

Appendix B



Eric Engbretson/USFWS

Brook trout

Compatibility Determinations and Findings of Appropriateness

- **Compatibility Determinations**
 - Wildlife Observation and Photography and Environmental Education and Interpretation
 - Fishing
 - Walking (Hiking), Snowshoeing and Cross Country Skiing
- **Findings of Appropriateness**
 - Walking (Hiking), Snowshoeing and Cross Country Skiing
 - ATV, ORV and Motorbike Use
 - Backpacking and Camping
 - Bicycling
 - Geocaching
 - Horseback Riding
 - Jogging
 - Pet Dogs
 - Picnicking

Compatibility Determination

USE: Wildlife Observation and Photography, Environmental Education, and Interpretation

REFUGE NAME: John Hay National Wildlife Refuge (Refuge) in Newbury, Merrimack County, New Hampshire.

DATE ESTABLISHED: The Refuge was established March 19, 1987 with the donation of 164 acres from the estate of Alice Hay.

ESTABLISHING AND ACQUISITION AUTHORITY: *Migratory Bird Conservation Act (45 Stat. 1222). The State Enabling Legislation Citation was the New Hampshire Revised Statutes Annotated 1955, title IX, Chapter 121, Section 1:1-1:8.*

REFUGE PURPOSE(S): The Refuge was established to be “exclusively for public use as an inviolate sanctuary for migratory birds, as a migratory bird and wildlife reservation..., and for other conservation purposes consistent therewith.” (Deed of Donation from Alice Hay to the United States of America, December 11, 1972).

NATIONAL WILDLIFE REFUGE SYSTEM MISSION: 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.

DESCRIPTION OF USE:

(a) **What is the use? Is the use a priority public use?** The uses considered in this Compatibility Determination are Wildlife Observation and Photography, Environmental Education and Interpretation. These were established as priority public uses by Executive Order 12996 (March 25, 1996), and legislatively mandated by the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). These four uses are being considered in conjunction as related uses pursuant to 603 FS 2.12(A).

(b) **Where would the use be conducted?** The Refuge comprises approximately 80 acres of mostly upland forest habitats along the southeast shore of Lake Sunapee, Newbury, New Hampshire (see Maps 1-1 and 1-2). There is a single perennial stream, Beech Brook, that originates east of Route 103A and flows west across the Refuge, emptying into Lake Sunapee. Recent habitat inventories documented two fens, a vernal pool, and an intermittent stream. The entire Refuge would be open to wildlife observation and photography, environmental education, and interpretation (Map 2-2). In reality, most public uses are expected to be on or adjacent to the John Hay II Ecology Trail (Ecology Trail), along the shore of Lake Sunapee, and possibly on the Woods Road. A second trail, proposed for access to the lake shore from the southeast corner of the Refuge, would also be available for these uses. Visitors will have the opportunity to view, photograph and learn about a diverse array of wildlife and habitats including:

- Approximately 77 birds such as osprey (*Pandion haliaetus*; state-listed threatened) and bald eagles (*Haliaeetus leucocephalus*; federally-delisted in 2007, state-listed as endangered);
- A variety of mammals including white-tailed deer (*Odocoileus virginianus*), black bear (*Ursus americanus*), snowshoe hare (*Lepus americanus*), gray and red squirrels (*Sciurus carolinensis* and *Tamiasciurus hudsonicus*, respectively), and eastern chipmunks (*Tamias striatus*);
- Two amphibians, wood frog (*Rana sylvatica*) and spotted salamander (*Ambystoma maculatum*). Undoubtedly there are other amphibians and reptiles, however no formal surveys have been

completed;

- Several fish such as eastern brook trout (*Salvelinus fontinalis*) and rainbow smelt (*Osmerus mordax*);
- Numerous invertebrates; and,
- High quality habitats including mature eastern white pine (*Pinus strobus*), early forest succession, meadows, and a riparian corridor.

(c) When would the use be conducted? The Refuge would be open for wildlife observation and photography, environmental education and interpretation throughout the year. There is a long tradition of year-round visitation to the John Hay Refuge by outdoor enthusiasts who come to observe and photograph wildlife and their habitats. Others enjoy the beautiful view of Lake Sunapee from the Refuge shoreline. The Refuge has been open for these public uses since it was established in 1987, thus there is an established tradition of these wildlife-dependent, priority public uses.

Wildlife Observation and Photography, Environmental Education and Interpretation-related visitation is highest between Memorial Day and Labor Day. This coincides with the busy season at The Fells, from which most Refuge visitation is derived. People walking to the estate house on the gravel driveway from the parking lot can detour onto the Refuge via the Ecology Trail which begins and ends on the estate grounds (see Map 2-2). It is estimated that about 10 percent of visitors take advantage of this trail, although visitor numbers are not formally monitored.

Visitation during winter is lower because fewer people walk the estate grounds during cold, inclement weather. Off-season activities are commonly associated with programs and classes hosted by The Fells. Those related to native habitats, ecology, or wildlife often use the Refuge as an outdoor classroom.

The Refuge is open to the public from sunrise to sunset. After hours, a Special Use Permit is required.

d) How would the use be conducted? Typically, visitors park in The Fells' parking lot at the gatehouse and enter the Refuge on the Ecology Trail, which begins just behind the gatehouse. The trail ends on the lawn of the estate house (Map 2-2). An alternative is the Woods Road which begins near the southeastern corner of the Refuge and ends at the estate driveway. This access is not marked on the highway, so use is probably limited to those familiar with the Refuge. During summer, boaters anchor near the Refuge shoreline and swim or wade to the shore, particularly at the small sandy beach. Signs prohibiting access from the lake are posted; however, many are faded and no longer legible. This type of access would continue to be prohibited to limit impacts to the shoreline habitats.

Visitors would be allowed to travel on foot anywhere on the Refuge to observe, photograph, or study wildlife and habitats. Except for administrative purposes, motorized vehicles of any kind would be prohibited from the Refuge. Most use will be concentrated on the Ecology Trail because it affords a well-developed access with plastic yellow directional markers on trees. People wishing to experience more remote settings could do so by exploring the rest of the Refuge via Woods Road or by bushwhacking through forested habitats.

There are no facilities or staff to formally offer environmental education or interpretation to the public, so most visitation is self-guided. However, there are numbered posts along the trail that corresponds to a brochure available at the beginning of the trail, near the gatehouse. Stops provide information on wildlife, geology, habitats, and history. The Fells offers some interpreted nature hikes and outdoor class activities on the Refuge.

(e) Why is this use being proposed? Wildlife Observation and Photography, Environmental Education, and Interpretation are priority public uses as defined by Executive Order 12996 (March 25, 1996) and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). These legitimate and appropriate

uses of a national wildlife refuge are generally considered compatible, as long as they do not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System (NWRS) mission or the purposes of the national wildlife refuge.

The Refuge has been available for these types of public uses since it was first acquired in 1987. Although not large in size, the 80 acres includes interesting wildlife and ecological features including large, mature white pine stands, black gum or tupelo trees (*Nyssa sylvatica*), and two fens. People have had the opportunity to enjoy this property in the past and continuing to allow these priority public uses complies with the intention of Congress and will not detrimentally affect refuge resources. From a larger perspective, the Refuge and the adjacent Hay Reservation owned by the Society for the Protection of New Hampshire Forests offers nearly 1,000 acres of contiguous conserved land available for public uses from the Lake Sunapee shoreline to the Sunset Hill ridgeline.

Allowing these priority wildlife-dependent uses to continue would enhance the opportunity of the Service to reach the public and maintain consistency in management. The public would be able to experience traditional recreation long associated with the area to better appreciate the wildlife resources and high quality habitats, and become better informed about the Refuge, the NWRS, and the U.S. Fish and Wildlife Service (Service).

AVAILABILITY OF RESOURCES: Sufficient Refuge resources in terms of personnel and budget are available to administer these uses. Although the Refuge is approximately two hours from the Sunderland, Massachusetts headquarters, personnel from The Fells keeps staff apprised of issues and opportunities. Conte staff will be responsible for on-site evaluations to resolve public use issues, monitor and evaluate impacts, maintain boundaries and signs, and meet with adjacent landowners and interested public, when necessary.

Annualized costs associated with the administration of Wildlife Observation and Photography, Environmental Education and Interpretation at the John Hay Refuge are estimated below:

Project Leader (GS-14) - Coordination with the State of New Hampshire, Congressional delegation and other interested parties (\$1,000).

Law Enforcement Officer (GS-9) – Patrols (\$1,200)

Outdoor Recreation Planner (GS-12) – Coordination with The Fells and seasonal staff (\$1,500)

Assistant Manager (GS-12) - On-site meetings with visitors, volunteers and other interested parties, infrastructure maintenance, and visitor use impact monitoring (\$1,500).

Seasonal Visitor Services Specialist (GS 7) – Stationed at the Gate House from Memorial Day to Labor Day. Handle daily operations and offer interpretive programs and environmental education (\$2,500).

Estimated Annual Costs = **\$7,700**

ANTICIPATED IMPACTS OF THE USE: Wildlife Observation and Photography, Environmental Education and Interpretation can result in positive or negative impacts to the wildlife resource. A positive effect of public involvement in these priority public uses will be a better appreciation and more complete understanding of the wildlife and habitats associated with northern New England ecosystems. This can translate into more widespread and stronger support for the Refuge, the NWRS, and the Service.

Direct Effects

Direct impacts are those where the activity has an immediate effect on wildlife. Anticipated direct impacts include disturbance to wildlife by human presence which typically results in a temporary displacement without long-term effects to individuals or populations. Based on historic use patterns most visitors

participating in these four priority public uses will stay on the existing developed Ecology Trail. Hiking off-trail through the forest in the spring through fall seasons can be difficult and unpleasant for some due to the number of biting insects, poor footing, and vegetative undergrowth. Effects should not be significant because the use generally will be spatially and temporally predictable (i.e., on the trail during daylight hours). Based on observations, off-trail use is limited primarily to the shoreline, with few indications that the interior forest is used by visitors. Although the habitat is in some respects high quality, it is not known to be essential to any wildlife at the John Hay Refuge.

Repeated visits to view rare or susceptible wildlife (e.g., nesting birds, spawning rainbow smelt) could pose a problem, although there is no indication that this has been an issue in the past. No species listed by the U.S. Fish and Wildlife Service as endangered or threatened are known from the Refuge, nor are there any wildlife concentration areas. However, five birds recognized by the New Hampshire Fish and Game Department as either endangered (bald eagle, *Haliaeetus leucocephalus*), or threatened (common loon, *Gavia immer*; osprey, *Pandion haliaetus*; common nighthawk, *Chordeiles minor*; and Cooper's hawk, *Accipiter cooperii*) are species that warrant additional consideration. Of these, the common loon would be unlikely to use the forested habitats on the Refuge. Minute Island potentially could serve as nesting habitat; however, there are no records of this occurring. Bald eagles and ospreys, are observed in the area during the summer, but have not nested on the Refuge to date. The large, overstory white pines offer suitable nest sites in close proximity to the lake. Cooper's hawks also could nest on the Refuge; but there are no records of this. Each of these birds can be affected by frequent human disturbance during the mating, nesting, or brood rearing seasons. There is no evidence that disturbance by people engaged in these four priority public uses are detrimentally affecting these or any other wildlife species. The Fells staff will be the best source of information regarding conflicts because they are on site nearly every day and communicate regularly with visitors. It will be important to monitor, evaluate, and, if necessary, manage public use patterns should impacts reach a level that impairs successful breeding.

Indirect Effects

Indirect impacts are those which ultimately, but not immediately affect wildlife. A good example would be repeated visitation that results in impacts to habitat. Habitat degradation could, through time, result in negative consequences to wildlife. Impacts to wildlife habitat are expected to be minimal and limited to the area immediately along the Ecology Trail and, to a lesser degree, the Woods Road. These routes have been in existence for many years and the only discernable impact is soil compaction on the paths. Effects resulting from a new angler access across the southern half of the Refuge would have similar limited impacts to wildlife because the number of visitors would be limited by the small (two to three vehicles) parking area.

People can be vectors for invasive plants when seeds or other propagules are moved from one area to another. Once established, invasives can out-compete native plants, thereby altering habitats and indirectly impacting wildlife. Fortunately, at this time, invasive plants are a minor problem at the Refuge. Invasive plants known on the Refuge include Japanese barberry (*Berberis thunbergii*). The threat of invasive plant establishment will always be an issue requiring annual monitoring, and when necessary, treatment; however, invasives seem to be manageable at the Refuge, thanks to the control efforts of The Fells and their volunteers.

Cumulative Effects

Effects that are minor when considered alone, but collectively may be important are known as cumulative effects. It appears that use of the Refuge is well within the acceptable capacities, based on observations by staff from the Refuge and The Fells. The only concerns noted to date were the two places where the Ecology Trail crosses Beech Brook and the shoreline beach.

The Fells estate and its historic significance is the primary draw for visitors. Refuge visitors tend to be a subset of these people who want to learn more about the forest habitats, its wildlife, and engage in one or

more of the four priority public uses under consideration. These uses have occurred on the Refuge since the time it became public property and there is no evidence that cumulatively, these uses have caused unacceptable impacts to the wildlife resource. Although a substantial increase in the cumulative impacts from public use is not expected in the near term, it will be important for staff to monitor use and respond if necessary to conserve the existing high quality wildlife resources.

No additional effects from Wildlife Observation and Photography, Environmental Education or Interpretation are anticipated. Impacts from the aggregate of public uses seem to be within acceptable limits as there is no evidence of resource degradation, except as noted above. Staff will monitor and evaluate the effects of public use in collaboration with The Fells and the other conservation partners in an effort to discern and respond to unacceptable impacts to wildlife and habitats.

PUBLIC REVIEW AND COMMENT:

DETERMINATION:

THIS USE IS COMPATIBLE WITH THE FOLLOWING STIPULATIONS X

THIS USE IS NOT COMPATIBLE _____
 (Check One)

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY: The following stipulations will be adopted to ensure compatibility:

Minimize or avoid negative impacts to wildlife and habitat:

1. Conte staff, in conjunction with The Fells and other volunteers, will monitor and evaluate public use impacts on the Refuge. Corrective actions will be initiated when necessary.
2. The visitors will be prohibited from harassing, baiting, and playing recorded or artificial wildlife calls and songs to attract wildlife (this does not necessarily apply to management activities).
3. Pertinent public use information and updates will be disseminated through The Fells, local media, posted in The Fells gatehouse, and, in the future, will be posted on the kiosk to be constructed in the relocated parking lot.
4. Refuge staff should develop and implement a monitoring program to assess visitor use impacts on wildlife and their habitats.
5. Use information gained from monitoring to appropriately modify programs and uses to ensure compatibility through an adaptive management system.

Visitor safety:

1. Address the safety concern posed by the undeveloped Ecology Trail crossings of Beech Brook. Options include installation of a footbridge(s) and/or trail relocation.
2. A shared Law Enforcement Officer is available to aid in providing for visitor safety, monitor compliance with laws and regulations, perform outreach to visitors, and provide feedback to management staff about visitor use and associated impacts that will help enable adaptive management.

Minimize or avoid conflicts between different types of uses:

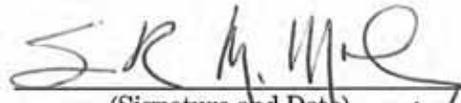
1. Make visitors aware of the priority status of Wildlife Observation and Photography, Environmental Education and Interpretation, Hunting, and Fishing on National Wildlife Refuges.
2. Use education and interpretation to explain the importance of wildlife and habitat management.

JUSTIFICATION: Wildlife Observation and Photography, Environmental Education and Interpretation are priority wildlife-dependent uses for the NWRS through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and The National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)). The Service's policy is to provide enhanced opportunities for these uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management. All four have been ongoing activities at the Refuge for many years. Based on observations by Refuge staff and discussions with The Fells staff these priority wildlife-dependent uses should not materially interfere with or detract from the fulfillment of the NWRS mission or the purposes of the John Hay National Wildlife Refuge. On the contrary, adopting these uses will help the Refuge meet the intended purpose of a refuge "exclusively for public use as an inviolate sanctuary for migratory birds, as a migratory bird and wildlife reservation..., and for other conservation purposes consistent therewith." (Deed of Donation from Alice Hay to the United States of America, December 11, 1972).

Signature: Refuge Manager:


(Signature and Date) 06-11-10

Acting
Concurrence: Regional Chief:


(Signature and Date) 6/18/10

Mandatory 15-year re-evaluation date:

Compatibility Determination

USE: Fishing

REFUGE NAME: John Hay National Wildlife Refuge in Newbury, Merrimack County, New Hampshire.

DATE ESTABLISHED: The Refuge was established March 19, 1987 with the donation of 164 acres from the estate of Alice Hay.

ESTABLISHING AND ACQUISITION AUTHORITY: *Migratory Bird Conservation Act (45 Stat. 1222). The State Enabling Legislation Citation was the New Hampshire Revised Statutes Annotated 1955, title IX, Chapter 121, Section 1:1-1:8.*

REFUGE PURPOSE(S): The Refuge was established to be “exclusively for public use as an inviolate sanctuary for migratory birds, as a migratory bird and wildlife reservation..., and for other conservation purposes consistent therewith.” (Deed of Donation from Alice Hay to the United States of America, December 11, 1972).

NATIONAL WILDLIFE REFUGE SYSTEM MISSION: 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.

DESCRIPTION OF USE:

(a) What is the use? Is the use a priority public use? The use considered in this Compatibility Determination is Fishing at the John Hay National Wildlife Refuge (Refuge). Fishing was identified as one of six priority public uses by Executive Order 12996 (March 25, 1996), and legislatively mandated by the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). This public use is being considered pursuant to 603 FW 2.12(A).

(b) Where would the use be conducted? The Refuge comprises approximately 80 acres of mostly upland forest habitats along the southeast shore of Lake Sunapee, Newbury, New Hampshire (see Maps 1-1 and 1-2). There is a single perennial stream, Beech Brook, that originates east of State Route 103A and flows west across the Refuge, emptying into Lake Sunapee. Recent habitat inventories documented two fens, a vernal pool, and an intermittent stream.

There are two areas that can support public fishing (Map 2-2). The first is Beech Brook. This small perennial stream has not been surveyed recently, but is known to support eastern brook trout (*Salvelinus fontinalis*). The second is the Lake Sunapee shoreline. The Refuge abuts the lake and anglers could fish from the shoreline or more likely from the shallows adjacent to the Refuge.

(c) When would the use be conducted? The Refuge would be open for fishing from sunrise to sunset in compliance with state rules annually published in the New Hampshire Fresh Water Fishing Digest. The 2009 digest includes a provision that closes all tributaries to Lake Sunapee, which includes Beech Brook, to fishing from October 16 through May 31. In addition, anglers are not allowed to use dip nets to harvest rainbow smelt (*Osmerus mordax*) at Lake Sunapee.

d) How would the use be conducted? This compatibility determination addresses fishing on or from Refuge lands. Fishable waters on the Refuge include Beech Brook west of State Route 103A and the Lake Sunapee shoreline. Fish management of Lake Sunapee proper is under the jurisdiction of the state. Game

fish that may be sought include brook trout in Beech Brook and the lake, landlocked salmon in the spring (*Salmo salar*), small mouth bass (*Micropterus dolomieu*), pickerel (*Esox niger*), and horned pout or brown bullhead (*Ameiurus nebulosus*).

A proposed angler parking area and access trail would be created on the southern end of the property, where Woods Road meets Route 103A. Here, a small parking area for two or three cars would be established, with access to both an angler trail heading west to the lake and Woods Road which provides access to the Ecology Trail and subsequently Beech Brook. Stream anglers would be able to fish the entire length of Beech Brook on the Refuge. People could fish from anywhere along the Refuge lakeshore. However, since much of the shoreline is thickly vegetated, anglers would most likely stand in the lake shallows adjacent to the Refuge shoreline. Fishing would not be allowed on Minute Island because of its small size and our concern for its limited habitat. It would be difficult to control the number of anglers, especially during weekends and holidays should it be available for fishing. Lake Sunapee boaters cannot beach their craft on the Refuge shoreline because of the potential impacts to the shore habitat. An example of this type of impact is a small (about 50 feet in width) beach on the Refuge that people use during the summer. We are concerned that this beach may be increasing in size due to repeated use.

Unauthorized introductions of both non-native and native fish can also significantly disrupt aquatic ecosystems and destroy natural fisheries. No fish of any species may be introduced onto the Refuge without appropriate state and refuge permits. This includes unused bait fish and eggs.

Loons, waterfowl, and other water birds may die of lead poisoning from swallowing lead fishing tackle. Many ducks and other water birds find food at the bottom of lake shallows. Most of these birds also swallow small stones and grit to aid in grinding their food. Some of the grit may contain lead from angling equipment. They also may ingest lead and other fishing tackle by consuming bait fish or escaped fish that still have fishing tackle attached. In New Hampshire, the use or sale of lead sinkers weighing one ounce or less and jigs (less than one inch along its longest axis) is prohibited.

At the discretion of the Refuge manager, some areas may be seasonally, temporarily, or permanently closed to fishing, if wildlife or habitat impacts or user conflicts are irresolvable. In cooperation with state fisheries biologists, we may manipulate the fisheries and/or habitat to promote or improve the fishery resource, if warranted. That may include changing fishing regulations (e.g., season dates, creel limits, methods of take), manipulating instream or streambank/shoreline habitat, or other actions deemed necessary to conserve fish habitat and promote a high quality recreational experience.

(e) Why is this use being proposed? Fishing is one of the priority public uses defined by Executive Order 12996 (March 25, 1996) and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). This legitimate and appropriate use of a national wildlife refuge is generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System (NWRS) mission or the purposes of the national wildlife refuge.

There are two distinct fishery resources on the Refuge (i.e., Beech Brook and the Lake Sunapee shore) that could afford anglers with recreational opportunities without adversely affecting other users or the natural resources. This would allow us to connect with a nontraditional audience at the John Hay Refuge to cultivate an understanding and support for the Refuge and the National Wildlife Refuge System.

AVAILABILITY OF RESOURCES: Sufficient Refuge resources in terms of personnel and budget are available to administer fishing at the Refuge. Although the Refuge is approximately two hours from the Sunderland, Massachusetts headquarters, personnel from The Fells keeps staff apprised of issues and opportunities. Conte staff will be responsible for on-site evaluations to resolve public use issues, monitor and evaluate impacts, maintain boundaries and signs, and meet with adjacent landowners and interested public, when necessary.

Annualized costs associated with the administration of fishing at the John Hay Refuge are estimated below:

Project Leader (GS-14) - Coordination with the State of New Hampshire, Congressional delegation and other interested parties (\$1,000).

Law Enforcement Officer (GS-9) – Patrols (\$1,200)

Outdoor Recreation Planner (GS-12) – Coordination with The Fells and seasonal staff, and production of a fishing flyer (\$1,500)

Assistant Manager (GS-12) - On-site meetings with visitors, volunteers and other interested parties, infrastructure maintenance, and visitor use impact monitoring (\$2,000).

Seasonal Visitor Services Specialist (GS 7) – Stationed at the Gate House from Memorial Day to Labor Day. Handle daily operations and monitor potential effects from angler use. (\$1,500)

Estimated Annual Costs = \$7,200

ANTICIPATED IMPACTS OF THE USE: Fishing can result in positive or negative impacts to the fishery resource. A positive effect of allowing angler access would be a better appreciation and more complete understanding of the fishery and water resources in the area. This can translate into more widespread and stronger support for the Refuge, the NWRS and the U. S. Fish and Wildlife Service (Service).

Direct Effects

Direct impacts are those that have an immediate affect. Fishing has not been allowed on the Refuge in the past, with the exception of limited fishing events authorized under a Special Use Permit. The remoteness of the small brook and shoreline could tempt some to exceed creel limits, but the Refuge overall is not sought out by most anglers, and probably would not be a draw to people intent on breaking the law. Refuge staff in conjunction with the New Hampshire Fish and Game Department will monitor fishing to ensure that use levels do not detrimentally impact resources. Staff at The Fells will also be a good source of information.

Anglers hiking to fishing spots could disturb wildlife; however, this would be a temporary effect of limited extent, not expected to cause a significant impact.

Indirect Effects

Indirect impacts are those which ultimately, but not immediately cause an effect. Habitat degradation is one possible indirect effect. Good fishing locations, if there are any, will get repeated use over time, and this could result in habitat degradation in the form of unplanned trails, stream bank sloughing, disturbance to shoreline vegetation, and increased sedimentation. Fishing is expected to be limited on the Refuge because the fishery resource is limited and anglers will have to walk in at least 0.2 miles.

People can be vectors for invasive plants when seeds or other propagules are moved from one area to another. Once established, invasives can out-compete native plants, thereby altering habitats and indirectly impacting wildlife. Fortunately, at this time, invasive plants are a minor problem at the Refuge. Invasive plants known on the Refuge include Japanese barberry (*Berberis thunbergii*). The threat of invasive plant establishment will always be an issue requiring annual monitoring, and when necessary, treatment; however, invasives seem to be manageable at the Refuge, thanks to the control efforts of The Fells and their volunteers.

Release of live bait can be problematic, if the species successfully gain a foothold. However, as previously discussed the introduction of live bait would be prohibited.

Cumulative Effects

Effects that are minor when considered alone, but collectively may be important are known as cumulative effects. Incremental increases in activities by people engaged in the variety of allowed uses on the Refuge could cumulatively result in detrimental consequences to wildlife, fish, and/or habitats. It appears that overall public use at the Refuge is well within acceptable capacities, based on observations by The Fells and Conte staff. Opening the Refuge to fishing is not expected to significantly increase visitation. Although a substantial increase in the cumulative impacts from public use is not expected in the near term, it will be important for staff to monitor use and respond, if necessary, to conserve the existing high quality wildlife resources.

No additional effects from public fishing are anticipated. Impacts from the aggregate of public uses seem to be within acceptable limits as there is no evidence of resource degradation. Staff will monitor and evaluate the effects of public use in collaboration with The Fells and the other conservation partners in an effort to discern and respond to unacceptable impacts to wildlife and habitats.

PUBLIC REVIEW AND COMMENT:

DETERMINATION:

THIS USE IS COMPATIBLE WITH THE FOLLOWING STIPULATIONS X

THIS USE IS NOT COMPATIBLE _____
(Check One)

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY: The following stipulations will be adopted to ensure compatibility:

Minimize or avoid negative impacts to wildlife and habitat:

1. Conte staff, in conjunction with The Fells, and other volunteers, will monitor and evaluate public use impacts on the Refuge. Corrective actions will be initiated when necessary.
2. Anglers will not be allowed to dig for bait on the Refuge.
3. Lead sinkers less than 1 ounce in weight and jigs less than 1 inch on the longest axis are prohibited on ponds.
4. Pertinent public use information and updates will be disseminated through The Fells, local media, posted in the gatehouse, and, in the future, will be posted on the kiosk to be constructed in the relocated parking lot.
5. Refuge staff should develop and implement a monitoring program to assess visitor use impacts on wildlife and their habitats.
6. Use information gained from monitoring to appropriately modify programs and uses to ensure compatibility through an adaptive management system.
7. Anglers may not use live bait fish on the Refuge.

Visitor safety:

1. Address the safety concern posed by the undeveloped Ecology Trail crossings of Beech Brook. Options include installation of a footbridge and/or trail relocation.
2. A shared Law Enforcement Officer is available to aid in providing for visitor safety, monitor compliance with laws and regulations, perform outreach to visitors, and provide feedback to management staff about visitor use and associated impacts that will help enable adaptive management.

Minimize or avoid conflicts between different types of uses:

1. Make visitors aware of the priority status of Wildlife Observation and Photography, Environmental Education and Interpretation, Hunting, and Fishing on national wildlife refuges.
2. Use education and interpretation to explain the importance of wildlife and habitat management.

JUSTIFICATION: Fishing is a priority wildlife-dependent use for the NWRS through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and The National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)). The Service's policy is to provide expanded opportunities for wildlife-dependent uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management. Fishing has not been an authorized public use at the Refuge in the past; however there are opportunities to allow regulated fishing on Beech Brook and along the Lake Sunapee shoreline. Both will be coordinated with the New Hampshire Fish and Game Department, other partners, and the public. Based on the available information public fishing should not materially interfere with or detract from the fulfillment of the NWRS mission or the purposes of the John Hay National Wildlife Refuge. On the contrary, adopting this use will help the Refuge meet the intended purpose of a refuge "exclusively for public use as an inviolate sanctuary for migratory birds, as a migratory bird and wildlife reservation..., and for other conservation purposes consistent therewith." (Deed of Donation from Alice Hay to the United States of America, December 11, 1972).

Signature: Refuge Manager:


(Signature and Date) 06-11-10

Acting
Concurrence: Regional Chief:


(Signature and Date) 6-18-10

Mandatory 15-year re-evaluation date:

Compatibility Determination

USE: Walking (Hiking), Snowshoeing, and Cross-Country Skiing

REFUGE NAME: John Hay National Wildlife Refuge (Refuge) in Newbury, Merrimack County, New Hampshire.

DATE ESTABLISHED: The Refuge was established March 19, 1987 with the donation of 164 acres from the estate of Alice Hay.

ESTABLISHING AND ACQUISITION AUTHORITY: *Migratory Bird Conservation Act (45 Stat. 1222). The State Enabling Legislation Citation was the New Hampshire Revised Statutes Annotated 1955, title IX, Chapter 121, Section 1:1-1:8.*

REFUGE PURPOSE(S): The Refuge was established to be "... a migratory bird and wildlife reservation." "exclusively for public use as an inviolate sanctuary for migratory birds, as a migratory bird and wildlife reservation..., and for other conservation purposes consistent therewith." (Deed of Donation from Alice Hay to the United States of America, December 11, 1972).

NATIONAL WILDLIFE REFUGE SYSTEM MISSION: 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.

DESCRIPTION OF USE:

(a) What is the use? Is the use a priority public use? The uses considered in this compatibility determination are Walking (Hiking), Snowshoeing, and Cross-Country Skiing. These are not priority public uses defined by Executive Order 12996 (March 25, 1996), and legislatively mandated by the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). These uses are being considered in conjunction with related priority public uses pursuant to 603 FW 2.12(A).

(b) Where would the use be conducted? The Refuge comprises approximately 80 acres of mostly upland forest habitats along the southeast shore of Lake Sunapee, Newbury, New Hampshire (Maps 1-1 and 1-2). There is a single perennial stream, Beech Brook, that originates east of Route 103A and flows west across the Refuge, emptying into Lake Sunapee. Recent habitat inventories documented two fens, a vernal pool, and an intermittent stream. The entire Refuge (Map 2-2) would be open to Walking (Hiking), Snowshoeing, and Cross-Country Skiing. In reality, most of public uses are expected to be on or adjacent to the John Hay II Ecology Trail (Ecology Trail), along the shore of Lake Sunapee, and possibly on the Woods Road. An angler access trail proposed across the southern portion of the Refuge also would be available for these pedestrian activities. The uses under consideration are the means of accessing the Refuge to engage in the priority public uses of Fishing, Wildlife Observation and Photography, Environmental Education and Interpretation.

(c) When would the use be conducted? The Refuge would be open for pedestrian access throughout the year. There is a long tradition of year-round visitation to John Hay Refuge by outdoor enthusiasts who come to enjoy the Refuge. The Refuge has been open to pedestrian access, including the modes under consideration, since it was established in 1987.

Visitation is highest between Memorial Day and Labor Day, coinciding with the busy season at The Fells, from which most Refuge visitation is derived. Visitors to The Fells can access the Ecology Trail near The

Fells gatehouse or below the estate house (Map 2-2). During the winter visitors may don snowshoes or skis to explore the Refuge. It is estimated that about 10 percent of visitors take advantage of this trail, although visitor numbers are not formally monitored.

Visitation during winter is lower because fewer people are on the estate grounds during cold, inclement weather. The Refuge would be open to cross-country skiers and snowshoers in winter for wildlife-dependent recreational activities. Off-season activities are commonly associated with programs and classes hosted by The Fells. Those related to native habitats, ecology, or wildlife often use the Refuge as an outdoor classroom.

The Refuge is open to the public from sunrise to sunset. After hours, a Special Use Permit is required.

(d) How would the use be conducted? Typically, visitors park in The Fells' parking lot at the gatehouse and enter the Refuge on the Ecology Trail, which begins just behind the gatehouse. The trail currently ends on the lawn of the estate house (Map 2-2), though the addition of a trail extension would return to the trailhead within Refuge bounds. An alternative is the Woods Road which begins near the southeastern corner of the Refuge and ends at the estate driveway. This access is not marked on the highway, so use is probably limited to those familiar with the Refuge. A second developed trail is proposed across the southern portion of the Refuge to afford angler access to the lake. Once completed, this trail would be available to the pedestrian activities under consideration. During summer, boaters anchor near the Refuge shoreline and swim or wade to the shore, particularly at the small sandy beach. Signs prohibiting access from the lake are posted; however, many are faded and no longer legible. This type of access would continue to be prohibited to limit impacts to the shoreline habitats.

Visitors would be allowed to Walk (Hike), Snowshoe or Ski anywhere on the Refuge. Except for administrative purposes, motorized vehicles of any kind would be prohibited from the Refuge. Most use will be concentrated on the Ecology Trail because it is a well-worn path with yellow plastic directional signs on trees. People wishing to experience more remote settings could do so by exploring the rest of the Refuge via the Woods Road or by bushwhacking through forested habitats.

There are no facilities or staff to formally offer environmental education or interpretation to the public, so most visitation is self-guided. However, there are numbered posts along the trail that correspond to an interpretive brochure available at the beginning of the trail, near the gatehouse. Wildlife, geology, habitats, and/or history are interpreted at the stops. The Fells offers some guided nature hikes and outdoor class activities on the Refuge.

(e) Why is this use being proposed? Walking (Hiking), Snowshoeing, and Cross-Country Skiing are not priority public uses as defined by Executive Order 12996 (March 25, 1996) and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). However, these modes of pedestrian access facilitate participation in compatible activities.

The Refuge has been available for these types of public uses since it was first acquired in 1987. Although not large in size, the 80 acres includes interesting wildlife and ecological features including large, mature white pine stands, black gum or tupelo trees (*Nyssa sylvatica*), and two fens. People have had the opportunity to enjoy this property in the past and continuing to allow these priority public uses complies with the intent of Congress and will not detrimentally affect Refuge resources. From a larger perspective, the Refuge and the adjacent Hay Reservation owned by the Society for the Protection of New Hampshire Forests offer nearly 1,000 acres of contiguous conserved land available for public uses from the Lake Sunapee shoreline to the Sunset Hill ridgeline.

Allowing these types of access to continue would enhance the opportunity of the Service to promote the understanding of and appreciation for wildlife, fish, and their habitats, and maintain consistency in management. The public would have the chance to experience traditional recreation long associated with

the area to better appreciate the wildlife resources and high quality habitats, and become better informed about the Refuge, the National Wildlife Refuge System (NWRS), and the U.S. Fish and Wildlife Service (Service).

AVAILABILITY OF RESOURCES: Sufficient Refuge resources in terms of personnel and budget are available to administer these uses. Although the Refuge is approximately two hours from the Sunderland, Massachusetts headquarters, personnel from The Fells keeps staff apprised of issues and opportunities. Conte staff will be responsible for on-site evaluations to resolve public use issues, monitor and evaluate impacts, maintain boundaries and signs, and meet with adjacent landowners and interested public, when necessary.

There would be no additional costs to administer Walking (Hiking), Snowshoeing, or Skiing on the Refuge, as these visitors would be engaged in one of the priority public uses.

ANTICIPATED IMPACTS OF THE USE: Walking (Hiking), Snowshoeing, and Skiing can result in positive or negative impacts to the wildlife resource. A positive effect of allowing pedestrian access into the Refuge will be a better appreciation and more complete understanding of the wildlife and habitats associated with northern New England ecosystems. This can translate into more widespread and stronger support for the Refuge, the NWRS, and the Service.

Direct Effects

Direct impacts are those where the activity has an immediate effect on wildlife. Anticipated direct impacts include disturbance to wildlife by human presence which typically results in a temporary displacement without long-term effects to individuals or populations. Based on historic use patterns most visitors participating in the priority public uses will stay on the existing, developed Ecology Trail that begins and ends on The Fells property. Hiking off-trail through the forest in the summer can be difficult and unpleasant for some due to the number of biting insects, poor footing, and vegetative undergrowth. The proposed fishing access trail and additions to the Ecology Trail should not substantially increase impacts. Effects should not be significant because the use generally will be spatially and temporally predictable (i.e., on the trail during daylight hours) allowing wildlife to adapt to human presence. Based on anecdotal evidence, off-trail use is limited primarily to the shoreline, with few indications that the interior forest is popular with visitors. Although the habitat is in some respects of high quality, it is not known to be essential to any wildlife at the John Hay Refuge.

Repeated visits to areas near rare or susceptible wildlife (e.g., nesting birds, spawning rainbow smelt) could pose a problem, although there is no indication that this has been an issue in the past. No species listed by the U.S. Fish and Wildlife Service as endangered or threatened are known from the Refuge, nor are there any wildlife concentration areas. However, there are five state-listed birds that warrant additional consideration. These are: bald eagle (*Haliaeetus leucocephalus*; *endangered*), common loon (*Gavia immer*; *threatened*), osprey (*Pandion haliaetus*; *threatened*), common nighthawk (*Chordeiles minor*; *threatened*), and Cooper's hawk (*Accipiter cooperi*; *threatened*). Of these, the common loon would be unlikely to use the forested habitats on the Refuge. Minute Island potentially could serve as nesting habitat; however, there are no records of this occurring. Bald eagles and ospreys, are observed in the area during the summer, but have not nested on the Refuge to date. The large, overstory white pines offer suitable nest sites in close proximity to the lake. Cooper's hawks also might nest on the Refuge, but there are no records of this. Each of these birds can be affected by frequent human disturbance during the mating, nesting, or brood rearing seasons. However, there is no evidence that disturbance by people Walking (Hiking), Snowshoeing, or Cross-Country Skiing are detrimentally affecting these or any other wildlife species. The Fells staff will be the best source of information regarding conflicts because they are on site nearly every day and communicate regularly with visitors. It will be important to monitor, evaluate, and, if necessary, manage

public use patterns should impacts reach a level that could impact breeding.

Indirect Effects

Indirect impacts are those which ultimately, but not immediately, affect wildlife. A good example would be repeated visitation that results in impacts to habitat. Habitat degradation could, through time, result in negative consequences to wildlife. Impacts to wildlife habitat are expected to be minimal and limited to the area immediately along the Ecology Trail and, to a lesser degree, the Woods Road. These routes have been in existence for many years and the only discernable impact is soil compaction on the paths.

People can be vectors for invasive plants when seeds or other propagules are moved from one area to another. Once established, invasives can out-compete native plants, thereby altering habitats and indirectly impacting wildlife. Fortunately, at this time, invasive plants are a minor problem at the Refuge. Invasive plants known on the Refuge include Japanese barberry (*Berberis thunbergii*). The threat of invasive plant establishment will always be an issue requiring annual monitoring, and when necessary, treatment; however invasives seem to be manageable at the Refuge, thanks to the efforts of The Fells and their volunteers.

Cumulative Effects

Effects that are minor when considered alone, but collectively may be important are known as cumulative effects. It appears that use of the Refuge is well within the acceptable capacities, based on observations by Conte staff and The Fells. The only concerns noted to date were the two places where the Ecology Trails crosses Beech Brook and the shoreline beach.

The Fells estate and its historic significance is the primary draw for visitors. Refuge visitors tend to be a subset of these people who want to learn more about the forest habitats and its wildlife, and engage in one or more of the allowed compatible uses. The Refuge has been open to pedestrian access since the time the Refuge was established and there is no evidence that cumulatively, these uses have caused unacceptable impacts to the wildlife resource. Although a substantial increase in the cumulative impacts from public use is not expected in the near term, it will be important for staff to monitor use and respond if necessary to conserve the existing high quality wildlife resources.

No additional effects from Walking (Hiking), Snowshoeing, or Cross-Country Skiing are anticipated. Impacts from the aggregate of public uses seem to be within acceptable limits as there is no evidence of resource degradation, other than the trail crossings of Beech Brook. Staff will monitor and evaluate the effects of public use in collaboration with The Fells and the other conservation partners in an effort to discern and respond to unacceptable impacts to wildlife and habitats.

PUBLIC REVIEW AND COMMENT:

DETERMINATION:

THIS USE IS COMPATIBLE WITH THE FOLLOWING STIPULATIONS X

THIS USE IS NOT COMPATIBLE _____

(Check One)

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY: The following stipulations will be adopted to ensure compatibility:

- Minimize or avoid negative impacts to wildlife and habitat:
 1. Conte staff, in conjunction with The Fells and other volunteers, will monitor and evaluate public use impacts on the Refuge. Corrective actions will be initiated when necessary.

2. The visitors will be prohibited from harassing, baiting, and playing recorded or artificial wildlife calls and songs to attract wildlife (this does not necessarily apply to management activities).
3. Pertinent public use information and updates will be disseminated through The Fells, local media, posted in The Fells gatehouse, and, in the future, will be posted on the kiosk to be constructed in the relocated parking lot.
4. Refuge staff should develop and implement a monitoring program to assess visitor use impacts on wildlife and their habitats.
5. Use information gained from monitoring to appropriately modify programs and uses to ensure compatibility through an adaptive management system.

Visitor safety:

1. Assess the safety concern posed by the undeveloped Ecology Trail crossings of Beech Brook. Options include installation of a footbridge(s) and/or trail relocation.
2. A shared Law Enforcement Officer is available to aid in providing for visitor safety, monitor compliance with laws and regulations, perform outreach to visitors, and provide feedback to management staff about visitor use and associated impacts that will help enable adaptive management.

Minimize or avoid conflicts between different types of uses:

1. Make visitors aware of the priority status of Wildlife Observation and Photography, Environmental Education and Interpretation, Hunting, and Fishing on National Wildlife Refuges.
2. Use education and interpretation to explain the importance of wildlife and habitat management.

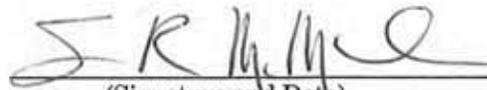
JUSTIFICATION: Walking (Hiking), Snowshoeing, and Cross-Country Skiing have been ongoing activities at the Refuge for many years. Based on observations by Refuge staff and discussions with The Fells staff these uses should not materially interfere with or detract from the fulfillment of the NWRS mission or the purposes of the John Hay National Wildlife Refuge. On the contrary, adopting these uses will help the Refuge meet the intended purpose of the Refuge "exclusively for public use as an inviolate sanctuary for migratory birds, as a migratory bird and wildlife reservation..., and for other conservation purposes consistent therewith"(Deed of Donation from Alice Hay to the United States of America, December 11, 1972) by allowing visitors to engage in the priority public uses: Wildlife Observation and Photography, Environmental Education and Interpretation, and Fishing.

Signature: Refuge Manager:


(Signature and Date) 06-11-10

Acting

Concurrence: Regional Chief:


(Signature and Date) 6-18-10

Mandatory 10-year re-evaluation date:

Compatibility Determination

USE: Hunting

REFUGE NAME: John Hay National Wildlife Refuge in Newbury, Merrimack County, New Hampshire.

DATE ESTABLISHED: The Refuge was established March 19, 1987 with the donation of 163 acres from the estate of Alice Hay.

ESTABLISHING AND ACQUISITION AUTHORITY: *Migratory Bird Conservation Act (45 Stat. 1222). The State Enabling Legislation Citation was the New Hampshire Revised Statutes Annotated 1955, title IX, Chapter 121, Section 1:1-1:8.*

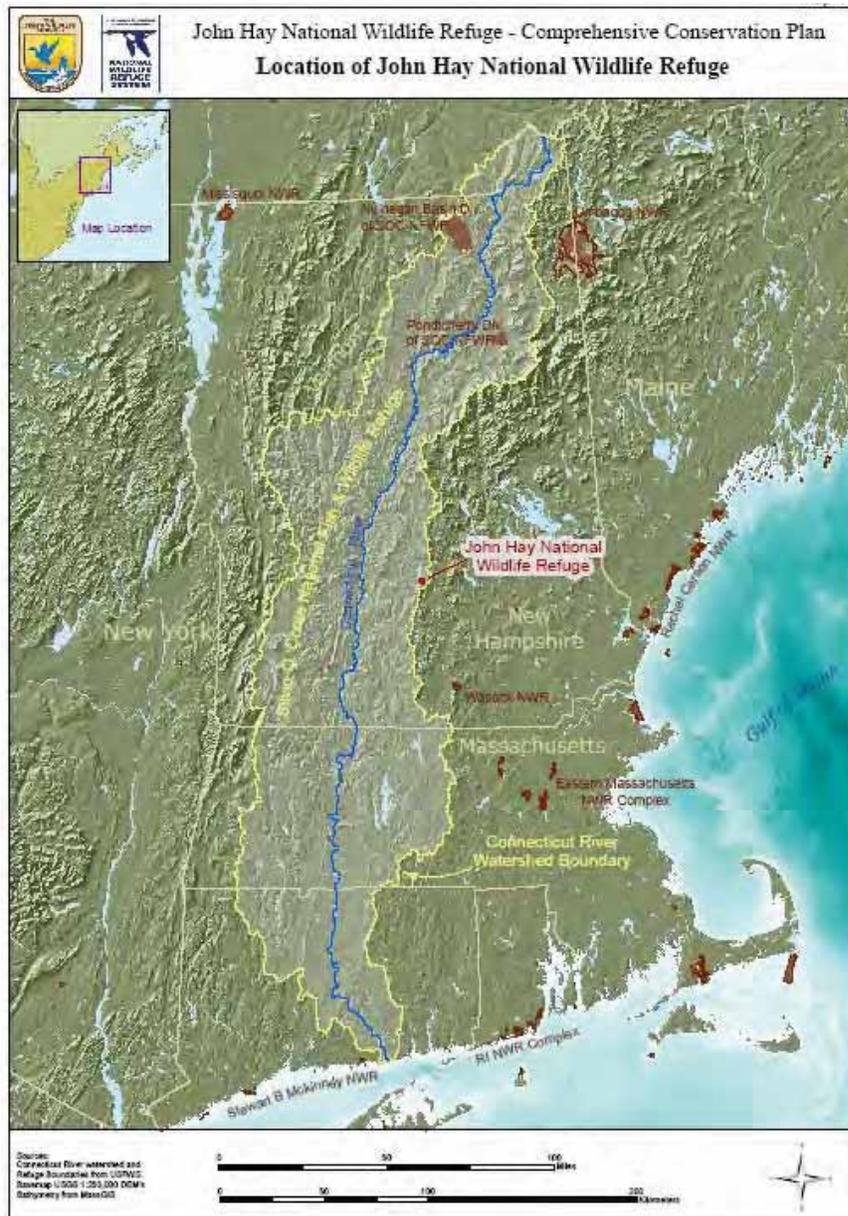
REFUGE PURPOSE(S): The Refuge was established to be “exclusively for public use as an inviolate sanctuary for migratory birds, as a migratory bird and wildlife reservation..., and for other conservation purposes consistent therewith.”

NATIONAL WILDLIFE REFUGE SYSTEM MISSION: 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.

DESCRIPTION OF USE:

- (a) **What is the use? Is the use a priority public use?** The use considered in this Compatibility Determination is public Hunting. This was established as priority public uses by Executive Order 12996 (March 25, 1996), and legislatively mandated by the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)
- (b) **Where would the use be conducted?** The Hay Refuge comprises approximately 80 acres of mostly upland forest habitat along the southeast shore of Lake Sunapee, Newbury, New Hampshire. There is a single perennial stream, Beech Brook, that originates east of Route 103A and flows west across the Refuge, emptying into Lake Sunapee. Recent habitat inventories documented two fens, a vernal pool, and an intermittent stream. Public Hunting would occur on the 80 acres owned by the Service (Maps B-1 and B- 2).
- (c) **When would the use be conducted?** The only hunting under consideration is a strictly controlled archery season for white-tailed deer during a limited period, to be determined annually, within the state season for Wildlife Management Unit I2 which generally runs from September 15 to December 15.
- (d) **How would the use be conducted?** The Refuge shares a parking lot on The Fells property. Visitors park there and enter the Refuge on the John Hay Ecology Trail, which begins just behind the Gate House (Map B- 2). As previously stated, hunting is not allowed by adjacent landowners west of State Route 103A. A limited archery deer season is the only hunting considered in this Compatibility Determination. Hunters would have to apply for a limited number of permits. They would be assigned a specific tree for their stands and be given a shooting direction. We also would have to post signs informing other visitors of the hunt. Successful hunters would be required to remove the entire animal from the Refuge.
- (e) **Why is this use being proposed?** Hunting is a priority public use as defined by Executive Order 12996 (March 25, 1996) and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). This legitimate and appropriate uses of a National Wildlife Refuge are generally considered compatible, as long as it does not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the national wildlife refuge.

Map B-1. Location of John Hay National Wildlife Refuge



AVAILABILITY OF RESOURCES: Managing a restrictive hunting season at the John Hay Refuge would impact personnel and resources at the Conte Refuge. A staff member would have to administer the lottery system to select hunters, conduct a pre-hunt information session, and be on site during the hunt. It is anticipated that at least two weeks of staff time would be necessary. This could be considerably higher the first year.

Annualized costs associated with the administration of hunting are estimated below:

Project Leader (GS-14) - Coordination with the State of New Hampshire, Congressional delegation and other interested parties (\$2,000).

Law Enforcement Officer (GS-9) – Patrols (\$1,200)

Outdoor Recreation Planner (GS-12) – Outreach and coordination with partners (\$3,600)

Assistant Manager (GS-12) – Pre-hunt orientation meetings, coordination with partners, on-site management during the hunt, and monitoring (\$3,600).

Estimated Annual Costs = \$10,400

ANTICIPATED IMPACTS OF THE USE: Hunting can result in positive or negative impacts to the wildlife resource and visitor experiences. A positive effect of allowing hunter access to the Refuge will be a better appreciation and more complete understanding of the wildlife and habitats associated with New England ecosystems. This can translate into more widespread and stronger support for the Refuge, the National Wildlife Refuge System and the Service. Negative effects are discussed below.

Direct Effects

Direct impacts are those that have an immediate affect on wildlife and other Refuge resources and compatible public uses. Anticipated direct impacts include disturbance to wildlife by human presence which typically results in a temporary displacement without long- term effects to individuals or groups of animals. People hunting from tree stands would have minimal effect on wildlife primarily during ingress and egress.

Repeated visits to view rare or susceptible wildlife (e.g. nesting birds, spawning rainbow smelt) could pose a problem; however, no impact is anticipated from the small number of hunters that would be on the Refuge. Refuge staff would predetermine their access routes to ensure minimal impact to wildlife. No species listed by the U.S. Fish and Wildlife Service as endangered or threatened are known from the Refuge, nor are there any wildlife concentration areas. However, four birds recognized by the New Hampshire Fish and Game Department as Endangered bald eagle (*Haliaeetus leucocephalus*) or Threatened common loon (*Gavia immer*), osprey (*Pandion haliaeetus*), common nighthawk (*Chordeiles minor*), and Cooper’s hawk (*Accipiter cooperii*) are species that warrant additional consideration. Of these, the common loon would be unlikely to use the forested habitats on the Refuge. Minute Island potentially could serve as nesting habitat; however, there are no records of this occurring. Bald eagles and ospreys, are observed in the area during the summer, but have not nested on the Refuge to date. The large, overstory white pines offer suitable nest sites in close proximity to the lake. Cooper’s hawks also could nest on the Refuge; but there are no records of this. Each of these birds can be affected by frequent human disturbance during the mating, nesting or brood rearing seasons. There is no evidence that disturbance by any visitors are detrimentally affecting these or any other wildlife species. The limited hunting considered here would not substantially add to the existing impacts.

A more substantial direct effect would be the perception of people visiting The Fells or the Refuge for other compatible uses. Even with substantial outreach, informational signage, and a staff person on site, hunting would not likely be appreciated by many visitors and there undoubtedly would be conflicts. There is no history of hunting on this property and people familiar with the Refuge and The Fells do not expect to encounter hunters during their visits. We heard this concern from several people that attended the public meetings and/or wrote letters.

Although an archery hunt would be tightly controlled, there could be situations where the safety of other visitors might be compromised. For example, tree stand location and shooting direction would be predetermined by Refuge staff; however, an inadvertent errant shot could pose a danger on this small refuge.

Indirect Effects

Indirect impacts are those which ultimately, but not immediately affect wildlife. A good example would be repeated visitation that results in impacts to habitat. Habitat degradation could, through time, result in negative consequences to wildlife. Impacts to wildlife habitat would be minimal and limited to the route used to access a tree stand and trees containing the stands.

People can be vectors for invasive plants when seeds or other propagules are moved from one area to another. Once established, invasives can out-compete native plants, thereby altering habitats and indirectly impacting wildlife. Fortunately, at this time, invasive plants are a minor problem at the Hay Refuge. Invasive plants known on the Refuge include Japanese barberry (*Berberis thunbergii*), Common barberry (*Berberis vulgaris*), Japanese knotweed (*Polygonum cuspidatum*), and Scotch broom (*Cytisus scoparius*). The threat of invasive plant establishment will always be an issue requiring annual monitoring, and when necessary, treatment; however, invasives seem to be manageable at the Hay Refuge, thanks to the control efforts of The Fells and their volunteers. The threat of hunters bringing invasive plant propagules is no greater than other visitors, and is not considered to be a serious concern.

Cumulative Effects

Effects that are minor when considered alone, but collectively may be important are known as cumulative effects. It appears that overall use of the Refuge is well within the acceptable capacities, based on observations by staff from the Refuge and The Fells. The only areas of concern are the points where the Ecology Trail crosses Beech Brook (Map B- 2). These would not be affected by a hunting program.

The Fells estate and its historic significance is the primary draw for visitors. Refuge visitors tend to be a subset of these people who want to learn more about the forest habitats, its wildlife, and engage in wildlife observation and photography, environmental education and interpretation. These uses have occurred on the Refuge since the time it became public property and there is no evidence that cumulatively, these uses have caused unacceptable impacts to the wildlife resource. The addition of a limited hunt program would not be expected to increase impacts to wildlife resources. However, there may be an erosion of support for both the Refuge and The Fells should we proceed with a hunting program.

PUBLIC REVIEW AND COMMENT:

DETERMINATION:

THIS USE IS COMPATIBLE WITH THE FOLLOWING STIPULATIONS

THIS USE IS NOT COMPATIBLE

 X

(Check One)

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY: None, the use was not found to be compatible.

JUSTIFICATION: Hunting is a priority wildlife-dependent uses for the National Wildlife Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and The National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)). The Service's policy is to provide enhanced opportunities for these uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management. This use has not been authorized in the past.

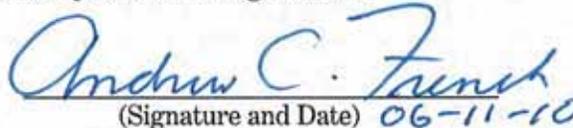
While an archery deer season would provide some recreational opportunities, it would likely create a number of issues.

1. At least one Refuge staff member would need to manage the lottery system and be on site during the hunt. Currently, the John Hay Refuge is unstaffed.
2. Hunters and other visitors would need to be spatially separated to ensure safety and limit interference, and not pose a threat to people on surrounding private property. This could be problematic due to the small size of the Refuge, and might require closing the Refuge to other visitors during the hunting season.
3. Hunters would have to park at the Gate House parking lot and walk across The Fells' property to enter the Refuge. Undoubtedly, some of their clientele would be upset seeing hunters, particularly successful hunters bringing deer back to their vehicle.
4. We heard during the Comprehensive Conservation Plan open house that hunting would be against the conservation intent of Alice Hay and the family. The Hay family did not allow hunting on the estate grounds and the property was donated to the Service as an inviolate wildlife sanctuary.

From the limited discussion of hunting at the public meetings and written comments received, it was evident that hunting would not be supported by most people familiar with Refuge history and the Hay family. Those opposed felt that hunting would conflict with the Refuge purpose and be counter to the wishes of Alice Hay.

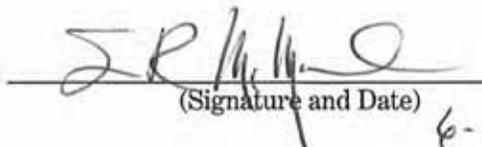
It is anticipated that a hunt program would materially interfere with the purposes of the John Hay National Wildlife Refuge and could jeopardize the safety of other Refuge visitors.

Signature: Refuge Manager:


(Signature and Date) 06-11-10

Acting

Concurrence: Regional Chief:


(Signature and Date) 6-18-10

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife Refuge

Use: Walking, Snowshoeing, and Cross-country Skiing

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate

Appropriate

Refuge Manager: Andrew C. French

Date: 06-11-10

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature]

Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: Walking, Snowshoeing, and Cross-country Skiing

Narrative: In 1994, walking, snowshoeing, and cross-country skiing were determined to be Compatible Uses when the Refuge consisted of the entire 163.5-acres summer estate of John Hay. In 2008, the northern half of the Refuge was conveyed to The Fells in exchange for land added to the Umbagog National Wildlife Refuge. Developed access on the 80 acres now comprising the Refuge is limited to a primitive foot trail known as the John Hay Ecology Trail, and a native surface woods road referred to as the Woods Road. Walking is the primary means for people to access the Refuge for wildlife-dependent uses. Visitors walk on the Ecology Trail, Woods Road, and through the undeveloped forest habitats during the non-snow months. During the winter when snow covers the ground walking gives way to snowshoeing and cross-country skiing. Newbury receives an average of about 64 inches of snow during the winter, making snowshoeing and skiing good alternatives to walking. People use both the Ecology Trail and Woods Road during the winter, as well as breaking new trail through the woods. These two modes of pedestrian access allow visitors to explore the Refuge during the winter season when walking is difficult.

Based on the above information, walking, snowshoeing and skiing are appropriate uses on this refuge.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife Refuge

Use: ATV, ORV, and Motorbike Use

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: Andrew C. French Date: 06-11-10

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature] Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: ATV, ORV, and Motorbike Use

Narrative: This use has the potential to cause erosion and habitat damage. Off-road motorized use would detract from the quality of other wildlife-dependent uses at this small refuge. The noise, speed, and unpredictability of this use have the potential to disturb wildlife throughout the refuge. Use of all-terrain vehicles at the John Hay Refuge could not be managed consistent with Executive Order 11644 and Executive Order 11989 which require refuges to promote safety, minimize conflicts among users, monitor the effects of ATV use if allowed, and to close areas to ATV use if they will cause adverse effects on soil, vegetation, wildlife, habitat, or cultural or historic resources. This type of motorized use would negatively affect the experience of people visiting The Fells. This use is not consistent with any approved refuge management plan and would divert existing and future resources from accomplishing priority tasks.

Based on the above information, ATV, ORV, and motorbike use is not an appropriate use on this refuge.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife Refuge

Use: Backpacking and Camping

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.8D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: Andrew C. French Date: 06-11-10

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature] Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: Backpacking and Camping

Narrative: Backpacking was found to be a compatible use in 1994; however, it was only construed to mean day hiking with a pack, not overnight camping. Recreational overnight camping has not been allowed on the Refuge in the past. The Hay Refuge is only 80 acres in size, contains one primitive foot trail, and a historic Woods Road. Neither of these is connected to larger, regional hiking trails, so people begin and end their visits at the Gate House parking lot. There are no facilities to accommodate camping on the Refuge. Dispersed camping could result in unacceptable impacts to soils, vegetation, and wildlife particularly along the shore of Lake Sunapee. Camping is not a necessity at the Refuge as Mount Sunapee State Park, located across the lake, has a campground and there are other private campgrounds in the area.

Based on the above information, allowing backpacking and camping access are not appropriate on this refuge.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife Refuge

Use: Bicycling

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: Andrew C. French Date: 06-11-10

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature] Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: Bicycling

Narrative: Bicycling was determined to be a Compatible Use in 1994 when the Refuge consisted of the entire 163.5-acres summer estate of John Hay. It was specifically allowed on the 0.25-mile gravel driveway from the Gate House parking lot to the Main House. Bicycles were not allowed on the nature trail (i.e. John Hay Ecology Trail) or the southern half of the property, which includes the Woods Road. Neither of these were designed for bicycles and this type of use would undoubtedly result in soil erosion, stream bank degradation at the crossings, and conflicts with pedestrians. Although the Woods Road is wide enough to accommodate bicycles and pedestrians, off-trail use could not be effectively controlled and there are sensitive habitats (e.g. fens) in close proximity to this road.

Based on the above information, bicycling is not an appropriate use on this refuge.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife RefugeUse: Geocaching

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.8D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate Refuge Manager: Andrew C. FrenchDate: 06-11-10

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature]Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: Geocaching

Narrative: Traditional geocaching is not an appropriate use of a national wildlife refuge because it promotes an unauthorized abandonment of property which is in violation of 50 CFR 27.93. A geocache site encourages repeated visits that can result in unplanned trails and wildlife disturbance.

Based on the above information, geocaching is not an appropriate use on this refuge.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife Refuge

Use: Horseback Riding

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: Andrew C. French Date: 06-11-10

If found to be Not Appropriate, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found Not Appropriate outside the CCP process, the refuge supervisor must sign concurrence.

If found to be Appropriate, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature] Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: Horseback Riding

Narrative: There is no history of horseback riding on the Refuge and allowing it would detract from the quality of other wildlife-dependent uses at this small refuge. The Ecology Trail is not suitable for both hikers and horseback riders because it is narrow and in some places, such as the split rock, horse riders would have to blaze a different route, creating an unplanned trail. There are no parking facilities on the Refuge, so riders would need to get permission from The Fells to park at the Gate House parking lot and ride across their property to gain access to the Refuge. However, this is unlikely to be allowed because horseback riding is not allowed on their property. Horses also are a vector for invasive plants. The Refuge has a limited problem with invasive plants at this time, but horses could introduce additional infestations. This small refuge does not have the capacity to support horseback riding and it could conflict with wildlife-dependent uses.

Based on the above information, horseback riding use is not an appropriate use on this refuge.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife Refuge

Use: Jogging

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.8D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: Andrew C. French Date: 06-11-10

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature] Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: Jogging

Narrative: In 1994, jogging and walking were analyzed together and determined to be a Compatible Use when the Refuge consisted of the entire 163.5-acre summer estate of John Hay. This included a gravel road from the driveway on State Route 103A to the estate house and another leading from the main house to the guest cottage near Lake Sunapee. In 2008, the northern half of the Refuge was conveyed to The Fells in exchange for land added to the Umbagog National Wildlife Refuge. Developed access on the 80 acres now comprising the Refuge is limited to a primitive foot trail known as the John Hay Ecology Trail, and a native surface woods road referred to as the Carriage Trail. The Ecology Trail was not designed for joggers as there are sections with slippery footing, including the two crossings of Beech Brook. The intended use of this trail is for wildlife observation and photography, interpretation, and environmental education. Joggers using this narrow footpath would interfere with these uses. In particular, the ability of people quietly observing wildlife would be disrupted by joggers running along the path. The Carriage Road also could be used by joggers, but this would undoubtedly lead to conflicts with people using the road and that section of road that is coincident with the Ecology Trail for the four priority wildlife-dependent uses discussed above.

Based on the above information, jogging is not an appropriate use on this refuge.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife Refuge

Use: Pet Dogs

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: Andrew C. French Date: 06-11-10

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature] Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: Pet Dogs

Narrative: Historically, pet dogs have not been allowed on the Refuge or at The Fells. Most visitors use will be concentrated on the Ecology Trail. Dogs could negatively affect the experience of visitors on the trail seeking to observe or photograph wildlife because people pass in close proximity to each other on the narrow trail. It would not be feasible to enforce a leash requirement at this unstaffed refuge. Consequently, dogs walking or running ahead of their owners could negatively impact migratory birds, particularly during nesting season.

Based on the above information, allowing pet dog access is not appropriate on this refuge.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: John Hay National Wildlife Refuge

Use: Picnicking

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Is the use consistent with public safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the use manageable within available budget and staff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(h) Will this be manageable in the future within existing resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will generally not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate Appropriate

Refuge Manager: Andrew C. French

Date: 06-11-10

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: [Signature]

Date: 6-14-10

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Justification for a Finding of Appropriateness of a Refuge Use

Refuge Name: John Hay National Wildlife Refuge

Use: Picnicking

Narrative: Picnicking was determined to be a Compatible Use in 1994 when the Refuge consisted of the entire 163.5-acres summer estate of John Hay. This included the manicured grounds around the estate house and to a lesser extent around the guest cottage near the lakeshore. These lawns and gardens were nice spots for people to picnic without affecting the rest of the Refuge. The original Compatibility Determination states that picnicking occurred along nature trails and the lakeshore. It did not anticipate any ill effects from this activity. In 2008, the northern half of the Refuge was conveyed to The Fells in exchange for land added to the Umbagog National Wildlife Refuge. Developed access on the 80 acres now comprising the Refuge is limited to a primitive foot trail known as the John Hay Ecology Trail, and a native surface woods road referred to as the Woods Road. There are no areas that are managed for uses like picnicking. There is a small meadow along the southern boundary that is maintained for habitat diversity, but it is relatively remote and is not mowed each year. The preferred spot for picnicking on the Refuge would undoubtedly be along the Lake Sunapee shoreline. However, one of the ecological attributes of the Refuge is the undeveloped shoreline that supports a healthy shrub/forest community. Allowing picnickers to use the shoreline would result in unacceptable impacts to the vegetation and ultimately could lead to beach erosion. This is already occurring on one part of the shoreline where repeated use, probably by boaters anchoring offshore, has resulted in the native vegetation being replaced by a small beach. This same type of impact would be expected if picnicking was allowed on the Refuge.

Note: Picnicking refers to the traditional sense of the term and is not meant to prohibit people from eating food while engaged in approved activities.

Based on the above information, picnicking is not an appropriate use on this refuge.