

Appendix H: Compatibility Determinations

Tamarac National Wildlife Refuge

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COMPATIBILITY DETERMINATION

Use: Archeological Investigations

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938...

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act)
- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)

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

Description of Use:

What is the use? Permitted archeological investigations on Tamarac National Wildlife Refuge are those requested by archeologists who are not performing the investigation for Refuge management purposes (e.g., Section 106 of the National Historic Preservation Act). Rather, permitted archeologists are pursuing their own or institutional research or are working for other parties that will be conducting activities on Service land, or as requested by the Governor of Minnesota or Chairwoman of White Earth Reservation, and similar third party activities on lands of the National Wildlife Refuge System.

Where is the use conducted? Permits can be for anyplace on Service owned lands, but each permit is for specific lands (i.e., no general archeological permits are authorized).

When is the use conducted? Permitted investigations can occur at any time of the year although usually not during the winter. Investigations may be as short as a few hours or go on for months, depending on the research objective. These permitted investigations occur on the Refuge because this is where the resource is found or where the resource could be disrupted.

How is the use conducted? Archeologists request Archaeological Resources Protection Act (ARPA) permits or Antiquities Act permits to conduct "Surveys and limited testing and limited collections on lands identified" and "Excavation, collection and intensive study of specific sites described" on Refuge land. Permits are issued by the Regional Director to qualified archeologists. The ARPA permit, along with a detailed project description, are submitted to the Refuge Manager for issuance of a special use permit to archeologists prior to investigation. The special use permit will define allowable dates and times for the investigation, and other management controls.

Why is the use being proposed? Archeological investigations are not priority public uses on National Wildlife Refuge System Lands as identified in the National Wildlife Refuge Improvement Act of 1997. However, allowing access to the Refuge for this activity will serve to protect vulnerable resources through identification of location and assessment of condition.

Availability of Resources:

The Refuge has resources available to administer this use. This activity will require the Refuge Manager to develop and issue a Special Use Permit and random inspections of the project area. ARPA/Antiquities permits are received by the Regional Historic Preservation Officer and issued by the Regional Director as part of normal duties.

Anticipated Impacts of the Use:

Impacts from routine pedestrian surveys, soil coring, shovel tests, and land form analysis are limited to short-term disturbance to wildlife using the immediate area and disruption of vegetative cover for growing season on an extremely small area affected by shovel tests.

Impacts from a large scale excavation are potentially longer term (several growing seasons) with associated wildlife disturbance impacts affecting

animals in the immediate area and vegetation cover disruption severe enough to require site re-grading and reseeded of the area to desired native species.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and Refuge goals and objectives, archeological investigations can only occur under the following stipulations:

1. Applicant must obtain a Special Use Permit issued by the Refuge Manager. The Special Use Permit is to prescribe administrative or management restrictions required by the Refuge Manager.
2. Permittee will shore up walls of test pits and trenches in accordance with OSHA standards; will flag, barricade, and sign testing areas as necessary to prevent injury to the public; will refill shovel tests as soon as excavated and data recorded including replacing the vegetative plug to restore original conditions; will backfill excavations as soon as data recording is completed and seed the surface with a grass or other vegetative mix approved by the Refuge Manager.
3. Predetermined stipulations on ARPA/Antiquities permits and the requirements in 43 CFR Part 7, "Protection of Archaeological Resources: Uniform Regulations," contain protective measures to be accomplished by archeologists.

Justification:

This use has been determined compatible provided the above stipulations are implemented. It promotes public stewardship of natural resources and helps the Refuge meet its goals and objectives.

It does not materially interfere with or detract from the Service's ability to meet the mission of the National Wildlife Refuge System.

The activities follow all applicable laws, regulations and policies; including Migratory Bird Conservation Act, Title 50 Code of Federal Regulations, National Wildlife Refuge System Manual, National Wildlife Refuge System goals and objectives, and Refuge goals and objectives. These activities are compliant with the purpose of the Refuge and the National Wildlife Refuge System Mission. Operating this activity does not alter the Refuge's ability to meet habitat goals and it helps support several of the primary objectives of the Refuge.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Mushroom, Nuts and Berry Picking

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938:

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act)
- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)

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

Description of Use:

What is the use? Non-commercial harvest of mushrooms, nuts and berries for human consumption, primarily chokecherries, high bush cranberries, raspberries, acorns, hazelnuts and morel mushrooms.

Where is the use conducted? These activities may occur throughout the 42,738 acres of the Refuge. Approximately 50 people participate in this activity annually, and most access areas adjacent to existing roads and trails.

When is the use conducted? Mushroom, nut and berry picking are authorized year-round in the Visitor Use Area (that part of the Refuge south of County Road 26) and in the Sanctuary Area (that part of the Refuge north of County Road 26) Sep-

tember through February. However most of the activity is concentrated during the few weeks when the fruits ripen.

How is the use conducted? This is an activity that is often done in conjunction with other activities that are wildlife dependent, such as wildlife observation and photography. Access to harvest sites is accomplished by walking from a designated parking area, public roadway or trail. All harvesting is done by hand.

Why is the use being proposed? Mushroom, nut and berry picking are traditional outdoor activities that bring families to the Refuge. It allows them to collect wholesome, healthy foods while enjoying the natural environment.

Availability of Resources:

There is little or no cost to administer this program. It occurs in conjunction with other public uses and participation is low.

Anticipated Impacts of the Use:

Historically, public participation in mushroom, nut and berry picking has been low and future participation is also expected to be low. Most activity occurs adjacent to existing roads and trails, therefore disturbance to wildlife will be minimal. The relatively few mushrooms, nuts and berries harvested will not significantly reduce the food source for wildlife.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.
 Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

All users must comply with Refuge-specific regulations.

Justification:

This use has little impact to wildlife or habitat since it is recreational in nature and few people participate. In addition, a relatively small portion of the Refuge is accessed by mushroom, nut and berry pickers, because most Refuge trails are not open to motorized vehicles. Ocular estimates of picked over areas reveal a very low percentage of total fruit picked, so no appreciable effect on wildlife mast is anticipated. This activity provides hours of enjoyable recreation and promotes a positive image of the Refuge.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Environmental Education, Interpretation and Outreach

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938...

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
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Description of Use:

What is the use? Environmental education is a process designed to develop a citizenry that has the awareness, concern, knowledge, attitudes, skills, motivations and commitment to work toward solutions of current environmental problems and the prevention of new ones. Environmental education within the National Wildlife Refuge System incorporates on-site, off-site, and distance learning materials, activities, programs, and products that address the audience's course of study, the mission of the National Wildlife Refuge System and the management purposes of the field station. Environmental education integrates the station messages with the audience's program such as integration with school curriculum, with scout badge requirements or with Elder Hostel seminar requirements. Environmental education tends to be longer in dura-

tion, often times involving pre- and post-visit discussions and multiple station visits. Interpretation is a communication process that forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource (i.e., more than information). Interpretation occurs in less formal activities with Refuge staff and volunteers or through exhibits, signs, brochures, elements of special events, and tours. Outreach is a two-way communication between the Service and the public to establish mutual understanding, promote involvement, and influence attitudes and actions, with the goal of improving joint stewardship of our natural resources. Examples of outreach include news releases, newsletters, websites, off-site displays, and participation in community partnerships.

Where is the use conducted? Environmental education and interpretation activities may occur off-site or on-site throughout the Refuge, but are most likely to occur in the vicinity of the headquarters, Visitor Center, wildlife drive, trails and roads. Visitors are greeted with a variety of interpretive displays and signs as they traverse the trails, wildlife drive, and observation platforms or explore the Visitor Center. The Refuge also maintains a website that provides interpretive information. Environmental education and interpretive programs are given upon request to schools and other groups visiting the Refuge. Back-country tours and interpretive programs are offered weekly during the spring and summer months and monthly during the winter. Special events are conducted throughout the year. Off-site activities consist of teacher workshops, participation in special events, and the sharing of wildlife education trunks. University natural resource classes may conduct in-depth explorations of the Refuge habitats.

When is the use conducted? The Refuge Visitor Center is open year-round Monday through Sunday from May 15th to October 15th and Monday through Friday the rest of the year and hosts 65,000 visitors annually. Interpretation occurs, throughout the year, whenever a visitor reads a sign, brochures or the Refuge website. Environmental education activities typically occur when school is in session, concentrated in the spring and fall months, but our winter programming is growing. Most activities occur during daylight hours.

How is the use conducted? All environmental education and interpretation activities are conducted with the Refuge's primary goals, objectives, and habitat management requirements as the guiding principles. Activities done under these restrictions allow the Refuge to accomplish its management goals and provide for the safety of visitors. All programs include a description of the U.S. Fish and Wildlife Service and the National Wildlife Refuge System. All of the interpretive programs address at least one of a number of wildlife conservation issues such as management, watershed, habitat, wildlife, endangered species, invasive species, etc. The environmental education programs not only address Refuge management goals but integrate audience needs such as school curriculum requirements.

Why is the use being proposed? Permitting this activity is consistent with the National Wildlife Refuge System Improvement Act, and helps accomplish Refuge goals and promotes understanding, appreciation, and support for its mission.

Availability of Resources:

Approximately \$250,000 is required to properly administer this program. This includes a full time public use specialist, a visitor center manager/volunteer coordinator and seasonal Park Ranger. In addition, staff time is required for periodic maintenance and improvement of Refuge interpretive signs, trails, observation platforms and visitor center displays.

Trained volunteers and interns provide an integral part of the Refuge's environmental education and interpretation program. They staff the Visitor Center daily, host special events, lead or co-lead interpretive and environmental education programs, and assist Refuge staff with a variety of other needs. Interns and volunteers are trained annually to conduct programs with minimal staff oversight.

Every effort is made to meet each request for environmental education and interpretive programs. However staff and funding shortages have curtailed programs and the number of requests often exceeds our resources. Based on a review of the current Refuge budget, there is enough funding to administer this program, at its reduced level, and ensure compatibility with the purpose for which the Refuge was established. Strategies to improve the environmental education and interpretive program have been identified in the Comprehensive Conservation Plan (CCP). A seasonal Park Ranger (0.5 FTE) may be added in the future if these strategies go forward.

The Refuge has identified a need to build a facility for environmental education purposes. The facility can also be used by conservation organizations, such as the North Country Trail Association, Izaak Walton League, or Boy Scouts for meeting space. Currently, the typical school field trip is 120 students (two half-day trips with 60 each). The Refuge Visitor Center does not have the capacity to accommodate a group of that size. Visiting schools do not have alternative facilities during inclement weather and must crowd into the visitor center. The CCP recommends some strategies to improve the environmental education program and increase visitor use. A construction project of \$500,000-plus has been identified in the CCP for this purpose. Additionally, the Refuge will seek to add a Park Ranger (1.0 FTE) if visitation increases. The annual cost of this position is estimated at \$80,000.

Anticipated Impacts of the Use:

Environmental education and interpretation are not expected to have measurable environmental impacts on the Refuge, its habitats, or wildlife. Disturbance to wildlife is limited to occasional incidents like flushing wildlife (e.g., deer and waterfowl). Restrictions on locations for environmental education and interpretation and the numbers of users will assure minimal disturbance to wildlife and other public use activities.

The activities follow all applicable laws, regulations and policies, including: Migratory Bird Conservation Act, Title 50 Code of Federal Regulations, National Wildlife Refuge System Manual, National Wildlife Refuge System goals and objectives, and the Refuge goals and objectives. These activities comply with the purpose of the Refuge and the National Wildlife Refuge System Mission. Operating these activities does not alter the Refuge's ability to meet habitat goals and it helps support several of the primary objectives of the Refuge.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and the Refuge goals and objectives, environmental education and interpretation can only occur under the following stipulation:

Environmental education and interpretation activities will only take place when and where they pose little or no threat to wildlife. The impacts of any activity that occurs outside of designated public use areas will be evaluated for its impacts on wildlife and for alternative locations. All activities will occur under the guidance of a Refuge staff member, volunteer or trained teacher to assure minimal disturbance to wildlife, minimal vegetation damage, and minimal user conflict between other public uses.

Justification:

Environmental education and interpretation are priority public uses for the National Wildlife Refuge System as outlined in the National Wildlife Refuge System Improvement Act of 1997. By facilitating these uses on the Refuge, we will increase visitor's knowledge and appreciation of fish and wildlife, which will lead to increased public stewardship of fish and wildlife and their habitats on the Refuge and in general. Increased public stewardship will support and complement the Service's actions in achieving the Refuge purposes and the mission of the National Wildlife Refuge System.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Firewood Cutting (Non-commercial)/Timber Harvest (Commercial)

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938...

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
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Description of Use:

What is the use? The Refuge will allow the cutting and removal of trees (firewood cutting/tree harvest) from the Refuge by third parties for the purpose of improving forest diversity and health for wildlife benefits through thinning, creating openings, removal of invasive tree species, road/trail maintenance and public safety. This covers all wood removal activities regardless of the ultimate use of the wood (e.g., firewood, pulp, etc.). Harvest may include standing and fallen trees for personal-use firewood, and commercial timber harvest.

Where is the use conducted? The scope of the activity will be determined by the management objective for the area and by the quantity and quality of available wood. Harvest sites will vary in size from a portion of an acre up to several hundred

acres depending on the site and management objectives. Timber harvest will be conducted on any portion of the Refuge other than the Wilderness Area, Research Natural Areas, and the Old Growth Area (bounded by the Blackbird Auto tour Loop). Firewood cutting will generally occur along trails, roads, and firebreaks and wherever there is a need to remove hazard trees.

When is the use conducted? Depending on the goals and objectives of the timber harvest, activities could occur during any season. For instance, if the objective is to promote red and white pine regeneration, scarification of the soil is required and this is best done during the growing season. On the other hand, lowland conifer sites have soils that are prone to rutting. Management activities in this forest type should only occur during the winter when the ground is frozen. In the end, management activities should occur when they meet silvicultural objectives, would not adversely impact other ecosystem processes (e.g., water and soil quality, etc.), and would facilitate access and afford protection to underlying cultural resources, soils and vegetation.

Most often, wood removal activities for the purposes of firewood, occurs October through March when there is a personal need and when the ground is frozen and access is easy.

How is the use conducted? Firewood cutters are issued a Special Use Permit on a "first come, first serve" basis. Commercial harvesting is awarded through a bidding process. Both processes are overseen by the Refuge Manager and his/her designee, usually the Refuge Forester or Refuge Biologist. The number of people participating in either activity varies from year to year depending on need, the funding constraints, and to some extent for commercial operations, the market interest. The number of permittees typically varies from zero to ten. The areas open to tree harvest and management strategies are specified in the Refuge Forest Management Plan (initial plan dates from 1955). Firewood cutting permits will be handled on a case-by-case basis.

Equipment used for harvest may range from chainsaws and axes, to traditional logging equipment such as feller-bunchers and log skidders. Access may be by horse teams, car and trailer, pickup truck, farm tractor, or larger traditional logging equipment including semi tractor-trailer combina-

tions. Differences in scope and necessary equipment will occur depending on the amount and type of wood available for removal.

Why is the use being proposed? The management of Refuge forests using commercial and non-commercial mechanical means and other methods is administered in accordance with wildlife and ecosystem management principles and ongoing research and land management demonstrations. This activity will only occur where the Service has determined that a management need exists to remove wood. Wood removal may be done following storm events and where trees are encroaching on hiking trails, fire breaks and/or roads, open marshes, grassland areas, jack pine savanna restoration areas, or degrading earthen water impoundment structures. Wood cutting is not a priority public use, as defined by the National Wildlife Refuge System Improvement Act of 1997, but rather serves as a management instrument for ensuring Refuge priority habitat goals are being addressed.

Availability of Resources:

Planning, issuing permits, and monitoring a wood product harvest program would require a commitment of staff hours. Periodic and small-scale harvest operations can be adequately administered with existing staff resources. Based on past activity, we estimate that administering a small timber harvest program will require from \$1,000 to \$2,000 in staff salary costs. Large-scale operations affecting many acres will require additional time for planning and permit administration and oversight required (bid process, bonding, permittee selection, inspection of field work, etc.) All harvest sites are marked with flagging tape or paint by Refuge staff. By permitting a wood products harvest, the manager has identified a management need and will have secured and prioritized the necessary station resources. In the past, the Refuge has issued approximately 5 to 10 permits annually for this activity, charging a \$10 permit fee. Any permit fees or timber sale receipts will not off-set costs since these funds are deposited in general accounts and not returned to the Refuge. The Draft Comprehensive Conservation Plan identifies the long-term need for 1 FTE Forester.

Anticipated Impacts of the Use:

In permitting this type of activity, the potential exists to directly impact wildlife by displacement of animals from localized areas due to disturbance, or crushing of ground nests as a result of access for this activity. These impacts are easily avoided by timing of the activity in accordance with site specific characteristics.

Indirect impacts to wildlife and Refuge goals will occur as a result of removing woody vegetation. In nearly every instance, these impacts will be positive. The removal of woody vegetation facilitates native habitat restoration efforts on the Refuge and improves habitat for grouse, deer, gray wolves, eagles, and neotropical birds. In some cases, the removal of trees along roads, trails, and dikes is necessary because of the hazard to users from dead trees, blow down or ice damage.

Potential site disturbances could include decreased aesthetics, soil erosion/compaction, water temperature change along wooded streams, destruction of ground cover, creation of weed seed beds, introduction of invasive species, and increased sedimentation due to runoff in nearby wetlands. These impacts can be minimized by leaving buffer strips near streams, wetlands and roadways, and by timing of the activity and requiring equipment be cleaned prior to entering the Refuge. As much as possible, existing roads or trails will be utilized to limit the amount of clearing required to access the desired location.

The no-action prescription for the Wilderness Area, Research Natural Areas, and Old Growth Area promote habitat sites for cavity nesters and forest interior wildlife. Minimal site disturbance results from this prescription since equipment for wildfire suppression is the only heavy equipment that would be used on these sites.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and the Refuge goals and objectives, firewood cutting/timber harvest can only occur under the following stipulations:

1. Each timber harvest requires compliance with a Special Use Permit (SUP). The SUP stipulates the applicable requirements for the Forest Management Plan.
2. An SUP will be issued to minimize or eliminate site specific impacts, to meet specific habitat and related wildlife objectives and to contribute to the purposes of the Refuge.
3. All timber harvesting is monitored by the Refuge Forester or equivalent Refuge Specialist for compliance to the SUP.
4. No cutting operations will be permitted from April 1 through July 15 if nesting birds are known to use the site.
5. Standing cavity trees which are actively being used by wildlife will be marked and protected.
6. Vehicle access for wood removal will be limited to existing trails or restricted to the frozen ground period when rutting and damage to growing vegetation would occur.
7. Commercial equipment must be cleaned prior to entering the Refuge.

Justification:

In accordance with the missions of the National Wildlife Refuge System and the Refuge, the National Wildlife Refuge System Improvement Act of 1997, and the Biological Integrity Policy, this use has been determined compatible provided the above stipulations are implemented. This use allows for the conservation, management, and restoration of the wildlife and plant resources and their habitats for the benefit of present and future generations of Americans by promoting ecological integrity and historic forest conditions that are now poorly represented.

The diverse forest community that existed prior to Refuge establishment has been adversely altered by forest clearing and settlement. The current forest is even aged, growing old, and in many cases not regenerating itself. Prescribed forest management practices, including harvest, are important elements of reversing this trend. Using third parties to accomplish harvest is efficient, and is one of a number of potential tools to conserve, restore, or rehabilitate forest stands. Harvest will only be done to meet specific forest health and wildlife objectives as outlined in the Forest Management Plan.

The removal of dead trees reduces fuel buildup and the severity of potential wildfires. Openings created by woodcutting allow light to penetrate and stimulate the understory growth which increases browse production, woodland diversity and offers

protection to desirable conifer plantings. Any direct impacts on wildlife production (take, disturbance, etc.) can be largely avoided by timing the activity so that it does not coincide with the breeding/production season.

Impacts to the habitat as a result of access for wood removal purposes are potentially significant, but also easily avoided. Ground disturbance in some areas may actually be desirable due to an improved seedbed that may result. Access to and from these areas will need to be carefully controlled (via special use permit) to avoid impacts such as rutting and increased sedimentation in area wetlands due to run-off. If existing roads are not present, access can be restricted to periods of frozen ground to avoid or minimize impacts to underlying cultural resources, vegetation and soils.

Other indirect impacts are generally considered positive and thus do not materially interfere with or detract from the purpose of the Refuge or the National Wildlife Refuge System missions. The removal of trees at strategic locations will benefit habitat restoration. Individuals participating in the wood harvest program will be under special use permits with site specific stipulations to ensure resource protection and achievement of management goals. Control of woody species encroachment on wetland and grassland habitats is a necessary management activity and directly supports the mission of the National Wildlife Refuge System.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Sport Fishing

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938...

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
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Description of Use:

What is the use? Sport fishing as an activity conducted by the general public under regulation authority of the National Wildlife Refuge System Improvement.

Where is the use conducted? The Refuge allows fishing on North Tamarac, Wauboose, Two Island Lakes, Lost, Blackbird and Pine Lakes. Bank fishing on the Ottertail River is permitted 50 yards on either side of the Ottertail River bridges on County Roads 26 and 126.

When is the use conducted? Fishing on North Tamarac, Wauboose and Two Island Lakes is open year-round. Blackbird and Lost lakes are open from the spring opening day of the Minnesota state walleye/northern pike season (mid-May) through Labor

Day. Pine Lake is open to fishing from December 1 to March 31. Bank fishing on the Ottertail River is open year-round.

How is the use conducted? Fishing is conducted in accordance with the state and Refuge-specific federal regulations. For that portion of the Refuge within the White Earth Reservation, tribal regulations as outlined in the White Earth Conservation Code apply.

Why is the use being proposed? Recreational fishing is a priority public use identified in the National Wildlife Refuge Improvement Act of 1997 and has traditionally occurred at the Refuge without adverse impacts to the purpose for which the Refuge was established. The fishing program is administered to provide recreational opportunities to visitors while avoiding negative impacts to wildlife and their habitat. The activity will promote local tourism and economic trade and enhance Service initiatives in the surrounding local communities.

The Refuge was officially opened to sport fishing in 1938 and is conducted in accordance with the Refuge Fisheries Management Plan dated November 2, 1987, and amendment dated December 6, 1991.

Availability of Resources:

The cost of administering this program is approximately \$20,000 annually. Seventy percent of this cost is for staff salary, primarily law enforcement patrols to insure compliance with regulations. Refuge law enforcement staff often times must adjust their work schedule to weekend details and holidays for complete Refuge patrol coverage. The remaining expense is incurred by providing and maintaining brochures, signs, facilities parking lot/portions of road maintenance, including snow removal and lake landing ramps. Based on a review of the current Refuge budget, there is enough funding to ensure administration of this program is compatible with the purpose for which the Refuge was established. The Draft Comprehensive Conservation Plan identifies the long-term need for a FTE Law Enforcement Officer.

Anticipated Impacts of the Use:

Sport fishing has not caused any adverse impacts to the Refuge, its habitats, visitors or wildlife. Monitoring of fish populations, dissolved oxygen sampling, winter fish rescue, and walleye fingerling production are activities the Minnesota Department of Natural Resources has conducted on the Refuge

lakes for many years, in some cases dating back to 1923. Fish surveys have demonstrated no adverse impact to fish populations due to recreational fishing. Lakes experiencing fish losses due to reduced dissolved oxygen levels from severe winters are replenished by moderate stocking of native species.

Concerns over impacts to non-target wildlife through excessive disturbance are minimized through controlled access and seasonal restrictions. Abundant submergent and emergent vegetation along lake shorelines limit fishing activity in these areas. Sufficient escape cover for flightless waterfowl and broods is available should they be disturbed by fishing activities. Boat landings are single ramped, shallow, or primitive which deters large boat/motor use. Disturbance to sensitive wild rice beds is minimized by not allowing boat fishing on the Ottertail River. No motorized access is permitted for ice fishing which minimizes potential stress to winter wildlife residents. Use of lead tackle is an impact, but to what degree, is largely unknown. Education and mandatory use of non-toxic tackle will likely be phased in. In the short-term, the Refuge will focus on the use of alternative tackle.

While no impacts have been observed to date, there is potential for infestation of aquatic invasive species transported by boats, live wells, and trailers. State regulations mandating boats, trailers, anchors, and live wells are free of invasive species, informational signs posted at all landings, and educational efforts will minimize this impact.

Other concerns, such as litter and fishing line entanglement are addressed through public education and regular patrols.

The fishing program follows all applicable laws, regulations and policies; including: 50 CFR, National Wildlife Refuge System Manual, National Wildlife Refuge System goals and objectives, and the Refuge goals and objectives. This activity is also compliant with the purpose of the Refuge and the National Wildlife Refuge System Mission. Conducting this program does not alter the Refuge's ability to meet habitat goals, provide for public safety and support several primary objectives of the Refuge.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility: To ensure compatibility with National Wildlife Refuge System and Refuge goals and objectives the activity can only occur under the following stipulations:

1. Control access to fishing waters and seasonal restrictions.
2. Monitor fish populations to ensure an adequate and diverse fishery.
3. State and/or tribal fishing requirements apply on the Refuge.
4. The following Refuge-specific regulations and restrictions apply:
5. Fishing is restricted to those areas designated.
6. Bank fishing only along designated roadways.
7. Fishing hours are 5:00 a.m. to 10:00 p.m.
8. Vehicles are permitted only on designated roads and trails where gates are open. Motorized vehicle use on the ice, including snowmobiles and ATVs, is prohibited.
9. No personal possessions may be left overnight on the Refuge, including ice shelters and fish traps.
10. Annually review all fishing activities and operations to ensure compliance with all applicable laws, regulations and policies.

Justification:

This use has been determined compatible provided the above stipulations are implemented. This use is being permitted as it is a priority public use and will not diminish the primary purposes of the Refuge. This use will meet the mission of the National Wildlife Refuge System by providing renewable resources for the benefit of the American public while conserving fish, wildlife and plant resources on these lands.

State fishing regulations allow the traditional taking of game fish species with rod and reel from shore or boat, through the ice, and by using trotlines and jugs. Removal of rough fish by spear, archery and dip net is allowed, as well as the taking of limited quantities of crayfish, frogs, minnows, leeches and turtles for personal use. Currently, the taking of crayfish, frogs, minnow and turtles is minimal.

Should this activity grow, the Refuge may need to monitor the use for impacts to fish, wildlife and habitats.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Hunting

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938:

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act)
- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)

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

Description of Use:

What is the use? Hunting of game as an activity conducted by the general public under regulation authority of the National Wildlife Refuge System Improvement Act. Hunting is currently allowed for small game (Ruffed Grouse, gray, red and fox squirrel, snowshoe hare and cottontail rabbit), furbearer (red fox, raccoon and striped skunk), big game (white-tailed deer), and migratory bird (ducks, geese, American woodcock, coot and common snipe) on the Refuge.

Hunting is a traditional activity on the Refuge and continues to be very popular. The Refuge experiences roughly 8,000 visitors per year with white tail deer hunting remaining the favorite activity. Actual hunters may vary year to year depending on

a number of factors, such as weather conditions and animal population cycles. Most hunting for American woodcock is incidental to grouse hunting.

Where is the use conducted? The entire Refuge is open to small game, furbearer and deer only hunting except, roughly 1,800 acres, which surrounds the Refuge buildings and public use facilities are closed to hunting. Migratory bird hunting is restricted to two zones – the visitor use area south of County Road 26 except for approximately 1,100 acres surrounding Blackbird and South Chippewa Lakes and the area north of County Road 143 up to the northern shorelines of Big Egg, Lower Egg, Wauboose and Dry Lakes, including Two Island and Carmen Lakes.

When is the use conducted? The hunting season traditionally begins in mid-September on the Refuge. All hunting activities are in accordance with state of Minnesota and White Earth Reservation seasons. Some of the more popular species and seasons hunted include the following: Small game – (Ruffed Grouse) mid-September to early January, (squirrels and rabbits) mid-September through February; furbearer (fox, raccoon and skunk) traditionally the last week of October through February. An annual youth waterfowl hunt occurs in September, prior to the general waterfowl season. Waterfowl season typically begins on the Saturday closest to October 1. The Canada Goose hunting has early, regular and late seasons, beginning as early as September 1 and ending as late as mid-December.

The Refuge deer hunting seasons are defined by method of take and are set by the Minnesota Department of Natural Resources (DNR) with regular firearms as a 9-day season in mid-November; archery typically beginning mid-September through December and muzzle-loader hunting occurring after the firearm season, late November to mid-December.

To increase wildlife observation opportunities during the hunting season or to minimize conflict between user groups, a portion of the visitor use area south of County Road 26 and bounded by the auto-tour route is delayed for hunting until October 15. The Blackbird Auto Tour and Old Indian Hiking Trail are popular for wildlife photographers and nature enthusiasts who want to experience the spectacular fall colors of the area.

Tribal hunting seasons generally open two weeks prior to state seasons and may extend beyond the state seasons.

How is the use conducted? To ensure a quality hunt and visitor and staff safety, all hunting activities are in accordance with federal, state, and White Earth Reservation, subject to Refuge-specific regulations. Tribal regulations apply only to that portion of the Refuge within the White Earth Reservation. Hunting activities are intended to meet the National Wildlife Refuge System Improvement Act and some of the Refuge objectives and management goals without adversely affecting the primary objectives and mission of the Refuge. Completing this activity under a hunting plan allows the Refuge to accomplish its management goals and provide needed safety levels for citizens of the area without adversely affecting Refuge habitats and wildlife populations. Hunting activities can only occur in designated areas listed in the Hunt Management Plan. A Refuge Hunting Regulations brochure is available to inform the public of hunting opportunities and Refuge regulations. State regulations are published in the Minnesota Hunting and Trapping Regulations Handbook. White Earth Reservation regulations can be found in their Conservation Code Handbooks.

Support facilities that are available for hunting include boat ramps, mowed secondary roads/trails for non-motorized access, and parking areas. Persons with disabilities may be granted special permits or exceptions to some hunting regulations.

Why is the use being proposed? Hunting is a priority public use identified in the National Wildlife Refuge Improvement Act of 1997 and it has traditionally occurred at the Refuge without adverse impacts to the purpose for which the Refuge was established. The hunt program is administered in accordance with sound wildlife management principles and the utmost concern for public safety.

Availability of Resources:

Approximately \$30,000 is required annually to administer the hunting program. Staff support of this program cost \$20,000. Refuge staff must adjust their work schedules to accommodate hunters early and late each day and on weekends. Additionally, law enforcement officers patrol to ensure compliance with hunting regulations. Overhead expenses including signs, leaflets, parking lot/portions of road maintenance (snow removal), trail mowing and equipment is estimated at \$10,000. Based on a review of the current Refuge budget, additional funding of \$21,500 will be required to ensure compatibility and to administer and manage the hunts.

The Draft Comprehensive Conservation Plan identifies the long-term need for 1 FTE Law Enforcement Officer.

Anticipated Impacts of the Use:

This activity has shown no assessable environmental impact to the Refuge, its habitats or wildlife species, but the activity is monitored closely for any signs of change. Hunting does cause mortality and disturbance to those species hunted, but bag limits, season dates, and other regulations are set to protect the long-term health of populations. Repeated use of an area by boats equipped with “go-devils” can damage emergent and submergent vegetation beds. Concerns primarily center on the possibility of impacting sensitive non-target species through excessive disturbance. Visitor safety and law enforcement issues are also important. Providing restrictions that limit access to specific Refuge locations will minimize disturbance and unsafe vehicle access. Disturbance to wildlife is limited to occasional flushing of non-target species during the open hunting season. Nearly all migratory waterfowl have left the Refuge prior to the mid-November deer hunt. Law enforcement patrols are conducted regularly to ensure compliance with regulations. The hunting program follows all applicable laws, regulations and policies including: 50 CFR, National Wildlife Refuge System Manual, National Wildlife Refuge System goals and objectives, and Tamarac NWR goals and objectives. This activity is also compliant with the purpose of the Refuge and the National Wildlife Refuge System Mission. Conducting this program does not alter the Refuge’s ability to meet habitat goals, provide for public safety and support several primary objectives of the Refuge.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

- Use is not compatible.
- Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and the Refuge goals and objectives the activity can only occur under the following stipulations:

1. This use must be conducted in accordance with state, tribal and federal regulations, and special Refuge regulations published in the Refuge Hunting Regulations and Public Use Regulations brochures.
2. Hunting hours are determined by state regulations except as restricted by Refuge specific regulations.
3. Deer harvested must be registered at Minnesota DNR check stations in accordance with state regulations.
4. The following Refuge-specific regulations and restrictions apply:
5. Hunting hours are restricted to 5 a.m. to 10 p.m. daily.
6. Use of dogs to hunt furbearers is prohibited.
7. Snowmobiles and ATV's are prohibited on Refuge roads and trails.
8. Shotgun hunters may only use or possess non-toxic shot while hunting migratory birds and small game.
9. Parking, blocking, or in any manner restricting access to roads and gates is prohibited.
10. All personal property must be removed at the end of each hunt day.
11. Continue annual deer surveys and use of deer population modeling by Minnesota DNR to ensure population estimates are within target levels.
12. Annually evaluate/monitor hunting methods to ensure safety.
13. Annually review all hunting activities and operations to ensure compliance with all applicable laws, regulations and policies.

Justification:

This use has been determined compatible provided the above stipulations are implemented. This use is being permitted as it is a priority public use and will not diminish the primary purposes of the Refuge. This use will meet the mission of the National Wildlife Refuge System by providing

renewable resources for the benefit of the American public while conserving fish, wildlife and plant resources on these lands.

Without a hunting program specifically used as a management tool, the Refuge deer population may adversely affect plant communities, and hence alter ecological diversity and succession. This may result in significant negative impacts on both plant and other animal communities including some of special concern or of Service trust responsibility. This impact has been well documented and accepted through research over a period of many years. The white-tailed deer hunting plan objectives will ultimately result in a deer density of 13 to 18 deer / mi². This deer density will maintain the Refuge deer population at the upper limit of a reasonable equilibrium with its environment as estimated for the Laurentian Mixed Forest region.

Migratory bird hunting seasons and bag limits are established by the states within a framework set nationally by the U.S. Fish and Wildlife Service. These restrictions ensure the continued well-being of overall populations of migratory birds. Hunting does result in the taking of many individuals within the overall population, but restrictions are designed to safeguard an adequate breeding population from year to year. The system of Waterfowl Hunting Closed Areas on the Refuge provides feeding and resting areas for migratory birds during the hunting season. Specific Refuge regulations address equity and quality of opportunity for hunters.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Wildlife Observation and Photography (including means of access)

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938:

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act)
- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)

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

Description of Use:

What is the use? General public access to observe and/or photograph wildlife and Refuge habitats including the means of access such as automobile, hiking, bicycling, canoeing, kayaking, snowshoeing and cross-country skiing. Under the National Wildlife Refuge Improvement Act, of 1997, wildlife observation and photography are priority public uses.

Where is the use conducted? These activities could take place anywhere on the Refuge but most often occur in the vicinity of roads and visitor use facilities. Within and around the Refuge there are approximately 50 miles of county and township roadways. Additionally, the Refuge contains nearly 50 miles of service roads and trails that are open to hiking, snowshoeing and cross-country skiing. The

Refuge offers a 5-mile auto-tour drive, a 2.25-mile hiking trail, a short interpretive trail, 8 miles of groomed ski trails and two observation platforms with accessible spotting scopes. Non-motorized boating is allowed in Blackbird Lake.

When is the use conducted? The uses typically occur during the daylight hours throughout the year. The Refuge is open 5 a.m. to 10 p.m. The Refuge's Visitor Center is open year-round Monday through Sunday from May 15 to October 15 and Monday through Friday the rest of the year. The Sanctuary Area includes lands and trails north of County Road 26. This area is closed to the public from March 1 through August 31 to give wildlife a sanctuary during the breeding season. The Visitor Use Area south of County Road 26 is available for public use year-round.

How is the use conducted? All wildlife observation and photography activities will be conducted with the Refuge's goals, objectives and management plans as the guiding principles. Activities done under these restrictions allow the Refuge to accomplish its management goals and provide for the safety of visitors. Entry on all or portions of individual areas may be temporarily suspended due to unusual or critical conditions affecting land, water, vegetation, wildlife populations, or public safety. County and township roads do not have access restrictions.

Why is the use being proposed? Wildlife observation and photography are priority public uses on National Wildlife Refuge System lands as identified in the National Wildlife Refuge Improvement Act of 1997. Allowing access to the Refuge for wildlife observation and photography is consistent with goals of the Refuge and the National Wildlife Refuge System.

Availability of Resources:

Approximately \$50,000 is required to maintain the Refuge roads, trails and facilities used by the public engaged in wildlife observation and photography. Currently, with the assistance of the volunteers and the Tamarac Interpretive Association, there is enough staff and funding available to administer these activities.

Anticipated Impacts of the Use:

Wildlife observation and photography cause minor disturbance to wildlife. Wildlife quickly become accustomed to vehicles along the wildlife

drive and non-motorized access is typically along established trails or roads. There is temporary disturbance to wildlife due to human activity on the land. The most likely impact to the Refuge purposes would be during the spring and early summer nesting and brood rearing, and during spring and fall migration. The Refuge has minimized this impact by providing a Sanctuary Area for wildlife during the critical use period. Winter activities pose no impacts to nesting waterfowl and little impact to vegetation. The winter disturbance to resident wildlife is temporary and minor. Overall, the disturbance is limited to a small portion of the entire Refuge. Blackbird Lake is designated non-motorized since it is along our auto-tour route which was developed for the purpose of wildlife observation. Abundant submergent and emergent vegetation along lake shorelines will limit boating activity in these areas. Sufficient escape cover for flightless waterfowl and broods is available should they be disturbed by canoeing/kayaking activities.

Wildlife observation and photography are priority public uses listed in the National Wildlife Refuge System Improvement Act. By facilitating these uses on the Refuge, we will increase visitors' knowledge and appreciation of fish and wildlife, which will lead to increased public stewardship of fish and wildlife and their habitats on the Refuge and in general. Increased public stewardship will support and complement the Service's actions in achieving the Refuge's purposes and the mission of the National Wildlife Refuge System.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and the Refuge goals and objectives, wildlife observation and photography can only occur under the following stipulations:

1. The Refuge is open from 5 a.m. to 10 p. m.

2. Motorized vehicles are restricted to designated roadways.
3. All Terrain Vehicles and snowmobiles are prohibited.
4. Camping, overnight use, and fires are prohibited.
5. No photo or viewing blinds may be left overnight.
6. Harassment of wildlife or excessive damage to vegetation is prohibited.
7. Horseback riding and bicycling are restricted to the Blackbird Auto Tour Route, Bruce Boulevard, and county and township roads.

Justification:

This use has been determined compatible provided the above stipulations are implemented. It promotes public stewardship of natural resources and helps the Refuge meet its goals and objectives. It does not materially interfere with or detract from the Service's ability to meet the mission of the National Wildlife Refuge System.

The activities follow all applicable laws, regulations and policies; including Migratory Bird Conservation Act, Title 50 Code of Federal Regulations, National Wildlife Refuge System Manual, National Wildlife Refuge System goals and objectives, and Refuge goals and objectives. These activities are compliant with the purpose of the Refuge and the National Wildlife Refuge System Mission. Operating this activity does not alter the Refuge's ability to meet habitat goals and it helps support several of the primary objectives of the Refuge.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Research

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938:

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act)
- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)

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

Description of Use:

What is the use? The use is research projects conducted by Universities and other academic institutions; government agencies such as the Minnesota Department of Natural Resources; Tribal Department of Natural Resources; U. S. Geological Survey (USGS); consultants hired by the Service; private conservation organizations such as The Nature Conservancy; and others. Research projects will focus on better understanding of Refuge wildlife and habitat resources, provide information to improve adaptive management decisions, and increase life history information on species of concern.

A Refuge research application, accompanied by a written project proposal, is required for review and approval before access will be allowed. If approved, access to Refuge lands and waters will be limited to the least invasive means required to accomplish the

activities. A formal application and project proposal is not required in the case of contractors hired directly by the Service. Research will be carried out by professors, students, contractors, and Refuge staff and volunteers. Researchers will be required to provide written reports and make their data available to Refuge staff. Research results will be used to assist Refuge staff in making wise management decisions and to support adaptive management processes.

Where is the use conducted? Research activities will occur throughout the Tamarac NWRs 42,738 acres, occasionally on adjoining state lands (Hubbel Pond Wildlife Management Area) or on adjoining White Earth Band of the Chippewa Reservation under cooperative agreements with the White Earth Reservation Natural Resources Department.

When is the use conducted? Research may be conducted year-round but usually occur from April to November.

How is the use conducted? Research activities are managed through the Special Use Permit process and overseen by the Refuge Manager and his/her designee, usually the Refuge Biologist. All research activities will be conducted with the Refuge's primary goals, objectives, and habitat management requirements as the guiding principles. Research may be conducted by foot, vehicle, canoe, kayak, boat, airboat, and aerial methods. Marking of nests and individual animals may be required. Every effort will be made to minimize the impacts of research activities on wildlife and their habitats and avoid conflicts with public use and management activities. A Special Use Permit will be issued for each research project that specifies what, when, where, and how research may occur on the Refuge.

Why is the use being proposed? Research and monitoring information is critical to making sound biological decisions in the restoration and management of ecosystems/landscapes for fish and wildlife communities occurring on national wildlife Refuges. It is needed to measure the successes and failures of management efforts. This is an important use with long-term benefits that ensures we have the best information possible upon which to base management decisions.

Availability of Resources:

Much of the research and monitoring is funded by grants, other government agencies, universities, or conducted by students and volunteers. Refuge staff involvement includes reviewing research proposals, supervising or monitoring research activities, reviewing reports, providing some equipment and vehicles, and occasionally participating in field work. Staff time is required for development and/or review of research proposals/reports, administration of Special Use Permits, supervision of students and volunteers, coordination with researchers, maintenance of vehicles, specialized equipment and facilities (bunkhouse). Based on a review of the current Refuge budget, there is enough funding to ensure administration of this program is compatible with the purpose for which Tamarac NWR was established.

Anticipated Impacts of the Use:

Disturbance to wildlife and vegetation by researchers could occur through vegetation sampling, capture and handling of wildlife, observation activities, banding, and accessing the study area. It is possible that direct or indirect mortality could result as a byproduct of research activities. However, the overall impact of allowing well designed and properly reviewed research to be conducted by non-Service personnel is likely to have very little impact on Refuge wildlife populations. If the research project is conducted with professionalism and integrity, potential adverse impacts are likely to be outweighed by the knowledge gained about an entire species, habitat or public use.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and the Refuge goals and objectives the activity can only occur under the following stipulations:

1. Researchers will submit a study proposal and designate a specific area(s) on the Refuge where activity is to occur.
2. Each research proposal is evaluated to ensure the project(s) gives us a better understanding of Refuge wildlife and habitat resources, provide information to improve adaptive management decisions, and increase life history information on species of concern.
3. Each research proposal is evaluated to ensure the least invasive techniques are used.
4. Researchers must follow their study proposal and comply with the provisions of their Special Use Permit.
5. Researchers must coordinate their activities with the biological staff and management staff.
6. A report must be submitted at the end of each field season and at the conclusion of the study.
7. Researchers must make any data collected while at the Refuge available for Refuge use.
8. Refuge research activities are evaluated annually to ensure that their collective impacts do not compromise the goals or objectives of the Refuge and to ensure compliance with all applicable laws, regulations and policies.

Justification:

This use has been determined compatible provided the above stipulations are implemented. Research and monitoring information is critical to making sound biological decisions in the restoration and management of ecosystems/landscapes for fish and wildlife communities occurring on national wildlife refuges. It is needed to measure the successes and failures of management efforts. This is an important use with long-term benefits that ensure we have the best information possible upon which to base management decisions.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Trapping of Furbearers

Refuge Name: Tamarac National Wildlife Refuge (Refuge)

Establishing and Acquisition Authorities: Executive Order 7902 on May 31, 1938, Migratory Bird Conservation Act and the Migratory Bird Hunting Stamp Act.

Refuge Purpose(s):

Tamarac National Wildlife Refuge was established in 1938:

- "... as a refuge and breeding ground for migratory birds and other wildlife: ..." Executive Order 7902, dated May 31, 1938
- "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act)
- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)

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

Description of Use:

What is the use? The Refuge allows trapping of resident furbearers as a priority activity of the White Earth Band, Chippewa Tribe of Minnesota and by the public in accordance with state, tribal, and Refuge-specific regulations. This compatibility determination does not apply to trapping activities where the Service awards a contract or permit for the removal of animals to facilitate management (i.e., predator control of ground-nesting birds or protection for water control structures and roadways from flooding or dam blow-out). Trapping is not a priority public use, as defined by the National Wildlife Refuge System Improvement Act of 1997.

Trapping and furbearer management activities have evolved since Refuge establishment. During 1938-1944, no trapping was permitted on the fee title Refuge land. The first season was held in 1945,

and then was closed again in 1946. During 1947-1968, some trapping was done each year. At least through the mid-1960's, trapping was considered an economic activity for the Refuge. Between 1969 and 1975, the permits were awarded by lottery. Beginning in 1976, only enrolled members of the White Earth Band, Chippewa Tribe of Minnesota were able to obtain permits.

The matter of public demand for and opinion of trapping on the Refuge was resolved in the early 1980s when several court decisions were finalized. The ruling made it clear that the White Earth Band had sovereign rights to harvest fish and wildlife within the reservation boundary pursuant to the Treaty of 1867. While the Fish and Wildlife Service controls access to Refuge lands, those sovereign rights are defended and prohibition of trapping on the reservation portion of the Refuge is a management alternative available only to the White Earth Reservation Tribal Council.

The southern, non-reservation portion of the Refuge is affected by the Collier Agreement of 1935. That document specifies that furbearer trapping is a priority privilege of the White Earth Band on the entire Refuge. The Fish and Wildlife Service can restrict trapping off the reservation for biological or public safety reasons. The letter of the Collier Agreement does not grant exclusive rights or privileges.

Where is the use conducted? The Refuge is divided into seven trapping zones. Special use permits for trapping mink, muskrat and raccoon are issued through a bid system. Trappers for nuisance beaver are selected by the Refuge Manager. The number of individuals that participate in the trapping program varies each year but is usually less than ten individuals.

How is the use conducted? The Trapping Plan dated September 18, 1990, amended September 5, 1991, provides guidance for issuing permits. The Refuge is divided into seven trapping zones. Annually, one permit is issued for each zone. The designated permittees are authorized to take beaver, mink, muskrat, raccoon, fox, coyote, and badger exclusively and only in that zone. The Trapping Plan was amended in 1994 to permit the take of otter.

Permits are issued following a random drawing conducted by the Refuge and White Earth Biological Department (WEBD) personnel at an agreed upon location. Drawing dates are determined annu-

ally by mutual agreement of Refuge personnel and WEBD personnel. Only enrolled tribal members are eligible to apply. Non-tribal members may be offered trapping opportunities if the alternate list of tribal applicants is exhausted. Also, if the Refuge Manager determines that the tribal permittee in a zone is ineffective and there is a biological or damage control need to harvest a furbearer species, a non-tribal member may be selected to trap.

On those portions of the Refuge lying within the reservation boundary (all of zones 1 and 2, and portions of zones 3, 4, and 5), permittees are governed by seasons, bag limits, methods of take and license requirements established by the White Earth Reservation Tribal Council and Refuge coordination. On the remainder of the Refuge (zones 6 and 7, and portions of 3, 4, and 5), regulations of the Minnesota Department of Natural Resources (DNR) are applicable.

Damage Control Trapping: Under provisions of 50 CFR 31.14, the Refuge Manager may conduct operations to take or destroy animals that are detrimental to the Refuge's management program or that are destroying federal property. Instances for exercise of this authority would include control of beaver damage to real property such as roads and water control structures and control of small rodents in and around Refuge buildings. Operations may be conducted by Refuge staff or contractor/permittees as directed by the Refuge Manager.

When would the use be conducted? The trapping seasons for various species of furbearers generally runs from September 1 through mid-May. Trapping for beaver, red fox and striped skunk occurs throughout the year, at times and problem sites throughout the Refuge, as directed by the Refuge Manager.

Availability of Resources:

Estimated administrative costs of the program are 10 staff days, or about \$3,500 of salaries and fringe benefits. Approximately 70 percent of that time involves administration of the program, including permit drawings, reporting requirements, enforcement, and place of locks. The remainder consists of typing permits, answering trapping related questions via telephone, email or mail. Administrative costs for the nuisance beaver control activities are approximately \$2,800 and include administration of special use permit, coordination with trapper and reporting.

Anticipated Impacts of the Use:

Control of predators that prey on nesting waterfowl and other ground nesting birds improves success of these birds. Direct impacts to the waterfowl

production are negligible due to the temporal separation of trapping and nesting activity. Beaver trappers using the Refuge after early March, undoubtedly disturb individuals on occasion, and cause temporary displacement of waterfowl from specific and limited areas. These impacts would be occasional, temporary, and isolated to small geographic areas. Any habitat change as a result of the physical impacts of trapping activity (trampling, etc.) is undetectable and insignificant.

Although seasons open in September and extend into late spring, few permittees actually begin trapping when October waterfowl concentrations are present. Few trappers in this area are active before mid-November when furs "prime-up". That, coupled with the small number of permittees, results in little disturbance of waterfowl.

Indirect impacts to wildlife production do result from the removal of animals under a trapping program. In many instances, these impacts are positive. Mink and raccoon are predators on waterfowl at various stages in the production cycle. Controlling populations of predators on waterfowl has generally positive impacts on the Refuge purpose.

The Refuge is saturated with beaver colonies and pioneering individuals. At these population levels, an increasing number of individuals are interfering with water control activities by placing dams at the control structures and/or in the delivery ditches, hindering the movement of water between managed Refuge wetlands. These dams also cause damage to the Refuge infrastructure due to the resultant flooding at water control structures. The flooding undermines Refuge and county roadway integrity and increases the potential for these areas to washout. It is desirable and cost effective to allow a trapping program to reduce these populations, thereby reducing the Refuge's annual maintenance costs associated with the adverse impacts of beaver activity.

Managing beaver and muskrat populations, at reasonable levels, through a trapping program, results in positive impacts to waterfowl and other aquatic wildlife species by habitat enhancement. Muskrats build houses and dens using aquatic vegetation, thus creating openings available for fish, waterfowl and other migratory birds. Beaver dams create ponded habitat, and their lodges are also associated with openings in aquatic vegetation beds. These benefits minimize the need to commit Refuge resources to achieve these habitat conditions.

When considering impacts to Refuge purpose, impacts of the trapping program obviously include those to the furbearer populations themselves. Individual animals are harvested and removed, yet the

Minnesota DNR indicates furbearer populations are stable to increasing. Harvest data derived from trapper Fur Catch Reports indicate that trapper efficiency has remained fairly constant despite fewer total animals trapped. Harvest data best reflects the number of trappers, trapping conditions, and fur prices.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac National Wildlife Refuge Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and Tamarac NWR goals and objectives, trapping of furbearers can only occur under the following stipulations:

1. This use must be conducted in accordance with state, tribal and federal regulations, and special Refuge regulations published in the Refuge Hunting Regulations and Public Use Regulations brochures.
2. Trappers must obtain a Special Use Permit to trap on the Refuge and comply with existing Refuge Trapping Regulations.
3. The following Refuge-specific regulations and restrictions apply:
4. Refuge is open from 5 a.m. to 10 p.m. daily
5. Snowmobiles and ATVs are prohibited on Refuge roads and trails.
6. Parking, blocking, or in any manner restricting access to roads and gates is prohibited.
7. The trapping program is monitored annually and trappers will continue to be required to report effort and catch.
8. Regulations can be altered or areas closed as needed to meet wildlife and habitat objectives.

Justification:

Trapping is not a priority public use on National Wildlife Refuge System lands as identified in the National Wildlife Refuge Improvement Act of 1997. The damage to dike structures, forest and marsh habitat within the Refuge from an over-abundance of beaver requires control of these populations. A limited number of migratory waterfowl are present during the majority of the trapping activity and disturbance to resident wildlife is minimal and temporary.

With the decade long decline in the fur market and trapping participation, control of furbearer populations are being lost. Trapping assists in maintaining a healthy balance between furbearers and habitat, and safeguarding Refuge infrastructure. High populations of predator, such as the red fox, can decrease nest success of ground-nesting migratory birds, thus compromising a purpose of the Refuge. Other furbearers damage Refuge infrastructure such as beaver that plug water control structures. Costs of repair require the Refuge to divert resources away from other management activities that otherwise meet the purposes of the Refuge.

The trapping program, as managed and with stipulations previously described, does not materially interfere with or detract from the Service's ability to meet Refuge purposes or the mission of the National Wildlife Refuge System. It does support Refuge management objectives and overall, managed furbearer trapping contributes to the purposes of the Refuge by maintaining vigor and health of furbearer populations and by safeguarding Refuge infrastructure critical to habitat for scores of fish and wildlife species.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Establishing Food Plots for Resident Wildlife

Station Name: Tamarac Wetland Management District (District)

Establishing and Acquisition Authorities:

- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)
- FmHA (Farmers Home Administration) fee title transfer properties - Consolidated Farm and Rural Development Act 7 U.S.C. 2002.

Refuge Purpose(s):

- FmHA Conservation Easement Reservations - "... purposes of this reservation are the preservation and maintenance of the wetland and floodplain areas existing....as well as protection and enhancement of plant and animal habitat and populations."

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:

What is the use? Allow the establishment of food plots on FmHA Conservation Easements to provide cover and food sources during harsh winter conditions. Particularly during severe winters, food plots are widely recognized as important to maintain populations of resident wildlife.

Where is the use conducted? The use can occur throughout the Tamarac Wetland Management District on specific areas identified as critical wintering areas for resident wildlife.

When is the use conducted? Food plots are small fields of agricultural crops with some or the entire crop left standing through the winter. Typically, these food plots are maintained for multiple years.

How is the use conducted? The food plots are maintained by private easement owners under a Special Use Permit issued by the Refuge Manager.

The use must be carried out in accordance with the stipulations listed below. Typically, these food plots are maintained multiple years and sometimes rotated between locations on the easement for plant or insect pest resiliency. Following abandonment, food plots are replanted to perennial vegetation. The use of food plots also reinforces a shared conservation interest between the U.S. Fish and Wildlife Service and the conservation easement owners.

Food plots are not a priority public use as identified in the Refuge Improvement Act. Food plots are a non-essential but helpful tool to facilitate two priority uses (hunting and wildlife observation) since they help maintain high populations of species widely viewed as desirable to view and hunt.

Availability of Resources:

The cost of establishing and managing food plots is borne by private landowners, requiring minimal Service resources. There is a modest administrative cost associated with developing Special Use Permits and overseeing compliance. These costs typically involve a few hours of staff time annually.

Anticipated Impacts of the Use:

Food plots are approximately 5 acres or less in size, generally located on land that has been abandoned from farming. The planting of agricultural crops for food essentially eliminates the land for use by ground nesting wildlife. The loss of a few acres of potential nesting cover would have minimal impact. Most grassland bird species generate far better production when nesting in large contiguous blocks of grassland. Careful site location of food plots in field corners or "out of the way", odd areas can avoid breaking up a large grassland block into smaller fragments. Some migratory birds actually benefit from the effect of adding more vegetative edges and encouraging some annual weed growth in and around a grassland block. However, these tend to be species whose populations are less imperiled than those requiring large grassland blocks. Impacts to waterfowl nesting can be reduced but not eliminated by locating the food plots strategically and confining their use to critical areas. Stipulations identified later in this document will prevent critical resources such as native prairie remnants or large, contiguous blocks of grassland or forest habitat from being degraded or destroyed by food plots.

Impacts from herbicide use to establish and maintain food plots will be greatly reduced by restricting products to zero or low toxicity chemicals. No insecticide use will be allowed on food plots. Runoff and erosion are minimized with proper food plot topographical location.

Food plots tend to be popular areas for hunting and the increased levels of hunting around food plots will cause mild increases in wildlife disturbance. These periodic disturbances should be mainly limited to autumn and early winter hunting seasons and produce no breeding season impacts and only minor disturbance impacts to waterfowl.

The cultivating, planting, and chemical application activities associated with food plots creates brief episodes of intrusion from agricultural equipment but this disturbance impact to wildlife is small.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac Wetland Management District Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

- Use is not compatible.
- Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

1. Areas for food plots must be identified as critical wintering sites for resident wildlife.
2. Food plots will not have negative impacts on critical habitats such as wetlands, native prairie remnants, and continuity of forests.
3. Food plots will be located to avoid grassland and forest fragmentation.
4. Allowable species for planting in food plots will include: corn, soybeans, sunflowers, wheat, barley, oats, rye, buckwheat, millet, and sorghum.
5. Food plots will be no greater than five (5) acres and will occupy no more than 5 percent of the total acreage of the conservation easement.
6. No more than one food plot in any year will be authorized per easement tract.

7. Chemical use is restricted to the Region 3 Pesticide Approval list and all chemical label requirements and restrictions.
8. The permittee is required to re-seed the food plot to native vegetation if/when it is abandoned.

Justification:

Controlled use of food plots will not materially interfere with or detract from the purpose of FmHA conservation easements or the National Wildlife Refuge System. Food plots can create significant interference with conservation easement purposes and are thus more stringently controlled to ensure that they remain compatible. Allowing the use of food plots can lead to higher and more stable resident wildlife populations by reducing catastrophic population crashes during severe winters. These higher populations facilitate two priority public uses, hunting and wildlife observation. The impacts to waterfowl and other migratory birds are modest based on limiting the size and location of food plots, and the stipulations in place.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Native Grassland Seeding and Weed Control

Station Name: Tamarac Wetland Management District (District)

Establishing and Acquisition Authorities:

- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)
- FmHA (Farmers Home Administration) fee title transfer properties Consolidated Farm and Rural Development Act 7 U.S.C. 2002.

Refuge Purpose(s):

- FmHA Conservation Easement Reservations - "... purposes of this reservation are the preservation and maintenance of the wetland and floodplain areas existing....as well as protection and enhancement of plant and animal habitat and populations."

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:

What is the use? This use entails establishing or enhancing native grassland communities, through seeding and weed control activities, on FmHA conservation easements in the Tamarac WMD.

Where is the use conducted? Seeding and weed control occur on grassland units within the boundaries of FmHA conservation easements. Grassland stands vary in size from 8 to 40 acres.

How is the use conducted? Seeding of native grassland species is accomplished by broadcasting regional eco-type seed over the last winter's snow, or in spring immediately following a prescribed burn. Occasionally a grass drill is used to directly inter-seed into the sod of an existing stand of grass. Typically, seedbed preparation activities such as burning, grazing, or haying are conducted to remove litter and residue prior to drilling. Both

methods can also be employed in mid to late fall when a dormant seeding is desired. District staff would normally carry out the seed bed preparations and seeding. Where normal preparation techniques are not feasible, cooperative farming is an excellent option to prepare a seedbed. Cooperative farming agreements are forged with easement owners or an area farmer and normally run three years. A multi-year agreement is needed to generate cooperator interest. Because of the extra investment in breaking the grassland sod, herbicide use, rock removal, and inevitable wildlife depredation losses, cooperators generally lose money the first year, break even the second, and gain a profit in the final year. At agreement expiration, the site is left unplowed in a clean small grain or soybean stubble and broadcast seeded the following spring. The great advantage to this method is farming practices control and even eradicate noxious weed competition; replenish soil nitrogen and other nutrient levels; and delivers good soil compaction for seed germination, all leading to faster and more successful native species establishment.

Whichever approach is taken, one application of glyphosate herbicide is employed after approximately two weeks of spring re-growth to suppress weeds while native species are developing their root systems. One or more clipping of emerging vegetation often follows to control annual weeds and biennial thistle species.

Why is the use being proposed? An almost complete domination of exotic and invasive species has emerged on most grassland sites since farming abandonment in the 1990s. The predominance of noxious weeds and introduced grasses yields minimal wildlife value, while displacing far more beneficial native vegetation. Plumeless and Canada thistle, spotted knapweed, quack grass, smooth brome grass and Kentucky bluegrass are the most common exotic species observed. Stands of non-native vegetation are low in diversity and bear light stem densities that provide fair to poor nesting and foraging cover for migratory birds.

Restored or enhanced native grasslands fulfill management objectives to benefit migratory bird production, particularly ground nesting waterfowl and grassland passerines.

Seeding and weed control is not a priority public use, as defined by the National Wildlife Refuge System Improvement Act of 1997, but rather serves as a management instrument for ensuring District priority habitat objectives are being addressed.

Availability of Resources:

Staff time is required to prepare grassland sites for seeding, planting, and weed control. Seed is acquired from the Detroit Lakes Wetland Management District who harvests native prairie seed on an annual basis. In some years, the District makes a nominal contribution to assist with combine contracting costs. Total expenses may vary from \$500 to \$5,000 depending on the size of the grassland site, but is within budget constraints with proper planning. Cooperative farming is a desirable option that off-sets project costs. Rent payments or in-kind contributions such as seeding and weed control are provided by the cooperator. There is a minor investment in terms of time preparing and overseeing farming agreements, however this is well within available resources.

Anticipated Impacts of the Use:

Grassland restoration activities generate both direct and indirect impacts to wildlife. Direct negative impacts include temporary displacement of nesting wildlife from grassland sites due to preparation, seeding, and weed control operations. Farming equipment may occasionally destroy a nest, however these instances are rare. Glyphosate is mostly non-toxic with no soil residual activity. Wildlife directly contacting this chemical could be impacted, but incidents are uncommon. Cooperative farming agreements would temporarily eliminate nesting and winter cover for several years. Negative indirect impacts would generally involve wildlife disturbance by machinery, but would be temporal. Long-term impacts are positive. Replacement of non-native vegetation or enhancement by establishing diverse stands of native grassland species will provide dense and structurally diverse habitat benefiting nesting and foraging conditions for wildlife.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac Wetland Management District Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and the District goals and objectives, grassland restoration and weed control can only occur under the following stipulations:

1. Only locally adapted native prairie species will be seeded.
2. Weed control will be limited to only the extent necessary to promote native seedling germination and bolting.
3. Herbicide applications must strictly adhere to label recommendations and restrictions.
4. Cooperator obligations outlined in a cooperative farming agreement will be stringently followed.

Justification:

Diverse, healthy, weed-free grasslands provide critical habitat for wildlife, particularly ground nesting migratory birds. Habitat use disruption for establishing or enhancing native grasslands is a significant, but temporary impact. The long-term benefits far outweigh short term losses by eradicating or reducing less beneficial exotic vegetation, creating more secure nesting cover, attracting a greater variety of migratory birds, and reducing long-term maintenance needs thereby eliminating additional wildlife disturbances.

This use is a critical habitat management tool and does not materially interfere with or detract from the purpose of FmHA conservation easements or the National Wildlife Refuge System.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10 or 15 year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Prescribed Grazing

Station Name: Tamarac Wetland Management District (District)

Establishing and Acquisition Authorities:

- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)
- FmHA (Farmers Home Administration) fee title transfer properties Consolidated Farm and Rural Development Act 7 U.S.C. 2002.

Refuge Purpose(s):

- FmHA Conservation Easement Reservations "... purposes of this reservation are the preservation and maintenance of the wetland and floodplain areas existing...as well as protection and enhancement of plant and animal habitat and populations."

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:

What is the use? Prescribed grazing is the controlled rotation of domestic livestock, normally cattle, between paddocks that improves grassland health, species diversity, and represses unwanted invasive plants on conservation easements. Grazing is a valuable tool where other grassland management methods, such as prescribed burning or haying, are implausible, or on easements where the landowner retains the rights to seasonally graze and a rotational grazing system is more desirable.

Where is the use conducted? Rotational grazing occurs within the boundaries of FmHA conservation easements that possess grassy fenced pastures and vary in size from 40 to more than 220 acres. Paddocks range from 10 to over 200 acres in size. Grazed grasslands consist of either tame grasses or seeded tall grass prairie and bear varying degrees of shrub encroachment.

When is the use conducted? Grazing activity can start in May, and ends around September 1. Grazing is confined to one paddock at a time, is of high intensity, but short duration, usually no longer than 8 to 10 days. Where private landowners maintain annual grazing rights on the easement, prescribed grazing may continue annually. On easements where the landowner does not have grazing rights, grazing to meet management objectives may occur every 3 to 6 years depending on the effectiveness of the treatment.

How is the use conducted? Grazing specialists with the USDA Natural Resources Conservation Service (NRCS) are consulted to develop prescribed grazing plans for selected easements. Livestock forage balance assessments are completed for sites that require treatment. Grazing agents are typically cattle, but can include domestic sheep, goats, and horses. The number and size of the livestock determines the desired stocking rate of the producer and their forage requirements. The forage capability of the site determines the sustainable stocking rate and allowable grazing duration. Livestock are moved from one paddock to the next when the stubble height of the forage is reduced to 4 inches. The grazing period runs 3 to 10 days depending on the stocking rate and the size of the paddock. All paddocks must experience a minimum resting period of 30 days. If the minimum residual stubble height cannot be maintained, for instance due to drought, the livestock are moved to a sacrificial site off easement for feeding until forage resumes growing. Landowners and/or renters are required to enroll in the NRCS Environmental Quality Incentive Program (EQIP) for a ten year period, binding them to the grazing plan in annual grazing situations.

Watering systems are occasionally needed in certain paddocks where natural water sources are not available. In this case temporary watering tanks are set up on grassland sites which only require periodic treatment. On easements bearing perpetual grazing rights, permanent tanks and pads are developed but located off the easement. On sites where annual grazing occurs, livestock sometimes erode soils and reduce water quality when watering from natural wetlands and streams. In these situations, armored watering ramps are constructed according to NRCS practice guidelines, to protect these riparian zones.

Fencing is a mandatory requirement to control grazing and will be the responsibility of the cooperating private party. On annually grazed easements,

permanent fencing is constructed for paddock formation. Where prescribed grazing is only a periodic treatment, temporary single strand electric fencing is employed to maintain paddocks and market rate grazing fees will be required. Grazing fees are charged according to market rates. Market rates will be determined annually in consultation with USDA on prevailing local grazing rates.

Why is the use being proposed? Rotational grazing is used as a management treatment to stimulate the growth of desired grassland species, and repress unwanted weeds and the establishment or expansion of woody vegetation into the grassland community.

Grasslands are disturbance dependent communities and require the removal of excessive plant litter to maintain their health and vigor. Disturbance actions, such as grazing, also keep woody vegetation encroachment in check that would otherwise succeed the desired grassland ecosystem.

Grazing is not a priority public use as identified in the Refuge Improvement Act. As an economic use of Refuge System lands, a compatibility determination for grazing is mandatory.

Availability of Resources:

Grazing agreements are developed by NRCS and exhaust no Service resources. A minimal amount of Service staff time is required to prepare Special Use Permits associated with these agreements. Staff also invests a small amount of time monitoring compliance and evaluating the biological effects of grazing, however, this time is negligible since staff must monitor other easement compliance requirements anyway. All perimeter fences are in place on easements where the landowner retains annual grazing privileges. Fencing costs for permanent or temporary fencing, and the construction of watering ramps and tanks is cost shared between the cooperator and NRCS. In situations where prescribed grazing is being used as a periodic management tool, grazing fees are charged according to market rates, minus fencing expenses. These funds usually off-set the administrative costs invested to manage this activity.

Anticipated Impacts of the Use:

Prescribed grazing, due to its intensity, significantly reduces the height and density of grassland vegetation for a short period of time. Depending on the number of paddocks, some areas may be grazed multiple times during the season. The grassland structure will be greatly altered impacting grassland bird species that require tall vegetation for nesting and foraging. While some impacts to ground nesting species, such as waterfowl, due to displace-

ment and trampling will be incurred, numerous nesting studies have revealed very good nesting success in grazed areas. Where disturbance grazing is only employed periodically, long-term gains of improved grassland density and diversity will outweigh any short-term losses. Where grazing is carried out annually, maximum benefits for grassland species will not be realized, but is a better alternative to season long over grazing that typically results in poor forage recovery, dominance of invasive non-native plant species, succession of woody cover types, and soil erosion.

Other impacts include the suppression of woody vegetation. This result is positive, however, since encroachment must be minimized in order to achieve grassland management goals.

Impacts of fence construction and watering facilities causes disturbance to wildlife and replace some habitat, but their requirement is mandatory and the effects are temporary and are very short in duration.

In some situations, grazing may not be the only technique employed, and rotating in other grassland management methods such as burning or haying could result in greater ecological benefits.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac Wetland Management District Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

1. Unless additional justification is provided, grazing will run from May 1 to September 1. On easements where the landowner does not reserve annual grazing rights, grazing will be restricted to a frequency of no more than once every 3 years. If factors beyond human control, such as drought, occur that prevent completion of the rotation, grazing may be considered the following year.
2. All fencing and watering facilities costs will be borne by the cooperator/landowner.

3. Forage stubble height may not drop below 4 inches. Livestock must be moved to the next paddock or removed from the conservation easement.
4. No supplemental or sacrificial feeding is permitted on the conservation easement.
5. No insecticides, including insecticidal dusting bags, will be used on WPAs or easements.
6. Control and confinement of the livestock will be the responsibility of the permittee.
7. If the landowner or cooperator fails to abide by the terms of grazing plan, the use will be terminated.

Justification:

Controlled grazing with domestic livestock will not materially interfere with or detract from the purpose of FmHA conservation easements or the National Wildlife Refuge System. Livestock can be proxies for the historic ungulates who once roamed and maintained grasslands. Controlled grazing creates temporary disturbances and changes to the structure of grassland vegetation and reduces shrub and tree encroachment. While these short-term impacts result in less than ideal wildlife habitat conditions, the effects are temporal and are far exceeded by the long-term benefits and sustained objectives of maintaining a healthy and productive grassland ecosystem for migratory birds. Prescribed grazing is a feasible alternative or complementary technique to other grassland management tools. The grassland community and productivity of many migratory birds will not thrive or even perpetuate without periodic disturbance.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10-year Reevaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Haying and Mowing

Station Name: Tamarac Wetland Management District (District)

Establishing and Acquisition Authority(ies):

- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)
- FmHA (Farmers Home Administration) fee title transfer properties Consolidated Farm and Rural Development Act 7 U.S.C. 2002.

Refuge Purpose(s):

- FmHA Conservation Easement Reservations - "... purposes of this reservation are the preservation and maintenance of the wetland and floodplain areas existing....as well as protection and enhancement of plant and animal habitat and populations."

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:

What is the use? Haying or mowing is the cutting of noxious weeds for grassland restoration, or the cutting, baling, and removal of vegetation for purposes of reinvigorating established grassland habitat on FmHA conservation easements. Easement grassland communities fall into two general categories: stands dominated by non-native cool season species such as smooth brome, Kentucky bluegrass, and orchard grass; and seeded tall grass native prairie represented primarily by big bluestem, switch grass, and Indian grass. Both native and non-native forbs are present in both communities and include species of goldenrod, aster, sunflower, and yarrow. Haying is typically done through a Cooperative Farming Agreement or Special Use Permit issued by the Refuge Manager to an easement owner or contractor. Haying is also used to create fire breaks for prescribed fire operations.

Where is the use conducted? Haying/mowing occurs on grassland units within the boundaries of FmHA conservation easements. Grassland stands vary in size from 8 to 40 acres. Haying or cutting for firebreaks would involve very small acreages, generally 16 feet in width around the perimeter of these fields.

When is the use conducted? Mowing to control annual and perennial weed competition on new grassland seedings occurs anytime from late May through September. Weeds are generally clipped sometime between the flowering and seed formation stages of the principle competitors of concern. Frequency of weed clipping depends on seedling growth, but may occur several times during the growing year and annually up to three consecutive years. When haying is utilized as a tool to enhance established grasslands, cutting transpires after July 15 when most ground nests, particularly waterfowl have hatched and ends September 1 to allow sufficient time for some re-growth of winter cover. Frequency of treatment ranges from once every three to six years. Mowing for purposes of establishing fire breaks are generally conducted in the fall prior to spring burning activities.

How is the use conducted? Haying is often used as a strategy to help establish or maintain grassland habitat. In the case of grassland maintenance, cutting is carried out as low to the ground as possible, and when combined with racking, removes most of the old plant litter thereby stimulating new plant growth. For grassland restoration or enhancement, haying or clipping is conducted in two different ways. Haying is conducted to remove residual plant material, a necessity when restoration methods involve interseeding into the sod with a grass drill. Whether establishing native grass by drilling or broadcasting, follow up clipping is employed to repress weed growth that competes with the newly seeded vegetation. Competing non-native plants are clipped just above the tops of the emerging native grassland species to reduce shading and prevent reproduction of non-desirable plant species.

Haying and mowing is carried out with standard agricultural tractors and implements through Cooperative Farming Agreements, Special Use Permits, or station equipment and staff. When baling is desired, skid steers and hay trailers are used to load and remove the bales.

Why is the use being proposed? Haying or mowing is an effective, often crucial tool for grassland management and restoration. Construction of fire breaks is essential to controlling prescribed fire operations. Healthy grassland ecosystems require periodic disturbance to maintain species diversity and productivity. Haying is a viable alternative to rejuvenating and maintaining decadent grassland communities when treatments such as burning or grazing are infeasible or impractical. Intermittent cutting also prevents shrubs and trees from becoming established, thereby preserving the grassland ecosystem. In grassland restoration situations, mowing or clipping of weeds and non native grasses is often critical to establishment and minimizes herbicide applications.

Haying is not a priority public use, as defined by the National Wildlife Refuge System Improvement Act of 1997, but rather serves as a management instrument for ensuring District priority habitat objectives are being addressed.

Availability of Resources:

No additional fiscal resources are needed to conduct this use. Needed management staff time is already committed and available. Most of the work needed to prepare for this use would be done during habitat management planning. The decision to use a cooperative farmer for haying would require some additional time to develop and oversee the needed Special Use Permit or Cooperative Farming Agreement, but would be relatively minor and within existing District resources. Some of these costs would be off-set by hay value paid back by the cooperator.

Anticipated Impacts of the Use:

Haying or mowing result in short-term impacts, but long-term benefits to migratory birds and resident wildlife using conservation easements. Short-term impacts include disturbance and temporary displacement caused by noisy heavy equipment. Restricting cutting activities to the mid to late summer period could potentially damage late nesting efforts by migratory birds, however most nesting studies have concluded nest densities during this timeframe are very low. Removal of standing grasses will also result in the seasonal loss of habitat for those species requiring tall vegetation to forage and perch. While some vegetation re-growth will occur during the fall, winter cover conditions will be less than ideal. This condition, however, would not occur on an annual basis, but rather on a 3-to 6-year treatment cycle. Long-term benefits far exceed any short duration impacts. Mowing and haying treatments stimulate the regrowth and vigor of all grassland species yielding higher quality habitat for

nesting, foraging, and wintering. Additionally, cutting prevents encroachment of woody vegetation which will supplant desired grassland species and favor nest predator use. While cutting for purposes of controlling weeds likewise removes foraging and perch site habitat, mowing is carried out at a greater height and produces less impacts than haying. Long-term benefits of weed control outweigh temporary losses through the perpetuation of highly desirable native tall grass species and the control of invasive species that displace more beneficial native grassland species.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac Wetland Management District Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

1. Haying is only permitted between July 15 and September 1, and no more than once every three years on the same site.
2. Hay bales must be removed from the conservation easement within one week of baling.
3. Haying or mowing must fulfill specific habitat related management objectives of the conservation easement.
4. For purposes of controlling invasive plants, the cutting head of mowers will be set no lower than necessary to remove the majority of the target species seed heads.

Justification:

Haying or mowing will not materially interfere with or detract from the purpose of FmHA conservation easements or the National Wildlife Refuge System if carried out under the required stipulations. Haying and mowing is a valuable management tool that provides greater long-term habitat benefits for reestablished and existing grasslands that otherwise would convert to a non-desired woody cover type or become dominated by exotic vegetation. The productivity and abundance of federal trust species such as waterfowl or grassland obligate species

would slowly decline in the absence of haying, mowing or similar treatments on these sites. Grasslands are a disturbance-dependent ecosystem that requires periodic renovation to maintain their vigor, diversity, and the structure necessary for migratory bird use. Haying is an effective alternative when other management methods are infeasible.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10-year Reevaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Establishing and Maintaining Nesting Structures for Migratory Birds

Station Name: Tamarac Wetland Management District (District)

Establishing and Acquisition Authorities:

- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)
- FmHA (Farmers Home Administration) fee title transfer properties - Consolidated Farm and Rural Development Act 7 U.S.C. 2002.

Refuge Purpose(s):

- FmHA Conservation Easement Reservations - "... purposes of this reservation are the preservation and maintenance of the wetland and floodplain areas existing....as well as protection and enhancement of plant and animal habitat and populations."

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:

What is the use? This use pertains to the placement and maintenance of artificial nesting structures for migratory birds. Primary examples include bluebird boxes, wood duck boxes, and mallard hen houses, but could include nesting structures for other species.

Where is the use conducted? Nesting structures are typically erected over water or along the edges of wetlands in the case of waterfowl, or along open fields when attempting to attract bluebirds on FmHA conservation easement lands. Other types of nesting boxes may be located within interior forest areas for other migratory species.

When is the use conducted? The structures are normally installed in late winter or early spring. Bluebird boxes are cleaned out at the end of each

nesting season. Nesting material for waterfowl structures is typically checked or added once a year during the late winter or early spring.

How is the use conducted? Occasional requests for this use originate from easement owners or conservation groups. Approval is granted by the Refuge Manager on a case by case basis through a Special Use Permit. Waterfowl nesting structures are preferably attached to poles to minimize predation, but occasionally affixed to trees. Bluebird boxes are mounted on posts, often in pairs to discourage tree swallow monopolization.

Why is the use being proposed? In all cases, the intent of the permittee is to enhance wildlife populations by providing safe nesting opportunities.

Placing artificial nesting structures on conservation easements is not a priority public use as defined in the National Wildlife Refuge System Improvement Act. The use is a non-essential contributor to other priority uses such as wildlife observation, wildlife photography, and environmental education.

Availability of Resources:

Installation, monitoring, and maintenance of artificial nest structures on conservation easements are the full responsibility of the permit holder. There is a small administrative cost to the Service in terms of issuing Special Use Permits, but well within District resources. Should cooperators fail to adequately maintain the structures, there will be some cost associated with removing abandoned structures.

Anticipated Impacts on Refuge Purpose(s):

The installation and maintenance of artificial nesting structures offer little if any negative impact to wildlife or habitat. In fact, if placed properly and maintained, nesting structures can assist in enhancing migratory bird production by providing safer nesting sites or opportunities for nesting that otherwise don't exist. Examples include the placement of: wood duck boxes in areas where there are no natural tree cavities; mallard hen houses where there is limited nesting cover; and bluebird boxes where cavity producing snags and wooden posts have been removed. Studies have shown that nest success for many duck species is actually higher when utilizing artificial nest structures rather than nesting in grasslands where they are more susceptible to mammalian predation. There is a brief wildlife disturbance caused during placement and maintenance of the structures, but it is minor and temporary.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac Wetland Management District Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

1. Approval must be obtained from the Refuge Manager through a Special Use Permit prior to the activity.
2. The permittee will be required to remove all unmaintained nesting structures from the conservation easement.
3. The placement of artificial nesting structures must benefit Service trust species and complement management objectives for the conservation easement.

Justification:

Artificial nesting structures do not materially interfere with or detract from the purpose of FmHA conservation easements or the National Wildlife Refuge System. Appropriate use of nesting structures can actually contribute to migratory bird objectives by providing nesting opportunities that are naturally narrow and by reducing nest predation effects.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10-year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Temporal Upland Disturbance for Right-of-Way (ROW) Projects and Full Restoration

Station Name: Tamarac Wetland Management District (District)

Establishing and Acquisition Authorities:

- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)
- FmHA (Farmers Home Administration) fee title transfer properties - Consolidated Farm and Rural Development Act 7 U.S.C. 2002.

Refuge Purpose(s):

- FmHA Conservation Easement Reservations - "... purposes of this reservation are the preservation and maintenance of the wetland and floodplain areas existing....as well as protection and enhancement of plant and animal habitat and populations."

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:

What is the use? Disturbances to FmHA conservation easement uplands for Right-of-Way (ROW) projects pertain to maintenance work carried out by road authorities and utility companies. Occasionally township, county, or utility officials request authority to temporarily work outside their ROW to repair or improve the roadway or their utility related facility. This use can cause a disturbance to wildlife and damage to upland vegetation, but involves no expanded or new ROWs and full restoration of the original vegetative community and condition is required.

Where is the use conducted? The use occurs immediately adjacent to the road or utility ROW on the conservation easement, normally along its boundary.

When is the use conducted? ROW work can occur anytime from frost out in the spring through fall freeze up. The duration of the work ranges from less than a day to several months depending on the scale of the work.

How is the use conducted? In most situations, the use involves accessing, traveling, or turning around large mobile equipment on the conservation easement in close proximity to the ROW boundary. Project examples would include culvert installation or reshaping of the road ditch and slope. Utility type projects might also include tree limbing to facilitate power line maintenance.

Why is the use being proposed? Road improvement projects are conducted to improve transportation safety. Utility repair work maintains essential services to the local community.

ROW projects are not a priority public use, as defined by the National Wildlife Refuge System Improvement Act of 1997, but rather represent, in most cases, a public safety undertaking, ensuring District priority habitat objectives are being addressed.

Availability of Resources:

There are negligible administrative costs relating to Special Use Permit issuance and monitoring that is well within station time and budget constraints. All habitat restoration requirements and costs are the responsibility of the permittee.

Anticipated Impacts on Refuge Purpose(s):

The impacts to the associated uplands of the ROW will be minimal and temporary. In most cases the impact will consist of the matting of vegetation by heavy equipment along the perimeter of the ROW. In situations where the sod is unavoidably destroyed or trees are removed or limbed, the permittee will replant the original vegetation. Approval to destroy vegetation will be limited to sites previously tilled or otherwise disrupted. No native prairie remnants, wetlands, or unique communities such as white pine, may be impacted.

Minor impacts from construction work may include disturbing and displacing a few migratory birds and individual wildlife residents, but will be confined tightly along easement/ROW boundaries. Roadway disturbances do not generate much greater turbulence than that created by the routine

passing of motor vehicles. There could be a slightly greater disturbance generated by work within utility ROWs that run into the interior of the easement.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac Wetland Management District Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

Use is not compatible.

Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

1. All work must be authorized by a Special Use Permit. Permit conditions, including full habitat restoration if applicable, must be met.
2. The use must, wherever possible, avoid or minimize damage to easement lands. No easement survey monuments may be disturbed.
3. No overnight parking of equipment or materials is permitted on the easement. All conservation easement signs must be reinstalled in good condition if removed for construction work.
4. No work or vehicle use will be permitted on wetlands, native prairie remnants, or areas possessing unique or declining communities.

Justification:

ROWs are present on nearly every FmHA conservation easement within the Tamarac WMD and were established prior to the federal government acquiring interest in the land. Impacts to easement wildlife and their habitats will be slight and temporary under the conditions outlined above. This use supports public safety and maintenance of essential services to the local community and will not materially interfere with or detract from the purpose of FmHA conservation easements or the National Wildlife Refuge System if the stipulations above are followed.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10-year Re-evaluation Date: 2020

COMPATIBILITY DETERMINATION

Use: Wood Cutting/Timber Harvest

Station Name: Tamarac Wetland Management District (District)

Establishing and Acquisition Authorities:

- "... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans..." 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)
- FmHA (Farmers Home Administration) fee title transfer properties - Consolidated Farm and Rural Development Act 7 U.S.C. 2002.

Refuge Purpose(s):

- FmHA Conservation Easement Reservations - "... purposes of this reservation are the preservation and maintenance of the wetland and floodplain areas existing....as well as protection and enhancement of plant and animal habitat and populations."

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:

What is the use? The removal of standing or fallen trees by private landowners or contractors for firewood salvage, forest management, or hazardous fuels reduction on FmHA conservation easements. This covers all wood removal activities regardless of the ultimate use of the wood (e.g., firewood, pulp, etc.).

Where is the use conducted? On FmHA Conservation Easements. The scope of the activity will be determined by the management objective for the area consistent with the easement management plan and by the quantity and quality of available wood. Harvest sites will vary in size from a fractional acre up to 200 acres depending on the site and management objectives. Firewood cutting will be limited to dead or downed trees and the stipulations listed below.

When is the use conducted? Wood removal activities may be authorized throughout the year. Most often, wood removal activities for the purpose of firewood salvage will occur September through December, while commercial harvest activities occur during the winter months when frozen ground will facilitate access and afford protection to underlying cultural resources, soils and vegetation.

How is the use conducted? Harvest equipment may range from chainsaws and axes, to traditional logging equipment such as feller-bunchers and log skidders. Sites may be accessed by any passenger vehicle, all-terrain-vehicles, snow machine, farm tractor, or larger logging transport equipment including semi tractor-trailers. Differences in scope and necessary equipment will occur depending on the amount and type of wood available for removal.

Special Use Permits for firewood salvage are issued to easement owners. Commercial harvest contracts are awarded through a bidding process. The number of people participating in this use varies year to year depending on need and has ranged from zero to three firewood permits and one commercial contract in any given year.

Why is the use being proposed? This activity will only occur where the Service has determined that a management need exists to remove wood. Wood removal may be authorized and desirable due to damaging storm events, disease outbreaks, excessive beaver kills, threats to earthen water impoundment structures, interference to non-easement agricultural operations and structures, or to improve forest habitat for migratory birds.

Wood cutting is not a priority public use, as defined by the National Wildlife Refuge System Improvement Act of 1997, but rather serves as a management instrument for ensuring District priority habitat objectives are being addressed.

Availability of Resources:

Time required for planning, permit or contract issuance, and overseeing a wood product harvest program would require the dedication of some staff hours, very few in the case of firewood salvage, but significantly more when managing a commercial level activity. In permitting a wood products harvest, the manager has identified a management need and presumably has secured and prioritized station resources to that end. Based on past experience, we estimate that administering a small timber

harvest program will require from \$1,000 to \$5,000 in staff salary costs for commercial grade operations, considerably less for simple firewood permit management. Some of these costs will be offset by stumpage fees paid by commercial interests if timber is marketable.

Anticipated Impacts of the Use:

In permitting this type of activity, the potential exists to directly impact wildlife by displacing animals from localized areas due to disturbance, or unintentionally damaging ground nests as a result of motorized access. These impacts are avoided or minimized by the timing of the activity in accordance with site specific characteristics and the stipulations listed below. More significant impacts involve the temporary loss of habitat due to timber removal and damage to understory vegetation by heavy logging equipment. These impacts will, however, bear long-term benefits. Ultimately, the infrequent removal of woody vegetation is necessary for habitat restoration and management purposes. In some cases, the removal or limbing of a few trees along roads, trails, agricultural fields, buildings, and dikes is necessary to eliminate hazards for easement owners.

Access for the purpose of removing wood may impact habitat by rutting soils, destroying ground cover, creating weed seed beds, introducing invasive species, and increasing sedimentation due to runoff in nearby wetlands. These impacts can again be avoided by the timing of the activity and requiring equipment be cleaned prior to entering the conservation easement. As much as possible, existing roads or trails will be utilized to limit the amount of clearing required to access the desired location.

Public Review and Comment:

This compatibility determination was part of the Draft Tamarac Wetland Management District Comprehensive Conservation Plan (CCP) and Environmental Assessment. Public notification and review includes a notice of availability published in the Federal Register, 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses will be included in the final CCP.

Determination:

- Use is not compatible.
- Use is compatible with the following stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with National Wildlife Refuge System and Tamarac WMD goals and objectives, firewood cutting and timber harvest can only occur under the following stipulations:

1. No cutting operations will be permitted from April 1 through July 15 if resource priority species are known to use the site.
2. Standing cavity trees which are actively used by wildlife will be marked and protected.
3. Vehicle access for wood removal will be limited to existing trails, designated ingress/egress routes that minimize damage to vegetation, or restricted to the frozen ground period when rutting and damage to growing vegetation would occur.
4. A Special Use Permit will be issued that requires special conditions to avoid or minimize wildlife impacts.
5. Wood cutting permits will be restricted to 5 cords per year, but may be less depending on the size of the site.
6. Commercial equipment must be cleaned prior to entering the conservation easement.
7. All wood harvest activities must comply with habitat objectives as identified in the easement management plan.

Justification:

The removal of dead trees for firewood reduces hazardous fuel buildup and the severity of potential wildfires. Timber removal creates openings in the forest canopy, increases light penetration, and stimulates restocking of desired tree species, browse production, and herbaceous growth. The type and extent of wood harvest and required stipulations are tailored to meet specific management objectives and minimal wildlife impacts. Direct impacts are short term and largely avoided by timing the activity so that it does not disrupt wildlife production.

Impacts to the habitat as a result of access for wood removal purposes are potentially significant, but also easily avoided. Access to and from these areas will be carefully controlled to avoid impacts such as rutting and increased sedimentation in area wetlands due to run-off. If existing roads or trails are not present, access can be restricted to designated access routes that minimize soil and vegetation damage or to periods of frozen ground to protect underlying cultural resources.

Wood removal for purposes of ecological restoration, controlling disease, elimination of fire hazards, and cooperating with adjacent land use needs contributes to management objectives and promotes easement owner cooperation. Individuals participating in wood harvest activities will operate under a Special Use Permit or contract that will possess stipulations ensuring resource protection, minimization of impacts to wildlife, and achievement of management objectives.

This use is a valuable habitat management activity and does not materially interfere with or detract from the purpose of FmHA conservation easements or the National Wildlife Refuge System.

Signature:

Refuge Manager: s/Todd Luke (Acting)
Sept. 7, 2010

Concurrence:

Regional Chief: s/Richard Schultz, Sept. 23, 2010

Mandatory 10-year Re-evaluation Date: 2020

