide summer foraging and roosting habitat for the federal-listed endangered Indiana bat. Bog turtles are found in great numbers in the fens and wet meadows in the valley. Bog turtles live in spring-fed wetlands throughout the Cherry Valley and the existing riparian corridor along Cherry Creek and its tributaries provides good habitat connectivity for this species as well as other species of concern. Although some of the wetlands are in a sense protected due to conservation-focused easements and ownerships, many such wetlands remain unprotected and are therefore in peril. An additional challenge is that springs that provide water to these wetland systems have their genesis on the ridge and mountain slopes that flank the Cherry Valley to the north and south. Unfortunately, only a small amount of these forested slopes is protected. This is of great concern because development or other alterations here would jeopardize the hydrologic link that

supports the valley wetlands and the unique assemblage of species that inhabit them. This crucial connection makes the protection of associated water sources and forested slopes a critical component of land protection in the Cherry valley proposal.

Threats to the Resource

The loss, alteration, and fragmentation of habitat all pose the greatest threats to wildlife in the Cherry Valley. That loss of habitat results from development, which is occurring at a rapid rate in eastern Pennsylvania. As development continues to dominate the landscape in Monroe County to the north and Northampton County to the south, the relatively unfragmented habitat that remains in the Cherry Valley stands in stark contrast. Fragmentation alters the habitat by breaking up large, contiguous blocks into smaller patches that are unsuitable for area-sensitive species. New roads fragment habitats and create barriers to animal movements between habitats. Preserving the large, contiguous blocks of habitat that remain in the valley and maintaining their connectivity are crucial for the long-term viability of populations of area-sensitive wildlife. A discontinuity of emergent and forested wetlands, along with the loss of other suitable corridors, may lead eventually to genetic isolation and local extirpation of bog turtles. The contamination and alteration of waterways and wetlands, in combination with increased human encroachment into those riparian areas, affect all wetland-dependent species and species groups.

These threats, albeit present, are not yet particularly common in the Cherry Valley and there is still time to protect the area and its resources. Commuting from areas just north and south of Cherry Valley to New York City is now commonplace. Opportunities to protect large tracts of land and minimize habitat fragmentation steadily decline as suburban sprawl overtakes the rural, agricultural landscape. The proposed development of new housing is continuous, although surprisingly, many area developers have expressed their interest in the preservation of the valley. The fragmentation and alteration of grasslands due to development, as well as agricultural practices and the reversion of fields and scrub-shrub habitats to forest, threaten grassland birds with specialized habitat needs and birds that depend on scrub-shrub or open field habitat. Deleterious invasive plants and groundwater degradation may alter the fens and wet meadows inhabited by bog turtles. Development continues to fragment the large forest parcels inhabited by area-sensitive species of raptors and passerines.

White-tailed deer pose a significant threat to forest health and forest regeneration in Cherry Valley upland and wetland forests. Deer damage, coupled with human factors, has severely affected some of Pennsylvania's remaining public and private natural lands. High numbers of deer take refuge in residential areas or on public or private lands where hunting is not allowed or limited. Their over-browsing can eliminate native shrub layers and damage breeding habitat for many species, particularly shrub-nesting birds. In addition, over-browsing can create an environment conducive for invasive plants germinating and crowding out native species, thereby eliminating rare plant communities and forest regeneration of native species.

Continuing Partnership Effort

The threats to the resource described above make preserving land in eastern Pennsylvania both crucial and challenging. As real estate values increase due to the influx of people from the New York metropolitan area, the need to act quickly to preserve key parcels remaining in Monroe and Northampton Counties becomes more apparent. For that reason, we recognize the need to collaborate with other conservation organizations in the region. Therefore, we would work to combine our efforts with those of many partners, such as The Nature Conservancy, Friends of Cherry Valley, Ducks Unlimited, Trout Unlimited, Pennsylvania Audubon, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, National Park Service, Pennsylvania Department of Conservation and Natural Resources, Natural Resource Conservation Service, Monroe County, Stroud Township, Hamilton Township, Smithfield Township, Ross Township, Pocono Heritage Land Trust, Pocono Wildlife Rehabilitation Center, Brodhead Watershed Association, as well as numerous other partners yet to be identified. Many of our partners already own or have future plans to protect lands in the valley through conservation or agricultural easements. Still others have completed on-the-ground habitat restoration projects throughout Cherry Valley and along Cherry Creek. These partners use their individual mission statements to focus protection and restoration efforts. Taken together, those mission statements cover the protection of farmland, threatened and endangered species, scenic areas, grassland habitats, and open space that the local community has identified as significant.

Action and Objectives

Land Protection Area

The land protection area has a boundary of up to 20,466 acres within the 31,500 acre study area (Figure 3-4, Table 3-3). The area contains portions of 13 of the valley and ridge's defined ecosystems. The Service concludes that acquiring identified habitat areas through Alternative C over time will also provide for the protection of rare and unique habitats envisioned by the Study Act; however, Alternative C would also help many of the more common game and non-game species that continue to rely on the availability of ample and quality habitat. This habitat complex would provide ample opportunities for wildlife-dependent recreation, new and dynamic partnerships, and scientific research.

Land Cover/Land Use

Table E-1 summarizes the general types of land use in the land protection area. In general, the land is a mix of forested and non-forested wetlands, forested uplands, fallow fields, pasturelands, and some early successional habitats. Most of those lands could benefit from large-scale management.

Table E-2 summarizes the habitats present in the land protection area. In general, the land is a mix of forested and non-forested wetlands, forested uplands, fallow fields,

agricultural land, and some early successional habitats. Most of those lands could benefit from large-scale management.

Table E-1. Land use within the land protection area (i.e., lands identified under Alternative C) for the Cherry Valley National Wildlife Refuge Feasibility Study, Monroe County, Pennsylvania.

Use	Acreage
Agriculture	5,064.70
Communication/Transportation/Utilities	3,326.16
Cultural, Public/Private Parks & Recreation	857.65
Forest	4,351.85
Hotels	155.83
Industrial	628.91
Not Elsewhere Classified	19.07
Other	32.82
Residential	3,319.15
Resorts & Group Camps	95.75
Retail Trade	63.73
Services & F.I.R.E.	160.70
Vacant	2,389.20
Total	20,465.52

Table E-2. Habitat Types within the land protection area (i.e., lands identified under Alternative C) for the Cherry Valley National Wildlife Refuge Feasibility Study, Monroe County, Pennsylvania.

		<i>Acres</i>			
		<i>Potential Refuge Lands</i>			
<i>Ecological Systems</i>		No Current Protection	Current Protection*	Totals	Totals*
Upland Forest Habitats	Appalachian (Hemlock)-Northern Hardwood Forest	930.06	72.70	1,002.76	1,140.84
	Central Appalachian Dry Oak-Pine Forest	7,365.41	181.73	7,547.14	10,182.69
	Central Appalachian Dry Oak-Pine Rocky Woodland	17.88	0.00	17.88	73.55
	Northeastern Interior Dry-Mesic Oak Forest	4,093.26	260.88	4,354.14	5,369.94
	Central Appalachian Floodplain	4.29	0.00	4.29	98.3
Wetlands & Riparian Habitats	Central Appalachian Stream and Riparian	261.97	73.02	334.99	340.38
	Laurentian-Acadian Freshwater Marsh	2.25	0.17	2.42	2.42
	Laurentian-Acadian Wet Meadow-Shrub Swamp	332.90	163.16	496.06	506.29
	North-Central Appalachian Acidic Swamp	275.39	4.13	279.52	309.9
	North-Central Appalachian Seepage Fen	13.70	0.00	13.70	13.7
	North-Central Interior Wet Flatwoods	76.25	37.75	114.00	114
	North-Central Interior and Appalachian Acidic Peatland	3.80	0.00	3.80	12.35
	North-Central Interior and Appalachian Rich Swamp	163.28	24.10	187.38	187.38
	Total Ecological Systems	13,540.44	817.64	14,358.08	18,351.74
	Total Parcel Acres (31,585.8 total boundary acres)	18,630.85	1,834.70	20,465.55	24,943.5

*Current Protection consists of agricultural easements and private conservation.
 * Total consists of Potential Refuge Lands plus Municipal, State and Federal lands.

Maps and Ownership Table

Attachment E.1 provides maps and a table listing all land parcels. We provide this information to inform landowners of our interest in lands in that area.

The table provides the following information:

- Parcel ID: The parcel number from the 2006 Monroe County Planning Commission.

- Municipality: The municipality where the parcel is located.
- Deed Acres*: The acreage listed on the parcels deed.
- Map ID: The map in attachment G.1 that shows the parcel.

*The acreage we derived from our GIS database may differ from the acreage on the county tax map.

Land Protection Priorities

All of the lands we include in the preferred alternative area have significant resource values and high potential for ensuring habitat connectivity between the refuge and surrounding conservation lands. In general, the availability of land from willing sellers, and the availability of funding at that time will influence the actual order of land protection. However, as landowners offer us parcels, and as funds become available, we will base the priority for land protection on several factors. We have assigned those lands one of the following three priority categories.

Priority 1: Priority 1 parcels contain most of the lands and habitats that meet the threshold for federal protection. They are:

- parcels that contain a significant amount of functioning undisturbed or relatively undisturbed wetlands of significant importance that support federal trust species (federal-listed species, migratory birds);
- parcels that are of significant importance to the Cherry Valley watershed;
- parcels that border the Cherry Creek;
- parcels that contain known bog turtle habitat or prime bog turtle habitat or hydrologically connected upland areas;
- parcels that contain known bog turtle habitat in need of immediate restoration
- parcels that have a significant value for migratory birds, with prime nesting and foraging habitats for federal- or state-listed species.
- parcels that help to restore or maintain habitat connectivity

Priority 2: Priority 2 parcels are located throughout the preferred alternative area, but tend to cluster around priority 1 lands or along the smaller tributaries of the Cherry Creek, and contain:

- wetlands associated with or hydrologically connected to priority 1 wetlands;
- areas of high potential for habitat restoration or enhancement

- currently functioning but moderately disturbed wetlands;
- parcels of moderate value to a variety of migratory bird species or of significant value to a limited number of migratory bird species;
- parcels that contain potentially significant habitat for endangered species found in close proximity to the refuge (dwarf wedge mussel and Indiana bat).

Priority 3: Most priority 3 parcels are on uplands throughout the proposed refuge and contain

- undeveloped upland habitats associated with federal trust species;
- areas directly draining into or with significant ecological connections to a priority 1 wetland;
- undeveloped upland habitats associated with federal- and state-listed species habitats.

Our intention is to minimize the need to acquire residences and buildings on these lands, while protecting and restoring habitat, so parcels of this nature will be evaluated on a case-by-case basis. With the above criteria in mind, we configured our boundaries for fee and easement areas. The Service reserves the right to be flexible with the detailed priority list above, because a number of factors also influence the priority of land protection, including the availability of willing sellers and the availability of funding. In addition, the Service must be flexible in its methods and priorities of land protection to meet the needs of individual landowners.

Protection Options

We will use the following options to implement this Land Protection Plan.

Option 1: management or land protection by others

Option 2: less-than-fee acquisition by the Service

Option 3: fee acquisition by the Service

Service policy in acquiring land is to acquire only the minimum interest necessary to meet refuge goals and objectives, and acquire it only from willing sellers. Our proposal includes a combination of options 1, 2, and 3 above. We believe this approach offers a cost-effective way of providing the minimal level of protection needed to accomplish refuge objectives while also attempting to meet the needs of local landowners.

Option 1. Management or Land Protection by Others

A great deal of land in, adjacent to, and ecologically important to the Cherry Valley is already owned by our partners or managed by our partners through conservation easements. It should also be emphasized that the protection of the Cherry Valley fits well into a large landscape scale wildlife and habitat corridor that is being pieced together in the area. Cherry Valley would serve as an important keystone in this conservation effort. The following partners both manage and own property in or that are ecologically associated with the Cherry Valley:

- National Park Service : Delaware Water Gap National Recreation Area
- Pennsylvania : Middle Delaware National Scenic River
- New Jersey: Appalachian National Scenic Trail
- Hawk Mountain Sanctuary Pennsylvania Game Lands 168, 186
- The Nature Conservancy Worthington State Forest
- Pocono Heritage Land Trust
- Monroe County
- Stroud Township

A more thorough explanation of these lands and/or land protection efforts may be found in Attachment E.2. Threshold Standards and Other Considerations that follows this document.

Option 2. Less-than-fee Acquisition

Under option 2, we will protect and manage land by purchasing only a partial interest, typically in the form of a conservation easement. This option leaves the parcel in private ownership, while allowing us control over the land use in a way that enables us to meet our goals for the parcel or that provides adequate protection for important adjoining parcels and habitats. The structure of such easements will provide permanent protection of existing wildlife habitats while also allowing habitat management or improvements and access to sensitive habitats, such as for endangered species or migratory birds. It will also allow for public use where appropriate. We will determine, on a case-by-case basis, and negotiate with each landowner, the extent of the rights we will be interested in buying. Those may vary, depending on the configuration and location of the parcel, the current extent of development, the nature of wildlife activities in the immediate vicinity, the needs of the landowner, and other considerations.

In general, any less-than-fee acquisition will maintain the land in its current configuration with no further subdivision. Easements are a property right, and typically are perpetual. If a landowner later sells the property, the easement continues as part of

the title. Properties subject to easements generally remain on the tax rolls, although the change in market value may reduce the assessment. The Service does not pay refuge revenue sharing on easement rights. Where we identify conservation easements, we will be interested primarily in purchasing development and some wildlife management rights. Easements are best when

- only minimal management of the resource is needed, but there is a desire to ensure the continuation of current undeveloped uses and to prevent fragmentation over the long-term and in places where the management objective is to allow vegetative succession;
- a landowner is interested in maintaining ownership of the land, does not want it to be further developed, and would like to realize the benefits of selling development rights;
- current land use regulations limit the potential for adverse management practices;
- the protection strategy calls for the creation and maintenance of a watershed protection area that can be accommodated with passive management; or
- only a portion of the parcel contains lands of interest to the Service.

The determination of value for purchasing a conservation easement involves an appraisal of the rights to be purchased, based on recent market conditions and structure in the area. "Land protection Methods," below, further describes the conditions and structure of easements.

Option 3. Fee Acquisition

Under Option 3, we will acquire parcels in fee title from willing sellers, thereby purchasing all rights of ownership. This option provides us the most flexibility in managing priority lands, and ensuring the protection in perpetuity of nationally significant trust resources.

Generally, the lands we will buy require more than passive management (e.g., controlling invasive species, mowing or prescribed burning, planting, or managing for the six priority public uses). We only propose fee acquisition when adequate land protection was not assured under other ownerships, active land management was required, or we determined the current landowner would be unwilling to sell a partial interest like a conservation easement.

In some cases, it may become necessary in the future to convert a conservation easement to fee acquisition: for example, when an owner is interested in selling the remainder of interest in the land on which we have acquired an easement. We will evaluate that need on a case-by-case basis.

Land Protection Methods

We may use three methods of acquiring either a full or a partial interest in the parcels identified for Service land protection: (1) purchase (e.g., complete title, or a partial interest like a conservation easement), (2) donations, and (3) exchanges.

Purchase

For most of the tracts in the boundary, the proposed method is listed as *Fee* or *Easement*; however, the method we ultimately use depends partly on the landowner's wishes.

Fee purchase involves buying the parcel of land outright from a willing seller in fee title (all rights, complete ownership), as the availability of funding allows.

Easement purchase refers to the purchase of limited rights (less than fee) from an interested landowner. The landowner would retain ownership of the land, but would sell certain rights identified and agreed upon by both parties. The objectives and conditions of our proposed conservation easements would recognize lands for their importance to wildlife habitat or outdoor recreational activities, and any other qualities that recommend them for addition to the Refuge System.

Donation

We encourage donations in fee title or conservation easement in the approved areas. We are not aware currently of any formal opportunities to accept donations of parcels in our land protection boundary.

Exchange

We have the authority to exchange land in Service ownership for other land that has greater habitat or wildlife value. Inherent in this concept is the requirement to get dollar-for-dollar value with, occasionally, an equalization payment. Exchanges are attractive because they usually do not increase federal land holdings or require purchase funds; however, they also may be very labor-intensive and take a long time to complete.

Service Land Protection Policy

Once a refuge land protection boundary has been approved, we contact neighboring landowners to determine whether any are interested in selling. If a landowner expresses an interest and gives us permission, a real estate appraiser will appraise the property to determine its market value. Once an appraisal has been approved, we can present an offer for the landowner's consideration.

Our long-established policy is to work with willing sellers as funds become available. We will continue to operate under that policy. Appraisals conducted by Service or contract appraisers must meet federal as well as professional appraisal standards. Federal law requires us to purchase properties at their market value, which typically is based on comparable sales of similar types of properties.

We based the land protection boundary on the biological importance of key habitats. That gives the Service the approval to negotiate with landowners that may be interested or may become interested in selling their land in the future. With those internal approvals in place, the Service can react more quickly as important lands become available. Lands in that boundary do not become part of the refuge unless their owners sell or donate them to the Service.

A landowner may choose to sell land to the Service in fee simple and retain the right to occupy an existing residence. That is a “life use reservation.” It applies during the seller’s lifetime, but can also apply for a specific number of years. At the time we acquire the parcel, we would discount from the appraised value of the buildings and land the value of the term of the reservation. The occupant would be responsible for the upkeep on the reserved premises. We would own the land, and pay revenue sharing to the appropriate taxing authority.

In rare circumstances, at the request of a seller, we can use “friendly condemnation.” Although the Service has a long-standing policy of acquiring land only from willing sellers, it also has the power of eminent domain, as do other federal agencies. We use friendly condemnation when the Service and a seller cannot agree on property value, and both agree to allow a court to determine fair market value. When we cannot determine the rightful owner of a property, we also may use friendly condemnation to clear title. We do not expect to use friendly condemnation very often, if at all. We would not use condemnation otherwise, as it counters good working relations with the public.

Funding for Fee or Easement Purchase

Much of our funding to buy land comes from the Land and Water Conservation Fund (LWCF), which derives from certain user fees, the proceeds from the disposal of surplus federal property, the federal tax on motor boat fuels, and oil and gas lease revenues. About 90 percent of that fund now derives from Outer Continental Shelf oil and gas leases. The federal government receives 40 percent of that fund to acquire and develop nationally significant conservation lands. Another source of funding to purchase land is the Migratory Bird Conservation Fund (MBCF), which derives from Federal Duck Stamp revenue.

We plan to use both funds to buy either full or partial interests in lands in the project area. We will use LWCF funds to acquire land and easements that consist mainly of upland forest, which represents most of the expansion area. We may use MBCF funds for properties that include large tracts of forested, shrub or emergent wetlands and waters important for waterfowl. Another potential source for funding in that category is the North American Wetland Conservation Act.

Coordination

Throughout the planning process for the proposed Cherry Valley refuge, we solicited and carefully considered public comments on Service land protection. We worked with other federal partners, the state of Pennsylvania, county government, five municipalities, local land trusts, local and national conservation organizations who are directly involved in land protection strategies, and local higher education institutions. The proximity of the Delaware Water Gap National Recreation Area led to additional coordination and assistance from the National Park Service.

We will distribute the draft LPP to all affected landowners, our conservation partners, State of Pennsylvania, county offices and local agency and town offices for a set comment period. We also held public comment meetings during the development of the study and will hold addition public meeting following completion of the study.

Socioeconomic and Cultural Impacts

We do not predict any significant adverse socioeconomic or cultural impacts. We believe a net positive benefit will result for the local community. Towns will benefit from increased refuge revenue sharing payments and lower potential costs from these parcels, savings on the cost of community services, increased property values, increased watershed protection, maintenance of scenic values, and increased revenues for local businesses from refuge visitors who participate in bird watching, hunting and wildlife observation.

Voters in Monroe County have consistently supported additional land protection. During our public involvement for the study, local residents and town officials were enthusiastic about Service land protection. Many people encouraged us to develop a larger proposal. Land protection by the Service, while aimed at protecting trust resources, watersheds, and other natural resource values, would also maintain the rural character of the area. Local reaction to proposed development in the valley tends to be negative and this is an increasing trend.

The only concern we heard expressed about Service land protection was the likelihood of its reducing public access. Although it is true that we would eliminate non-wildlife-dependent activities, we will continue to promote the six priority wildlife-dependent uses of the Refuge System, including hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

Refuge lands will increase protection for cultural resources in the area. Service ownership will protect known cultural sites against vandalism, and protect unidentified or undeveloped cultural sites from disturbance or destruction. The relatively wide and fertile Cherry Valley is likely to hold many cultural sites of a nature similar to those found in the adjoining Delaware Valley. Our interpretation and environmental education programs will continue to promote public understanding and appreciation of the area's rich cultural resources.

Attachment E.1. Parcel Maps and Table

The following maps and table show the approved land protection boundary and land parcels in that area in which the Service may have an interest. We will acquire either full or partial interest in land parcels by fee purchase, as available from willing sellers over time and as the availability of funding allows. We also plan to develop cooperative management agreements with the county and several state agencies for public lands in the project area.

Table E.2. Proposed Cherry Valley NWR Land Protection Parcel List.

Parcel ID:	The parcel number from the 2006 Monroe County Planning Commission parcel dataset.
Municipality:	The municipality where the parcel is located.
Deed Acres:	The acreage listed on the parcel deed.
Acquisition Priority*:	This value is assigned to each parcel based on the prioritization approach identified above in this draft Land Protection Plan. The reader will note that specific priority scores for each parcel have not been assigned here. There are two important reasons for this: The first is that we have not yet completed a parcel specific habitat assessment and resource inventory for the entire list of parcels; the second is that an arbitrary assignment of values based on limited information may lead to misinterpretations on the part of property owners which could detract from the land protection direction of the entire project. A thorough evaluation of each parcel is currently being conducted and will be incorporated into this draft Land Protection Plan when completed. Once prioritization determinations are made, however, they can be revisited if additional information becomes available that would change the prioritization score.
Protection Method**:	Similar to the land acquisition priority, this determination is based on a number of factors including resource value of the parcel in question and parcel-specific negotiations

between the Service and the landowner. Although a general approach to this determination has been outlined previously in this document, the reader will note that the specific protection method for each parcel has not been assigned here. There are two important reasons for this approach: The first is that we have not yet completed a parcel specific habitat assessment and resource inventory for the entire list of parcels, and that there have been no specific discussion with landowners regarding their interest in participating in the project; the second is that an arbitrary assignment of a protection method based on limited information may lead to misinterpretations on the part of property owners which could detract from the land protection direction of the entire project. A thorough evaluation of each parcel is currently being conducted and will be incorporated into this draft Land Protection Plan when completed. Once the parcel specific protection method is identified, the determination can be revisited if additional information becomes available that would change the identified protection method

Map ID:

The map in attachment G.1 that shows the parcel. For example, a Map ID of A-1 signifies that the parcel can be located on Map A, and is labeled with the number "1" on that map sheet.

Table E.1-1. Proposed Cherry Valley NWR Land Protection Parcel List.

Parcel ID	Municipality	Deed Acres	Acquisition Priority*	Protection Method**	Ownership	Map ID
02625800163659	Chestnuthill	6.01	1, 2, or 3	Fee Title or Easement	Private	A-1
02625800270065	Chestnuthill	42.65	1, 2, or 3	Fee Title or Easement	Private	A-10
02625800275650	Chestnuthill	1.51	1, 2, or 3	Fee Title or Easement	Private	A-11
02625800282098	Chestnuthill	7.80	1, 2, or 3	Fee Title or Easement	Private	A-12
02625800375989	Chestnuthill	54.00	1, 2, or 3	Fee Title or Easement	Private	A-13
02625800381862	Chestnuthill	2.10	1, 2, or 3	Fee Title or Easement	Private	A-14
02625800384645	Chestnuthill	0.20	1, 2, or 3	Fee Title or Easement	Private	A-15
02625800385189	Chestnuthill	3.20	1, 2, or 3	Fee Title or Easement	Private	A-16
02625800390368	Chestnuthill	7.84	1, 2, or 3	Fee Title or Easement	Private	A-17
02625800391024	Chestnuthill	5.53	1, 2, or 3	Fee Title or Easement	Private	A-18
02625800454667	Chestnuthill	1.74	1, 2, or 3	Fee Title or Easement	Private	A-19
02625800172147	Chestnuthill	1.33	1, 2, or 3	Fee Title or Easement	Private	A-2
02625800461105	Chestnuthill	19.10	1, 2, or 3	Fee Title or Easement	Private	A-20
02625800465006	Chestnuthill	1.32	1, 2, or 3	Fee Title or Easement	Private	A-21
02625800467071	Chestnuthill	5.15	1, 2, or 3	Fee Title or Easement	Private	A-22
02625800467349	Chestnuthill	2.00	1, 2, or 3	Fee Title or Easement	Private	A-23
02625800492090	Chestnuthill	13.12	1, 2, or 3	Fee Title or Easement	Private	A-24
02625800497293	Chestnuthill	0.00	1, 2, or 3	Fee Title or Easement	Private	A-25
02625800574626	Chestnuthill	89.90	1, 2, or 3	Fee Title or Easement	Private	A-26
02625800589611	Chestnuthill	26.28	1, 2, or 3	Fee Title or Easement	Private	A-27
02625800591756	Chestnuthill	1.92	1, 2, or 3	Fee Title or Easement	Private	A-28
02625800666726	Chestnuthill	24.05	1, 2, or 3	Fee Title or Easement	Private	A-29
02625800173335	Chestnuthill	1.35	1, 2, or 3	Fee Title or Easement	Private	A-3

02625800688247	Chestnuthill	87.56	1, 2, or 3	Fee Title or Easement	Private	A-30
02625800748873	Chestnuthill	4.24	1, 2, or 3	Fee Title or Easement	Private	A-31
02625800767218	Chestnuthill	2.30	1, 2, or 3	Fee Title or Easement	Private	A-32
02625800770535	Chestnuthill	22.96	1, 2, or 3	Fee Title or Easement	Private	A-33
02625800772384	Chestnuthill	2.33	1, 2, or 3	Fee Title or Easement	Private	A-34
02625800775330	Chestnuthill	2.35	1, 2, or 3	Fee Title or Easement	Private	A-35
02625800786974	Chestnuthill	11.04	1, 2, or 3	Fee Title or Easement	Private	A-36
02625800853815	Chestnuthill	97.50	1, 2, or 3	Fee Title or Easement	Private	A-37
02625800857221	Chestnuthill	11.50	1, 2, or 3	Fee Title or Easement	Private	A-38
02625800860133	Chestnuthill	0.30	1, 2, or 3	Fee Title or Easement	Private	A-39
02625800174449	Chestnuthill	1.36	1, 2, or 3	Fee Title or Easement	Private	A-4
02625800862990	Chestnuthill	40.66	1, 2, or 3	Fee Title or Easement	Private	A-40
02625800877622	Chestnuthill	8.39	1, 2, or 3	Fee Title or Easement	Private	A-41
02625800889925	Chestnuthill	1.87	1, 2, or 3	Fee Title or Easement	Private	A-42
02625800889970	Chestnuthill	1.46	1, 2, or 3	Fee Title or Easement	Private	A-43
02625800969837	Chestnuthill	2.19	1, 2, or 3	Fee Title or Easement	Private	A-44
02625800977017	Chestnuthill	3.00	1, 2, or 3	Fee Title or Easement	Private	A-45
02625800981285	Chestnuthill	1.05	1, 2, or 3	Fee Title or Easement	Private	A-46
02625800981440	Chestnuthill	1.10	1, 2, or 3	Fee Title or Easement	Private	A-47
02625800981503	Chestnuthill	1.24	1, 2, or 3	Fee Title or Easement	Private	A-48
02625800990425	Chestnuthill	2.75	1, 2, or 3	Fee Title or Easement	Private	A-49
02625800175658	Chestnuthill	1.23	1, 2, or 3	Fee Title or Easement	Private	A-5
02625800991679	Chestnuthill	2.34	1, 2, or 3	Fee Title or Easement	Private	A-50
02625800993171	Chestnuthill	10.47	1, 2, or 3	Fee Title or Easement	Private	A-51
02625800993754	Chestnuthill	1.70	1, 2, or 3	Fee Title or Easement	Private	A-52

02625801156985	Chestnuthill	8.80	1, 2, or 3	Fee Title or Easement	Private	A-53
02625801255639	Chestnuthill	5.90	1, 2, or 3	Fee Title or Easement	Private	A-54
02625801257838	Chestnuthill	4.96	1, 2, or 3	Fee Title or Easement	Private	A-55
02625801350811	Chestnuthill	4.54	1, 2, or 3	Fee Title or Easement	Private	A-56
02625801352853	Chestnuthill	2.09	1, 2, or 3	Fee Title or Easement	Private	A-57
02625801356609	Chestnuthill	5.19	1, 2, or 3	Fee Title or Easement	Private	A-58
02625801364302	Chestnuthill	9.95	1, 2, or 3	Fee Title or Easement	Private	A-59
02625800176984	Chestnuthill	1.20	1, 2, or 3	Fee Title or Easement	Private	A-6
02625900203445	Chestnuthill	36.60	1, 2, or 3	Fee Title or Easement	Private	A-60
02626800062919	Chestnuthill	0.28	1, 2, or 3	Fee Title or Easement	Private	A-61
02626800068003	Chestnuthill	28.64	1, 2, or 3	Fee Title or Easement	Private	A-62
02626800071465	Chestnuthill	14.65	1, 2, or 3	Fee Title or Easement	Private	A-63
02626800074808	Chestnuthill	2.21	1, 2, or 3	Fee Title or Easement	Private	A-64
02626800076068	Chestnuthill	3.70	1, 2, or 3	Fee Title or Easement	Private	A-65
02626800077865	Chestnuthill	1.26	1, 2, or 3	Fee Title or Easement	Private	A-66
02626800079556	Chestnuthill	4.35	1, 2, or 3	Fee Title or Easement	Private	A-67
02626800083914	Chestnuthill	90.99	1, 2, or 3	Fee Title or Easement	Private	A-68
02626800170184	Chestnuthill	7.33	1, 2, or 3	Fee Title or Easement	Private	A-69
02625800177882	Chestnuthill	1.26	1, 2, or 3	Fee Title or Easement	Private	A-7
02626800174441	Chestnuthill	5.39	1, 2, or 3	Fee Title or Easement	Private	A-70
02626800181532	Chestnuthill	2.24	1, 2, or 3	Fee Title or Easement	Private	A-71
02626800182034	Chestnuthill	9.99	1, 2, or 3	Fee Title or Easement	Private	A-72
02626800186974	Chestnuthill	3.31	1, 2, or 3	Fee Title or Easement	Private	A-73
02626800188793	Chestnuthill	5.51	1, 2, or 3	Fee Title or Easement	Private	A-74
02626800287147	Chestnuthill	70.04	1, 2, or 3	Fee Title or Easement	Private	A-75

02626800290664	Chestnuthill	40.00	1, 2, or 3	Fee Title or Easement	Private	A-76
02626800520533	Chestnuthill	10.63	1, 2, or 3	Fee Title or Easement	Private	A-77
02626800632604	Chestnuthill	3.24	1, 2, or 3	Fee Title or Easement	Private	A-78
02626900008419	Chestnuthill	16.03	1, 2, or 3	Fee Title or Easement	Private	A-79
02625800196249	Chestnuthill	15.89	1, 2, or 3	Fee Title or Easement	Private	A-8
02626900106763	Chestnuthill	8.60	1, 2, or 3	Fee Title or Easement	Private	A-80
02626900108391	Chestnuthill	15.00	1, 2, or 3	Fee Title or Easement	Private	A-81
02625800268637	Chestnuthill	3.95	1, 2, or 3	Fee Title or Easement	Private	A-9
04722900397801	Delaware Water Gap	0.92	1, 2, or 3	Fee Title or Easement	Private	E-1
04732000099225	Delaware Water Gap	0.23	1, 2, or 3	Fee Title or Easement	Private	E-10
04732000099343	Delaware Water Gap	0.79	1, 2, or 3	Fee Title or Easement	Private	E-11
04732000150698	Delaware Water Gap	26.20	1, 2, or 3	Fee Title or Easement	Private	E-12
04732000183886	Delaware Water Gap	0.70	1, 2, or 3	Fee Title or Easement	Private	E-13
04732001082633	Delaware Water Gap	0.56	1, 2, or 3	Fee Title or Easement	Private	E-14
04732001084719	Delaware Water Gap	4.31	1, 2, or 3	Fee Title or Easement	Private	E-15
04732001094357	Delaware Water Gap	6.67	1, 2, or 3	Fee Title or Easement	Private	E-16
04731002986999	Delaware Water Gap	1.00	1, 2, or 3	Fee Title or Easement	Private	E-2
04731002994136	Delaware Water Gap	1.76	1, 2, or 3	Fee Title or Easement	Private	E-3
04731007697198	Delaware Water Gap	1.51	1, 2, or 3	Fee Title or Easement	Private	E-4
04731008788367	Delaware Water Gap	56.80	1, 2, or 3	Fee Title or Easement	Private	E-5
04731008888921	Delaware Water Gap	0.36	1, 2, or 3	Fee Title or Easement	Private	E-6
04731012852921	Delaware Water Gap	1.09	1, 2, or 3	Fee Title or Easement	Private	E-7
04731012855395	Delaware Water Gap	2.53	1, 2, or 3	Fee Title or Easement	Private	E-8
04731012856929	Delaware Water Gap	10.31	1, 2, or 3	Fee Title or Easement	Private	E-9
07626700993431	Hamilton	42.55	1, 2, or 3	Fee Title or Easement	Private	C1-1

07626800638721	Hamilton	2.05	1, 2, or 3	Fee Title or Easement	Private	C1-10
07627700893656	Hamilton	0.86	1, 2, or 3	Fee Title or Easement	Private	C1-100
07627700896632	Hamilton	3.91	1, 2, or 3	Fee Title or Easement	Private	C1-101
07627700898327	Hamilton	2.16	1, 2, or 3	Fee Title or Easement	Private	C1-102
07627705070988	Hamilton	13.50	1, 2, or 3	Fee Title or Easement	Private	C1-103
07627705281424	Hamilton	2.90	1, 2, or 3	Fee Title or Easement	Private	C1-104
07627706388458	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C1-105
07627706388940	Hamilton	1.41	1, 2, or 3	Fee Title or Easement	Private	C1-106
07627706483964	Hamilton	1.17	1, 2, or 3	Fee Title or Easement	Private	C1-107
07627706490078	Hamilton	1.24	1, 2, or 3	Fee Title or Easement	Private	C1-108
07627706494094	Hamilton	1.02	1, 2, or 3	Fee Title or Easement	Private	C1-109
07626800639773	Hamilton	2.26	1, 2, or 3	Fee Title or Easement	Private	C1-11
07627706495242	Hamilton	1.06	1, 2, or 3	Fee Title or Easement	Private	C1-110
07627800012815	Hamilton	24.91	1, 2, or 3	Fee Title or Easement	Private	C1-111
07627800032392	Hamilton	2.07	1, 2, or 3	Fee Title or Easement	Private	C1-112
07627800037577	Hamilton	52.00	1, 2, or 3	Fee Title or Easement	Private	C1-113
07627800056325	Hamilton	39.49	1, 2, or 3	Fee Title or Easement	Private	C1-114
07627800062231	Hamilton	8.66	1, 2, or 3	Fee Title or Easement	Private	C1-115
07627800068200	Hamilton	23.67	1, 2, or 3	Fee Title or Easement	Private	C1-116
07627800076044	Hamilton	16.78	1, 2, or 3	Fee Title or Easement	Private	C1-117
07627800080166	Hamilton	1.27	1, 2, or 3	Fee Title or Easement	Private	C1-118
07627800083746	Hamilton	41.98	1, 2, or 3	Fee Title or Easement	Private	C1-119
07626800658525	Hamilton	4.45	1, 2, or 3	Fee Title or Easement	Private	C1-12
07627800098750	Hamilton	18.30	1, 2, or 3	Fee Title or Easement	Private	C1-120
07627800101320	Hamilton	15.60	1, 2, or 3	Fee Title or Easement	Private	C1-121

07627800111074	Hamilton	25.95	1, 2, or 3	Fee Title or Easement	Private	C1-122
07627800116427	Hamilton	18.94	1, 2, or 3	Fee Title or Easement	Private	C1-123
07627800124192	Hamilton	10.10	1, 2, or 3	Fee Title or Easement	Private	C1-124
07627800126601	Hamilton	0.25	1, 2, or 3	Fee Title or Easement	Private	C1-125
07627800133175	Hamilton	1.24	1, 2, or 3	Fee Title or Easement	Private	C1-126
07627800141533	Hamilton	34.22	1, 2, or 3	Fee Title or Easement	Private	C1-127
07627800149784	Hamilton	13.88	1, 2, or 3	Fee Title or Easement	Private	C1-128
07627800169680	Hamilton	1.45	1, 2, or 3	Fee Title or Easement	Private	C1-129
07626800660383	Hamilton	9.60	1, 2, or 3	Fee Title or Easement	Private	C1-13
07627800196049	Hamilton	30.48	1, 2, or 3	Fee Title or Easement	Private	C1-130
07627800212906	Hamilton	15.40	1, 2, or 3	Fee Title or Easement	Private	C1-131
07627800216222	Hamilton	6.00	1, 2, or 3	Fee Title or Easement	Private	C1-132
07627800218851	Hamilton	9.72	1, 2, or 3	Fee Title or Easement	Private	C1-133
07627800225952	Hamilton	6.59	1, 2, or 3	Fee Title or Easement	Private	C1-134
07627800227335	Hamilton	3.08	1, 2, or 3	Fee Title or Easement	Private	C1-135
07627800230426	Hamilton	12.43	1, 2, or 3	Fee Title or Easement	Private	C1-136
07627800243498	Hamilton	3.27	1, 2, or 3	Fee Title or Easement	Private	C1-137
07627800245783	Hamilton	2.97	1, 2, or 3	Fee Title or Easement	Private	C1-138
07627800248364	Hamilton	3.86	1, 2, or 3	Fee Title or Easement	Private	C1-139
07626800665325	Hamilton	11.00	1, 2, or 3	Fee Title or Easement	Private	C1-14
07627800249990	Hamilton	6.05	1, 2, or 3	Fee Title or Easement	Private	C1-140
07627800250798	Hamilton	35.79	1, 2, or 3	Fee Title or Easement	Private	C1-141
07627800266907	Hamilton	12.41	1, 2, or 3	Fee Title or Easement	Private	C1-142
07627800278910	Hamilton	24.80	1, 2, or 3	Fee Title or Easement	Private	C1-143
07627800289738	Hamilton	9.03	1, 2, or 3	Fee Title or Easement	Private	C1-144

07627800300752	Hamilton	37.09	1, 2, or 3	Fee Title or Easement	Private	C1-145
07627800306865	Hamilton	10.00	1, 2, or 3	Fee Title or Easement	Private	C1-146
07627800316577	Hamilton	9.25	1, 2, or 3	Fee Title or Easement	Private	C1-147
07627800320815	Hamilton	6.13	1, 2, or 3	Fee Title or Easement	Private	C1-148
07627800321225	Hamilton	4.54	1, 2, or 3	Fee Title or Easement	Private	C1-149
07626800686112	Hamilton	91.17	1, 2, or 3	Fee Title or Easement	Private	C1-15
07627800341588	Hamilton	4.02	1, 2, or 3	Fee Title or Easement	Private	C1-150
07627800363711	Hamilton	10.26	1, 2, or 3	Fee Title or Easement	Private	C1-151
07627800370321	Hamilton	4.82	1, 2, or 3	Fee Title or Easement	Private	C1-152
07627800377334	Hamilton	10.28	1, 2, or 3	Fee Title or Easement	Private	C1-153
07627800378855	Hamilton	4.40	1, 2, or 3	Fee Title or Easement	Private	C1-154
07627800399165	Hamilton	44.66	1, 2, or 3	Fee Title or Easement	Private	C1-155
07627800404634	Hamilton	0.23	1, 2, or 3	Fee Title or Easement	Private	C1-156
07627800407184	Hamilton	85.13	1, 2, or 3	Fee Title or Easement	Private	C1-157
07627800462210	Hamilton	19.16	1, 2, or 3	Fee Title or Easement	Private	C1-158
07627800462839	Hamilton	12.10	1, 2, or 3	Fee Title or Easement	Private	C1-159
07626800717945	Hamilton	3.06	1, 2, or 3	Fee Title or Easement	Private	C1-16
07627800465520	Hamilton	0.50	1, 2, or 3	Fee Title or Easement	Private	C1-160
07627800469399	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C1-161
07627800469992	Hamilton	7.13	1, 2, or 3	Fee Title or Easement	Private	C1-162
07627800478031	Hamilton	1.10	1, 2, or 3	Fee Title or Easement	Private	C1-163
07627800484188	Hamilton	34.00	1, 2, or 3	Fee Title or Easement	Private	C1-164
07627800515549	Hamilton	36.80	1, 2, or 3	Fee Title or Easement	Private	C1-165
07627800536636	Hamilton	5.05	1, 2, or 3	Fee Title or Easement	Private	C1-166
07627800539005	Hamilton	19.06	1, 2, or 3	Fee Title or Easement	Private	C1-167

07627800542012	Hamilton	4.89	1, 2, or 3	Fee Title or Easement	Private	C1-168
07627800552104	Hamilton	63.34	1, 2, or 3	Fee Title or Easement	Private	C1-169
07626800722428	Hamilton	12.47	1, 2, or 3	Fee Title or Easement	Private	C1-17
07627800563246	Hamilton	3.33	1, 2, or 3	Fee Title or Easement	Private	C1-170
07627800566840	Hamilton	18.43	1, 2, or 3	Fee Title or Easement	Private	C1-171
07627800600200	Hamilton	7.14	1, 2, or 3	Fee Title or Easement	Private	C1-172
07627800601530	Hamilton	0.61	1, 2, or 3	Fee Title or Easement	Private	C1-173
07627800605930	Hamilton	19.47	1, 2, or 3	Fee Title or Easement	Private	C1-174
07627800624213	Hamilton	49.67	1, 2, or 3	Fee Title or Easement	Private	C1-175
07627800636724	Hamilton	38.09	1, 2, or 3	Fee Title or Easement	Private	C1-176
07627800643934	Hamilton	12.63	1, 2, or 3	Fee Title or Easement	Private	C1-177
07627800655742	Hamilton	4.89	1, 2, or 3	Fee Title or Easement	Private	C1-178
07627800657085	Hamilton	4.57	1, 2, or 3	Fee Title or Easement	Private	C1-179
07626800728509	Hamilton	10.43	1, 2, or 3	Fee Title or Easement	Private	C1-18
07627800706376	Hamilton	12.98	1, 2, or 3	Fee Title or Easement	Private	C1-180
07627800715281	Hamilton	2.85	1, 2, or 3	Fee Title or Easement	Private	C1-181
07627800729013	Hamilton	36.04	1, 2, or 3	Fee Title or Easement	Private	C1-182
07627800739381	Hamilton	12.71	1, 2, or 3	Fee Title or Easement	Private	C1-183
07627800758725	Hamilton	1.26	1, 2, or 3	Fee Title or Easement	Private	C1-184
07627800759298	Hamilton	12.48	1, 2, or 3	Fee Title or Easement	Private	C1-185
07627800765284	Hamilton	37.14	1, 2, or 3	Fee Title or Easement	Private	C1-186
07627800802254	Hamilton	5.90	1, 2, or 3	Fee Title or Easement	Private	C1-187
07627800802684	Hamilton	6.80	1, 2, or 3	Fee Title or Easement	Private	C1-188
07627800808373	Hamilton	4.40	1, 2, or 3	Fee Title or Easement	Private	C1-189
07626800731049	Hamilton	10.08	1, 2, or 3	Fee Title or Easement	Private	C1-19

07627800814278	Hamilton	1.17	1, 2, or 3	Fee Title or Easement	Private	C1-190
07627800814559	Hamilton	4.03	1, 2, or 3	Fee Title or Easement	Private	C1-191
07627800814931	Hamilton	2.60	1, 2, or 3	Fee Title or Easement	Private	C1-192
07627800815017	Hamilton	2.03	1, 2, or 3	Fee Title or Easement	Private	C1-193
07627800823766	Hamilton	5.87	1, 2, or 3	Fee Title or Easement	Private	C1-194
07627800856405	Hamilton	3.79	1, 2, or 3	Fee Title or Easement	Private	C1-195
07627800862839	Hamilton	16.06	1, 2, or 3	Fee Title or Easement	Private	C1-196
07627800878434	Hamilton	7.95	1, 2, or 3	Fee Title or Easement	Private	C1-197
07627800885550	Hamilton	33.98	1, 2, or 3	Fee Title or Easement	Private	C1-198
07627800930655	Hamilton	23.08	1, 2, or 3	Fee Title or Easement	Private	C1-199
07626708976960	Hamilton	20.62	1, 2, or 3	Fee Title or Easement	Private	C1-2
07626800732679	Hamilton	5.30	1, 2, or 3	Fee Title or Easement	Private	C1-20
07627800937839	Hamilton	12.03	1, 2, or 3	Fee Title or Easement	Private	C1-200
07627800960562	Hamilton	30.92	1, 2, or 3	Fee Title or Easement	Private	C1-201
07627800967241	Hamilton	3.62	1, 2, or 3	Fee Title or Easement	Private	C1-202
07627800971948	Hamilton	2.91	1, 2, or 3	Fee Title or Easement	Private	C1-203
07627800973813	Hamilton	1.67	1, 2, or 3	Fee Title or Easement	Private	C1-204
07627800975411	Hamilton	2.40	1, 2, or 3	Fee Title or Easement	Private	C1-205
07627800977145	Hamilton	7.00	1, 2, or 3	Fee Title or Easement	Private	C1-206
07627800979831	Hamilton	3.00	1, 2, or 3	Fee Title or Easement	Private	C1-207
07627800980274	Hamilton	5.92	1, 2, or 3	Fee Title or Easement	Private	C1-208
07627800984022	Hamilton	0.33	1, 2, or 3	Fee Title or Easement	Private	C1-209
07626800739381	Hamilton	7.87	1, 2, or 3	Fee Title or Easement	Private	C1-21
07627800988193	Hamilton	5.80	1, 2, or 3	Fee Title or Easement	Private	C1-210
07627801172968	Hamilton	2.40	1, 2, or 3	Fee Title or Easement	Private	C1-211

07627801174846	Hamilton	1.21	1, 2, or 3	Fee Title or Easement	Private	C1-212
07627801175872	Hamilton	1.29	1, 2, or 3	Fee Title or Easement	Private	C1-213
07627801176775	Hamilton	1.09	1, 2, or 3	Fee Title or Easement	Private	C1-214
07627801177732	Hamilton	0.60	1, 2, or 3	Fee Title or Easement	Private	C1-215
07627801179764	Hamilton	1.48	1, 2, or 3	Fee Title or Easement	Private	C1-216
07627801180403	Hamilton	4.86	1, 2, or 3	Fee Title or Easement	Private	C1-217
07627801185189	Hamilton	1.07	1, 2, or 3	Fee Title or Easement	Private	C1-218
07627801186165	Hamilton	0.50	1, 2, or 3	Fee Title or Easement	Private	C1-219
07626800743603	Hamilton	75.00	1, 2, or 3	Fee Title or Easement	Private	C1-22
07627801187175	Hamilton	1.25	1, 2, or 3	Fee Title or Easement	Private	C1-220
07627801189029	Hamilton	1.45	1, 2, or 3	Fee Title or Easement	Private	C1-221
07627801352820	Hamilton	11.48	1, 2, or 3	Fee Title or Easement	Private	C1-222
07627804808770	Hamilton	5.06	1, 2, or 3	Fee Title or Easement	Private	C1-223
07627900001925	Hamilton	17.00	1, 2, or 3	Fee Title or Easement	Private	C1-224
07627900006416	Hamilton	22.80	1, 2, or 3	Fee Title or Easement	Private	C1-225
07627900105314	Hamilton	16.90	1, 2, or 3	Fee Title or Easement	Private	C1-226
07627900115873	Hamilton	60.28	1, 2, or 3	Fee Title or Easement	Private	C1-227
07627900200435	Hamilton	5.90	1, 2, or 3	Fee Title or Easement	Private	C1-228
07627900205407	Hamilton	5.60	1, 2, or 3	Fee Title or Easement	Private	C1-229
07626800755971	Hamilton	2.55	1, 2, or 3	Fee Title or Easement	Private	C1-23
07627900311364	Hamilton	4.31	1, 2, or 3	Fee Title or Easement	Private	C1-230
07627903302142	Hamilton	0.56	1, 2, or 3	Fee Title or Easement	Private	C1-231
07628700083688	Hamilton	36.20	1, 2, or 3	Fee Title or Easement	Private	C1-232
07628700193345	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C1-233
07628700291597	Hamilton	17.00	1, 2, or 3	Fee Title or Easement	Private	C1-234

07628800012915	Hamilton	3.99	1, 2, or 3	Fee Title or Easement	Private	C1-235
07628800016853	Hamilton	2.17	1, 2, or 3	Fee Title or Easement	Private	C1-236
07628800021961	Hamilton	76.72	1, 2, or 3	Fee Title or Easement	Private	C1-237
07628800027161	Hamilton	13.54	1, 2, or 3	Fee Title or Easement	Private	C1-238
07628800051335	Hamilton	38.35	1, 2, or 3	Fee Title or Easement	Private	C1-239
07626800767710	Hamilton	38.87	1, 2, or 3	Fee Title or Easement	Private	C1-24
07628800067668	Hamilton	3.74	1, 2, or 3	Fee Title or Easement	Private	C1-240
07628800083627	Hamilton	109.00	1, 2, or 3	Fee Title or Easement	Private	C1-241
07628800110853	Hamilton	2.65	1, 2, or 3	Fee Title or Easement	Private	C1-242
07628800123291	Hamilton	2.09	1, 2, or 3	Fee Title or Easement	Private	C1-243
07628800124589	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C1-244
07628800129984	Hamilton	16.68	1, 2, or 3	Fee Title or Easement	Private	C1-245
07628800134319	Hamilton	11.82	1, 2, or 3	Fee Title or Easement	Private	C1-246
07628800149782	Hamilton	18.00	1, 2, or 3	Fee Title or Easement	Private	C1-247
07628800154571	Hamilton	73.40	1, 2, or 3	Fee Title or Easement	Private	C1-248
07628800171011	Hamilton	6.02	1, 2, or 3	Fee Title or Easement	Private	C1-249
07626800771139	Hamilton	26.48	1, 2, or 3	Fee Title or Easement	Private	C1-25
07628800172297	Hamilton	2.00	1, 2, or 3	Fee Title or Easement	Private	C1-250
07628800196394	Hamilton	87.80	1, 2, or 3	Fee Title or Easement	Private	C1-251
07628800203144	Hamilton	16.80	1, 2, or 3	Fee Title or Easement	Private	C1-252
07628800211265	Hamilton	50.00	1, 2, or 3	Fee Title or Easement	Private	C1-253
07628800297406	Hamilton	47.95	1, 2, or 3	Fee Title or Easement	Private	C1-254
07628803000948	Hamilton	1.68	1, 2, or 3	Fee Title or Easement	Private	C1-255
07628803002816	Hamilton	1.31	1, 2, or 3	Fee Title or Easement	Private	C1-256
07628900008279	Hamilton	4.25	1, 2, or 3	Fee Title or Easement	Private	C1-257

07626800802857	Hamilton	2.21	1, 2, or 3	Fee Title or Easement	Private	C1-26
07626800810624	Hamilton	2.70	1, 2, or 3	Fee Title or Easement	Private	C1-27
07626800812921	Hamilton	2.17	1, 2, or 3	Fee Title or Easement	Private	C1-28
07626800814785	Hamilton	8.33	1, 2, or 3	Fee Title or Easement	Private	C1-29
07626800299697	Hamilton	5.51	1, 2, or 3	Fee Title or Easement	Private	C1-3
07626800817491	Hamilton	5.01	1, 2, or 3	Fee Title or Easement	Private	C1-30
07626800818608	Hamilton	3.02	1, 2, or 3	Fee Title or Easement	Private	C1-31
07626800819027	Hamilton	7.60	1, 2, or 3	Fee Title or Easement	Private	C1-32
07626800819923	Hamilton	2.35	1, 2, or 3	Fee Title or Easement	Private	C1-33
07626800820185	Hamilton	2.43	1, 2, or 3	Fee Title or Easement	Private	C1-34
07626800822896	Hamilton	10.34	1, 2, or 3	Fee Title or Easement	Private	C1-35
07626800824217	Hamilton	2.38	1, 2, or 3	Fee Title or Easement	Private	C1-36
07626800827574	Hamilton	2.37	1, 2, or 3	Fee Title or Easement	Private	C1-37
07626800829483	Hamilton	2.69	1, 2, or 3	Fee Title or Easement	Private	C1-38
07626800852644	Hamilton	6.55	1, 2, or 3	Fee Title or Easement	Private	C1-39
07626800479318	Hamilton	34.08	1, 2, or 3	Fee Title or Easement	Private	C1-4
07626800863448	Hamilton	5.85	1, 2, or 3	Fee Title or Easement	Private	C1-40
07626800865577	Hamilton	4.24	1, 2, or 3	Fee Title or Easement	Private	C1-41
07626800875805	Hamilton	16.00	1, 2, or 3	Fee Title or Easement	Private	C1-42
07626800876377	Hamilton	2.84	1, 2, or 3	Fee Title or Easement	Private	C1-43
07626800879360	Hamilton	5.00	1, 2, or 3	Fee Title or Easement	Private	C1-44
07626800898296	Hamilton	60.00	1, 2, or 3	Fee Title or Easement	Private	C1-45
07626800908550	Hamilton	34.95	1, 2, or 3	Fee Title or Easement	Private	C1-46
07626800913152	Hamilton	4.24	1, 2, or 3	Fee Title or Easement	Private	C1-47
07626800913655	Hamilton	2.18	1, 2, or 3	Fee Title or Easement	Private	C1-48

07626800915375	Hamilton	3.09	1, 2, or 3	Fee Title or Easement	Private	C1-49
07626800483859	Hamilton	42.98	1, 2, or 3	Fee Title or Easement	Private	C1-5
07626800921295	Hamilton	2.25	1, 2, or 3	Fee Title or Easement	Private	C1-50
07626800922658	Hamilton	2.70	1, 2, or 3	Fee Title or Easement	Private	C1-51
07626800923083	Hamilton	2.85	1, 2, or 3	Fee Title or Easement	Private	C1-52
07626800924438	Hamilton	2.15	1, 2, or 3	Fee Title or Easement	Private	C1-53
07626800927312	Hamilton	2.87	1, 2, or 3	Fee Title or Easement	Private	C1-54
07626800928689	Hamilton	4.92	1, 2, or 3	Fee Title or Easement	Private	C1-55
07626800936410	Hamilton	2.76	1, 2, or 3	Fee Title or Easement	Private	C1-56
07626800937878	Hamilton	6.92	1, 2, or 3	Fee Title or Easement	Private	C1-57
07626800938355	Hamilton	2.58	1, 2, or 3	Fee Title or Easement	Private	C1-58
07626800944251	Hamilton	75.74	1, 2, or 3	Fee Title or Easement	Private	C1-59
07626800599637	Hamilton	71.83	1, 2, or 3	Fee Title or Easement	Private	C1-6
07626800964044	Hamilton	6.00	1, 2, or 3	Fee Title or Easement	Private	C1-60
07626800966084	Hamilton	3.00	1, 2, or 3	Fee Title or Easement	Private	C1-61
07626800968034	Hamilton	3.00	1, 2, or 3	Fee Title or Easement	Private	C1-62
07626800974916	Hamilton	8.27	1, 2, or 3	Fee Title or Easement	Private	C1-63
07626800986374	Hamilton	8.44	1, 2, or 3	Fee Title or Easement	Private	C1-64
07626900207697	Hamilton	19.51	1, 2, or 3	Fee Title or Easement	Private	C1-65
07626900302243	Hamilton	12.69	1, 2, or 3	Fee Title or Easement	Private	C1-66
07626900305496	Hamilton	1.34	1, 2, or 3	Fee Title or Easement	Private	C1-67
07626900306780	Hamilton	3.10	1, 2, or 3	Fee Title or Easement	Private	C1-68
07626900309726	Hamilton	1.97	1, 2, or 3	Fee Title or Easement	Private	C1-69
07626800633790	Hamilton	1.57	1, 2, or 3	Fee Title or Easement	Private	C1-7
07626900317454	Hamilton	17.69	1, 2, or 3	Fee Title or Easement	Private	C1-70

07626900416276	Hamilton	49.87	1, 2, or 3	Fee Title or Easement	Private	C1-71
07626900427948	Hamilton	132.99	1, 2, or 3	Fee Title or Easement	Private	C1-72
07626900513078	Hamilton	2.10	1, 2, or 3	Fee Title or Easement	Private	C1-73
07626900730178	Hamilton	110.55	1, 2, or 3	Fee Title or Easement	Private	C1-74
07626900800295	Hamilton	20.28	1, 2, or 3	Fee Title or Easement	Private	C1-75
07626900907344	Hamilton	11.20	1, 2, or 3	Fee Title or Easement	Private	C1-76
07626900919618	Hamilton	34.84	1, 2, or 3	Fee Title or Easement	Private	C1-77
07626904640397	Hamilton	19.39	1, 2, or 3	Fee Title or Easement	Private	C1-78
07627700085878	Hamilton	20.00	1, 2, or 3	Fee Title or Easement	Private	C1-79
07626800635721	Hamilton	1.57	1, 2, or 3	Fee Title or Easement	Private	C1-8
07627700089400	Hamilton	1.74	1, 2, or 3	Fee Title or Easement	Private	C1-80
07627700097598	Hamilton	17.39	1, 2, or 3	Fee Title or Easement	Private	C1-81
07627700187661	Hamilton	5.63	1, 2, or 3	Fee Title or Easement	Private	C1-82
07627700192761	Hamilton	1.06	1, 2, or 3	Fee Title or Easement	Private	C1-83
07627700197156	Hamilton	14.97	1, 2, or 3	Fee Title or Easement	Private	C1-84
07627700283861	Hamilton	1.48	1, 2, or 3	Fee Title or Easement	Private	C1-85
07627700295764	Hamilton	14.75	1, 2, or 3	Fee Title or Easement	Private	C1-86
07627700383604	Hamilton	4.41	1, 2, or 3	Fee Title or Easement	Private	C1-87
07627700385955	Hamilton	6.29	1, 2, or 3	Fee Title or Easement	Private	C1-88
07627700390367	Hamilton	10.85	1, 2, or 3	Fee Title or Easement	Private	C1-89
07626800636761	Hamilton	1.84	1, 2, or 3	Fee Title or Easement	Private	C1-9
07627700487727	Hamilton	20.24	1, 2, or 3	Fee Title or Easement	Private	C1-90
07627700593372	Hamilton	9.51	1, 2, or 3	Fee Title or Easement	Private	C1-91
07627700682841	Hamilton	18.60	1, 2, or 3	Fee Title or Easement	Private	C1-92
07627700698681	Hamilton	46.00	1, 2, or 3	Fee Title or Easement	Private	C1-93

07627700787286	Hamilton	1.62	1, 2, or 3	Fee Title or Easement	Private	C1-94
07627700796359	Hamilton	12.25	1, 2, or 3	Fee Title or Easement	Private	C1-95
07627700881451	Hamilton	2.66	1, 2, or 3	Fee Title or Easement	Private	C1-96
07627700883697	Hamilton	2.56	1, 2, or 3	Fee Title or Easement	Private	C1-97
07627700891509	Hamilton	2.07	1, 2, or 3	Fee Title or Easement	Private	C1-98
07627700893379	Hamilton	1.57	1, 2, or 3	Fee Title or Easement	Private	C1-99
07628800244492	Hamilton	1.08	1, 2, or 3	Fee Title or Easement	Private	C2-1
07628800378993	Hamilton	27.50	1, 2, or 3	Fee Title or Easement	Private	C2-10
07629800582804	Hamilton	5.00	1, 2, or 3	Fee Title or Easement	Private	C2-100
07629800587285	Hamilton	12.00	1, 2, or 3	Fee Title or Easement	Private	C2-101
07629800595146	Hamilton	7.19	1, 2, or 3	Fee Title or Easement	Private	C2-102
07629800683506	Hamilton	4.14	1, 2, or 3	Fee Title or Easement	Private	C2-103
07629800790725	Hamilton	54.09	1, 2, or 3	Fee Title or Easement	Private	C2-104
07629800880840	Hamilton	123.00	1, 2, or 3	Fee Title or Easement	Private	C2-105
07629800892618	Hamilton	4.59	1, 2, or 3	Fee Title or Easement	Private	C2-106
07629800951205	Hamilton	0.00	1, 2, or 3	Fee Title or Easement	Private	C2-107
07629900007356	Hamilton	0.19	1, 2, or 3	Fee Title or Easement	Private	C2-108
07629900007657	Hamilton	7.48	1, 2, or 3	Fee Title or Easement	Private	C2-109
07628800385923	Hamilton	1.63	1, 2, or 3	Fee Title or Easement	Private	C2-11
07629900033552	Hamilton	0.08	1, 2, or 3	Fee Title or Easement	Private	C2-110
07629900033665	Hamilton	0.85	1, 2, or 3	Fee Title or Easement	Private	C2-111
07629900041312	Hamilton	63.40	1, 2, or 3	Fee Title or Easement	Private	C2-112
07629900047428	Hamilton	13.21	1, 2, or 3	Fee Title or Easement	Private	C2-113
07629900102584	Hamilton	10.40	1, 2, or 3	Fee Title or Easement	Private	C2-114
07629900109072	Hamilton	10.05	1, 2, or 3	Fee Title or Easement	Private	C2-115

07629900142100	Hamilton	0.61	1, 2, or 3	Fee Title or Easement	Private	C2-116
07629900148713	Hamilton	4.00	1, 2, or 3	Fee Title or Easement	Private	C2-117
07629900155079	Hamilton	106.90	1, 2, or 3	Fee Title or Easement	Private	C2-118
07629900159175	Hamilton	2.95	1, 2, or 3	Fee Title or Easement	Private	C2-119
07628800393205	Hamilton	10.80	1, 2, or 3	Fee Title or Easement	Private	C2-12
07629900164083	Hamilton	3.90	1, 2, or 3	Fee Title or Easement	Private	C2-120
07629900216165	Hamilton	55.80	1, 2, or 3	Fee Title or Easement	Private	C2-121
07629900240584	Hamilton	3.74	1, 2, or 3	Fee Title or Easement	Private	C2-122
07629900241894	Hamilton	1.35	1, 2, or 3	Fee Title or Easement	Private	C2-123
07629900253951	Hamilton	1.10	1, 2, or 3	Fee Title or Easement	Private	C2-124
07629900263579	Hamilton	10.60	1, 2, or 3	Fee Title or Easement	Private	C2-125
07629900274328	Hamilton	5.62	1, 2, or 3	Fee Title or Easement	Private	C2-126
07629900278620	Hamilton	10.40	1, 2, or 3	Fee Title or Easement	Private	C2-127
07629900279148	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C2-128
07629900300862	Hamilton	1.69	1, 2, or 3	Fee Title or Easement	Private	C2-129
07628800396810	Hamilton	18.85	1, 2, or 3	Fee Title or Easement	Private	C2-13
07629900301035	Hamilton	10.07	1, 2, or 3	Fee Title or Easement	Private	C2-130
07629900302827	Hamilton	1.69	1, 2, or 3	Fee Title or Easement	Private	C2-131
07629900334394	Hamilton	284.20	1, 2, or 3	Fee Title or Easement	Private	C2-132
07629900364047	Hamilton	7.56	1, 2, or 3	Fee Title or Easement	Private	C2-133
07629900364807	Hamilton	18.26	1, 2, or 3	Fee Title or Easement	Private	C2-134
07629900367782	Hamilton	2.01	1, 2, or 3	Fee Title or Easement	Private	C2-135
07629900403818	Hamilton	1.09	1, 2, or 3	Fee Title or Easement	Private	C2-136
07629900408741	Hamilton	7.07	1, 2, or 3	Fee Title or Easement	Private	C2-137
07629900409250	Hamilton	67.59	1, 2, or 3	Fee Title or Easement	Private	C2-138

07629900451188	Hamilton	18.35	1, 2, or 3	Fee Title or Easement	Private	C2-139
07628800449173	Hamilton	5.85	1, 2, or 3	Fee Title or Easement	Private	C2-14
07629900466114	Hamilton	67.09	1, 2, or 3	Fee Title or Easement	Private	C2-140
07629900511852	Hamilton	2.25	1, 2, or 3	Fee Title or Easement	Private	C2-141
07629900516311	Hamilton	22.00	1, 2, or 3	Fee Title or Easement	Private	C2-142
07629900544565	Hamilton	10.00	1, 2, or 3	Fee Title or Easement	Private	C2-143
07629900604543	Hamilton	21.00	1, 2, or 3	Fee Title or Easement	Private	C2-144
07629900612352	Hamilton	11.62	1, 2, or 3	Fee Title or Easement	Private	C2-145
07629900700753	Hamilton	2.27	1, 2, or 3	Fee Title or Easement	Private	C2-146
07629900711307	Hamilton	21.38	1, 2, or 3	Fee Title or Easement	Private	C2-147
07629900804967	Hamilton	23.50	1, 2, or 3	Fee Title or Easement	Private	C2-148
07629900806439	Hamilton	7.00	1, 2, or 3	Fee Title or Easement	Private	C2-149
07628800485317	Hamilton	41.22	1, 2, or 3	Fee Title or Easement	Private	C2-15
07629901256438	Hamilton	1.70	1, 2, or 3	Fee Title or Easement	Private	C2-150
07629901257538	Hamilton	2.20	1, 2, or 3	Fee Title or Easement	Private	C2-151
07629901258634	Hamilton	1.30	1, 2, or 3	Fee Title or Easement	Private	C2-152
07629901266033	Hamilton	1.30	1, 2, or 3	Fee Title or Easement	Private	C2-153
07629901350547	Hamilton	3.80	1, 2, or 3	Fee Title or Easement	Private	C2-154
07629901350984	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C2-155
07629901353447	Hamilton	5.98	1, 2, or 3	Fee Title or Easement	Private	C2-156
07629901354578	Hamilton	5.40	1, 2, or 3	Fee Title or Easement	Private	C2-157
07629901360423	Hamilton	5.70	1, 2, or 3	Fee Title or Easement	Private	C2-158
07629901363520	Hamilton	0.28	1, 2, or 3	Fee Title or Easement	Private	C2-159
07628800491350	Hamilton	0.68	1, 2, or 3	Fee Title or Easement	Private	C2-16
07628800493308	Hamilton	0.47	1, 2, or 3	Fee Title or Easement	Private	C2-17

07628800530730	Hamilton	2.39	1, 2, or 3	Fee Title or Easement	Private	C2-18
07628800644279	Hamilton	60.41	1, 2, or 3	Fee Title or Easement	Private	C2-19
07628800249736	Hamilton	3.51	1, 2, or 3	Fee Title or Easement	Private	C2-2
07628800683469	Hamilton	5.70	1, 2, or 3	Fee Title or Easement	Private	C2-20
07628800687804	Hamilton	2.55	1, 2, or 3	Fee Title or Easement	Private	C2-21
07628800691258	Hamilton	3.30	1, 2, or 3	Fee Title or Easement	Private	C2-22
07628800698389	Hamilton	27.84	1, 2, or 3	Fee Title or Easement	Private	C2-23
07628800755072	Hamilton	18.30	1, 2, or 3	Fee Title or Easement	Private	C2-24
07628800756387	Hamilton	5.27	1, 2, or 3	Fee Title or Easement	Private	C2-25
07628800766518	Hamilton	8.32	1, 2, or 3	Fee Title or Easement	Private	C2-26
07628800784960	Hamilton	4.56	1, 2, or 3	Fee Title or Easement	Private	C2-27
07628800786747	Hamilton	4.84	1, 2, or 3	Fee Title or Easement	Private	C2-28
07628800842938	Hamilton	5.75	1, 2, or 3	Fee Title or Easement	Private	C2-29
07628800256005	Hamilton	7.86	1, 2, or 3	Fee Title or Easement	Private	C2-3
07628800855499	Hamilton	22.78	1, 2, or 3	Fee Title or Easement	Private	C2-30
07628800862240	Hamilton	25.10	1, 2, or 3	Fee Title or Easement	Private	C2-31
07628800878569	Hamilton	40.00	1, 2, or 3	Fee Title or Easement	Private	C2-32
07628800931286	Hamilton	16.92	1, 2, or 3	Fee Title or Easement	Private	C2-33
07628800937389	Hamilton	20.36	1, 2, or 3	Fee Title or Easement	Private	C2-34
07628800946429	Hamilton	7.25	1, 2, or 3	Fee Title or Easement	Private	C2-35
07628800950890	Hamilton	3.39	1, 2, or 3	Fee Title or Easement	Private	C2-36
07628800958302	Hamilton	6.00	1, 2, or 3	Fee Title or Easement	Private	C2-37
07628800979071	Hamilton	80.24	1, 2, or 3	Fee Title or Easement	Private	C2-38
07628800993084	Hamilton	56.73	1, 2, or 3	Fee Title or Easement	Private	C2-39
07628800267352	Hamilton	5.00	1, 2, or 3	Fee Title or Easement	Private	C2-4

07628803248068	Hamilton	4.19	1, 2, or 3	Fee Title or Easement	Private	C2-40
07628900400528	Hamilton	43.32	1, 2, or 3	Fee Title or Easement	Private	C2-41
07628900404856	Hamilton	6.90	1, 2, or 3	Fee Title or Easement	Private	C2-42
07628900421220	Hamilton	147.57	1, 2, or 3	Fee Title or Easement	Private	C2-43
07628900504260	Hamilton	1.05	1, 2, or 3	Fee Title or Easement	Private	C2-44
07628900509570	Hamilton	97.70	1, 2, or 3	Fee Title or Easement	Private	C2-45
07628900519443	Hamilton	17.21	1, 2, or 3	Fee Title or Easement	Private	C2-46
07628900607830	Hamilton	12.14	1, 2, or 3	Fee Title or Easement	Private	C2-47
07628900616199	Hamilton	0.14	1, 2, or 3	Fee Title or Easement	PUBLIC	C2-48
07628900616921	Hamilton	24.91	1, 2, or 3	Fee Title or Easement	Private	C2-49
07628800340530	Hamilton	8.04	1, 2, or 3	Fee Title or Easement	Private	C2-5
07628900623751	Hamilton	28.15	1, 2, or 3	Fee Title or Easement	Private	C2-50
07628900631350	Hamilton	5.10	1, 2, or 3	Fee Title or Easement	Private	C2-51
07628900634598	Hamilton	5.22	1, 2, or 3	Fee Title or Easement	Private	C2-52
07628900714868	Hamilton	7.08	1, 2, or 3	Fee Title or Easement	Private	C2-53
07628900717442	Hamilton	1.87	1, 2, or 3	Fee Title or Easement	Private	C2-54
07628900718181	Hamilton	0.41	1, 2, or 3	Fee Title or Easement	Private	C2-55
07628900718539	Hamilton	3.03	1, 2, or 3	Fee Title or Easement	Private	C2-56
07628900723666	Hamilton	2.40	1, 2, or 3	Fee Title or Easement	Private	C2-57
07628900725432	Hamilton	1.56	1, 2, or 3	Fee Title or Easement	Private	C2-58
07628900730426	Hamilton	7.52	1, 2, or 3	Fee Title or Easement	Private	C2-59
07628800360340	Hamilton	7.99	1, 2, or 3	Fee Title or Easement	Private	C2-6
07628900734683	Hamilton	4.51	1, 2, or 3	Fee Title or Easement	Private	C2-60
07628900801464	Hamilton	99.49	1, 2, or 3	Fee Title or Easement	Private	C2-61
07628900807178	Hamilton	10.59	1, 2, or 3	Fee Title or Easement	Private	C2-62

07628900810607	Hamilton	1.17	1, 2, or 3	Fee Title or Easement	Private	C2-63
07628900810871	Hamilton	2.13	1, 2, or 3	Fee Title or Easement	Private	C2-64
07628900812331	Hamilton	1.33	1, 2, or 3	Fee Title or Easement	Private	C2-65
07628900812935	Hamilton	2.20	1, 2, or 3	Fee Title or Easement	Private	C2-66
07628900813462	Hamilton	1.40	1, 2, or 3	Fee Title or Easement	Private	C2-67
07628900814552	Hamilton	1.39	1, 2, or 3	Fee Title or Easement	Private	C2-68
07628900815646	Hamilton	1.28	1, 2, or 3	Fee Title or Easement	Private	C2-69
07628800367465	Hamilton	30.45	1, 2, or 3	Fee Title or Easement	Private	C2-7
07628900816738	Hamilton	1.26	1, 2, or 3	Fee Title or Easement	Private	C2-70
07628900817829	Hamilton	1.36	1, 2, or 3	Fee Title or Easement	Private	C2-71
07628900827098	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C2-72
07628900904729	Hamilton	1.11	1, 2, or 3	Fee Title or Easement	Private	C2-73
07628900906713	Hamilton	2.52	1, 2, or 3	Fee Title or Easement	Private	C2-74
07628900926543	Hamilton	204.84	1, 2, or 3	Fee Title or Easement	Private	C2-75
07628900937710	Hamilton	17.51	1, 2, or 3	Fee Title or Easement	Private	C2-76
07629800030658	Hamilton	0.00	1, 2, or 3	Fee Title or Easement	Private	C2-77
07629800044161	Hamilton	30.00	1, 2, or 3	Fee Title or Easement	Private	C2-78
07629800050601	Hamilton	9.20	1, 2, or 3	Fee Title or Easement	Private	C2-79
07628800372127	Hamilton	9.05	1, 2, or 3	Fee Title or Easement	Private	C2-8
07629800085043	Hamilton	24.73	1, 2, or 3	Fee Title or Easement	Private	C2-80
07629800140997	Hamilton	59.00	1, 2, or 3	Fee Title or Easement	Private	C2-81
07629800178013	Hamilton	12.44	1, 2, or 3	Fee Title or Easement	Private	C2-82
07629800192536	Hamilton	9.26	1, 2, or 3	Fee Title or Easement	Private	C2-83
07629800192996	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C2-84
07629800195396	Hamilton	8.96	1, 2, or 3	Fee Title or Easement	Private	C2-85

07629800198173	Hamilton	13.70	1, 2, or 3	Fee Title or Easement	Private	C2-86
07629800199559	Hamilton	1.14	1, 2, or 3	Fee Title or Easement	Private	C2-87
07629800263037	Hamilton	111.29	1, 2, or 3	Fee Title or Easement	Private	C2-88
07629800277784	Hamilton	2.10	1, 2, or 3	Fee Title or Easement	Private	C2-89
07628800372702	Hamilton	14.14	1, 2, or 3	Fee Title or Easement	Private	C2-9
07629800288042	Hamilton	69.96	1, 2, or 3	Fee Title or Easement	Private	C2-90
07629800289460	Hamilton	12.50	1, 2, or 3	Fee Title or Easement	Private	C2-91
07629800294652	Hamilton	1.58	1, 2, or 3	Fee Title or Easement	Private	C2-92
07629800294989	Hamilton	3.13	1, 2, or 3	Fee Title or Easement	Private	C2-93
07629800296868	Hamilton	2.50	1, 2, or 3	Fee Title or Easement	Private	C2-94
07629800370139	Hamilton	9.70	1, 2, or 3	Fee Title or Easement	Private	C2-95
07629800381822	Hamilton	10.90	1, 2, or 3	Fee Title or Easement	Private	C2-96
07629800470945	Hamilton	45.95	1, 2, or 3	Fee Title or Easement	Private	C2-97
07629800487643	Hamilton	114.65	1, 2, or 3	Fee Title or Easement	Private	C2-98
07629800492898	Hamilton	25.80	1, 2, or 3	Fee Title or Easement	Private	C2-99
07627600591637	Hamilton	16.50	1, 2, or 3	Fee Title or Easement	Private	C3-1
07627700528741	Hamilton	5.01	1, 2, or 3	Fee Title or Easement	Private	C3-10
07627700534774	Hamilton	22.65	1, 2, or 3	Fee Title or Easement	Private	C3-11
07627700553947	Hamilton	0.63	1, 2, or 3	Fee Title or Easement	Private	C3-12
07627700554530	Hamilton	5.80	1, 2, or 3	Fee Title or Easement	Private	C3-13
07627700557632	Hamilton	3.63	1, 2, or 3	Fee Title or Easement	Private	C3-14
07627700559734	Hamilton	4.44	1, 2, or 3	Fee Title or Easement	Private	C3-15
07627700564065	Hamilton	2.16	1, 2, or 3	Fee Title or Easement	Private	C3-16
07627700564441	Hamilton	4.28	1, 2, or 3	Fee Title or Easement	Private	C3-17
07627700567237	Hamilton	2.24	1, 2, or 3	Fee Title or Easement	Private	C3-18

07627700586200	Hamilton	20.01	1, 2, or 3	Fee Title or Easement	Private	C3-19
07627600681383	Hamilton	101.75	1, 2, or 3	Fee Title or Easement	Private	C3-2
07627700651901	Hamilton	3.54	1, 2, or 3	Fee Title or Easement	Private	C3-20
07627700662083	Hamilton	3.78	1, 2, or 3	Fee Title or Easement	Private	C3-21
07627700664163	Hamilton	3.53	1, 2, or 3	Fee Title or Easement	Private	C3-22
07627700667968	Hamilton	4.05	1, 2, or 3	Fee Title or Easement	Private	C3-23
07627700672952	Hamilton	17.91	1, 2, or 3	Fee Title or Easement	Private	C3-24
07627700673023	Hamilton	4.81	1, 2, or 3	Fee Title or Easement	Private	C3-25
07627700676323	Hamilton	2.55	1, 2, or 3	Fee Title or Easement	Private	C3-26
07627700678676	Hamilton	3.63	1, 2, or 3	Fee Title or Easement	Private	C3-27
07627700789101	Hamilton	2.38	1, 2, or 3	Fee Title or Easement	Private	C3-28
07627700839973	Hamilton	6.72	1, 2, or 3	Fee Title or Easement	Private	C3-29
07627700425949	Hamilton	80.70	1, 2, or 3	Fee Title or Easement	Private	C3-3
07627700852219	Hamilton	114.72	1, 2, or 3	Fee Title or Easement	Private	C3-30
07627700957942	Hamilton	156.70	1, 2, or 3	Fee Title or Easement	Private	C3-31
07627704639307	Hamilton	144.00	1, 2, or 3	Fee Title or Easement	Private	C3-32
07627704700915	Hamilton	19.27	1, 2, or 3	Fee Title or Easement	Private	C3-33
07627704735901	Hamilton	0.80	1, 2, or 3	Fee Title or Easement	Private	C3-34
07627704736721	Hamilton	3.10	1, 2, or 3	Fee Title or Easement	Private	C3-35
07627704739837	Hamilton	4.50	1, 2, or 3	Fee Title or Easement	Private	C3-36
07627704744372	Hamilton	1.04	1, 2, or 3	Fee Title or Easement	Private	C3-37
07627704745007	Hamilton	2.42	1, 2, or 3	Fee Title or Easement	Private	C3-38
07627704745201	Hamilton	0.61	1, 2, or 3	Fee Title or Easement	Private	C3-39
07627700443699	Hamilton	33.36	1, 2, or 3	Fee Title or Easement	Private	C3-4
07627704745206	Hamilton	0.55	1, 2, or 3	Fee Title or Easement	Private	C3-40

07627705071632	Hamilton	0.46	1, 2, or 3	Fee Title or Easement	Private	C3-41
07627705075975	Hamilton	2.33	1, 2, or 3	Fee Title or Easement	Private	C3-42
07627705080069	Hamilton	0.13	1, 2, or 3	Fee Title or Easement	Private	C3-43
07627705087141	Hamilton	1.34	1, 2, or 3	Fee Title or Easement	Private	C3-44
07627705187243	Hamilton	5.71	1, 2, or 3	Fee Title or Easement	Private	C3-45
07627706387305	Hamilton	1.04	1, 2, or 3	Fee Title or Easement	Private	C3-46
07628700113204	Hamilton	3212.50	1, 2, or 3	Fee Title or Easement	Private	C3-47
07628700149757	Hamilton	27.50	1, 2, or 3	Fee Title or Easement	Private	C3-48
07628700381426	Hamilton	133.27	1, 2, or 3	Fee Title or Easement	Private	C3-49
07627700457439	Hamilton	0.75	1, 2, or 3	Fee Title or Easement	Private	C3-5
07628700395677	Hamilton	0.00	1, 2, or 3	Fee Title or Easement	Private	C3-50
07628700398000	Hamilton	2.00	1, 2, or 3	Fee Title or Easement	Private	C3-51
07628700496596	Hamilton	1.00	1, 2, or 3	Fee Title or Easement	Private	C3-52
07628700596799	Hamilton	9.14	1, 2, or 3	Fee Title or Easement	Private	C3-53
07628800402256	Hamilton	30.00	1, 2, or 3	Fee Title or Easement	Private	C3-54
0762880042xxxx	Hamilton	0.00	1, 2, or 3	Fee Title or Easement	Private	C3-55
07628800500043	Hamilton	1.69	1, 2, or 3	Fee Title or Easement	Private	C3-56
07628800503567	Hamilton	19.45	1, 2, or 3	Fee Title or Easement	Private	C3-57
07628800515018	Hamilton	6.70	1, 2, or 3	Fee Title or Easement	Private	C3-58
07628800517216	Hamilton	4.80	1, 2, or 3	Fee Title or Easement	Private	C3-59
07627700458898	Hamilton	4.58	1, 2, or 3	Fee Title or Easement	Private	C3-6
07628800518859	Hamilton	3.80	1, 2, or 3	Fee Title or Easement	Private	C3-60
07628800521327	Hamilton	48.03	1, 2, or 3	Fee Title or Easement	Private	C3-61
07628800528340	Hamilton	17.10	1, 2, or 3	Fee Title or Easement	Private	C3-62
07628800602159	Hamilton	8.46	1, 2, or 3	Fee Title or Easement	Private	C3-63

07628800604398	Hamilton	6.61	1, 2, or 3	Fee Title or Easement	Private	C3-64
07628800606650	Hamilton	6.28	1, 2, or 3	Fee Title or Easement	Private	C3-65
07628800610229	Hamilton	7.47	1, 2, or 3	Fee Title or Easement	Private	C3-66
07628800621734	Hamilton	17.00	1, 2, or 3	Fee Title or Easement	Private	C3-67
07628800700928	Hamilton	26.80	1, 2, or 3	Fee Title or Easement	Private	C3-68
07628800713556	Hamilton	23.50	1, 2, or 3	Fee Title or Easement	Private	C3-69
07627700474653	Hamilton	36.37	1, 2, or 3	Fee Title or Easement	Private	C3-7
07628800723492	Hamilton	39.00	1, 2, or 3	Fee Title or Easement	Private	C3-70
07628800829235	Hamilton	5.13	1, 2, or 3	Fee Title or Easement	Private	C3-71
07628800830038	Hamilton	63.00	1, 2, or 3	Fee Title or Easement	Private	C3-72
07628800925576	Hamilton	0.00	1, 2, or 3	Fee Title or Easement	Private	C3-73
07628803227014	Hamilton	5.91	1, 2, or 3	Fee Title or Easement	Private	C3-74
07628803228506	Hamilton	1.24	1, 2, or 3	Fee Title or Easement	Private	C3-75
07628803313541	Hamilton	1.43	1, 2, or 3	Fee Title or Easement	Private	C3-76
07628803316075	Hamilton	15.00	1, 2, or 3	Fee Title or Easement	Private	C3-77
07628803318824	Hamilton	11.12	1, 2, or 3	Fee Title or Easement	Private	C3-78
07628803322831	Hamilton	3.81	1, 2, or 3	Fee Title or Easement	Private	C3-79
07627700508702	Hamilton	119.00	1, 2, or 3	Fee Title or Easement	Private	C3-8
07628803323974	Hamilton	25.28	1, 2, or 3	Fee Title or Easement	Private	C3-80
07628803326143	Hamilton	4.03	1, 2, or 3	Fee Title or Easement	Private	C3-81
07629700274953	Hamilton	1.11	1, 2, or 3	Fee Title or Easement	Private	C3-82
07629700285032	Hamilton	1.80	1, 2, or 3	Fee Title or Easement	Private	C3-83
07629700285997	Hamilton	311.00	1, 2, or 3	Fee Title or Easement	Private	C3-84
07629700286133	Hamilton	1.60	1, 2, or 3	Fee Title or Easement	Private	C3-85
07629700362929	Hamilton	3.50	1, 2, or 3	Fee Title or Easement	Private	C3-86

07629700369993	Hamilton	0.19	1, 2, or 3	Fee Title or Easement	Private	C3-87
07629700370948	Hamilton	0.23	1, 2, or 3	Fee Title or Easement	Private	C3-88
07629700370965	Hamilton	0.00	1, 2, or 3	Fee Title or Easement	Private	C3-89
07627700526325	Hamilton	1.07	1, 2, or 3	Fee Title or Easement	Private	C3-9
07629700370991	Hamilton	0.00	1, 2, or 3	Fee Title or Easement	Private	C3-90
07629700371862	Hamilton	0.27	1, 2, or 3	Fee Title or Easement	Private	C3-91
07629700373701	Hamilton	3.32	1, 2, or 3	Fee Title or Easement	Private	C3-92
07629700376032	Hamilton	0.09	1, 2, or 3	Fee Title or Easement	Private	C3-93
07629700377097	Hamilton	2.00	1, 2, or 3	Fee Title or Easement	Private	C3-94
07629700379052	Hamilton	0.18	1, 2, or 3	Fee Title or Easement	Private	C3-95
07629700461780	Hamilton	0.18	1, 2, or 3	Fee Title or Easement	Private	C3-96
07629700462755	Hamilton	0.18	1, 2, or 3	Fee Title or Easement	Private	C3-97
07629700471001	Hamilton	0.18	1, 2, or 3	Fee Title or Easement	Private	C3-98
07629800128491	Hamilton	117.32	1, 2, or 3	Fee Title or Easement	Private	C3-99
15625700866005	Ross	101.00	1, 2, or 3	Fee Title or Easement	Private	B1-1
15626600799657	Ross	1.45	1, 2, or 3	Fee Title or Easement	Private	B1-10
15626800207328	Ross	15.10	1, 2, or 3	Fee Title or Easement	Private	B1-100
15626800303728	Ross	13.19	1, 2, or 3	Fee Title or Easement	Private	B1-101
15626800308355	Ross	4.78	1, 2, or 3	Fee Title or Easement	Private	B1-102
15626800314398	Ross	2.58	1, 2, or 3	Fee Title or Easement	Private	B1-103
15626800318300	Ross	3.67	1, 2, or 3	Fee Title or Easement	Private	B1-104
15626800319167	Ross	2.51	1, 2, or 3	Fee Title or Easement	Private	B1-105
15626800402905	Ross	2.78	1, 2, or 3	Fee Title or Easement	Private	B1-106
15626800403822	Ross	2.91	1, 2, or 3	Fee Title or Easement	Private	B1-107
15626800404740	Ross	2.70	1, 2, or 3	Fee Title or Easement	Private	B1-108

15626800410075	Ross	2.62	1, 2, or 3	Fee Title or Easement	Private	B1-109
15626600881619	Ross	6.56	1, 2, or 3	Fee Title or Easement	Private	B1-11
15626800411926	Ross	11.02	1, 2, or 3	Fee Title or Easement	Private	B1-110
15626800419497	Ross	36.23	1, 2, or 3	Fee Title or Easement	Private	B1-111
15626800501222	Ross	13.22	1, 2, or 3	Fee Title or Easement	Private	B1-112
15626800517660	Ross	13.49	1, 2, or 3	Fee Title or Easement	Private	B1-113
15626800600626	Ross	2.00	1, 2, or 3	Fee Title or Easement	Private	B1-114
15626800608764	Ross	52.47	1, 2, or 3	Fee Title or Easement	Private	B1-115
15626800610787	Ross	17.56	1, 2, or 3	Fee Title or Easement	Private	B1-116
15626800617768	Ross	1.13	1, 2, or 3	Fee Title or Easement	Private	B1-117
15626800623684	Ross	23.90	1, 2, or 3	Fee Title or Easement	Private	B1-118
15626800711471	Ross	0.00	1, 2, or 3	Fee Title or Easement	Private	B1-119
15626600884785	Ross	1.00	1, 2, or 3	Fee Title or Easement	Private	B1-12
15626800711812	Ross	5.28	1, 2, or 3	Fee Title or Easement	Private	B1-120
15626800800319	Ross	19.54	1, 2, or 3	Fee Title or Easement	Private	B1-121
15627600297780	Ross	80.00	1, 2, or 3	Fee Title or Easement	Private	B1-122
15627600395140	Ross	14.82	1, 2, or 3	Fee Title or Easement	Private	B1-123
15627600487924	Ross	35.28	1, 2, or 3	Fee Title or Easement	Private	B1-124
15627600491626	Ross	37.90	1, 2, or 3	Fee Title or Easement	Private	B1-125
15627700001753	Ross	0.00	1, 2, or 3	Fee Title or Easement	Private	B1-126
15627700021302	Ross	10.60	1, 2, or 3	Fee Title or Easement	Private	B1-127
15627700027735	Ross	9.00	1, 2, or 3	Fee Title or Easement	Private	B1-128
15627700123245	Ross	54.00	1, 2, or 3	Fee Title or Easement	Private	B1-129
15626600892343	Ross	0.35	1, 2, or 3	Fee Title or Easement	Private	B1-13
15627700136155	Ross	4.63	1, 2, or 3	Fee Title or Easement	Private	B1-130

15627700213308	Ross	79.00	1, 2, or 3	Fee Title or Easement	Private	B1-131
15626600892386	Ross	0.35	1, 2, or 3	Fee Title or Easement	Private	B1-14
15626600893328	Ross	0.35	1, 2, or 3	Fee Title or Easement	Private	B1-15
15626600893461	Ross	0.35	1, 2, or 3	Fee Title or Easement	Private	B1-16
15626600894099	Ross	0.52	1, 2, or 3	Fee Title or Easement	Private	B1-17
15626600995510	Ross	85.71	1, 2, or 3	Fee Title or Easement	Private	B1-18
15626700060583	Ross	23.92	1, 2, or 3	Fee Title or Easement	Private	B1-19
15625700970477	Ross	0.84	1, 2, or 3	Fee Title or Easement	Private	B1-2
15626700071132	Ross	35.22	1, 2, or 3	Fee Title or Easement	Private	B1-20
15626700154977	Ross	13.49	1, 2, or 3	Fee Title or Easement	Private	B1-21
15626700155395	Ross	1.66	1, 2, or 3	Fee Title or Easement	Private	B1-22
15626700168976	Ross	5.28	1, 2, or 3	Fee Title or Easement	Private	B1-23
15626700174280	Ross	3.71	1, 2, or 3	Fee Title or Easement	Private	B1-24
15626700175099	Ross	2.19	1, 2, or 3	Fee Title or Easement	Private	B1-25
15626700177014	Ross	2.49	1, 2, or 3	Fee Title or Easement	Private	B1-26
15626700259833	Ross	53.17	1, 2, or 3	Fee Title or Easement	Private	B1-27
15626700261999	Ross	6.36	1, 2, or 3	Fee Title or Easement	Private	B1-28
15626700266583	Ross	25.90	1, 2, or 3	Fee Title or Easement	Private	B1-29
15625700971193	Ross	3.54	1, 2, or 3	Fee Title or Easement	Private	B1-3
15626700269958	Ross	1.28	1, 2, or 3	Fee Title or Easement	Private	B1-30
15626700274295	Ross	5.66	1, 2, or 3	Fee Title or Easement	Private	B1-31
15626700359475	Ross	18.56	1, 2, or 3	Fee Title or Easement	Private	B1-32
15626700372105	Ross	1.30	1, 2, or 3	Fee Title or Easement	Private	B1-33
15626700374210	Ross	0.80	1, 2, or 3	Fee Title or Easement	Private	B1-34
15626700386584	Ross	61.45	1, 2, or 3	Fee Title or Easement	Private	B1-35

15626700392628	Ross	14.76	1, 2, or 3	Fee Title or Easement	Private	B1-36
15626700397481	Ross	17.57	1, 2, or 3	Fee Title or Easement	Private	B1-37
15626700426013	Ross	72.02	1, 2, or 3	Fee Title or Easement	Private	B1-38
15626700474279	Ross	61.68	1, 2, or 3	Fee Title or Easement	Private	B1-39
15625700972518	Ross	1.05	1, 2, or 3	Fee Title or Easement	Private	B1-4
15626700496642	Ross	22.81	1, 2, or 3	Fee Title or Easement	Private	B1-40
15626700532982	Ross	1.62	1, 2, or 3	Fee Title or Easement	Private	B1-41
15626700539460	Ross	20.97	1, 2, or 3	Fee Title or Easement	Private	B1-42
15626700550597	Ross	46.31	1, 2, or 3	Fee Title or Easement	Private	B1-43
15626700564426	Ross	3.70	1, 2, or 3	Fee Title or Easement	Private	B1-44
15626700575498	Ross	10.00	1, 2, or 3	Fee Title or Easement	Private	B1-45
15626700584252	Ross	31.81	1, 2, or 3	Fee Title or Easement	Private	B1-46
15626700610692	Ross	23.90	1, 2, or 3	Fee Title or Easement	Private	B1-47
15626700618670	Ross	18.40	1, 2, or 3	Fee Title or Easement	Private	B1-48
15626700621953	Ross	1.20	1, 2, or 3	Fee Title or Easement	Private	B1-49
15626600597695	Ross	47.98	1, 2, or 3	Fee Title or Easement	Private	B1-5
15626700624214	Ross	7.80	1, 2, or 3	Fee Title or Easement	Private	B1-50
15626700633734	Ross	24.23	1, 2, or 3	Fee Title or Easement	Private	B1-51
15626700640747	Ross	5.90	1, 2, or 3	Fee Title or Easement	Private	B1-52
15626700646052	Ross	24.23	1, 2, or 3	Fee Title or Easement	Private	B1-53
15626700652185	Ross	5.85	1, 2, or 3	Fee Title or Easement	Private	B1-54
15626700659021	Ross	2.53	1, 2, or 3	Fee Title or Easement	Private	B1-55
15626700661427	Ross	34.13	1, 2, or 3	Fee Title or Easement	Private	B1-56
15626700671835	Ross	4.96	1, 2, or 3	Fee Title or Easement	Private	B1-57
15626700678713	Ross	1.00	1, 2, or 3	Fee Title or Easement	Private	B1-58

15626700679581	Ross	0.38	1, 2, or 3	Fee Title or Easement	Private	B1-59
15626600693774	Ross	5.47	1, 2, or 3	Fee Title or Easement	Private	B1-6
15626700686862	Ross	14.00	1, 2, or 3	Fee Title or Easement	Private	B1-60
15626700698761	Ross	31.00	1, 2, or 3	Fee Title or Easement	Private	B1-61
15626700702526	Ross	21.30	1, 2, or 3	Fee Title or Easement	Private	B1-62
15626700724194	Ross	32.05	1, 2, or 3	Fee Title or Easement	Private	B1-63
15626700726758	Ross	1.78	1, 2, or 3	Fee Title or Easement	Private	B1-64
15626700742148	Ross	21.60	1, 2, or 3	Fee Title or Easement	Private	B1-65
15626700742822	Ross	2.09	1, 2, or 3	Fee Title or Easement	Private	B1-66
15626700753540	Ross	33.50	1, 2, or 3	Fee Title or Easement	Private	B1-67
15626700754057	Ross	1.93	1, 2, or 3	Fee Title or Easement	Private	B1-68
15626700758097	Ross	1.28	1, 2, or 3	Fee Title or Easement	Private	B1-69
15626600697785	Ross	4.40	1, 2, or 3	Fee Title or Easement	Private	B1-7
15626700760762	Ross	4.84	1, 2, or 3	Fee Title or Easement	Private	B1-70
15626700767129	Ross	7.26	1, 2, or 3	Fee Title or Easement	Private	B1-71
15626700773934	Ross	2.83	1, 2, or 3	Fee Title or Easement	Private	B1-72
15626700780177	Ross	3.05	1, 2, or 3	Fee Title or Easement	Private	B1-73
15626700781093	Ross	2.83	1, 2, or 3	Fee Title or Easement	Private	B1-74
15626700782554	Ross	1.42	1, 2, or 3	Fee Title or Easement	Private	B1-75
15626700801112	Ross	7.80	1, 2, or 3	Fee Title or Easement	Private	B1-76
15626700822916	Ross	34.70	1, 2, or 3	Fee Title or Easement	Private	B1-77
15626700829695	Ross	0.58	1, 2, or 3	Fee Title or Easement	Private	B1-78
15626700834878	Ross	24.18	1, 2, or 3	Fee Title or Easement	Private	B1-79
15626600699285	Ross	5.45	1, 2, or 3	Fee Title or Easement	Private	B1-8
15626700837027	Ross	0.58	1, 2, or 3	Fee Title or Easement	Private	B1-80

15626700866094	Ross	3.54	1, 2, or 3	Fee Title or Easement	Private	B1-81
15626700869973	Ross	34.31	1, 2, or 3	Fee Title or Easement	Private	B1-82
15626700883806	Ross	49.27	1, 2, or 3	Fee Title or Easement	Private	B1-83
15626700890558	Ross	15.13	1, 2, or 3	Fee Title or Easement	Private	B1-84
15626700896794	Ross	5.95	1, 2, or 3	Fee Title or Easement	Private	B1-85
15626700903473	Ross	0.84	1, 2, or 3	Fee Title or Easement	Private	B1-86
15626700907467	Ross	11.82	1, 2, or 3	Fee Title or Easement	Private	B1-87
15626700910386	Ross	79.01	1, 2, or 3	Fee Title or Easement	Private	B1-88
15626700920986	Ross	1.95	1, 2, or 3	Fee Title or Easement	Private	B1-89
15626600799044	Ross	9.62	1, 2, or 3	Fee Title or Easement	Private	B1-9
15626700921701	Ross	3.47	1, 2, or 3	Fee Title or Easement	Private	B1-90
15626700937102	Ross	34.68	1, 2, or 3	Fee Title or Easement	Private	B1-91
15626700954274	Ross	3.11	1, 2, or 3	Fee Title or Easement	Private	B1-92
15626700971741	Ross	2.21	1, 2, or 3	Fee Title or Easement	Private	B1-93
15626703306659	Ross	1.94	1, 2, or 3	Fee Title or Easement	Private	B1-94
15626703308617	Ross	2.07	1, 2, or 3	Fee Title or Easement	Private	B1-95
15626703309841	Ross	3.86	1, 2, or 3	Fee Title or Easement	Private	B1-96
15626703401848	Ross	4.48	1, 2, or 3	Fee Title or Easement	Private	B1-97
15626703403946	Ross	5.01	1, 2, or 3	Fee Title or Easement	Private	B1-98
15626800205709	Ross	1.02	1, 2, or 3	Fee Title or Easement	Private	B1-99
15625600809880	Ross	1538.00	1, 2, or 3	Fee Title or Easement	Private	B2-1
15626500691305	Ross	22.98	1, 2, or 3	Fee Title or Easement	Private	B2-10
15627600262074	Ross	11.00	1, 2, or 3	Fee Title or Easement	Private	B2-100
15627600271048	Ross	1.49	1, 2, or 3	Fee Title or Easement	Private	B2-101
15627600273206	Ross	1.34	1, 2, or 3	Fee Title or Easement	Private	B2-102

15627600276589	Ross	1.26	1, 2, or 3	Fee Title or Easement	Private	B2-103
15627600277714	Ross	0.45	1, 2, or 3	Fee Title or Easement	Private	B2-104
15627600287338	Ross	2.31	1, 2, or 3	Fee Title or Easement	Private	B2-105
15627600289231	Ross	0.38	1, 2, or 3	Fee Title or Easement	Private	B2-106
15627600332151	Ross	3.32	1, 2, or 3	Fee Title or Easement	Private	B2-107
15627600337492	Ross	2.94	1, 2, or 3	Fee Title or Easement	Private	B2-108
15627600351904	Ross	13.89	1, 2, or 3	Fee Title or Easement	Private	B2-109
15626500696611	Ross	8.93	1, 2, or 3	Fee Title or Easement	Private	B2-11
15627600366136	Ross	6.31	1, 2, or 3	Fee Title or Easement	Private	B2-110
15627600366621	Ross	9.11	1, 2, or 3	Fee Title or Easement	Private	B2-111
15627600373723	Ross	9.88	1, 2, or 3	Fee Title or Easement	Private	B2-112
15627600377339	Ross	1.89	1, 2, or 3	Fee Title or Easement	Private	B2-113
15627600386443	Ross	0.18	1, 2, or 3	Fee Title or Easement	Private	B2-114
15627600430326	Ross	0.00	1, 2, or 3	Fee Title or Easement	Private	B2-115
15627600432221	Ross	2.50	1, 2, or 3	Fee Title or Easement	Private	B2-116
15627600441947	Ross	1.12	1, 2, or 3	Fee Title or Easement	Private	B2-117
15627600443988	Ross	2.59	1, 2, or 3	Fee Title or Easement	Private	B2-118
15627600452781	Ross	4.45	1, 2, or 3	Fee Title or Easement	Private	B2-119
15626500699940	Ross	1.73	1, 2, or 3	Fee Title or Easement	Private	B2-12
15627600460883	Ross	13.32	1, 2, or 3	Fee Title or Easement	Private	B2-120
15627600462024	Ross	3.35	1, 2, or 3	Fee Title or Easement	Private	B2-121
15627600463075	Ross	0.21	1, 2, or 3	Fee Title or Easement	Private	B2-122
15627600480164	Ross	26.72	1, 2, or 3	Fee Title or Easement	Private	B2-123
15627600524515	Ross	71.17	1, 2, or 3	Fee Title or Easement	Private	B2-124
15627600540376	Ross	0.61	1, 2, or 3	Fee Title or Easement	Private	B2-125

15627600546389	Ross	124.12	1, 2, or 3	Fee Title or Easement	Private	B2-126
15627600622941	Ross	1.68	1, 2, or 3	Fee Title or Easement	Private	B2-127
15627600624919	Ross	2.16	1, 2, or 3	Fee Title or Easement	Private	B2-128
15627600636028	Ross	4.22	1, 2, or 3	Fee Title or Easement	Private	B2-129
15626500781487	Ross	42.14	1, 2, or 3	Fee Title or Easement	Private	B2-13
15627600638256	Ross	3.56	1, 2, or 3	Fee Title or Easement	Private	B2-130
15627600725546	Ross	31.84	1, 2, or 3	Fee Title or Easement	Private	B2-131
15627600749084	Ross	43.00	1, 2, or 3	Fee Title or Easement	Private	B2-132
15627600759821 C1	Ross	200.80	1, 2, or 3	Fee Title or Easement	Private	B2-133
15627600831065	Ross	5.31	1, 2, or 3	Fee Title or Easement	Private	B2-134
15627600834038	Ross	2.69	1, 2, or 3	Fee Title or Easement	Private	B2-135
15627603023034	Ross	4.12	1, 2, or 3	Fee Title or Easement	Private	B2-136
15626500789932	Ross	18.70	1, 2, or 3	Fee Title or Easement	Private	B2-14
15626500790979	Ross	1.53	1, 2, or 3	Fee Title or Easement	Private	B2-15
15626500792795	Ross	9.17	1, 2, or 3	Fee Title or Easement	Private	B2-16
15626500895233	Ross	23.52	1, 2, or 3	Fee Title or Easement	Private	B2-17
15626500993593	Ross	26.76	1, 2, or 3	Fee Title or Easement	Private	B2-18
15626600109384	Ross	27.71	1, 2, or 3	Fee Title or Easement	Private	B2-19
15626500288103	Ross	50.00	1, 2, or 3	Fee Title or Easement	Private	B2-2
15626600302218	Ross	16.20	1, 2, or 3	Fee Title or Easement	Private	B2-20
15626600318908	Ross	5.60	1, 2, or 3	Fee Title or Easement	Private	B2-21
15626600322486	Ross	32.77	1, 2, or 3	Fee Title or Easement	Private	B2-22
15626600414650	Ross	68.69	1, 2, or 3	Fee Title or Easement	Private	B2-23
15626600446507	Ross	51.13	1, 2, or 3	Fee Title or Easement	Private	B2-24
15626600501893	Ross	5.38	1, 2, or 3	Fee Title or Easement	Private	B2-25

15626600509754	Ross	90.18	1, 2, or 3	Fee Title or Easement	Private	B2-26
15626600534345	Ross	120.54	1, 2, or 3	Fee Title or Easement	Private	B2-27
15626600571086	Ross	83.85	1, 2, or 3	Fee Title or Easement	Private	B2-28
15626600621946	Ross	0.08	1, 2, or 3	Fee Title or Easement	Private	B2-29
15626500296953	Ross	11.29	1, 2, or 3	Fee Title or Easement	Private	B2-3
15626600633664	Ross	6.00	1, 2, or 3	Fee Title or Easement	Private	B2-30
15626600648554	Ross	14.10	1, 2, or 3	Fee Title or Easement	Private	B2-31
15626600653572	Ross	30.83	1, 2, or 3	Fee Title or Easement	Private	B2-32
15626600662914	Ross	43.90	1, 2, or 3	Fee Title or Easement	Private	B2-33
15626600668048	Ross	8.00	1, 2, or 3	Fee Title or Easement	Private	B2-34
15626600673265	Ross	1.10	1, 2, or 3	Fee Title or Easement	Private	B2-35
15626600674325	Ross	1.00	1, 2, or 3	Fee Title or Easement	Private	B2-36
15626600679436	Ross	3.05	1, 2, or 3	Fee Title or Easement	Private	B2-37
15626600704042	Ross	2.00	1, 2, or 3	Fee Title or Easement	Private	B2-38
15626600705169	Ross	2.27	1, 2, or 3	Fee Title or Easement	Private	B2-39
15626500398225	Ross	52.20	1, 2, or 3	Fee Title or Easement	Private	B2-4
15626600709291	Ross	13.80	1, 2, or 3	Fee Title or Easement	Private	B2-40
15626600722025	Ross	40.66	1, 2, or 3	Fee Title or Easement	Private	B2-41
15626600733743	Ross	7.45	1, 2, or 3	Fee Title or Easement	Private	B2-42
15626600737275	Ross	18.97	1, 2, or 3	Fee Title or Easement	Private	B2-43
15626600756003	Ross	50.00	1, 2, or 3	Fee Title or Easement	Private	B2-44
15626600762132	Ross	1.23	1, 2, or 3	Fee Title or Easement	Private	B2-45
15626600762552	Ross	15.79	1, 2, or 3	Fee Title or Easement	Private	B2-46
15626600770727	Ross	3.50	1, 2, or 3	Fee Title or Easement	Private	B2-47
15626600775178	Ross	29.00	1, 2, or 3	Fee Title or Easement	Private	B2-48

15626600806763	Ross	27.00	1, 2, or 3	Fee Title or Easement	Private	B2-49
15626500471460	Ross	89.00	1, 2, or 3	Fee Title or Easement	Private	B2-5
15626600811174	Ross	8.51	1, 2, or 3	Fee Title or Easement	Private	B2-50
15626600852584	Ross	0.79	1, 2, or 3	Fee Title or Easement	Private	B2-51
15626600853604	Ross	0.37	1, 2, or 3	Fee Title or Easement	Private	B2-52
15626600857579	Ross	29.03	1, 2, or 3	Fee Title or Easement	Private	B2-53
15626600861082	Ross	6.60	1, 2, or 3	Fee Title or Easement	Private	B2-54
15626600874781	Ross	6.71	1, 2, or 3	Fee Title or Easement	Private	B2-55
15626600877532	Ross	4.03	1, 2, or 3	Fee Title or Easement	Private	B2-56
15626600880143	Ross	3.59	1, 2, or 3	Fee Title or Easement	Private	B2-57
15626600881454	Ross	1.06	1, 2, or 3	Fee Title or Easement	Private	B2-58
15626600884263	Ross	10.35	1, 2, or 3	Fee Title or Easement	Private	B2-59
15626500496852	Ross	20.20	1, 2, or 3	Fee Title or Easement	Private	B2-6
15626600905937	Ross	25.53	1, 2, or 3	Fee Title or Easement	Private	B2-60
15626600931253	Ross	43.73	1, 2, or 3	Fee Title or Easement	Private	B2-61
15626600935878	Ross	2.95	1, 2, or 3	Fee Title or Easement	Private	B2-62
15626600937259	Ross	3.26	1, 2, or 3	Fee Title or Easement	Private	B2-63
15626600937613	Ross	3.28	1, 2, or 3	Fee Title or Easement	Private	B2-64
15626600939780	Ross	2.62	1, 2, or 3	Fee Title or Easement	Private	B2-65
15626600940642	Ross	26.67	1, 2, or 3	Fee Title or Easement	Private	B2-66
15626600947451	Ross	8.80	1, 2, or 3	Fee Title or Easement	Private	B2-67
15626600955834	Ross	82.00	1, 2, or 3	Fee Title or Easement	Private	B2-68
15626602864399	Ross	0.60	1, 2, or 3	Fee Title or Easement	Private	B2-69
15626500578666	Ross	25.57	1, 2, or 3	Fee Title or Easement	Private	B2-7
15626602876107	Ross	0.73	1, 2, or 3	Fee Title or Easement	Private	B2-70

15626602878125	Ross	0.76	1, 2, or 3	Fee Title or Easement	Private	B2-71
15627600001157	Ross	10.00	1, 2, or 3	Fee Title or Easement	Private	B2-72
15627600010278	Ross	13.97	1, 2, or 3	Fee Title or Easement	Private	B2-73
15627600013488	Ross	11.46	1, 2, or 3	Fee Title or Easement	Private	B2-74
15627600030440	Ross	2.02	1, 2, or 3	Fee Title or Easement	Private	B2-75
15627600032379	Ross	0.14	1, 2, or 3	Fee Title or Easement	Private	B2-76
15627600036884	Ross	26.38	1, 2, or 3	Fee Title or Easement	Private	B2-77
15627600061185	Ross	0.30	1, 2, or 3	Fee Title or Easement	Private	B2-78
15627600063212	Ross	0.30	1, 2, or 3	Fee Title or Easement	Private	B2-79
15626500596468	Ross	1.00	1, 2, or 3	Fee Title or Easement	Private	B2-8
15627600065777	Ross	2.80	1, 2, or 3	Fee Title or Easement	Private	B2-80
15627600067629	Ross	2.30	1, 2, or 3	Fee Title or Easement	Private	B2-81
15627600068610	Ross	2.80	1, 2, or 3	Fee Title or Easement	Private	B2-82
15627600069551	Ross	3.04	1, 2, or 3	Fee Title or Easement	Private	B2-83
15627600077103	Ross	1.50	1, 2, or 3	Fee Title or Easement	Private	B2-84
15627600084086	Ross	69.00	1, 2, or 3	Fee Title or Easement	Private	B2-85
15627600124156	Ross	35.80	1, 2, or 3	Fee Title or Easement	Private	B2-86
15627600156514	Ross	24.33	1, 2, or 3	Fee Title or Easement	Private	B2-87
15627600163321	Ross	20.00	1, 2, or 3	Fee Title or Easement	Private	B2-88
15627600171599	Ross	7.99	1, 2, or 3	Fee Title or Easement	Private	B2-89
15626500673988	Ross	22.21	1, 2, or 3	Fee Title or Easement	Private	B2-9
15627600172365	Ross	2.80	1, 2, or 3	Fee Title or Easement	Private	B2-90
15627600173266	Ross	2.10	1, 2, or 3	Fee Title or Easement	Private	B2-91
15627600178746	Ross	1.83	1, 2, or 3	Fee Title or Easement	Private	B2-92
15627600188282	Ross	83.00	1, 2, or 3	Fee Title or Easement	Private	B2-93

15627600222745	Ross	8.78	1, 2, or 3	Fee Title or Easement	Private	B2-94
15627600225710	Ross	6.46	1, 2, or 3	Fee Title or Easement	Private	B2-95
15627600227724	Ross	6.96	1, 2, or 3	Fee Title or Easement	Private	B2-96
15627600229964	Ross	7.01	1, 2, or 3	Fee Title or Easement	Private	B2-97
15627600230808	Ross	70.26	1, 2, or 3	Fee Title or Easement	Private	B2-98
15627600257052	Ross	44.14	1, 2, or 3	Fee Title or Easement	Private	B2-99
16721900552511	Smithfield	1.40	1, 2, or 3	Fee Title or Easement	Private	E-17
16721900556689	Smithfield	1.80	1, 2, or 3	Fee Title or Easement	Private	E-18
16731000247252	Smithfield	7.25	1, 2, or 3	Fee Title or Easement	Private	E-19
16731000319472	Smithfield	2.98	1, 2, or 3	Fee Title or Easement	Private	E-20
16731000411547	Smithfield	1.26	1, 2, or 3	Fee Title or Easement	Private	E-21
16731000412222	Smithfield	2.67	1, 2, or 3	Fee Title or Easement	Private	E-22
16731000414506	Smithfield	1.09	1, 2, or 3	Fee Title or Easement	Private	E-23
16731000414955	Smithfield	4.53	1, 2, or 3	Fee Title or Easement	Private	E-24
16731000426240	Smithfield	1.00	1, 2, or 3	Fee Title or Easement	Private	E-25
16731000427333	Smithfield	1.00	1, 2, or 3	Fee Title or Easement	Private	E-26
16731000429617	Smithfield	2.53	1, 2, or 3	Fee Title or Easement	Private	E-27
16731000442404	Smithfield	58.28	1, 2, or 3	Fee Title or Easement	Private	E-28
16731000531003	Smithfield	0.75	1, 2, or 3	Fee Title or Easement	Private	E-29
16731000548256	Smithfield	4.53	1, 2, or 3	Fee Title or Easement	Private	E-30
16731000548754	Smithfield	1.17	1, 2, or 3	Fee Title or Easement	Private	E-31
16731000548993	Smithfield	1.00	1, 2, or 3	Fee Title or Easement	Private	E-32
16731000555514	Smithfield	33.74	1, 2, or 3	Fee Title or Easement	Private	E-33
16731000559097	Smithfield	1.02	1, 2, or 3	Fee Title or Easement	Private	E-34
16731000641538	Smithfield	1.08	1, 2, or 3	Fee Title or Easement	Private	E-35

16731000642704	Smithfield	1.15	1, 2, or 3	Fee Title or Easement	Private	E-36
16731000642886	Smithfield	1.16	1, 2, or 3	Fee Title or Easement	Private	E-37
16731000646042	Smithfield	2.50	1, 2, or 3	Fee Title or Easement	Private	E-38
16731000646935	Smithfield	2.64	1, 2, or 3	Fee Title or Easement	Private	E-39
16731000651109	Smithfield	1.23	1, 2, or 3	Fee Title or Easement	Private	E-40
16731000651362	Smithfield	1.02	1, 2, or 3	Fee Title or Easement	Private	E-41
16731000651456	Smithfield	1.04	1, 2, or 3	Fee Title or Easement	Private	E-42
16731000653041	Smithfield	1.22	1, 2, or 3	Fee Title or Easement	Private	E-43
16731000654172	Smithfield	1.10	1, 2, or 3	Fee Title or Easement	Private	E-44
16731000654500	Smithfield	1.06	1, 2, or 3	Fee Title or Easement	Private	E-45
16731000655247	Smithfield	1.62	1, 2, or 3	Fee Title or Easement	Private	E-46
16731000656564	Smithfield	2.35	1, 2, or 3	Fee Title or Easement	Private	E-47
16731000659828	Smithfield	1.58	1, 2, or 3	Fee Title or Easement	Private	E-48
16731000750465	Smithfield	3.57	1, 2, or 3	Fee Title or Easement	Private	E-49
16731000751735	Smithfield	1.27	1, 2, or 3	Fee Title or Easement	Private	E-50
16731000755147	Smithfield	106.14	1, 2, or 3	Fee Title or Easement	Private	E-51
16731001350002	Smithfield	5.65	1, 2, or 3	Fee Title or Easement	Private	E-52
16731001357098	Smithfield	3.20	1, 2, or 3	Fee Title or Easement	Private	E-53
16731001452300	Smithfield	0.70	1, 2, or 3	Fee Title or Easement	Private	E-54
16731001453887	Smithfield	0.27	1, 2, or 3	Fee Title or Easement	Private	E-55
16731001455792	Smithfield	2.75	1, 2, or 3	Fee Title or Easement	Private	E-56
16731001456501	Smithfield	3.05	1, 2, or 3	Fee Title or Easement	Private	E-57
16731001465032	Smithfield	0.35	1, 2, or 3	Fee Title or Easement	Private	E-58
16731001466304	Smithfield	9.48	1, 2, or 3	Fee Title or Easement	Private	E-59
16731001469397	Smithfield	0.41	1, 2, or 3	Fee Title or Easement	Private	E-60

16731001469813	Smithfield	2.35	1, 2, or 3	Fee Title or Easement	Private	E-61
16731002562751	Smithfield	4.56	1, 2, or 3	Fee Title or Easement	Private	E-62
16731002571106	Smithfield	6.97	1, 2, or 3	Fee Title or Easement	Private	E-63
16731002663236	Smithfield	21.78	1, 2, or 3	Fee Title or Easement	Private	E-64
16731002669440	Smithfield	5.70	1, 2, or 3	Fee Title or Easement	Private	E-65
16731002671242	Smithfield	14.27	1, 2, or 3	Fee Title or Easement	Private	E-66
16731002678291	Smithfield	3.59	1, 2, or 3	Fee Title or Easement	Private	E-67
16731002762776	Smithfield	4.25	1, 2, or 3	Fee Title or Easement	Private	E-68
16731002771180	Smithfield	0.99	1, 2, or 3	Fee Title or Easement	Private	E-69
16731003426943	Smithfield	4.40	1, 2, or 3	Fee Title or Easement	Private	E-70
16731003436487	Smithfield	10.09	1, 2, or 3	Fee Title or Easement	Private	E-71
16731003438295	Smithfield	0.51	1, 2, or 3	Fee Title or Easement	Private	E-72
16731003438950	Smithfield	3.70	1, 2, or 3	Fee Title or Easement	Private	E-73
16731004530198	Smithfield	0.66	1, 2, or 3	Fee Title or Easement	Private	E-74
16731004530338	Smithfield	0.25	1, 2, or 3	Fee Title or Easement	Private	E-75
16731004532312	Smithfield	0.37	1, 2, or 3	Fee Title or Easement	Private	E-76
16731004532500	Smithfield	0.39	1, 2, or 3	Fee Title or Easement	Private	E-77
16731004533423	Smithfield	0.38	1, 2, or 3	Fee Title or Easement	Private	E-78
16731004533525	Smithfield	0.21	1, 2, or 3	Fee Title or Easement	Private	E-79
16731004534506	Smithfield	0.14	1, 2, or 3	Fee Title or Easement	Private	E-80
16731004542020	Smithfield	5.50	1, 2, or 3	Fee Title or Easement	Private	E-81
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16731004544149	Smithfield	1.36	1, 2, or 3	Fee Title or Easement	Private	E-83
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17629900583108	Stroud	35.25	1, 2, or 3	Fee Title or Easement	Private	D-10
17720900458610	Stroud	7.04	1, 2, or 3	Fee Title or Easement	Private	D-100
17720900459482	Stroud	1.20	1, 2, or 3	Fee Title or Easement	Private	D-101
17720900472150	Stroud	94.98	1, 2, or 3	Fee Title or Easement	Private	D-102
17720900478916	Stroud	2.80	1, 2, or 3	Fee Title or Easement	Private	D-103
17720900486602	Stroud	3.20	1, 2, or 3	Fee Title or Easement	Private	D-104
17720900510603	Stroud	15.00	1, 2, or 3	Fee Title or Easement	Private	D-105
17720900514570	Stroud	12.04	1, 2, or 3	Fee Title or Easement	Private	D-106
17720900518416	Stroud	3.26	1, 2, or 3	Fee Title or Easement	Private	D-107
17720900520754	Stroud	6.69	1, 2, or 3	Fee Title or Easement	Private	D-108
17720900525165	Stroud	6.04	1, 2, or 3	Fee Title or Easement	Private	D-109
17629900636052	Stroud	10.60	1, 2, or 3	Fee Title or Easement	Private	D-11
17720900527173	Stroud	4.05	1, 2, or 3	Fee Title or Easement	Private	D-110
17720900529684	Stroud	36.62	1, 2, or 3	Fee Title or Easement	Private	D-111
17720900530757	Stroud	0.90	1, 2, or 3	Fee Title or Easement	Private	D-112
17720900552722	Stroud	4.45	1, 2, or 3	Fee Title or Easement	Private	D-113
17720900556002	Stroud	18.90	1, 2, or 3	Fee Title or Easement	Private	D-114
17720900561611	Stroud	3.40	1, 2, or 3	Fee Title or Easement	Private	D-115
17720900561951	Stroud	1.00	1, 2, or 3	Fee Title or Easement	Private	D-116
17720900567613	Stroud	49.11	1, 2, or 3	Fee Title or Easement	Private	D-117
17720900570420	Stroud	1.00	1, 2, or 3	Fee Title or Easement	Private	D-118
17720900572028	Stroud	1.60	1, 2, or 3	Fee Title or Easement	Private	D-119
17629900640716	Stroud	44.00	1, 2, or 3	Fee Title or Easement	Private	D-12
17720900586358	Stroud	76.46	1, 2, or 3	Fee Title or Easement	Private	D-120

17720900590344	Stroud	2.27	1, 2, or 3	Fee Title or Easement	Private	D-121
17720900592810	Stroud	4.21	1, 2, or 3	Fee Title or Easement	Private	D-122
17720900595759	Stroud	7.16	1, 2, or 3	Fee Title or Easement	Private	D-123
17720900615588	Stroud	3.31	1, 2, or 3	Fee Title or Easement	Private	D-124
17720900623281	Stroud	6.00	1, 2, or 3	Fee Title or Easement	Private	D-125
17720900646027	Stroud	73.48	1, 2, or 3	Fee Title or Easement	Private	D-126
17720900653131	Stroud	22.83	1, 2, or 3	Fee Title or Easement	Private	D-127
17720900657286	Stroud	7.18	1, 2, or 3	Fee Title or Easement	Private	D-128
17720900662284	Stroud	3.00	1, 2, or 3	Fee Title or Easement	Private	D-129
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17720900691646	Stroud	2.10	1, 2, or 3	Fee Title or Easement	Private	D-131
17720900691918	Stroud	2.50	1, 2, or 3	Fee Title or Easement	Private	D-132
17720900722077	Stroud	2.61	1, 2, or 3	Fee Title or Easement	Private	D-133
17720900728123	Stroud	21.20	1, 2, or 3	Fee Title or Easement	Private	D-134
17720900739219	Stroud	46.21	1, 2, or 3	Fee Title or Easement	Private	D-135
17720900750490	Stroud	13.82	1, 2, or 3	Fee Title or Easement	Private	D-136
17720900752974	Stroud	2.85	1, 2, or 3	Fee Title or Easement	Private	D-137
17720900757643	Stroud	16.86	1, 2, or 3	Fee Title or Easement	Private	D-138
17720900760226	Stroud	0.13	1, 2, or 3	Fee Title or Easement	Private	D-139
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17720900760598	Stroud	6.20	1, 2, or 3	Fee Title or Easement	Private	D-140
17720900762938	Stroud	2.80	1, 2, or 3	Fee Title or Easement	Private	D-141
17720900765938	Stroud	4.80	1, 2, or 3	Fee Title or Easement	Private	D-142
17720900778272	Stroud	7.30	1, 2, or 3	Fee Title or Easement	Private	D-143

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17720900843778	Stroud	23.30	1, 2, or 3	Fee Title or Easement	Private	D-146
17720900853831	Stroud	21.00	1, 2, or 3	Fee Title or Easement	Private	D-147
17720900865973	Stroud	4.70	1, 2, or 3	Fee Title or Easement	Private	D-148
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17720900920455	Stroud	6.38	1, 2, or 3	Fee Title or Easement	Private	D-150
17720900944045	Stroud	44.70	1, 2, or 3	Fee Title or Easement	Private	D-151
17720900964141	Stroud	78.68	1, 2, or 3	Fee Title or Easement	Private	D-152
17720900969870	Stroud	11.49	1, 2, or 3	Fee Title or Easement	Private	D-153
17720900981276	Stroud	25.10	1, 2, or 3	Fee Title or Easement	Private	D-154
17720900988886	Stroud	2.81	1, 2, or 3	Fee Title or Easement	Private	D-155
17720900994184	Stroud	4.30	1, 2, or 3	Fee Title or Easement	Private	D-156
17720900994959	Stroud	31.00	1, 2, or 3	Fee Title or Easement	Private	D-157
17720900997377	Stroud	2.90	1, 2, or 3	Fee Title or Easement	Private	D-158
17720901297890	Stroud	4.44	1, 2, or 3	Fee Title or Easement	Private	D-159
17629900673843	Stroud	7.24	1, 2, or 3	Fee Title or Easement	Private	D-16
17720901390624	Stroud	2.72	1, 2, or 3	Fee Title or Easement	Private	D-160
17720901393666	Stroud	3.22	1, 2, or 3	Fee Title or Easement	Private	D-161
17721900068136	Stroud	58.66	1, 2, or 3	Fee Title or Easement	Private	D-162
17721900080847	Stroud	2.53	1, 2, or 3	Fee Title or Easement	Private	D-163
17721900098560	Stroud	11.00	1, 2, or 3	Fee Title or Easement	Private	D-164
17721900169894	Stroud	18.00	1, 2, or 3	Fee Title or Easement	Private	D-165
17721900170360	Stroud	113.50	1, 2, or 3	Fee Title or Easement	Private	D-166

17721900188878	Stroud	15.30	1, 2, or 3	Fee Title or Easement	Private	D-167
17721900192635	Stroud	2.64	1, 2, or 3	Fee Title or Easement	Private	D-168
17721900197705	Stroud	3.27	1, 2, or 3	Fee Title or Easement	Private	D-169
17629900682595	Stroud	14.83	1, 2, or 3	Fee Title or Easement	Private	D-17
17721900265108	Stroud	9.59	1, 2, or 3	Fee Title or Easement	Private	D-170
17721900275879	Stroud	39.86	1, 2, or 3	Fee Title or Easement	Private	D-171
17721900363715	Stroud	21.86	1, 2, or 3	Fee Title or Easement	Private	D-172
17721900369638	Stroud	4.38	1, 2, or 3	Fee Title or Easement	Private	D-173
17721900372500	Stroud	1.97	1, 2, or 3	Fee Title or Easement	Private	D-174
17721900373530	Stroud	0.18	1, 2, or 3	Fee Title or Easement	Private	D-175
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17730000109036	Stroud	12.14	1, 2, or 3	Fee Title or Easement	Private	D-177
17730000207269	Stroud	3.05	1, 2, or 3	Fee Title or Easement	Private	D-178
17730000216350	Stroud	194.00	1, 2, or 3	Fee Title or Easement	Private	D-179
17629900730255	Stroud	4.08	1, 2, or 3	Fee Title or Easement	Private	D-18
17730000300483	Stroud	0.00	1, 2, or 3	Fee Title or Easement	Private	D-180
17730000303711	Stroud	9.60	1, 2, or 3	Fee Title or Easement	Private	D-181
17730000308200	Stroud	17.00	1, 2, or 3	Fee Title or Easement	Private	D-182
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17730000423447	Stroud	12.40	1, 2, or 3	Fee Title or Easement	Private	D-186
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17730000602954	Stroud	0.32	1, 2, or 3	Fee Title or Easement	Private	D-188
17730000603275	Stroud	0.95	1, 2, or 3	Fee Title or Easement	Private	D-189

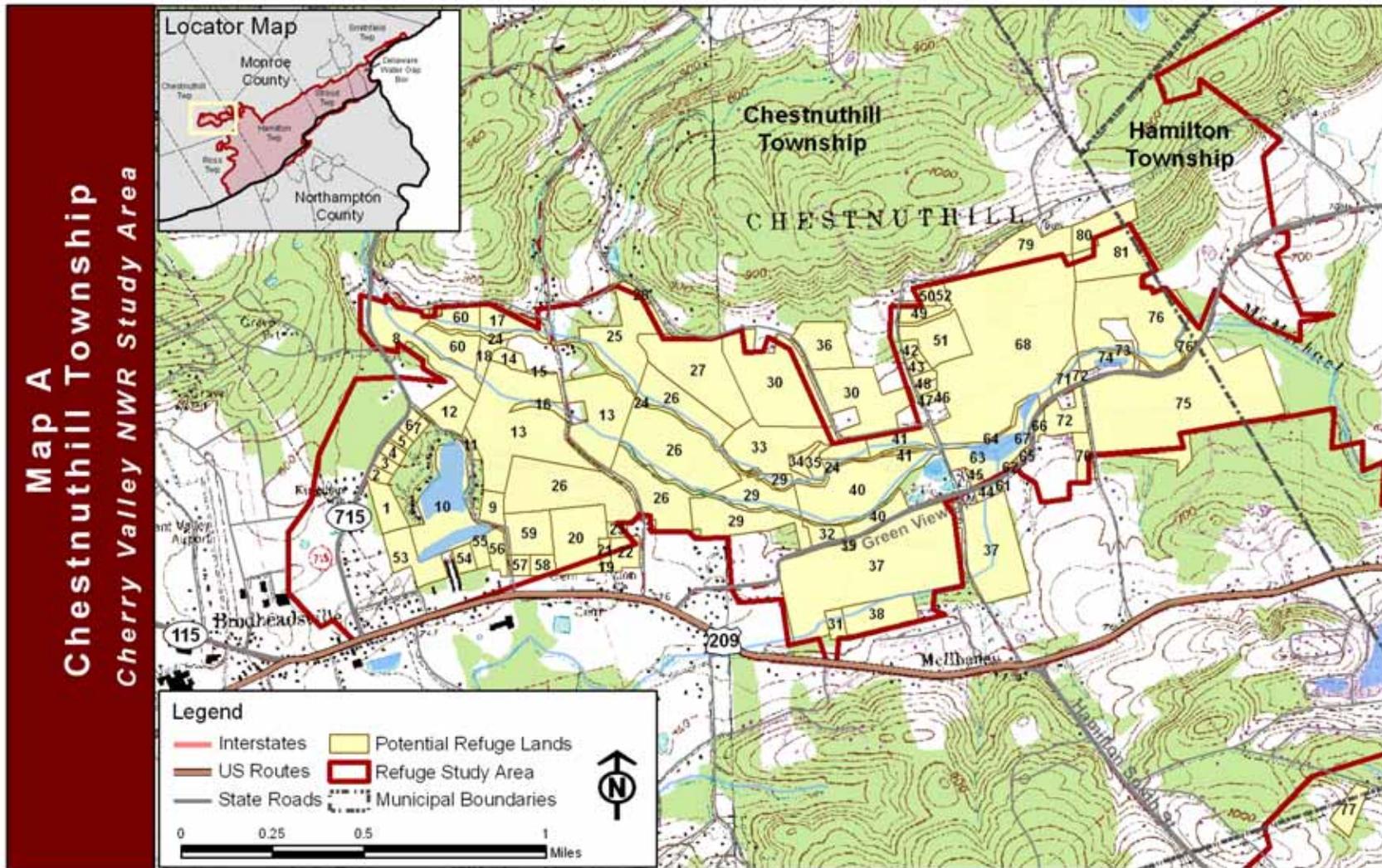
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17730000611934	Stroud	6.15	1, 2, or 3	Fee Title or Easement	Private	D-192
17730000614303	Stroud	6.50	1, 2, or 3	Fee Title or Easement	Private	D-193
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17730000725780	Stroud	1.97	1, 2, or 3	Fee Title or Easement	Private	D-202
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17730000917546	Stroud	2.00	1, 2, or 3	Fee Title or Easement	Private	D-204
17730000948321	Stroud	6.49	1, 2, or 3	Fee Title or Easement	Private	D-205
17731000006305	Stroud	13.08	1, 2, or 3	Fee Title or Easement	Private	D-206
17731000008015	Stroud	8.61	1, 2, or 3	Fee Title or Easement	Private	D-207
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17731000033934	Stroud	1.43	1, 2, or 3	Fee Title or Easement	Private	D-209
17629900736511	Stroud	3.82	1, 2, or 3	Fee Title or Easement	Private	D-21
17731000034968	Stroud	1.45	1, 2, or 3	Fee Title or Easement	Private	D-210

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17731000105437	Stroud	4.79	1, 2, or 3	Fee Title or Easement	Private	D-215
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17731000139925	Stroud	4.27	1, 2, or 3	Fee Title or Easement	Private	D-218
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17629900785265	Stroud	4.25	1, 2, or 3	Fee Title or Easement	Private	D-26
17629900789584	Stroud	17.20	1, 2, or 3	Fee Title or Easement	Private	D-27
17629900793595	Stroud	123.04	1, 2, or 3	Fee Title or Easement	Private	D-28
17629900808137	Stroud	14.00	1, 2, or 3	Fee Title or Easement	Private	D-29
17629900477230	Stroud	4.90	1, 2, or 3	Fee Title or Easement	Private	D-3
17629900814897	Stroud	37.72	1, 2, or 3	Fee Title or Easement	Private	D-30
17629900827821	Stroud	8.82	1, 2, or 3	Fee Title or Easement	Private	D-31
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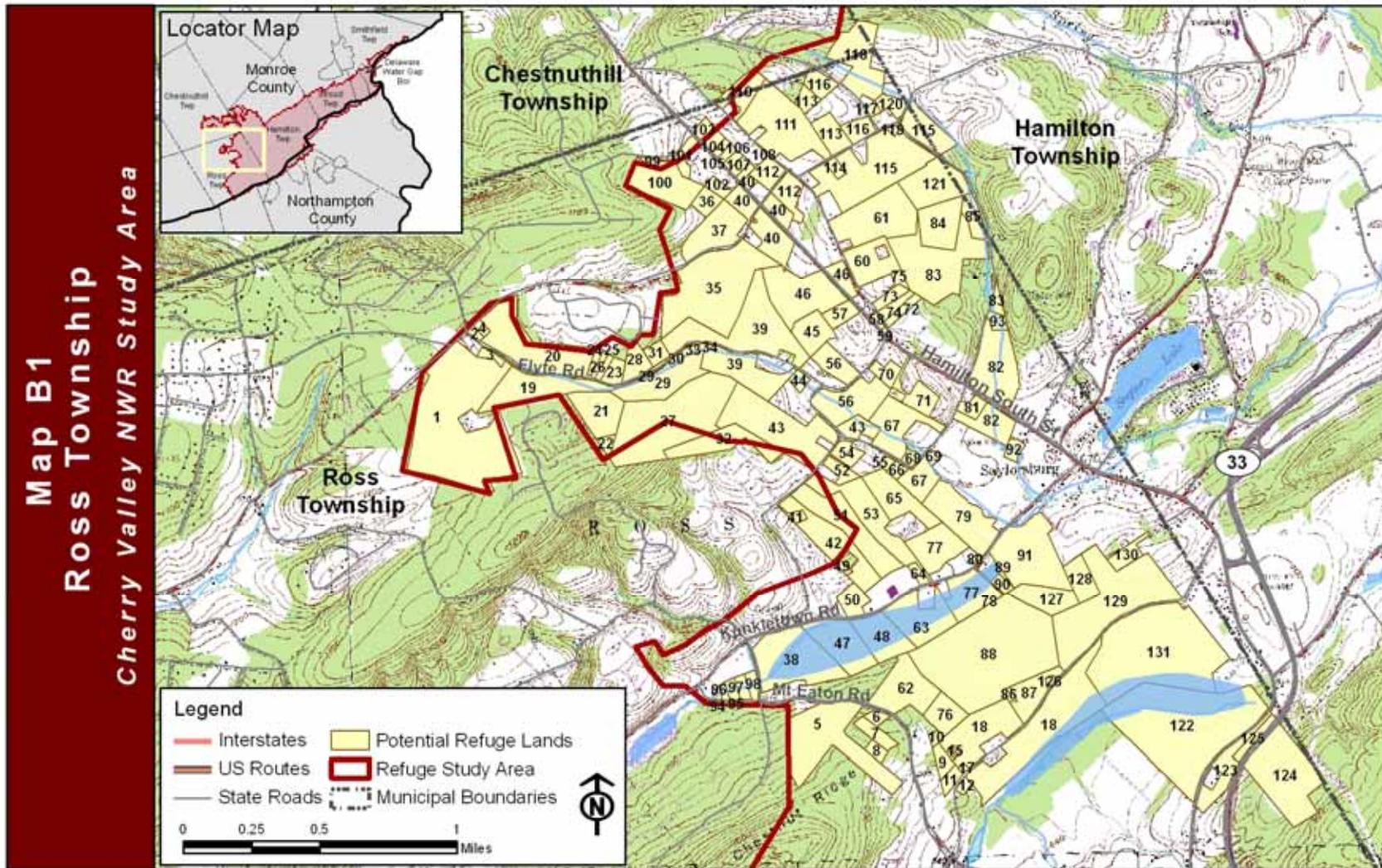
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17720900191249	Stroud	0.46	1, 2, or 3	Fee Title or Easement	Private	D-76
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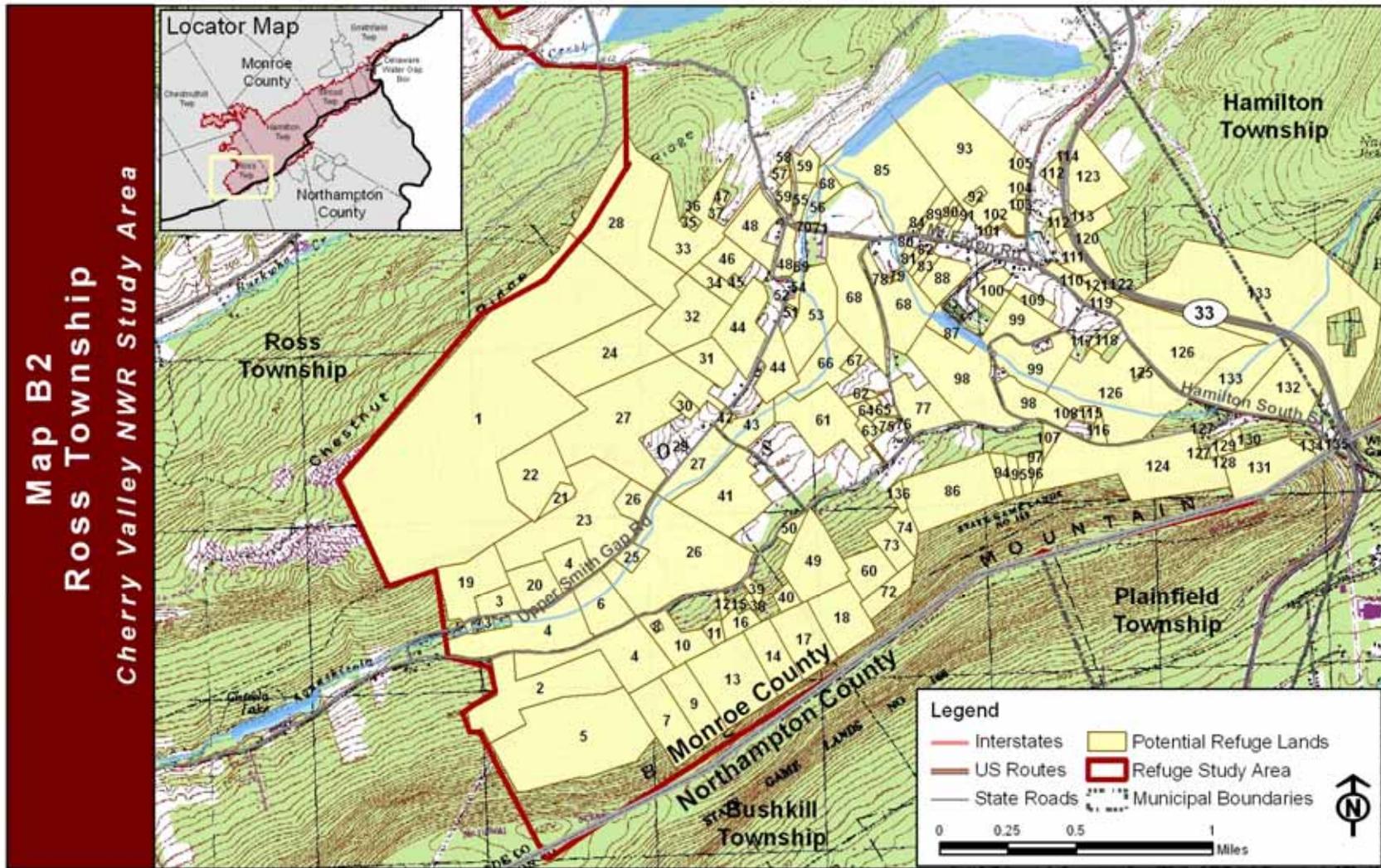
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17720900416902	Stroud	0.39	1, 2, or 3	Fee Title or Easement	Private	D-94
17720900426906	Stroud	3.99	1, 2, or 3	Fee Title or Easement	Private	D-95
17720900434555	Stroud	6.58	1, 2, or 3	Fee Title or Easement	Private	D-96
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17720900452158	Stroud	2.76	1, 2, or 3	Fee Title or Easement	Private	D-98
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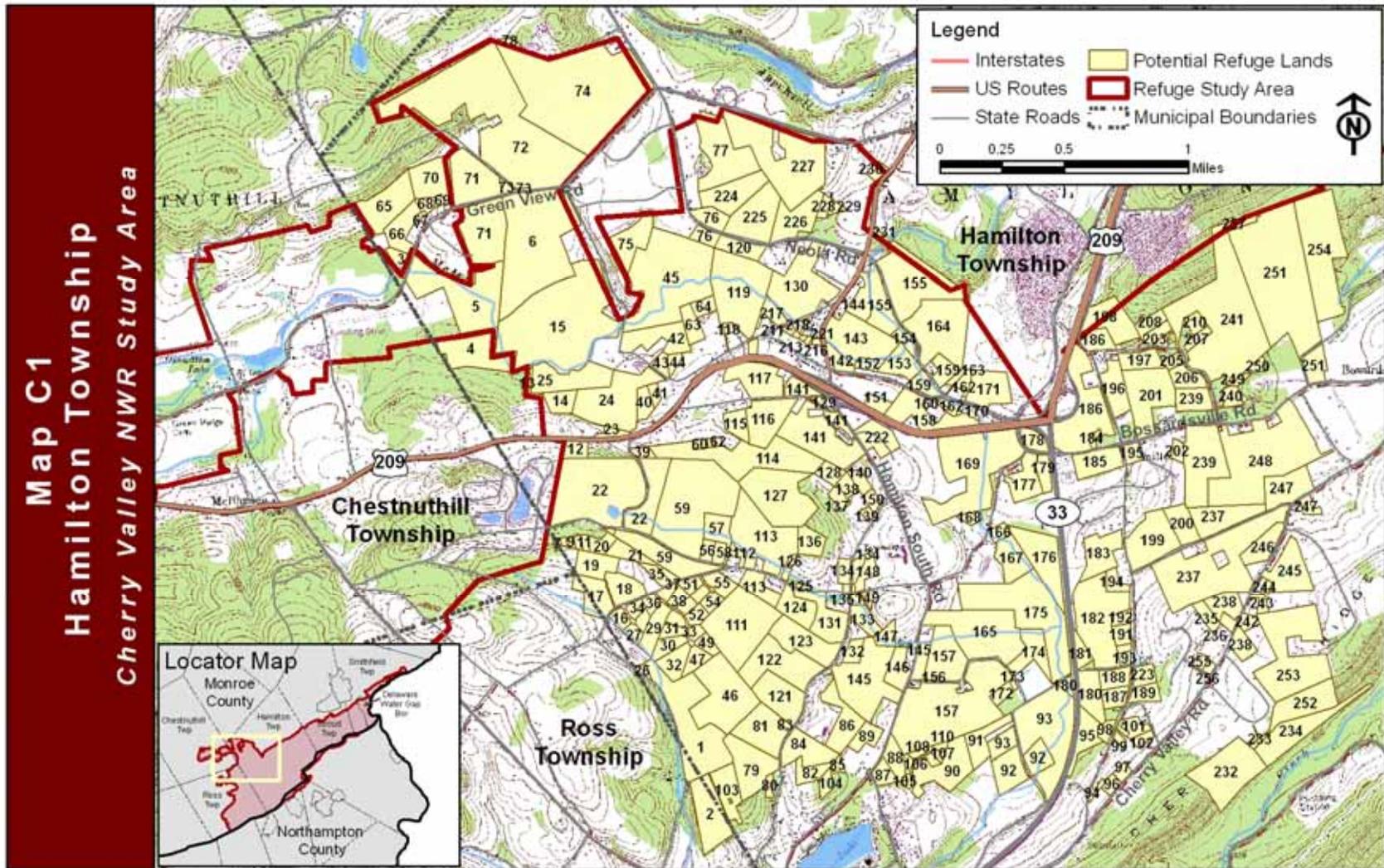
Map A. Parcels (or portions of parcels) within Chestnuthill Township that might be considered for inclusion in a potential National Wildlife Refuge in Cherry Valley, Monroe County, Pennsylvania.



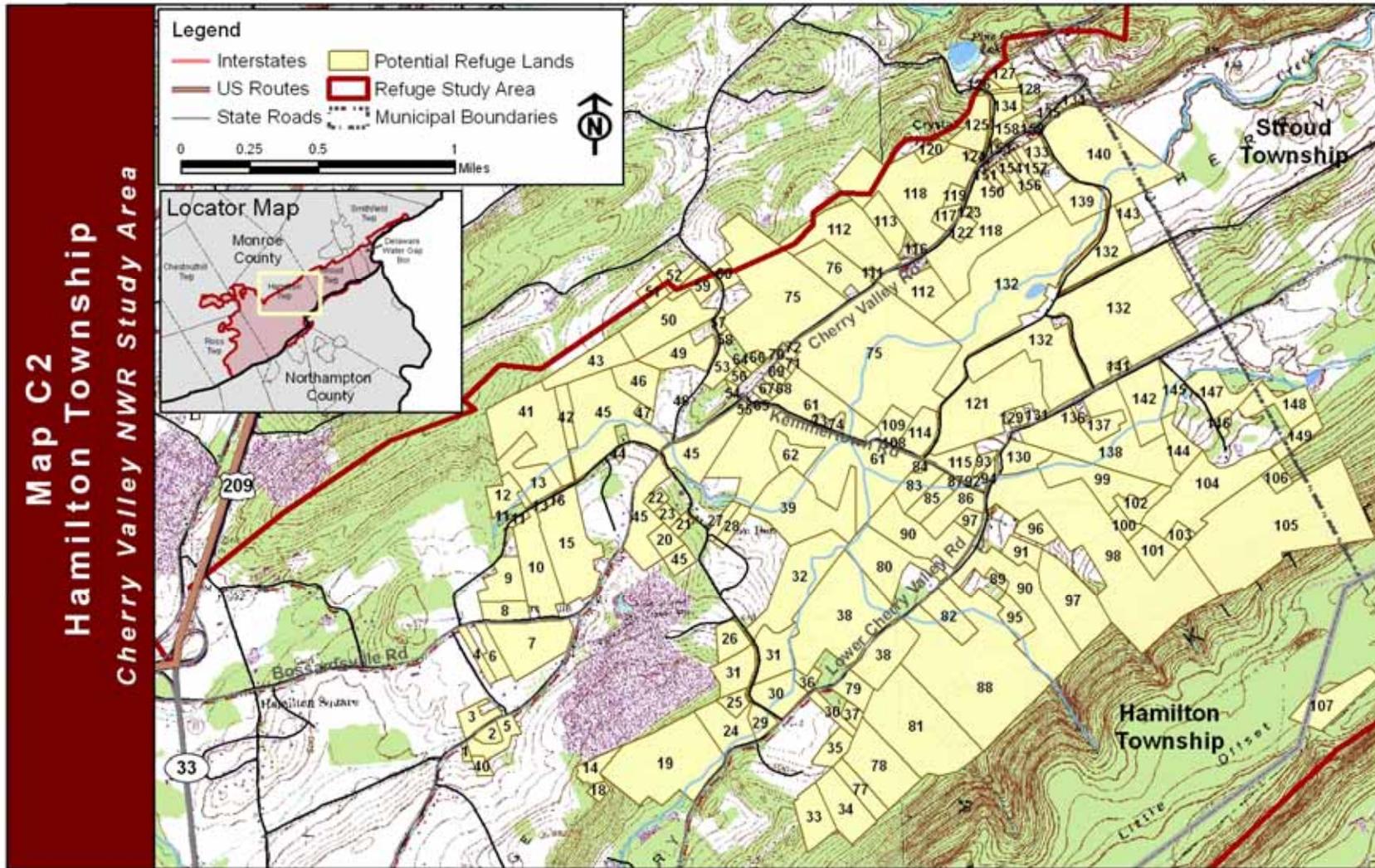
Map B - 1. Parcels (or portions of parcels) within Ross Township that might be considered for inclusion in a potential National Wildlife Refuge in Cherry Valley, Monroe County, Pennsylvania.



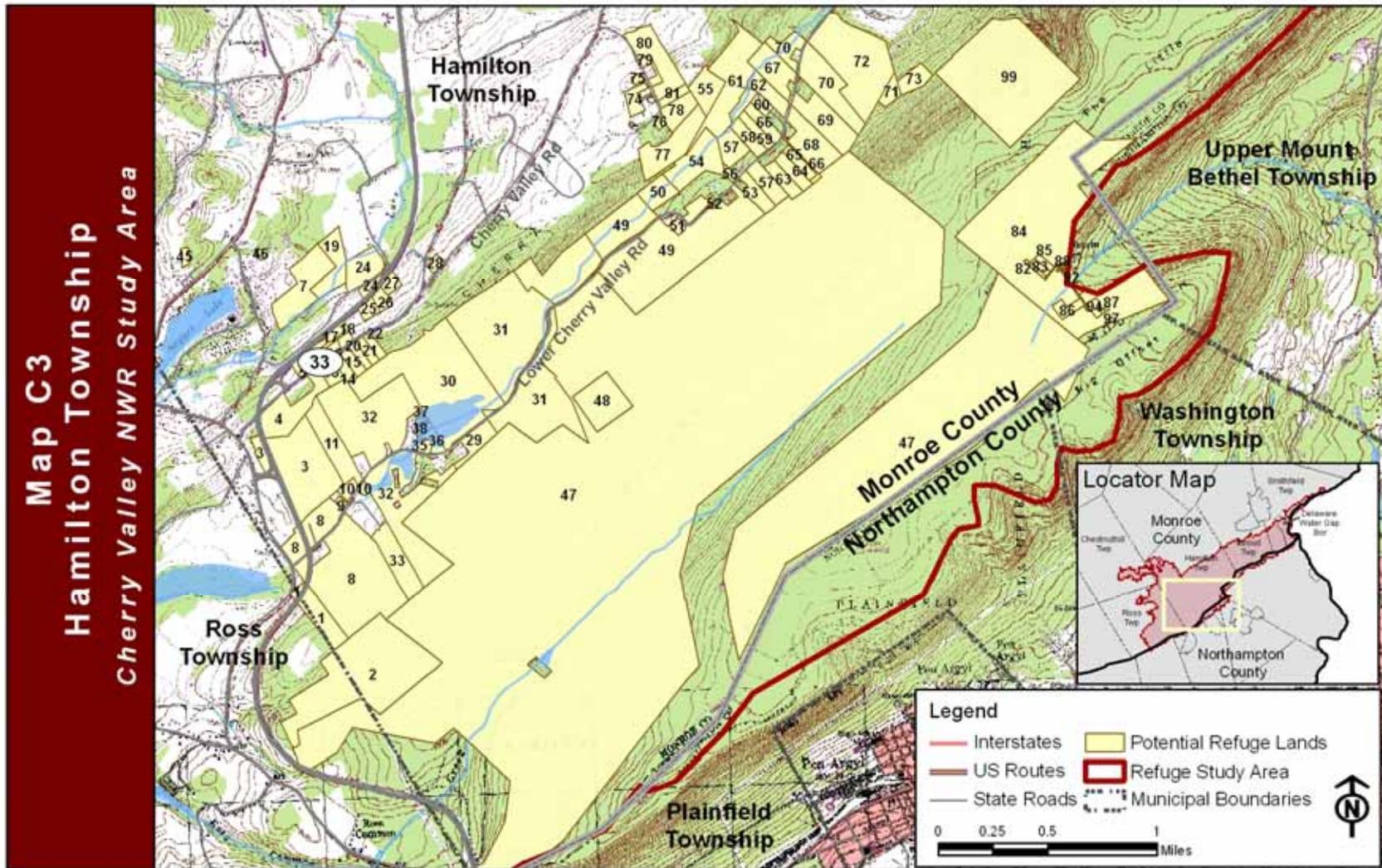
Map B-2. Parcels (or portions of parcels) within Ross Township that might be considered for inclusion in a potential National Wildlife Refuge in Cherry Valley, Monroe County, Pennsylvania.



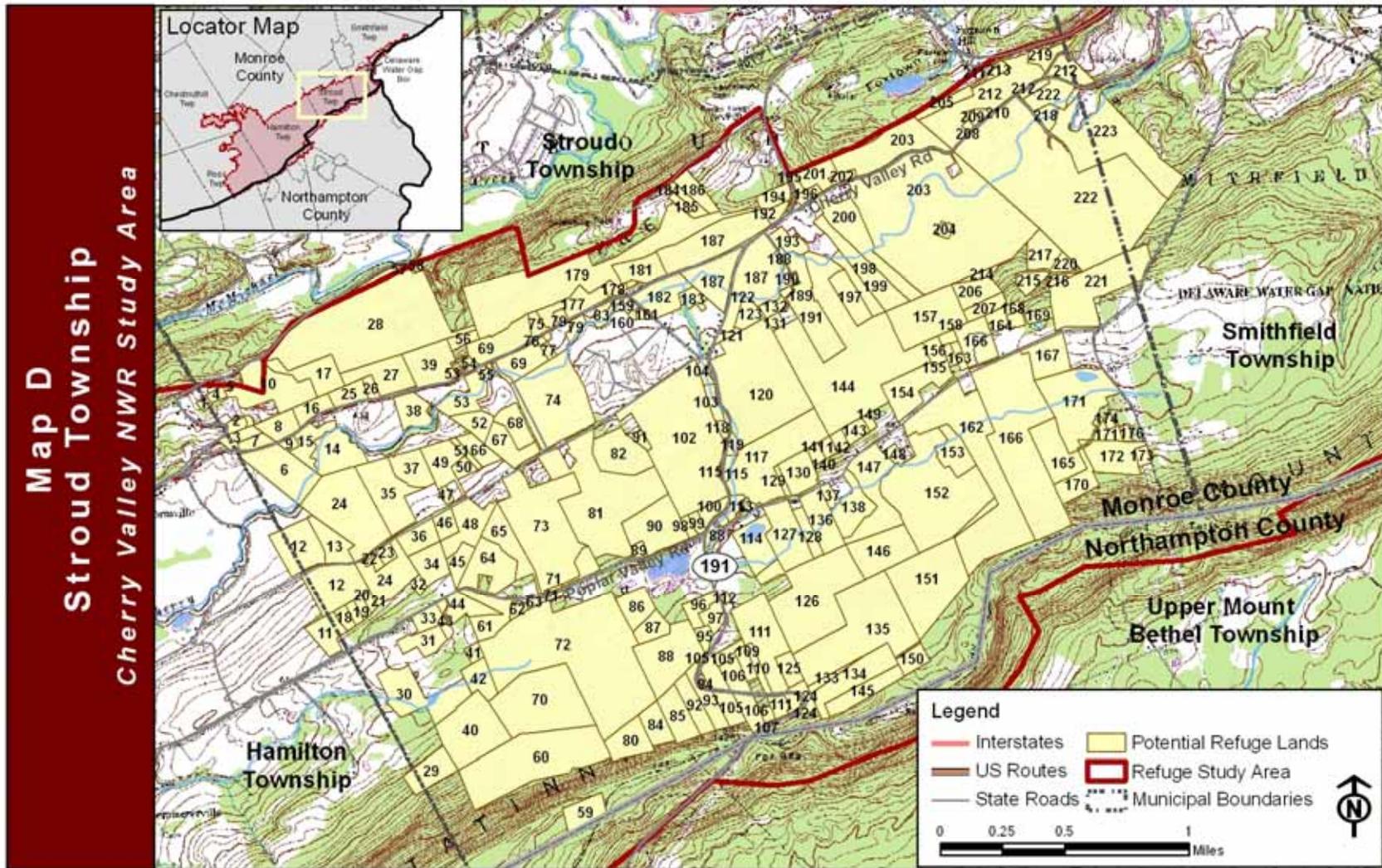
Map C-1. Parcels (or portions of parcels) within Hamilton Township that might be considered for inclusion in a potential National Wildlife Refuge in Cherry Valley, Monroe County, Pennsylvania.



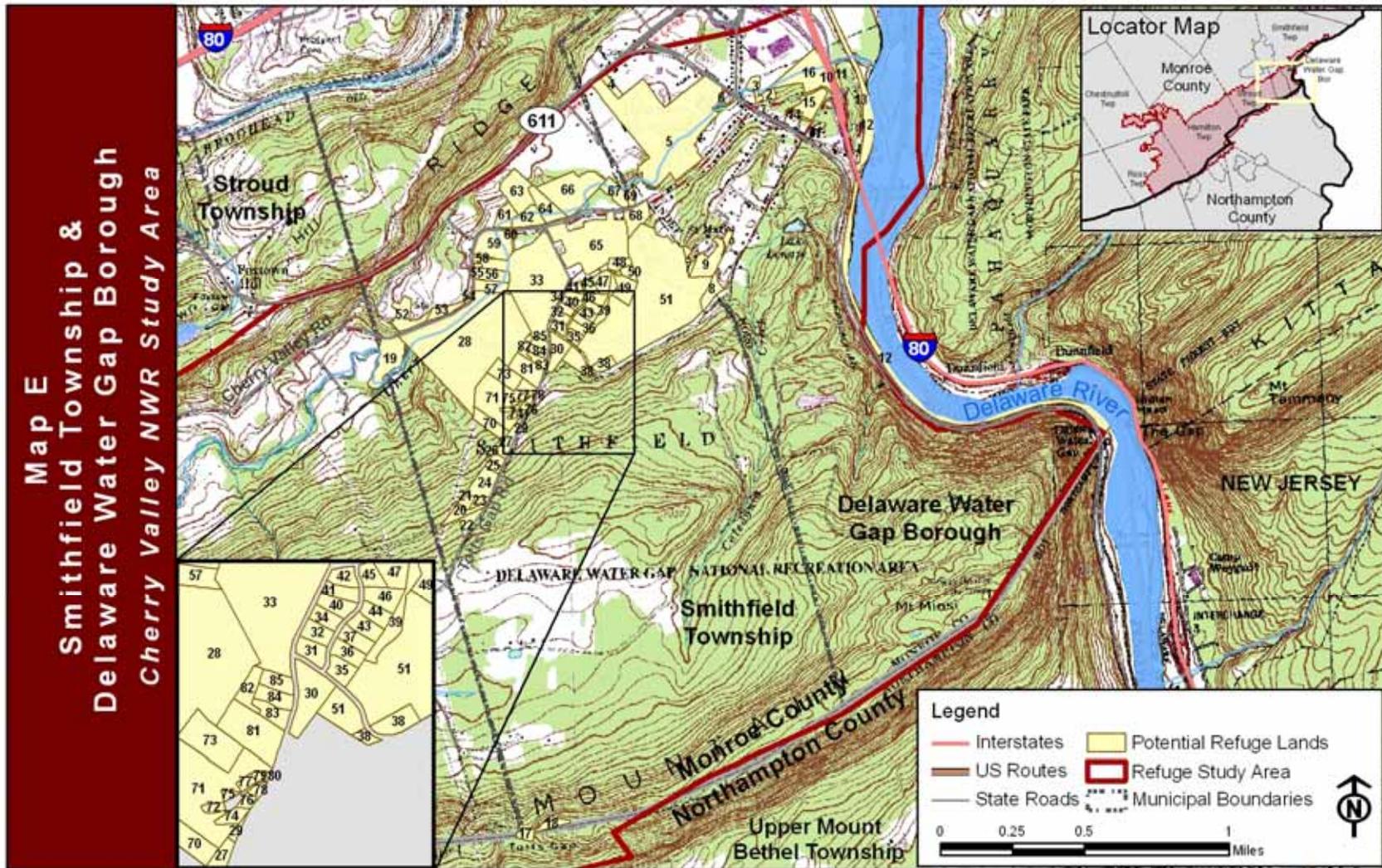
Map C-2. Parcels (or portions of parcels) within Hamilton Township that might be considered for inclusion in a potential National Wildlife Refuge in Cherry Valley, Monroe County, Pennsylvania.



Map C-3. Parcels (or portions of parcels) within Hamilton Township that might be considered for inclusion in a potential National Wildlife Refuge in Cherry Valley, Monroe County, Pennsylvania.



Map D. Parcels (or portions of parcels) within Stroud Township that might be considered for inclusion in a potential National Wildlife Refuge in Cherry Valley, Monroe County, Pennsylvania.



Map E. Parcels (or portions of parcels) within Smithfield Township that might be considered for inclusion in a potential National Wildlife Refuge in Cherry Valley, Monroe County, Pennsylvania.

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Appendix F

DRAFT

Realty Feasibility Study for a Proposed Cherry Valley National Wildlife Refuge Pennsylvania

Prepared by:

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September 15, 2008

DISCLAIMER

The following document comprises a theoretical manipulation of data for the sole purpose of demonstrating how information might be drawn from data. **IT IS NOT A COST ESTIMATE, AN APPRAISAL, AN APPRAISAL REPORT, OR A CONSULTATION REPORT.** Any results or conclusions drawn from the data are for purposes of illustration only and are not to be utilized for any other purpose.

Separation of this Disclaimer from this document makes invalid the entire document.

Introduction

In 2006, the 109th Congress passed the Cherry Valley National Wildlife Refuge Study Act (Study Act) which directed the U.S. Fish and Wildlife Service (Service) to evaluate the valley's fish and wildlife habitats for their potential inclusion through donation, exchange, or willing seller purchase, in a future Cherry Valley National Wildlife Refuge and to submit a report containing the results of the evaluation.

One element of this report is to be a map that identifies specific lands and waters and that delineates an acquisition boundary for a potential Cherry Valley National Wildlife Refuge.

A second element is to be a cost estimate for the acquisition of all lands, waters, and interests therein that are appropriate for refuge status.

The purpose of this realty feasibility study is to provide a broad estimate of the cost to acquire all lands, waters, and interests that have been deemed appropriate for refuge status with the study boundary as defined in the Study Act.

While real property interests can be acquired by the Service through donations and exchanges, purchases from willing sellers are the most commonly used method. A property's interests can be acquired "in fee" whereby all interests, formally known as the fee simple estate, are conveyed. Alternatively, a portion of the rights or interests associated with a property can be acquired. Specific rights can be reserved by the seller or specific rights can be acquired by the Service. A conservation easement is the means most commonly used by the Service to ensure protection of a property while not acquiring it in fee. Conservation easements typically allow the Service to purchase the rights of development, timbering, mining and hunting.

Methodology

The Cherry Valley Study Team (CVST), a group comprised of representatives of the Service, The Nature Conservancy, and other interested parties, was convened to develop the most suitable alternatives for accomplishing the conservation benefits to be gained from the establishment of a Cherry Valley National Wildlife Refuge. The Service subsequently determined that the recommended alternative for achieving these benefits was Alternative B – Diverse Habitat Complex.

After the initial analyses had already been completed for this document, the CVST realized that approximately 1,500 acres along lower Cherry Creek had likely been inadvertently excluded from the Study Act boundary. Consequently, this section was included in the analyses presented in the main document and, where possible, other appendices. Of the additional 1,500 acres, the Service identified approximately 700

acres that were appropriate for inclusion in a refuge and these were added to the original 19,723 acres proposed under alternative B. Unfortunately, the analyses for this document had already been completed; therefore, we had insufficient time to incorporate the additional acres into this document. Overall, these acres represent less than 4 percent of the proposed refuge area.

Alternative B envisions a total of 20,466 acres of potential refuge lands, well within the Study Act's requirement that "[t]he total area of lands, water and interests therein that may be acquired shall not in the aggregate exceed 30,000 acres." However, as explained above, approximately 700 acres from the Lower Cherry Creek section have not been included in these analyses.

This alternative seeks to protect the optimal amount of desired habitat and biological communities while excluding, to the greatest extent reasonable, properties or portions of properties that have already been developed or have substantial structures on them. While the protection of unimproved land is the highest priority of any refuge land acquisition program, there are inevitably situations where the acquisition of an improvement is necessary for habitat protection purposes. The location and value of such improvements cannot be predicted and thus they have not been included in the results of this study.

Identification of appropriate properties or portions of properties most appropriate for inclusion in a proposed refuge was done through personal inspection of lands within the Cherry Valley National Wildlife Refuge Study Act boundary, and through the use of a series of maps constructed by Monroe County Planning Commission (MCPC) personnel that utilized Pennsylvania Department of Conservation and Natural Resources PAMAP Program 2005 color orthophotos of the area with a parcel overlay.

Maps delineating areas proposed for inclusion in any future refuge, as well as areas to be excluded, were created using the orthophoto base. Individual parcels were mapped using MCPC assigned General Land Use Descriptions as well as owner names, block and lot numbers, and calculated acreages.

A database of all properties within the Study Act boundary was modified to reflect only those parcels recommended for inclusion in the proposed refuge. Within this modified database, properties were sorted by MCPC General Land Use Descriptions, hereafter referred to as general land use categories, and then by the more specific Monroe County Assessor's Land Use Codes. Sale Price to Assessed Value ratios were calculated for each group of sales in each general land use category, utilizing all sales where the ratio was greater than 1.0. Assessed values for the categories of land and of buildings came from the most recent reassessment done by Monroe County in 1988. These ratios were then applied to the land component only, of those properties within the same general land use category that had sale prices less than their assessed values. The vast majority of these transactions were for unspecified amounts, for no monetary

consideration, or for one dollar. In this way, the values of the land components for known sales were estimated.

Total sale prices for each general land use category, both those calculated directly and those calculated through application of the ratios, were then adjusted to reflect the proportion of the property proposed for inclusion in the refuge. These weighted subtotals for calculated and estimated costs were then averaged and per acre costs calculated.

Sales within the Residential general land use categories were broken into subclasses based on size (less than ten acres and ten acres and greater), with ratios calculated for each subclass. Sales in the Vacant general land use categories were broken into subclasses based on sales price, as acreage was not strongly correlated with sale price.

There are only nine parcels proposed for inclusion in a future refuge that are larger than 150 acres. As the number of transfers of these properties was insufficient for analysis, sales of large acreage properties outside the Study Act boundary, but within Monroe County, were used to estimate the per acre cost of these tracts. Given the average size of the parcels to be included (647 acres), the two sales closest in size were utilized to calculate an interpolated per acre value.

The area within the proposed refuge includes 300 acres already subject to conservation easements and 1,047 acres subject to agricultural easements. The conservation easements were typically acquired by non-governmental conservation organizations or by townships and the agricultural easements were purchased by Monroe County. The lands subject to agricultural easements are different from those subject to Pennsylvania's Act 319 restrictions, which act essentially as a seven year easement on properties, but one which permits very limited (one two acre lot per year) development.

As the Service will likely address the protection of properties already subject to easements, on an individual property basis and over an extended period, for the purposes of this study these lands will be treated as lands that will be protected through acquisition.

To estimate the cost of protecting lands through the purchase of conservation easements, an analysis was done on all known easements in the proposed refuge area, for which the market values of the property both before and after application of the easements were available. An analysis of the data resulted in a calculated mean value of easements of 66% of the unencumbered value of the property. This percentage, when applied to the per acre fee values for each general land use class produced a per acre value for easements on each land use class. That value, when multiplied by half of the number of acres in each class (i.e. the number to be protected through easements) resulted in a cost of protecting half that land use class' acres through easements.

Results and Discussion

While analysis of the data produced a range of sale price to assessed value ratios, for the most significant general land use categories, including those for agriculture, forests, and residential use, the range was from 4.0 to 5.5. The residential category that comprises mobile homes, courts, and parks, as well as garages, sheds, etc., ranged higher, from 6.25 to 7.25, as did the categories for services and retail trade. The highest ratio, 10.3, was for the general land use category of Vacant, Undeveloped and Unused Land Area, reflecting the higher value of land available for residential development. Lot sizes of the sales indicate that the vast majority of these parcels are suitable for only one residence.

Not unexpectedly, estimated per acre prices varied widely by general land use category. While the relatively low value for excess acreage from large residential lots was predictable, that for excess industrial acreage appears to reflect the high proportion of property value that lies in improvements. Agricultural and forested properties subject to Pennsylvania's Act 319 fell in the middle of the range of per acre values.

A summary of a broad analysis of the data is shown in Table 1 and Table 2. Table 1 shows, by General Land Use Description, the number of acres identified for inclusion in the proposed refuge and the estimated costs, per acre and total, for each land use category, if all lands were to be acquired in fee.

Table 2 shows the number of acres and per acre cost, by general land use categories, if half of the area to be included in the proposed refuge was to be protected through fee purchase and the other half was to be protected through the purchase of conservation easements (Alternative B). In regard to the interests to be acquired through easements, the focus group determined that to accomplish the goals of the proposed refuge, acquisition of the development rights, timber, mining (surface and subsurface), and hunting associated with any given property is essential. Water rights and life use are interests, the reservation of which could be negotiated.

Not included in these summary tables but crucial nonetheless, are the significant and unavoidable costs associated with land acquisition. The cost of appraisals, surveys, contaminant inspections, as well as essential travel costs, can add appreciably to the cost of each acquisition, be it of a fee or an easement interest.

Table 1. Protection of Lands in a Proposed Cherry Valley NWR Through Acquisition of Fee Interests Only

General Land Use Description	Land Use Codes	Total assessed acres	Proposed refuge (acres)	Est. Cost / Fee Acre	Est. Cost
Agriculture	Agricultural Reserve - Act 319	1,812	1,633	\$3,583	\$5,850,847
Agriculture	Agriculture - Act 319	4,253	3,432	\$3,001	\$10,229,265
Forest	Forest Reserve - Act 319	4,909	4,321	\$3,013	\$13,020,295
Communication/ Transportation/ Utilities	Undeveloped & Unused	39	39	\$4,984	\$194,380
Communication/ Transportation/Utilities	Tracts > 150 acs.	5,703	3,885	\$4,035	\$15,675,975
Industrial	Various	440	374	\$2,554	\$955,305
Cultural, Public/Private Parks & Rec.	Undeveloped & Unused, etc.	359	340	\$3,073	\$1,044,743
Residential	Household Units < 10 acs.	1,654	989	\$7,908	\$7,820,946
Residential	Household Units > 10 acs.	1,940	1,812	\$2,607	\$4,724,331
Residential	Mobile home courts, garages, etc.	363	308	\$5,262	\$1,620,642
Residential	Developments, apts., timeshare, etc.	345	220	\$8,879	\$1,953,354
Hotels	Transient lodging	50	20	\$11,303	\$226,061
Services, resorts, group camps	Retail, professional, F.I.R.E.	323	304	\$13,878	\$4,218,805
Vacant	Undeveloped & Unused - low	1,170	1,048	\$6,590	\$6,905,996
Vacant	Undeveloped & Unused - middle	754	752	\$11,410	\$8,580,029
Vacant	Undeveloped & Unused - high	272	259	\$35,261	\$9,132,516
Rounding adjustment			-13		(\$60,749)
Estimated Costs (Fee) and Acreages		24,385	19,723		\$92,092,741
Average Cost Per Acre (Fee)				\$4,669	

Table 2. Alternative B - Protection of Lands in a Proposed Cherry Valley NWR through Acquisition of Conservation Easements (50%) and of Fee Interests (50%)

General Land Use Description	Land Use Codes	Proposed Refuge Acres	Proposed Fee Acres	Est. Cost/ Fee Acre	Proposed Esmnt Acres	Est. Cost/ Esmnt Ac	Est. Tot. Cost
Agriculture	Agricultural Reserve - Act 319	1,633	817	\$3,583	816	\$2,365	\$4,857,151
Agriculture	Agriculture - Act 319	3,432	1,716	\$3,001	1,716	\$1,981	\$8,549,112
Forest	Forest Reserve - Act 319	4,321	2,161	\$3,013	2,160	\$1,989	\$10,807,333
Commnctn/Transp/Utilities	Undeveloped & Unused	39	19	\$4,984	20	\$3,289	\$160,476
Commnctn/Transp/Utilities	Tracts > 150 acs.	3,885	1,943	\$4,035	1,942	\$2,663	\$13,011,551
Industrial	Various	374	187	\$2,554	187	\$1,686	\$792,880
Cultural, Pub./Prvt Parks & Rec	Undeveloped & Unused, etc.	340	170	\$3,073	170	\$2,028	\$867,170
Residential	Household Units < 10 acs.	989	494	\$7,908	495	\$5,219	\$6,489,957
Residential	Household Units > 10 acs.	1,812	906	\$2,607	906	\$1,721	\$3,921,168
Residential	Mobile home courts, garages, etc.	308	154	\$5,262	154	\$3,473	\$1,345,190
Residential	Developments, apts., timeshare, etc.	220	110	\$8,879	110	\$5,860	\$1,621,290
Hotels	Transient lodging	20	10	\$11,303	10	\$7,460	\$187,630
Services, resorts, group camps	Retail, professional, F.I.R.E.	304	152	\$13,878	152	\$9,159	\$3,501,624
Vacant	Undeveloped & Unused - low	1,048	524	\$6,590	524	\$4,349	\$5,732,036
Vacant	Undeveloped & Unused - middle	752	376	\$11,410	376	\$7,531	\$7,121,816
Vacant	Undeveloped & Unused - high	259	129	\$35,261	130	\$23,272	\$7,574,029
Rounding adjustment		-13	-7		-6		
			9,861		9,862		
Estimated Costs (50% Fee, 50% Easement) and Acreages		19,723					\$76,540,413
Average Cost Per Acre (Fee)							\$3,881

Non-Federal Funding Options for Protection of Lands in Cherry Valley

It is important to note that significant private, municipal, county and state funds have been spent on land protection efforts in Cherry Valley and will likely continue to serve as an important complement to federal protection actions. There are several additional options for non-federal funding of land acquisition in Cherry Valley that could be helpful in protecting its habitats.

The North American Wetlands Conservation Act Grants Program provides grants under its Standard Grants Program and its Small Grants Program to organizations and individuals who have developed partnerships to carry out wetlands conservation projects. Both are competitive grants programs that require grant requests be matched by partner contributions at no less than a 1-to-1 ratio. The Standard Grants Program supports projects in Canada, the United States, and Mexico that involve long-term protection, restoration, and/or enhancement of wetlands and associated uplands. Total funding in 2008 is \$82.4 million, of which 50 percent of total available funds are used to support projects in the United States. Total funding for the U.S. Standard Grants Program in 2008 is \$52.9 million. Grant requests to the Small Grants Program may not exceed \$75,000 and funding priority is given to grantees or partners new to the Small Grants Program. Funding for 2008 is \$2 million.

The Neotropical Migratory Bird Conservation Act Grants Program supports public-private partnerships carrying out projects that promote the long-term conservation of neotropical migratory birds and their habitats. At least 75 percent of the total funding available for grants each fiscal year is to be used to support projects outside the United States. Funding for 2008 is \$4.5 million.

The National Oceanographic and Atmospheric Administration's (NOAA) Damage Assessment, Remediation, and Restoration Program works to assess and restore natural resources injured by releases of oil and hazardous substances, as well as by vessel groundings. It works to implement remedial actions that protect NOAA trust resources and to recover funds from responsible parties to assure long-term protection of natural resources.

Conclusion

Alternative B proposes 20,466 acres for protection through their inclusion in the proposed Cherry Valley National Wildlife Refuge. The estimated cost of acquiring the fee interest in these lands is almost \$92.1 million. Alternative B estimates that 50% of these lands would be protected through purchase in fee and 50% through the purchase of conservation easements. The estimated cost of fully accomplishing this alternative is slightly in excess of \$76,500,000, with an average cost per acre of approximately \$3,881. Land protection efforts using non-federal funds have played and will continue to play an essential role in the protection of lands in Cherry Valley.

Acronyms and Abbreviations

ACJV	Atlantic Coast Joint Venture	NEPA	National Environmental Policy Act of 1969
AMBCR	Appalachian Mountains Bird Conservation Region		
ARPA	Antiquities Resource Protection Act	NHCR	National State Agency Herpetological Conservation Report
AT	Appalachian Trail	NWR	National Wildlife Refuge
BCS	Birds of Conservation Concern	PARC	Partners in Amphibian and Reptile Conservation
BCR	Bird Conservation Region	PIF	Partners in Flight
CCP	Comprehensive Conservation Plan	Refuge	National Wildlife Refuge
CEQ	Council on Environmental Quality	Refuge System	National Wildlife Refuge System
CMP	Conceptual Management Plan	Secretary	Secretary of the Department of Interior
CSA	Community Supported Agriculture	Service	U.S. Fish and Wildlife Service
CVST	Cherry Valley Study Team	SHPO	(Pennsylvania) State Historic Preservation Office
DCNR	(Pennsylvania) Department of Conservation and Natural Resources	Study Act	Cherry Valley Study Act of 2006
DEP	(Pennsylvania) Department of Environmental Protection	Study Area	Study Area defined in the Cherry Valley Study Act of 2006
EA	Environmental Assessment	Study Report	Report required in the Cherry Valley Study Act of 2006
Eagle Act	Bald and Golden Eagle Protection Act	SWG	State Wildlife Grant program
EBTJV	Eastern Brook Trout Joint Venture	TNC	The Nature Conservancy
Improvement Act	National Wildlife Refuge System Improvement Act of 1997	U.S.	United States
IPCC	Intergovernmental Panel on Climate Change	USFWS	U.S. Fish and Wildlife Service
LPP	Land Protection Plan	WAP	(State) Wildlife Action Plan
MANEM Region	Mid-Atlantic/New England/Maritimes Region	WMU	Wildlife Management Unit
MBTA	Migratory Bird Treaty Act	WPC	Western Pennsylvania Conservancy
NABCI	North American Bird Conservation Initiative		
NAWMP	North American Waterfowl Management Plan		

National Wildlife Refuge System
300 Westgate Center Drive
Hadley, MA 01035
413/253 8521
413/253 8468 FAX
<http://www.fws.gov/northeast/planning/Cherry%20Valley/lcphome.html>
northeastplanning@fws.gov

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

U.S. Fish & Wildlife Service
<http://www.fws.gov>

For Refuge Information
1 800/344 WILD

October 2008



Cherry Valley (background photo) and *Bog Turtle*
George C. Gress/The Nature Conservancy

Northeastern bulrush
The Nature Conservancy

Eastern brook trout
Eric Engbretson/USFWS

Cerulean warbler
Ohio Department of Natural Resources