

**Minnesota Wildlife Management Areas  
Monitoring Report  
February 25-27, 2020**

**Wildlife and Sport Fish Restoration Programs  
REGION 3 GREAT LAKES**

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**Develop when more finalized**

## **Introduction**

The Pittman-Robertson Wildlife Restoration (PR) Act and the Dingell-Johnson Sport Fish Restoration (DJ) Act established the Wildlife and Sport Fish Restoration Program (WSFR). Under WSFR, the U.S. Fish and Wildlife Service (FWS) provides grants to States to restore, conserve, manage, and enhance their wildlife and sport fish resources. The Acts and Federal regulations contain provisions and principles on eligible costs and allow the FWS to reimburse States up to 75 percent of the eligible costs incurred under the grants. The Acts also require that hunting and fishing license revenues be used only for the administration of the States' fish and wildlife agencies. Federal regulations and FWS guidance also require States to account for any income they earn using grant funds.

From 2016 to 2020, WSFR apportioned between \$17 and \$24 million annually to the Minnesota Department of Natural Resources (DNR) to accomplish the purposes of the PR Act. Grant awards are made based on the application submitted to and approved by FWS, and are subject to the terms and conditions incorporated into the Notice of Award either by direct citation or by reference to Federal regulations; program legislation or regulation; and special award terms and conditions. Recipients indicate their acceptance of an award by starting work, drawing down funds, or accepting the award via electronic means. Recipient acceptance of an award from FWS carries with it the responsibility to be aware of and comply with all terms and conditions applicable to the award.

## **Background**

### ***Authorization***

WSFR (i.e., grantor) is authorized to perform field audits where the acceptance of financial assistance by the Minnesota DNR (i.e., grantee) has created real or personal property interests to the FWS. The following Acts and selected regulations are specific to findings of this field audit.

Pittman Robertson Wildlife Restoration Act (PR Act) – The purpose of the PR Act is to provide funding to State fish and wildlife agencies to develop projects that restore, conserve, manage, and enhance wildlife.

2 CFR 200.311(b) – Except as otherwise provided by Federal statutes or by the Federal awarding agency, real property will be used for the originally authorized purpose as long as needed for that purpose.

50 CFR 80.10 and 80.11 – In order to receive the benefits of the PR Act, the State must assent to the provisions of the Act, ensure the conservation of fish and wildlife, and ensure revenue, including real property, from hunting licenses is under the control of and only used for administration of the State fish and wildlife agency. Administration of the State fish and wildlife agency includes only the functions required to manage the agency and the fish- and wildlife-related resources for which the agency has authority under State law. A State can become ineligible to receive the benefits of the PR Act if it fails to comply with any law, regulation, or term of the grant, does not have legislation, or passes legislation contrary to, assenting to the provisions of the Act, or diverts funding away from the State fish and wildlife agency or uses funding for purposes other than the agency's administration.

50 CFR 80.20-23 and 136 – License revenue includes funds produced by the sale of hunting and fishing licenses and real or personal property acquired with license revenue. Grants used to acquire and

manage WMAs were matched with hunting license funds. As a result, a diversion of license dollars may have occurred. In this case, the State fish and wildlife agency is the FAW per the definition of State fish and wildlife Agency in 50 CFR 80.2. The Minnesota DNR is considered the State fish and wildlife when it is exercising responsibilities specific to management of the State's fish and wildlife resources.

50 CFR 80.50 and 52 – Only specified activities are eligible for PR Act funding without appropriate justification for how the activity will help carry out the purposes of the PR Act.

50 CFR 80.54 (c) - Activities conducted for the primary purpose of producing income are ineligible uses of PR Act grant funding.

50 CFR 80.56 – Projects eligible for funding under the PR Act must describe a need consistent with the PR Act, sets a purpose and objectives based on the need, and uses a planned approach using appropriate procedures and accepted practices of wildlife conservation and management.

50 CFR 80.90 - The grantee is responsible for all actions conducted under the grants including compliance with Federal, State, and local laws and regulations, supervision of work to ensure it follows the terms of the grant, and control of assets acquired under the grant to ensure they serve the purpose for which they were acquired.

50 CFR 80.121 – A State fish and wildlife agency may earn income from activities incidental to the grant purposes as long as producing income is not a primary purpose. The agency must account for income received from these activities in the project records and dispose of it according to the terms of the grant.

50 CFR 80.134 – The State fish and wildlife agency must use lands and waters acquired under a grant for the purpose authorized in the grant. A State fish and wildlife agency may allow commercial, recreational, and other secondary uses of a grant-funded parcel of land or water or capital improvement if these secondary uses do not interfere with the authorized purpose of the acquisition grant.

National Environmental Policy Act (NEPA) – All Federal actions must comply with NEPA and a grant funded under the PR Act constitutes a federal action. Per 50 CFR 80.90, the grantee is responsible for ensuring compliance with NEPA.

Minnesota Resolution No. 11 (S.F. No. 442) – The State of Minnesota has assented to the provisions of the PR Act including ensuring revenue from hunting and fishing licenses are “appropriated for the maintenance and conduct of the activities of the commissioner of game and fish.”

### ***Grants Monitored in Review***

#### **F17AF00282, Statewide Wildlife Habitat Management**

The purpose of this grant is to establish, improve and maintain wildlife habitat on the 1.3 million acre network of State Wildlife Management Areas and on the shallow lake resources. This grant includes critical habitat management work on State Wildlife Management Areas (WMAs), and public waters managed for wildlife. Through this grant grassland, forest and wetland habitat are managed to provide better habitat for wildlife populations. This includes work such as prairie restoration, development of wetland water control structures, and forest succession management. This grant also funds survey work



to assess the quality of habitat, and computer systems to support habitat management and resource data.

F19AF00427, Statewide Wildlife Habitat Management

The purpose of this grant is to establish, improve and maintain wildlife habitat on the 1.3 million acre network of State Wildlife Management Areas and on the shallow lake resources. This grant includes critical habitat management work on State Wildlife Management Areas (WMAs), and public waters managed for wildlife. Through this grant grassland, forest and wetland habitat are managed to provide better habitat for wildlife populations. This includes work such as prairie restoration, development of wetland water control structures, and forest succession management. This grant also funds survey work to assess the quality of habitat, and computer systems to support habitat management and resource data.

F18AF00381, Statewide Wildlife Operations and Maintenance

The purpose of this grant is to support operations and maintenance activities, including boundary management, facility maintenance, access maintenance, and site cleanup and well sealing, to ensure the protection and enhancement of wildlife habitat, wildlife populations, and public recreation use on the 1.3 million acre network of State Wildlife Management Areas.

F16AF00442, Wildlife Major Unit Planning

The purpose of this grant is to engage Department staff, local communities and user groups in a land management planning process utilizing current methods in human dimensions and engagement. The plan will provide direction to maximize the potential for select major units to provide high potential for wildlife production, public hunting, trapping, fishing, and other compatible recreational uses. The objective of this grant is to complete revisions of Management Plans for two Major Wildlife Management Areas by June 30, 2020. This grant includes the planning efforts for Whitewater WMA and Thief Lake WMA. Originally, Red Lake WMA was included, but replaced by Thief Lake WMA due to the complexity of RLWMA. The period of performance on the original grant was July 1, 2016 to June 30, 2017. The grant was modified three times to extend the period of performance until June 30, 2020.

F18AF00595, Wildlife Major Unit Planning

The purpose of this grant is to engage Department staff, local communities and user groups in a land management planning process utilizing current methods in human dimensions and engagement. The plan will provide direction to maximize the potential for select major units to provide high potential for wildlife production, public hunting, trapping, fishing, and other compatible recreational uses. The objective of this grant is to complete revisions of Management Plans for five Major Wildlife Management Areas by June 30, 2021. This grant included planning efforts for Carlos Avery, Lac qui Parle, Mille Lacs, Red Lake, and Roseau River WMAs.

F20AF00045, Statewide Wildlife Land Acquisition

Multiple Minnesota Wildlife Restoration Land Grants are associated with Whitewater WMA (primarily W-15-L) and Mille Lacs WMA (primarily W-26-L) with approximately 20,633 acres, and 36,168 acres acquired with through the WSFR program respectively. There has been no land acquired with WSFR funds at Red Lake WMA, however there are 21,697 acres of scattered Land Utilization Project (LUP)

lands within the present boundaries of the Red Lake WMA and 64,779 acres outside the unit (which includes 3,392 acres surrounded by the RLWMA supplement).

## Objectives

To monitor three WMAs to observe and determine the following aspects of Minnesota DNR timber harvests:

- Whether use of Minnesota DNR Division of Forestry as a contractor for habitat management is an eligible and substantial use of PR grant funds,
- Whether wildlife habitat management costs incurred under the grants reviewed were in accordance with the Acts, regulations, FWS guidelines, and grant agreements for the listed grants,
- Whether Minnesota DNR Division of Fish and Wildlife (FAW) used State hunting and fishing license revenues, including real property, solely for fish and wildlife program activities,
- Whether Minnesota DNR FAW used and reported program income in accordance with Federal regulations,
- Whether Minnesota DNR FAW maintained control over license revenue, including real property, and grant funding in the process of using timber harvest as a habitat management tool,
- Whether effects of the observed forest wildlife habitat management activities were consistent with the determination that a categorical exclusion under NEPA is adequate and no Extraordinary Circumstances apply.

## Scope

At each of the WMAs, WSFR Biologists met with local Minnesota DNR FAW staff and the Minnesota DNR FAW Federal Assistance Coordinator to discuss recent management, operations and maintenance practices, and planning processes occurring on the WMA with emphasis on forest management and timber harvests conducted by the Minnesota DNR Division of Forestry. Additionally, WSFR staff inquired about the planned timber harvests on the WMAs to be completed over the next ten years following implementation of the Minnesota DNR Sustainable Timber Harvest Analysis (STHA). Monitoring at each WMA consisted of meeting to review the above practices and processes, followed by review of recent, or future planned, timber harvests within the WMA.

The scope of the monitoring was limited to the grants listed in this report as well as previous segments of these grants under which the State carried out grant approved actions, and land acquisition grants used to acquire the properties.

### Dates of entire visit:

February 25 – 27, 2020

### Trip Agenda:

#### Tuesday February 25 – Whitewater WMA

8:00 am – 10:00 am – Leave Bloomington and travel to Whitewater WMA

10:00 am – 3:00 pm – Tour Whitewater WMA and meet with Area Staff

3:00 pm – 5:00 pm – Return to Bloomington

#### Wednesday February 26 – Mille Lacs WMA



8:00 am – 9:45 am – Leave Bloomington and travel to Mille Lacs WMA  
9:45 am – 3:00 pm – Tour Mille Lacs WMA and meet with Area Staff  
3:00 pm – 8:15 pm – Travel to Baudette

Thursday February 27 – Red Lake WMA

8:00 am – 9:00 am – Travel to Norris Camp at Red Lake WMA  
9:00 am – 3:00 pm – Tour Red Lake WMA and meeting with Area Staff  
3:00 pm – 8:45 pm – Return to Bloomington

**WSFR Staff and Federal attendees:**

Kyle Daly

Fish and Wildlife Biologist

U.S. Fish and Wildlife Service

Wildlife and Sportfish Restoration Program, Fish and Wildlife Branch

Bloomington, MN 55437

Tony Hewitt

Fish and Wildlife Biologist

U.S. Fish and Wildlife Service

Wildlife and Sportfish Restoration Program, Lands and Boating Branch

Bloomington, MN 55437

**State host:**

Heather Keiweg

Federal Assistance Coordinator

Minnesota Department of Natural Resources

Division of Fish and Wildlife

500 Lafayette Road, St. Paul MN 55101

**Trip locations:**

February 25, 2020: Whitewater Wildlife Management Area, Altura, Minnesota

February 26, 2020: Mille Lacs Wildlife Management Area, Onamia, Minnesota

February 27, 2020: Red Lake Wildlife Management Area, Roosevelt, Minnesota

**Meeting attendees at Whitewater WMA:**

Kyle Daly, Fish and Wildlife Biologist, WSFR

Tony Hewitt, Fish and Wildlife Biologist, WSFR

Heather Keiweg, Federal Assistance Coordinator, MN DNR

Jamie Edwards, Area Wildlife Manager, Whitewater WMA, MN DNR

Christine Johnson, Assistant Area Wildlife Manager, Whitewater WMA, MN DNR

Dave Dahl, Wildlife technician, Whitewater WMA, MN DNR

**Meeting attendees at Mille Lacs WMA:**

Kyle Daly, Fish and Wildlife Biologist, WSFR

Tony Hewitt, Fish and Wildlife Biologist, WSFR  
Heather Keiweg, Federal Assistance Coordinator, MN DNR  
Steve Piepgras, Area Wildlife Manager, Mille Lacs WMA, MN DNR  
Bart Bly, Assistant Area Wildlife Manager, Mille Lacs WMA, MN DNR

**Meeting attendees at Red Lake WMA:**

Kyle Daly, Fish and Wildlife Biologist, WSFR  
Tony Hewitt, Fish and Wildlife Biologist, WSFR  
Heather Keiweg, Federal Assistance Coordinator, MN DNR  
Gretchen Mehmel, Area Wildlife Manager, Red Lake WMA, MN DNR  
Charlie Tucker, Assistant Area Wildlife Manager, Red Lake WMA, MN DNR

## **Methodology**

WSFR staff monitor grant activities and expenditures annually through interim and final Performance and Federal Financial reports. In these reports, States fulfill grant requirements by providing comparisons of grant accomplishments to objectives and the commensurate costs with completing the work. Routinely, WSFR staff also monitor grant work and accomplishments in field settings by visiting WMAs or other sites where grant funding has been used to accomplish grant objectives. WSFR staff use this field monitoring to ensure grantees are accomplishing grant objectives as reported in performance and financial reports and State fish and wildlife agency work is consistent with Federal Acts, regulations, and specific grant terms and conditions.

FWS Great Lakes Region WSFR staff have developed a standard list of questions to use at each field monitoring location to ensure an appropriate and consistent level of monitoring at each site:

1. Are the objectives of grant on schedule and done as described in the grant narrative?
2. Are expenditures commensurate to accomplishments, measured by approved grant budget and narrative?
3. Do staff understand how to code labor for grants and the relationship of these cost codes to grant objectives and strategic plans?
4. Are all grant or license-fee acquired equipment and assets controlled and accounted for according to State regulation or 2 CFR 200, as required?
5. Are there issues with compliance requirements? With ADA compliance?
6. IS there any evidence of ineligible work being undertaken and charged to a grant?
7. Ate lands or facilities with a federal nexus still being used for the purpose for which they were acquired? What funding purchased the land?
8. Are there non-fish and wildlife dependent activities or facilities that interfere with authorized purposes under the grant?
9. Is there license revenue/lands/facilities diverted from the control of the fish and wildlife agency to purposes other than administration of the agency?
10. Other observations, recommended technical assistance, etc.

## **Monitoring Results (Findings)**

### **Summary**

We observed the following in the field and with conversations with Area Wildlife Managers and staff other MN DNR staff:



1. Some uses of Minnesota DNR Forestry as a contractor for habitat management appeared not to be eligible and substantial use of PR grant funds,
2. Minnesota DNR FAW, the State Fish and Wildlife Agency, appeared to lose control of land acquired or managed with PR funding and license revenue as a result of Minnesota DNR Forestry timber harvest activities,
3. Some habitat management and planning costs incurred under the grants reviewed were not conducted in accordance with the Acts and related regulations, FWS guidelines, and grant agreements,
4. Minnesota DNR FAW appeared to have used State hunting and fishing license revenues, including real property, for commercial timber harvest that was conducted as a primary purpose and not for fish and wildlife program activities,
5. Minnesota DNR FAW use and reporting of program income may not have been in compliance in accordance with Federal regulations, and
6. Environmental effects of the timber harvests observed appeared to be beyond the scope of the determination that categorical exclusions under NEPA are adequate documentation for these grants. Additionally, some extraordinary circumstances may exist that would require additional documentation to ensure compliance with NEPA.

#### Findings and Recommendations

1. Observed habitat management that appears to be ineligible and/or not a method substantial in character and design under the grants

Grant activities must be consistent with the purposes of the PR Act, 50 CFR 80, 2 CFR 200, and the terms and conditions of the grant award. Eligible PR Act grant expenditures are listed under 50 CFR 80.50. Other expenditures can be eligible under PR Act grants if the State fish and wildlife agency provides appropriate justification to WSFR for how the activities will help carry out the purposes of the PR Act and the FWS Regional Director concurs with that justification. Additionally, grant activities must be "substantial in character and design" as defined in 50 CFR 80.56, including using appropriate procedures and accepted principles of wildlife conservation and management.

Timber harvests are a common habitat management tool utilized by State fish and wildlife agencies to accomplish wildlife management objectives and often produce income due to the sale of real or personal property. In order for timber harvests conducted by the State fish and wildlife agencies, or contracted by these agencies, to be eligible for PR Act funding, they need to conform to the PR Act, regulations, and grant terms. To meet these requirements, timber harvests need to be spatially and temporally explicit to achieve specific wildlife management and population objectives based on wildlife habitat requirements.

Currently, it seems that forest management on these three WMAs are being conducted by DNR Forestry with limited input, and in some cases limited knowledge, by Minnesota DNR FAW staff. Minnesota DNR Forestry also seem to be lacking wildlife conservation and management objectives or appropriate procedures and accepted principles of wildlife conservation and management. WSFR staff asked FAW staff for the wildlife purposes and objectives of the monitored timber harvest sites. FAW staff responded that they had not or could not identify wildlife purposes or objectives for those sites. The primary purposes of the forest management on WMAs seems to be to provide timber for the Minnesota timber industry, accomplish Minnesota DNR Forestry goals, and produce revenue for the Minnesota

DNR. Forest management activities appear to be occurring beyond the approved purposes and activities in the grants and seem to be ineligible for PR Act funding.

General observations that apply to all monitored WMAs:

Forestry charges personnel time to DNR FAW while planning and implementing forestry practices on WMAs despite not appearing to achieve wildlife management goals. The Statewide Wildlife Habitat grants reimburse these expenses.

Timber harvests conducted by DNR Forestry are decreasing the quality and quantity of wildlife habitat. Activities that maintain wildlife habitat integrity (e.g., reseeded, invasive species control) pre- and post-timber harvest are covered by FAW funds, conducted by FAW staff, and charged to the Wildlife Habitat Management grants. WSFR staff are concerned that this may limit the time or funding available for FAW staff to complete other wildlife restoration work.

Observations at Whitewater WMA:

WSFR staff asked for an explanation of where timber harvests had occurred and were planned to occur on WWMA. Minnesota DNR FAW could not identify on maps where all harvests have or have not occurred on WWMA and were not able to determine if harvests were meeting any wildlife management goals. Additionally, post-harvest treatments to maintain wildlife habitat integrity (e.g., reseeded, invasive species control) are covered by FAW funds and reimbursed by the Wildlife Habitat Management grants (F17AF00282 and F19AF00427). Effectively, FAW is paying DNR Forestry for their personnel time to reduce FAW's ability to meet wildlife goals, and then paying to mitigate the effects of harvest on wildlife habitat.

Timber harvests monitored at WWMA, specifically oak harvests, were completed (date at least year) without concurrence of wildlife management needs by DNR FAW and therefore could be considered ineligible costs under the Wildlife Habitat Management grants, and not a substantial use of PR Act grant funding. Additionally, income earned by the DNR from these harvests may not be considered program income as they were not incidental to the grant (more discussed under Finding 4).

The implementation of the forestry practices on WWMA has created erosion on hillsides, soil compaction in lowlands, introduction of invasive species, and reduction of natural forest regeneration. Additionally, contracted loggers put in roads with DNR Forestry approval, but without Minnesota DNR FAW oversight or approval. Small harvest areas, combined with extensive infrastructure for logging access created a high level of disturbance for negligible or minimal wildlife benefit.

DNR Forestry and contracted loggers seem to be selecting mature oak stands to bid on almost solely for economic reasons, while leaving low economic value stands unharvested. Mature oak stands have high wildlife value, and harvest of these stands for non-wildlife reasons is inconsistent with the purpose of the PR Act, federal regulations, and purposes, objectives, and approach of the Wildlife Habitat grant. Minnesota DNR FAW stated that stands which could be harvested for wildlife benefit (e.g., red cedar) do not seem to be offered for sale by DNR Foresters due to low economic value, low likelihood of being bid on by loggers, and not counting towards DNR Forestry harvest goals. Overall, the observed timber harvests did not appear to serve any identified wildlife restoration purpose.



The draft major unit plan for WWMA describes the long-range goals for the WMA, including “to conserve, enhance, and restore a variety of... habitats to benefit forest, wetland, and farmland wildlife. Special emphasis to ensure management of rare species of plants and wildlife” and “provide quality public hunting, fishing, trapping, and wildlife viewing opportunities.” The current forest management practices observed at WWMA seem to contradict these long-range plans as they do not identify a wildlife purpose for timber harvests, seem to be harvesting and degrading the quantity and quality of sites important for wildlife.



Rutting along road cut by logger to access timber on WWMA. This rut is approximately 4 feet tall and undercut due to erosion.



Regeneration of ash and aspen along a logging road following oak harvest at WWMA. Oak is not regenerating after this harvest as planned due to lack of post-harvest management. Buckthorn has invaded this stand.

Observations at Mille Lacs WMA:

Minnesota DNR Forestry objectives have appeared to supersede wildlife management plans for MLWMA. Minnesota DNR FAW is financially responsible for post-timber harvest management on WMAs, including general site cleanup, public access and logging road repair, forest habitat development/replanting, etc. Funding for any post-harvest management comes from local FAW station resources, which are later reimbursed by the Wildlife Habitat Management grant (F17AF00282 and F19AF00427). This has led to a decreased regeneration of desirable plant species, decreased wildlife habitat quality and quantity, and increased invasive species prevalence.

WSFR staff inquired about DNR FAW’s ability to prescribe forest management on MLWMA. It appeared that timber harvests (from year \_\_\_) monitored at MLWMA, were completed without DNR FAW being able to choose the timber stands or identify wildlife restoration objectives. These costs could be considered ineligible under the Wildlife Habitat Management grants, and not a substantial use of PR Act grant funding. Additionally, income earned by the DNR from these harvests may not be considered program income as they were not incidental to the grant (more discussed under Finding 4).



The major unit plan for MLWMA is currently in draft status. These long-range plans include “to manage a diverse mosaic of forest and wetland habitats at various successional stages for the benefit of wildlife.” Some of the forest management occurring, or planned to occur, at MLWMA seem to contradict the long-range goals in the plans for MLWMA.



Aspen stockpiled at site by logger at MLWMA following winter 2019/2020 harvest. Timber will likely be left until winter 2020-21 because access is limited to only frozen road conditions. Wildlife use of this area is impaired and continual disturbance will occur until the timber is removed from the site. Additionally, it does impact wildlife recreation in the immediate area.



Road for logging equipment showing soil cut and pushed into large berms alongside of road at MLWMA. Without repair, this practice may lead to additional soil loss, erosion and sedimentation, and introduction/spread of invasive species.



Post-harvest slash left at logging site at MLWMA, minimizing ability for forest regeneration and increasing ability for invasive species to colonize site.

Observations at Red Lake WMA:

Red Lake WMA is the largest WMA in Minnesota and is comprised of rare geographic and wildlife habitat features, including high quality habitats for Species of Greatest Conservation Need, that not found in other areas of the State.



Red Lake WMA contains primary black spruce stands within its bog network. Black spruce stands are highly important to many game and non-game wildlife species at RLWMA, especially in winter as thermal cover. Timber harvests monitored at RLWMA, specifically Black spruce harvests, were completed without concurrence of wildlife management needs by DNR FAW and therefore could be considered ineligible costs under the Wildlife Habitat Management grants, and not a substantial use of PR Act grant funding. Additionally, income earned by the DNR from these harvests may not be considered program income as they were not incidental to the grant (more discussed under Finding 4).

Minnesota DNR FAW have been conducting joint site visits with DNR Forestry since 2018 at each planned timber harvest at RLWMA prior to harvest to negotiate harvested area, technique, and results with DNR Forestry. WSFR staff asked if FAW staff were able to prescribe forest management at RLWMA, and if FAW had the decision capacity to make final approval or denial of timber harvest. FAW has stated that DNR Forestry has the final say in whether timber harvests are offered and the techniques used. The workload of joint site visits has limited FAW's capacity to accomplish other eligible wildlife restoration work in order to provide input on DNR Forestry management on RLWMA, which appears to be ineligible. Post-harvest conditions included downed timber left on site, damage to soil due to timber harvest techniques and logging roads.

The RLWMA major unit plan is currently in draft stage. Current long-range goals mentioned in the draft plan include "conserve enhance, and restore all native plant communities... for the benefit of native wildlife and increase coverage of habitats and successional stages that are underrepresented on the surrounding landscape." Timber harvests observed at RLWMA seems to contradict these long range goals, especially timber harvests including black spruce, which are important for wildlife, and underrepresented on the surrounding landscape.



Post-harvest results of harvest of a Black spruce stand showing abandoned down timber left by logger. Leaving downed timber at this prevalence diminishes the ability for forest regeneration, severely reduces wildlife habitat, and creates an area that is unusable by hunters and other recreationists.



Primary Black spruce forest stand that is over 100 years old representative of the forest that was present prior to harvest in the above picture. Black spruce forest stands are important to wildlife, especially in the winter for thermal cover. No wildlife benefit or

Recommendations

2. Minnesota DNR FAW appeared to lose control of land acquired or managed with PR funding and license revenue as a result of Minnesota DNR Forestry timber harvest planning and practices.

Lands acquired with PR Act fund and/or hunting and fishing license revenue must be under the control on the State fish and wildlife agency. Lands acquired using these funding sources are acquired for specific wildlife and wildlife recreation purposes and must continue to be managed for the purpose they were acquired unless it is not possible to manage for that purpose. Timber harvests completed on these WMAs seem to be inconsistent with the wildlife purposes they were acquired because wildlife benefits of this management was not identified.

Real property acquired with license revenue, whether or not it is used as match on a PR Act grant, is then considered license revenue. Use of license revenue must be used for the purposes of the PR Act or administration of the State fish and wildlife agency. Use of license revenue for other reasons would constitute a diversion. Additionally, uses of real property acquired under these funding sources would be a loss of control of real property by the FAW.

It appears the primary purpose of the observed timber harvests were commercial. DNR Forestry seems to be planning and implementing timber harvests on WMAs with little or no FAW oversight. This appears to constitute a loss of control of federal grant funds apportioned under the PR Act and license revenue acquired real property by the FAW and license revenue used to match PR grant funds.

The Statewide Wildlife Habitat Management grants establish, improve and maintain wildlife habitat on the 1.3 million acre network of State Wildlife Management Areas and on the shallow lake resources. Approved grant activities under these grants are solely for wildlife conservation and restoration purposes. Grant funds are not approved for timber harvests, unless the primary purpose of these harvests are generated by wildlife needs. Costs associated with commercial timber harvests are not approved under these grants and are not appropriate uses of PR Act funding.

Major unit plans for the three WMAs have been drafted and the DNR is using PR Act funding for the creation of these plans. These plans outline the management history and future 10-year management plans for each WMA. Interdisciplinary teams, representing multiple DNR divisions, create the major unit



plans, however only sections of the plans focused on wildlife restoration purposes are eligible PR Act funding. WSFR staff recognize the importance of interdisciplinary actions in writing these plans, however, planning efforts outside of wildlife restoration purposes may be considered ineligible for PR Act funding.

Additionally, the timber harvest conducted by Forestry without oversight by FAW, no identified wildlife benefit, and improper management for wildlife resources seems to interfere with the purposes the real property was acquired.

General observations:

WSFR staff asked FAW about the status of the major unit planning effort at each WMA. DNR FAW reported that major unit planning has been delayed due to the need to incorporate DNR Forestry objectives into the WMA plans. Since 2016, only one of five Major Unit Plans has been completed the Minnesota DNR. The plans for RLWMA and WWMA were originally planned to be completed by June 30, 2017. The planning effort for RLWMA was replaced by Thief Lake WMA, which was completed in 2017. The plan for WWMA is scheduled to be completed by June 30, 2020. Plans for RLWMA, MLWMA, and three other WMAs are scheduled to be completed between July 1, 2018 and June 30, 2021. DNR FAW reported that the major unit planning processes has been delayed because of the recent completion of the Minnesota DNR Sustainable Timber Harvest Analysis (STHA). Now that the STHA is completed, DNR FAW reported that DNR has required FAW to incorporate STHA and DNR Forestry goals into the WMA management plans. WSFR staff are concerned that major unit plan approval is contingent on FAW including DNR Forestry goals in the plans. It appears that DNR FAW cannot complete wildlife management plans due to other DNR divisions needing to utilize FAW lands and resources to accomplish non-wildlife goals, which is inconsistent with 50 CFR 80.

Minnesota DNR Forestry seems to have control of planning, implementing, and selling timber harvests on these WMAs with little input, oversight, or agreement from FAW. Minnesota DNR FAW does not seem to have the ability to work directly with contracted loggers on these WMAs, instead needing to work through DNR Forestry to contact loggers and implement forest management. Ultimately, it seems that DNR Forestry controls forest management and timber sales on these WMAs. This seems to be a systemic issue within the DNR FAW's process of forest management on WMAs.

WSFR has granted PR Act funds to the Minnesota DNR for acquisition, planning, and management of WMAs. Techniques for the timber harvest on WMAs may be considered to not be "substantial in character and design" per 50 CFR 80.56. It is unclear if they have identified wildlife restoration purposes or objectives, use accepted wildlife conservation and management principles, or if they are cost effective. Grant funds were approved for wildlife conservation and restoration purposes utilizing a variety of tools for habitat management, however, it appears grant funds are being used to plan and implement commercial timber harvests, and restore commercial timber harvest sites. The level of detail provided in the grant was not adequate enough for WSFR staff to understand commercial timber harvest were occurring on these WMAs.

It appears the Minnesota DNR has not adequately monitored federal grants and license fees. The activities currently being charged for forest habitat management do not seem to be eligible in all cases. Additionally, DNR Forestry seems to control the majority of the decision making for forest management on WMAs, which may be considered a loss of control of PR Act and license funds by the Minnesota DNR FAW.

### Observations at Whitewater WMA:

Based on site conditions it appears appropriate communication or follow-up with contracted loggers has not been provided to ensure wildlife restoration purposes. Timbered sites show signs of erosion, invasive species, and lack of forest regeneration back into a desired forest type (e.g., oak). Due to the topography of WWMA, timber harvests have created an extensive network of logging trails, which are causing substantial erosion on hillsides. These harvest techniques, combined with the degraded state of forest wildlife habitat in harvested stand may not be considered substantial for wildlife restoration or to the purposes of the Wildlife Habitat Management grants (F17AF00282 and F19AF00427). Once timber harvest is completed, or abandoned, and the sale is closed by DNR Forestry, FAW cannot contact the logger for additional site clean-up or post-harvest management.

WSFR staff asked if DNR FAW or Forestry had the final ability to approve timber harvests on WWMA. It appears that DNR Forestry has a disproportionate level of decision making on the WMA. Minnesota DNR Forestry plans, implements, and closes out timber harvests on WWMA. Minnesota DNR FAW has requested joint site visits with DNR Forestry to influence timber stand selection, sale, treatment type, or post-harvest site management on WWMA. FAW reported that DNR Forestry was not consistent in responding to these requests. WSFR staff are concerned that DNR FAW has lost control of forest management at MLWMA, and that the forest management occurring at MLWMA is not eligible for PR Act grant funding (as discussed under Finding 1).

WSFR staff asked about the status of the major unit plan at WWMA because Minnesota DNR FAW has not been able to proceed on schedule with or complete the Major Unit Planning effort for WWMA. DNR FAW reported that the planning was delayed because DNR Forestry wanted input on the management plan to implement the outcomes of the STHA. Whitewater WMA wildlife management objectives are diminished in this planning effort because of DNR Forestry objectives appear to be taking priority.

WSFR biologists asked for clarification on why mature oaks stands were selected for harvest at WWMA. Minnesota DNR FAW responded that selection of oak forests were planned, implemented, and closed by DNR Forestry with little or no knowledge or input by FAW.

### Observations at Mille Lacs WMA:

Based on site conditions, it appears Forestry has not provided appropriate directions to or follow-up with contracted loggers to ensure wildlife restoration (drives harvest methods) purposes. Loggers have not completed their harvests, left downed timber on the site, or not cleaned-up sites to the level needed to be considered substantial for wildlife restoration or to the purposes of the Wildlife Habitat Management grants (F17AF00282 and F19AF00427). Once timber harvest is completed, or abandoned, and the sale is closed by DNR Forestry, FAW cannot contact the logger for additional site clean-up or post-harvest management. It appears that DNR Forestry has a disproportionate level of decision making on the WMA without prioritizing wildlife restoration needs.

WSFR staff asked if DNR FAW or Forestry had the final ability to approve timber harvests on MLWMA. DNR FAW responded that when differences of opinions on timber harvest prescription occur, DNR Forestry makes the final decision. WSFR staff are concerned the wildlife benefits of these harvests seem to be secondary to timber production. Additionally, WSFR staff are concerned that DNR FAW has lost



control of forest management at MLWMA, and that the forest management occurring at MLWMA is not eligible for PR Act grant funding (as discussed under Finding 1).

FAW reported that the Major Unit Planning effort for MLWMA is on hold because “desired future conditions” section is undecided as DNR Forestry want to ensure the management plan includes the ability for DNR Forestry to meet their divisional goals. It appears that Minnesota DNR Forestry objectives have taken precedence over wildlife management at MLWMA. MLWMA wildlife management objectives are diminished or not documented in planning effort at this time because of forestry objectives are taking priority.

DNR FAW reported that timber harvests will increase over the next 10 years per the Minnesota DNR STHA implementation. It was unclear to WSFR staff if the increase in timber harvests were based on wildlife management needs for MLWMA.

Observations at Red Lake WMA:

Based on site conditions it appears DNR Forestry has not provided appropriate direction or follow-up with contracted loggers to ensure wildlife restoration purposes. Loggers have not completed their harvests, have left downed timber on the site, or not cleaned-up sites to the level needed to be considered substantial for wildlife restoration or to the purposes of the Wildlife Habitat Management grants (F17AF00282 and F19AF00427). WSFR staff asked about the conditions of the monitored timber harvest sites. FAW reported that once timber harvest is completed, or abandoned, and the sale is closed by DNR Forestry, FAW cannot contact the logger for additional site clean-up or post-harvest management. Finally, it appears that DNR Forestry has a disproportionate level of decision making on the WMA, and are making decisions for purposes other than wildlife restoration.

WSFR staff asked if DNR FAW or Forestry had the final ability to approve timber harvests on RLWMA. DNR FAW responded that when differences of opinions on timber harvest prescription occur, by DNR Forestry makes the final decision. WSFR staff are concerned that wildlife benefits to these harvests seem to be secondary to timber production. Additionally, WSFR staff are concerned that DNR FAW has lost control of forest management at RLWMA, and that the forest management occurring at RLWMA is not eligible for PR Act grant funding (as discussed under Finding 1).

The Major Unit Planning effort for RLWMA is reimbursed by a Major Unit Planning grant. WSFR staff asked the status of the planning efforts at RLWMA. The major unit plan for RLWMA was considered too complex to finish in the timeline for the first major unit planning grant. It has been added to the subsequent major unit planning grant and scheduled for completion by June 30, 2021. DNR FAW responded that the planning efforts were delayed because FAW was having to negotiate about the desired future conditions of wildlife habitat at RLWMA with DNR Forestry and the degree to which RLWMA would need to meet DNR Forestry timber harvest goals. The delay in completing the objectives of these Major Unit Planning grant seems to be related DNR Forestry having final approval of timber harvests on RLWMA, which may be considered a loss of control.

Recommendations

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3. Some habitat management and planning costs incurred under the grants reviewed were not entirely conducted in accordance with the Acts, 50 CFR 80 and 2 CFR 200, FWS guidelines, and grant agreements

The purpose of the PR Act is to provide funding the State fish and wildlife agencies to develop projects that restore, conserve, manage, and enhance wildlife. Regulations that support the implementation of the PR Act specify what project costs are eligible to charge to funds provided by the PR Act. These project costs must benefit wildlife or be justified how they assist carrying out the purposes of the PR Act. WSFR does not typically require the grant narratives explain all forest management activities occurring throughout the state because the purposes of PR Act grant funding and the grants ensures these activities are being accomplished for wildlife restoration purposes. The Minnesota DNR FAW however, has not provided appropriate detail in the grants or reports to support the observed forest management activities that appear to be commercial in nature and utilizing techniques that do not conform to accepted principles of wildlife conservation.

The Statewide Wildlife Habitat Management grants have the purpose of critical habitat management work on State Wildlife Management Areas (WMAs), and public waters managed for wildlife. Through this grant grassland, forest and wetland habitat are managed to provide better habitat for wildlife populations. Forest management approved under this grant includes only activities with the primary purpose of benefiting wildlife habitat, specifically with the objective to restore, conserve, manage, and enhance approximately 20,000 acres of forest/bushland habitats on public lands annually. For the period of July 1, 2017 to June 30, 2019, FAW spent approximately \$2.5 million on forest habitat management, which included approximately 8,600 acres of "forest stand improvement." Throughout the same period, FAW earned approximately \$1.4 million of timber sales, claimed as program income and deducted from the overall grant costs. Over this period, FAW budgeted \$1.1 million for contracts and professional services, which includes "tree removal." The level of detail provided in the Habitat Management grant narratives and reports does not provide for an understanding of total payments to DNR Forestry to accomplish timber stand improvements on WMAs. WSFR staff are concerned that costs associated with timber management on WMAs and payments to DNR Forestry may not have met grant objectives and were possibly ineligible for PR Act funding.

The Statewide Wildlife Operations and Maintenance grant has the purpose of supporting operations and maintenance activities, including boundary management, facility maintenance, access maintenance, and site cleanup and well sealing to ensure the protection and enhancement of wildlife habitat, wildlife populations, and public recreation use on 1.3 million acre network of State WMAs. Under this grant, FAW maintains roads, parking lots, hunter walking trails, and other facilities. Grant costs for facility and access maintenance are estimated at \$1.9 million per year. It is not clear if some of these costs are associated with maintenance or repair of WMAs due to apparent commercial forestry practices. WSFR staff are concerned that costs associated with operations and maintenance on WMAs resulting from commercial timber harvest are possibly ineligible for PR Act funding.

The Major Unit Planning grants have the purpose of engaging DNR staff, local communities, and user groups in a land management planning process, resulting in a plan that will provide the direction for major units to provide wildlife production, public hunting, trapping, fishing, and other recreational uses. Costs for planning efforts are approved for appropriate wildlife restoration purposes, however costs



associated with planning related to timber harvests for commercial reasons may not be eligible for PR Act funding, and may not be consistent with the purpose of the Major Wildlife Unit Planning grants.

#### General observations:

Minnesota DNR Forestry charges personnel time for planning, implementing, and logging contract management of timber harvests on WMAs to DNR FAW. These costs are then claimed by FAW as expenditures under the Statewide Habitat Management grants. Additionally, the costs associated with activities to maintain wildlife habitat integrity following timber harvests (e.g., invasive species control, reseeding, erosion control) are covered by FAW and charged to the Statewide Wildlife Habitat Management grant. Currently, costs charged to the Habitat Management grants to pay DNR Forestry do not seem to be consistent with the purposes of the PR Act, 50 CFR 80, 2 CFR 200, accepted wildlife management principles, or the authorized purposes of the grant agreements. Additionally, costs associated with mitigating detrimental actions to wildlife habitat caused by Minnesota DNR Forestry or their contractors do not seem to be appropriate uses of PR Act funds. As noted in Finding 1, the primary purpose of the observed forest management on the three visited WMAs seems to be commercial.

The Statewide Wildlife Operations and Maintenance grants cover costs of public access and facility maintenance at WMAs. Costs associated with repairs to public access infrastructure (e.g., roads, gates, trails) due to damage from commercial timber harvests do not appear to be eligible.

Major Unit Planning efforts at these three WMAs appear to have been delayed or stopped to incorporate the amount of timber harvests to meet Minnesota DNR goals. Costs associated with forest habitat management planning on these WMAs that is not for the primary purpose of wildlife restoration do not appear to be eligible.

#### Observations at Whitewater WMA:

Timber harvests primarily for commercial and revenue generating purposes seem to have occurred at WWMA, which is inconsistent with the PR Act, 50 CFR 80 and 2 CFR 200, FWS guidelines, and grant agreements. The planning and implementation of these harvests would be ineligible for PR Act funding without additional justification on how they helped carry out the purpose of the PR Act. Prior to visiting timber harvest sites, DNR FAW presented to WSFR staff that timber harvests had occurred on WWMA with limited or no FAW knowledge and with no identified wildlife restoration purpose. WSFR staff are concerned that timber harvests have occurred and are occurring on WWMA for primarily commercial purposes. Additionally, FAW reported that it has captured costs under the Statewide Habitat Management grants associated with invasive species and erosion control at WWMA following potential commercial timber harvests. It was not apparent to WSFR staff if costs associated with the potential commercial timber harvests were charged to the Statewide Operations and Maintenance grant.

The major unit planning effort at WWMA is currently in draft status and does not yet contain explanations of current or future desired habitat conditions. The plan does discuss rare plant communities, including multiple oak forest types and game and non-game species with preferred habitat in oak forest. The current forest management observed at WWMA seems to contradict the wildlife management needs at WWMA.

#### Observations at Mille Lacs WMA:

Timber harvest for primary commercial and revenue generating purposes seem to have occurred at MLWMA, which is inconsistent with the PR Act, 50 CFR 80 and 2 CFR 200, FWS guidelines, and grant agreements. The planning and implementation of these harvests are activities that would be ineligible for PR Act funding without additional justification on how they helped carry out the purpose of the PR Act.

The major unit planning effort at MLWMA is in draft status. Currently, the draft plan does not include information on the current or future desired wildlife habitat conditions. The long-range goals mention managing a diverse mosaic of forest and wetland habitats at various successional stages for the benefit of wildlife, with an emphasis on white-tailed deer, ruffed grouse, and waterfowl. It is unclear how current forest management observed at MLWMA meets this long term objective.

Observations at Red Lake WMA:

Timber harvest for primary commercial and revenue generating purposes have likely occurred at RLWMA. The planning and implementation of these harvests would be ineligible for PR Act funding without additional justification on how they helped carry out the purpose of the PR Act. WSFR staff asked for clarifications on the wildlife restoration objectives and outcomes of the timber harvests that have occurred at RLWMA. FAW responded that from March 2017 to February 2020, they had documented 101 instances where FAW could not identify wildlife benefits for the timber harvests. Results of these timber harvests were considered by FAW to be detrimental to wildlife or not to have met wildlife objectives at RLWMA. During the same period, Forestry conducted 39 other timber harvests that were considered beneficial to wildlife and accomplish wildlife management objectives during this same period at RLWMA. WSFR staff did not observe these areas where timber harvests were considered beneficial to wildlife goals at RLWMA.

Recommendations

4. Hunting and fishing license revenues appear to have been used for purposes that that were primarily commercial in nature rather than for fish and wildlife program activities.

Hunting and fishing license revenues include real property purchased from license proceeds and are protected from diversion away from the fish and wildlife agency by Minnesota assent legislation to the PR Act. Additionally, activities conducted for the primary purpose of producing income are ineligible uses of PR Act funding. A State agency may allow commercial, recreational, and other secondary uses of a grant-funded parcel of land or water or capital improvement if these secondary uses do not interfere with the authorized purpose of the grant. Furthermore, real property acquired using license revenue is protected as license revenue. Using license revenue for purposes inconsistent with the PR Act or for purposes other than administration of the State fish and wildlife agency could constitute a diversion of license revenue.



The Minnesota DNR uses license revenue to match PR Act grants, including the grants reviewed under this monitoring. Use of license revenue to match these grants to conduct timber harvests for commercial and revenue generating purposes may be considered a diversion of license revenue unless additional justification is provided to and approved by the Service. Additionally, utilizing real property purchased using license revenue for primarily commercial or economical purposes and not wildlife restoration or wildlife-oriented recreation may constitute a diversion of license revenue from the State fish and wildlife agency. The Minnesota DNR may have diverted license funds away from the fish and wildlife agency to conduct commercial timber harvests.

Recommendations

5. Program income may not have been used or reported as required by the grants and regulations

Program Income is gross income earned by the non-Federal entity that is directly generated by a supported activity or earned as a result of the Federal award during the period of performance. A State fish and wildlife agency may earn income from activities incidental to the grant purpose as long as producing income is not a primary purpose. The Minnesota DNR has claimed program income under past Statewide Wildlife Habitat Management grants, and is expecting to generate program income under the active habitat management grant from timber sales. The Minnesota DNR was approved to deduct program income earned under these grants from the total approved budget and reduce program income by the amount equal to costs that the grant identifies as incident to the generation of the program income. Additionally, if the Minnesota DNR generated program income outside of the grant period, it must have treated such income as additional funding for purposes consistent with the grant or the program that generated the income.

Timber harvests primarily conducted for economic, commercial, or revenue-generating reasons are not consistent with the purposes of the PR Act, associated regulations, or grant terms and are ineligible for funding. Additionally, the timber harvests we observed did not seem to have a primary purpose for wildlife benefit, and therefore, income earned by the Minnesota DNR from these timber harvests is not incidental to the grant and should not have been reported as program income.

From July 1, 2017 to June 30, 2019, the Minnesota DNR claimed approximately \$1.4 million in program income from timber sales under the Statewide Wildlife Habitat Management grant F17AF00282. Currently, income generated from timber sales is claimed as program income under Statewide Wildlife Management grant F19AF00427, however has not yet reported income earned after June 30, 2019 because a financial report is not due until September 2020. Income earned by the Minnesota DNR from timber harvests under these grants may not meet the definition of program income and should not have been reported as such, or deducted from the total grant costs.

Recommendations

6. Environmental effects that may not have been adequately covered by the categorical exclusions for the grants.

Based on observations at these WMAs, WSFR staff may need to reconsider the use of Categorical Exclusions to comply with NEPA for the Statewide Wildlife Habitat Management grants.

Categorical exclusions are a limited number of cases where activities conducted by the federal government are excluded from further assessment under NEPA. Categorical exclusions are classes of actions which do not individually or cumulatively have a significant effect on the human environment. Categorical exclusions are appropriate in many activities carried out under PR Act grants and are commonly used as long as no extraordinary circumstances apply. Grants monitored under this review were approved using categorical exclusions for NEPA. However, the monitoring of select WMAs indicated that the timber harvest actions that have occurred may not have been thoroughly considered during NEPA compliance review. The Minnesota DNR did not appropriately identify the extent of forest management actions in the grant narrative, submitted compliance documents, or in past performance reports. Without accurate information WSFR staff may not have accurately assessed the environmental effects that may not meet the requirements to be designated a categorical exclusion B (2) under 516 DM 8.

Additionally, the information collected by monitoring indicates that there may be some extraordinary circumstances that may apply to the actions undertaken by the WSFR program (grantor) and Minnesota DNR (grantee). If exceptions to categorical exclusions apply, under 516 DM 2, Appendix 2 of the Departmental Manual, the Departmental categorical exclusions cannot be used. Therefore an Environmental Assessment of the timber harvest should occur in order to comply with NEPA. Those circumstances are listed below:

- Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.
- Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)].

Tie public controversy about the potential for the STHA cuts to the level of impacts of the present cuts to the WMAs.

- Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects. How WSFR responds to these cuts will set precedence for our response to the STHA as implemented on WMAs.
- Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).



Recommendations

## Appendices

### Appendix A. Maps

- **Whitewater WMA Map of Acquisition Sources and Ownership**
- **Whitewater WMA map of land cover with an overlay of present and proposed timber harvest areas and access roads**
- **Mille Lacs WMA Map of Acquisition Sources and Ownership**
- **Mille Lacs WMA map of land cover with an overlay of present and proposed timber harvest areas and access roads**
- **Red Lake WMA Map of Acquisition Sources and Ownership**
- **Red Lake WMA map of land cover with an overlay of present and proposed timber harvest areas and access roads**

### PHOTOS:



Rutting along road cut by logger to access timber on WWMA. This rut is approximately 4 feet tall and undercut due to erosion.



Regeneration of ash and aspen along a logging road following oak harvest at WWMA. Oak is not regenerating after this harvest as planned due to lack of post-harvest management. Buckthorn has invaded this stand.

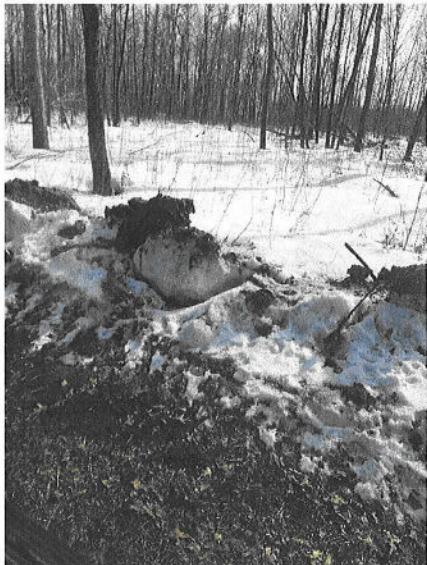


Aspen stockpiled at site by logger at MLWMA following winter 2019/2020 harvest. Timber will likely be left until winter 2020-21 because access is limited to only frozen road conditions. Wildlife use of this area is impaired and continual disturbance will occur until the timber is removed from the site. Additionally, it does impact wildlife recreation in the immediate area.





Post-harvest slash left at logging site at MLWMA, minimizing ability for forest regeneration and increasing ability for invasive species to colonize site.



Road for logging equipment showing soil cut and pushed into large berms alongside of road at MLWMA. Without repair, this practice may lead to additional soil loss, erosion and sedimentation, and introduction/spread of invasive species.



Post-harvest results of harvest of a Black spruce stand showing abandoned down timber left by logger. Leaving downed timber at this prevalence diminishes the ability for forest regeneration, severely reduces wildlife habitat, and creates an area that is unusable by hunters and other recreationists.



	<p>Primary Black spruce forest stand that is over 100 years old representative of the forest that was present prior to harvest in the above picture. Black spruce forest stands are important to wildlife, especially in the winter for thermal cover. No wildlife benefit or objective was identified for the harvest of these type of stands, but it is</p>



	planned to be harvested, seemingly for economic reasons.
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