

## **Draft Compatibility Determination**

### **Title**

Draft Compatibility Determination for minor modification of rights-of-way for road and utility lines, Missisquoi National Wildlife Refuge

### **Refuge Use Category**

Rights-of-Ways and Rights-to-Access

### **Refuge Use Type(s)**

Rights-of-ways (road).

Rights-of-ways (utility).

### **Refuge**

Missisquoi National Wildlife Refuge

### **Refuge Purpose(s) and Establishing and Acquisition Authority(ies)**

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

### **National Wildlife Refuge System Mission**

The mission of the National Wildlife Refuge System (NWRS), otherwise known as 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 (Pub. L. 105-57; 111 Stat. 1252).

### **Description of Use**

Is this an existing use?

Yes

What is the use?

The use is to allow the minor modification of an existing highway right-of-way (ROW) easement for the State of Vermont in order to accommodate the expansion and future maintenance of state route 78 through the Missisquoi National Wildlife Refuge (refuge, NWR). The road expansion will also require the movement of existing utility lines. This compatibility determination will evaluate ROWs for both road expansion and maintenance and utility line relocation.

The Vermont Agency of Transportation (VTTrans) is proposing to widen the road by creating 12-foot lanes and 8-foot shoulders for the entire length of the road through the refuge and relocate a portion of the existing utility line into two separate areas. The proposed project includes transfer of easements from the United States Government (U.S. Fish and Wildlife Service, FWS) to the State of Vermont via the Federal Land Transfer process consistent with 23 U.S. Code Section 317, for the establishment of these ROWs. In exchange, the State of Vermont will transfer an 11-acre parcel of much higher quality habitat to account for the loss of habitat and use of lands within the rights-of-way.

Is the use a priority public use?

No. The use of these ROWs for road widening and relocated utility lines are not wildlife-dependent priority public uses of the National Wildlife Refuge System (Refuge System) under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), and the Refuge System Improvement Act of 1997 (Public Law 105-57), but are a refuge use that is exempt from an appropriateness review.

Where would the use be conducted?

The use will occur along the existing corridor of state route 78 through the refuge extending 2.7 miles (Figure 1). Areas between Black Creek/Maquam Creek trail and Louie's Landing will be expanded to the south whereas areas between Charcoal Creek and Louie's Landing will be expanded to the north.

With the expansion of the road, a minor modification of the existing utility ROW easement will occur in two areas (Figure 2). One portion of the ROW will move to the northeast from its current location, and the other will connect a transmission line adjacent to the railroad tracks west of state route 78 northeast to Louie's Landing to provide power to refuge facilities located there.

While the refuge is not transferring fee title to the State of Vermont, lands within the ROW that are developed will be permanently impacted by road improvements. Thus, the State of Vermont is transferring to the refuge intact habitat along the Missisquoi River just north of Mac's Bend boat ramp (Figure 3); the property is currently an inholding surrounded by the refuge.

When would the use be conducted?

Construction is proposed to begin in 2031, will take place during daylight hours between May and September, and will span three years. However, the road and utility ROWs will have continuous use and maintenance permanently. The land transfer to FWS would happen before the construction begins on the highway.

## How would the use be conducted?

Temporary construction activities would initially include grading, paving, and construction of the roadway expansion through the refuge. Temporary utility relocation activities would include brush cutting and possibly tree removal for the transmission line. Existing poles would be relocated, requiring new holes to be drilled for installation and the use of heavy equipment. Long-term activities for the road ROW would include regular road maintenance and continuous vehicle use. Long-term activities for the utility ROW would include periodic (every 4 years) brush and woody vegetation management within the easement area.

These temporary and permanent activities are contained within the acquired easements. Precautions, such as installation of erosion control barriers, would be taken to ensure that habitat and wildlife surrounding the project area are not negatively impacted by project drainage, runoff, invasive seed dispersal, sedimentation, or litter debris. Monitoring of black terns in wetlands adjacent to the project area will take place during nest establishment and fledging periods, and strip transect monitoring for invasive species will be conducted within the construction area. Post construction, the project area would be restored to original grade and seeded with native grass by VTrans and monitored by the Vermont Department of Environmental Conservation in partnership with the refuge.

In-perpetuity easements will be provided for the long-term road infrastructure areas, such as pavement, road shoulders, and drainage culverts, and for the utility infrastructure. Additional stipulations necessary to ensure compatibility (see Stipulations section) will be included in the conditions for the ROW easement issued by the FWS. These stipulations will also be included in the Letter of Consent submitted to Federal Highway Administration (FHWA), which will be included in the deed to the state for the ROWs. In this way these conditions will be documented and memorialized for future reference in the management of the ROWs.

The proposed project will be assessed and analyzed through federal policies, regulations, National Environmental Policy Act (NEPA) protocols, National Historic Preservation Act (NHPA) protocols, and other environmental review.

## Why is this use being proposed or reevaluated?

This is the first time this use is being evaluated for compatibility as the ROW existed prior to refuge establishment.

The road widening project is being undertaken, in part, to improve highway safety through this section of the refuge. The increase in lane width and development of a road shoulder as designed may reduce the number of accidents on the refuge. According to VTrans, a total of 309 accidents have been reported on route 78 since 2010 (*Crash Query Tool | Vermont Agency of Transportation, n.d.*). Many tractor trailer

accidents that spilled contaminants on to the refuge and into the Missisquoi River occurred due to narrow driving lanes and lack of road shoulders. These impacts should be reduced once the road project is completed and will benefit the refuge by reducing accident-related contamination.

This project has been in the planning stages for 29 years and is now in the final stages of planning, with construction proposed to begin in 2031. This compatibility determination precedes several other steps in the process of permitting this activity and accepting the land transfer parcel.

### **Availability of Resources**

To comply with the Refuge Recreation Act (Public Law 87-714), the refuge manager must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge’s CCP.

The modification of an existing ROW occurs through the use of existing staff, funding, equipment, and facilities (Table 1). Existing resources such as NEPA planning, and resource monitoring are made possible through extensive help of staff, volunteers, and partners.

Table 1. Costs to Administer and Manage VTrans ROW: GS-11 Wildlife Biologist & GS-13 Refuge Manager

<b>Category and Itemization</b>	<b>One-time Cost</b>	<b>Recurring Annual Expenses</b>
Develop Plan/NEPA document/opening package	\$2,600.00	0.00
Staff time (administration and management)	\$5,000.00	0.00
Monitoring	\$5,000.00	0.00
<b>Total one-time expenses</b>	<b>\$12,600.00</b>	<b>0.00</b>
<b>Total recurring annual expenses</b>	<b>\$0.00</b>	<b>0.00</b>
<b>Total expenses</b>	<b>\$12,600.00</b>	<b>0.00</b>

Refuge staff will need to work with VTrans on construction strategies (such as staging equipment in refuge parking lots) and mitigation measures (Appendix 1). Staff will also need to ensure that compatibility stipulations are met and monitor and evaluate

impacts of the refuge use. We estimate that these functions will require approximately 115 hours of a GS-13 refuge manager's time and approximately 100 hours of a GS-11 wildlife biologist's time. However, the time employees will be engaged in these functions will be spread over the course of the project planning and construction phases that will take several years to complete. Future monitoring for compliance is expected to be an annual occurrence and not contribute significantly to the overall costs to the refuge.

### Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The refuge manager will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For other refuge uses, if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the refuge manager may modify or suspend the use pursuant to 50 CFR 25.21. The public will be notified of any changes to refuge uses, including temporary modification or suspension, re-evaluation of compatibility and/or discontinuing of refuge uses.

## **Anticipated Impacts of the Use**

### Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

Consistent with 50 CFR § 29.16-(c)(4), VTrans will provide a detailed environmental review to determine there will not be a significant impact, individually or cumulatively as a result of this project. This includes significant impacts to habitat and wildlife.

The effects and impacts of the proposed use to natural and cultural resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship with this proposed use. This compatibility determination includes analysis of the potential impacts on a resource only when the impacts could be more than negligible and therefore considered an "affected resource." Resources or issues that will not be more than negligibly impacted by the action have not been further analyzed.

### Short-term impacts

There will be short-term impacts to habitat and wildlife during the construction phase of this project. While construction noise is one likely impact to wildlife near the highway, it is difficult to predict reliable levels of construction noise across the length

of the proposed project.

A review of studies from 1990 to 2013 focused on the effects of human-made noise on wildlife, particularly on European and North American species that use vocal communication, including songbirds (Shannon et al 2015). Most studies found that noise affects wildlife by altering vocal behavior, reducing population numbers in noisy areas, changing vigilance and foraging behaviors, and impacting individual fitness and ecological community structures. Terrestrial wildlife responses to noise start at around 40 dBA, with some impacts noted below 50 dBA. Most construction vehicles have dBA levels ranging from 67 to 96 dBA (Knauer et al 2006), however noise is not always localized with vehicles moving in unpredictable patterns. According to Hastings and Son (2023), typical highway noise for cars and trucks traveling 50 mph (posted speed on route 78) ranges between 70 and 80 dBA. Since the road has been used heavily by truck and vehicle traffic for decades, the additional construction noise will only be a temporary impact and possibly not significant due to existing persistent traffic noise.

Construction noise impacts will vary depending on the timing of construction and other factors such as prevailing wind and precipitation events (Knauer et al 2006). These impacts may affect behavior of mammals and disruption of breeding of migratory birds. Due to the nature of the project, the impacts will be spread linearly throughout the construction season. The construction phases over the length of the road will be planned in advance and coordinated with VTrans and the Vermont Fish and Wildlife Department to avoid and/or reduce impacts.

Construction activities may disrupt state-endangered black terns that nest exclusively on the refuge. Black terns have nested regularly in Cabot Clark Marsh to the north of state route 78 and Patrick Marsh south of state route 78. Loud noises and construction activities may dissuade black terns from attempting to nest in these areas if construction occurs when they are scouting for nest locations in May. However, black terns typically nest in several locations throughout the refuge wetland complex. Should nesting activities be disrupted during construction, the portion of the black tern population in that location may be able to re-nest elsewhere on the refuge. In Ontario, black terns were found to successfully re-nest until mid-July (Novak 1990, Gerson 1988, Naugle 2004).

The refuge and the Vermont Fish and Wildlife Department are actively consulting with VTrans to have construction activities occur either outside the nesting season or start prior to tern nest establishment to help avoid nesting impacts.

Existing continuous noise of state route 78 with heavy truck traffic and occasional freight train activity does not prevent black terns nesting in these wetlands, as they have regularly nested in these locations for decades. It is possible that the

construction activity will have similar noise affects and not impact the tern nesting and foraging activity in these areas.

Construction activities may also create changes in how wildlife use the areas along the road and habitats adjacent to the road on the refuge (Knauer et al 2006). For example, mammals may avoid areas where construction activities are occurring requiring them to route around the construction site or avoid it entirely. However, wildlife mortality on roads increases at night when construction would not occur. For example, amphibian mortalities are higher at night (Zhang et al. 2018). Higher wildlife vehicle collisions have been documented at night but are also relative to traffic volume and seasonality (Heeres et al. 2025).

During construction, sections of the road would be reduced to one lane causing traffic to slow through certain corridors of the refuge. This would likely be beneficial to wildlife (amphibians, reptiles, small mammals), as vehicle collisions would be less likely at slower vehicular speeds.

Construction activities inherently create soil disturbance, which is a concern along wetland sections of the refuge. Permitting required by the Vermont Department of Conservation (VTDEC) will require adequate buffer protection of wetlands during construction. The VTDEC along with refuge staff will periodically monitor the project to ensure that required protections are being used and are effective.

During the construction phase of this project, the public traveling to the refuge may decide to visit only on weekends to avoid construction or choose to visit outside of the construction season (late fall to early spring). This may reduce visitation to refuge trails and its visitor's center on Tabor Road during the work week. While this would affect the public's ease of visiting the refuge's trails and visitor's center, it would not prohibit the use since the road will be open, but reduced to one lane, during the construction phase.

Anytime construction occurs, there is the opportunity to have new invasive species become established due to the creation of bare ground and transportation of seeds and plant matter from fill material. Invasive plant control was recognized early in the planning process with the state as this section of highway requires annual invasive species control. One of the stipulations for compatibility includes the development of a management plan for preventing and controlling invasive species for the project and for future maintenance activities within the refuge. The refuge will work with the state to ensure best practices are followed during future ROW maintenance to reduce new invasive species introductions, such as cleaning mowing equipment prior to mowing ROW areas on the refuge.

Short term impacts will also occur with the minor modification of the relocated utility

ROW (Figure 2). One relocated segment will occupy approximately 366 feet (0.27 acres) along the edge of a field in stages of regrowth between the railroad and the refuge's boat launch, Louie's Landing. This area is currently managed for shrub successional habitat, which the refuge cuts periodically to maintain this habitat type.

The second relocated segment of the utility ROW will occupy approximately 0.75 acres of land located north and east of the existing ROW along route 78. This area consists primarily of open freshwater marsh adjacent to the highway, along with roughly 1,200 feet of forest edge. Some tree removal may be required during construction. All tree-clearing activities will follow established protocols to avoid impacts to Northern long-eared bats. Any trees removed will be replaced and replanted elsewhere on the refuge in locations designated by refuge staff, consistent with prior agreements (see Appendix 1).

Initial impacts of both segments will include cutting brush and clearing small trees to provide a clear path for the relocated utility ROW. The ROW will allow for clearing of trees and tree branches on either side of the powerlines up to 15 feet for the first segment and 50 feet for the second segment. Trees and branches smaller than 3" dbh would be trimmed or cut and removal of larger trees would occur in the winter outside the seasonal use timeframe of Northern long-eared bats. The refuge will require mats to reduce ground pressure and to prevent rutting and soil compaction for any new pole installation. Two poles will be required for this ROW.

Short-term impacts from this realignment will be similar to those from the highway construction, as roughly 20 utility poles must be relocated to accommodate the shifted ROW. This work will occur at the same time as the road construction, so any disturbances from pole relocation will be additive. Because all activities will remain along the wetland edge and will not extend into interior wetland areas, the overall level of disturbance is not expected to differ substantially from the impacts already described.

New poles will need to be installed, which will require additional State Historic Preservation Officer (SHPO) and Regional Historic Preservation Officer (RHPO) clearance prior to any ground-breaking activity.

### Long-term impacts

A total of 9.3 acres will be permanently paved on the refuge as a result of this project. This includes 5.6 acres which is already a paved state highway, and the expansion of the roadbed encompassing 3.7 additional acres. The project will also require a total of 2 acres of temporary ROW and 8.5 acres of permanent ROW establishment along the length of the road to permit mowing and periodic maintenance operations. The ROW

acreage is similar to what the state already maintains along the highway through the refuge, however due to the widening project it will shift into the refuge slightly further than the current ROW.

Roads have documented ecological effects on habitat and wildlife. Road corridors can act as dispersal routes for some wildlife and act as barriers for other species (Fuentes-Montemayor et. al, 2009; Clevenger, A. P., and M. P. Huijser. 2011). Roads are also responsible for direct wildlife mortality from car strikes. Roadkill has been reported as a leading cause of mortality in vertebrates, even higher than hunting activities (Forman and Alexander 1998, Paredes-Casas, C.A et al, 2024).

While the impact of roads on wildlife and plant communities is well documented, the road widening project through the refuge is a simple lane expansion along an existing state highway. The expansion of the road is not expected to cause additional wildlife mortality outside of what already occurs. The road project also incorporates designs to reduce wildlife mortality through the installation of 7 box culverts (4'x4') along with gabion walls to help guide wildlife to the culverts. Placed appropriately, and within the existing riparian corridor that connects habitats on the north and south sides of the road, these should reduce some of the wildlife mortality and be an improvement over the existing conditions.

There will be direct impact to wetlands through the proposed road project. An estimated 1.2 acres of wetland will be permanently impacted by filling and paving for the project. Both the U.S. Army Corps of Engineers and the Vermont Department of Environmental Conservation are involved with the refuge in permitting this activity. This includes areas in Cabot Clark Marsh and between Louie's Landing and Black/Maquam public access areas. These areas occur directly adjacent to the existing road corridor and are linear, encumbering the area approximately 12 feet from the existing roadbed into the wetland. The relatively narrow width and linear extent of the wetland area will likely result in minimal impacts to the wetland habitats and wildlife on the refuge. These linear areas on the refuge are directly adjacent to the highway and are mowed annually. They have little to no habitat value for nesting migratory birds and marginal value for other species such as pollinators since they are typically mowed during the growing season.

The 0.27-acre utility ROW will create long-term old field and shrub habitat and prevent any permanent forest from developing. The area where the ROW is proposed is currently managed as shrub successional habitat; therefore, the continued maintenance of this strip will not change the refuge's current management plan for the area. Additionally, poles will need to be installed to carry the powerline. As previously noted, this will require the state to consult with the SHPO and the RHPO to clear the activity. This relocated utility ROW is necessary to supply power to a

refuge outbuilding and therefore is a benefit to the refuge.

The 0.75-acre utility ROW that is being relocated to the north and east of route 78 is largely through open freshwater marsh habitat. In this area no routine vegetation maintenance will be required. There will be approximately 1,200 feet along the highway which will have occasional tree trimming to maintain the ROW. Long-term impacts of this section are periodic wildlife disturbances during tree trimming activities. These are not expected to be significant given the short linear distance of edge habitat along a road as well as the 4-year maintenance interval. Also, the duration of the maintenance will only require a few days to complete which reduces the expected disturbance.

The utility, Vermont Electric Power Company (VELCO), maintains ROWs based on an established management plan (Vermont Electric Power Company, 2021). This plan allows for “compatible” vegetation to occur within ROWs based upon growing height. Additionally, the plan addresses avoiding impacts to wetlands, wildlife and controlling invasive plant species. The refuge will work with VELCO to ensure the long-term maintenance of this ROW continues to be compatible with the refuge.

Due to the loss of habitat from the widening project, a replacement parcel was required to be identified for protection as part of the Missisquoi NWR (603 FW2 (2.11)(D)). The parcel is wetland habitat totaling 11 acres of mature silver maple floodplain forest along the Missisquoi River. The refuge will lose 3.7 acres of habitat to new highway construction along with 8.5 acres which will be a ROW for maintenance, though kept in native vegetation. While the replacement habitat is slightly smaller in size, it provides much higher quality wildlife value as a wider floodplain forest with abundant mast and adjacent riparian resources as compared to the narrow, linear strip of edge habitat along the existing state highway. The Vermont Fish and Wildlife Department also note the significance of riparian habitats and the need for protection and restoration of these areas statewide (Vermont Wildlife Action Plan, 2025). The parcel is within the largest contiguous acreage of silver maple floodplain forest in the state, making its protection more significant. Additionally, the parcel is an inholding surrounded by the refuge, which allows for contiguous refuge management in this area.

The area the road traverses through the refuge is also known for its archaeological significance. The lands to be encumbered by a relocated road ROW have undergone phase 3 mitigation planning (final revision dated 6-26-13) and have been cleared by the RHPO and SHPO. In consultation with the RHPO, the refuge will retain several significant known sites and sites within the project area which have not been surveyed to maintain the integrity of the archaeological resources either known or

likely to be present. Any land under easement will continue to be available for archaeological research and testing by the FWS. The Vermont Agency of Transportation agrees that authorized representatives of the United States will have the right of access to the right-of-way for this purpose. FWS does not anticipate significant impacts to cultural/archaeological resources from the project (ROW road expansion and utility lines, and land transfer), but per the stipulation below, additional research may be required prior to ground-disturbing actions.

### **Public Review and Comment**

The draft compatibility determination will be available for public review and comment for 14 days from 5/29/26. The state and area Tribes have been asked to review and comment on the draft compatibility determination. The public will be made aware of this comment opportunity through posting at refuge headquarters, on the refuge's website, and on social media. A hard copy of this document will be posted at the refuge headquarters and visitor center located at 29 Tabor Rd, Swanton, VT 05488. It will be made available electronically on the refuge website <https://www.fws.gov/refuge/missisquoi/>. Please contact the refuge manager if you need the documents made available in an alternative format. Information or concerns received during the comment period will be addressed in the final determination.

### **Determination**

Is the use compatible?

Yes

### **Stipulations Necessary to Ensure Compatibility**

Consistent with 23 U.S. Code Section 317, the FWS' Division of Realty will submit a Letter of Consent to the Federal Highway Administration (FHWA). This letter will include necessary conditions that will be incorporated in a deed from FHWA to VTrans. This easement will include the legal description and required terms and conditions for each of the proposed uses. Conditions outlined in the easement must be adhered to in order to ensure compatibility. The conditions are captured in the following stipulations:

1. Any ROW-associated activity will require issuance of a special use permit which will address the scope and limitations of activity. The permittee shall provide funding to support review and issuance of the ROW easement.
2. The road design adopts measures to avoid resource impacts and includes provisions to ensure no net loss of habitat quantity and quality (documented in 4(f) letter of concurrence, Appendix 1.)

3. Replacement areas are permanently protected as part of the National Wildlife Refuge System (also documented in 4(f) letter of concurrence). The conversion of FWS land to transportation use will result in a land transfer to FWS following 23 U.S. Code § 317 - Appropriation for highway purposes of lands or interests in lands owned by the United States and acquisition, as well as compatibility policy 603 FW2 (2.11)(D).
4. Loss of wetlands in the refuge will be mitigated per FWS requirements.
5. Before the easement is finalized, VTrans and FWS will create a management plan for preventing and controlling invasive species for the project and for future maintenance activities within the refuge.
6. VTrans (or their contractors) will replace trees as mitigation for those cut from refuge land by planting new trees at a location specified by the refuge.
7. Any land in easement will continue to be available for archaeological research and testing in the future.
8. The project area where the archaeologically sensitive site is located will be retained in fee by the FWS, but we will allow an easement to be acquired. VTrans will protect this site from impacts, and a FWS-approved archaeologist will be on site during construction activities in this area.
9. Prior to ground disturbing actions, VTrans will determine (in coordination with FWS) if additional archaeological testing will be necessary, complete testing as needed, and address any resulting concerns. Specifically, all new and future utility pole locations must be reviewed for archaeological significance and Section 106 compliance.

### **Justification**

The stipulations outlined above would help ensure that the road widening project is compatible with the purposes of Missisquoi NWR. Rights-of-ways (Road, Utility), as outlined in this compatibility determination, would not conflict with federal law or policy to maintain the biological diversity, integrity, and environmental health of the refuge. This use is further supported by 603 FW2 (2.11)(D): “restored or replacement areas identified in the design are afforded permanent protection as part of the national wildlife refuge...” Replacement habitat of much higher quality has been identified to be transferred to the refuge for permanent protection. Based on available science and best professional judgement, the U.S. Fish and Wildlife Service has determined the road widening project, in accordance with the stipulations provided here, would not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the Missisquoi NWR.

### **Signature of Determination**

Refuge Manager, Signature and Date

### **Signature of Concurrence**

Assistant Regional Director, Signature and Date

### **Mandatory Reevaluation Date**

2036

### **Literature Cited/References**

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Figure 1: VTrans Project Area Map



Figure 2: Maps showing locations of proposed utility ROW easement





Produced at Missisquoi National Wildlife Refuge  
Swanton, Vermont

13072000

0 0.38 0.75 1.5 Miles

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Figure 3: Map of project area and proposed transfer parcel (Mudgett Island)



## Appendix 1: FHWA Section 4(f) De Minimis Impact Determination



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Vermont Division**

February 5, 2019

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Montpelier, VT 05602  
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In Reply Refer To:  
HDA-VT

Kenneth K. Sturm, Refuge Manager  
U.S. Fish and Wildlife Service  
Missisquoi National Wildlife Refuge  
29 Tabor Road  
Swanton, VT 05488

Subject: Reconstruction of VT Route 78  
FAP No. NH 036-1(9)  
Swanton, Vermont  
FHWA Section 4(f) De Minimis Impact Determination

Dear Mr. Sturm:

As discussed at the last interagency coordination meeting between USFWS, FHWA, and VTTrans, I am writing to provide clarification regarding FHWA's Section 4(f) procedures in relation to other regulatory requirements bearing on the transfer of refuge property as part of the subject project. As a brief recap, the safety improvements being implemented as part of the VT Route 78 reconstruction project in Swanton will increase the cross-sectional width of the roadway. Acquisition of land from the Missisquoi National Wildlife Refuge will be necessary for VTTrans to provide the additional width. A total of approximately 8 acres of refuge property will be converted for transportation use.

Conversion of land from a National Wildlife Refuge for transportation purposes is subject to review under 49 USC 303(c), commonly referred to as Section 4(f) (i.e., Section 4(f) of the DOT Act of 1966). Under that review a use of land from a Section 4(f) resource can usually be approved only upon a determination by FHWA that 1) there is no feasible and prudent alternative to the use of the land, and 2) The action includes all possible planning to minimize harm to the property resulting from such use.

However, if the impacts to the Section 4(f) resource are determined to be de minimis, then FHWA may approve the use of land for transportation purposes apart from any consideration of avoidance alternatives. Per 23 CFR 774.17, "(f)or parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f)." In determining whether a project's impacts are de minimis per this definition, an agency may consider its commitments to mitigate impacts or provide enhancements to the Section 4(f) resource.

In addition to an opportunity for public review and comment, 23 CFR 774.5(b)(2) requires that FHWA inform the officials with jurisdiction of its intent to make a de minimis impact finding and seek concurrence that the project will not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection.

For the VT Route 78 reconstruction project, FHWA and VTrans believe that the use of land from the Missisquoi National Wildlife Refuge is able to meet the requirements to be considered as a de minimis impact. In particular, FHWA and VTrans agree to add the mitigation and enhancement features that have been discussed over the last few meetings in response to USFWS concerns over project impacts in the refuge. These features include:

- The conversion of USFWS land to transportation use will result in a land exchange to USFWS following USFWS policy on land exchange and acquisition;
- Loss of wetlands in the refuge will be mitigated per USFWS requirements;
- VTrans and USFWS will create a management plan for controlling invasive species for the project and for maintenance activities within the refuge;
- VTrans (or their contractors) will replace and replant trees removed from refuge land;
- Any land transferred as an easement will continue to be available for archaeological research and testing in the future;
- Area where the longhouse is located will be retained in fee by the USFWS, but a storm water easement will be provided to VTrans; and
- Archaeological investigation will be completed prior to project implementation, including continued consultation with the State Historic Preservation Officer under 36 CFR 800.

Finally, FHWA would like to clarify that USFWS concurrence with its de minimis determination does not constitute any form of commitment on the part of the USFWS regarding the transfer of refuge land. The de minimis determination simply provides FHWA an easier method to fulfill the project's Section 4(f) requirements which in turn will allow completion of the NEPA process and initiation of the right-of-way acquisition phase. FHWA understands that the transfer of land from the refuge is subject to the requirements of USFWS regulations at 50 CFR 29, and USFWS policies such as 603 FW 2 (compatibility of use) and 601 FW 3 (maintaining biological integrity, diversity, and environmental health). USFWS concurrence with FHWA's de minimis determination is not intended to circumvent any of USFWS's procedural requirements.

Based on the above, FHWA requests USFWS concurrence that, taking into account FHWA's commitment to provide the proposed mitigation and enhancement components, as well as FHWA's commitment to cooperate with USFWS to satisfy its 50 CFR 29 and other obligations, the project will not adversely affect the activities, features, or attributes that make the Missisquoi National Wildlife Refuge eligible for Section 4(f) protection.

Sincerely,

KENNETH R  
SIKORA

 Digitally signed by KENNETH R  
SIKORA  
Date: 2019.02.05 10:35:42 -05'00'

Kenneth R. Sikora, Jr.  
Environmental Program Manager

cc: Tom Geser, USFWS  
Ken Upmal, VTrans