

Figure 22. Harvesting within Manitoba

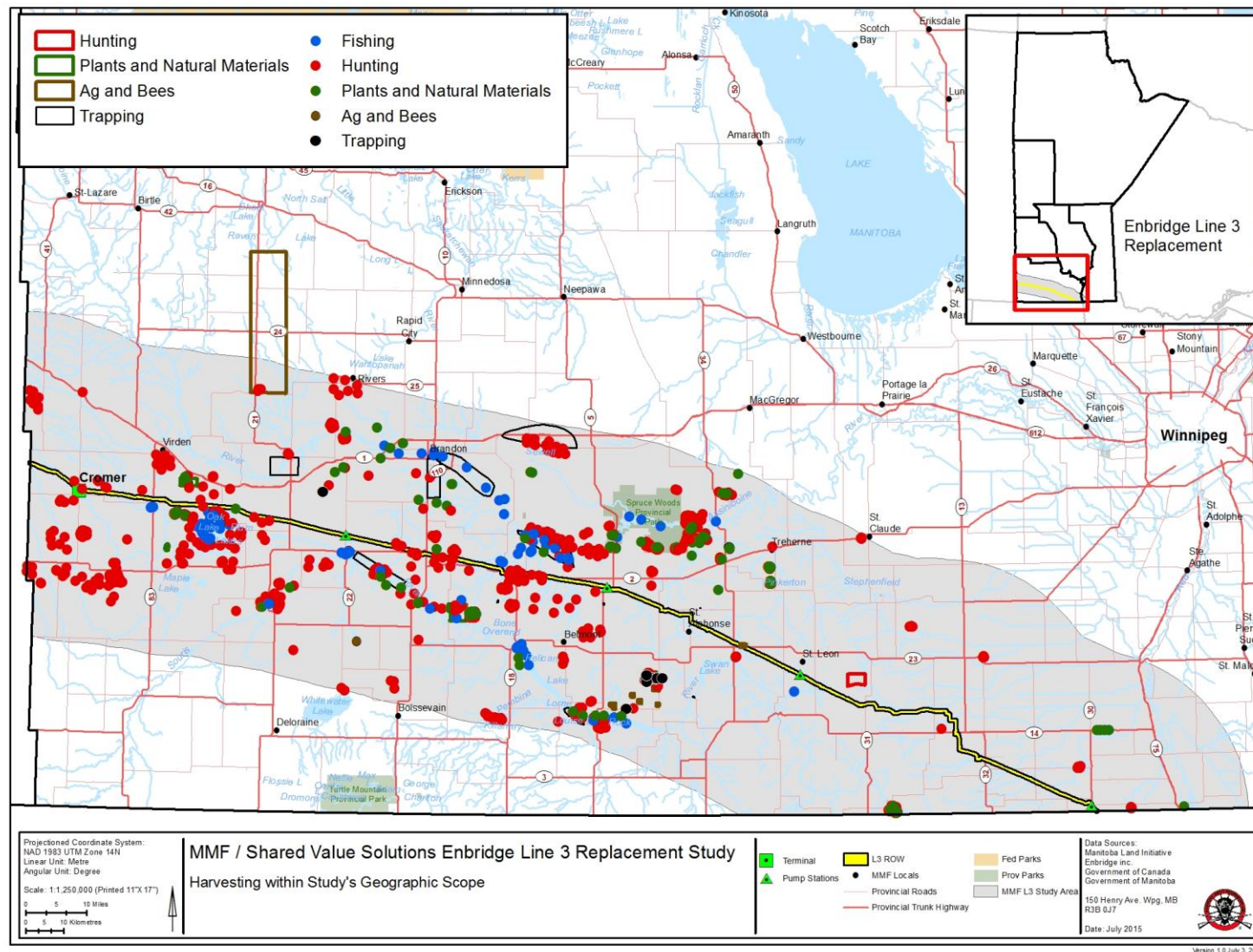


Figure 23. Harvesting within Study's Geographic Scope

Hunting

Table 23 includes a summary of the findings for hunting activities, including the number of participants that harvested a particular species, the number of locations used for that activity (only if in the 45m or 1km ROW), seasonality of use, and currency of use at that location.

Most participants (53 of 56) reported that they had hunted at some point during their lifetime, with many participants sharing that they had been hunting since their childhood to the present day. A total of 43 of 56 participants, who reported hunting, indicated that they did so within the Study's Geographic Scope. Six participants identified 15 locations within the 1km pipeline ROW where they hunt a variety of species. Two of these participants have not used these locations within the past 10 years; one has used the area throughout their lifetime; and the remaining three have used this area within the past 10 years.

[Reston is] where we ... That's where I always do my big game hunting and that's where the pipeline is very down close to the area if not through there.

Actually, we've hunted way up in Cromer at times. That's where the pipeline is, through there.

Where the pipeline's close, yeah. It's all marsh through there. I moose hunt there, duck hunting, deer hunt there.

Many participants explained that they travel to specific areas to harvest different species, and emphasized the importance of maintaining the habitat of hunted animals. The participants also spoke about the importance of getting permission from farmers to hunt on their land and expressed that the location of their harvesting depended on this permission. Some individuals continued to return to the locations where they learned to hunt.

We do our hunting of elk around, now most of our elk hunting is around Eriksdale, north of St Laurent, and we do, I've done a lot of elk hunting in the Spruce Woods Provincial Park also.

My favourite spots [for deer] are more east of the Red River there or at least they are now. So again it's in this more Roseau River you know basin area that I go more now. Also more towards Vassar/South Junction, because that's where my grandfather grew up and he taught us all the different spots in and around there ... And I know a few land owners there too.

Well, I got some permission from so many farmers. I basically hunt between Reston, Melita and Sinclair. It's like a whole area. I got miles of land we hunt we got permission for.

That's where the moose are. That's where we get our moose. That's where we have permission every year from the farmer that doesn't let anybody else on except for us. We get our moose usually in one day and he helps load him up for us with his tractor and we plug a freezer in on the farm site and skin them out with a gantry crane and drop the quarters right in the freezer, a nice clean area to work and a lot easier to hunt than up north.

All of the participants indicated that they had hunted for personal use only. Participants commonly hunted deer, moose, elk, coyote, waterfowl, and upland birds. Many participants said that whitetail deer, elk, and moose were favourite species to hunt.

Interviewer: What would you say is your favourite animal to hunt?

Respondent: Well for me it would be elk, it's a very majestic animal. We only shoot bulls, we don't shoot cows or calves, obviously you need them there. I can get them pretty close, it's – I do most of the call – I do all the calling actually. We get pretty close to him, sometimes – last year was six yards away. I really enjoy elk, if there was anything I could do for a living it would be it.

I would have to say white-tailed deer is my favourite animal to hunt. They can be very challenging, it gets you out in the wilderness at the time of year that is great to be out. I've got a lot memories of hunting deer, hunting all different seasons rather than just a few months in the fall. There's some pretty bad snowstorms, it was always enjoyable to hunt during the snowstorms.

Well for hunting it would definitely be moose, it's almost like a, something like I'm really proud of. Because in our area we've, we've started to have quite a few moose from there. And the first moose was actually like a really large bull moose. And I didn't think too much of it, cause we've hunted our whole life. But I guess personally like I, I haven't hunted a moose. And so then when I did, and it was just kind of like a wow I did that. And then every year since moose hunting has kind of become like our favourite thing to do.

Seasonality of hunting can be described based on the results of both the interviews and the Harvesters' Survey (Appendix H). While the majority of participants discussed hunting deer and moose in the fall, some participants hunted these species in the summer as well, but never in the spring, out of respect for the calving season. Upland birds were hunted in all seasons, as were rabbits, coyotes, beavers and foxes.

Based on the Harvesters' Survey, the majority of the people (43) harvested large game in the fall, spending between 1–90 days, with an average of 16 days (Table 19). The majority of people (13) hunted small game in both fall and winter, spending between 1–30 and an average of 8 days, and 1–90 days and an average of 17 days, respectively (

Table 20). The majority of people (32) hunted upland game in the fall, spending between 1–20 days and an average of 7 days (

Table 21). The majority of people (21) hunted waterfowl in the fall, spending between 2–60 days and an average of 15 days (Table 22).

Table 19. Large Game Hunting

Season	# of People	Avg Days Spent	Range of Days
Spring	2	15	12 to 17
Summer	5	9	5 to 12
Fall	43	16	1 to 90
Winter	16	7	1 to 16

NOTE: Average and range calculated using only data from those who hunted during each season

Table 20. Small Game Hunting

Season	# of People	Avg Days Spent	Range of Days
Spring	3	21	2 to 60
Summer	2	4	2 to 6
Fall	13	8	1 to 30
Winter	13	17	2 to 90

NOTE: average and range calculated using only data from those who hunted during each season

Table 21. Upland Game Hunting

Season	# of People	Avg Days Spent	Range of Days
Spring	7	4	1 to 10
Summer	2	8	5 to 10
Fall	32	7	1 to 20
Winter	1	5	5

NOTE: average and range calculated using only data from those who hunted during each season

Table 22. Waterfowl Hunting

Season	# of People	Avg Days Spent	Range of Days
Spring	3	2	1 to 3
Summer	0	0	0
Fall	21	15	2 to 60
Winter	0	0	0

NOTE: average and range calculated using only data from those who hunted during each season

Table 23. Summary of Hunting Activities

Species	Number of Participants	Number of Participants within the Dispersed ROW	Locations within the ROW (45m and 1km)	Participants within Study's Geographic Scope	Within Last 10 Years (2005-2015)	Before Last 10 years (prior to 2005)	Lifetime Use	Winter	Spring	Summer	Fall
Moose	30	0	0	16	•	•	•	•		•	•
Deer (Whitetail Deer)	52	4	7	40	•	•	•	•		•	•
Elk	17	0	0	13	•	•	•	•			•
Bear	6	0	0	1	•	•			•		•
Upland Birds (Partridge, Grouse, Prairie Chicken, Turkey, Pheasant, Spruce Hen)	33	0	0	22	•	•	•	•	•	•	•
Wolf	2	0	0	1	•	•					•
Waterfowl (Ducks, Geese, Sandhill Crane)	31	2	3	22	•	•	•	•	•		•
Rabbit	19	0	0	11	•	•	•	•	•	•	•
Coyote	21	1	4	17	•	•	•	•	•	•	•
Beaver	6	0	0	4	•	•		•	•	•	•
Badger	1	0	0	1		•					•
Fisher	2	0	0	1	•	•		•			•
Fox	8	1	1	5	•	•		•	•	•	•
Mink	1	0	0	0	•				•		
Porcupine	3	0	0	0	•	•		•			•
Muskrat	3	0	0	1	•	•		•	•		
Other Fur-Bearers (Raccoon, Squirrel)	1	0	0	1	•			•			•
Other Mammals (Squirrel)	1	0	0	0	•			•	•	•	•

Fishing

Table 24 includes a summary of the findings for fishing including the number of participants that harvested a particular species, the number of locations used for that activity (only if in the 45m or 1km ROW), seasonality of use, and currency of use at that location.

Table 24. Fishing

Season	# of People	Avg Days Spent	Range of Days
Spring	27	10	2 to 24
Summer	32	12	2 to 36
Fall	23	12	2 to 45
Winter	25	20	3 to 60

NOTE: average and range calculated using only data from those who hunted during each season

Fishing was a common land use activity, with fishing locations marked by 50 of 56 participants. A total of 31 of these 50 participants reported fishing within the Study's Geographic Scope. There were no fishing locations reported by the TKLUS participants within the 45m or 1km pipeline ROW.

Participants most commonly fished for pickerel/walleye, yellow perch, northern pike/jackfish and catfish. Seasonality of fishing can be described based on the results of both the interviews and the Harvesters' Survey (Appendix H). Based on the interviews, fishing most commonly occurred during the summer months, followed by winter (ice-fishing), spring and fall, respectively. Based on the Harvesters' Survey, there is no substantial difference between the numbers of people who fished across seasons (Table 24). While the majority of participants reported fishing during the summer (32), the highest number of days spent fishing occurred during the winter months (60).

For fishing though definitely walleye, and always with my dad. That's kind of like our, our thing we do together. It's like a, a family thing that's so much more than just harvesting. It's what we do. It's like a family cultural like value. It's very much a part of what we do. So that would always be a, a favourite.

I haven't, we've caught a few sturgeon, but that's been in the river, and we're not targeting them, but I mean, they're feeding the same way as channel catfish are, so they're bottom feeders, so you're using the same type of bait, and there's really only a couple of things in the river that have mouths big enough to take a big chunk of meat like that. Lots of people use ... have caught them now, just using shrimp like use for catfish. I prefer using cut beef heart [...]

Oh yeah, there'd be catfish, bullheads; any river fish that you can think of will be there. Saugers another one that should be on here endangered. I've got a guy, a buddy of mine that [is First Nation], he was put near in tears watching a woman take a sauger off the Wawanesa Dam. He said, "I got 6 fish in here. You can have them all if you let that fish go." She wouldn't let it go.

Many participants discussed going to visit the same locations throughout their life to fish. Visiting the same location has enabled some participants to notice changes to the quality and quantity of both fish and water at their fishing sites.

Yeah, it's going bad but I tell you like we fished Oak Lake and we've kept some fish some Oak Lake and I didn't think they would be – I just thought from the lake like Oak Lake you can't fish

after spring because the water's too shallow and it's too warm. And if you're going to eat fish, well it's not worth fishing. It's a rude lake to fish because the wind – it catches all the wind. So it's hard to – it's a difficult lake to fish. But the fish we've taken out of the lakes are seen wicked healthy like I haven't seen anything that would be – that's you know shocked me or anything like rivers like the Wahtopeanah, wow, they're just wicked good shape.

In that area, well every river that's there has spawning in it. Every creek, every - you know come spring time the fish are travelling up there, as long as I can remember we were going out in the spring and getting fish to smoke and stuff like that. And then, like I say, everywhere is fishing country, everybody fishes. It doesn't matter, as long as it's got water in it it's usually got fish in it, you know.

Yeah, a lot of – when we went fishing when I was kid, we would go like northern Manitoba or northern Saskatchewan but we would go and my dad still goes to Pelican Lake. I haven't been there for a few years but I used to go with him and do ice fishing and fishing in the spring and summer.

Participants also shared their philosophy of sustainable and ethical fishing practices. For example, a quotation below describes how one participant feels about sport fishing and the importance of only taking what you need. The quotation further discusses making sure that if you injure a fish, you must take it for consumption instead of throwing it back into the water.

We fish for food. I don't fish – I love fishing but I don't fish to throw back the fish. I fish to eat them. My food. I eat fish four or five times a week. Make soup out of it.

It is also notable that there were no TKLUS interview participants who reported commercial fishing. The quote below describes one of the reasons why commercial fishing may not be prevalent in the area.

Yeah, yeah, commercial fishing there. A lot of work and the price of fish wasn't... A lot of people quit fishing because the price of fish for Freshwater Marketing Board there's not... You can't make it with the price of gas and everything. Before, you could hire a man for \$20, \$25 a day, now they're charging \$12-0 to \$140 a day, you can't afford it. They can't afford that, that's why they quit fishing.

Table 25. Summary of Fishing Activities

Species	Number of Participants	Number of Participants within the Fishing Community	Participants within Study's Geographic Scope	Within Last 10 Years (2005-2015)	Before Last 10 years (prior to 2005)	Lifetime Use	Winter	Spring	Summer	Fall
Bass	3	0	0	•					•	•
Burbot	2	0	0	•		•	•	•	•	
Carp	2	0	0	•	•		•		•	
Catfish	11	0	7	•	•	•	•	•	•	•
Goldeye	5	0	2	•		•	•	•	•	•
Jackfish/Pike	35	0	24	•	•	•	•	•	•	•
Lake Sturgeon	2	0	1	•					•	
Lake Whitefish	2	0	0			•		•	•	•
Mooneye	1	0	1	•		•			•	•
Other Fish (Crappie, Mussel, Drum fish)	4	0	2	•		•			•	
Pickeral/Walleye	44	0	26	•	•	•	•	•	•	•
Sauger	5	0	0	•	•	•	•	•	•	•
Sucker	5	0	1	•	•	•	•	•	•	
Trout	3	0	0	•	•	•	•	•	•	•
Yellow Perch	22	0	11	•	•	•	•	•	•	•

Trapping

Several study respondents expressed the importance of trapping as part of their harvesting activities and identified many different ways in which trapping enhanced their quality of life and connection to the land. Trapping was used as a means to express Métis identity and culture as well as connect with family traditions and heritage. Trapping also provided substantial economic benefits. Many participants also spoke of it as a hobby and form of entertainment. Furthermore, trapping was used a mode to balance ecosystems and animal populations through the culling of predators and nuisance species.

Table 26 includes a summary of the findings for trapping, including the number of participants that harvested a particular species, the number of locations used for that activity (only if in the 45m or 1km ROW), seasonality of use, and currency of use at that locations.

Trapping was a common land use activity reported by 24 of 56 participants and 10 of these 24 participants reported trapping within the Study's Geographic Scope. No trapping sites were reported in the 45m or 1km ROW. A total of eight of the participants that reported trapping did so for commercial/income purposes. Six of the eight people who trap for commercial purposes do so within the Study's Geographic Scope.

Muskrat, mink, coyote and beaver were the most commonly trapped species. Least common were wolf, badger and fisher. All respondents reported trapping mainly in the winter and fall months, though many also trapped in the spring.

There were multiple study participants who emphasized the importance of trapping as a way to express Métis culture and identity. Trapping was engrained in Métis culture as one of the traditional skills for survival and subsistence.

[Trapping] has always been just part of our way of life. I think you know, I could say things like well that provides us you know, with how I feed my family. Because I go fishing and hunting, and that's something I teach my children. But I think the most significant thing I can say about that is how it affects me as a Métis person, that way of life I guess shows you a different way that you see yourself within the world and as part of the earth. And if that wasn't there it's almost I guess your identity would be different, it would change. And that's so much a part of who you are for so long, I would say, I could go on about all the harvesting parts. But really that's who I am and where I come from, so it's definitely important.

Like the hunting and the trapping and the just the way of life because it was very important the way that I was brought up it was very traditional Métis way of life the way that we lived eh.

Oh yeah, this is where I was born, I don't know any other place, you know. This is where I was born, this is where my culture was. I was brought up with my hunting, trapping. Done all that and I wouldn't trade it for anything in the world. If I had to do my living all over again,

Several participants spoke about the strong connection to family heritage that trapping provides. Participants recalled memories of parents, grandparents, and other family members who were trappers. Some respondents highlighted the importance of passing their knowledge of trapping to their children as a way to preserve family traditions.

My dad like we grew up on the trap line with him, and so back then that's when we got a lot more for furs back then. So that's what we did, so when I say that like and we would even have our, it wasn't just like my dad did it. We all had like our own piece of the trap line cause we all did it.

We were raised on his trap line. That's how we grew up and we're also like a really big part of that. And also his, his father and mother were really involved in that.

Oh my dad and my grandpa. They were all trappers eh. Yeah I'd go with them. I had one uncle that was very good, he used to take me you know trapping and hunting with him quite a bit eh? Yeah. Because he used to, well he trapped a lot more than I did. He had traps way up to Pelican Lake you know? Yeah we'd go up there and yeah. And my cousin I had a special cousin too, he was always trapping and hunting. I learned from them guys. Yeah.

I'd compare myself to other kids no they're, nobody I went to school with hunted or trapped or fished.

You know every time I go trapping and hunting or whatever by myself, or when I take the kids with me it's just – like when I take my kids fishing, hunting or trapping they'll talk about it. My daughter still talks about trapping three years ago, four years ago. Whereas you ask what she got for Christmas last year she says "I don't know". So obviously it is a good impact on her.

It's just another life cycle that we're into. I've gotten my daughter into trapping. She likes trapping. She really enjoys it. She keeps talking to me about when can she go with me again. At nine years old she was already starting to skin with me and that. She still talks about it, which makes me feel good because I'm actually teaching her the cycle. And for a kid that's 10 years old, she has a lot of respect for animals.

Many of those who trapped highlighted the economic importance of trapping as a way to supplement their income or to participate in the informal subsistence economy. It was clear that many respondents depended on trapping as a way to provide for their families due to the lucrative nature of trapping. Many participants reported making substantial income from trapping. Commercial trappers took furs to world markets, while other uses for trapped animals such as taxidermy or arts and crafts provided additional income.

Yeah, the best year of trapping I ever did and it's all kind of free money, we did \$10,000. We caught almost 1,000 muskrats and we did 100 bears and then coyotes and then whatever.

When I see a fresh badger hole out in my field in the winter time, like a fresh dug hole, I'll go set a one ton... in there, and trap them out if I can. If I can get them. I've gotten as much as 180 bucks for a badger.

Like, with muskrats, if you have 20 traps you can go out in an afternoon and catch 40 or 50 muskrats, and if they happen to be worth 10 bucks a piece, average, it's pretty good money for a day of bugging around, having fun.

But, you know, I never go hard out, like my brothers, they're ... one winter they caught, like 900 muskrats, and then they sold them for, I think it was 7 bucks an average, or something like that, so it can add up (approx. \$6300).

It was very important for us because that was the only thing we had to make a living. My grandfather too, he trapped and his brother ... just about everybody around Winnepigos trapped. It was either for muskrats, and you're getting about \$7.00 a rat, a pelt, and weasels, depending on what you were getting for weasels, the Prairie Weasel was around \$3.00.

Interviewer: How important was hunting and trapping to you and your family?

Respondent: That was our food, you know. We'd sell our fur, we'd buy our food with that.

Some study respondents talked about trapping as a hobby or pastime, but additionally discussed the therapeutic or spiritual value of trapping. Time spent outdoors being active was cited as one of the major draws to trapping for some respondents. While the serenity of being in nature and developing an understanding of the land and animals was used as a method of therapy or enhancing spirituality for some participants.

Probably five or six years ago I got back into trapping and I really enjoyed it. It's challenging. It's hard work. But at the end of the day, when you look back at what you got done it's very rewarding. Some animals are harder to catch than others because you've got to out think them, work them, whereas some are just really plain easy to catch. It's just another life cycle that we're into.

It's through trapping and that. For example, like winter is a very slow time for whether it be farming or construction or whatever. And it's a great way to supplement your income and stay fit. Like it's something you've got to be committed to. You can't say 'Well I'm not going to go out tomorrow and check the traps.' Well you've got to do it every day. You've got to be committed to it. And to me it's very rewarding and it's just enjoyable, relaxing. I'm an outdoors person I guess, traditional too.

Not really, just that I really enjoyed trapping. I took it up as a hobby to stop and then I really got into it and I really love trapping. In fact, when I quit, I couldn't get rid of all my trapping equipment stuff. I still got it, 15-20 years, it's still been sitting in the shed. I never got rid of it. I probably won't go again but you just can't get rid of that because it's part of my lifestyle. It's one of them things that probably keep forever, even though I'll never use it again. It just means something to me. I enjoyed that life.

But I think it has many, like going into areas like that has many qualities. It's relaxing. It's that one stress relieving. I don't know if you've ever been in the bush sitting in a tree stand for four or five hours. To me the things you hear and see are unexplainable. Like you don't realize that in your life.

Multiple respondents talked about the ecological importance of trapping in terms of balancing ecosystems and animal populations through the culling of predators and nuisance species. Increased predation of animals attractive to harvesters such as deer, elk or moose by coyotes and wolves was highlighted as one of the major benefits of trapping. Some of the trappers spoke about the role of Métis people to find the ecological balance through trapping.

If we're hunting big game for deer, we're usually setting up some sort of traps for predators, and targets species, being coyotes or like timber wolves or grey wolves, that kind of thing.

There's no trappers now, in fact, even now the predators are so bad. You go out in the country, there's coyotes everywhere, foxes and raccoons. You wouldn't see that before. Now you see them in the daytime for crying out loud because there's no trappers.

That's a way of life, I mean it's been a way of life for years and years and years, right. It's a circle of life and if you don't ... If those trappers don't take care of the overabundance of like beavers and muskrats and stuff like that then the ecosystem is all ... Gets all out of whack. So when you have interference, then things don't go right ... Like that circle of life is lost and then you'll start getting an overabundance or a loss of because things have been thrown out. You know and then the circle is incomplete again and all crazy.

Table 26. Summary of Trapping Activities

Species	Number of Participants	Number of Participants within the Pipeline ROW	Participants within Study's Geographic Scope	Within Last 10 Years (2005-2015)	Before Last 10 years (prior to 2005)	Lifetime Use	Winter	Spring	Summer	Fall
Beaver	12	0	6	•	•	•	•	•		•
Coyote	13	0	8	•	•	•	•	•	•	•
Fisher	1	0	1	•						•
Fox	6	0	4	•	•	•	•	•		•
Marten	3	0	0	•		•	•			
Mink	11	0	5	•	•	•	•	•	•	•
Muskrat	12	0	5	•	•	•	•	•	•	•
Other Trapped Species (Badger)	1	0	1	•			•			
Rabbit	6	0	1		•	•	•	•		•
Raccoon	6	0	4	•	•	•	•	•		•
Squirrel	4	0	3	•	•	•	•			•
Weasel	5	0	4	•	•	•	•	•		•
Wolf	1	0	1	•			•			•
Wolverine	2	0	2	•		•	•	•		•

Gathering

Table 28 includes a summary of the findings for gathering including the number of participants that harvested a particular species, the number of locations used for that activity (only if in the 45m or 1km ROW), seasonality of use, and currency of use at that locations.

A total of **43 of 56** participants reported gathering and **30 of those 43** participants gathered plants and harvested trees within the Study's Geographic Scope. There was **1** participant who reported harvesting mushrooms within the 1km pipeline within the past 10 years. All of the participants reported gathering edible plants for personal consumption only.

So it was kind of a – everything had its season so that's how you kind of determined what season it was or which area you were picking in and what you were doing with it. And usually the fall was quite busy. So that was an experience. One that I don't think non-aboriginal people have the experience, like they go berry picking in a, you know, in a commercial setting. You know, like the berry picking out in the bush with wood ticks and garden snakes and bears on occasion.

And like gathering, I like picking berries you know because that was always a thing that when we were kids like that's what we did. Like mum and you know her best friend and all of us kids would get together and they would take pails and they would tie it around their waist and then we'd go off in the bush like all strung out and we go in and you know our berries pail would be right in front of us and we'd pick and pick and eat and pick, so yeah ... The berries is really something that we always ... You know it was just a thing that we did all the time, so it just seemed normal for us. Nowadays it's a little different, you don't get out there as often as you would like, but we still can ... You know jelly and that sort of thing.

As part of the Harvesters' Survey (Appendix H: Comment Cards and Harvesters' Survey), participants were asked about the number of days they spent on the land gathering plants and natural materials during each season of the past year (Table 27).

Table 27. Gathering

Season	# of People	Avg Days Spent	Range of Days
Spring	9	5	2 to 10
Summer	18	3	1 to 14
Fall	23	6	1 to 15
Winter	4	4	2 to 7

The most commonly gathered edible plants included several species of berries, including (but not limited to): raspberries, choke cherries, and Saskatoon berries. These berries were both eaten fresh and used to make syrup or compote. Some participants expressed that they harvested these berries during hunting trips while others dedicated full days to harvesting berries.

[Cranberries] hang frozen and when I'm out walking or hunting for deer, I pop them into my mouth and then they melt. A sour cranberry that's one of my favourite things to do is find some frozen cranberries and pop them in my mouth.

When you see a patch of wild raspberries, there's not much. It might be a cup, but it's the best cup you ever had. They're very small, very tasty. Same as wild strawberries, you find them on little patches here and there. I don't know, they're small but they're – you won't pick gallons. You'll pick half a cup, you know.

You find some pin cherries from year to year, I certainly take those. I harvest a lot of that because we make a lot of syrup and what was the word there...compote. And the cranberries, that's mostly for juice.

There it's a one day affair. I like to go to Saskatoon first and then a little later on, the blueberries.

Several respondents also gathered mushrooms, asparagus, birch sap as well as spruce, poplar and birch wood. One respondent spoke about the importance of only harvesting deadwood.

Well there's mushrooms right at the park there, the morels, that's the only one that I know of. There's another kind but there's not too many of them, they call them the Chinese, the orange one. But it's just the morels that we're interested in.

Mushrooms in the spring usually. We like to chase morels and chanterelles if we can find them. It wasn't a good year this year for morels ... Well not for me, some people it was really good I guess, but you got to find them, right.

I drink birch sap in the spring...there will get four litres a day. I drink it like water, excellent, put it in ice cubes. It's got the same ingredients as syrup but watered down. Everyone in northern Europe does that, you drink it, you freeze it, and if you get it right out of the tree, it's ice cold.

Spruce and poplar, we pick all the dead, we don't cut it green so it's all in the fall. There's enough deadwood around there's no reason why people should be cutting green wood.

Respondents reported gathering one or several of the following: seneca root, red willow, cattails, wild ginger, sage and sweet grass for personal medicinal and/or ceremonial or spiritual purposes. Some types of uses for these plants mentioned by the participants included healing scabs and ceremonial smudging. One participant was especially concerned about the decreasing availability of sage and sweet grass in parts of the Southwest Region.

The sage, we harvest sage both for eating and for ceremonial purposes. We smudge [our outside of cabin] – give that to family and friends. I harvest a lot of sage and I eat it, the best I've ever had. Very unique... I like to harvest in the spring. Before it starts to flower actually because it's a softer sage and not as messy. You don't have little seeds and what not, so that's when I like to do it but you can take it anytime.

My main concern would be more things like the sage and the sweet grass. Because we have... Especially with sage, sage in our area is very much going away because of

farmers clearing the land. And our family has probably two sections that they don't utilize because they don't want it to go away. So that would be my concern up there anyways. Up to Virden.

Well for ceremonial we have sweet grass that grows, and this, it's a well-known thing cause it's you know, the Sioux Valley area so it's really used by a lot of people, and a lot of people from the reserve there too.

We boil [red willow] and make tea out of it and then like the same thing with the sage, we make hot shingles. I make tea for three days with the same leaves and then I took the leaf and I put it in-between a rag, real hot and I put it on. One week I had no -- I had big scabs and everything, it was all gone.

Many participants had stories about gathering a variety of plants that go back to their childhood and centre on connections with their family and community.

...We really ate off the land, you know. There was gardens there, you know. You go berry picking in the mountains and ... We used to...go picking chokecherries or hazelnuts or just whatever, raspberries, strawberries, blueberries, and there was always like a ton of us. Like there was just a whole bunch. Like it was like all the bigger people like the adults, the moms, sisters, brothers, grandparents. Then it was all, you know, all the kids. And so it was like hop in one vehicle, you know, in a big - back of the truck. We're going to go get some blueberries. Okay. Get in the truck.

Gathering, my experience with it was a tradition that the women, you know, the women would go out and pick berries and then come home and process the berries and make jams and jellies and syrups and that.

Table 28. Summary of Gathering Activities

Species	Number of Participants	Number of Participants within the Pipeline ROW	Locations within the pipeline ROW (45m or 1km)	Participants within Study's Geographic Scope	Within Last 10 Years (2005-2015)	Before Last 10 years (prior to 2005)	Lifetime Use	Winter	Spring	Summer	Fall
Asparagus	25	0	0	15	•	•	•	•	•	•	•
Birch	20	0	0	10	•	•	•	•	•	•	•
Blueberries	10	0	0	2	•		•			•	•

Species	Number of Participants	Number of Participants within the Pipeline ROW	Locations within the pipeline ROW (45m or 1km)	Participants within Study's Geographic Scope	Within Last 10 Years (2005-2015)	Before Last 10 years (prior to 2005)	Lifetime Use	Winter	Spring	Summer	Fall
Cattails	2	0	0	0	•					•	•
Cherries	1	0	0	1			•			•	
Choke Cherries	21	0	0	13	•	•	•		•	•	•
Cranberries	11	0	0	5	•	•	•	•		•	•
Fiddleheads	1	0	0	0		•					
Mint	4	0	0	1	•	•	•			•	
Mushrooms	11	1	1	6	•	•	•		•	•	•
Ginger, Wild	1	0	0	0		•					
Nuts	5	0	0	1	•	•	•			•	•
Other Plant (Wild prunes, grapes, flowers, hazelnuts, horse radish, Prairie grasses)	5	0	0	5	•		•	•	•	•	•
Pin Cherries	7	0	0	2	•	•	•		•	•	•
Poplar	15	0	0	11	•	•	•		•	•	•
Raspberries	16	0	0	8	•	•	•		•	•	•
Red Willow	6	0	0	2	•		•	•	•	•	•
Roots	1	0	0	0			•			•	
Sage	12	0	0	9	•	•	•		•	•	•
Saskatoon Berries	21	0	0	10	•	•	•		•	•	•
Seneca Root	3	0	0	2			•	•	•	•	•

Species	Number of Participants	Number of Participants within the Pipeline ROW	Locations within the pipeline ROW (45m or 1km)	Participants within Study's Geographic Scope	Within Last 10 Years (2005-2015)	Before Last 10 years (prior to 2005)	Lifetime Use	Winter	Spring	Summer	Fall
Spruce	5	0	0	4	•		•		•	•	•
Strawberries	8	0	0	5	•		•			•	•
Sweet Grass	3	0	0	2	•	•	•			•	•
Other Wood/Trees (Maple, Oak, Black Willow, Pine)	7	0	0	4	•	•	•	•	•	•	•

Agriculture and Beekeeping

Table 29 includes a summary of the findings for agriculture and beekeeping. A total of 11 of 56 participants reported agricultural land use, and five of those 11 participants reported agricultural use within the Study's Geographic Scope. One participant reported farming wheat within the 45m ROW and as a current land use activity. Refer to Figure 23.

Table 29. Agriculture and Beekeeping

Map ID	45m ROW	1km ROW	Type of Agriculture	Notes Taken During Interviews
1807-31	YES	YES	Wheat	
1208-57			Wheat	
1208-58			Canola	
1208-59			Wheat	
1208-60			Canola	
1506-14			Cattle Pigs Chickens Barley	Small family farm when he was a boy, family farmed to support the family. Grew barley, mostly for feed. May have sold a small amount.
1702-42			Cattle	Mostly keep cattle, scrip land, been in the family.
1807-20			Canola	
1807-21			Wheat	
1807-22			Barley	
1807-23			Canola	
1807-24			Canola	

1807-25			Wheat	
1807-26			Wheat	
1807-27			Wheat	
1807-28			Soybeans	
1807-29			Wheat	
1807-30			Soybeans	
1807-72			Canola	

Access Routes and Occupation Areas

While no access points, routes or overnight sites were mapped within the 45m or 1km ROWs, a total of 69 access points, routes or overnight sites were identified within the Study's Geographic Scope.

Several participants (20 of 56) identified access routes or specific locations they have used to access the land including water routes, land routes, and boat landings. A number of individuals mapped routes or portages of historic importance to the Métis in the Southwest Region. The majority of interviewees indicated that they have used these access routes or locations either within the last 10 years or over their whole lifetime. The interviewees only identified one access location that has not been used in the past 10 years.

A total of 15 participants identified access routes or locations within the Study's Geographic Scope. No access routes or locations were identified within the 1km pipeline ROW. Several TKLUS participants reported living near the ROW, however, their place of occupancy has not been identified on the maps in order to maintain their confidentiality.

Participants indicated that some access routes are roads that are no longer maintained and now have been converted to trails. Some of these converted access routes used to be used for other activities such as agriculture or emergency services.

They're roads yeah, and they're not maintained, like no more fire guards are maintained, only a couple of them there. But fire guards, there used to be fire guards every two miles but now they're not maintained. So some of them they're shut down

Again, that would be the road systems down there. Yeah, there's so many roads. Once you get off the highways and off the numbered roads, there's such a huge grid of roadways down there, that the farmers have made these access roads, but they're not a named or a numbered road, so you can actually cut those and you can access all the different properties that we hunt from that. So those trails but, again, they're not numbered or anything, that's just, you know, that road over there, it's really not descript.

The TKLUS respondents also spoke of access routes that they use for harvesting purposes which were formed as a result of industrial development and activity in the area such as lumber mills or oil wells. However they also spoke to the effect these developments have had on mammal populations as well.

Well Area 13, right on the tip that we climb because there was a lumber mill there that they made a road there, just a trail. So we could go right on the tip of the mountain, that's where we hunt and it was a good place and on Area 14 down by Bellsite.

Interviewer: So, increased access because they built roads [for oil well construction]?

Interviewee: Well, there's all the one-mile roads that'll exist everywhere, but then there's the access that they have to build onto a site. So, on a quarter section of land, you can have four wells, I believe. But now they can have up to eight cause they're drilling down to a lower level...So, you have to have access to be able to get to those wells, to be able to go check them, do whatever they do.

Interviewer: So, have these developments affected or changed your ability to access the land?

Interviewee: It's a yes and no answer. In terms of our ability to get in and retrieve an animal that we've shot, the access roads certainly have helped. We don't have to haul an animal out a kilometre, two kilometres through three-foot snow drifts and things like that. But at the same point in time, the exercise is great, it's that exact development that's also destroyed it. So, I'd sooner lose the convenience piece and regain having the population there.

Participants also referenced traditional and historic trails and landings that had been used for many generations, some which have remarkable beauty. It was clear from the oral history of the TKLUS respondents that some of the routes had been in use for a number of generations.

Yeah. That's the three traditional ones that we use and ... that's one's that have been used for landings for forever. Like even before they concreted that one up on Netley, that was a launch for ... the guys used to go launch for canoes for generations.

Oh, a lot of the hiking trails, yeah. That was big then, we did the big sand hills walk, we did them all. It's beautiful, unbelievable. That's the other choice of mine. That country in there between Carberry and Brandon and all that rolly, sandy, I love that area.

Lang's crossing itself is a historic route. There was a road went through, see this road that comes down here, turns up this way, this is a big – there's a natural area here where you can cross. That is a historic crossing, I don't know if it's passable anymore but then you come up the trails here and you come out in here somewhere.

Many participants (42 of 56) identified locations where they stay overnight while harvesting including bush camps, active cabins³, campgrounds⁴, temporary structures⁵ or commercial accommodations⁶. Most interviewees indicated that they have used the overnight locations either within the last 10 years or over their whole lifetime. A small number of overnight locations have not been used in the past 10 years. A total of 27 of 56 participants identified overnight locations within the Study's Geographic Scope. Some of the areas with concentrated use for overnight stays within the Study's Geographic Scope include Spruce Woods Provincial Park and the Souris River Bend Wildlife Management Area which is located approximately 11km south of the Line 3 pipeline corridor near Nesbit. No overnight locations were identified within the 1km pipeline ROW.

³ A permanent structure owned by the interviewee, or a family member or friend where they likely have not had to pay cash to use the cabin.

⁴ A public or private designated campground such as in a park, on crown land, or private land

⁵ A mobile tent trailer, mobile home, lean-to brought to the location only for the duration of the traditional use activity, or perhaps on a seasonal basis only

⁶ Rental of a cottage, motel, hotel

Table 30 provides a summary of the findings for access routes and occupancy areas within the Study's Geographic Scope.

One participant spoke of staying on the land in an overnight location for a month in the winter season and the connection that was felt during their stay on the land.

No, not much for commercial campgrounds. My ice shack like I said, I lived 30 days I've got my ice shack set up, I've got my generator, I got my TV, I got my cook stove...I go home, I take the kid to hockey practice and then I grab a shower or whatever and go back to the ice shack. Like I said, I lived on the lake for 30 days.

Other participants spoke of how staying overnight on the land strengthened their connection to family and Métis culture and by extension was an expression of Métis identity. In addition, interacting with non-Métis people while staying overnight on the land was seen as an opportunity to share Métis culture and traditional way of life.

I would say that connection with form of space or land would be Victor, just outside of St. Lazare. It was the first homestead of my culture. It was where my grandparents had their farm and his family, sister and family were just over about a mile away. The children would go to like my mother and her cousins and siblings would go to [_____] School which was up on top of the valley and you would walk there. So to me, that's more of our roots. That's where we began kind of thing. It's just outside of St. Lazare.

Yeah, my Métis friend, [name removed] he lives in Alberta now but he grew up in Boise Bay area, [name removed] and his two boys, [names removed] and myself and my son [name removed] took a canoe trip in the long weekend in September. And it was a cloudy weekend, threat of rain in the air the whole time. We got a late start, I remember canoeing along, started at Riverside, canoeing along and kept telling the guys, we're going to come to a bend in the river here soon. It's a really great spot, nice sandy spot to sit at, everything's pretty level, we can set up camp there. It was good because it was about 8 o'clock in the evening and it gets dark by 9 at that time of the year. So they come around this bend, says yeah here it is. As we're coming around the bend, there's a tent set up there and a man, his wife, and two kids there. So, we carry on, ended up camping at Lang's crossing which was half an hour further down the river. I remember setting the tent up and having the kids gather all the firewood. And we got the tents set up, two tents, we got the fire going. As soon as the fire got going I started cutting up the meat, potatoes, and onions. I brought along about three steaks, cut them up, fried them up and made stew in a pot over the fire. It was pitch dark by the time we started eating and nobody brought a flashlight. So in order to see what we were eating, kept throwing pieces of bark on the fire. I remember crawling into bed at 10:30 at night, pretty tired, got up the next morning, it was misty – not cloudy but foggy or misty. You couldn't see any more than about maybe twenty yards. We thought it was going to be an enjoyable trip but can't see – it cleared and maybe about 11:30 in the morning around this long stretch, the river where it was very straight, there was a bend coming up. I could hear this noise, said it sounds like rapids. My son says yeah I hear it. There's splash in the water – that's not fish jumping, that's hail. So we started paddling hard for the shore, we were on this big bend on the river, on one side the bush was about 50 yards away. On the other side there was an oak tree about seven or eight inches across, hung over the river. There was a little landing beside it and a spot we could kind of shelter ourselves underneath it. So we want on the canoe there and the guys travelling behind us in the other canoe, we could hear ow, ow, one of the boys didn't like getting hit with the hail stones. So we sat under the tree

for about 15 – 20 minutes we had jackets up over our heads to try and shelter us – we all got pretty soaked. So we went back into the canoes and carried on. And about 15 to 20 minutes before we stopped, made a fire, and I made some fire chilli. We brought some hamburger along – we toasted our buns over the fire and we were eating chilli. As we were eating chilli, the family comes in behind us and they pull to see how we were doing, see if we got caught in the rain, in the hail and everything. They're seeing all this chilli. We ended up sharing the chilli with them which was good because it was about 1 o'clock and they hadn't had lunch yet either, so. They were actually from a sporting goods store here in Brandon. They used to do that trek a lot, in the long weekend in the fall. It was kind of nice – we were doing – what I found to be a traditional thing and I got to share in a traditional way with other people doing the same thing we did. Whether it was the same culture or not...

Figure 24 shows the access routes and occupancy areas within the Southwest Region that participants reported having used within their lifetime. Figure 25 shows the access routes and occupancy areas within the Study's Geographic Scope.

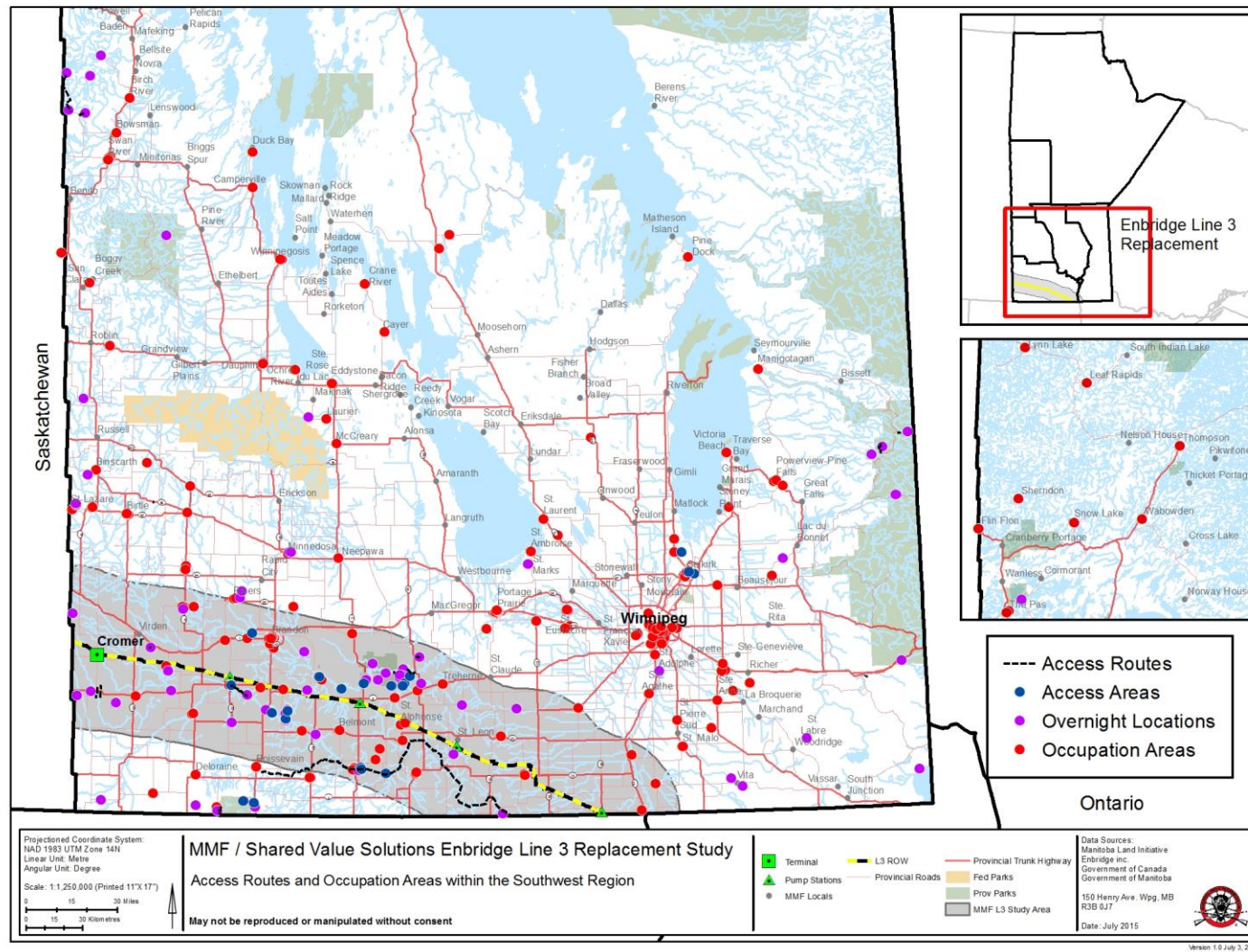


Figure 24. Access Routes and Occupation Areas within the Southwest Region

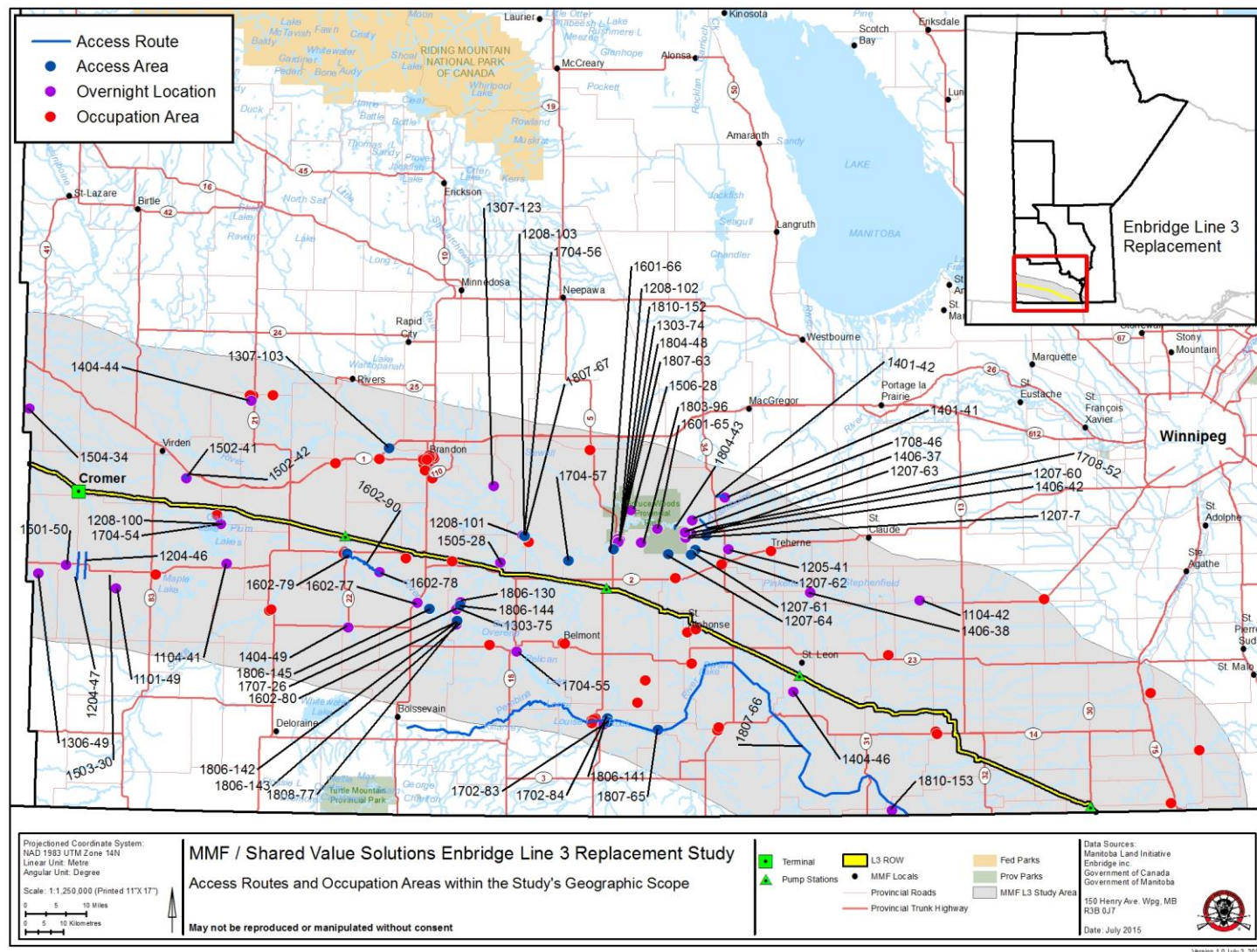


Figure 25. Access Routes and Occupation Areas within Study's Geographic Scope

Table 30. Access Routes and Occupation Areas

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
1205-41			Temporary Structure	Temporary structure that participant sets up with wood fire stove and use in the winter. Also use in the fall for elk hunting .
1207-60			Temporary Structure	One of the sites that where participant sets up a prospector tent
1207-7			Temporary Structure	No additional information
1208-101			Temporary Structure	Area where participant has built a sweat lodge and set up a teepee
1303-75			Temporary Structure	Place where participant sets up a camper or tent
1307-123			Temporary Structure	Place where participant sets up a tent to stay in when beaver trapping in the spring
1401-41			Temporary Structure	No additional information
1406-37			Temporary Structure	No additional information
1406-38			Temporary Structure	No additional information
1406-42			Temporary Structure	Participant's own personal spiritual site
1501-50			Temporary Structure	Approximate site
1502-41			Temporary Structure	Place where participant's uncle's camper used to be
1506-28			Temporary Structure	Place where participant camps with their children
1602-78			Temporary Structure	Place where participant stays when accessing the area for hunting
1704-54			Temporary Structure	No additional information
1704-55			Temporary Structure	No additional information
1708-46			Temporary Structure	No additional information
1806-130			Temporary Structure	Location in the Big Bend Wildlife Management area
1806-142			Temporary Structure	Place where participant camps
1806-143			Temporary Structure	Place where participant camps
1808-77			Temporary Structure	No additional information
1101-49			Temporary Structure	Participant sets up a tent in farmer's field while moose hunting in the fall
1101-49			Temporary Structure	Participant sets up a tent in farmer's field while moose hunting in the fall
1208-103			Boat Landing	No additional information
1601-66			Boat Landing	No additional information

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
1602-79			Boat Landing	No additional information
1602-80			Boat Landing	No additional information
1702-83			Boat Landing	No additional information
1702-84			Boat Landing	No additional information
1704-56			Boat Landing	No additional information
1704-57			Boat Landing	No additional information
1807-65			Boat Landing	No additional information
1807-66			Historic Portage	Historic water route
1602-90			Water Route/Trail	Place where participant paddles
1204-46			Land Route/Trail	Approximate location
1204-47			Land Route/Trail	No additional information
1401-42			Land Route/Trail	Only access route into hunting area
1502-42			Land Route/Trail	Area with road allowances in farmer's fields
1503-30			Land Route/Trail	No additional information
1708-52			Land Route/Trail	Approximate location
1804-43			Land Route/Trail	Hiking trail and ridge line that looks over Assiniboine River. Trail goes to The Hogsback .
1806-144			Land Route/Trail	Historic crossing
1806-145			Land Route/Trail	Historic crossing
1207-61			Other Access Feature	No additional information
1207-62			Other Access Feature	No additional information
1207-63			Other Access Feature	No additional information
1207-64			Other Access Feature	Ford along the river a stony area with year round access
1307-103			Other Access Feature	No additional information
1807-67			Other Access Feature	No additional information
1104-41			Active Cabin	No additional information
1602-77			Active Cabin	No additional information
1707-26			Active Cabin	Participant camps here every weekend during the summer.

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
1803-96			Active Cabin	No additional information
1806-141			Active Cabin	Participant built this cabin here
1208-100			Commercial Accommodation/Campgrounds	No additional information
1208-102			Commercial Accommodation/Campgrounds	No additional information
1303-74			Commercial Accommodation/Campgrounds	No additional information
1404-44			Commercial Accommodation/Campgrounds	No additional information
1404-46			Commercial Accommodation/Campgrounds	No additional information
1404-49			Commercial Accommodation/Campgrounds	No additional information
1505-28			Commercial Accommodation/Campgrounds	No additional information
1601-65			Commercial Accommodation/Campgrounds	No additional information
1804-48			Commercial Accommodation/Campgrounds	Area used for recreation use
1807-63			Commercial Accommodation/Campgrounds	No additional information
1810-152			Commercial Accommodation/Campgrounds	No additional information

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
1810-153			Commercial Accommodation/Campgrounds	No additional information
1104-42			Other Overnight Site	Belongs to participant's sister and a place where they stay overnight in the summers.
1306-49			Other Overnight Site	No additional information
1504-34			Other Overnight Site	No additional information

Cultural Sites of Importance

Many participants (54 of 56) identified cultural sites of importance including sites of archaeological significance, burial sites, gathering places, family sites, important landscape features, areas of spiritual and ceremonial significance and trading posts. A total of 38 participants identified important cultural sites within the Study's Geographic Scope. Some of the most frequently mapped cultural sites within the Study's Geographic Scope include, Métis historically significant sites (21), important landscape features (20), and contemporary gathering places (15).

There were 4 unique cultural sites of importance mapped within the pipeline's 45m right of way. A total of three individuals mapped historic Red River cart trails that cross the pipeline's 45m right of way. Two individuals specifically referenced the Red Coat Trail which they indicated was used by RCMP to travel west from Winnipeg. One interviewee stressed that these routes were used by Métis people and therefore there are likely numerous historic Métis cultural features along these trails. The interviewee emphasized the importance of not disturbing these cultural sites. Another individual stated that the historic Red River Cart trail they mapped is still used annually by the Métis for historical re-enactments.

Another interviewee mapped an important landscape feature that overlaps the 45m right of way. The interviewee expressed that they first started visiting this area with their father when they were a teenager and that they continue to go to the area today. The interviewee also expressed that they feel this area is particularly beautiful. This individual expressed concerns about the construction of the pipeline in this area. They specifically mentioned concerns that the wildlife might be impacted and displaced because of habitat disturbance.

Table 31 provides a summary of the findings for Cultural Sites within the Study's Geographic Scope. Figure 26 shows the sites that participants noted as being significant to Métis culture within the Southwest Region. Due to the large volume of data gathered, cultural site points have been depicted on separate maps from the cultural lines and polygons. Figure 27 shows Cultural Sites within the Study's Geographic Scope: Points, and Figure 28 depicts Cultural Sites within the Study's Geographic Scope: Polygons and Lines.

Many participants identified burial sites that may not necessarily be within an official religion based cemetery. Participants also spoke about a burial sites at the location of an old homestead, at a place where a critical incident happened causing death, and where a battle has occurred. In instances where burial sites may be located within the Study's Geographic Scope, careful consideration should be taken to ensure that sensitive locations of cultural importance are not damaged or disturbed.

The number and high-level of detail of cultural sites that participants identified on the maps indicates that Métis are deeply connected to the landscape in ways that go beyond harvesting activities. These locations provide insight into a different layer of Métis identity and connection to the land, one that is rooted in rich-cultural history that continues in significance in the present day.

You know there's one and I have never been to and I plan on going to it this year where Cuthbert Grant had his trading post. Apparently it's on private land, it's on the Souris River somewhere. He's a long ancestor ago from me. Next year will be 200th anniversary of the Battle of Seven Oaks.

And this one let's say, Poplar Point. Yeah. It would be probably here somewhere. In between there's a Rayburn Road that goes up here and there's, like down here. And right here around this area there's a burial there, cemetery and it's got a native name. There's lots of Métis buried there. Yeah, I'd say where that Medely Road. Right there. Let's say there. Close to Rayburn. But there's nothing left in Rayburn. Used to be a siding. There's nothing left there, so there's - I was hunting one time, I came across a cemetery, like I walk over there. Now they've got a name. They put a gate there and they put a - [Oki Wa Wa] I think they call it, or something.

Used to be. Used to be a good, big gathering place at the corner of the Assiniboine River and Lido Plage area. But now it's all gone. They built all new houses there. Like, peoples have divided it but that used to be a gathering area for all the Métis there. I had a friend there that owned the garage on this side and he used to dig there and he found kind of like tomahawks stuff, full cases of bullets and all kinds of stuff from the Métis.

Yeah Pembina, there's one in Pembina. Just if you cross the border you'll see a monument there and then if you look in the field there's a whole bunch of crosses there. It was a cemetery for the Assiniboia trading post. Pembina River there was Hudson Bay on one side and Assiniboia on the other and that was their cemetery.

Well, that's where the soldiers from the east were trying to overrun the Métis people and all that, and that's where they had Seven Oaks, the Battle of Seven Oaks. That's where they had it and then they fought right here in Winnipeg, at the [fort] here. And then they sent more and more and more soldiers coming and coming, and finally they drove the Métis out and the fought in Batoche, Saskatchewan and that's where they captured our leader, Louis Riel, you know. It was, sometimes it's a sad story to tell with what happened to our families before that and how they were treated.

When the Métis people were looking after the people at Lower Fort Garry they went [to the turtle mountains] over winter so there wouldn't be a drain on their supplies and that, and that was one of the reasons that the white people actually started hating the Métis people because they came back all healthy and robust and well-fed, and they said, well, you left us to starve. And they said, no, we didn't want to be a drain on your food supplies, your grain and that, so we know where to go to hunt and get what we need, but you left us to starve because apparently the grain went rotten and a whole bunch of weird stuff happened and the white settlers were all pissed because they'd come back all healthy and good-looking and apparently they had a really rough winter at the fort.

The creeks north out the Red River used to be called The River of Tears when the polio ... or not the polio, the smallpox epidemic hit. That's Netley Creek and Wavey Creek and there's a lot of graves along there. On the Red River just north of Selkirk is the oldest church in Western Canada, the old stone church. It's got buffalo hide kneeling boards.

Interviewee: Well a lot of them is the River. Like, I mean, the Assiniboine and the Souris River were used for that. The river passages. And then Number 2 Highway. There's a mounted police trail there, too, but it was used a lot in that area then. Not this new Highway.

Interviewer: You mean where Highway 2 is now used to be...

Interviewee: Where Number 2 is now, that used to be the passageway for carts and went right through into Saskatchewan. That's how they travelled a lot to get from the area from my

family's from, like from Fort Qu'Appelle and that's close to Regina and then right through to Winnipeg. They're travelling a lot like the Métis people in that area.

I mean if there's any historical sites and stuff along the [pipeline], yeah, that they don't disturb that. It's always important to not disturb that. [There] would be quite a few places because that area was used a lot for travel. But they would be marked. But hopefully, yeah, if there's any new places that they're opening up and moving over, that they're not disturbing any of the sites.

It is important to note that while the sites discussed in this section of the report have been labelled as “cultural” sites for the purpose of this study, in reality, all of the use and occupancy described throughout this report are cultural sites because they are used by people from a distinct culture for the purpose of practicing their way of life and the passing on of this knowledge among the community and between families is a cultural legacy.

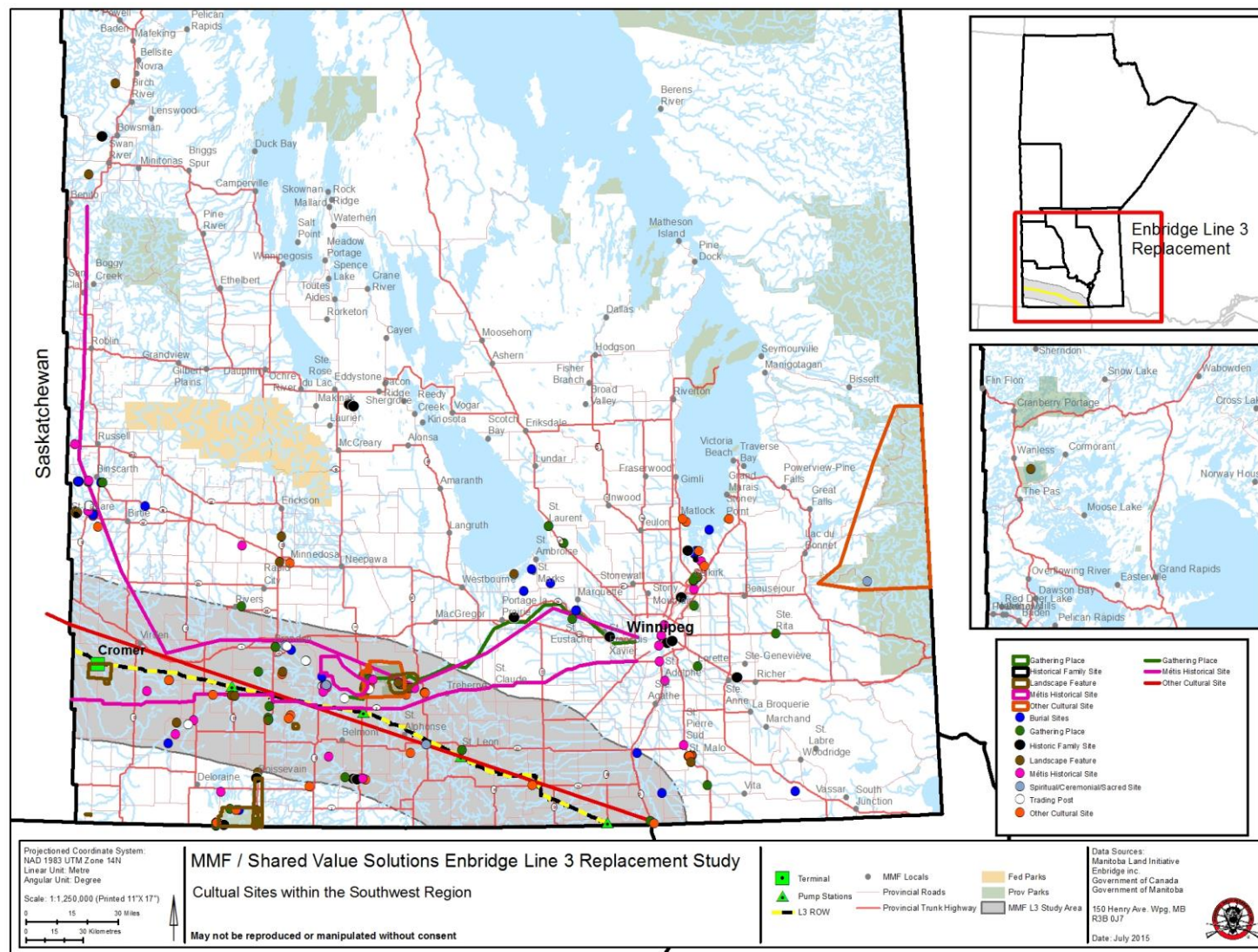


Figure 26. Cultural Sites within Southwest Region

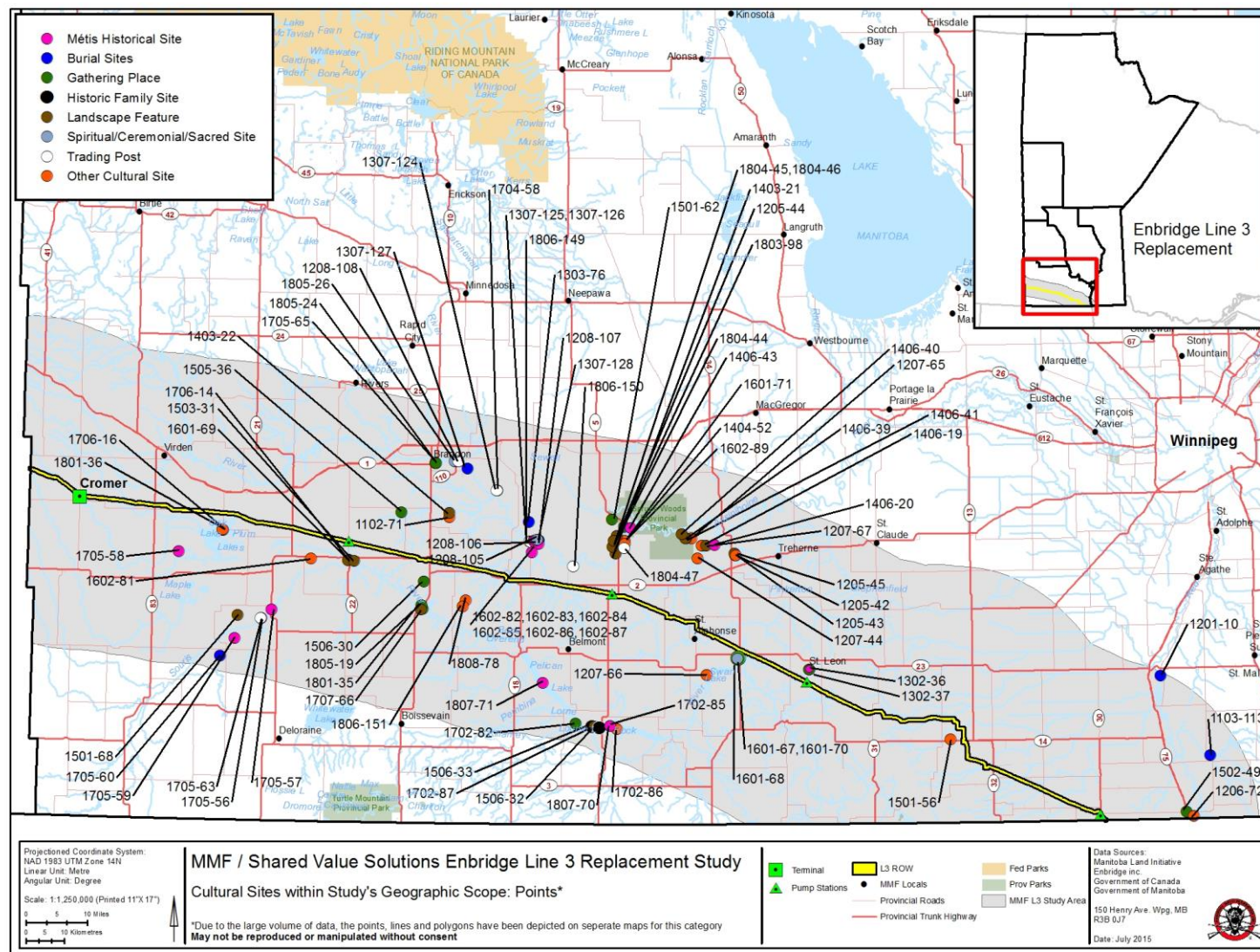


Figure 27. Cultural Sites within Study's Geographic Scope: Points

Figure 28. Cultural Sites within Study's Geographic Scope: Polygons and Lines

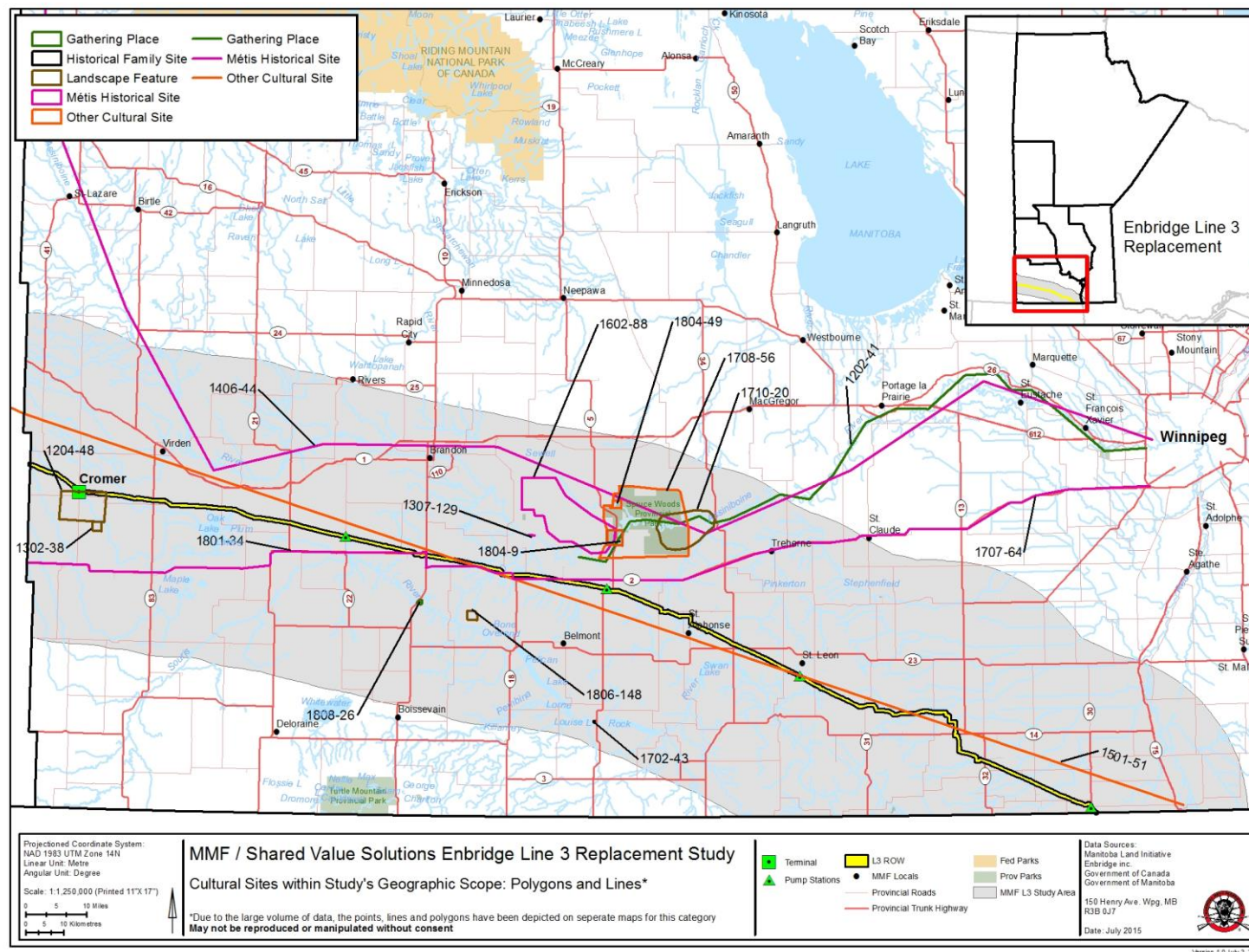


Table 31. Cultural Sites

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
1304-11			Buffalo Jump Site	Approximate location
1307-131			Buffalo Jump Site	No additional information
1307-132			Buffalo Jump Site	No additional information
1501-55			Buffalo Jump Site	Pembina Valley - used to drive the buffalo here. Approximate site
1809-53			Buffalo Jump Site	Approximate
1103-113			Burial Site	There was a lot of Métis people here. Father told him that when the river flooded when he was a kid they saw the remains emerging from the bank.
1201-10			Burial Site	Burial site of a girl who died at the area - she was 16 years old when she died and has been there for a century.
1208-104			Burial Site	No additional information
1303-76			Burial Site	No additional information
1307-127			Burial Site	Approximate location
1307-128			Burial Site	The unmarked burial site of a historical trader
1702-86			Burial Site	No additional information
1705-60			Burial Site	Arrowheads and other tools
1202-41			Contemporary Gathering Place	No additional information
1302-37			Contemporary Gathering	No additional information
1406-39			Contemporary Gathering	Place where Métis friends gather to hunt every year .
1501-62			Contemporary Gathering	Location of Sundance and Sweats
1502-49			Contemporary Gathering	Picnic area where family gathers every year. Métis central gathering .
1505-36			Contemporary	Approximate location: Grand Valley Métis gathering place.

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
			Gathering	
1506-30			Contemporary Gathering	Riverside Festival: Music festival, food, fun day in August -only been going now for last 2-3 years.
1601-68			Contemporary Gathering	Riverside Festival
1702-82			Contemporary Gathering	Picnic area
1705-65			Contemporary Gathering	Métis centre
1801-35			Contemporary Gathering	Annual gathering place where Métis people go to camp.
1804-44			Contemporary Gathering	Pow Wows held here every summer
1805-19			Contemporary Gathering	Annual Métis Festival and camp
1805-24			Contemporary Gathering	Lieutenant Governor's Winter Festival
1808-26			Contemporary Gathering	Métis gather for "Koushkoupayh" days. "Koushkoupayh" means new beginnings in Michif.
1506-32			Historic Family Site	Site of participant's Grandfather's home - was the site of a long house and family farm. Neelin used to be a Métis village and the valley in the area is the most picturesque ghost town in Manitoba.
1702-43			Historic Family Site	Scrip land, has been in participant's family for generations and their Great grandmother signed the scrip. Came out here 1870s.
1702-87			Historic Family Site	Log cabin lived in by participant's great grandma. Most Métis people in the area were born in the house. Log cabin burnt down in 1987 and log house moved half a mile.
1102-71			Important Landscape Feature	Place to hike, rides bike, takes dogs with the kids and dogs. Identified as an important area to preserve.
1204-48	YES	YES	Important Landscape Feature	Area that participant feels is particularly beautiful, likes the way it looks, how the wildlife area is laid out and a little higher in some parts. Participant concerned about the construction of the pipeline on this area, specifically that the wildlife be impacted and get pushed back. Participant feels like there is nothing there for them once soil is packed. Participant is not

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
				necessarily worried about spills, but the construction is a concern. Doesn't have any suggestions for what could do. Participant started going to the area when he was 14-15 with his dad and continues to go to the area today. Participant indicated that there have already been a lot of changes in the area.
1205-43			Important Landscape Feature	Area that is particularly beautiful. Participant has been going there for years with family.
1205-44			Important Landscape Feature	Area where participant goes to hunt and camp.
1302-38			Important Landscape Feature	Participant indicated this area is beautiful with lots of water, lots of trees, and is not flat.
1403-21			Important Landscape Feature	Walking and cross country ski trails. Desert environment.
1406-19			Important Landscape Feature	Area with beautiful cliffs
1406-40			Important Landscape Feature	Area with beautiful ridges
1406-41			Important Landscape Feature	Hogsback Ridge
1501-68			Important Landscape Feature	Desert at Hartney
1503-31			Important Landscape Feature	Swinging bridge at Souris River. Participant has gone here since childhood.
1506-33			Important Landscape Feature	Neelin used to be a Métis village and the valley - listed as the most picturesque ghost town in Manitoba.

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
1601-69			Important Landscape Feature	No additional information
1706-14			Important Landscape Feature	Area that is unique because of its tall river banks and cliffs only on one side .
1707-66			Important Landscape Feature	Beautiful valley
1710-20			Important Landscape Feature	Sand hills, poplar groves, spruce groves, place for ATVing, place for picnics, recreational sites, wildlife management area.
1803-98			Important Landscape Feature	Large plateau
1804-45			Important Landscape Feature	Devil's punch bowl
1804-46			Important Landscape Feature	Sand dunes
1806-148			Important Landscape Feature	Highest point of the Tiger hills. Place is called the Big Tiger.
1208-106			Métis Historically Significant Site	No additional information
1302-36			Métis Historically Significant Site	Traditional site where the Métis people settled
1307-129			Métis Historically Significant Site	Red River Cart Trail
1406-20			Métis Historically	Arrowheads have been found here

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
			Significant Site	
1406-43			Métis Historically Significant Site	Historic access route
1406-44			Métis Historically Significant Site	Important migration route that Indigenous and Métis people use to follow. This site is also historic sturgeon fishing site.
1601-67			Métis Historically Significant Site	Ceremonial site and long First Nation history - blend of Métis and First Nation history in that area.
1602-82			Métis Historically Significant Site	Locations of old fur trading forts where the two rivers meet.
1602-83			Métis Historically Significant Site	Locations of old fur trading forts where the two rivers meet
1602-84			Métis Historically Significant Site	Locations of old fur trading forts where the two rivers meet
1602-85			Métis Historically Significant Site	Locations of old fur trading forts where the two rivers meet
1602-86			Métis Historically Significant Site	Locations of old fur trading forts where the two rivers meet
1602-87			Métis Historically Significant Site	Old foundation of Gregory's Mill
1602-88			Métis Historically Significant Site	Desert area, pine fort location, fur trade fort, also significant to the First Nations in the area.
1702-85			Métis Historically Significant Site	Settlement area where Indigenous people use to camp on the way through to Bellcourt to Montana.
1705-56			Métis	Spot where arrowheads have been found; could be Métis or First Nation

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
			Historically Significant Site	
1705-57			Métis Historically Significant Site	Spot where arrowheads have been found; could be Métis or First Nation
1705-58			Métis Historically Significant Site	Spot where arrowheads have been found; could be Métis or First Nation
1705-59			Métis Historically Significant Site	Spot where arrowheads have been found; could be Métis or First Nation. Universities have come out here and done digs in this area.
1707-64	YES	YES	Métis Historically Significant Site	Red river cart trail from Winnipeg, Red Coat Trail for RCMP, marked trail, passage ways for furs. Going through St Lazar. Important not to disturb any cultural sites there. Those areas were used a lot for travel. If area is being opened up any new areas need to make sure not to disturb sites.
1807-71			Métis Historically Significant Site	No additional information
1208-107			Spiritual/Ceremonial/Sacred Site	No additional information
1601-70			Spiritual/Ceremonial/Sacred Site	Participant attended a sweat at this location
1805-26			Spiritual/Ceremonial/Sacred Site	Sweat lodge called East Site place for male attended sweats and female attended sweats.
1208-105			Trading Post	No additional information
1208-108			Trading Post	No additional information
1307-124			Trading Post	A monument that says 'Samuel Hearne' who mapped out the county. Hearne was an explorer and established a Hudson Bay fur trading post.
1307-125			Trading Post	A historical trading post that participant now visits with friends and family. There is no monument here but it is a well-known place - this was a major trade route for the fur traders long ago.
1307-126			Trading Post	Historical trading post

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
1704-58			Trading Post	Trading post on the Assiniboine river indicated by a monument .
1705-63			Trading Post	No additional information
1804-47			Trading Post	Old trading post that is now a campground
1806-149			Trading Post	Trading post on the Assiniboine river at Trees Bank Ferry
1806-150			Trading Post	Stockton Ferry is near an area that was an old trading post/crossing area
1205-42			Other Cultural Site	No additional information
1205-45			Other Cultural Site	No additional information
1206-72			Other Cultural Site	Participant found an old .44 calibre from the settlers under the bridge - north of town. Found old oak pipes that settlers used as drains. Participant donated them to the museum.
1207-44			Other Cultural Site	Buffalo run to the water - you can see the run line down to the water, where it looks like for hundreds of years buffalo used the same route.
1207-65			Other Cultural Site	Area where settlers used to be - Forbes hill
1207-66			Other Cultural Site	Found pieces of napped rock in this area.
1207-67			Other Cultural Site	Found piece of napped rock in this area
1403-22			Other Cultural Site	Place where cross country skiing (Recreation area)
1404-52			Other Cultural Site	Place where there are walking and hiking trails (Recreation area)
1501-51	YES	YES	Other Cultural Site	Red River Cart Trail. Starts at Emerson, goes to Batoche Saskatchewan. Métis people take Red River carts and horses. A re-enactment of historic route. People take this route still every year. Approximate route.
1501-56			Other Cultural Site	No additional information
1601-71			Other Cultural Site	Large harvesting area important to the Métis people
1602-81			Other Cultural Site	Artifacts found in this area – European and First Nation Musket balls, arrowheads, glass wares, pottery
1602-89			Other Cultural	Location of Pine Fort - First Nation significance

Map ID	45m ROW	1km ROW	Type of Site	Notes Taken During Interviews
			Site	
1706-16			Other Cultural Site	Swimming area for recreational use Participant is concerned because they feel it doesn't take long for oil to go over water here if there is a spill; a lot of people swim here.
1708-56			Other Cultural Site	No additional information
1801-34	YES	YES	Other Cultural Site	Historic trail called the Red Coat Trail the RCMP used to use
1801-36			Other Cultural Site	Recreational area for swimming, hiking, and camping
1804-49			Other Cultural Site	Recreational area for hiking and biking, cabins there for snowmobilers to use in the winter, schools use for educational purposes
1804-9			Other Cultural Site	Recreational use for hiking
1806-151			Other Cultural Site	Recreational area for horseback riding and camping
1807-70			Other Cultural Site	No additional information
1808-78			Other Cultural Site	

4.7 Potential / Concerns for Environmental Effects from the Line 3 Project

Participants mentioned a variety of concerns for potential environmental effects during the construction and operation phase of the Line 3 pipeline project. Concerns for potential socio-economic effects are discussed in the next section. Some quotes that depict the overarching nature of the concerns of participants include:

I know there is an existing pipeline, but there is concerns. Even with shutting one down there is concerns there, and then to expand on it that'll mean, that's more area and more destruction to any animals or people who want to use the area.

It just makes me wonder like really how important is that pipeline versus how important is it to keep our lands intact and our people using the lands and the waters. To me harvesting is more important than having a pipeline go through because in my opinion that whole pipeline thing is all about money, you know. That's what it's about. I'd rather be able to go fishing and have my boys go fishing versus hearing in the news about a pipeline.

My youngest is nine and my older boy is 14. So if there's a pipeline going through it's not creating anything for them particularly right now in their little young lives, but if there's breaks or anything like that, if something goes wrong, then it takes away from their ability to go fishing or even if they wanted to get more into the hunting and stuff, [learning] how to trap and snare. So I think it would directly impact them as far as their rights.

Study participants were asked to suggest potential mitigation measures that may address some of the concerns that they raised. It is important to note that many participants did not feel well enough informed to suggest potential mitigation measures or did not have enough time to reflect on appropriate mitigation measures in the interview.

Some of the main concerns identified included the following:

- Construction phase concerns
- Concerns about Accidents or Malfunctions on Line 3
- Mammal, Bird and Fish Habitat Concerns
- Concerns about impacts to Large Game
- Concerns about impacts to Small Game
- Concerns about Birds
- Concerns about Fish and Fish Habitat
 - Potential Water Impacts
 - Concerns of Monitoring Capacity of Underwater Pipeline
 - Containment of Spills in Water
 - Water Quality
 - Water Diversion
- Concerns about impacts to Vegetation
- Soil Contamination and Erosion Concerns
- Noise and Air Concerns
- Changes in Access to Harvesting Areas
- Sensitive Habitat

4.7.1 Construction Phase Concerns

A number of participants voiced concerns about potential effects to the land, wildlife, and their harvesting during the construction phase of the Line 3 project. A few people were hopeful that the impacts would be temporary. Others specified that construction should be avoided during autumn hunting season.

The construction will do that. It will definitely have some impact, what that impact is, I don't know. We can only speculate, I can speculate it's going to change the way wildlife lives, they migrate back and forth through that area. It's definitely going to frighten them away from the area for a while, hopefully it doesn't chase them too far from there.

The use of the land will be affected where it's passing through, for me. Not forever. It might hurt for one season. There's multiple lines buried there. It grows back. But for one season, I'm sure it's going to affect things, going through, and the noise. It's just so near. That's the problem. It's passing—I can see the signs when I'm hunting. It's passing right there. And it's not like it's an area that's wildlife management that I can move on five kilometres down the road. I'm hunting an area that's a mile by mile square and it's passing right there. It is going to affect me. I have to find another area for that season and that they're not passing so close in another area. I'll have to find an area for hunting moose there. There are some there and I've seen some there.

My concern on those would be largely during construction. They would disrupt the wildlife in the area for sure, and that would affect hunting in that area for sure.

Interviewer: Do you have any particular concerns related to the pipeline and it going through that area, considering your use there?

Interviewee: If it drags on and they're at the time of the year, September/ October, yeah, it could spoil everything. The more there's people around, these animals get pretty wild.

Well, if they're working there at that time of year when we hunt them [elk], same thing. They're a very spooky animal. If there's any movement, or lights, or anything, they're hard to, difficult to hunt.

Other respondents talked specifically about concerns for the clearing of woodlands and wetlands for construction of Line 3:

I'm just going to speak to the hydro project that I was involved with before – it affected right – the area right near where I live. Believe it or not, it's actually a hunting area just east of my home. They cleared way more than they said they were going to clear for that major project, so they actually bought out property, people's homes and all of it. So what we were led to believe was going to be a small project, it affected the whole west side of an area that we hunted in – and I'm talking a large area. So when I ask about the clearing of any land, which could be water, it could be anything, so it could be woodland, right, like brush, willows, like small --- just where animals would live, right, as well as wetlands, if they're forging through that stuff as well.

Yeah, I mean a lot of the water systems that could or are being affected by the pipeline, again, the construction is one area of concern. And I think I mentioned earlier on that you know, how much of the woodlands would be destroyed or taken up for the project? Many of the wetlands may be affected as well – that's always a question mark in my mind. And what are sort of the – in terms of the project, what measures are in place so that maybe these lands aren't affected? So if we're talking about a significant area of woodlands that have been taken down, what are they doing about that? Because that does affect the animals and the wildlife in that area.

Study participants also said that clearing of the line for construction through any existing woodlands, or other landscape that create visual barriers, will create linear corridors that will attract animals to travel the corridor and allow hunters to access animals more easily.

I think it's mostly allowing ... if it allows access easier into there, or allows people to be able to have shooting lanes for them. Like, I see that a lot when you're clearing straight runs of access like this, and it allows people to, basically, see long distances down, and see animals cross, so they're ideal set up areas for hunters and things like that, right?

A lot of this area is kind of come back after they've installed the pipeline originally, so going back in there, you're going to be creating new access for other hunters and stuff to go into those areas.

It's possible that when that type of construction happens – putting in a linear disturbance like that could create additional habitat for some of the species in the area – white-tailed deer, moose, and possibly elk – which may draw those species into that – along that corridor. And along with that, during the construction they have to have access, so they're going to be putting in roads and – not highways but trails, you know, to get their equipment in. So that allows access for other harvesters. Including Métis. So you'll have access for harvesting and you'll have probably increased occurrences of game animals, which may increase harvesting, and some of it may or may not be in accordance to the Métis harvesting regime.

The thing is, you know, a lot of these corridors have come back to a degree that prevents or minimises that, so you might have the odd tree that's, kind of, come up or shrub, or whatever, so for hunters, they cannot really, really see long distances down these, and that will bring all of that back again.

Maybe it means that you take away improvements that were put in there, to access areas, because you see a lot of times, what might be a dirt road or a rough road that hardly anybody would go down, they'll turn into a nice gravel road to bring trucks and stuff like that in, and then it stays as an improvement for the municipality, as a benefit for the area, but it certainly doesn't benefit wildlife populations and things of that nature. It tends to segment it even more.

4.7.2 Operations Phase Concerns

Concerns about Accidents or Malfunctions on Line 3

The greatest concern, stated by the majority of the TKLUS study participants, was in regard to the potential for large oil spills, small leaks, or other accidents or malfunctions caused by Line 3. This

concern about potential accidents is the crux of many of the other concerns that the participants mentioned, which are outlined below.

A number of people also asked the question “what would Enbridge do if there was a spill”, which demonstrates that there is an opportunity for Enbridge to engage the community more on this topic.

Some quotes that demonstrate the general sentiment of the participants include:

Yes, there's a definite concern of pollution and destruction of habitat, of changing the land so that the habitat can't use it, or poisoning them. As always with a pipeline, we got to worry about breeches in the line, so, if you have a breach in the line not only the wildlife in this area but the wildlife downstream which would carry right on to Winnipeg through the Souris River into the Assiniboine River. It would be an extremely expensive clean up, and it would be basically impossible to clean something like that up.

We all saw what the oil spill did down south. [So] that's my only concern is leaks. But... Which is why I asked if they can shut them off because I know with TransCanada when they shut their lines off it's almost instantly; the threat is greatly minimized by not having to send somebody out and find them, first of all. So same thing here.

That's the biggest thing that scares me with oil, is the watersheds. Any type of damage that gets into that watershed, it affects absolutely everything and, unfortunately, we've seen that too many times. How do we ... it's not possible to say how do we fix it so it never happens, because that's not realistic. How do we do our very best to make sure that we minimise any type of an impact, or that we have a super quick response to stop it from happening.

So they'll have to have a lot of safeguards to protect the land in case – like there was in Otterburn that busted two years ago. There was a big explosion. So it does happen whether you want to or not because pipelines, they get old. You can't monitor anything that's underground.

This is a long line and affects a lot of people so I'm hoping that if there was a leak that Enbridge would step up and deal with it and make sure that our next generations are safe.

4.7.3 Project Concerns – Construction or Operations

The concerns outlined in this section could be relevant to both the construction and the operations phase of the Line 3 project.

Mammal, Bird and Fish Habitat Concerns

There were a number of specific concerns about the impacts of Line 3 on mammals, birds and fish. In particular, MMF respondents were concerned that animals would be pushed out of the area by the Line 3 project during construction and that the habitat would no longer be amenable to animals during operations because of soil compaction destroying vegetation that is a food source for the animals. There was also some concern about impacts to animal migration routes which would be an ecosystem level impact throughout the province and could impact harvesting overall.

With a project like that I don't know that you can protect them. I think they will do what they need to do. They'll move to different locations or... Maybe not the fish but certainly the deer

and the moose and the birds. They'll move away. Which creates a problem for people who use that land on a regular basis for gathering.

The line is nothing, it's what they have to do to put that line in, like it's not just a little area, it wipes out a whole pile like in width, you know, and not only length but in width and then you have to look at that and it's just going to take away so much from the animals, you know, from the wildlife. They just keep getting pushed further and further and further back because there's not going to be anything there for them for years if there is anything going to go up through there. Once that soil is packed and that nothing is going to grow there. That's my only concern, I guess.

I think the animals in those specific areas are going to be ... It will drive them out. You know and I think that I'll be years down the road before we see the full impact of what's going to happen.

– and then any kind of migration grounds that might be affected by that. That's all things that I don't think you could have a firm number on as to where all these animals migrate and how it can affect them, right? So like I said, a lot of the stuff I do is in different parts of the province, but that could still be affected by what they're doing over there, right? If I'm hunting deer in the Nopiming Park area that migrate to that area, if they're moving their migration, well then it's going to affect the whole province, not just the one spot.

The other ones would be a lot of the native birds and small mammals that, you know, if they are in those populations, sometimes they can be very ... affected quickly.

The following sections further discuss some of the specific concerns related to wildlife:

Concerns about Impacts to Large and Small Game

The participants were concerned about the potential impacts of the Line 3 project on elk, and deer and their habitat. There was also some lack of clarity around whether the pipeline would be above ground at any point along the route and concern that large game migration and travel routes could be impacted if it was above ground.

I'm only thinking this, like I say of one species, like I'm thinking of the elk. If they put this as an above ground pipeline, whether they'll be able to go back and forth to their wintering grounds the way they normally do, what impact that's going to have.

Anywhere near this pipeline, that's going to destroy natural habitat is a concern, the population anywhere is down. That's evident just by looking. I don't think you need to take a survey to see the deer population is down everywhere. It's – disturbed a natural habitat is a very big concern, they're skitting animals to begin with. A deer will know you're coming two miles before you ever saw it, so.

How high is this pipe going to be? You know will they try and jump over it; if they can't, what are they going to do, are they going to turn around and come back. Or are they going to be on the other side and decide not to come back this way anymore because they only started coming back in the 80s, never seen one there for years and years and years. And then you know now is this going to take -- or are they going to stay on this side, around the south side, I don't know. But I don't know, you know, how drastic an effect it will cause either. I'm not a biologist, I just

you know go by what I've seen and heard from other people, and I know a couple of guys in Alberta who said that they've had places where they just never went back to. It was an obstacle so they didn't play with it anymore, they went somewhere else.

Where they clear cut an open area for these pumps, it limits again the vegetation in an area for where the deer lives.

Concerns about Birds

Some people talked about concerns for waterfowl in particular as a result of potential water and wetland contamination from the Line 3 project.

For me I'm worried about the waterfowl because then if there's leakages, water is going to get hit first, ground water or surface water. To me, that would be the big thing with any kind of waterfowl because they're all interconnected as well.

There wouldn't be a big problem with [the goose population] unless there was a spill I would think. Although maybe the construction phase would - there they are there. And they were a pair and it was before nesting. But they mate for life so if you're going to take one you should probably take them both. If you take one then you're taking the mate away from the other one.

Concerns about Fish and Fish Habitat

With more than half of the study participants reporting having fished in the Study's Geographic Scope, the potential impact of any contamination to water from the Line 3 project on fish and fish habitat, as well as the potential human health impacts from eating any contaminated fish, were concerns. Concerns over contamination of fish through water pollution was observed with reference made to high mercury levels present in rivers near Alberta's oil sands. Participants cautioned about the need for frequent monitoring to catch even the "small leaks".

Interviewer: Earlier on in the interview you were mentioning that you often take your sons fishing to a place where the pipeline is proposed to go through. I'm wondering if you could talk about your thoughts about that.

Interviewee: More so my concerns would be the leaks that may not - the leaks that go unseen for, you know, "x" number of days. That would be a concern to me because - and the one particular area in the river there where we would be standing - because like I had said you catch a fish and it's all full of oil or whatever. I mean, finding out ten years down the line that one of my boys are sick because we had eaten fish that was just not good as a direct result from the pipeline. You know, if it errors, gets cracks or whatever, and you got spillage, leaks. ... And if something goes wrong and it does break, if there's a - you know, a break in the line or whatever because the stories that I've heard on the news with the pipelines that are being built, they are not 100 percent, you know, break free. There's been stories that I've listened to, you know, where there was leaks and I mean that's not really fair to ... I mean like for me to go and fish and then all of a sudden my fish comes out all full of oil and stuff, I mean like I'm not going to be able to eat that.

Like I say, I've seen in Fort McMurray they're very careful and... But there are still things that are going into the rivers, like the Athabasca River. There's a lot of mercury and stuff like that in

there so... You can't eat the fish from the river. The Athabasca River. Because of the high mercury concentration or whatever in the fish. Someday it might be the same thing here.

I worry about, I do some fishing at Oak Lake and I would, if there was ever a leak with this line, or even them cleaning out the existing line, that would be a problem for a lake that I fish. And the fact that if they're digging it up whatever soil damage is already done is... They're opening that up... It'll affect my fishing there. For sure.

Potential Water Impacts

Concerns of Monitoring Capacity of Underwater Pipeline

Several study participants expressed concerns over Enbridge's monitoring capacity for sections of the pipeline that are underwater. Respondents were worried that leaks or spills in waterways could go undetected as they cannot be physically observed by monitors. Concerns that the effectiveness of monitoring and methods of monitoring would be inadequate to ensure the safety of water resources.

Again, the one concern would be where it does cross the Souris River north of Wawanesa, how do you monitor the pipeline in that area to ensure that if there is a leak it's detected quickly and the waterway is not damaged.

There's got to be the monitoring to ensure there are no leaks. But the monitoring, where it's running through a body of water, how do you monitor that for leaks, is it once you have the sludge build up on the shore or is it as soon as you see a discoloration in the water. Whatever it might be, but I think the monitoring is huge, particularly with large bodies of water, the rivers, but I mean also anywhere along the Right of Way of the pipeline.

If something were to burst on the pipeline it would go into the water, pollute the water, we've seen that many times before, eh. I don't know what monitoring they have for these things.

Like, no matter how safe a pipeline is, there's going to be a leak somewhere, something is going to happen. Accidents happen no matter how safe anybody is. And if it gets into any waterway, like even the Souris River where it crosses, and right where it crosses Souris River, it's in the Assiniboine River... Like, out in small places you hear all the time that no one noticed it for a week and then the lake is just black and then years and years to clean it up. They do try to clean it up, but you have oil pouring into the ground for a week, that's not an easy cleanup. And if it gets in the water, there goes your waterway.

See in either one it's, like even if you go underneath it, if something, you have no way of looking at it to see what shape your pipe is in. I guess they have monitors and stuff. But if something were to burst underground ... then it could be days, weeks before what, I don't know, before anything was discovered. Well, a good day anyways if it wasn't monitored properly.

Containment of Spills in Water

Several study participants expressed concerns over spill containment methods for spills or leaks in water ways. Many respondents feared that any spill in a waterway would be catastrophic due to the interconnectedness of Manitoba's water resources.

I guess the only thing is that it would be going into rivers and that they try to ... whether there was a leak and make sure that we knew where the leak was because, also, if there's a leak

coming down underneath the river, then it can cause a lot of damage... that affects people all the way down stream, so that would be, probably, my only concern.

It could affect the waterway, because like you said, in Manitoba most of these water systems are all interconnected,

Well one concern I have ... Well I mean how it's going to affect like our water, you know our plants and that sort of thing and what happens if there's a break ... How are they going to contain it, how will they fix it ... You know that sort of thing.

Well the only concern would be if there was a leak (near waterways) because it does flow

I would definitely be concerned if there was a spill that happened right in the marsh itself because how are you going to stop it from contaminating everything.

Water Quality

Multiple respondents expressed apprehension over the project's impact to drinking water quality in the event of spill or leak or through construction phase spraying of vegetation.

The pipeline pretty much runs over the aquifer that Hartney gets drinking water from. And it's the Oak Lake aquifer. Oak Lake is pretty much a spring of it. So, it's running right over that. If you had a massive spilling effect, people drinking, a lot of people's drinking water. So it'd be something you'd have to really watch out for because I forget how big it is, but it's one of the biggest aquifers in our area.

I know we get our water from Shoal Lake but there's this whole area and there are streams here, and this goes through Winnipeg here too. If there's a break here, there's drainage in here, where do they stop? How much do they clean up? How much money are they going to spend? History will repeat itself is all I'm saying, sooner or later.

Well like one thing that concerns me is like our freshwater ... Like you know our underground water, that concerns me. You know that might be affected which would affect my family or whoever, so that concerns me

If there's ever a big spill or explosion, or anything, then it will directly affect us because, like I said, the aquifer that the aquifer is right there. That's where we get our drinking water from.

Well my worst case scenario fear would be if it gets into the Red and the Assiniboine and drainage and you know into major waterways.

If you spray the environment with a poison to kill the plants well what kind of impact will that have on the runoffs from the streams and so on and so forth.

In my opinion, marshes all lead to bigger drains and so forth, and marshes also play a major filter for our drinking water systems because that's what purifies the water and obviously cyclic. It goes into the aquifers and that. So what happens if they get an oil leak in that area? or gas leak, it's going to go into the aquifer. And I've had few discussions in the past on some people, the next world war is going to be for water. So we've got to learn how to protect our natural resources and so forth and think safely across the province.

So I don't have a real concern about it, other than what I had said earlier, you know, how is it affecting our water system. I can't see it not – even during construction phases and what's going on. I think there's always something that's getting into our water system, right, and that would affect the population of anything.

I already know that there's an existing pipeline, but with new technology and things arising, what are the safeguards in place to ensure that nothing would leak into our water systems? Because as we talked about Manitoba – and anywhere – but we have a lot of lakes, a lot of rivers and water systems – if it were to get into any one of our water systems, it could literally compromise many of our systems, including one of our bigger rivers, like the Red River and the Assiniboine. So that would be the concern.

One respondent expressed concerns over groundwater contamination in the event of a spill or leak. The fear that if oil reached the groundwater supply it could contaminate substantial portions of Manitoba's freshwater supply.

It would impact everyone's way of life if there was major spills and stuff like that, right. Looking at the map I can't see how you know that small area would be the only area affected. Like now that I see all the water ... You know the layering with all the watershed and everything in there, I mean it's got to get into the groundwater ... Number one it's going to get into the groundwater somehow, that filters into everything at some point, right.

Some respondents were concerned about the impact of the project on water based recreational activities.

I swim in Oak Lake occasionally. I do lots of stuff around there, and it will affect it if there's an accident.

Many people rely on that [water], for people who fish and take their entertainment and recreation from it.

Due to Manitoba's abundance of wetland areas, many respondents were concerned about impacts to water in wetland areas in the event of a spill or leak. The wealth of biodiversity and role in water quality make these wetlands extremely sensitive to any sort of contamination. Respondents questioned the ability to monitor the pipeline in these areas or contain any spill.

Running through some very substantial wetlands, my only concern would be that the monitoring techniques are in place to quickly detect any ruptures, cracks, leaks in the pipeline so those kind of areas are not substantially impacted if there was a leak.

I mean the wetlands are a huge incubator of life, everything from insects to large mammals so I think to keep that in mind and to do it at a time of year that would minimize the impact would be of paramount importance.

One participant was concerned with how wastewater would be disposed of from construction or decommissioning activities.

My concern is the water, what they do with the waste water while they're working or anything like that. They don't dump it in the river we hope, what do they do with it? That would be my concern.

Water Diversion

Interviewer: Can you tell me a little bit about any concerns you have around the pipeline development?

Interviewee: I guess my biggest would be for any kind of diverting of water or anything like that [or] going through any kind of water.

Interviewee: Particularly in the spring you've got the migratory nesting in there and in the winter it's habitat for deer and a variety of other small mammals. Well it's habitat for them all year round, but it does provide good cover when everything else is barren.

Interviewer: And do you have any concerns about this particular area with regards to this Right of Way?

Interviewee: I think if it ends up draining large areas I think the habitat is basically destroyed then.

During operation, obviously with the pipeline - I mean, the other part is potential disturbance to different water systems. There's some really small streams that run through these areas that, they can be quite fragile - ecosystems, especially the small ones. The Red River, that's a big river, it can handle quite a bit. These smaller ones, being disturbed, could fundamentally change water flow patterns in the area.

I don't really think so unless they change the water routes, that's the only thing I would be concerned. If they change - moved the creek over or change the river route or something like that, that's the only concern I would have.

Concerns about Impacts to Vegetation

There was concern among the MMF participants about the potential impacts to vegetation, largely as a result of clearing for Line 3, and the need for Enbridge to restore the area to its original state.

Blueberries, sage, and lady slippers were all mentioned as particularly sensitive species of plants. One person also talked about their concern for new species ("weeds") growing up post-clearing and the need for weed control.

Interviewer: Do you think there are any ecological features, so species or plants in that area that you would like to see protected during construction and operating?

Interviewee: Blueberries, patches of blueberries that would have to be protected, so how they do that I wouldn't know. But blueberries it's one of the major foods that we pick and if there's an area of blueberries it's always there, it doesn't move. It's not like Saskatoon or choke cherries, it's they're there and they stay there. I haven't got a clue. I don't think they can replant wild blueberries and stuff like that, the same thing as strawberries. The wild strawberries if there are some there then -- well that strawberries they can re-grow but blueberries can't re-grow, I don't think so. That'll take years.

My main concern would be more things like the sage and the sweet grass. Because we have... Especially with sage, sage in our area is very much going away because of framers clearing the

land. And our family has probably two sections that they don't utilize because they don't want it to go away. So that would be my concern up there anyways. Up to Virden.

But in that area there's hardly any forest. So there'll be lady slippers in the ditches and there'll be plants – it'll affect it in some way, but usually when they make a pipeline like this, they have to restore it or closely restore it to what it was before by even planting some of the native plants. So that's – and they've been pretty good because they've had watchdogs.

Well like I said before, the weeds, where you're going to push some trees, there are always weeds that grows and especially the leafy spurge - that I'm very aware of. When you push, it grows and that other one there, that purple, whatever you call it. Okay, so concerned about weeds, weed control.

Soil Contamination and Erosion Concerns

There was some concern about the potential for contamination to the soil in the areas surrounding Line 3. One participant also talked about the need to practice erosion control during construction, and requested that at least grass be replanted as soon as possible.

If there is a leak, [that's] the only concern is polluting the ground and - because there is a lot of farmland around there.

The other thing is any excavation they do, are they going to practice erosion control you know, because erosion control is an important thing because you know before you know it you've got -- especially the way it's been wet these last few years, you're going to have great big holes and trenches and stuff that you don't need, and grass don't usually grow in that when it's washing away. Are they going to practice that? I know that trees and things will have to be sacrificed, and I'm not saying they have to race out and plant trees, but let's at least make the sod back to the way it should be, so then we don't have to worry about people riding their quads into trenches and hurting themselves or washing great big piles of dirt out into the rivers because the rivers right now are changing, changing something fierce just over erosion.

They're going to have to cross creeks and stuff like that. You dig it up with an excavator, you put it back in and just because you filled it up doesn't mean that it's not going to wash away. It takes at least a year, sometimes two, for that dirt to settle back in and then if it doesn't have any sod or anything on top of it, get a heavy rain and it's gone. You know, on a river bank or something like that, or you know even the side of a ditch, it doesn't take much and you know they've got to make sure that they look after that properly or they're going to cause a lot of problems downstream, you know.

Noise and Air Concerns

Study participants talked about concerns they had in regard to noise and air emissions that would be caused during the construction of Line 3, which at least one of the participants had previously experienced around construction of other pipeline infrastructure. The concerns were around impacts of the noise on animals and humans.

The noise is loud that you can hear it throughout the woods and so on and so forth. So I'm sure the animals get used to it but it's not something that I want to get used to. When I go hunting I

go for it to be a peaceful and enjoy the environment. But the smelling of sulphur and oil in the air that takes away from the experience per se. It's not as enjoyable.

These aren't small construction projects - create one hell of a racket. And if that happens during a breeding season, that could throw off the breeding for a season or more - probably just disturb it. Gestation period for the deer, if it causes undue stress on the doe, that could affect their ability to reproduce for the following season.

During construction I think, as I previously mentioned, was the swath of land that's cut, the amount of noise that's created by doing this type of work, disturbing the migratory patterns, reproduction. [And] the stuff that happens during construction, you know. All the welding that would take place to build a pipeline would just smell, and wild animals are very, very sensitive to different types of smells. And they don't like and it could chase them off.

Changes in Access to Harvesting Areas

A number of MMF participants were concerned that wildlife will be displaced from the area surrounding Line 3 and that they will need to move their harvesting areas as a result. One person was concerned that the pump infrastructure would restrict the areas where they could hunt. Others simply said that they will not go back to harvest in the area with the pipeline going through.

These kinds of changes in a harvesting area can result in significant impacts to harvesters, not only in that they may need to travel further to harvest, which could have negative economic impacts, but also in that people come to know the land where they harvest very well and moving to a new location means having to learn a new area. In some cases it isn't possible to learn the traditional ecological knowledge of a new area with the same depth.

Interviewer: What would you do in that case? If the ducks and the moose move, what would you do?

Interviewee: Then I would have to go hunting somewhere else. I'd probably have to go – I've got friends and family up around St. Laurent. That would mean me driving an extra hour and a half to go hunting ducks and geese. So that obviously would be a hardship.

Well, I can see myself not going into all those areas now. That's taken away from me and other people that hunt those areas because it's going to be useless trying to go and hunt in those areas where the pipeline goes through, and how long is it going to take them to do it? You can't hunt in areas where there's people working and stuff like that. And when they leave you probably still can't hunt in it.

If there's a block in the river itself, you know, when they start doing their digs and stuff and then they might have to build a dam and all this kind of stuff, stop the water, then there's not going to be no fish and you know what I mean? So and then me and my boys you know... No, I have a concern for it. It would just be like if it - if I'm not able to fish there with my boys then where does that leave me? Then I'm going to have to go find somewhere else and like that - and it's close to home for us. Do you know what I mean? [It] only takes us a half an hour maybe to get out there so it's just like if that's - if it's going to be tied up in whatever and we're not

even going to be able to go fish there and we have travel, you know, two hours away to go fish, that's not really fair to us.

It seems like [my land use] is directly on [the Line 3 Right of Way], and so I can't see how it wouldn't impact it. Of course I don't think I would say "oh I'm going to go fishing today on the river right outside of where there is a worksite", or that I would want to go hunting. There wouldn't be animals in that area if there is people working, and I certainly wouldn't feel that, that's my time to be part of the earth, like receiving and being thankful for what I have there when I'm also at the same time watching destruction of it. So I think it would change it that way.

Where the pumps are you don't want to shoot an animal near a pump station in case it hits a pipe or a container and so on.

Also another concern that if I am walking, come across a pipeline is there a chance that I'll be charged for trespassing. That is of great concern to me.

Concerns for Sensitive Habitat

Participants identified several particularly sensitive locations about which they had concerns including, but not limited to: the wetland complex associated with Oak Lake, Pipestone, the Souris River, and the Glenboro and Alexander Marshes, Boissevain, Virden, the Assiniboine River and Spruce Woods. The Turtle Mountain area was mentioned as sensitive and valued by multiple respondents, but is not within the Study's Geographic Scope.

Interviewer: So, do you have any concerns with the proposed location of the line 3?

Interviewee: Just to the south of Virden, that begins to encroach on the area that we look at. My concerns here would be the potential north-south migration of animals, the cutting of large swaths of land which can also disturb migratory patterns, noise. I mean, if there are animals that migrate throughout an area, cause they may live within a couple of square miles, but sometimes they can move a little bit further if they're disturbed - that could potentially have long-term damaging effects to an area north or south. And if it's - I hunt primarily to the south of where it's going to be. I'll be worried that something could happen to that population. Moose may move a little bit more than the deer. It starts to touch a little close to home.

Well, I would think that the encroachment drainage of the Turtle Mountain area would be very affected there too.

I would think so in the south-west region. I mean if you've been out on the country, in the bush, you know pretty well every bluff deer can live in, foxes, coyotes and other small mammals. So I mean every area is ecologically important, I think some may have a greater importance and I think the risks to those areas are greater as well. So I think treat the land with respect.

Yeah, like I think the whole Spruce Woods area, for me, and that's kind of why I wanted to participate a little bit, was essentially that for me, the Spruce Woods, you know, is somewhere that I feel like is an area that could be easily affected, I guess.

And a lot of the places too, like when you get further south you're going down to Whitewater and all those places where the geese migrate; they rest there and then they head south from

there. But sticking to this line, that's getting close to the Pipestone Marsh, it's right there, where that line is running through... okay to the left now, go west, there, there are some lakes in there. That's a whole swamp area there (Oak Lake Area).

Interviewee: Yeah that's just north of Boissevain. Not too far out, maybe a couple of miles. It's a protected marshland. Yeah then most of it is on this side, but then there's some on this side also. Because the road goes right through it and they're going to be doing something with that road. They're changing it and I don't know how they're going to change it, because they went right through the marshland.

Interviewer: so is there a particular season that you would say this marshland is most important at all?

Interviewee: Yes the marshland is for like the moose, I see the moose in there early in the spring, because they like all that willows and rushes that are in there, because that's what they eat. And then in the fall ... Well in the spring too, there used to be a lot of deer that came there and would feed in there and you know nest in there or lay in there, but they haven't been back for probably about five years. And there used to be like hundreds of them that would come across the road. They had signs up for watching animals right there in that particular area, but now there's hardly any. I think it'll definitely be a sensitive area.

Well, I mentioned that for four generations we've hunted and gathered in the Virden area of the province. And I mentioned about five years ago we stopped hunting there, we've relocated to other family members up in St-Lazare, Manitoba. And but what moved us away from a very rich, bountiful area for deer and other animals is the fact that society has changed. Family has sold the land so we no longer have access to private land. And the Crown land is very overcrowded by new arrivals of people who are hunting now more so because in Canada hunting is relatively inexpensive compared to European and other countries. And so people come here and they have, and of course they go to Crown land and it causes over hunting of an area and over population.

The only place there's bush right now is around Souris that's Souris River. That's the only place where there's bush now because everybody has bulldozed everything down.

The sloughs are really disappearing so there's where you know the duck hunting and stuff is changing quite a bit. And of course the bush is really disappearing, but we still have enough around to sustain. You know, we have an elk herd, we've got you know quite a few deer. It's on a bit of a decline right now. But game birds are still good and everything. All of these can be affected by the pipeline, there's no doubt about that, just to what extent. You know like I say, we were told that this pipeline is going to be above ground, what's that going to do for our elk herd that travels back and forth from where I live back into Spruce Woods every winter? Is it going to change that, you know like is it going to make them go somewhere where we don't have them anymore?

Well, if they're working on it close to that Oak Lake area or the Pipestone area, then, yeah, that'll certainly affect myself and my family

4.8 Potential Concerns for Socio-Economic Effects from the Line 3 Project

Several study participants expressed concerns over the potential socio-economic effects associated with the project. These would include any impacts from the project that would alter or harm the socio-economic welfare of the Métis people.

Some of the respondents highlighted the permanent nature of the effects this project will have, not only on the land, but on the Métis people. Respondents emphasized the need to fully understand these socio-economic impacts before the project is approved. This sentiment is reflected in the following quotes:

I'm not someone who is a radical or saying don't do it or stop it. I understand, but I just, I would like someone to understand also the importance of that land or how it's been a way of life to people for so long. Once the change is made you can't go back. And I understand evolution, we need energy, I understand why there is a benefit to the pipeline. I just want them to know it's so important that it's being done the right way.

It's not just the things environmentalists can tell you, you know, what will happen to our water if it's polluted, and what will happen to the forests. But I think they really have to talk to the people and understand like the people, how they feel, and how that changes a person's heart when you take away something that has always been part of who they are.

Some of the potential concerns for socio-economic effects that respondent's spoke about included:

- Human health concerns
- food security
- economic impacts
- cultural effects

4.8.1 Human Health Effects

Many respondents were concerned about the human health effects of the project especially on smaller, more remote communities. Fears surrounding the contamination of water, animals and soil were prevalent themes, as ultimately it would be humans who consume or utilize these resources. Several participants said that the ability to detect spills or leaks before they had an impact on human health was a major concern.

There's no guarantees that there won't be any leaks and there's no guarantees to say when those leaks will happen or how long it will take for them to get cleaned up. So I mean for me it's a health issue.

Health-wise, I do worry because if there is a breach or a spill or something that goes undetected, then there's the potential not just for us, but for other small rural communities that may not be aware of it soon enough. But it could cause a health problem in that area – pollute their water or cause some other diseases.

I have some family members that live out in the Southwest corner - that's all oil country - and because of what it's done to the soil they get their water tested and it's not good for cattle. And that's their drinking water. So now that they're older everybody's starting to get cancer. Is it from that? I don't know. But... It's quite the coincidence.

4.8.2 Food Security Effects

Some study participants had concerns over food security due to the nature of the Métis diet and their dependence on wild foods. Several participants mentioned the importance of harvesting for their food supply as well as emphasized the importance of maintaining the habitat of hunted animals.

Apprehension over contamination from leaks or spills entering the food chain through animals or fish was a major concern.

So for my family the only thing I'm concerned about is if, for whatever reason I cannot harvest my deer or my moose. And I don't have to harvest every year, you know. It's cyclical, I'm not, I don't overharvest, I harvest for my need. And if I have food in the freezer I won't harvest, I mean, it's simple as that. But when I do need to harvest and get my food and I find that the pipeline has forbid or have not allowed that, that would be devastating. There has to be mutual respect.

Interviewer: Do you have any concerns about any effects on your personal or family's healthy and safety from the pipeline?

Interviewee: Well, again if the animals were contaminated and we did eat them then yeah, absolutely.

If it's not there currently, I'm okay to go fish there. But as soon as it starts, then I'm going to be a little bit more leery because and then it's just how will I know - like it could take a month before anybody even knows that it's got a leak in it, like especially if it's a small one, right? If it's huge and it's wide open then, you know, obviously it's something that you're going to be able to see right away. But if it's like a smaller - like a hairline crack or whatever and it's just slowly seeping out, I mean ... And then, you know, in ten years down the road, you know, find out that one of my kids are sick because of an oil leak, you know, like that's ... Yeah. So there are concerns about that

Harvesting on my part, I'd say it sustains the way my life and what we have. We depend on it. There's never a shortage of anything, of our food supply or anything. We always, we enjoy hunting, whether it's for moose, elk, deer, ducks. We love the meat, we love to do it. And we save a lot of money by doing our own hunting, doing our own processing of meat and everything. We're proud of it and it's a way of life that I would never trade for another life, no. I'm happy with the way I live.

I mean, there's the financial cost of the meat, but there's also the quality that comes along with it too. You can't get the quality in the store, like you would be able to pull it out of the bush yourself and get it out of there.

For me, they're (wild foods) unbelievably important. Without them, I don't really know what I would do. Especially the areas where we go hunting for deer, I'm able to capture our own meat, take it home, process it, and have something that's all natural. Yeah, if that was taken away I don't know what I would do. It's not just from a bit of a selfish perspective...you don't want to see the get destroyed, by any way, shape or form, whether it gets used or not by me or someone else. I don't want to see anything happen to that

4.8.3 Economic Impacts

Multiple study participants pointed to economic impacts of the project as a major spill could have a substantial detrimental impact on the land, wildlife and Métis people. Many respondents harvest and/or work in the vicinity of the pipeline and in the event of a major spill all of these activities would be impacted or potentially cease.

The potential effect of the Project on Métis harvesting was thought to be the main potential economic impact, as many Métis people use harvesting to save money on food costs. In the event of a spill near harvesting locations this could impact the Métis people tremendously who rely on these areas for food savings and traditional diet. It was reported that the inability to harvest expensive food items such as meat and fish would cause a strain on the economic well-being of some harvesters.

Interviewer: And how does your ability to harvest in the southwest region affect you and your family economically?

Interviewee: Well like I say, it provides meat for my family. And it would be a huge economic impact to us if he couldn't hunt there, if there was something wrong there. It would be a huge impact for me. That's where we get it.

I mean, there's certain costs that come with hunting, it's not cheap to do. But certainly the meat costs are big. To be able to get either a deer or a moose - I mean deer is not huge, so you may need two of them for a year. I could save a lot in terms of meat costs.

Last time I went into the Safeway Store, pickerel was like \$15 a pound. It was like \$16.95 but if you said \$15 a pound, I mean that's \$3,000. Don't take that long to add that up if you're buying it. And about 500 pounds of meat, basically that's only one animal really. A moose weighs 1,000 pounds but I base it on that what we would consume at home. We give quite a bit away. But what would you say meat cost, \$10 a pound? Like you can't even buy good steak for \$10. So if we base it off \$10 a pound, I would say \$5,200. I think this is minimum from what we would save or spend.

The mouth of the Souris River where it joins the Assiniboine, that's where I spend a lot of time. It's been a source of revenue because we catch fish there, we eat them and we hunt there. We eat it. That's one of my favourite places. I'd hate to see what happened if something happened to the rivers.

There were two study participants who were concerned about the effects the Project may have on agriculture. A spill on agricultural lands would be detrimental to those who use agriculture as their primary or secondary livelihood.

That is our main income because my husband does work for a farmer, a potato farmer in that area, so that would be a bit of a concern.

My feeling is if there is an accident there... You got agricultural people who are there, where does the compensation to that – that may be taking a livelihood away. I certainly feel that this is my livelihood, the hunting.

One study participant was concerned about the economic effect the Project may have on commercial trapping activities. Due to the influx of people, machinery and infrastructure in the project area this could deter animal populations and ultimately trappers from using areas that were once lucrative for commercial trapping.

It will probably deter me from using the area because of the high volume of people moving to the area and so forth, and equipment running through. I like certain good areas where it's nice and quiet... So it's probably going to deter me from going back to that area for a while until everything's back into place. But yeah, it's probably going to cause an impact.

One respondent commended the economic benefits associated with the project in terms of employment and community development. However in the event of a major spill, the economic benefits could be greatly overshadowed by socio-economic and environmental costs associated with clean-up.

I got kids that are working in the oilfields. Because you know it's definitely brought money into our community and our communities are growing and all that, but everything comes at a cost and that cost we're going to pay

4.8.4 Cultural Impacts – Intrusion to Way of Life

Many study participants were concerned over the potential impacts of the Project on their culture. The need for Enbridge to respect the distinct cultural identity of the Métis people was of paramount concern for many respondents. The impact to cultural heritage sites such as Métis gathering locations, trade routes, burials and sacred sites were a concern.

It's not something that you would ever be able to compensate financially for or compensate by you know, in the future building a, a separate area, or saying yeah we followed the rules. There is a big difference in somebody saying like I actually understand and it's important to me that we show respect to the people of this area. And that it's, it's done in a way that's respectful.

If we wouldn't be able to harvest, it would have a huge impact. Being part of a generation that's just trying to regain what was lost in a previous one, link to a culture, link to your own culture. That would be devastating. That's the area that I've learned to hunt and harvest in, and to have to move around to another area scares the bejesus out of me.

Even just the social impacts, that's a really important thing. I want them to understand that there would be a difference [once they construct the pipeline], and if they [Enbridge representatives] could for one day go and be part of that, just to understand what they're, you know, the benefits that they see to [the construction of the pipeline] I think are a lot different than the benefit of the people who live and use that area.

And you can't stop it, but at least if people knew that those who want to come and benefit and use that area that our people have, built their whole life around took the time to see that there is also a very sensitive side to that here.

A big portion of the line where it goes through the Souris River, Assiniboine River area, especially in the Treesbank location south of there, that area is being used from what I know by

Métis people for so long. And I mean to my family that's a really important area. And I think you know, once that is changed, the landscape, it's all, for Métis people it's about the river and the banks of the river. And the, you know, livelihood right back from fur trade and traveling down that river. So all of the sites that are on there you can't just go through there with you know, men, equipment, and making roads, and getting rid of forests and animals. And you know, maybe cosmetically you can make things look a certain way, or on paper you could say you know, you have to have so many people watching for the conservation of this area that it stays the same. But it isn't, it isn't the same.

I think that will affect them I do believe. You know who wants to camp right next to a pumping station or high traffic of digging and drilling and clamouring and all of that going on.

4.9 Commercial Impacts of the Project on Métis People

Multiple study participants pointed to economic impacts of the Project, as a major spill could have a detrimental impact on the land, wildlife and Métis people. Many respondents harvest or work in the vicinity of the pipeline, and in the event of a major spill, all of these activities would be impacted or potentially cease.

4.9.1 Effects on Commercial Trapping

The 8 Study participants who reported commercial trapping discussed the economic importance of trapping as a source of income, though it is becoming increasingly difficult due to the cyclical nature of fur prices. Some participants discussed the potential negative impacts the project may have on their commercial trapping activities.

One study participant spoke specifically about the economic effect the Project may have on commercial trapping activities. The influx of people, machinery and infrastructure in the project area could deter animal populations and ultimately trappers from using areas that were once lucrative for commercial trapping.

Economic Importance

There was one participant who stressed the importance of commercial trapping to their livelihood from an income perspective. Participants used commercial trapping as a way to supplement their income.

Interviewer: Can you talk about how you supplement your income through harvesting?

Interviewee: It's through trapping and that. For example, like winter is a very slow time for whether it be farming or construction or whatever. And it's a great way to supplement your income and stay fit. Like it's something you've got to be committed to. You can't say 'Well I'm not going to go out tomorrow and check the traps.' Well you've got to do it every day. You've got to be committed to it. And to me it's very rewarding and it's just enjoyable, relaxing. I'm an outdoors person I guess, traditional too.

Some of the respondents reported making substantial income from commercial trapping. Other respondents reported secondary income benefits from their commercial trapping activities. This ranged from the selling of furs to global markets, but also for taxidermy or arts and crafts.

Like, with muskrats, if you have 20 traps you can go out in an afternoon and catch 40 or 50 muskrats, and if they happen to be worth 10 bucks a piece, average, it's pretty good money for a day of bugging around, having fun.

A few years back I taught my daughter how to trap muskrats, in-house trapping in winter time, and we caught a couple of hundred rats that winter. Ended up selling them for about anywhere from \$5 to \$14 a rat.

I trap those for ... like, to sell, in a world market. I've gotten as much as 180 bucks for a badger.

One winter they caught, like 900 muskrats, and then they sold them for, I think it was 7 bucks an average, or something like that, so it can add up.

Well I've trapped pretty well all over southern Manitoba at one time or another because I did do some for the provincial government.

The pelts I sell too ... or I take them to North American Fur, in Winnipeg, and then they auction them off in Toronto, two or three times a year, they auction them.

I Use claws and teeth for arts and crafts. I do taxidermy with the lower quality, or not, yeah I guess lower quality ones. The ones that are caught pre season... Well you know you can get \$4, for taxidermy.

Potential Impacts of the Project on Commercial Trapping

Several participants expressed concerns over the Project's impact on commercial trapping. These concerns included impacts on fur bearing animals in the event of a spill, as well the potential impact of construction activities on established trap lines and animal populations.

This used to all be big muskrat trapping, and mind you now there's not nearly the muskrats that there used to be, but it could potentially cause a big problem there if they had a spill.

Interviewer: Do you feel that the development will change the way that you use the lands and the waters in the area for hunting, or trapping, or gathering, or anything like that?

Interviewee: From the bit I know yes, anytime you bring in say like equipment to work, or set up a work camp, or make a route in so that you can work yes it definitely will impact the areas we talked about.

Cyclical Nature of Trapping/Fur Prices

There were two study participants who talked about the fluctuating nature of fur prices and the effect it has on the amount of commercial trapping. Over-trapping often occurs during periods of high fur prices, however when fur prices are low, many people cease commercial trapping activities.

Well yeah, like once things get so that they're worth money then everybody crawls out of the woodwork. When things aren't quite worth as much, there's hardly anybody around.

So like I say, you know, even down to trapping, like there's people who'd set a trap right on top of your trap, you know, even in places where they shouldn't be. That's what's ruining a lot of it. And then like I say, there are just so many of them now, because they're worth some money

they're everywhere. If the bottom fell out of the market tomorrow there wouldn't be a soul out there.

4.9.2 Effects on Guiding and Outfitting

The results of the Harvesters' Survey showed that there were four participants who were involved with guiding or outfitting services. Of those four, one participant provided guiding services on a commercial basis. The commercial guiding services were reported to have taken place throughout the Southwest Region of Manitoba, and one specific location where a participant practiced guiding was mapped within 5 km of the Line 3 ROW at Lizard Lake.

The other participants who provided guiding services did so on a volunteer basis for friends and family and received no payment.

The one study participant involved in commercial guiding did so as a source of secondary income and to carry-on a family business. The participant described the lucrative nature of guiding and expressed the economic importance of it to their personal income. They explained further that guiding was a skill passed down through their family that has been used as a way to connect with their family heritage and Métis culture.

Yeah, guiding, yes, it is very important to our income. Guiding, we have, there's all Americans that come from the States that do the hunting, duck hunting. It's mainly duck hunting that we guide for, for ducks. And they supply us with... we have a set wage for our guides, so much per guide, per hunter. If a guide takes out two hunters, it's \$200, if he takes out three it's \$300 a day.

And they work six days a week, you know, so that's \$1800 a week. That's free money... And they get their tips besides that, they get good tips. Some of them will... Last year one party I guided, a party of three, I made my wages for five days, I got \$1500 for guiding and my tips, the three guys give me my tips, they gave me \$1800 American money. That was my tip. They were so proud of what they shot and, you know, and the service that they got from me and all, that's the way they compensated me.

So by doing this, the way we're doing it, yes, it's a very important part of our life, the guiding, because that's where most of our, a good part of the money is there And not only that, you get to meet a lot of people, a lot of different.

So that was, you know, it's a culture that was handed down to us from our fathers and all that and we keep it going. We keep that part of our heritage going, you know. And it's a wonderful life.

4.10 Contingency Planning for Product Release, Accidents or Malfunctions

Several study participants outlined mitigation strategies that should be adopted during all phases of the Project; including construction, operation, monitoring and emergency management. Mitigation strategies focused on contingency planning for spills, emergency response capacity and operational concerns.

4.10.1 Construction Phase Contingency Planning

One respondent identified monitoring for the construction phase of the project to ensure construction activities are being carried out to the highest standard possible.

Like I said just because they think it's safe and they think they're going to be making it safe - and it's only about the people they have working for them too. I mean, I can make the biggest thing in the world saying this is going to be the best thing and this is going to be safe, it's state of the art, blah, blah, blah; it just takes one person, careless workman, doesn't weld something; six years later something fractures; it's gone. I know they test it and they x-ray and all that but human beings being what they are, it's just material.

Another participant felt that limiting construction activities to fall or winter would help to mitigate the effect on wildlife.

Interviewer: Is there a season that would be better for construction? Like if they were to be able to choose which season?

Interviewee: Yeah, winter or late fall, I guess. Because I mean the young have been hatched or born by then. But other than that, like I say... but I don't see a huge impact on wildlife.

I guess with reference to the construction is just to ensure that it's done in a respectful manner to the land, I think that's of paramount importance. Do it at a time of year when there will be the least impact. I don't know if a pipeline can be laid, I don't know if there's a particular time of year it can be laid.

There were two respondents who felt that minimizing the impact of construction and construction camps should be a priority. The interviewees suggested carefully considering the citing of the camps in areas that are less sensitive and whenever possible, minimizing the footprint of development activities.

I think just minimizing the footprint around the construction, around the camps, around the clearing of land in and around that area, bulldozing and making sure the soil and stuff like that isn't contaminated and that kind of stuff.

Interviewer: And with these other people coming in, workers and construction crews and stuff, what measures do you think could be taken to minimise disruption on the land and wildlife?

Interviewee: Some of that might be, again, citing camps and things like that, in areas that maybe aren't so sensitive, or ... and it's not just a sensitivity of what people think of, you know, as water or wetlands, or something like that, it's access areas. So where hunters might go, or things like that nature, so those might be a consideration.

One participant identified the spreading of noxious weeds by construction machinery as an impact from previous pipeline work. The participant offered a more thorough system for cleaning machinery to mitigate the spread of harmful weeds.

Interviewer: Have either of you experienced any positive or negative effects from the current Line 3 that's there right now over the years?

Respondent: Negative, negative effects is I work for [name removed], and they go through and they spread noxious weeds from one end to the other pretty much... You drive through with a piece of equipment, it gets on that piece of equipment. And, like, I'm up and down those roads continuously and you can see they go with the mower. Well, all of a sudden there's new noxious weeds a couple miles down the road where the mower goes, not 20 feet in the ditch, that 15 feet that they mow. And the pipeline is the same way.

There's a couple of people that live by the pipeline and they have land and actually they made when Enbridge was doing their last work on the pipeline, they made them when they come to their land, they'd have a wash station, so every piece of equipment before it went on their land they had to pressure wash everything off and then go on their land and continue on.

Another participant stressed the need to get the construction work done as quickly as possible so that only one harvesting season was disrupted.

I would tell them, just get it done. Where's it affecting me, get it done as quick as possible. Realize it's something that they want to do and they're going to do, just do it...But they'll get the job done, and don't disturb anything anymore than you have to. Get it done. That's what I would tell them. Hurry up. Don't disturb two hunting seasons, just one.

4.10.2 Operation Phase Contingency Planning

Several suggestions were made surrounding mitigation strategies for the operational phase of the project.

One respondent commended the use of shut off valves in the event of a breach to pipeline that would cut off flow of oil at the source.

One thing I liked that I did see in the PDF is, there was an explanation on how there was open and close valves throughout the pipeline, so that way, if there was ever a leak or something like that – and I think it was open and close before and after certain waterways, or things of that nature, which I liked, because they could close down if there was a breach they could maybe prevent spillage or that kind of thing to affect a waterway. Because they could turn it off before or after the waterway, or at both ends to kind of minimise the amount of spill, that kind of thing. So I thought that was pretty cool.

4.10.3 Emergency Response Planning

Recommendations for emergency response planning were presented by multiple study participants; these recommendations focused on preparedness and planning.

I think that we have to learn from our past experiences no matter what emergency that exists throughout our lives we have to learn from that. We learned recently about, you know, the

train in Quebec...You have to learn from those experiences. An oil spill, you know, although the pipeline is not designed to purposely spill oil but when you see tankers emptying their sludge and creating an oil spill and no one stop them there's bigger concern than pipeline. Where people, you know, the risk factor is much greater than over land. And, you know, I'm not saying it's not a risk but I think that we'd be better, we are better prepared to deal with those issues.

Accidents do happen and the question here is that when it does happen, you know, how prepared are we. And I think that it's just as critical as the planning and building of the pipeline to have an emergency response to different scenarios and be cognizant about that.

4.10.4 Spill Response

In terms of spill response, one study participant highlighted the need for local spill response crews and the lack of existing spill response services in the South West Region.

And it's not just anybody that can handle the clean-up either, you know I only know of one outfit in Manitoba myself. I'm not saying there isn't more, but as I said I know of one and you know they're quite a ways away, how long is it going to take them to get there to do something about it. Or are they going to have their own people set up somewhere to do this? You know I don't wish them any bad luck, but you know if they're not going to do what they need to do I hope they stay home, you know

Historic Spill Response Concerns

Historic spills from pipelines throughout Manitoba demonstrate that even with state-of-the-art monitoring and response programs spills, leaks and malfunctions do occur. There was a great deal of concern expressed that spills could cause substantial impacts to ecosystems and ultimately MMF rights and interests through the contamination of harvesting areas and wildlife.

For some respondents, apprehension about future Line 3 spills was compounded by the occurrence of historic spills in the Southwest Region.

Interviewer: Do you think that the pipeline will affect anyone in your family either positively or negatively or any of your Métis community?

Interviewee: It's possible if there's ever a spill that yes it will... a major spill. That could contaminate the ground and the water and kill wildlife.

They're putting a lot of oil through this area, so if you don't keep an eye on it, it can cause fairly substantial impacts... Some of them won't ever be mitigated, and you can see that from the historic spills that they've had. Not just along this pipeline but other pipelines. They fix them, but they're never completely mitigated to the way they were.

One respondent reported being involved in the clean-up efforts of a historical spill near one of the pump stations along Line 3, and highlighted the difficulty of cleaning up spills because of the geography and hydrology of Southwestern Manitoba. Oil can be very difficult to contain in the Southwest Region of Manitoba due to sandy unstable soils, fluctuating water tables, major river systems and the abundance of wetlands.

Interviewee: Yeah. I've had occasion to clean up spill sites in those areas. And they're ... it's a very sensitive area, difficult to clean up. That's the [name removed] Aquifer in there, and has a high water table, sandy soils, so it moves contaminants move away from that area pretty quickly.

Interviewee: The last ones were, I think they called it synthetic crude, so it's the light crude.

Interviewer: Okay and do you know what the source of those were?

Interviewee: Pipeline leaks.

Interviewer: And in your experience in those places, what ... like, how difficult is it to work in those kinds of environments, for this sort of work?

Interviewee: It can be ... it's one of the more difficult areas to work in, that they will experience.

Interviewer: Because of the water table –

Interviewee: Water table, they'll have to do de-watering in there. The soils aren't very stable, whereas you get into these areas, they have a different type of sensitivity.

Interviewer Okay and do you have any sense of how, like if there's a spill, like how far things would move?

Interviewee: Horizontally not as bad as vertically. The water table there fluctuates greatly.

Interviewee: So you could have very high water tables, where those marshes are being generated in the spring, and then as the water drops, it disappears and carries stuff with it.

Concerns over spills and leaks from pumping stations were conveyed by one study participant with knowledge of a historic spill.

Interviewee: Well my concern would be these pumping stations. The pumping stations tend to have ... they've got to be able to protect them from small leaks over a time. I think the bigger ones, as long as they're, like reasonably accessible, you respond to them as best as you, kind of, can, but these ones, because it's an operation site, is more apt to have long-term drips and spills and...Low level stuff that add up over time, right?

Based on the reports of historic spills and clean-up efforts in Southwestern Manitoba, SVS contacted the NEB for a record of spills in the area to determine if any of them occurred on Line 3 or within the Study's Geographic Scope.

Table 32 details the history of recorded spills on Line 3 (National Energy Board, personal correspondence, August 26, 2015).

As illustrated in

Table 32, there have been several substantial spills on Line 3, some of which occurred in areas with high concentrations of MMF land-use and traditional knowledge (Wawanesa and Souris). Of note is that no spills have been reported since 1997 or by Enbridge since they have assumed operations of Line 3. This eighteen year gap between spills does not correspond with the frequency of spills while Interprovincial operated the pipeline between 1967 and 1997.

Table 32. History of Spills on Line 3

Incident	Date	Company	Line	Location / nearest populated area	Approximate Volume Released (m ³)
1997-035	5 June 1997	Interprovincial Pipe Line	Line 3	Cromer, MB	1 m ³
1993-093	5 July 1993	Interprovincial Pipe Line	Line 3	Cromer, MB	14 m ³
1990-037	17 Oct 1990	Interprovincial Pipe Line	Line 3	Manito, MB	0.47 m ³
1984-027	22 Oct 1984	Interprovincial Pipe Line	Line 3	Souris, MB	3.2 m ³
1981-025	11 Sep 1981	Interprovincial Pipe Line	Line 3	Gretna, MB	0.4 m ³
1979-009	26 Feb 1979	Interprovincial Pipe Line	Line 3	St. Leon, MB	1.6 m ³
1973-052	24 Dec 1973	Interprovincial Pipe Line	Line 3	Gretna, MB	300 m ³
1973-034	9 Sep 1973	Interprovincial Pipe Line	Line 3	Cromer, MB	15.9 m ³
1967-054	5 Nov 1967	Interprovincial Pipe Line	Line 3	Wawanesa, MB	2,702.8 m ³
1967-053	14 Oct 1967	Interprovincial Pipe Line	Line 3	Wawanesa, MB	4,928 m ³

Table 33 was also obtained from the NEB (National Energy Board, personal communication September 3, 2015), and identifies all spills from Enbridge pipelines in the province of Manitoba. In total, there have been 27 spills reported from Enbridge pipelines throughout Manitoba, with a heavy concentration of spills near Glenboro, Cromer and Souris. Though the spills did not originate from Line 3, these towns are also located on the route of Line 3 and include high concentrations of Métis land use and traditional knowledge.

Table 33. History of Enbridge Spills in Manitoba

Incident	Date	Location / Nearest Populated Centre	Substance	Approximate Volume Released (m ³)
INC2015-029	3/17/2015	Plum Coulee, MB	Natural Gas Liquids	0.0005
INC2015-023	3/3/2015	Glenboro, MB	Natural Gas Liquids	0.015
INC2013-119	8/3/2013	Cromer, MB	Natural Gas Liquids	Not Provided
INC2011-180	12/7/2011	Glenboro, MB	Crude Oil - Sweet	7
INC2009-105	9/22/2009	Glenboro, MB	Crude Oil - Sweet	4.75
INC2008-004	1/23/2008	Cromer, MB	Crude Oil - Sweet	100
INC2008-001	1/2/2008	Cromer, MB	Crude Oil - Sweet	8
INC2006-084	11/8/2006	Cromer, MB	Crude Oil - Sweet	126
INC2003-038	8/31/2003	Glenboro, MB	Natural Gas Liquids	Not Provided
INC2003-025	6/22/2003	Souris, MB	Natural Gas Liquids	0.1
INC2002-026	6/12/2002	Cromer, MB	Natural Gas Liquids	Not Provided
INC2002-021	6/7/2002	Cromer, MB	Natural Gas Liquids	Not Provided
INC2002-019	5/8/2002	Glenboro, MB	Crude Oil - Sweet	60
INC2001-008	2/8/2001	Cromer, MB	Crude Oil - Sweet	15
INC2001-002	1/10/2001	Souris, MB	Crude Oil - Sweet	2
INC2000-039	10/18/2000	Souris, MB	Natural Gas Liquids	Not Provided
INC1999-062	10/30/1999	Glenboro, MB	Crude Oil - Sweet	160
INC1999-039	6/22/1999	Cromer, MB	Natural Gas Liquids	Not Provided

Incident	Date	Location / Nearest Populated Centre	Substance	Approximate Volume Released (m ³)
INC1999-022	4/21/1999	Cromer, MB	Crude Oil - Sweet	3
INC1999-004	1/20/1999	Cromer, MB	Crude Oil - Sweet	50
INC1999-003	1/18/1999	Gretna, MB	Natural Gas Liquids	Not Provided
INC1998-058	10/13/1998	Glenboro, MB	Natural Gas Liquids	0.1
INC1998-049	8/25/1998	Glenboro, MB	Natural Gas Liquids	Not Provided
INC1998-044	8/16/1998	Cromer, MB	Crude Oil - Sour	2.5
INC1998-038	7/21/1998	West Souris, MB	Natural Gas Liquids	0.001
INC1998-019	3/25/1998	Saint Leon, MB	Crude Oil - Sweet	11

Based on the reports of TKLUS respondents combined with the NEB record of spills, the MMF have some unaddressed concerns about the monitoring and reporting protocols that Enbridge follows, as well as concerns about cumulative effects based on historic spills.

Adequacy of Spill Response Technology

In addition, there was one respondent who questioned the adequacy of pipeline monitoring technology to detect smaller leaks. The concern was fostered from knowledge of a past spill on Line 3 where a spill occurred but was not large enough to be detected by Enbridge's pipeline monitoring system. .

Yeah, like the last time I did spills in that area...The spill that they had ... the release that they had was not large enough to be detected by their pipeline monitoring system.

4.11 Suitability of the Decommissioning Plan

Multiple study participants expressed concerns over the decommissioning plan for the existing Enbridge Line 3 pipeline citing environmental concerns associated with the decommissioned line. Respondents were concerned about legacy issues the existing pipeline could cause in terms of soil or water contamination as the pipeline corrodes over time. One interviewee expressed a desire for the old pipeline to be removed completely instead of decommissioned to avoid environmental impacts.

Interviewer: Okay. And if an Enbridge representative was here today, what would ... Would there be anything in particular that you would want to say to them?

Interviewee: Yes, why aren't you removing the old pipe? Like why leave it in the ground and put another one right beside it?

Yeah why don't you take that pipe out, that concerns me because what's going to happen to it, like it's ... You know in another 30 years or 40 years like all that built up residue that's inside that pipe, like where is that going to go. You know obviously one day it will break open and there you go, it's going to go into the ground. And chances are of them monitoring an empty pipe is probably nil, so all they're worried about is getting the new one in, they're not worried about taking the old one out. They're only worried about shutting it down and putting a new one and a better one right beside it.

Soil and water contamination was the greatest perceived risk of decommissioning the existing pipeline. Respondents were worried that corroded material from the decommissioned line would cause a variety of environmental issues, and ultimately affect wildlife and human populations.

That's all foreign material, we don't know you know ten years down the road especially with leaving this pipe in the ground, what's going to happen to that ten or 15 years down the road. You know is that going to corrode and crumble and go into the soil and what will that do to it. You know and how is that going to affect our plant life, you know is that going to run into our water, you know what's that going to do to it. I don't understand why they're not taking it out of the ground you know. I think everything that they're doing with the pipeline is obviously going to affect our ... You know our trees and our plants and you know our animals, our waterfall ... Like it's inevitable, it's going to happen. It's just a wonder how long it will take for everything to come back to normal.

Ensure that there's enough safeguards in place that when you're decommissioning the other pipeline, that the soil, the earth, the waterways, aren't being affected.

Yeah. One concern would be the decommissioning of the pipeline that's already existing. What safeguards are again in place - those are questions that we have - to ensure that any of that oil-based product wouldn't leak in or saturate into the ground, and specifically into our water system...so in the decommissioning of the other one, what measures - how do you not let any of that product leak into our ground? That's got to be pretty tough.

4.12 Safety and Security of the Project

Several study participants expressed concerns over safety and security issues related to the project. These issues ranged from concerns over materials being utilized in the project, terrorism, vandalism and hunting accidents.

4.12.1 Pipeline Materials

One participant expressed concern over the quality and lifespan of materials being utilized in the pipeline. The interviewee also raised concerns about fluctuations in soil temperature profiles and the impact those changes could have on the pipeline.

Interviewee: Well, the, you know, my concern one of the questions I asked you if it was above ground or underground and if it's above ground it's very visual and so on and so forth. And if it's underground should an accident occur, you know, Manitoba, our climate is very diversified from permafrost to sweltering hots and things expand and they shrink and so on, so forth. And concern about the lifespan of the material that you're utilizing.

4.12.2 Terrorism

There were two study respondents who were concerned over the susceptibility of the pipeline to terrorism. The concern was that the pipeline would be purposely breached by terrorists in order to release large volumes of crude oil.

And in today's day and age the first thing you hear on the radio is terrorism, you know what I mean? It doesn't take a rocket scientist to say this is a very vulnerable area. To me it's just

what kind of like security agencies have been putting in. Now we're going to have a police line running through here; it just takes one bomb or some homemade thing.

You know, it's no good – that pipeline is no damn good for nothing. All what it'll bring is trouble, not only to us: to farmers, to our environment, our harvests, it'll all be affected. Explosion – you'll see people that don't like the pipeline will blow it up...But it's way easier in the pipeline to blow the pipeline up, or the CN cars, you know. It's a dangerous decision. It's a good decision, but it's dangerous, that's what I think of it. You know, look at the terrorists they've got today, hey – they can do the same thing with the pipeline...It's a good idea in one way, and yet I'm against it for terrorism, that's the only damn thing.

4.12.3 Vandalism

There were also two participants who expressed concerns over vandalism to the pipeline, more specifically, people intentionally destroying or shooting weapons at pipeline infrastructure.

What about other people making problems? We've all heard about those people out in Alberta, you know, doing things to oil wells and stuff like that, like who says we haven't got people like that here, like you know.

Interviewer: So given where the pipeline is, do you have any concerns or anything with the proposed pipeline?

Interviewee: The above ground portion may be it, you know, because people do strange things. You know, a lot of people shoot at them.

4.12.4 Hunting Accidents

One respondent was concerned about the potential for increased human population around pipeline infrastructure and the potential for hunting accidents. With a large influx of workers present in some more remote hunting areas along the line, the participant was worried that a pipeline worker could be the victim of a hunting accident as their presence is not always clearly identified.

You know, we're all very safety minded as well, right. You don't want to damage anything. And not only that if you're in the bush hunting a deer and a worker, an oil pump worker would come in there with their truck and maybe walking around you never know who's there. They don't exactly singled out when they're there and you can't see them, you have to be very cognizant of your environment when you're hunting. And it makes it more challenging when you have, you know, workers as well as other hunting parties come in.

Furthermore the respondent was also worried about the potential for stray bullets to pierce the pipeline.

I have a, it's called 300 savage and I would hate to accidentally pierce the pipeline with my rifle. If a rifle could pierce the pipeline then we're at risk that an accident will happen. So this is where I'm saying what kind of protection, like if it's a steel casing for example where a bullet would, you know, if nine times or very small percentage of the time it's deflected then risk factor is less.

5.0 Conclusions – Potential Impacts of the Project on MMF Interests

5.1 Evidence-based Identification of Potential Impacts on Aboriginal Interests

On July 3, 2015, Robert Bourne Senior Regulatory Counsel for Enbridge Pipelines Inc. sent a letter to the National Energy Board titled “Re: Hearing Order OH-002-2015 Enbridge Pipelines Inc. (Enbridge) - Line 3 Replacement Program The Manitoba Métis Federation (MMF) Request for Extension to Intervener Written Evidence Deadline.” In this letter, he states the following:

Enbridge does not believe that studies in the nature of the TKLUS are required to assess the potential impacts of the Line 3 Replacement Program on Traditional Land and Resource Use (TLRU) activities due to the current land tenure and land uses along the right-of-way, as was noted by Enbridge in the Environmental and Socio-Economic Assessment (ESA).⁷ It was also assumed by Enbridge for the purpose of the ESA that TLRU activities were potentially being carried out by Aboriginal groups in the Footprint Area and Local Study Area for each valued component.⁸ In order to protect the resources used by Aboriginal groups for traditional land use purposes, Enbridge has plans to implement measures designed to protect these resources.⁹ Should any site-specific TLRU activities subsequently be identified during the ongoing engagement with the MMF or other Aboriginal groups, the recommended mitigation and avoidance measures set out in the ESA will be implemented as will the TLRU Sites Discovery Contingency Plan.¹⁰

In addition, in Section 5.1.14 of their ESA, Enbridge states, “Enbridge does not believe that formal TLRU studies are necessary for most of the replacement pipeline route, since the current land tenure and land use preclude, to a large extent, the practice of traditional activities on the lands in question.”

The information gathered in this TKLUS demonstrates ongoing Métis land use and occupancy within and adjacent to Enbridge’s ROW. In addition, the TKLUS identifies Métis land use and occupancy within the lands in question which suggests that the Project could potentially impact Métis land use in these areas as well as culturally important and sensitive sites to the Manitoba Métis Community. At the very least, additional work is need in order to review and assess potential impacts based on the information gathered through this Study.

The NEB decision-making process is an evidence-based process meant to be in the public interest. As stated in the NEB’s fact sheet on its mandate and process “for major applications and inquiries, the NEB holds public hearings at which parties must submit evidence into the public record and decisions must be based on the evidence submitted.” This TLUKS provides evidence of Métis traditional land and resource use, traditional knowledge, cultural heritage, and occupancy within the Project’s Study Area.

5.2 Potential Impacts for Discussion

Based on the findings of TKLUS interviews, SVS concludes the following:

⁷ ESA, Section 5.1.14.

⁸ ESA, Sections 5.1.14 and 6.2.14.2

⁹ ESA, Sections 6.2.14.3 and 6.5.1

¹⁰ Pipeline Environmental Protection Plan, Appendix D14

- We are of the opinion that there will be some impacts from the Project on the Manitoba Métis Community based on the research and interviews undertaken for this study and subject to a technical review and impact assessment of the project's ESA and EPPs in relation to the issues identified in Table 34 below.
- We believe the information collected for and presented in this report can assist the NEB in assessing the potential impacts of the project on Aboriginal interests generally and Métis use, rights and interests specifically.
- The study results provide a basis for ongoing discussion between the MMF and Enbridge in order to review and assess the Project's impacts on the Manitoba Métis Communities as well as the potential need for additional mitigation efforts.

Interpreting the Results

The data included in this report represents the land occupancy and land use information gathered from a sample-set of the Métis population within the Project's study area. SVS is of the opinion that the study results provide an indicative representation of MMF citizens' knowledge and use of land and resource within and surrounding the Line 3 Pipeline area. However, the data should not be considered comprehensive nor completely inclusive of all Métis land use and occupancy, or values and opinions of the MMF community.

The summary data in

highlights the issues that repeatedly emerged through the study's interviews. While many of the issues identified below were not universal to all interviewees, definite patterns and consistency emerged in some important locations and topics. Based on the study's sampling size and methodology for the selection of interviewees, SVS is of the opinion that inferences or extrapolations can be made regarding the wider MMF population's occupancy and use of land and resources within the study area.

With that said, understanding and addressing the full extent of impacts of the Line 3 Pipeline on Métis way of life in the Southwest Region will require an ongoing process of Enbridge working with the MMF at each phase of the project's development to identify values and concerns, mitigate and prescribe protection measures and/or compensation / accommodation measures.

The potential impacts on MMF interests outlined in Table 34 are listed in no particular order.

Table 34. Summary of Potential Impacts of the Project on Métis Interests

Potential Impacts	Concerns
1. Construction Phase Concerns – Clearing of Woodlots	The clearing of woodlots and other forested areas to accommodate the construction of new roads, construction camps and pipeline infrastructure will disrupt the habitat of numerous animal and fish species. This could change the harvesting practices in terms of access as well as decrease the animal population for Métis harvesters who already utilize the ROW and study area.
2. Construction Phase Concerns – Disturbing Wetlands	Due to the sensitive nature of wetland habitats any clearing, draining or digging within these areas could have an effect on species who inhabit wetlands, especially waterfowl. Wetlands play an important role in biodiversity as they serve as nesting and staging areas for large populations of waterfowl. In turn this could have an effect on the Métis harvesters who use the area to hunt ducks, geese and other waterfowl.
3. Spills, Leaks, Malfunctions	The potential for spills, leaks or malfunctions and ultimately the release of crude oil into the environment poses a threat to human populations, animal populations, fish populations, bird populations, soil quality, water quality, air quality and the overall well-being of the biophysical environment. These effects could be compounded by impacts on the economic, social and cultural well-being of Métis people due their strong connection to the land and dependence on wild foods. Harvesting activities such as hunting, gathering, fishing and trapping could be severely impacted in the event of a spill or leak.
4. Mammal Habitat Loss	The loss of forested areas, wetlands as well as overall changes to the landscape to accommodate construction of pipeline infrastructure will result in the loss of mammal habitat. With meat from mammals making up a significant portion of the Métis diet this could have an impact on livelihood and health of Métis people.
5. Bird Habitat Loss	The loss of forested areas, wetlands as well as overall changes to the landscape to accommodate construction of pipeline infrastructure will result in the loss bird habitat. This could have an effect on the quantity and quality of birds available for harvesting by Métis people. With meat from birds making up a significant portion of the Métis diet, the potential impact on livelihood and health of Métis people due to bird habitat loss needs to be addressed.
6. Fish Habitat Loss	Impacts to fish habitat during the construction and operation phases of the project such as creating water crossings and drilling under waterways could result in the loss of fish habitat. In addition in the event of a spill or leak, fish habitat and ultimately the fish could be contaminated. This could have an impact on the quality and quantity of fish available to Métis harvesters; which in turn could affect the food security and health of Métis people.
7. Disruption to Spawning Areas	Due to the relatively unknown location of many fish spawning habitats it is possible that these areas could be disrupted during the construction phase of the project by the addition of water crossings or drilling operations. These impacts to spawning areas could decrease the quality and quantity of fish available to Métis harvesters and in turn effect Métis food security and health. The potential for spawning areas to be disrupted by a spill or leak also exists resulting in the potential contamination of fish.
8. Effects on Wildlife	A general concern over the effects of the project on large game such as elk or moose, as well as small furbearers, was observed due to habitat loss or disruption of migration routes (elk & caribou). The potential change to the location, quality and quantity of large mammals could decrease the Métis people's ability to harvest. Also, since many Métis harvesters trap for commercial purposes any

Potential Impacts	Concerns
	impacts to small game populations could damage the economic well-being of commercial trappers. Both of these changes could in turn affect the general socio-economic well-being of the Métis people.
9. Effects on Waterfowl	Concerns over the effects of the project on waterfowl was expressed due to the construction activities damaging wetland areas where waterfowl nest or stage during migration. In the event of a spill the risk of contaminating habitat and waterfowl is probable which could result in negative implications on Métis people from a health standpoint, as well as effect harvesting practices and socio-economic well-being of the Métis people.
10. Effects on Fish	The risk of spill in water poses a direct threat to the health of the fish population in the study area due to the potential of contamination. Damage to spawning and fish habitats during construction could also decrease the population of fish species. A decrease to the quantity and quality of fish would be detrimental to Métis harvesters who rely on fishing for food security and economic savings.
11. Monitoring Capacity for Underwater Pipeline	Respondents were concerned that leaks or spills (especially smaller volume leaks) in waterways could go undetected as they cannot be physically observed by monitors. Concerns that the effectiveness of monitoring methods would be inadequate to ensure the safety of water resources. The monitoring capacity for detecting underwater leaks needs to be addressed. Therefore Métis harvesters have little confidence that water resources (and fish) are safe from contamination from undetected leaks in water; ultimately effecting the socio-economic well-being of Métis people.
12. Containment of Spills in Water	Several study participants expressed concerns over spill containment methods for spills or leaks in water ways. Many respondents feared that any spill in a waterway would be catastrophic due to the interconnectedness of Manitoba's water resources. The potential effects on Métis drinking water, fishing and recreational use of water resources in the event of a spill needs to be addressed.
13. Drinking Water Quality Concerns	Multiple respondents expressed concern over the project's impact to drinking water quality in the event of a spill or leak. This could have a major impact on Métis people, as the contamination of drinking water reserves poses serious health concerns.
14. Groundwater Contamination	Participants expressed concerns over groundwater contamination in the event of a spill or leak. Since groundwater supplies the drinking water for some Métis people this could result in health effects, especially if the issue went undetected.
15. Monitoring Capacity in Wetlands	Respondents were concerned that leaks or spills (especially smaller volume leaks) in wetlands could go undetected as they cannot be observed by monitors. Due to the wealth of biodiversity and sensitive nature of wetland areas this could have an impact on waterfowl and other species who use wetlands. Therefore many Métis harvesters have little confidence that wetlands are safe from contamination from spills or leaks. The monitoring capacity for detecting leaks in wetlands and subsequent effects on Métis harvesters needs to be addressed.
16. Effects on Vegetation	There was concern among participants about the potential impacts to vegetation, largely as a result of clearing for Line 3, and the need for Enbridge to restore the area to its original state. Blueberries, sage, and lady slippers were all mentioned as particularly sensitive species of plants. Concerns over weed control for new species growing post-clearing was also observed. The potential for a decrease in plants utilized by Métis harvesters as well as weed control needs to be addressed.

Potential Impacts	Concerns
17. Soil Contamination	The risk of spills, leaks or malfunctions during the construction, operation and decommissioning phases of the project pose the risk for soil contamination. This could impact vegetation, animal populations and Métis health as contaminants could enter the food chain. The potential for soil contamination to destroy vegetation and disrupt Métis harvesting practices (gathering in particular) needs to be addressed.
18. Noise Concerns	The effects of noise pollution mainly associated with the construction phase of the project could disrupt animal habitat and animal populations in the area. This could change Métis harvester's ability to hunt and trap animals who are sensitive to noise and disturb traditional harvesting areas. The potential effects of noise on animal populations and the subsequent disruption to Métis harvesting needs to be addressed.
19. Changes in Access to Harvesting Areas	Changes in access to harvesting areas due to pipeline infrastructure such as access roads or pumping stations can result in significant impacts to harvesters, not only in that they may need to travel further to harvest, which could have negative economic impacts, but also in that people come to know the land where they harvest and moving to a new location means having to learn a new area. The potential effects of the changes to access and the associated change in harvesting practices for Métis harvesters needs to be addressed.
20. Sensitive Habitat - Oak Lake	Oak Lake and the associated wetland complex has been identified as a sensitive habitat due to its wealth of biodiversity. Oak Lake is an important bird, mammal and fish habitat with significant populations of many sought-after species for harvesters. The effects of the project, especially a spill, could have major implications on animal populations and harvesting. The potential for a change in the health of the Oak Lake ecosystem and a decrease in quantity and quality of harvestable species for Métis needs to be addressed.
21. Sensitive Habitat - Souris River	The Souris River was identified as a sensitive habitat by several participants due to its importance as a fish and fish spawning habitat. Impacts to the Souris River during the construction and operation phases of the project such as creating water crossings and drilling under waterways could result in the loss of fish/fish spawning habitat. In addition in the event of a spill or leak in the Souris River fish populations could be contaminated. This could have an impact on the quality and quantity of fish available to Métis harvesters; which in turn could affect the food security and health of Métis people.
22. Sensitive Habitat - Glenboro Marsh	Glenboro Marsh and surrounding area was identified as an important habitat for Métis harvesting, with a large number of land use and occupancy focused in that area, as well as sensitive habitat due to its wealth of biodiversity. Glenboro Marsh is an important bird and mammal habitat with significant populations of many sought after species for harvesters. The effects of the project, especially a spill could have major implications on animal populations and harvesting. The potential for a change in the health of the Glenboro Marsh ecosystem and a decrease in quantity and quality of harvestable species for Métis needs to be addressed.
23. Sensitive Habitat - Alexander Marsh	Alexander Marsh has been identified as a sensitive habitat due to its wealth of biodiversity. Alexander Marsh is an important bird and mammal habitat with significant populations of many sought after species for harvesters. The effects of the project, especially a spill could have major implications on animal populations and harvesting. The potential for a change in the health of the Alexander Marsh ecosystem and a decrease in quantity and quality of harvestable species for Métis needs to be unaddressed.
24. Sensitive Habitat –	Spruce Woods Provincial Park has been identified as a sensitive habitat due to its wealth of biodiversity. Spruce Woods is an

Potential Impacts	Concerns
Spruce Woods Provincial Park	important bird and mammal habitat with significant populations of many sought after species for harvesters. The effects of the project, especially a spill could have major implications on animal populations and harvesting. The potential for a change in the health of the Spruce Woods ecosystem and a decrease in quantity and quality of harvestable species for Métis needs to be addressed.
25. Sensitive Habitat- Assiniboine River	The Assiniboine River was identified as a sensitive habitat by several participants due to its importance as a fish and fish spawning habitat. Impacts to the Assiniboine River during the construction and operation phases of the project such as creating water crossings and drilling under waterways could result in the loss of fish/fish spawning habitat. In addition in the event of a spill or leak in the Assiniboine River fish populations could be contaminated. This could have an impact on the quality and quantity of fish available to Métis harvesters; which in turn could affect the food security and health of Métis people.
26. Human Health Concerns	Many respondents were concerned about the human health effects of the project especially on smaller, more remote communities. Fears surrounding the contamination of water, animals and soil were prevalent themes, as ultimately it would be humans who consume or utilize these resources. Several participants said that the ability to detect spills or leaks before they had an impact on human health was a major concern. Potential health implications for Métis people in the event of a spill or leak need to be addressed.
27. Food Security Concerns	Some study participants had concerns over food security due to the nature of the Métis diet and their dependence on wild foods. Several participants mentioned the importance of harvesting for their food supply. Apprehension over contamination from leaks or spills entering the food chain through animals or fish was a major concern. The potential for contaminants entering the food chain and impacting Métis food security and harvesting needs to be addressed.
28. Effects on Métis Harvesting – Economic Concerns	Multiple study participants pointed to economic impacts of the project as a major spill could have a detrimental impact on the land, wildlife and Métis people. Many respondents harvest in the vicinity of the pipeline and in the event of a major spill all of these activities would be impacted or potentially ceased. The main economic impact from the project was thought to be the potential effect on Métis harvesting, as many Métis people use harvesting to save money on food costs. In the event of a spill near harvesting locations this could impact the Métis people who rely on these areas for food savings and traditional diet.
29. Effects on Agriculture	Concerns about the effects the project on agriculture if a spill was to occur on agricultural lands were observed. Some Métis people use agriculture as a primary source of income thus spills or leaks would be detrimental to the livelihood of Métis farmers; these concerns remain unaddressed.
30. Effects on Commercial Trapping, Guiding and Outfitting	From an economic perspective some study participants stressed the importance of commercial trapping to their livelihood from an income standpoint and one participant spoke about the importance of guiding and outfitting. These participants used commercial trapping, and guiding/outfitting as a way to supplement their income. In the event of a spill or leak, the quality and quantity of animals available for trapping and for guiding/outfitting livelihoods would decrease and ultimately impact the economic viability of Métis commercial trappers and guider/outfitters.
31. Effects on Cultural Sites	The need for Enbridge to respect the distinct cultural identity and cultural sites of the Métis people was of paramount concern for many respondents. The impact to cultural heritage sites such as Métis gathering locations, trade routes, burials and spiritual sites during construction and operation poses a threat to the cultural heritage of Métis people; these concerns remain unaddressed.

Potential Impacts	Concerns
32. Concerns about Decommissioning Plan for Existing Line 3	Multiple study participants expressed concerns over the decommissioning plan for the existing Enbridge Line 3 pipeline citing environmental concerns associated with the decommissioned line. Respondents were concerned about legacy issues the existing pipeline could cause in terms of soil or water contamination as the pipeline corrodes over time. The environmental concerns regarding the suitability of the decommissioning plan remain unaddressed.
33. Human Population Increase	With the construction and operation phase of the project there will be an increase in human populations in traditionally less populated areas that are utilized for harvesting. The increase to human population puts pressure on Métis harvesting activities as animals are sensitive to the presence of humans and their associated impacts such as pollution and noise. In the event that human population increases cause animals to change their traditional range, this could impact Métis harvesting as areas once reliable for harvesting could become less attractive to animals, this concern remains unaddressed.
34. New Access Routes	The construction of the project may create new access routes, which will ultimately bring more people into traditionally less populated areas. This may increase hunting of the area and disturbance of animals in the area. The new access routes and potential impact to Métis harvesting due to increased access to harvesting locations could impact harvesters from a socio-economic perspective due to decreased yields and inability to harvest in traditional areas; these concerns remain unaddressed.
35. Impacts to Species at Risk	The potential impacts of the project on species at risk in the form of habitat loss/disruption or contamination in the event of a spill remains a concern as these species are highly sensitive to any ecological changes and are currently on the verge of extinction. The Manitoba Government has already put measures in place to protect species at risk, however due to the elusive nature of many species at risk it is difficult to know exactly where they are located. With multiple study participants reporting the presence of species at risk in the study area the ability for Enbridge to detect important habitat and guarantee the protection of species at risk remains unaddressed.

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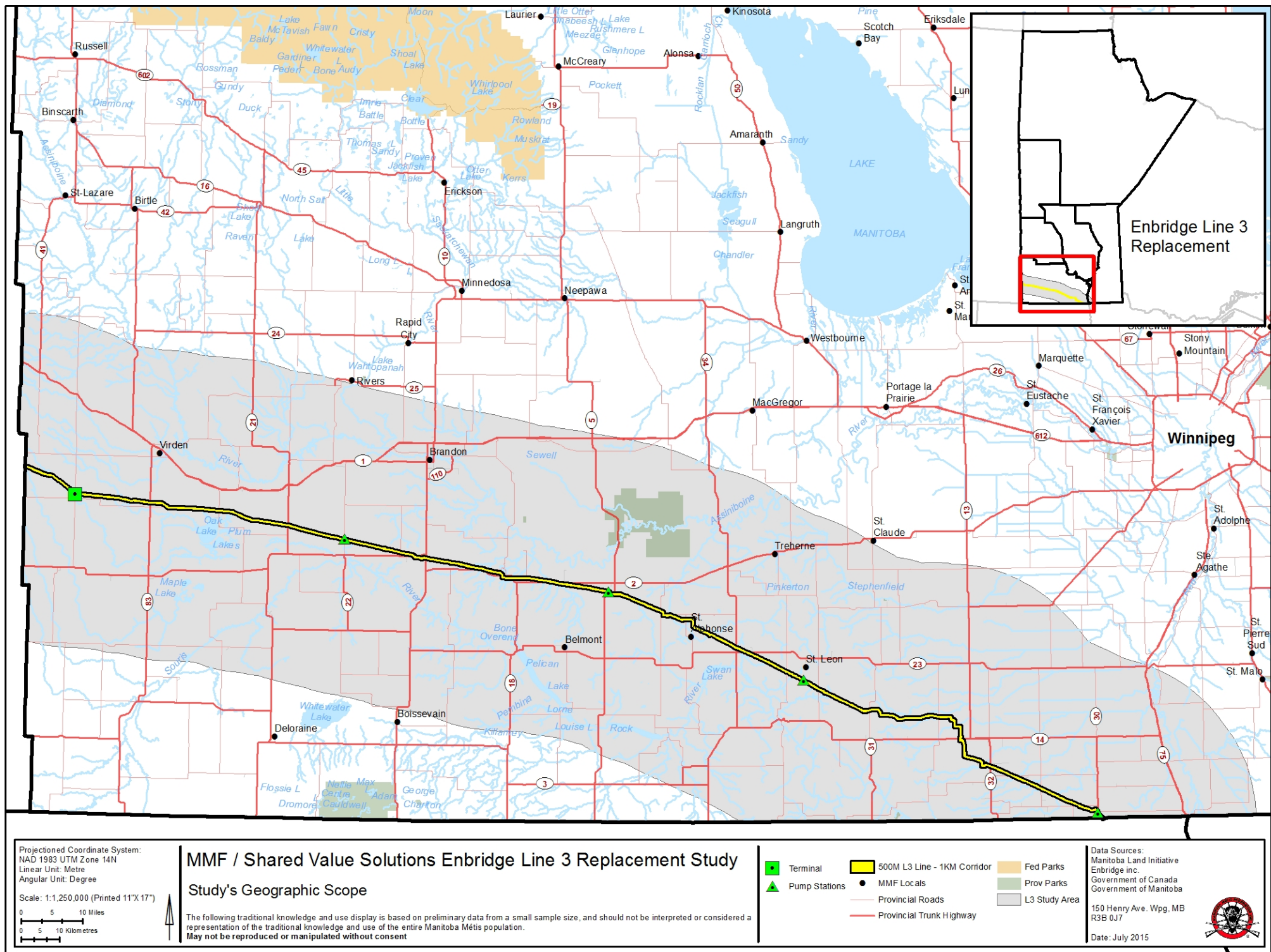
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Appendix A: Map of Southwest Region



Appendix B: TKLUS Permission Form



PIN# _____

Manitoba Métis Federation 2015 Métis Land Occupancy & Use Study Permission Form

Shared Value Solutions (“SVS”) has been hired by the Manitoba Métis Federation (“MMF”) to undertake a Land Use and Occupancy Study with Métis who harvest in the Southwest Region of Manitoba. The funding for this project is provided by Enbridge as part of the Line 3 Replacement Program, a crude oil pipeline that will stretch 1,073 kilometres from Hardisty, Alberta to Gretna, Manitoba and will include the construction of 18 new pump stations, three new tanks at the Hardisty Facility, and associated interconnection work at Enbridge facilities along the pipeline route.

The knowledge shared during this study will be used by the MMF to inform Enbridge and the National Energy Board about environmentally, culturally and economically significant sites across the Study’s Geographic Scope, including the pipeline’s right-of-way (ROW) that extends 500 m on each side of the line and how that use relates to the Line 3 Replacement Program being proposed by Enbridge.

The final result of your interview will be a map showing areas where you have and continue to use the land. Once the study is finished you will be provided with a copy of your map and interview transcript that you complete with us. Information from this interview will be brought together with information from other MMF citizens. Maps will be produced that do not identify you or your name specifically, but will show all of collected information from MMF together. Those aggregate maps will be shared with MMF, with Enbridge, with the National Energy Board, and potentially other government or business organizations.

We would like to audio and video record your interview with your permission. The recording will be used to develop the written transcript of this interview. It may also be used to verify your responses or for other purposes by the MMF which would be distributed outside of MMF, such as for presenting the results to Enbridge or regulators.

I, _____ (print name) agree to the terms described above and have discussed and resolved any concerns I have prior to consenting to this interview.

Signature _____

Witness _____

Date _____

Appendix C: Line 3 Pipeline Overview Handout

Enbridge Line 3 Replacement Program

Project Overview

The information provided in this document is meant to be an overview of Enbridge's proposed Line 3 Replacement Program ("Line 3 Pipeline"). This information is being provided to inform Manitoba Metis Federation (MMF) citizens about the project so that they can make informed comments about the potential impacts on the environment, people, the economy, and general human health and safety.

Shared Value Solutions consultants have developed this overview from materials found online. We will do our best to inform you based on this information, but we are not experts in the technology or Line 3 project details. If you have any questions about this information, we can record those and include them in our report.

What is the Line 3 Replacement Program Project?

Enbridge is proposing the Line 3 Pipeline (Figure 1) in order to **replace** the majority of the existing 1,073 km pipeline. The existing pipeline will remain in-tact but will not be operational once the new line is installed. The new Line 3 Pipeline starts at a terminal near Hardisty, Alberta and runs to the Gretna Station located near Gretna, Manitoba. There will also be 18 new pump stations installed.

Most of the Line 3 Pipeline will be constructed within a right of way that is 45m wide and parallels and overlaps the existing other Enbridge pipelines. However, there will be 306km of pipeline rerouting in Manitoba. Rerouting is intended to reduce impacts on existing residences, facilities and utilities and to allow crossing of water bodies, roads, utilities and other infrastructure.

There will be valves placed along the Line 3 Pipeline at locations both upstream and downstream of major water crossings. These valves will allow Enbridge operators to close the flow of oil in the event of a spill to decrease the impact to the environment.

The proposed Line 3 Pipeline will move approximately 760,000 barrels of **light, medium and heavy crude oil** per day. The replacement is thought to be necessary to make sure that the pipeline can hold up to the type of crude oil being moved through the pipe and to further prevent any spills. Part of this process includes increasing the size of the pipe from 34 to 36 inches.



Figure 1: Map showing the existing pipeline (gray) and proposed Line 3 pipeline (green) routes.

Construction and Operations

The Pipeline

The major infrastructure used during construction, includes:

- Construction camps
- Pipe/equipment storage sites
- Stockpile sites
- Temporary bridges for water crossings
- Road upgrades of new temporary access roads
- Contractor facilities

The major activities that occur during construction of a pipeline occur within the 45m ROW and include:

- Clearing any vegetation in the area
- Grading and stripping topsoil
- Digging trenches using excavators (minimum 0.9m deep)
- Trench dewatering (removing water from a trench to make sure the pipe is installed correctly)
- Trenches will be backfilled using excavators, graders, bulldozers or other backfilling equipment
- Horizontal Directional Drilling under roads or other infrastructure and water (Figure 2)
- Testing the pipelines before operation using water from nearby waterbodies

For sections of the Line 3 Pipeline that cross water, possible methods of crossing water include:

- Wet Crossing Method
 - Trench is excavated through flowing water.
- Dry Crossing Method
 - Trench is excavated after the flow of water is isolated by a dam or pump-around mechanism.
- Horizontal Directional Drill Method (Figure 3)
 - A drill is used to move the pipe underneath the waterbody.

Water Crossings (unnamed lakes and drains are not included in this list)

The places where the pipeline will cross water in Manitoba include:

- Pipestone Creek and 2 tributaries
- Black Creek
- Souris River
- Spring Brook and 1 tributary
- Oak Creek (2x) and 1 tributary
- Cypress River (x2)
- Pembina River tributaries and 2 tributaries
- Mary Jane Creek
- Thornhill Coulee
- Deadhorse Creek and 1 tributary
- Hespeler Drain and 2 tributaries

- Rosenheim Drain and 2 tributaries
- Buffalo Creek and 1 tributary

Pump Stations

The major infrastructure at a pump station includes:

- An electrical station and control building
- An electrical service building with power and controls
- A pump building
- Station piping
- Mechanisms to control pump units
- Emergency shut down systems
- Leak detection system

All pump station infrastructure is secured behind a fenced and gravelled areas.

Decommissioning or Closing Down the Replaced Line

Once the new Line 3 Pipeline is in operation, Enbridge is planning to decommission the existing line. This is done to ensure that:

- Any contaminated soils are identified
- Above ground equipment and structures are removed that are no longer needed
- Culverts are removed
- Soil is decompacted
- Soil is allowed to re-vegetate naturally or is seeded
- Old Pipeline is separated from any in-service facilitates

The major activities that occur during the decommissioning phase, include:

- Cleaning the replaced pipeline
- Segmenting the pipeline at select locations
- Application of a protection to stop the corrosion of metal
- Monitoring the right of way
- Disconnecting the pipeline from operating facilities (the pump stations and terminal)

Environmental and Land Use Concerns

In general, the types of environmental risks include:

- Loss of plants and trees during construction clearing.
- Movement of invasive plant species on construction equipment.
- Effects to water/wetlands and wildlife from release of drill mud during Horizontal Directional Drilling under waterbodies and wetlands.
- Contamination of soil or water/wetlands and wildlife from construction related spills.
- Contamination of soil or water/wetlands and wildlife from oil spill during operation.
- Changes to water quality, quantity or flow from construction activities or pipe pre-testing.

- Changes to wildlife quality/quantity or movement from disturbance (noise) or habitat loss/degradation/fragmentation.
- Degradation of wildlife and water quantity/quality and impacts to MMF use for hunting, fishing, gathering or trapping for personal and/or commercial use or ceremonial/spiritual purposes.
- Disturbance or prevention of MMF hunting, fishing, gathering, trapping or ceremonial/spiritual (land use) activities from occurring during construction.
- Long-term (or unknown duration) disturbance of land use activities from construction or operation related spills.
- Disruption of community activities and well-being due to construction disturbance and presence of temporary workers.

Timeline

- Construction of 18 new pump stations may begin as early as Spring of 2016
- Construction of the actual pipeline may begin as early as Summer 2016
- Enbridge is expected the pipeline to be operational in Winter of 2017
- Enbridge is expected to decommission the existing Line 3 Pipeline in Spring 2018

It is important to make well-documented effort with MMF members and ask that they share with us their knowledge, histories, specific ecological information in the areas used for harvesting and other way of life practices. This information is presented to the proponent and regulatory agencies in a very clear manner that is consistent with the environmental assessment process (as recognized by CEAA). Such knowledge may also be useful for determining the effects on the environment of the Project, informing the cumulative effects assessment and the expansion of baseline environmental and socioeconomic studies and potentially provide input into minor alterations to the route, mitigation measures and other accommodations.

Appendix D: Interview Record Form

INTERVIEW RECORD FORM

1) Interview Date _____ 2) PIN _____

3) Respondent Name _____

4) Interview Location: Community _____ Site _____

5) Lead interviewer: _____ Others: _____

6) Other Observers: _____

7) Consent Form: Y ☐ N ☐

8) Video Recorded Y ☐ N ☐

9) SD Card # _____

10) Audio Recorded: Y ☐ N ☐ Audio Device(s) Used: _____

11) Duration of Interview _____ min

12) Sections Completed: Personal Information ☐ LUO Activities ☐

TEK ☐ Commercial Fishing/Trapping ☐

13) Map Biography Completed Y ☐ N ☐ If 'no' what was not done?

_____(back)

14) Departures from standard procedure? Y ☐ N ☐

_____(back)

15) 1st and last GIS ID _____ - _____

16) Interview Notes: _____(back)

17) Interviewer Signature: _____

If you have any additional comments about this interview, please provide details on the back of this form.

Appendix E: Land Use and Occupancy Interview Guide

Manitoba Métis Federation

Map Biography Interview Guide

Prepared by



PREAMBLE

[Introduce yourself]. I work with Shared Value Solutions and have been hired on behalf of the Manitoba Métis Federation (MMF) to interview Métis people who use the Southwest region about their land use and occupancy and to allow them share their perspectives and concerns about how the Enbridge Line 3 Pipeline Replacement Project (“the Project”) will affect the environment and their land use and occupancy. We want to ask you a number of questions about your historical, past and current knowledge and use of the land and waters in the area along the pipeline route and right of way (ROW). We also want to know about any particularly sensitive sites in the area to ensure they are taken into consideration in the planning process for the Line 3 pipeline.

The funding for this project is provided by Enbridge as part of Line 3 Replacement Project, which will stretch 1000km from Hardisty, Alberta to Gretna, Manitoba and cross through the Southwest Region. The information gathered for this study will be used by the MMF to inform Enbridge about environmentally, culturally and economically significant sites across the Study’s Geographic Scope and how that use relates to the concerns and/or opportunities around the development of the Project. The information will be used by the MMF to inform planning decisions around this and other projects and to assist in the protection of Métis culture and values.

Together we will be undertaking a map biography and oral history interview to show locations on the land where you have harvested, lived and camped and to record aspects of your way of life. With your permission, we will record this interview using audio and video recordings. The final result of your interview will be a map showing areas where and how you have and continue to use the land. Once the work has been completed you will be provided with a copy of the mapping you complete with us.

Information from this interview will be brought together with information from other Métis citizens. Maps will be produced that do not identify you or your name specifically, but will show all of collected information from the MMF together. Those maps will be shared with the MMF, with Enbridge and potentially other government or business organizations.

Review permission form

START-MARKER

If permission form completed:

Start audio & video recorders and read following statement for the transcript.

My name is _____ and today is _____, 2015.

[primary Interviewer's name]

[e.g. September 17th]

It is _____ o'clock.

I have just reviewed the permission form with _____ that she/he has signed.

[name of Interviewee]

We are undertaking a land use and occupancy and oral history survey in _____.

[location of interview]

Other interviewers who are present include _____, _____, and _____.

Observing the session are _____, _____.

Geographical locations will be recorded using GIS and descriptive information will be recorded on a laptop with a customized Microsoft Access Database.

Personal Information and Residences

Use [ACCESS] to record responses.

Interviewer does the following prior to asking the first question:

- 1. On Interview Record Form: Interviewee name, Interview #, Date, Interviewee PIN and Location of interview. Interviewer Name and PIN.*
- 2. In GIS, record the Interviewee PIN and name.*
- 3. In ACCESS enter the Interviewee PIN and Interviewer PIN*

I am going to start this interview by asking you some questions about yourself and your family, including where you have lived.

The reason I am asking you the following questions is to help us understand Métis connections to different geographic areas both within and outside of the Traditional Territory.

If there is a question that you do not feel comfortable answering or don't know the answer, please let me know by just saying "can we move on to the next question".

1. Can you tell me your full name?
2. Can you tell me what year you were born?
3. Where are you currently living? (please provide closest town or city)
 - a. How many years have you lived at the place you just mentioned?
4. Where were you born and spent most of your childhood? Prompt – Not necessarily the place where you were delivered, but the place that your parents would have taken you home.
5. What places did you live from childhood to 18 years of age? By places, I mean different towns etc. not if you perhaps moved from one home to another within the same town.
6. What places have you lived since 18 years of age? By places, I mean different towns etc. not if you perhaps moved from one home to another within the same town
7. Can you tell me your Mother's name and where she was born or spent most of her childhood years?
8. Can you tell me your Father's name and where he was born or spent most of his childhood years?

9. Can you tell me about your family and what you know about your Métis heritage?

Land Use Activities, Culture, and Traditional Knowledge

We are now going to start documenting your personal traditional use over the course of your lifetime, as well as any traditional knowledge or information you have about the historic or contemporary Métis way of life, and/or knowledge about the land, waters, animals, fish, and plants in the landscapes that you are familiar with.

- Some of the kinds of traditional use activities we'd like to hear about include:
- Harvesting animals, fish and plants for food;
- Locations where you have shot/killed moose, deer, caribou or bear;
- Harvesting fish for sale (commercial fishing);
- Trapping furbearers for sale (commercial trapping);
- Gathering animals, fish or plants for medicine, arts/crafts, heating, construction, etc.;
- Places where you overnight while on the land (e.g. cabin, campsite);
- How you access the places you go to for traditional activities, such as portages, trails, etc.;

Some of the kinds of traditional knowledge information we'd like you to share with us include:

- Historic or cultural sites or places (e.g. historic trails or portage routes, places where Métis citizens historically would gather together, Métis burial sites, historic residences, trading posts, or perhaps sacred/spiritual sites);
- Important animal, fish or plant habitats (e.g. fish spawning place, moose calving place, rare plant growing area);
- Changes to the land over time

Each time you identify a place on the map we will be asking you to show us exactly where to draw the boundaries, line or point and then asking you a series of questions about that particular place we've just drawn on the map.

Can you show us on the map places you that you may go to now or may have gone to in the past?

I'm especially interested in hearing about the places where you have gone A) in the area surrounding the Line 3 Right of Way and 500 meters on either side, and B) most often. By often, I mean places that you frequently have gone to (e.g. every year, every second year) at some point in your lifetime.

Traditional Ecological Knowledge

We are now going to ask you about any traditional ecological knowledge you may wish to share that is within Line 3 right of way (ROW) and the five mile area on either side (the “Study’s Geographic Scope”). We want to mark any particularly sensitive sites on the map to ensure they are taken in to account.

We will then also mark any traditional ecological knowledge you may have in the Southwest Region of Manitoba, beyond the Study’s Geographic Scope.

We’d like you to show us the locations of important animal, fish and/or plant habitat that you have personal knowledge about.

Spawning Areas:

10. Are you aware of any fish spawning habitat areas? If so, where is the place located?

Ask for each feature mapped:

- a. Which fish species use this spawning area?
- b. Which season is this a spawning ground?
- c. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- d. Have you noticed any changes in the quality or use of this habitat? Do you know what caused this change?

Wetlands

11. Are you aware of any wetlands? If so, where is this place located?

Ask for each feature mapped:

- a. Is there a particular season this is most important?
- b. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- a. Have you noticed any changes in the quality or use of this habitat? Do you know what caused this change?

Mammal Seasonal Habitat:

12. Are you aware of any seasonal habitat for mammals (moose, elk, deer, caribou, bear, bats etc.)? If so, where is the place located? For example a place where animals go to calve or give birth, a yarding area, a wintering area, or a rutting area?

Ask for each feature mapped:

- a. Which species is this place/area important for?
- b. Is there a particular season this is important habitat?

- c. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- d. Have you noticed any changes in the quality or use of this habitat? Do you know what caused this change?

Mammal Migration Routes:

- 13. Are you aware of any migration routes used by mammals (moose, elk, deer, caribou, bear, bats etc.)? Can you show me on the map where these migration routes are?

Ask for each feature mapped:

- a. Which species uses this route?
- b. Why do they use this route?
- c. What time of year does the species use this route?
- d. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- a. Have you noticed any changes in the quality or use of this habitat? Do you know what caused this change?

Bird Habitat:

- 14. Are you aware of any waterfowl, upland bird habitat or other bird areas? (e.g. migration stop-overs, nesting, staging, mating areas) Can you show me on the map where these places are?

Ask for each feature mapped:

- a. Which species of bird use this area?
- b. Why do you think this place is good for stop-over, nesting, staging or mating?
- c. What time of the year is this place used for bird habitat?
- d. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- e. Have you noticed any changes in the quality or use of this habitat? Do you know what caused this change?

Insect Habitat: (Note: we are especially interested in bees)

- 15. Are you aware of any important areas for insects or areas where you have seen a lot of insects (e.g. dragonfly, butterfly, beetles, bees)? Can you show me on the map where these places are?

Ask for each feature mapped:

- a. Which species are you discussing?
- b. Why does this species go here?

- c. What time of the year have you seen this species here?
- d. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- a. Have you noticed any changes in the quality or use of this habitat? Do you know what caused this change?

Reptiles & Amphibians:

16. Are you aware of any important reptile or amphibian areas? (e.g. nesting, mating areas for turtles, frogs, salamanders, snakes, and/or tadpole areas, etc.)

Ask for each feature mapped:

- a. Which species are you discussing?
- b. What time of the year is this place used by the species?
- c. Why do you think this place is good for this species?
- d. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- e. Have you noticed any changes in the quality or use of this habitat? Do you know what caused this change?

Salt Licks:

17. Are you aware of the locations of any salt or mineral licks that animals use? If so, can you show me where the salt lick is located and what animals you have seen using it.

Ask for each feature mapped:

- a. What species of animal use this salt lick?
- b. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- a. Have you noticed any changes in the quality or use of these salt licks? Do you know what caused this change?

Wild Rice:

18. Are you aware of the locations of any historic and/or current wild rice fields? If so, can you show me where these are/were located?

Ask for each feature mapped:

- a. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- b. Have you noticed any changes to the quality or use of the wild rice areas? Do you know what caused this change?

Plant Habitat:

19. Are you aware of the locations of any important plant habitat (eg. flowers, grasses, medicinal/ceremonial plants trees, etc) that you DON'T harvest? If so, can you show me where these are/were located? What type of plant is this?

Ask for each feature mapped:

- a. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- b. Have you noticed any changes in the quality of this habitat? Do you know what caused this change?

Species at Risk: (Note: Show participant the species at risk document)

20. Are there any species at risk that you are aware of? If so – what species? Can you share what you know and show on the map where this is?

21. Are there any species that are not on this list that you feel are at risk?

Ask for each feature mapped:

- a. Why do you feel these species are at risk?
- b. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

Agriculture and Bee-Keeping:

22. Are there any locations where you have farmed animals or crops and/or kept bees? Can you share what you know and show on the map where this is?

Ask for each feature mapped:

- a. What type of crop and/or animals did you farm?
- b. Did you sell the honey from your bees?
- c. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- d. Have you noticed any changes to the quality of your farmland and/or bees? Do you know what caused this change?

Other Important Habitat:

23. Is there any other kind of important habitat for animals/fish/plants that we haven't discussed?

Ask for each feature mapped:

- a. What type of species use this area?
- b. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

- c. Have you noticed any changes to the quality of this area? Do you know what caused this change?

Sensitive Habitat:

- 24. Of the areas we have just mapped, can you point to any locations that are particularly sensitive?
 - a. Why do you feel this way?
 - b. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

Changes to Habitat:

- 25. Have you noticed any changes to any of the areas we just discussed including quality of the habitat, use of the habitat, size or extent of the habitat and distribution or location of the habitat? If so, can you show me the location where the changes occurred?
 - a. If so, what are the changes?
 - b. When did the changes occur?
 - c. Do you know what caused these changes?
 - d. Did the change affect the way you use the location or access the land?
 - e. Did the change affect how you use any species?

Now do the survey with the participant

Hunting

I am now going to ask you questions about where you have harvested different kinds of animals –mammals and birds. For this part of the interview we only want to map places where you killed animals to feed your family or community, not for any type of commercial or barter purposes unless you took some home to eat. We are going to map these specific locations using points on the map. For these questions, we are only mapping locations you have used personally.

26. Do you hunt? Can you tell me which of the following animals you hunt (not trap or snare) to feed yourself or your family?

Large Mammals

- ☐ Moose
- ☐ Woodland Caribou
- ☐ White-Tailed Deer
- ☐ Black Bear
- ☐ Wolf
- ☐ Elk
- ☐ Other Mammal

Small Furbearers

- ☐ Badger
- ☐ Beaver
- ☐ Coyote
- ☐ Fisher
- ☐ Fox
- ☐ Lynx
- ☐ Marten
- ☐ Mink
- ☐ Muskrat
- ☐ Otter
- ☐ Porcupine
- ☐ Rabbit
- ☐ Wolverine
- ☐ Other Furbearer

Birds

- ☐ Duck
- ☐ Goose
- ☐ Grouse
- ☐ Ptarmigan
- ☐ Bird Eggs
- ☐ Other Upland Bird
- ☐ Other Waterfowl

For each species mapped ask the following questions:

- a. When did you kill this _____(e.g. Moose). *[NOTE: In Access you can only choose in the last 10 years, before 2005, or date unknown]*
- b. What season do you generally harvest this species?
- c. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

27. Have you noticed any changes to the quality and/or quantity and/or distribution of these species? *[NOTE: map as many changes as necessary]*

- a. Have any changes occurred that have prevented you from hunting a particular species?
- b. When did you notice these changes?
- c. Do you know what might have caused these changes?
- d. Did the change affect the way you use this location and/or access the land?
- e. Did the change affect how you use any species?

Trapping

Have you ever trapped for personal or commercial use? *(if no, skip to next section)*
I am now going to ask you questions about where you harvested different kinds of animals to sell the fur. We are going to map these specific locations on the map. For these questions, we are only mapping locations you have used personally as a trapper or trapper helper. (NOTE: if they trapped for non-commercial purposes use **personal trapping** code)

28. Do you trap? If yes, can you please show me on the map?

29. From the list below can you identify which species you trap?

- | | |
|-------------------------------|---------------------------------------|
| <input type="radio"/> Bear | <input type="radio"/> Otter |
| <input type="radio"/> Beaver | <input type="radio"/> Rabbit |
| <input type="radio"/> Coyote | <input type="radio"/> Raccoon |
| <input type="radio"/> Fisher | <input type="radio"/> Squirrel |
| <input type="radio"/> Fox | <input type="radio"/> Weasel |
| <input type="radio"/> Lynx | <input type="radio"/> Wolf |
| <input type="radio"/> Marten | <input type="radio"/> Wolverine |
| <input type="radio"/> Mink | <input type="radio"/> Other furbearer |
| <input type="radio"/> Muskrat | |

Ask for each trapline mapped:

- a. When did you trap here ***[NOTE: When did you first start trapping here and when was the last time you trapped there? AND THEN MAKE SURE YOU PICK A TIME PERIOD IN ACCESS]***
- b. Which season do you go here?
- c. ***[NOTE: IF this is in the ROW ask the following:]*** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?
- d. How do you access this area? ***(NOTE: map access routes and remember to include dates)***
- e. Where do you stay when you are trapping? ***(NOTE: map occupancy sites and remember to include dates)***

30. Have you ever trapped anywhere else or on other traplines? ***[NOTE: If yes, then ask questions above again]***

Changes to trapping:

31. Have you noticed any changes to the quality, quantity, and/or distribution of the animals that you trap?
32. When did these changes occur?
33. Do you know what might have caused these changes?
34. Did this change affect the way you use this location or access the land/
35. Did this change affect how you use any of the species that you trap?

Fishing

36. Do you ever do personal fishing or commercial fishing?

Commercial Fishing:

Have you ever fished commercially? *(if no, skip to next section)*

I am now going to ask you questions about where you harvested different kinds of fish for commercial use. We are going to map these specific locations using polygons on the map. For these questions, we are only mapping locations you have used personally.

37. Can you show me where you commercially fish and which species you fish there?

Bass	Lake Whitefish
Burbot	Mooneye
Bait Fish	Pickeral/Walleye
Cisco	Sauger
Carp	Sucker (Longnose and White)
Catfish (Channel and Brown Bullhead)	Trout (Rainbow and Lake)
Goldeye	Yellow Perch
Jackfish/Pike	Other Fish
Lake Sturgeon	

Ask for each commercial fishing point mapped:

- How long have you been a commercial fisherperson? ***[NOTE: When did you first commercially fish there and when was the last time you commercially fished there? AND THEN MAKE SURE YOU PICK A TIME PERIOD IN ACCESS]***
- When did you fish commercially in this area?
- [NOTE: IF this is in the ROW ask the following:]*** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

Changes to commercial fishing:

- Have you noticed any changes to the quality, quantity, and/or distribution of the fish you harvest?
- Have you noticed any changes to the quality of the water?
- When did these changes occur?
- Do you know what might have caused these changes?
- Did this change affect how you use any of the fish you harvest?

Personal Fishing:

I am now going to ask you questions about where you harvested different kinds of fish. For this part of the interview we want to map only places where you killed fish to feed your family or community, not for any type of commercial or barter purposes unless you took some home to eat. We are going to map these specific locations using points on the map. For these questions, we are only mapping locations you have used personally.

43. Can you show me where you fish for yourself or to provide for your friends and family?
Can you tell me which species you fish?

Bass	Lake Whitefish
Burbot	Mooneye
Bait Fish	Pickrel/Walleye
Cisco	Sauger
Carp	Sucker (Longnose and White)
Catfish (Channel and Brown Bullhead)	Trout (Rainbow and Lake)
Goldeye	Yellow Perch
Jackfish/Pike	Other Fish
Lake Sturgeon	

Ask for each personal fishing spot:

- When did you go to these places? **When did you first harvest a fish there and when was the last time you harvested a fish there?** [NOTE: MAKE SURE YOU PICK A TIME PERIOD IN ACCESS]
- Which season do you go there?
- [NOTE: IF this is in the ROW ask the following:] Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

Changes to Personal Fishing:

44. Have you noticed any changes to the quality, quantity, and/or distribution of the fish and/or water in the places you harvest?
45. When did these changes occur?
46. Do you know what might have caused these changes?
47. Did this change affect how you use any of the fish you harvest?
48. Did this change affect how you accessed these areas?

Gathering

49. Do you ever gather plants or natural materials? Can you tell me which species you harvest? Can you show me some of these places on the map?

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> ○ Asparagus ○ Wild Bergamot ○ Birch ○ Blueberries ○ Burdock ○ Cattails ○ Cherries ○ Choke Cherries ○ Clover ○ Cranberries ○ Fiddleheads | <ul style="list-style-type: none"> ○ Leeks ○ Mint ○ Mushrooms ○ Wild Ginger ○ Nuts ○ Wild Onion ○ Other Plant ○ Pin Cherries ○ Plantain ○ Poplar ○ Raspberries ○ Rat Root ○ Wild Rice | <ul style="list-style-type: none"> ○ Red Willow ○ Roots ○ Sage ○ Saskatoon Berries ○ Seneca Root ○ Spruce ○ Strawberries ○ Sumac ○ Sweet Grass ○ Syrup ○ Thistle ○ Other Wood/Trees ○ Other Plant |
|---|--|--|

50. What did you use these gathered materials for? *(NOTE: ask for the following uses)*

<ul style="list-style-type: none"> ○ Arts/Craft ○ Construction Plant/Natural Material ○ Ceremonial/Medicinal Plant ○ Cash/Wage Income Plant/Natural Material ○ Drinking Water 	<ul style="list-style-type: none"> ○ Clay/Soil/Rocks (Earthen Material) ○ Edible or Food Plants ○ Fire Wood ○ Other Plant or Natural Material
--	---

Ask for each mapped feature:

- a. When did you go to these places? *[NOTE: When did you first start going there and when was the last time you went there? AND THEN MAKE SURE YOU PICK A TIME PERIOD IN ACCESS]*
- b. Which season do you go there?
- c. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

Changes to Gathering:

51. Have you noticed any changes to the quality, quantity, and/or distribution of the things you gather?
52. When did these changes occur?
53. Do you know what might have caused these changes?
54. Did this change affect how you use any of the plants or materials you harvest?

55. Did this change affect how you accessed these areas?

Overnight Locations

56. Are there any places where you stay out on the land overnight? If yes, can you please describe this location?

- Active Cabin/Bush Camp
- Commercial Accommodation (including commercial camp grounds)
- Temporary Structure (e.g. tent, lean to)
- Other overnight site

Ask for each mapped feature:

57. When did you go to these places? **[NOTE: When did you first start going there and when was the last time you went there? AND THEN MAKE SURE YOU PICK A TIME PERIOD IN ACCESS]**

58. Which season do you go there?

59. How do you access this area? *(NOTE: map access routes)*

60. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that

Changes to Overnight locations:

61. Have you noticed any changes to the places that you stay overnight?

62. When did these changes occur?

63. Do you know what might have caused these changes?

64. Did this change affect how you use of these locations?

65. Did this change affect how you accessed these locations?

Access Routes

66. Are there any other access routes that you use?

- Boat Landing
- Historic Access Routes/Portage
- Portage
- Land Route/Trail
- Water Route/Trail
- Other Access Feature

Ask for each mapped feature:

- a. When did you go to these places? **[NOTE: When did you first start going there and when was the last time you went there? AND THEN MAKE SURE YOU PICK A TIME PERIOD IN ACCESS]**
- b. Which season do you go there?
- c. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

Changes to Access Routes:

67. Have you noticed any changes to these access routes?
68. When did these changes occur?
69. Do you know what might have caused these changes?

Cultural Sites

70. Do you know of or use any Métis specific cultural sites? For example:

- **Burial Sites:** What I mean by this is places where Métis people were buried, historical non church cemeteries or perhaps places where Métis people were buried in the bush.
- **Métis historic significant sites:** What I mean by this is places where large numbers of Métis people would congregate and live out on the land, places where treaty signings or battles occurred, or any other specific locations that have been used for generations by Métis people.
- **Buffalo jump sites:** By this I mean is a cliff formation which Métis people historically used in order to hunt and kill bison.
- **Contemporary gathering place:** By this I mean places currently used by Métis community members to gather together for recreation, feasts, annual events, etc.?
- **Historic family site:** By this I mean any locations that have been used by your Métis family for generations that we haven't already mapped. Such as historic family homesteads, traplines, commercial fishing areas, etc.
- **Important landscape features:** By this I mean places that are especially valued because of their beauty, their elevation, unique plant or rocks etc.
- **Spiritual/Ceremonial/Sacred site:** By this is mean any sites used by Métis people for spiritual, ceremonial or sacred purposes such as fasting camps or sweat lodges.
- **Trading post:** By this I mean any historic trading posts used by Métis people (e.g. Hudson Bay or Northwest Company Posts?)
- **Recreational areas:** By this I mean areas on the land that you use for recreation such as swimming, hiking, bird watching, snow shoeing.
- **Other cultural site:** By this I mean any other cultural sites used by or that are important to Métis people.

71. Can you tell me any stories about these places or their significance to Métis culture?

- a. Is there a specific Métis name for this place?
- b. Can you explain why this place is special?
- c. Have you ever been to this place yourself? If yes, have you visited in the last year? The last 5 years? The last 10 years?
- d. **[NOTE: IF this is in the ROW ask the following:]** Do you have any concerns for this particular area in relation to Line 3? And if so, can you tell me more about that?

CLOSING QUESTIONS

- Do you feel that the data shown here represents everything that we've talked about today? Is every area that we've discussed actually on the map?
- Do you feel that the areas that we've mapped in today's interview are representative of your traditional knowledge and land use? Do they capture everything?

Oral History

NOTE: BREAK AND RESET THE ROOM FOR ORAL HISTORY

Questions of Métis Identity

- 72. Did you always know you were Métis?
 - a. [If no], Why not?
- 73. Growing up, what did it mean to you, your family and your way of life to be Métis?
- 74. Are one of these locations the place you would consider the location of your Métis community? Can you explain?
- 75. Can you tell us about how
 - a. Gathering is important to you as a Métis person?
 - b. Hunting is important to you as a Métis person?
 - c. Fishing is important to you as a Métis person?
 - d. Trapping is important to you as a Métis person?
- 76. Who do you harvest with? Are they also Métis?

Questions Specific to Land Use

- 77. Do you remember the first time you went out on the land to:
 - a. Hunt
 - b. Fish
 - c. Gather
 - d. Trap
- 78. What is your favourite:
 - a. Animal to hunt or gather and why?
 - b. Fish to hunt or gather and why?
 - c. Plant to hunt or gather and why?
- 79. Can you tell me about some of your favorite recipes or ways that you prepare harvested food? Preparing fish, moose, deer, beaver, muskrat, grouse, duck, goose, wild plants, bird eggs, etc.
- 80. Can you tell me one of your favorite stories of being on the land? Can you share this with us?
- 81. If you trap, what do you do with the meat, pelts, or hides of the animal? What is for food? Sale? Or to give away?
 - b. Do you have a favorite story about trapping? Can you share this with us?
 - c. Did your parents or other relatives or ancestors trap as part of their way of life or livelihood? And can you share some stories you may know with us?

Questions on Cultural Connections to the Land

- 82. Does your family have any geographic connections to a specific area that we haven't discussed yet?

83. Reflecting on the areas we have just mapped and the stories we've discussed, can you comment about the importance the lands and waters that you and your family use within the Southwest Region to your cultural or traditional way of life? (Please explain).
84. How does your access to and/or ability to harvest in the Southwest Region affect you and/or your family economically?
85. Do you, or does anyone in your family supplement their income through harvesting activities? If so, please explain *(mark on map if not done already)*
86. Thinking about all of the places you have shown us and the places you have marked on the map, which places in the Southwest Region are the most special to you, your family, friends and ancestors?
87. Can you tell us a bit about your memories and/or experiences of these places? Or any stories/teachings attached to this/these places

Potential Impacts

NOTE: MAKE SURE YOU ARE TAKING GOOD NOTES

Cumulative Effects Questions

88. Are you familiar with any other developments in the area (such as logging, mineral exploration, pulp and paper)?
- Have these developments had any effects on or changed your ability to access the land and/or waters or harvest in these areas?
 - Have these developments effected the environment and ecological features in the area? (Habitat, numbers of species, health of species, etc.)
 - When did they start? How long did they last? How severe were they? What were the implications? Why do you think that?

Enbridge Line 3 Effects Questions

[Look at the Plain Language Project Summary with the Participant]

89. Have you heard anything about the Line 3 pipeline corridor through conversations or stories from family or friends?
- If so, describe what you know from these sources.
90. Have you heard about or experienced any positive or negative effects of the existing pipelines along the same corridor area?
91. Do you have any concerns with the proposed location of Line 3, generally?
92. Given the location of the pipeline do you believe that the development will change your use of the land or waters in the area?
- Hunting, Fishing, Trapping, Gathering sites? If so, how?
 - Occupation sites (cabins, camping sites)? If so, how?
 - Historic sites of importance? If so, how?
 - Culturally or spiritually significant sites? If so, how?
93. If so, how do you think your use will change and how will that affect you/your family and/or your community and your Métis way of life?
94. Do you have any general concerns about environmental effects that could occur during the construction or operation of the pipeline?

95. Are there any ecological features or species you would want to be sure to protect in the pipeline corridor area?
- a. How do you think they should be protected?
96. Do you feel that the pipeline will have an effect, positive or negative, on you and your family? Please explain?
- a. Health? If so how?
 - b. Economic situation? If so, how?
97. From your experience, are there any ways the potential negative effects could be reduced or any mitigation measures you think should be put in place?
98. If you could share one thing with a representative from Enbridge, what would that be?
99. Is there anything else you would like to share with us before the end of the interview?
100. Is there anything you would like to add about your land-use, your Métis identity or any additional comments you would like to make about the Line 3 pipeline project?
101. Can you think of anyone else who we should contact? (e.g. someone who harvests or owns a cabin, camp, etc. along the Line 3 corridor)

END-MARKER

When interview is over read the statement below before turning off audio and video recorders.

My name is _____ and today is _____, 2015.
[primary Interviewer's name] *[e.g. August 17th]*

I have just completed the land use and occupancy survey with _____.

It is _____ o'clock.

Other interviewers who were present include, _____, _____. Observing the session were____
, _____.

Appendix F: Mapping Methods Manual



Data Collection Manual

June 2015

Manitoba Métis Federation Enbridge Line 3 Land Occupancy & Use Study

Manitoba Métis Federation

Enbridge Line 3
Métis Land Occupancy and Use Study
(MLOUS)

Draft Data Collection Manual for Map Biography and Oral History
Interviews

Prepared by



This manual will outline the protocol and procedures for both the questionnaire and mapping portions of the interview.

The methods presented in this manual are adapted from Terry N. Tobias (2009), *“Living Proof: The essential data collection guide for indigenous use-and-occupancy map interviews”*

Setting up for the Interview

Step 1

Set up GIS and Reference Map

If available, hang/tape the reference map on to the wall or an easily visible place (where it won't be in the way).

Step 2

Set up AUDIO and VIDEO recording equipment

Camera, Audio, Lighting

Camera – Set up on tripod and plug into wall/extension cord

Lighting – Set up light on tripod, add umbrella – adjust accordingly

Audio – Set up mics and test sound, check battery life

Audio (2) – Turn on and check battery life for digital recorder, set on table near maps facing respondent.

Step 3

Set up Computer/ACCESS database

Step 4

Make sure the following items are readily available:

- Permission Form
- Honorarium Form
- Interview Guide
- Interview Record Form
- Reference Map
- **Harvester Survey**
- Pointer (for interviewee to use as pointer)
- Ballpoint pen
- Paper pads
- Water

Step 5

Organize Interview Space

-Tidy the room. Turn off phones/ringers. Make coffee, tea, water.

Step 6

Assign Respondent PIN

Conducting the Interview

(after respondent arrives)

Step 7

Review Honorarium Form

After you have welcomed the interviewee and offered them water/coffee/tea, review the honorarium form.

Make sure the respondent understands the arrangement and signs the form.

Step 8

Discuss Confidentiality and Sign Permission Form

Ask whether the respondent agrees to have their interview video recorded and note response on the Permission Form and Interview Record Form.

Explain that we MUST audio record the interview.

Let the respondent know that the information provided during the interview will be shared with MMF and Enbridge. The information provided during the interview will be provided WITHOUT NAMES ATTACHED.

The map data will be used to inform MMF and Enbridge for the Enbridge Line 3 , as well as future projects. (This information is in the permission form)

If the respondent has any concerns beyond these points, please discuss with them until they are comfortable or decline the interview (note this and further reasons for declining on Interview Record Form).

Step 9

Identify the Interviewees Use Area

Ask the respondent to look at the reference map and select the area to focus on for the interview (the areas that they use or have used in the past).

Step 10

Give respondent a pointer

Make sure the respondent has pointer.

Explain that you will be marking features that they identify using GIS.

Explain that you will be asking the person to use the pointer tip to point out locations and features of the maps as carefully as possible on the computer screen – to ensure precision and accuracy of mapped points.

Step 11

Check and START Recording Equipment

After making sure the respondent is comfortable (seated comfortably, has water/coffee, etc.) re-check and START the recording equipment.

TURN ON and start recording VIDEO

TURN ON and start recording DIGITAL AUDIO

Check Volume on Mics – ask respondent how their trip in was, how their morning was, etc. and check volume on receiver and on video camera.

Step 12

Introduce Land Use and Occupancy Portion of the Session

Start the interview by reading the first TWO pages of the Land Use and Occupancy Interview Guide – PREAMBLE and INTERVIEW START MARKER.

Step 13

Administer Land Use and Occupancy Interview

Step 14

Verbally Anchor Data

For all mapping questions you must verbally anchor every feature you mark on the map.

Read the GIS ID and use of that point out loud so that the recording equipment hears what you are doing, the ACCESS person has confirmation they have recorded it correctly, the mapping person confirms they have written it correctly and the respondent can correct you if you have made an error in location or use/activity. Example: *I have just drawn a Moose hunting site near such and such river/lake/town and labelled it GIS ID 56.*

Step 15

Use Note Pad

Use the note pad to keep track of any loose ends, feedback or important points as you go through the interview.

Step 16

Check recording equipment frequently

Every so-often check that the audio and video and still recording.

Check the volume levels on the audio equipment.

Check the battery life on all.

Step 17

Close Land Use and Occupancy Interview

Read closing statement before turning off recording equipment.

Step 18

Prepare for Oral History Interview

Provide the interview participant with a chance to break and get water, fresh air, or use the facilities.

Tidy the area of all mapping tools and re-organize the room as needed for the oral history interview.

Step 19

Check and START Recording Equipment again

Frame the camera shot so it is focused on the respondent

After making sure the respondent is comfortable (seated comfortably, has water/coffee, etc.) re-check and START the recording equipment. TURN ON and start recording VIDEO

TURN ON and start recording DIGITAL AUDIO

Check Volume on Mics – ask respondent how their trip in was, how their morning was, etc. and check volume on receiver and on video camera.

Step 20

Introduce Oral History Portion of the Session

Start the interview by reading the first page of the Oral History Interview Guide – PREAMBLE.

Step 21

Administer Oral History Interview

Step 22

Switch off Recording Equipment

Stop recording and power off camera.

Remove SD card and put in “FULL SD” case.

Note time stamp on digital audio device and then Stop recording.

Switch off mics.

Step 23

Fill in Interview Record Form

Fill out all sections of the form and write any additional information on the back of the form.

Mapping Conventions & Techniques

The following table identifies specific mapping conventions related to the appropriate use of polys, lines and points

Access Type	CODE	Geometry
Boat Landing	BL	Point
Historic Portage	HP	Line
Portage	PT	Line
Water Route/Trail	RX	Line
Land Route/Trail		Line
Other Access Feature	XR	Point or Poly
Fish Species	CODE	Geometry
Bass	BA	point only
Burbot	BR	point only
Bait Fish	BT	point only
Cisco	CI	point only
Carp	CR	point only
Catfish (Channel and Brown Bullhead)	CT	point only
Goldeye	GF	point only
Jackfish/Pike	JF	point only
Lake Sturgeon	LS	point only
Lake Whitefish	LW	point only
Mooneye	ME	point only
Pickrel/Walleye	PI	point only
Sauger	SA	point only
Sucker (Longnose and White)	SU	point only
Trout (Rainbow and Lake)	TR	point only
Other Fish	XF	point only
Yellow Perch	YP	point only
Mammal and Bird Species	CODE	Geometry
Beaver	BE	point only
Bear		point only
Badger	BG	point only
Coyote	CO	point only
Deer	DR	point only
Duck	DU	point only
Bird Eggs	EG	point only
Elk	EK	point only
Fisher	FI	point only
Fox	FX	point only
Goose	GO	point only
Grouse	GR	point only
Lynx	LY	point only
Mink	MI	point only
Moose	MO	point only
Marten	MT	point only

Muskrat	MU	point only
Otter	OT	point only
Ptarmigan	PN	point only
Porcupine		point only
Rabbit	RA	point only
Woodland Caribou	WC	point only
Wolf	WF	point only
Wolverine	WV	point only
Other Fur Bearers	XB	point only
Other Mammals	XM	point only
Other Upland Bird	XO	point only
Other Waterfowl	XW	point only
Plants and Natural Materials	CODE	Geometry
Arts/Craft	AC	points or poly (<1 km diameter)
Construction Plant/Natural Material	CN	points or poly (<1 km diameter)
Ceremonial/Medicinal Plant	CP	points or poly (<1 km diameter)
Cash/Wage Income Plant/Natural Material	CW	points or poly (<1 km diameter)
Drinking Water	DW	points or poly (<1 km diameter)
Clay/Soil/Rocks (Earthen Material)	EM	points or poly (<1 km diameter)
Edible or Food Plants	FP	points or poly (<1 km diameter)
Fire Wood	FW	points or poly (<1 km diameter)
Other Plant or Natural Material	XP	points or poly (<1 km diameter)
TEK	CODE	Geometry
Bird Habitat	BH	points or poly (<1 km diameter)
Location of Change	CH	points or poly (<1 km diameter)
Mammal Migration Route	MX	line or poly
Plant Habitat	PH	points or poly (<1 km diameter)
Mammal Seasonal Habitat	SH	points or poly (<1 km diameter)
Salt Lick	SL	point only
Spawning Area (fish)	SP	point or line
Wild Rice	WR	points or poly (<1 km diameter)
Agriculture / Bee-keeping	X1	points or poly (<1 km diameter)
Insect habitat	X2	points or poly (<1 km diameter)
Reptiles and amphibian habitat	X3	points or poly (<1 km diameter)
Sensitive habitat		points or poly (<1 km diameter)
Species at Risk	X4	points or poly (<1 km diameter)
Wetlands		points or poly (<1 km diameter)
Other Important Habitat	XH	points or poly (<1 km diameter)
Cultural Sites	CODE	Geometry
Active Cabin/bush camp	AC	point only
Metis Historically significant sites		points or poly (<1 km diameter)
Buffalo Jump Site	BJ	point only
Burial Site	BU	points or poly (<1 km diameter)
Commercial Accommodation (campgrounds)	CA	point only
Contemporary Gathering Place	GP	points or poly (<1 km diameter)
Historic Family Site	HF	point only
Important Landscape Feature	LF	point or line

Recreational areas		points or poly (<1 km diameter)
Spiritual/Ceremonial/Sacred Site	SS	points or poly (<1 km diameter)
Trading Post	TD	point only
Temporary Structure (tent, lean to etc.)	TS	point only
Other Cultural Site	XC	points or poly (<1 km diameter)
Other overnight site	XS	point only
Fishing Type	CODE	Geometry
Commercial Fishing	CF	Point or Poly
Personal Fishing	PF	point only
Trapping Type		Geometry
Commercial Trapping		Poly only
Personal Trapping		Point, poly, or line

Appendix G: Manitoba Species at Risk

Manitoba
Species-at-Risk List

BIRDS

Baird's Sparrow – Endangered



Burrowing Owl- Endangered



Canada Warbler- Endangered



Chestnut-collared Longspur- Endangered



Eskimo Curlew- Endangered



Ferruginous Hawk- Endangered



Ivory Gull- Endangered



Least Bittern- Endangered



Loggerhead Shrike - Endangered



Ross's Gull - Endangered



Peregrine Falcon- Endangered



Piping Plover- Endangered



Red Knot Rufa subspecies- Endangered



Trumpeter Swan- Endangered



Chimney Swift- Threatened



Whooping Crane - Endangered



Common Nighthawk- Threatened



Golden-winged warbler- Threatened



Red Headed Woodpecker- Threatened



Srapgue's Pipit- Threatened



Short-eared Owl- Threatened



Greater Prairie Chicken-Extirpated



Whip-poor-will- Threatened



Long-billed Curlew- Extirpated



PLANTS

Gattingers Agalinis- Endangered



Great Plains Ladies Tresses- Endangered



Rough Agalinis- Endangered



Smooth Goosefoot- Endangered



Small White Lady's Slipper- Endangered



Western Ironwood- Endangered



**Western Prairie Fringed Orchid
Endangered**



Culvers-Root – Threatened



Buffalograss- Threatened



Western Spiderwort – Threatened



Hackberry- Threatened



Hairy Prairie Clover- Threatened



Riddells Goldenrod- Threatened



Western Silvery Aster- Threatened



INSECTS

White Flower Moth- Endangered



Dakota Skipper- Threatened



Verna's Flower Moth-Endangered



Uncase Skipper- Endangered



Pale Yellow Dune Moth- Endangered



Poweshiek Skipperling -Endangered



Ottoe Skipper- Threatened



Ridings Satyr- Extirpated



Dusky Dune Moth- Endangered



Gold-edged Gem- Endangered



MUSSELS

Maple leaf Mussel- Endangered



REPTILES AND AMPHIBIANS

Western Hognose Snake- Threatened



Prairie Skink - Amphibian- Endangered



MAMMALS

Boreal Woodland Caribou- Threatened



Mule Deer- Threatened



Pronghorn- Extirpated



Polar Bear- Threatened



Kit or Swift Fox- Extirpated



Grizzly or Brown Bear- Extirpated



Muskox- Extirpated



Plains Bison- Extirpated



Appendix H: Comment Cards and Harvesters' Survey

Manitoba Metis Federation: Southwest Region Survey

1. What types of land or water based activities did you do in the Southwest Region of Manitoba between June 1, 2014 to June 1, 2015. Check all that apply and indicate whether this is for personal or commercial / resale use.

a. Hunting

☐ For personal use/Family use/Métis use

☐ For commercial / resale –

if you hunt for commercial/resale purposes, what was the approximate total income you generated from this activity in the past 12 months?

\$ _____

How much do you make from selling meat, per pound? (species and price)

b. Fishing

☐ For personal use/Family use/Métis use

☐ For commercial / resale

if you fish for commercial/resale purposes, what was the approximate total income you generated from this activity in the past 12 months?

\$ _____

How much do you made from selling fish, per pound? (species and price)

c. Gathering (plants or other natural materials)

☐ For personal use/Family use/Métis use

☐ For commercial / resale

if you gather materials for commercial/resale purposes, what was the approximate total income you generated from this activity in the past 12 months?

\$ _____

How much do you make selling plants, per pound? (species, price and unit)

d. Trapping

- ☐ For personal use/Family use/Métis use
- ☐ For commercial / resale - if you trap for commercial/resale purposes, what was the approximate total income you generated from this activity in the past 12 months?

How much do you make from selling one pelt? (species and price)

- e. Do you use any of the animals or plants that you harvest (or animals or plants harvested by family members or friends) for arts and crafts, medicinal purposes, firewood or anything else? (please specify the primary item)

-
- ☐ For personal use/Family use/Métis use
 - ☐ For commercial/resale - if for commercial/resale what was the approximate total income you generated from this activity in the past 12 months?

\$ _____

2. Within the last 12 months have you provided guiding / outfitting services to others within the Southwest Region of Manitoba?

- ☐ No
- ☐ Yes

If yes, was the approximate total income you generated from guiding / outfitting in the past 12 months?

\$ _____

3. If you undertake any of the activities listed above for commercial / resale purposes, is this a main or secondary source of income?

- ☐ Main source
- ☐ Secondary source (supplemented other income sources)

4. Over the past 12 months how approximately many days per season did you go out to hunt or gather:

	Spring	Summer	Fall	Winter
Large Game (e.g. bear, deer, moose)	# of days...			
Small Game (e.g. fox, marten, rabbit, etc.)				
Upland Game (e.g. partridge)				
Waterfowl (e.g. duck, goose)				
Fishing				
Gathering (e.g. plants, trees, etc.)				

PLEASE FILL IN THE NUMBER OF DAYS YOU WENT OUT ON THE LAND TO HARVEST EACH OF THESE PER SEASON.

5. How often over the past 12 months have you had a meal containing harvested foods?

- None
- Less than once per month
- Once per month
- 2-3 times per month
- Once per week
- 2-3 times per week
- 4 - 5 times per week
- 5 times per week or more

6. Check all of the species of plants and animals that you have consumed over the past 12 months:

Plants		
<input type="checkbox"/> Asparagus	<input type="checkbox"/> Leeks	<input type="checkbox"/> Red Willow
<input type="checkbox"/> Wild Bergamot	<input type="checkbox"/> Mint	<input type="checkbox"/> Roots
<input type="checkbox"/> Birch	<input type="checkbox"/> Mushrooms	<input type="checkbox"/> Sage
<input type="checkbox"/> Blueberries	<input type="checkbox"/> Wild Ginger	<input type="checkbox"/> Saskatoon Berries
<input type="checkbox"/> Burdock	<input type="checkbox"/> Nuts	<input type="checkbox"/> Seneca Root
<input type="checkbox"/> Cattails	<input type="checkbox"/> Wild Onion	<input type="checkbox"/> Spruce
<input type="checkbox"/> Cherries	<input type="checkbox"/> Other Plant	<input type="checkbox"/> Strawberries
<input type="checkbox"/> Choke Cherries	<input type="checkbox"/> Pin Cherries	<input type="checkbox"/> Sumac
<input type="checkbox"/> Clover	<input type="checkbox"/> Plantain	<input type="checkbox"/> Sweet Grass
<input type="checkbox"/> Cranberries	<input type="checkbox"/> Poplar	<input type="checkbox"/> Syrup
<input type="checkbox"/> Fiddleheads	<input type="checkbox"/> Raspberries	<input type="checkbox"/> Thistle
	<input type="checkbox"/> Rat Root	<input type="checkbox"/> Other Wood/Trees
	<input type="checkbox"/> Wild Rice	<input type="checkbox"/> Other Plant

Large Mammals

- ☐ Moose
- ☐ Woodland Caribou
- ☐ White-Tailed Deer
- ☐ Black Bear
- ☐ Wolf
- ☐ Elk
- ☐ Other Mammal

Small Furbearers

- ☐ Badger
- ☐ Beaver
- ☐ Coyote
- ☐ Fisher
- ☐ Fox
- ☐ Lynx
- ☐ Marten
- ☐ Mink
- ☐ Muskrat
- ☐ Otter
- ☐ Porcupine
- ☐ Rabbit
- ☐ Wolverine
- ☐ Other Furbearer

Birds

- ☐ Duck
- ☐ Goose
- ☐ Grouse
- ☐ Ptarmigan
- ☐ Bird Eggs
- ☐ Other Upland Bird
- ☐ Other Waterfowl

Other:

7. How important are harvested and traditional foods to your diet? (Please circle one)

1

2

3

4

5

Not at all important

Very important

8. What percentage of your harvest do you share with family, friends, or Metis elders?

9. Do you trade your harvested products for other products or services with community members within your community and/or other communities? If so, what products; how much and how often?

10. Can you tell me how much money you think you save or avoid spending by harvesting and eating wild foods?

Appendix I: Data Management Sheet

[illegible]