

Finding of Appropriateness of a Refuge Use

FWS Form 3-2319
02/06

Refuge Name: Edwin B. Forsythe National Wildlife Refuge

Use: Pet walking

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?	X	
(b) Does the use comply with applicable laws and regulations (Federal, State, Tribal, and local)?	X	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	X	
(d) Is the use consistent with public safety?	X	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	X	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	X	
(g) Is the use manageable within available budget and staff?	X	
(h) Will this be manageable in the future within existing resources?	X	
(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?	X	
(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?	X	

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 X 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 X

Refuge Manager: Virginia Kelly Date: 2-19-2019

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: Michelle Acting Date: 2-19-2019

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

JUSTIFICATION FOR A FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Edwin B. Forsythe National Wildlife Refuge

Use: Pet Walking

Narrative:

The U.S. Fish and Wildlife Service (Service) policy on Appropriate Refuge Uses (603 FW 1) states, "General public uses that are not wildlife-dependent recreational uses (as defined in the [National Wildlife Refuge System] Improvement Act) and do not contribute to the fulfillment of refuge purposes or goals or objectives as described in current refuge management plans...are the lowest priorities for refuge managers to consider. These uses are likely to divert refuge management resources from priority general public uses or away from our responsibilities to protect and manage fish, wildlife, and plants and their habitats. Therefore, both law and policy have a general presumption against allowing such uses within the [National Wildlife] Refuge System. Before we will consider these uses further...we must first find if these public uses are appropriate as defined in section 1.11" of policy 603 FW 1, and provide a justification.

One of the priority public uses for national wildlife refuges—wildlife observation—can be enjoyed while walking pets on the refuge. Therefore, through wildlife observation, pet walking indirectly supports goals and objectives described in the refuge's Comprehensive Conservation Plan. Individuals walking, hiking, snowshoeing, and cross-country skiing in pursuit of wildlife observation at the refuge have been accompanied by their pets (domestic canine and feline) for many years. This use is anticipated to have similar impacts as other priority public uses such as interpretation and wildlife observation. Because domestic animals can disturb wildlife and generate conflicts with other refuge visitors, pet owners will be required to leash their pets at all times. Pet walking would occur on some refuge trails and roads to provide a variety of user experiences. No adverse impacts have been observed in the past and current levels of this use are low and are not expected to increase substantially. Impacts of the use will likely be minimal if conducted in accordance with refuge regulations. Continuing to allow this use would provide the public with additional options for enjoying the great outdoors and possibly introduce new people to the refuge and the priority use of wildlife observation. For these reasons, we have determined that allowing pet walking on the refuge is consistent with Service policy on the appropriateness of refuge uses (603 FW 1).

Because the decision criteria are met (see page 1) and for the reasons noted above, pet walking is an appropriate use on Edwin B. Forsythe National Wildlife Refuge.

Any use found to be "Appropriate" requires the development of a compatibility determination before the use may be allowed on refuge lands. A compatibility determination for this use was completed.

COMPATIBILITY DETERMINATION

USE: Pet Walking

REFUGE NAME: Edwin B. Forsythe National Wildlife Refuge

ESTABLISHING AND ACQUISITION AUTHORITY(IES):

Edwin B. Forsythe National Wildlife Refuge (NWR, refuge) was created on May 22, 1984, by combining the former Brigantine and Barnegat NWRs (98 Stat. 207). The Brigantine NWR was established on January 24, 1939, by the Migratory Bird Conservation Commission, under the authority of the Migratory Bird Conservation Act of 1929 (16 U.S.C. § 715d) as amended, to preserve estuarine habitats important to the Atlantic Brant (*Branta bernicla*) and to provide nesting habitats for black ducks (*Anas rubripes*) and rails (*Rallidae*). The Barnegat NWR was established on June 21, 1967, under the authority of the Migratory Bird Conservation Act (16 U.S.C. § 715d) to preserve estuarine feeding and resting habitat for ducks and brant. Edwin B. Forsythe NWR is managed by the U.S. Fish and Wildlife Service (Service).

REFUGE PURPOSES:

For lands acquired under the Migratory Bird Conservation Act as amended, "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." (16 U.S.C. § 715d)

For lands acquired under the Fish and Wildlife Act of 1956 (16 U.S.C. § 742(a)-754) as amended, "...for the development, advancement, management, conservation, and protection of fish and wildlife resources..." (16 U.S.C. § 742 (a)(4)) "...for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..." (16 U.S.C. § 742f(b)(1))

For lands acquired under the Emergency Wetlands Resources Act of 1986 (16 U.S.C. § 3901(b)) as amended, "...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions..." (16 U.S.C. § 3901(b))

For lands designated as parts of the National Wilderness Preservation System under Public Law 93-632 (88 Stat. 2154) in accordance with the Wilderness Act of 1964 (16 U.S.C. § 1131) as amended, "...to secure for the American people of the present and future generations the benefits of an enduring resource of wilderness." (16 U.S.C. § 1131(a))

NATIONAL WILDLIFE REFUGE SYSTEM MISSION:

The mission of the National Wildlife Refuge System (Refuge System) is "...to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."— National Wildlife Refuge System Improvement Act of 1997, as amended (Public Law 105-57 (111 Stat. 1254))

DESCRIPTION OF ACTION:

- a) **What is the use? Is the use a priority public use?** The use is walking leashed pets in areas open to the public and on designated refuge trails. Pet walking is not a priority public use of the Refuge System under the Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the Refuge System Improvement Act of 1997 (Public Law 105-57).
- b) **Where would the use be conducted?** Pet walking will be allowed in some designated trails on the refuge that are open to the public, including Wildlife Drive, Songbird Trail, Jen's Trail, Grassland Trail, deCamp Wildlife Trail, Cedar Bonnet Island Trail, and the Service-owned trail at Eno's Pond County Park. Once opened to the public, the trail at Good Luck Point would also be available for this use. Holgate Beach is closed to all pets throughout the year due to concerns of impacts to sensitive wildlife and habitat. When the public takes their pets to the beach, they generally allow them to run free. Shorebirds (especially) are located on Holgate throughout the year and pets would continue to be excluded from the site year-round to minimize harassment. Based on public comments, a few trails formerly open to pet walking will now be closed to allow for visitors to have a variety of experiences while on the refuge. These include Akers Trail, Leeds Eco-Trail, Barnegat Overlook, and Graveling Point.

By encouraging visitors with pets to stay on refuge trails and public roads, we will minimize impacts to sensitive areas prone to disturbance (e.g., sensitive vegetation areas) or degradation (e.g., soil compaction) and would minimize impacts to threatened and endangered species, nesting birds or other breeding, feeding, or resting wildlife. Certain areas of the refuge may be permanently or seasonally closed to public access at the Refuge Manager's discretion to protect sensitive habitats or species of concern, minimize conflicts with other refuge activities, or due to human health and safety concerns. The public is strongly encouraged to report pet walking-related issues to refuge managers.

- c) **When would the use be conducted?** Forsythe NWR is open to the public from 1/2-hour before sunrise to 1/2-hour after sunset. Pet walking would occur during regular refuge hours throughout the year in areas open to the activity. Use of the refuge for these activities is likely to be highest during spring and fall.
- d) **How would the use be conducted?** Refuge visitors are allowed to walk their pet on the refuge if it is attached to a leash and the pet walker is in control of the leash and pet at all times. The leash requirement will minimize disturbance to wildlife, minimize conflicts with other visitors, and ensure public safety. All pet walkers with properly leashed pets would be restricted to designated roads, trails, pull-outs, and overlooks. All pet walkers are expected to remove pet waste from the refuge or deposit it in trash receptacles at trail heads, if provided.
- e) **Why is this use being proposed?** Pet walking is an ongoing use on the refuge, and has been occurring without any evidence that it is a significant disruption or consistently causing damage, except when pet waste is not cleaned up by pet walkers or when owners allow their pets off-leash. It has been a long-time tradition for residents of local communities to use the refuge for this activity. It builds strong local support, encourages people to visit the refuge, and allows an excellent opportunity to educate pet walkers about the refuge and the Refuge System.

AVAILABILITY OF RESOURCES:

The estimated cost of allowing pet walking within areas open to the public are fairly low because little infrastructure is needed. The majority of costs relate to updating signs and occasional trail maintenance of pet waste that is not cleaned by visitors.

Monitoring Resource Impacts (fish and wildlife officer-20 hours):	\$650
Signs, pet waste bags and upkeep (maintenance-employee-40 hours, signs):	\$1,825
Total annual recurring costs:	\$2,475

The financial and staff resources necessary to provide and administer these uses at their current levels are now available. We expect the resources to continue in the future, subject to availability of appropriated funds.

Anticipated Impacts of the Use

The proposed use is anticipated to have the same level of impacts as other refuge uses, such as walking, because the access and activities are very similar. Because these activities will be supervised by refuge staff, impacts of pet walking will likely be minimal if conducted in accordance with refuge regulations. Following are descriptions of potential adverse effects on natural resources from pet walking in authorized areas within the refuge.

In 2017, approximately 58,000 people used foot trails on the refuge. Based on staff observations, about 10 percent of those visitors were pet walking. We do not expect an increase of the use in the future and we expect impacts to refuge resources to be negligible or minor as long as the public remains on trails and manages pet waste responsibly, as has generally occurred. Refuge staff will routinely monitor roads and trails for damage and remediate problem areas as needed. Although some off-trail use may occur, the majority of users are expected to stay on trails and roads. Off-trail use would be disparate and likely be minimal. However, off-trail foot traffic could cause some vegetation loss, increased tree root exposure and trampling effects. Unmanaged pet walking has the potential to damage or kill plants adjacent to designated trails and can lead to new unwanted “informal” trails on the refuge that become short-cuts through more ecologically sensitive sites. Heavy use of designated, managed, or unmanaged pedestrian travel routes can ultimately lead to areas void of vegetation and can have landscape level negative impacts (Barros and Pickering 2017; McDonnell 1981). We will encourage users to remain on existing trails and roads through signage and refuge brochures. Pet waste bags and trash receptacles will be provided by the refuge at the Headquarters area, deCamp Wildlife Trail, and Cedar Bonnet Island Trail, but the public is expected to remove waste from the refuge when no receptacles are available. Refuge staff will monitor all trails, identify problem areas, and conduct appropriate restoration and protection efforts. Additionally, we will encourage the visiting public to report any issues associated with pet walking.

Several studies have examined the effects of recreation on birds using habitats adjacent to trails and roads through wildlife refuges and coastal habitats in the eastern United States. Overall, the existing research demonstrates that disturbance from recreational activities has at least temporary effects on the behavior and movement of birds and other animals within a habitat or localized area. The findings that were reported in some studies are summarized below regarding visitor activity and response to disturbance.

Presence: Birds avoided places where people were present and when visitor activity was high (Burger 1981, Klein et al. 1995, Burger and Gochfeld 1998). Birds developed more slowly during periods of increased public use (Remacha et al. 2016). Mammalian use of trails in eastern forests was not impacted by hikers (Kays et al. 2017).

Trail Density: Bird nesting density decreased with increased trail density within a forested patch (Thompson 2015).

Approach Angle: Visitors directly approaching birds on foot caused more disturbance than visitors driving by in vehicles, stopping vehicles near birds, and stopping vehicles and getting out without approaching birds (Klein 1993). Direct approaches may also cause greater disturbance than tangential approaches to birds (such as along trails) (Burger and Gochfeld 1981, Burger et al. 1995, Knight and Cole 1991, Rodgers and Smith 1995, Rodgers and Smith 1997, Smith-Castro and Rodewalk 2010).

Noise: Noise caused by visitors resulted in increased levels of disturbance (Burger 1986, Klein 1993, Burger and Gochfeld 1998), though noise was not correlated with visitor group size (Burger and Gochfeld 1998).

Dogs: Despite thousands of years of domestication, dogs retain instincts to hunt and chase. The appropriate stimulus can trigger those instincts. Dogs that are unleashed or not under the control of their owners may disturb or threaten the lives of wildlife (Thomas et al. 2003). In effect, off-leash dogs increase the radius of human recreational influence or disturbance beyond what it would be in the absence of a dog. The presence of dogs, or other pets, may flush incubating birds from nests (Faillace and Smith 2016), disrupt breeding displays (Baydack 1986), disrupt foraging activity in shorebirds (Burger et al. 2007), disturb roosting activity in ducks (Keller 1991), and displace and reduce fitness in grassland and forest species (Miller et al. 2001). These studies indicate that people with dogs on leashes provoked more disturbance than people walking without a dog, and loose dogs provoked the most pronounced disturbance reactions from their study animals. Miller et al. (2001) found that the presence of a human walking caused grassland bird species to flush and displace longer distances than the presence of a dog alone, while there was no difference in response of forest bird species.

To minimize these impacts, we require that pet walkers leash their pets at all times and that they are in control of the leash and pets at all times. Human presence on the trails at the refuge causes disturbance to birds and other wildlife, even without pets. Families enjoying a trail may be louder than a single bird watcher quietly skulking to view a bird. The refuge is comprised of nearly 48,000 acres of habitat, which is largely closed to the public. The trails open to the public, and subsequently those that are open to pet walking, will have more disturbance than the vast majority of the site. That is expected, and a by-product of our interest in inviting and encouraging people to enjoy nature. We limit access to most of the refuge to ensure we provide undisturbed habitat and have intentionally selected the sites where we allow public use.

Currently, Holgate Beach is closed April 1 to August 31 to protect nesting piping plovers each year. Although these closure areas are designed to minimize human impacts, the potential exists for impacts to occur if the closure is not enforced. Conflicts arise when migratory birds and humans are present in the same areas (Boyle and Samson 1985). Response of wildlife to human activities includes departure from site (Burger 1981, Burger et al. 2007, Webber et al. 2013, Faillace and Smith 2016), use of sub-optimal habitat (Erwin 1980), altered behavior (Burger 1981, Korschgen et al. 1985, Morton et al. 1989, Ward and Stehn 1989, Havera et al. 1992, Klein 1993, Borgmann 2011), and increase in energy expenditure (Morton et al. 1989, Bélanger and Bédard 1990). Though Holgate Beach is currently open September 1

to March 31, it is an important resting and stopover area for birds outside of the breeding season. To reduce disturbance to birds, we prohibit pets on Holgate throughout the year.

People and animals can be vectors for invasive plants when seeds or other propagules are moved from one area to another. The threat of invasive plant establishment would always be an issue requiring annual monitoring, and when necessary, treatment. Staff would work to educate the visiting public to reduce introductions and would also monitor and control invasive species. This threat is considered to be minimal.

The role of dogs and other pets in wildlife diseases is poorly understood. However, dogs can host endo- and ecto-parasites, and can contract diseases from or transmit diseases to wild animals. Domestic pets potentially can introduce various diseases and transport parasites into wildlife habitats (Sime 1999). To minimize the potential for disease transmission, we require that pet walkers must have their pets on leash at all times, must be in control of the leash and pets at all times, and must remove pet waste from the refuge.

Visitor use is fairly heavy in areas open to pet walking; and well-used by pet walkers (e.g., the Headquarters area, deCamp Wildlife Trail, and Cedar Bonnet Island trail). If pets are kept on leashes and are under control by their owners, the impacts to wildlife and refuge habitats are expected to be limited, especially as wildlife is likely fairly habituated to disturbance in these well-used areas. We are very interested in encouraging a wide variety of users to these three locations in particular, and include pet walking as an activity that can be enjoyed on the refuge.

Based on the variety of public comments received, we will reduce pet walking access to four locations not identified in the draft compatibility determination. These include the Barnegat Boardwalk in Barnegat Township; Graveling Point in Little Egg Harbor Township; and the Leeds Eco-trail and Boardwalk and Akers Trail in Galloway Township. These changes will provide visitors places to walk in pet-free areas. All pet-free trails will be marked with signs.

The refuge will take all necessary measures to minimize impacts of the use. If needed, we will act to reduce negative impacts to wildlife and habitat. We will post and enforce refuge regulations, and establish, post, and enforce closed areas. We may also reduce or eliminate the use in specific locations if regulations are not followed.

PUBLIC REVIEW AND COMMENT:

The draft Compatibility Determination was available for a 21-day public review and comment period ending on November 6, 2018. Notification was posted at the refuge headquarters and visitor information center, on the refuge website (<http://www.fws.gov/northeast/forsythe>), and the refuge Facebook page. Thirty written comments were received from the public including support of pet walking, opposition to pet walking, and support but with conditions, such as requiring permits and limiting areas where pets can be walked. Several trails (noted above) will be closed to pet walking in the future to provide a variety of user groups a positive visiting experience.

DETERMINATION (check one below):

- Action is Not Compatible
- Action is Compatible with Following Stipulations

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

Refuge staff will monitor all areas open to pet walking, identify problem areas, and conduct appropriate restoration and protection efforts as needed. If monitoring indicates that this use is not compatible (materially interferes with or detracts from fulfillment of the Refuge System mission or the purposes of the refuge), we would curtail, modify or eliminate the use or component. For example, if a high number of reports of negative pet-wildlife or pet-human interactions are reported, the refuge will reassess the use; or if a high number of off-leash incidents are documented, the refuge may consider eliminating pet walking from certain areas of the refuge. The following stipulations are necessary to ensure compatibility of pet walking on the refuge:

- Only leashed pets will be allowed on the refuge. Pet walkers would be required to maintain control of their animal while on the refuge, thereby reducing the potential and severity of impacts to wildlife and must refrain from entering closed areas.
- Pet walking is allowed only during refuge open hours (generally ½- hour before sunrise until ½-hour after sunset).
- Pet walking is not permitted on the Barnegat Boardwalk, Graveling Point, Holgate, Akers Trail, and the Leeds Eco-trail and Boardwalk. Service animal required by visitors are not prohibited.
- Pets are prohibited in refuge buildings, including the Visitor Information Center, unless a service animal is required by the visitor.
- Pet walkers must pick up after their pet(s) and remove or properly dispose of pet waste.

JUSTIFICATION:

The Service and the Refuge System maintain the goal of providing opportunities to view wildlife, a priority public use. Wildlife observation can be enjoyed while walking pets on the refuge; thus, pet walking indirectly supports goals and objectives described in the refuge's Comprehensive Conservation Plan. Pet walking is an existing use at the refuge, with no history of significant negative impacts. There are no documented incidents of domestic pet-wildlife disturbances or of pet-human conflicts on the refuge. The majority of pet walkers are local residents who regularly visit the refuge for wildlife-dependent recreation. Although pets can increase disturbance to wildlife, it is well known that any human presence will disturb wildlife. Public use is limited to designated trails to minimize that disturbance and so that the vast majority of the refuge remains undisturbed.

Because this use is restricted to designated roads, trails, pull-outs, and overlooks, and other designated areas open to the public, away from sensitive wetland habitats and wildlife, and the current levels of the use are moderate but with few negative consequences, we anticipate that this use would have only minor and short-term impacts on refuge resources. These users may take the time to learn more about the refuge and become, or already be, supporters of the Refuge System. Because of this, it is consistent with the wildlife and habitat aspects of the refuge's purposes, the Service policy on compatible uses, the Refuge System Improvement Act of 1997, and the broad management objectives of the Refuge System. Pet walking would not harm threatened and endangered species because of the leash requirement and because pets will be restricted from defined endangered species areas. Therefore, no significant adverse impacts from pet walking are anticipated and this activity would not materially interfere with or detract from the mission of the Refuge System.

Signature - Refuge Manager: Virginia Petty 2-19-2019
(Signature and Date)

Concurrence - Regional Chief: Scott B. Kuhn 2/20/2019
(Signature and Date)

Mandatory 10-year Reevaluation Date: 2/2029

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