





Additionally, should a MMF citizen travel to their preferred locale and be obstructed from accessing that site for the purposes of harvesting, it is unlikely they will return to that site in the future due to the cost of the missed opportunity.



Participant's Hunting Knife (Photo: Adena Vanderjagt)

5.5.2.1 Harvesting Experience

During the Survey, Participants were asked what conditions they preferred for harvesting. Participants and Respondents reported that they prefer it where it is quiet¹⁷⁴. Participants and Respondents also preferred it where they had past success¹⁷⁵; Participant M315 noted that "...you have to work hard because the game and that isn't as plentiful." Participants and Respondents also liked to harvest where there is no development¹⁷⁶ and where there are no people¹⁷⁷. Participant M329 confirmed that the Project location is still fairly remote. They stated that "[t]here's a lot of bush here. It's not like other parts of the Province where it is wide open." However, some Participants expressed unease and the potential Project and Participant M322 asked "[w]hat are the effects of the humming of the transmission line on vegetation and wildlife?"

The EIS states that construction "...of the transmission line, stations, and access roads

- 174 Participants: 100% for hunting (n=42), 93% for trapping (n=15), 91% for fishing (n=45), 76% for berry or berry plant gathering (n=38), 91% for plant, mushroom and medicine gathering (n=23), 57% for tree and tree product gathering (n=35), 83% for rock and mineral gathering (n=6); Respondents: 91% (n=120)
- 175 Participants: 100% for hunting (n=42), 100% for trapping (n=15), 93%, for fishing (n=45), 92% for berry or berry plant gathering (n=38), 100% for plant, mushroom and medicine gathering (n=23), 80% for tree and tree product gathering (n=35), 100% for rock and mineral gathering (n=6); Respondents: 74% (n=120)
- 176 Participants: 98% for hunting (n=42), 80% for trapping (n=15), 76% for fishing (n=45), 76% for berry or berry plant gathering (n=38), 78% for plant, mushroom and medicine gathering (n=23), 80% for tree and tree product gathering (n=35), 67% for rock and mineral gathering (n=6); Respondents: 78% (n=120)
- 177 Participants: 98% for hunting (n=42), 93% for trapping (n=14), 67% for fishing (n=45), 71% for berry or berry plant gathering (n=38), 78% for plant, mushroom and medicine gathering (n=23), 59% for tree and tree product gathering (n=34), 67% for rock and mineral gathering (n=6); Respondents: 76% (n=120)

will generate temporary and intermittent noise in the vicinity of the ROW"¹⁷⁸. The EIS found that, based on a similar Project, the noise would, on average, "...generate 89 dBA of noise at a clear distance of 15 m from construction equipment within the PDA"¹⁷⁹. Operations and maintenance of the Project will "...generate noise emissions in the form of Audible Noise (AN)" which will be created from corona discharges, generated by equipment additions to stations, annual maintenance and inspection patrols and vegetation control¹⁸⁰. All these sources of noise, while not in exceedance of regulation, will affect the Metis harvesting experience.

Additionally, the EIS states that the Project will cause "...temporary displacement of some wildlife from otherwise suitable habitat"¹⁸¹. This displacement is expected to extend beyond the PDA; however, specific details on how far the displacement would reach were unclear. This will result in an effect to the harvesting experience as Participants were clear (no less than 80%) that they prefer areas of past success. This means, if wildlife is displaced from a locale of past success that area, as well as opportunity, is altered.

The EIS describes inspection controls and vegetation management processes. These factors speak to the Participants preference for a lack of development and lack of people while harvesting. "Manitoba Hydro conducts inspections of all its 200 kV and greater transmission lines and ROW corridors annually" and they are completed "... either by ground or by air depending on access, geographic conditions and time of year"182. This will contribute to additional people being on the line and disrupting MMF Participants preferred conditions. Additionally, "[v]egetation management is required on an ongoing basis..." this involves "...hand cutting (e.g., using chainsaws, brush saws, axes, or brush hooks) and mechanical shear blading using "V" or "KG" blades. KG blades are bulldozer blades with a sharpened lower edge or are angled V-shaped for splitting large trees and stumps..." Vegetation management may also include herbicide application 183. The work will be ongoing and irregular. This presents a constant and continuous effect to the harvesting experience as specific times of vegetation management cannot be anticipated by MMF Participants and will create interactions with non-Metis people as a result.

Participants explained that they would not harvest if industrial activity was present. For example, Participants noted that they would not hunt if industrial workers (93%, n=42) or vehicles were present (79%, n=42) for safety reasons. Even if the Participant saw an opportunity for hunting, that area would be avoided while industrial workers and vehicles were present to alleviate safety concerns.

Participants also noted they would not harvest in a location if it was dusty¹⁸⁴. Dust

- 178 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, Technical Data Report Noise, Sec. 5.1
- 179 Ibid
- 180 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, Technical Data Report Noise, Sec. 5.2
- 181 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 9-73
- 182 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 2-62
- 183 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 2-63
- 184 Hunting 64% (n=39), Trapping 46% (n=13), Fishing 58% (n=43), Berry and Berry Plants 53% (n=38), Plants, Mushrooms and Medicines 43% (n=23), Trees and Tree Products 43% (n=30), Rocks and Minerals 17% (n=6)

was indicated as a potential effect in the Human Health Risk Assessment of the EIS¹⁸⁵. Currently, the Project area is characterized by "...windblown dust from traffic and agricultural operations and vehicle emissions along roads and highways..." However, Project construction activities will result in increased levels of dust. These levels were not studied independently from other particulate matter and were compared against total annual Winnipeg transit bus fleet diesel emissions¹⁸⁷ therefore for this Report it is not possible to quantify the specific effect of dust on Participants' harvesting experience.

5.5.2.2 Harvesting Success

As previously noted, 98% of the PDA is subject to increased legal restriction for MMF harvesting activities. This may lead to displacement of MMF citizens from their preferred areas of harvest, contingent on Project phase.

[the Project would] "...force animals to leave the area and I don't know how long it will take them to filter back in."

-M334

The majority of effects to harvesting success are generally thought to be a result of Project construction; however, the effect on harvesting success may persist into operations, due to changes in harvesting behavior. MMF citizens will have to establish new hunting areas, avoiding Project construction (approximately 2 ³/₄ years¹⁸⁸).Participants indicated that they will move to avoid construction activities as well as hunt the species displaced by construction activities. Participant M334 indicated that the Project would "...force animals to leave the area and I don't know how long it will take them to

filter back in." Participant M320 elaborated on this point by noting "[i]f it takes three or four years to build this, which I imagine it will, there's not going to be much animals to harvest in that area for that length of time; and how much will it take for them to come back after they've finished?"

If citizens are successful in these new areas, the Survey results show (see above) that they will frequent those areas of success, therefore potentially removing the former Project site from consideration as a viable harvesting alternative. Participant M320 related this to animals possibly not returning to the Project area, they stated "... how long it's [Project construction] gonna [sic] take? Because the longer it takes, the animals are going to stay away that much longer and sometimes they go away and don't come back."

Survey Participants patterns of use will adjust to Project construction and can result in continuous displacement. Participant M318 shared his unease at the prospect of ongoing construction and stated that their "...biggest concern is the time when they are going to go in and actually do the work."

5.5.3 Alteration of Culturally Critical Species

- 185 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 18-17
- 186 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, Technical Data Report Air, Sec. 3.1
- 187 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, Technical Data Report Air, Sec. 5.0
- 188 Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 2-14

The Project has the potential to affect 'Harvesting' through availability of species. The species important to MMF harvest may be temporarily displaced during construction and maintenance activities or fully removed from the Project area. Participant M304 noted that "[w]ith the hydro lines come and awful lot of machinery that will disrupt the game movement for, I'm just throwing this out there, ten years." The Project could also result in effects through an increased perception of contamination from the Project. Participant M336 noted that they "...try not to hunt near too many powerlines cause I've noticed in the past that the deer I've harvested had deformed horns and lumps" These changes have the potential to alter MMF's preferred means of harvest.



Participant's Mushrooms (Photo: Adena Vanderjagt)

5.5.3.1 Availability of Culturally Critical Species

Participants indicated that there are 'some' resources available for hunting near the Project ROW, there are 'plenty' of resources for trapping, 'some' resources for fishing, 'plenty' of resources for berry/berry plant gathering, 'plenty' of resources for plant/ mushroom/medicine gathering, 'plenty' of resources for tree/tree product gathering and 'plenty' of resources for rock/mineral gathering. Participant M314 noted "...if there are no resources, there's no problem putting in a transmission line there; but if there is lots of resources, then that would get affected by it."

89% (n=38) of Participants indicated that the Project would change the availability of hunting resources; 73% (n=15) indicated a change for trapping, 29% (n=28) indicated a change for fishing, 81% (n=32) indicated a change for berry or berry plant gathering, 91% (n=23) indicated a change for plant, mushroom and medicine gathering, 69% (n=29) for tree and tree product gathering and 63% (n=8) for rock and mineral gathering.

The availability was seen to increase with the introduction of the Project as it will improve access to the area and disturbed areas will lead to an increase in berry bushes (M303).



White Birch Trees

5.5.3.2 Perception

Participants noted that the quality of the plants, animals and fish in the vicinity of the Project ROW was 'Good'189. The EIS did not explore the potential quality of animals in the Project vicinity and instead focused on quality of habitat nearby190.

"[t]he study area is where I learned how to harvest with my father."

- M318

Participants, however, did provide information related to the perception of the Project area without the Project and related that to how the area would be with the application of the Project. Participant M318 explained that "[t]he study area is where I learned how to harvest with my father." This was a sentiment echoed by many Participants.

Many Participants expressed unease at the potential for the Project as they have seen what the existing line has done to the landscape. Participant M300 noted that on the existing Project ROW they "...see

way more dead things on the side of the road. They're just being pushed around... deer

¹⁸⁹ n=34 for Plants, n=33 for Animals and n=30 for fish

¹⁹⁰ Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, Chp. 9

and bear and even sandhill crane." Further, Participants were worried about the effects of the Project on the quality of the plants, animals and fish. Participant 336 indicated that he couldn't "...eat them at all if they had any lumps; lumps under the skin; on the

"...the trees, any trees that are off to the side, they don't seem to grow as high as they should."

- M342

fat and sometimes on the neck, around the neck region" from being in close proximity to transmission lines. Participant M300 noted a perceived risk from pesticides and stated that "[a]s far as I understand, they use pesticides to keep them [transmission ROW's] clear." Participant M336 reiterated this sentiment by stating that "...are they [berries] going to be safe to eat?"

Participants also related their real world experience with transmission lines and commented on the proposed Project. Participant M342 stated that "I've noticed over the years when the put the first ones [transmission lines] in, the trees, any trees that are

off to the side, they don't seem to grow as high as they should. I don't know if that's something affecting [them] from the line or not, but I've noticed that they don't really grow that great." Participant M322 added "[s]ee, I've had cancer twice and my dad has had it seven times and we're the only two in my family who hunted on that transmission line ... so that's what chemicals really worry me."

As perception is largely a subjective analysis this Report relied solely on the reported results for the existing environment contrasted with Participants impressions of past transmission installations. Based on that, there may be an effect to MMF Participants' perception of the Project.

5.6 Issues and Concerns

During the Survey, Participants expressed a variety of concerns related to 'Harvesting', Participants indicated they were concerned with general changes to flora and fauna, changes to migration patterns or game movement, changes to access and potential health effects of the Project.

"[i]t will open up the country more ... it's going to definitely impact on deer population in there ... the deer are running out of room..."

- M341

5.6.1 Fauna

Participants expressed numerous concerns related to changes in fauna through potential health effects to changes in population and displacement. Participant M336 noted that they "...used to do a lot of rabbit hunting on the powerline and I noticed that they virtually disappeared. I very seldom see any rabbits now."

Participant M341 felt that the Project would disrupt prime wildlife habitat which occurs in forestry areas and stated that "... [a]re they going to dig up the forestry land and create another issue for wildlife in this area here" Participant M300 farther related this

to the amount of animals the Project area could sustain; and stated "...the carrying capacity of the land, when they start taking it away or adjusting it, it changes it" and that "...it's all our land. This [the Project] takes away from it." Participant M341 further

added that "[i]t will open up the country more ... it's going to definitely impact on deer population in there ... the deer are running out of room..."

Participants also were concerned with the timing of construction activities and how this would affect hunting seasons as well as spawning and rearing. Participant M318 noted "...spring is important to deer and any type of animal for having their babies ... I think they shouldn't go there in the spring at all. They maybe should avoid hunting season ... there's a lot of hunters ... early fall and winter. My biggest concern is the time for when they are actually going to go in and do the work."

There was also concern that noise from the Project would result in animals avoiding the area. Participant M320 indicated that "...coyotes and stuff will cross through it ... but if there's electricity coming down there, they might not."

Participant M301 indicated that "[t]he land is everything to people. If you treat the land properly, it will treat you properly. It gives you all the resources. How are you going to live if you don't have, you know? And when you get Projects like this, I don't think its right."

5.6.2 Flora

Participants expressed concerns about vegetation recovery. They felt that the Project would change the landscape and it would never truly return to its original state. The Study Team notes that the Project has no plans for decommissioning. Participant M338 stated that "[y]ou're compacting the ground; it takes forever for the vegetation to grow up through it again."

Some Participants have experienced changes to vegetation in existing transmission lines. Participant M342 explained that "...the trees, any trees that are off to the side, they don't seem to grow as high as they should. I don't know if that's something affecting from the line or not, but I've noticed they don't really grow that great."

Participants were also concerned with the potential for herbicide application and how this will result in changes to vegetation, specifically berries or berry plants. Participant M316 noted that "[t]he berries, there won't be any berries if they are going to spray..." and noted that the habitat, so far, is 'good'; "[w]e'll see what happened when this line, if it goes through. It might change; it probably will change. The berries are definitely gonna [sic] change."

Overall, Participants were concerned with how much habitat would be lost through Project construction and operation. Participant M322 stated "[h]ow much natural forest area is going to be destroyed? And, of course, that includes the habitat for the animals and vegetation."

5.6.3 Access & Migration

Participants were concerned with access to harvesting areas. Participant M300 stated that "I know that I am going to have to travel farther" in relation to harvesting. Participant M321 indicated that "[a]nything to do with animals is going to be affected as soon as you've got traffic in there; they [animals] will start going the opposite way."

Participants also expressed concern over changes to migration areas for animals. Participant M309 explained that "[l]osing the land we currently hunt on, the change of the migration of animals, the change of where they are going to go, and where they might not go."

5.6.4 Health Effects

Health effects in terms of health of animals and how this translated in to Metis health were also raised as concerns. Participant M314 indicated that "I would even say the health of the – the health impact to the animals in the area of the transmission line."

Participant M309 expressed concern with herbicide/pesticide use: "The damage to the environment in the sense if they are using pesticides and those chemicals that would harm the natural nature around it – affecting possibly what the animals eat – eat and drink because water probably will be affected in some way or form."

5.7 Description of Mitigation

There was no mitigation proposed which specifically related to the 'Harvesting' MSI as Metis use was not characterized specifically; however, general mitigation was proposed which, with further discussion between MMF and Manitoba Hydro, could be relevant.

5.7.1 Types of Harvesting Activities Undertaken

As the EIS relied on the underlying biophysical components for discussion of Traditional Land and Resource use, no specific mitigation related to Harvesting Activities was noted.

5.7.2 Harvesting Experience

As the EIS relied on the underlying biophysical components for discussion of Traditional Land and Resource use, no specific mitigation related to Harvesting Experience was noted.

5.7.3 Harvesting Success

As the EIS relied on the underlying biophysical components for discussion of Traditional Land and Resource use, no specific mitigation related to Harvesting Success was noted.

5.7.4 Availability of Culturally Critical Species

The EIS proposed "[r]educed risk timing windows" which will be honored to avoid construction during sensitive times¹⁹¹. Additionally, buffers and setbacks for bird nesting and breeding will be established and adhered to¹⁹² and "...bird diverters will be installed on skywires in areas of "high collision and risk potential..."¹⁹³.

Additionally, "for clearly identified plant harvesting areas, Manitoba Hydro may utilize a variety of measures, including flagging of area, selective clearing methods, construction matting, non-chemical vegetation management, specific measures are assigned on a site by site basis" 194.

¹⁹¹ Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 9-81

¹⁹² Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 9-96

¹⁹³ Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 11-42

¹⁹⁴ Manitoba Hydro 2015 Manitoba-Minnesota Transmission Project Environmental Impact Statement, p. 11-49



Participant with Fish (Photo: Participant M306)

5.7.5 Perception

As the EIS relied on the underlying biophysical components for discussion of Traditional Land and Resource use, no specific mitigation related to Perception was noted.

5.8 Characterization of Residual Effects

There is potential for 'Harvesting' to be affected by the construction and operation of the Project through changes in harvesting activities and experience, alteration of culturally critical species and through the alteration of cultural components of harvest. While many of the direct effects of the Project will be site specific to the Project phase and localized to the PDA, the lasting impression of these effects may be felt community wide.

The direction or trend of the residual effects for 'Harvesting' is considered adverse as the changes in harvesting activities and experience and alteration to culturally critical species will result in a reduction of opportunities for the exercise of Metis rights. If the type of harvesting activity undertaken is changed, or the harvesting experience or success is compromised by the Project, it will result in a measured reduction in the opportunity for the Metis to exercise their rights.

Effects to 'Harvesting' will have a high to moderate magnitude; high within the PDA as 98% of Unoccupied Crown Land will be subject to increased legal restriction and the ability to exercise their rights on that land will be impaired through the implementation of Manitoba Hydro's easement agreement. Within the LAA and RAA, the effect will be moderate as there will be a decrease in the total amount of land preferred for the exercise of a Metis rights and it will reduce the ability for Metis to exercise their rights

through changes in harvesting activities, harvesting experience, harvesting success as well as changes to culturally critical species vital to the exercise of Metis rights. Additionally, Diminished Preference data shows that Metis citizens may not go elsewhere in the exercise of their Metis rights.

The frequency of the effect will be continuous throughout construction and will become multiple irregular events following construction. For the PDA, the frequency will most likely remain continuous as the harvesting experience, success, and type of activity undertaken will continue beyond construction. While the availability of culturally critical species may return to the PDA, the perception of their quality will remain affected for an indefinite amount of time.

The effect is also considered to be irreversible. Without removal and/or decommissioning (which is not contemplated) of the Project, the effects are considered permanent.

Table 4-7-1: Characterization of Residual Effects

		Residual Effects Characterization								
Project Phase	Mitigation Measure	Direction	Magnitude	Geographic Extent	Frequency ¹⁹⁵	Duration	Reversibility	Ecological Context		
Changes in Harvesting Activities and Experience										
Construction										
PDA	Pending	Adverse	High	PDA	С	Perm.	Irrevers	Dist.		
LAA	Pending	Adverse	Mod	LAA	MIE	Perm.	Irrevers	Dist.		
RAA	Pending	Adverse	Mod	RAA	MIE	Perm.	Irrevers	Dist.		
Operations										
PDA	Pending	Adverse	High	PDA	С	Perm.	Irrevers	Dist.		
LAA	Pending	Adverse	Mod	LAA	MIE	Perm.	Irrevers	Dist.		
RAA	Pending	Adverse	Mod	RAA	MIE	Perm.	Irrevers	Dist.		
Alteration of Culturally Critical Species										
Construction										
PDA	Pending	Adverse	High	PDA	С	Perm.	Irrevers	Dist.		

¹⁹⁵ SEE = Single Event Effect, MIE = Multiple Irregular Event, MRE = Multiple Regular Event, C = Continuous

	Mitigation Measure	Residual Effects Characterization								
Project Phase		Direction	Magnitude	Geographic Extent	Frequency	Duration	Reversibility	E cological Context		
Changes in Harvesting Activities and Experience										
Construction										
LAA	Pending	Adverse	Mod	LAA	MIE	Perm.	Irrevers	Dist.		
RAA	Pending	Adverse	Mod	RAA	MIE	Perm.	Irrevers	Dist.		
Operations										
PDA	Pending	Adverse	High	PDA	С	Perm.	Irrevers	Dist.		
LAA	Pending	Adverse	Mod	LAA	MIE	Perm.	Irrevers	Dist.		
RAA	Pending	Adverse	Mod	RAA	MIE	Perm.	Irrevers	Dist.		

5.9 Conclusion

The assessment of 'Harvesting' considered changes to harvesting activities and experience and alteration of culturally critical species. The effects identified through this assessment can be used by the MMF and Manitoba Hydro to inform their mitigation discussions and ensure sufficient measures are developed to ensure residual effects do not occur.

Without specific and detailed mitigation measures applied to these effects, the remaining residual effects will be significant. The results of the Survey identify that the Participants consistently report that significant effects are probable.