

2010

Métis Nation of Ontario – Southern Ontario Métis Traditional Plant Use Study



the Métis
Nation *of*
Ontario

Written and prepared by the Métis
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1. Introduction

1.1 Purpose of the Study

The purpose of this Traditional Knowledge study was to document Métis traditional uses of terrestrial and aquatic plants in Southern Ontario. The information gathered is intended to be used to identify potential impacts of Ontario Power Generation's (OPG) new nuclear project at the Darlington site to the Métis Way of Life.

This study was conducted by AECOM on behalf of the Métis Nation of Ontario (MNO). The MNO represents Métis citizens throughout the province through Métis-specific, democratic governance structures at the local, regional and provincial levels. This initiative included the involvement of the MNO's Lands, Resources and Consultation Branch, along with the MNO Chartered Community Councils of Northumberland, Oshawa & Durham Region, Wapiti (Peterborough), Toronto & York Region, Credit River, Hamilton-Wentworth, Niagara Region, Grand River, Moon River, Georgian Bay (Midland), Great Lakes (Grey-Owen Sound); and members of the PCMNO.

1.2 The Métis in Ontario

Who are the Métis?

The Métis are one of the "aboriginal peoples of Canada" recognized in s. 35 of the *Constitution Act, 1982*, which reads as follows:

s. 35(1) The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.

(2) In this Act, "aboriginal peoples of Canada" includes the Indian, Inuit and Métis peoples of Canada.

The Métis evolved out of the initial relations of European men and Indian women who were brought together during the early fur trade. While the initial offspring of these relations were individuals who simply possessed mixed European and Indian ancestry, continued intermarriage resulted in a new and distinct people - the Métis Nation. The Royal Commission on Aboriginal Peoples ("RCAP") describes this evolution as follows:

Intermarriage between First Nations and Inuit women and European fur traders and fishermen produced children, but the birth of new Aboriginal cultures took longer. At first, the children of mixed unions were brought up in the traditions of their mothers or (less often) their fathers. Gradually, however, distinct Métis cultures emerged, combining European and First Nations or Inuit heritages in unique ways. Economics played a major role in this process. The special qualities and skills of the Métis population made them indispensable members of Aboriginal/non-Aboriginal economic partnerships, and that association contributed to the shaping of their

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cultures... as interpreters, diplomats, guides, couriers, freighters, traders and suppliers, the early Métis people contributed massively to European penetration of North America.

*The French referred to the fur trade Métis as *coureurs de bois* (forest runners) and *bois brulés* (burnt-wood people) in recognition of their wilderness occupations and their dark complexions. The Labrador Métis (whose culture had early roots) were originally called “liveryers” or “settlers”, those who remained in the fishing settlements year-round rather than returning periodically to Europe or Newfoundland. The Cree people expressed the Métis character in the term *Otepayemsuak*, meaning the “independent ones”.¹*

RCAP also recognized that the Métis developed separate and distinct identities, not reducible to the mere fact of their mixed ancestry.

What distinguishes Métis people from everyone else is that they associate themselves with a culture that is distinctly Métis.²

Beginning as early as the 1700s, distinct Métis settlements arose along Ontario’s freighting waterways (i.e., Ogoki River, French River, etc.) and on the Great Lakes of Ontario. On the Great Lakes alone, over 53 historic Métis settlements existed between 1763 and 1830.³ In her article, *Many Roads to Red River: Métis genesis in the Great Lakes region, 1680-1815*, Jacqueline Peterson describes the Great Lakes Métis settlements as follows at p. 41,

These people were neither adjunct relative-members of tribal villages nor the standard bearers of European civilization in the wilderness. Increasingly, they stood apart or, more precisely, in between. By the end of the last struggle for empire in 1815, their towns, which were visually, ethnically and culturally distinct from neighbouring Indian villages and “white towns” along the eastern seaboard, stretched from Detroit and Michilimackinac at the east to the Red River at the northwest.

...

Residents [of these trading communities] ... drew upon a local subsistence base rather than on European imports ... such towns grew as a result of and were increasingly dominated by the offspring of Canadian trade employees and Indian women who, having reached their majority, were intermarrying among themselves and rearing successive generations of métis. In both instances, these communities did not represent an extension of French, and later British colonial culture, but were rather “adaptation[s] to the Upper Great Lakes environment.”⁴

Some of the Métis from these historic Ontario settlements moved west and lived in, used and occupied the lands throughout what was then known as the Northwest of Canada. However, a constant and identifiable Métis presence, situated in and around the historic trade routes of the fur trade in Ontario

¹ Report of the *Royal Commission on Aboriginal Peoples: Perspectives and Realities*, vol. 4, at pp. 199-200. (“RCAP Report”)

² *RCAP Report*, vol. 4, at p. 202.

³ “*Map of Great Lakes metis settlements, 1763-1830*” by Connie Peterson, at p. 44 in Jacqueline Peterson, “*Many roads to Red River: Métis genesis in the Great Lakes region, 1680-1815*” in *The New Peoples: Being and Becoming Métis in North America* (University of Manitoba Press: Winnipeg, 1985) pp. 37-71.

⁴ *Many roads to the Red River*, supra, at p. 41

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and much of the rest of the province of Ontario, remained. As well, constant back and forth movement between Métis settlements throughout Ontario and throughout the historic Northwest enabled the Métis to forge a collective identity between these settlements and communities that continues to exist today.

These individual Métis settlements were generally organized around an integrated mixed economy with the use of resources being largely dependent on the geographic location of the settlement and a seasonal round. However, individual settlements were also inter-related, inter-connected and inter-dependent on other settlements, forming regional communities throughout Ontario. Today, these regional Métis communities remain an indivisible part of the Métis Nation within Ontario as well as the larger Métis Nation.

As an aboriginal people, the Métis Nation and the communities that are a part of it have their own collective identity, language (Michif), culture, traditions, dance, song, music, self-governing structures and way of life. The Métis were always seen, by themselves and outsiders, as distinct from their Indian and European/Canadian relations. As explained by the *RCAP Report*, vol. 4 at p. 220, the culture of the Métis was,

derived from the lifestyles of the Aboriginal and non-Aboriginal peoples from whom the modern Métis trace their beginnings, yet the culture they created was no cut-and-paste affair. The product of the Aboriginal-European synthesis was more than the sum of its elements; it was an entirely distinct culture.

Throughout the history of Ontario Métis and the Métis Nation, Métis have collectively acted to assert their identity and rights. Just some of these assertions include: the Battle of Seven Oaks (1816), the Sayer free-trade trial in Manitoba (1849), the Mica Bay Uprising in Sault Ste. Marie (1849), the attempts by Ontario Métis to participate in the Robinson treaties and Treaty # 9 in (1850, 1924), petitions by Métis in Ontario and on the Prairies for recognition of their rights and interests (1860s-1900s), the inclusion of the Half-breeds of Rainy Lake in an addendum to Treaty #3 (1875), the Battle of Batoche in Saskatchewan (1885), the Métis push for the establishment of the Métis Settlements in Alberta (1920s), etc..

Notably, based on its extensive research, RCAP concluded the following with respect to the Métis Nation,

... the Métis Nation is the most significant Métis collectivity in Canada. It unquestionably constitutes an Aboriginal people within the meaning of section 35 of the Constitution Act, 1982 for the purposes of negotiations with other governments.

...

Geographically, the homeland of the Métis Nation embraces the three prairie provinces as well as parts of Ontario, the Northwest Territories, British Columbia, and the north central United States. ...

Application of the recognition policy is not likely to cause any problems for the Métis Nation. Its long-standing existence as a nation seems to us indisputable. It is widely acknowledged that the Métis Nation is culturally distinct and that it has a

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*demonstrated social cohesiveness as well as political determination and effectiveness throughout its eventful history.*⁵

The Métis in Ontario Today

Métis people within Ontario have long struggled to maintain their identity and have their rights recognized and respected by governments. However, there have been dark periods in Ontario's history that have forced the Métis to keep a low profile. From the bounty put on Louis Riel's head by the Ontario Legislature in 1872 to the racism imbedded within the Ontario Government's systemic denial of the very existence of Métis in the province, Ontario Métis have faced their share of challenges in protecting their distinct identity and culture.

Notably, in *R. v. Powley*, the Ontario Court of Appeal acknowledged this Métis reality in Ontario,

[134] In assessing whether the Sault Ste. Marie Métis community maintained sufficient existence and continuity with the past to qualify for recognition for rights purposes, the trial judge took into account certain social and political forces antithetical to the Métis. Among these were the explosive and dramatic events concerning the Métis in Western Canada in 1870 at Red River and 1885 in Saskatchewan. There was evidence that the Métis were at times rejected as full members of both aboriginal and non-aboriginal societies. The respondents led the evidence of Olaf Bjornaa who testified that he and his sister were denied access to the reserve school because they were not "Indian" but were also rejected by the town school because they were too "Indian". There was considerable evidence from lay and expert witnesses that the Métis people have been the victims of discrimination, ostracism and overt hostility from the 19th century forward. That sorry history is fully documented by the RCAP Report vol. 4, Chapter 5.

[135] ... the Métis were the "forgotten people" and that although their community became "invisible" it did not disappear. The "invisibility" or relative lack of profile of the Métis community was explained not by its disappearance, but by the fact that powerful social and political factors discouraged visibility and that the community reacted accordingly. It is simply not possible to assess the resilience of the Métis community without taking into account the historical context in which it existed and the pressures to which it was subjected.⁶

While Ontario Métis have faced many challenges in sustaining their collective identity, culture and communities over the last 130 years, they have persevered. In contemporary times, Métis have come together to form representative bodies that advocate for self-government, harvesting rights and other socio-economic issues. In many of these movements, the Métis have joined with non-status Indians and other Aboriginal peoples in order to push for government action. Some of the organizations that Ontario Métis used to be a part of included the Ontario Métis and Non-Status Indian Association and the Ontario Métis and Aboriginal Association (both of these organizations are now defunct).

⁵ *Royal Commission on Aboriginal Peoples, Vol. IV, Perspectives and Realities: Métis Perspectives* at pp. 232, 203, 252.

⁶ *R. v. Powley*, 53 O.R. (3d) 35 (OCA).

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In the early 1990s, it became apparent that Métis in Ontario needed to have their own Métis-specific representative body in order to move forward on their self-government agenda. Specifically, in 1993, the Métis Nation of Ontario (“MNO”) was founded on the collective will of Ontario Métis wanting to: (1) support Métis individuals, families and communities culturally, socially and economically, (2) ensure the aboriginal and treaty rights of Ontario Métis were recognized and respected in the province, and, (3) advance Métis self-determination and self-government in Ontario.

With the creation of the MNO, Ontario Métis proudly raised the Métis Nation flag in Ontario again and asked Métis citizens and Métis communities who shared the same history, goals and vision to join the MNO. Today, over 13,000 Métis citizens in Ontario have come forward to join the MNO and advance the Métis Nation’s agenda in Ontario. The MNO has created a governance structure that includes local (i.e., MNO Chartered Community Councils), regional and provincial governance structures (i.e., Provisional Council of the MNO) that are all a part of the MNO’s overall governance structure. As well, the MNO has created and maintains the only recognized Métis registry in the province. Additional information on the MNO’s governance structures and institutions is available at www.metisnation.org.

Since its creation, the MNO has achieved many successes. It single-handedly advanced the historic Powley litigation, which recognized and affirmed Métis harvesting rights. It has created a Métis Harvesters Policy and Harvester Card system that now forms part of a negotiated harvesting agreement with the Ontario Government. It has created a Métis-specific and democratic governance structure at the local, regional and provincial levels that represents Métis across Ontario. Its role in representing Ontario Métis has been recognized by the Government of Canada as well as the Ontario Government, including, the signing of a MNO-Ontario Framework Agreement that sets out a new relationship and agenda between the provincial government and Ontario Métis. As well, the MNO delivers a multitude of important programs and services to Métis people living throughout the province.

More recently, the MNO has established a province-wide Métis Consultation Framework that includes Regional Consultation Protocols and a MNO Lands, Resources and Consultation Branch, which works to ensure that the Crown is fulfilling its duty to consult and accommodate Ontario Métis communities when Métis rights, interests and way of life may be impacted. Notably, this report is a part of the MNO’s ongoing work in collecting, understanding and sharing Métis traditional knowledge.

1.3 Understanding Métis Land Use in Southern Ontario

Rights-bearing Métis communities throughout Ontario have deep connections – social, cultural, spiritual, economic – to their traditional territories. These connections lie at the core of Métis identity and culture. The health and well-being of the land directly correlates with that of the people whose history and future is tied to it. This concept was well expressed by the Royal Commission on Aboriginal Peoples in its final report,

Aboriginal peoples have told us of their special relationship to the land and its resources. This relationship, they say, is both spiritual and material, not only one of livelihood, but one of community and indeed of the continuity of their cultures and societies. ... The use of the lands and resources has formed a central part of Aboriginal economies from time immemorial. For most Aboriginal communities, natural resources

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*are the key to making a living, whether this takes the form of traditional subsistence activities to profit-seeking, wage-providing enterprises.*⁷

The Métis View of the World

Regional Métis communities throughout Ontario have traditional territories that they have historically and continue to rely on. In many parts of Ontario these territories are shared with First Nations, who Métis have co-existed with and maintained respectful relationship with for generations. These territories include areas where there was historical settlement, presence and occupation by Métis, as well as historical use, including, harvesting, cultural, social, spiritual and economic activities.

Throughout these Métis traditional territories in Ontario, Métis have constitutionally protected Aboriginal rights that are grounded in their historical and ongoing customs, practices and traditions to the land. Métis live, work and harvest throughout these territories and rely on them for their individual as well as their community's overall cultural, social, spiritual, physical and economic well-being. These territories are inextricably connected to a Métis community's shared identity, culture and history, as a part of the Métis Nation in Ontario.

The relationship between Métis communities and their traditional territories is a symbiotic one. One cannot be healthy without the other one being healthy. As such, what happens to these traditional territories in relation to use, development, ecosystems and sustainability are of fundamental importance to the survival of Métis communities. If these territories are indelibly changed or damaged, the Métis people and communities will be too.

Métis are stewards of their traditional territories and have the responsibility to work with First Nations, governments and others to protect them. Métis see collecting and sharing their traditional knowledge with others as a way to ensure informed decision-making takes place with respect to policies, planning, projects and developments that have the potential to affect Métis rights, interests and way of life in their traditional territories.

Métis Traditional Knowledge

The Canadian Environmental Assessment Agency (CEAA) describes Aboriginal traditional knowledge as knowledge that is held by, and unique to, Aboriginal peoples. Aboriginal traditional knowledge "is a body of knowledge built up by a group of people through generations of living in close contact with nature. It is cumulative and dynamic and builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual and political change."⁸

Learning, practicing and gathering traditional knowledge is fundamental to the practice and protection of the Métis culture in Ontario. Conducting Traditional Knowledge (TK) studies expands the pool of knowledge available to Métis citizens and communities, as well as providing an invaluable resource to

⁷ Royal Commission on Aboriginal Peoples, Vol. IV, *Perspectives and Realities: Métis Perspectives* at pp. 232, 203, 252.

⁸ CEAA, 2009. www.ceaa.gc.ca

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anyone interested in understanding the importance of the Métis relationship to the land. Having this information is a way to ensure the Métis perspective is heard and can be incorporated into collaborative decision-making that protects the environment as well as the connections Métis have to the land.

Because so much of what is defined as TK is an intricate element of the way people live, many participants in Traditional Knowledge studies are nervous that they will have nothing of value to offer the researchers. As participants speak about their lives, they are often surprised to discover that the foods they cook, the plants they gather, the medicines they make are of significance to understanding the Métis way of life today. As participants share their stories and memories, the very act of remembering strengthens their personal sense of identity; remembering becomes a process of “re-membering,” of putting the pieces of the puzzle together.

Sharing the results of a Traditional Knowledge study is a crucial element of a TK study. The appropriately presented and discussed TK study findings can become a mirror in which the community sees itself reflected and legitimized. Seeing the common threads of experience across many families, geographies and decades strengthens the fabric of the culture as a whole.

1.4 Importance of Plants to the Current Métis Way of Life

When asked whether the gathering of plants is important to their Métis way of life, participants answered with an unequivocal “yes”. Whether they had been gathering and using wild plants since childhood or had only recently begun to study their properties and to prepare medicines, participants saw their activities as an integral part of how they see themselves, of who they are as Métis.

Métis are increasingly sharing their knowledge of plants and helping each other learn to use wild plants for medicinal, spiritual, food or crafts. A common sentiment among participants was that the quality of the information trumped the quantity: knowing a few plants well is more important than having a cursory knowledge of many. This information is often passed through families, between friends and through the MNO’s governance structures at the local, regional and provincial levels. Workshops on plant uses are popular points of knowledge dissemination in the community. The most knowledgeable practitioners of plant medicines have many reference books to which they refer when confirming plant identities and properties.

Trading and sharing wild plants – fresh, dried, or prepared as medicines – is also common practice among Métis. Whether the plants are gathered in people’s back yards, along road sides or in secret locations, many participants spoke of sharing their stores with others. There is also a trade of southern Ontario plants, such as wild leeks, for plants and medicines that grow only in the north, which demonstrates the sustained reliance, connections and mobility between Métis people, settlements and communities throughout the province.

Overall, based on the feedback gathered in this study, the importance of gathering wild plants as part of the Métis way of life appears to be growing. Participants spoke of the satisfaction of seeing positive results from their plant medicines, and how important it is to be passing their knowledge on to the next generation.

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2. Method

2.1 Procedure and Participants

Between April 23rd and May 11th, 2010, 12 interviews were conducted with a total of 18 participants. The MNO identified potential participants across southern Ontario based on their knowledge of traditional plant uses, and the study team arranged for interviews with all who responded to their invitation.

The interviews were mostly held in the homes of the participants, though a few were carried out in personal offices or in the bush. There were two spontaneous groups of four who came together for interviews. In one case, the group members were from the same family; in the other, they were friends from the same Métis Community Council.

The average interview lasted three hours. Although the interviews were based on a standard set of questions designed to meet study objectives (Appendix C), the format was conversational, allowing the study team to follow the participants down useful tangents, which often led to the surfacing of memories participants had long forgotten. Five participants augmented their interviews by taking the study team on a tour of the land where they gather plants – often their own back yards. While the focus of the interviews was on plant knowledge, participants were encouraged to discuss all aspects of the Métis way of life.

All but one of the interviews was video and voice recorded, and each subject was photographed. The one participant who declined to be video recorded or photographed cited concern for what the material might be used for in the future.

This report was developed based on extensive notes, voice and video-recordings of the interviews. It includes a list of all plant species that were mentioned as being of interest, cross-referenced with a list of species found at the OPG New Nuclear Darlington site (Appendix A). It also includes fact sheets on ten of the plants that were of interest to the Métis people (Appendix B).

2.2 Study Limitations

This study was conducted in a relatively short time frame with a flexible interview methodology to accommodate the needs of participants. Initially the study team had planned to conduct two focus groups in addition to the interviews, but coordinating the schedules of multiple Métis participants in a short time frame proved challenging. The decision was made not to conduct focus groups and instead to carry out more interviews with individuals in order to better accommodate the participants' schedules. This flexibility in study methodology was key and resulted in a successful process.

It should also be noted that due to the short time frame and budget limits, only 18 people were interviewed for this study. While the results cannot necessarily be deemed representative of the perspectives and experiences of all Métis people across Southern Ontario, there were some strong trends

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that emerged. The rich depth of information that was gathered from a cross-section of Métis people does provide a useful picture of the Traditional Knowledge of the culture that can be used to inform the OPG New Nuclear Darlington project. This information can also be combined with that of future studies to continue to record the Métis way of life.

3. Plants of Importance to the Métis Way of Life

3.1 Plants of Interest found at the OPG New Nuclear Site at Darlington

A complete list of all aquatic and terrestrial plants of interest to the Métis people who took part in this Traditional Knowledge study is provided in Appendix A. It includes a general description of how the plant is used by the Métis. This list has been cross-referenced with a list of plants found at the OPG New Nuclear Darlington Site that was provided by OPG to the MNO. The list is intended to act as a quick reference guide for both the MNO and OPG as to which plants may be of interest to the Métis.

3.2 Medicinal and Spiritual Uses

“Medicinal” plants in Métis culture have a broader meaning than simply remedies for physical ailments. In many of the descriptions of these plants by the study participants, there is an overlap between the medicinal and spiritual dimensions of healing. For example, cedar is used for everything from helping with asthma to cleaning feathers to clearing “negative energy.” Many of the food plants are also known to have medicinal properties.

In some cases participants would have different names for the same plant. Given that plant names may be common English, Ojibway, Michif, or folk names, it is not unusual that confusions might arise when plants are identified. One of the participants insisted that the only way to ensure proper identification of plants is to use the botanical name. He recounted how he was discussing a plant with friends, using local names. The friend knew one plant by a local name; he knew it as squirrel tail. For her, it was the plant of the turkeys. They were both talking about yarrow. The plant known as “pain d’oiseaux” turns out to be sorrel. Bitter root was the name some of the participants gave to gold thread (not to be confused with golden seal). For others, bitter root might be some other plant with a bitter-tasting root. Proper identification is all the more important because of the strength of the “medicine” in the plants. One participant said it well: “We have to be grateful because plants are very powerful things, not something to be toyed with.”

Many of the participants described how plants are grouped together in terms of habitat, use, preparation of remedies, or how one plant might be a remedy for the toxic effect of another plant. A number of plants were mentioned for use in smoking mixtures, or for smudging. Over and over we heard that there are four sacred medicines: sage, cedar, tobacco and sweet grass.

These four sacred medicines are shared by Aboriginal peoples across North America (University of Ottawa, 2007, www.med.uottawa.ca/curriculum/iph/data/Aboriginal_Medicine_e.htm).

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The following list of plants and their medicinal and spiritual qualities are quotes from the study participants. The information is taken from interviews, and, though valuable, should not be considered prescriptions to healing.

Birch – “Birch is from day one is a healing tree. What you do is you peel the white bark and there’s a black bark in the back. You boil that and you make tea with it and it’s good for prostate, colon. The white bark they use to make canoe.”

White Birch – “Sometimes when you go out and pick the little twigs of the birch, the white birch, you would use them as toothpicks because they are very minty tasting.”

Blackberries – “For the blackberries, if you got scratched picking blackberries, well my grandfather would just say cut the stem, you didn’t have to cut the whole thing, you’d shave the stem and then you’d rub that on your scratches and that would take the stinging out of your scratches.”

Blueberries – “Wild blueberries are very different and special. Up north they would boil the blueberries down and use the juice of the blueberries as medicine.”

Burdock Root – “I had a staph infection and didn’t want to get more penicillin so I used burdock root. I went and dug it up, pounded it, made a tea. I hadn’t seen anybody do it, but just went by what I was reading, and it was very effective. Within a few days all of this seemed to be gone.”

Catnip – “We used to make a tea with catnip when you had the fever. They would put a little bit of sugar in the tea and we would drink that and it would help bring the fever down.”

Cedar – “We use cedar. Where I come from, and people I associate with, use cedar for everything from leading ceremonies to sweat lodges. We even used a medicine from the cedar to clean our eagle feathers so that the mites don’t destroy them.”

“I have cedar over my door to keep good energy in and bad energy out, and I will purify my place with cedar if I’m feeling like bad has been around me. And I put cedar in my tub.”

Comfrey – “Comfrey’s got gel in it like this and you can use the leaf. You make a poultice with paper towel, you wet the paper towel and you put the tuft in it and if you have anything like a bad knee or anything like that you wrap it around with this and it’s amazing how fast it will heal. My mom had some problem and her dad wrapped her legs with the stuff and the next couple of days it was gone. She had, her lower leg was all blue and by the time she left a couple of days later it was normal. It’s amazing fun.”

Dandelion – “Dandelion again is good for so many things. You can make salad with the leaves. Makes a beautiful salad. Right now it’s getting a little late, but early spring, they’re very tasty and it’s good for, you make all kind of compress with it. It’s good for colds, high blood pressure, gout and then the root is good for different things too. It makes good wine too. A salve made of dandelion and plantain is an all-purpose remedy.”

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Dogwood – “Dogwood is another one. Use the bark mixed with tobacco for smoking. The inner bark was used for tanning hides. Fine scraping of young bark induced vomiting. So these plants were there for all medicinal purposes.”

Gold Thread – “Where the soil is very acidic, with old evergreens and swamps and knolls, then you may find gold thread, which is on mossy stumps. The root is a small thread of gold. It is very good for mouth problems, but it takes a long time to prepare, because picking the roots, you can’t just yank the root, you can only snip off parts of the root, because you have to leave the rest of the plant intact.”

“When one of us had sore gums they gave us these little roots, bitter root. A little yellow thing like that, and you take one and just chew it. Quite bitter. It works. It really works. If you get cankers in your mouth you chew on that and by the time you spit it out, the soreness is gone.”

Hickory – “There are nine different species of hickory which produce nine different fruits. I use it mostly when I make banana bread, I like it. Little pieces in the banana bread is nice. Anything that you would use a walnut or anything like that you can use that, it’s very similar texture and taste.”

Jewel Weed – “Jewel weed is known as an antidote for poison ivy. The oil is wonderful. I have a friend whose little daughter had a good dose of it on her face and it really took down the redness.”

“I also remember as a child my dad instilled in us from a very early age that jewel weed was the number one thing for poison ivy so now as an adult I would like to have be able to sit down with my dad right now and say okay, what are all the other ones that you didn’t talk to me about that you didn’t share with me.”

“My dad taught us to open up the jewelweed stem and to put it on the bites, the mosquito bites, or anything itching.”

Licorice Root – “The licorice root has a strong black licorice flavour. The roots were chewed and swallowed to strengthen the voice, treatment for sore throat and coughs.”

Milkweed – “The milkweed is good for warts.”

Plantain – “I do remember my dad, if we were outside and somebody got a little cut or an insect bite that he would go and pick a leaf or something and rub than on, and I think it was plantain. It’s good for a number of skin problems, like a rash or eczema or psoriasis. A relative of a friend of mine, his knee was all inflamed and he put this plantain salve on and he had me feel it after twenty minutes and he said it wasn’t hurting as much, and you could visibly see a difference.”

Poplar – “And the poplar itself, the poplar buds, that sticky resin that it exudes early in the year before the bud even begins to leaf, the buds are gathered. It has some of the same constituents as the willow bark, i.e. aspirin. So that’s why it’s good for joints and things like that.”

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Red Clover – “Red clover was a skin conditioner. It’s for scars and scratches and for helping with healing of the skin.”

Slippery Elm – “Slippery elm is good for indigestion. You put the slippery elm into milk and you mix it and then it’s very palatable, you can drink it.”

Sweet Grass – “I remember my mom telling us, when I was very young, that sweet grass was one of the four sacred medicines. You are braiding the hair of mother earth, the sweet grass.”

Thistle – “The bane of my existence have been these thistles. About three years ago this friend was told by a psychic that for this cough that he should get someone to make him some thistle salve. So I thought I could try that. These thistles grow at least as high as me if you let them be. So I’ve got my heavy garden gloves, I cut this stuff and I used one mature plant and a bunch of little ones. The salve is very good. If you have a tickling cough and it’s not too bad and if you rub this on your chest when you go to sleep you’re not coughing in the morning.”

Tobacco – “Through the medicinal walk I also learned the importance of the tobacco and offering tobacco to mother earth and to the plant and asking the plant as you’re offering the tobacco to give thanks to the plant and to ask that plant to do the good that it is meant to do. When I’m using it, to release itself and to be there for what I’m harvesting for. We have a jar of tobacco that we carry and then we’ll offer the tobacco when we do that.”

Raspberry – “My mom would make tea using raspberry leaves, not the berries. I never could understand. It wasn’t until later in life that I found out that raspberry tea made from the berries is very acidic, but the leaves are not acidic at all, number one, and number two, it’s very high in calcium. The body assimilates it completely.”

St. John’s Wort – “Another standby is St. John’s Wort. A friend had cut off the tip of a finger and never went to the hospital and so after a year, the finger was keeping him awake at night and the doctor told him the nerves regrowing that was causing his pain and he gave him stuff for him and he was still having the pain. So we tried the St. John’s Wort oil and this one is kind of neat. It’s sort of a red colour and he said that when he would stick his finger in that, several times he nearly fell asleep with his finger in the jar because it would take the pain right away and last for several hours.”

Spruce Gum – “If you cut yourself or something, we used a lot of spruce gum. It’s an antibiotic in its own right, but it also helps to slow it. I remember chewing a lot of spruce gum as well. When it warms up it’s very chewable, and it makes your teeth white, white, white. Super white, white, white. Oh yeah.”

Strawberry – “The dried leaves of the strawberry can be made into a tea for menstrual cramps and hormonal imbalance.”

Weecay (Sweet Flag) – “I asked an elder about that over the winter and he said just write “good for everything”. It’s used for the throat especially, you take a little wee piece of it because it’s quite strong tasting and you suck on it and chew on it and the guys who play the big drums, they’re using their throat

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a lot, and they'll use that for their throat, they'll often carry it around.” (Note: not to be confused with wild iris, which is toxic).

Willow – “The red willow is something we use as well. The red willow bark we gather in early spring and process that red willow bark, mix it to make a smoking mixture. The willow is the original source of aspirin too. I made a salve out of willow and other herbs. This winter my mother in law, she came over and she had shingles and she was in so much pain, and nothing from a doctor was working, absolutely nothing. So I took a little bit of this out and I put it into a container. I said, “I don't know, try it, see if it helps, see what happens.” She phoned me like forty eight hours later and she said, “I can't believe it, the relief I am getting from your salve is phenomenal; if it wasn't for your salve I would not be able to stay sane,” and it was so rewarding.”

Witch Hazel – “My mum used that a lot. It was an astringent. It's getting rarer and rarer in southern Ontario. So that's one plant you have to protect.”

Yarrow – “Yarrow, that's available here still, contains a mild anesthetic. When rubbed on insect bites it stops the itching. It won't do much for your ticks, but the mosquitoes and flies, if you rub that on it won't itch no more.”

“I use the yarrow flowers to make infused yarrow oil. Sometimes I will double infuse it. I use that for my knee. Without it, I wouldn't walk. See, the yarrow has not only the ability to warm up the joint, but it is an anti-inflammatory that brings down the swelling. When the swelling goes down, of course the pain goes away and I can walk.”

“If you boil this down you make a tea. You can drink the yarrow. It helps internally, and then you can also, with the stems you can boil it and cool it down and put it on for reducing fevers.”

Table 1. Medicinal and Spiritual Plants of Interest to Métis People in Southern Ontario

Table 1 provides a list of all medicinal and spiritual plants that were mentioned during the Traditional Knowledge interviews, including those which are on OPG's list of plants found at the New Nuclear Darlington site. It was not possible to identify all of the plants mentioned in the interviews, as some people had uncommon names for certain plants, and in some cases spelling may not be accurate. More details of plant use and notes of interest are available in Appendix A.

SPECIES MENTIONED	Listed by OPG as found at New Nuclear Darlington Site
Alfalfa	√
Apothecia	
Arnica	
Arrowhead	

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SPECIES MENTIONED	Listed by OPG as found at New Nuclear Darlington Site
Bear root	
Bearberry	
Birch	√
Black bush	
Black cohosh	
Blackberries	
Blood root	
Blue lettuce	
Blueberries	
Burdock	√
Catnip	√
Cattail	√
Cedar	√
Chaga mushroom	
Cherry	√
Chicory	√
Choke cherry	√
Coltsfoot	
Comfrey	
Cranberry	
Crocus	
Crooked root	
Dandelions	√
Dogwood	√
Eastern hemlock	√
Elderberry	√
Essiac	
Evening primrose	√
Ginger (wild)	
Golden rod	
Golden thread root	
Gooseberries	√
Horse chestnut	√
Horsetail	√
Jewel weed	√
Joe Pye weed	√
Juniper	√
Labrador tea	

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SPECIES MENTIONED	Listed by OPG as found at New Nuclear Darlington Site
Lavender	
Lemon grass	
Liquorice	
Lily of the valley	√
Marigold	
Miinigan	
Milkweed	√
Mountain ash	√
Mullein	
Mushroom that grows on maple tree	
Muskrat root	
Mustard	√
Nutmeg	
Pain d'oiseax	
Peas	
Pickereel weed	
Pine	√
Plantain leaves - 2 varieties	√
Poplar	√
Red clover	√
Red willow	
Rose hips	
Sage	
Sassafras	
Self heal	
Slippery elm	√
Spruce	√
St. John's wort	√
Stinging nettle	
Sumac	√
Sweet fern	
Sweet flag	
Sweet grass	
Tamarack	
Thistle	√
Three-flowered avens	√
Tobacco - Northern, Buffalo and Red Indian	

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SPECIES MENTIONED	Listed by OPG as found at New Nuclear Darlington Site
Trillium	√
Vervain	√
Water lily	
Weecay - wild iris	√
White sage	
Wintergreen	
Willow	√
Witch hazel	
Yarrow (Arbadine)	√
Yellow dock	

3.3 Food Uses

Food is at the heart of traditional Métis hospitality and culture. Participant interviews contained long, rich stories about spontaneous family and community gatherings – feasts and festivities with fiddling and jigging - and an abundance of food. Over and over participants would mention berry-picking expeditions, the search for the elusive and prized morel mushroom, the best maple syrup in the world, crab apple preserves, mint tea, fish, and wild game. This study was confined to plant products, so the importance of fish and game is not included in this report.

The following list of quotes represents some of the more unique and interesting food plants mentioned in the study.

Blueberries – “I remember grandpa always coming to our place with these big baskets of blueberries for us. I would think it’s a trace of a traditional kind of trade route because Ojibway from up the shore would definitely have traded blueberries for other things, say to the Wendat people who lived here. It seems to be a remnant of some kind of earlier trade.”

Cattail – “We had gone camping, and my mom said I forgot the batter. I guess she was going to make pancakes or something. So we improvised. Cattails, like the roots. But then you have to beat the heck out of them to release the starchy material. Just get a rock and bang, bang, bang, break the root all up. Then you put in a pail, you rigorously stir it up, and what it does is it shakes off all of the starchy material. Then you take the roots out and let it settle and all the starch is going to go to the bottom. You get the rest out with water, and then from that you can make cookies.

I remember every once in a while we would take the tops, when the leaves are still on, before they would turn the brown spike. You would take the leaves off, and she would boil them, not very long, like two minutes, and you would just put salt and butter on it. The texture is different, but it tastes just like corn on the cob. A good side dish.”

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Lamb’s Quarters – “The one thing we used to eat quite a bit of was the lamb’s quarters. They used that instead of spinach. But that is a wild plant out there, and it’s still around. It’s all over the place...young and tender.”

“Pain d’oiseaux” (sorrel) – “Oh, we used to eat, well I don’t know what you call it in English. We used to call it “pain d’oiseaux”. That might have been a name that my mom gave, because we used to take it and eat it. It’s kind of a sour taste a little bit, like rhubarb a little bit but it’s different. But good. It grows about six inches, and there are little leaves like clovers and there are little wee flowers...yellow flowers....It tastes very much like watercress... You don’t eat the flowers, you eat the leaves.”

Puffballs – “Those big puffball and you come and slice them and fry them and wow, they were fantastic.”

Yellow Birch – “I remember my parents, my grandma, sometimes they would tap the yellow birch to get the sap out to make syrup. It’s not as sweet as maple syrup, but it is sweet, and it’s a 60:1 ratio opposed to a 40:1 ratio. You need more sap to get the final product. Yellow birch sap is also good as a cleanser in the spring.”

Water Lily – “Lily pads. They’re a food. Lily pad is our potato. Potassium in the root.”

Table 2. Plants used for Food by Métis People in Southern Ontario

A full list of plants eaten by Métis people that were mentioned during the Traditional Knowledge interviews are outlined in Table 2. Those which are on OPG’s list of plants found at the New Nuclear Darlington site have been identified. More details of plant use and notes of interest are available in Appendix A.

SPECIES MENTIONED	Listed by OPG as found at New Nuclear Darlington Site
Apples	√
Blackberries	
Blueberries	
Cattail	√
Chicory	√
Choke cherry	√
Corn	√
Crab apple	
Cranberry	
Dandelions	√
Elderberry	√

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SPECIES MENTIONED	Listed by OPG as found at New Nuclear Darlington Site
Fiddleheads	
Ginger	
Gooseberries	√
Manomin Wild Rice	√
Maple	√
Morels	
Pain d'oiseaux	
Peppermint	
Pin cherry	√
Puffballs	
Raspberries	√
Chaga mushroom	
Sour cherries	√
Spearmint	
Strawberries	
Water cress	√
Water lily	
Wild leeks	√
Wild rose (hips)	√
Wintergreen	√
Yellow birch	

3.4 Crafts and Other Uses

In addition to their use as food and medicine, plants have been used traditionally by the Métis people for crafts, construction and practical purposes. Canoes and fiddles, both at the core of Métis culture and life-style, depend on available wood – birch and oak. Métis women are famous for their beadwork, and both men and women continue to make crafts from leather, wood, and fabrics. Medicine bags, made from leather, are typically filled with the four sacred medicines, along with other plant ingredients specific to the maker. Cattail “fluff” was used traditionally to line moccasins for warmth, and this practice continues. Dyes from plants are still used as well.

The following list includes some of the highlights from the interviews.

Blood Root – “The blood root is used as an orange dye. The dye is a science on its own, you know, because some plants even though they exhibit a certain colour, they give you a dye of a different colour than what you expect.”

Birch – “I love birch bark. You can use your fingernail to write on it. You take a piece and just snap a branch and write your note on it first and stick it on a branch. You can use it to boil tea or sap in birch

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bark containers. Lots of people didn't believe that. I had to do it to prove it to them. They thought birch bark would burn, but you can boil water in birch bark containers. You can pick berries in birch bark containers. We call moose with birch bark."

Birch Fungus – “After the birch is dead, it forms a fungus and this you light this up and it will burn until there is none left and in the old days when the native people used to move from one hunting ground to the other. They would keep the fire burning for the afternoon, just put another piece on top and it will just keep on burning.”

Dogwood – “Dogwood is another one. You use the bark mixed with tobacco for smoking. The inner bark was used for tanning hides.”

Hickory – “The thing that I think is very interesting is my dad saves all these [hickory shells] and then when we're hunting he's got a wood stove that we use to keep warm in the winter. He burns the shell and it throws just a ton of heat, they're great.”

Leatherwood – “The bark is very tough and can be used like rope. When you strip it, you take a strip, say an inch wide from the bottom, pull it up and it follows all the way to the tip of the branches. Then you can use it to make hoop, to hoop the beaver. You can pull your skidoo out of the snow with this. It's very strong when you braid it.”

Table 3. Plants used for Crafts and other uses by Métis People in Southern Ontario

All plants used for crafts and other uses that were mentioned through the interviews are outlined in Table 3. Those which are on OPG's list of plants found at the New Nuclear Darlington site have been identified. More details of plant use and notes of interest are available in Appendix A.

SPECIES MENTIONED	Listed by OPG as found at New Nuclear Darlington Site
Balsam	√
Birch	√
Blood root	
Cattail	√
Cedar	√
Dogwood	√
Fungus on dead birch	
Horsetail	√
Leatherwood tree	
Milkweed	√
Mullein	
Oak	

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SPECIES MENTIONED	Listed by OPG as found at New Nuclear Darlington Site
Pine	√
Poplar	√
Spruce	√
Sweet grass	
Wolf willow	

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4. Recommendations

These recommendations are provided by AECOM based on their experience with Environmental Assessment processes, their experience with other Aboriginal knowledge studies, and the information they heard from Métis community members through this project.

1. Consider a variety of factors in how the Métis way of life may be impacted by the Darlington project.

In deciding what to communicate to OPG about possible impacts of the New Nuclear project at Darlington to the Métis way of life, consider these project factors: magnitude of impacts at various project stages, geographic extent, duration, frequency, permanence, and certainty. Cumulative effects of other development, such as residential subdivisions, on plants in Ontario could also be considered when evaluating the impact on the Métis way of life. Please refer to the Métis Nation of Ontario Environmental Assessment Guide (2010) for more guidance.

2. Identify ways to disseminate the Traditional Knowledge gathered through this project to the broader community.

While a report such as this provides a valuable reference product, there are other and perhaps better vehicles for the sharing of this knowledge with the wider Métis community.

This study includes the production of an hour-long video showing interviews with Métis participants. This video could be presented in a variety of ways, such as at local Councils and feasts, on a website, or as a teaching tool for workshops or school groups. There is enough material to create further videos on other topics, such as hunting and fishing, language and music. Shown in group settings as a “participatory video,” it will stimulate discussion and reflection on Métis traditional knowledge. Participatory video is a methodology for using video documentation as a tool for individuals and groups to grow in self-confidence, value, celebrate local and traditional knowledge, and build bridges between community members and decision-makers (Snowden, 1984, www.fao.org/sd/CDdirect/CDre0038.htm, in Richardson and Paisley, eds., FAO, 1988 - www.fao.org/sd/CDdirect/CDre0025.htm).

The material could also be presented in book format, with photos of plants and the participants. A book would provide space for in-depth discussion of more aspects of the Métis way of life, such as hunting, trapping, fishing, and cooking. A book has the potential to reach a different audience than a website or video may. The book format also lends a particular credibility to the content.

3. Continue to gather a breadth of Traditional Knowledge on the Métis way of life.

AECOM recommends that this study be the beginning of a wider inquiry that spans all of Ontario. While this study provides a useful snapshot of the Métis way of life, additional interviews would expand the pool of knowledge available. Interviews should be completed with participants from a wide range of geographies, ages, backgrounds, and levels of knowledge or experience with aspects of Métis culture.

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Involving the community in the interview process can help build local capacity. However, the scale of this undertaking should not be underestimated; volunteer time is often limited.

4. Consider a request for a Resource Valuation Study.

MNO may wish to request a Resource Valuation Study to assess the contribution of the species noted in this report, particularly those present at the Darlington New Nuclear site, to the economies of Métis households and communities. This would include an evaluation of the amount of each species harvested by households in a calendar year, the estimated value of the harvest, the percentage of the harvest that is either consumed in the home, sold or traded and the proportion of household income that is attributable to these species. It would also estimate the level of effort required to harvest (e.g. time travel, travel commitments and loss of other livelihood opportunities during travel), potential alternatives and the incentives and barriers associated with harvesting. Such an assessment would contribute to understanding if these species are critical to the Métis way of life and, if so, identify priority species for further mitigation strategies (see recommendation 5 below).

5. Provide leadership for the protection of native plant species that are important to the Métis way of life, while also contributing to Métis livelihoods.

MNO may wish to investigate appropriate methods and opportunities for plant species conservation that may be supportive of the Métis way of life, provide important livelihood or income generation opportunities, and assist project proponents to provide meaningful mitigation measures for potential project impacts on Métis interests. A number of ideas, examples and opportunities are outlined below.

One example of an Aboriginal plant conservation initiative in Ontario is Kayanase, a Six Nations ecological restoration and native plant and seed business. This business was established in part through the need for ecological mitigation in connection with the Red Hill Valley Expressway in Hamilton, Ontario. The City of Hamilton and Kayanase are responsible for restoring the Red Hill Valley through planting of native species. Kayanase integrates Traditional Knowledge with western science to improve the health of disturbed ecosystems. Along with ecological rehabilitation services, Kayanase operates a native plant nursery and greenhouse. Among its projects, Kayanase is working with the City of Hamilton and the Hamilton Conservation Authority to completely naturalize Confederation Park through a \$500,000 project funded by the Ontario Ministry of Transportation as part of an agreement with the City of Hamilton to mitigate and offset environmental impacts associated with new highway works for the Queen Elizabeth Way.

Other examples of similar efforts include the development of mushroom farms that specialize in chanterelles, morels, shaggy manes and puffballs, or greenhouses that specialize in wild leeks, sweet grass, fiddleheads and berries.

Priority species for the Métis way of life could be identified for plant species conservation efforts and livelihood opportunities. The MNO may wish to examine appropriate approaches for promoting Métis owned and operated business models that combine plant species conservation efforts with appropriate livelihood opportunities.

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Many populations of Canada's approximately 3,800 native species of vascular plants are in danger of genetic erosion, and/or local extinction (St. Pierre, 2006, www.prairie-elements.ca/conservation.html). While *in situ* conservation within protected habitats is generally regarded as the primary means by which native plant species are conserved, *ex situ* preservation in botanical gardens, seed banks, home or farm gardens, and commercial operations can play an essential role in conserving Canada's native botanical diversity.

Ex situ collections of native species are sources for recovery of threatened or endangered species, habitat rehabilitation and restoration, crop improvement, new product development, and a wide variety of research studies.

Many Métis people may currently be practicing *ex situ* conservation and collections of native species may already be established within existing Métis household properties, businesses and within traditional harvesting land. This way-of-life and potential contribution to the conservation of Canada's native plant species remains virtually undocumented.

Ex situ collections of native species could be established within industrial landscapes that provide protected buffer areas, such as brownfield sites or protected zones such as the Darlington New Nuclear Site. Protected industrial zones with buffer lands provide unique opportunities for native plant nurseries that can be established through partnerships between industry, research institutions (e.g. the University of Guelph or Trent University) and MNO. Such protected landscapes can enable researchers, ecological rehabilitation practitioners and Aboriginal peoples to obtain access to rare and endangered species without disturbing or damaging natural populations.

Appendix A

Plants of Interest to the Métis in Southern Ontario:
Cross-Referenced with Plants Found at the
Darlington New Nuclear Site

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Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
Alfalfa	<i>Medicago sativa</i>	x	Roots as medicine (has vitamins) and vegetables		SE5		
Apothecia	<i>Apothecia</i>		Use not described	Fungus-related - like a morel mushroom			
Apples	<i>Malus pumila</i>	X	Eat, cook seeds		SE5		
Arnica	<i>Arnica</i>		Arthritis, pulled muscles, sprains, burns, sunburns, insect bites	Grows in mountainous areas, so you have to purchase it			
Arrowhead	<i>Sagittaria latifolia</i>		Medicinal				
Balsam	<i>Populus balsamifera</i>	x	Making beds, good for carving		S5		
Bear root	<i>Hedysarum mackenzii</i>		Chew it	Also known as wild sweet pea.			
Bearberry	<i>Arctostaphylos uva-ursi</i>		Medicinal - sore throat	When mixed with tobacco it is called kinnikinnick (kinnikinnick refers to a mixture)			
Beech nut	<i>Fagus grandifolia</i>	X	Good for eating	American beech	S5		
Birch	<i>Betula populifolia</i>	x	Bark for canoes, moose calls, wood ash used to remove porcupine quills, birch twigs used for toothpicks (mint taste), in medicine bag, peel bark and boil black inside as a tea				
Black bush			Tea	Species unknown			
Black cohosh	<i>Actaea racemosa</i>		Insect bites				
Blackberries	<i>Rubus</i>		Stem juices used to treat scratches and skin irritation				
Blood root	<i>Sanguinaria Canadensis</i>		Dyes, for pleurisy, lung ailment				
Blue lettuce	<i>Lactuca tatarica</i>		Milky juice rubbed on skin, cures poison ivy				
Blueberries	<i>Vaccinium</i>		Preserved and made into jam; wine; good for diabetes, antioxidant, boiled down and used as medicine	Plentiful near Sudbury			
Burdock	<i>Arctium minus</i>	x	Root tea; blood purifier		SE5		
Catnip	<i>Nepeta cataria</i>	x	Make tea for fever, women's healing lodge		SE5		

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Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
Cattail	<i>Typha latifolia</i> (broad-leaf cattail)	x	Roots for consumption (like vegetable), roots to make pancakes, top of cattails eat; use the root to make flour and eat raw in stews. Inside of the stem is good to eat. The "fluff" used to line clothing or moccasins for warmth and in pillows		S5		
Cedar (Eastern white)	<i>Thuja occidentalis</i>	x	Tea; heal-all medicine (root), in medicine bag, tying canoes and baskets, canoe wood, used in a smudge, used in ceremonies, carved; used for asthma; placed in mother's coffin so she wouldn't come back and haunt them; for purification (in water or to burn); steam feathers over cedar to cleanse them		S5		
Chaga mushroom	<i>Inonotus obliquus</i>		Medicinal	The chaga mushroom grows on white birch trees, extracting the birch constituents and is used to treat cancer. Grows in the north			
Cherry	<i>Prunus</i>	x	Medicinal	Specific variety unknown			
Chicory	<i>Cichorium intybus</i>	x	Coffee substitute; added to coffee to make the coffee last longer; good as a tea.		SE5		
Choke cherry	<i>Prunus virginiana</i>	x	Bark; great for wine; good for gout (wine was 'medicinal')		S5		
Coltsfoot	<i>Tussilago farfara</i>	X	Medicinal – used for respiratory ailments		SE5		
Comfrey	<i>Symphytum officinale</i>		Medicinal properties: cell proliferators, heals wounds, encourages bond, cartilage and muscle cell growth, speeds healing when applied to injured limb, leaves and flowering tops are used in ointments and oils for sprains, arthritic joints; root used for varicose ulcers, use as wrap around joint for sprains and arthritis, make tea, relieves insect stings (stops burns instantaneously, faster healer)				
Crab apple	<i>Malus coronaria</i>	X	Jams and jellies				
Cranberry	<i>Vaccinium oxycoccos</i>		Good for urinary tract				
Crocus			Roots speed delivery, leaves used for rheumatism	Specific variety unknown			
Crooked root			Food – tastes like horse radish	May be the root of the hop vine			

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Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
Dandelions	<i>Taraxacum officinale</i>	x	Roots and leaves in salves; whole herb is edible; clears heat and toxins from blood (used for boils and abscesses); root is a diuretic and liver stimulant; leaves help reduce fluid retention and urinary disorders and are effective liver and digestive tonic; root is a liver stimulant (cleansing tonic for gallstones and jaundice) and useful in constipation and joint inflammations; good for eczema and acne; salad is good for high blood pressure, gout and colds; makes good wine				
Dogwood	<i>Cornus stolonifera</i>	x	Bark used with tobacco for smoking; inner bark used in tanning hides and to induce vomiting.	The Eastern Flowering Dogwood (<i>Cornus florida</i>) is endangered. It is only found in Carolinian Canada; southwestern Ontario, including Grand Bend across to the Niagara Peninsula.	S5	Endangered <i>(Eastern Flowering Dogwood only)</i>	Endangered <i>(Eastern Flowering Dogwood only)</i>
Eastern hemlock	<i>Tsuga Canadensis</i>	x	Tea				
Elderberry	<i>Sambucus canadensis</i>	x	Good for wine; flower used for tea; elderberry elixir (with brandy and cloves in it) used to relieve cold symptoms, cough syrup	<i>Sambucus racemosa</i> is on OPG list.	S5		
Essiac			Medicinal – cure for cancer	Essiac Tea is a blend of herbs used to make a tea that is believed by some to have cancer-treating properties. The original formula is believed to have its roots in native Canadian Ojibwa medicine and contains greater burdock root (<i>Arctium lappa</i>), slippery elm inner bark (<i>Ulmus rubra</i> ,			

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Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
				formerly known as <i>Ulmus fulva</i>), sheep sorrel (<i>Rumex acetosella</i>), and Indian or Turkish rhubarb (ref: Wikipedia)			
Evening primrose	<i>Oenothera biennis</i>	x	Used for hot flashes. Made into teas		S5		
Ferns	Many different species	X	Chase away mosquitoes	Like a fan			
Fiddle heads		X	Boil twice				
Golden rod	<i>Solidago</i>		Medicine		S5		
Golden thread root	<i>Coptis trifolia</i>		For mouth problems. Sore gums, cankers- Root used only	Also known as bitter root			
Gooseberries	<i>Ribes</i>	x	Wine; consumption (if green they are sour, otherwise eat when purple)	Specific variety unknown	S5		
Hickory	<i>Carya</i>	x	Nuts for eating. Shells for fire kindling	Nine varieties grow on Navy Island	S5		
Horse chestnut	<i>Aesculus hippocastanum</i>	x	Boil them for medicine		SE2		
Horsetail	<i>Equisetum</i> (variety not specified)	x	Improve digestive problems. Used as a tea. Outside stem used to scrub away dead skin (on heels, or in a footbath), Also as a sandpaper to smooth wood (sculptures, bowls)		S5		
Indian corn			Food				
Jewel weed	<i>Impatiens capensis</i>	x	Antidote for poison ivy, takes down redness, oil helps anything that itches; juice from stem on mosquito bites or anything itchy		S5		
Joe Pye weed	<i>Eupatorium maculatum</i>	x	Medicinal		S5		
Juniper	<i>Juniperus communis</i>	x	Berries		S5		
Labrador tea	<i>Ledum groenlandicum</i>		Older adults drink; let leaves steep for an antioxidant				
Lamb's quarters	<i>Chenopodium album</i>		Use as a salad				
Lavender	<i>Lavandula</i>		Calming, soothing salve; cured shingles; soothing/calming tea; mosquito repellent; line drawers				

Traditional Ecological Knowledge Study:
Southern Ontario Métis Traditional Plant Use

Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
Leatherwood	<i>Dirca palustris</i>		The tough bark can be used like rope				
Lemon balm	<i>Melissa officinalis</i>		Tea and insect repellent				
Lily of the valley	<i>Maianthemum canadense</i>	x	Medicine	Wild lily of the valley. OPG lists European Lily of the valley			
Liquorice	<i>Glycyrrhiza glabra</i>		Roots chewed and swallowed to strengthen voice, sore throats				
Manomin Wild Rice			Food	Grows in Nipissing area. Manomin is Ojibway for wild rice, and Manomin Wild Rice is a brand name			
Maple	<i>Acer saccharum</i> (sugar maple)	X	Syrup used in cooking				
Marigold	<i>Tagetes</i>		Boil and put in cream; put around roses to prevent black spots; good for women going through menopause				
Miinigan			Unknown				
Milkweed	<i>Asclepias syriaca</i>	x	Milk from seedpod good to remove warts; 'milk' is applied to warts, moles and ringworm. 'milk' also used in moccasins and clothing for warmth.	There are multiple types of milkweed in Ontario. The four-leaved milkweed (<i>Asclepias quadrifolia</i>) was just assessed by COSEWIC as endangered as of April 2010.	S5	Endangered (no SARA Schedule, no SARA Status yet) (Four-leaved milkweed only)	
Mint – peppermint and spearmint	<i>Mentha</i>		Teas				
Morels	<i>Morchella</i>		Good for eating. Hard to find				
Mountain ash	<i>Sorbus aucuparia</i>	x	Medicinal		SE4		
Mullein	<i>Verbascum Thapsus</i>		Eases breathing problems. Tea eases throat congestion; dried mullein head was dipped in liquefied fat and lit as a torch. The flower used in teas. The soft leaves were put inside moccasins for comfort; easy to replace. A piece of		SE5		

Traditional Ecological Knowledge Study:
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Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
			the leaf could be put on a fish hook to catch fish.				
Mushroom that grows on maple tree			Medicinal	Unknown			
Muskrat root	<i>Acorus calamus</i>		March plant – medicinal	Also known as sweet flag, and sweet sedge			
Mustard	<i>Brassica</i>	x	Plaster applied to chest to cure colds	Specific variety unknown	SE5		
Nutmeg	<i>Myristica fragrans</i>		Food	Foreign species			
Pain d'oiseax	<i>Oxalis acetosella</i>		Eat the leaves, not the flowers	Sorrel			
Peas	<i>Pisum sativum</i>		Placed in medicine bag (symbolic of growth), for afterlife; soup				
Pickereel weed	<i>Pondetaria</i>		Medicinal				
Pin cherry	<i>Prunus pensylvanica</i>	X	Food		S5		
Pine	<i>Pinus strobes (Eastern white pine)</i>	x	Tea, needles mixed with honey for a cough medicine		S5		
Plantain leaves - 2 varieties	<i>Plantago major (Common)</i> <i>Plantago rugelii</i>	x	Good for infections; rub it on cuts and scrapes; use for skin problems like rash, psoriasis, eczema; anti inflammatory, anti-bacterial (prevents gangrene); put crushed leaves on cuts, bites, inflammations from poison ivy or stinging nettle		S5		
Poplar	<i>Populus alba</i>	x	Medicine; habitat for partridge; buds - sticky resin gathered for ointment (on rheumatic or painful joints); inner bark used in soothing salve for earaches and nasal application to cure coughs and colds		SE5		
Puffballs	<i>Calvatia (also Lycoperdon and Scleroderma)</i>		Cut up and fry				
Red clover	<i>Trifolium pretense</i>	x	Skin conditioner; used medicinally as a fodder crop for cattle; flowers used as cleaning herb for skin complaints; flowers used for coughs (bronchitis and whooping cough); flowers used for insect bites and stings; eaten for eczema and psoriasis; compress use for arthritic pains and gout; ointment for lymphatic swellings; eyewash for conjunctivitis; douche used for vaginal itching; syrup for		SE5		

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Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
			stubborn dry coughs; used for bee stings				
Rose hips	<i>Rosa rugosa</i>		Tea				
Sage	<i>Salvia officinalis</i>		Used in ceremonies; in medicine bag (to calm and purify); sacred medicine; purification of emotions; menstruation; cooking, tea				
Sarsaparilla	<i>Aralia nudicaulis</i>		Wine				
Sassafras	<i>Sassafras albidum</i>		Bark used	Root was once used to make root beer			
Self heal	<i>Prunella vulgaris</i>		Medicinal		SE3		
Slippery elm	<i>Ulmus rubra</i>	x	Put in milk, helps with digestion ; the ashes were used to aid digestion, stop reflux				
Sour cherries	<i>Prunus</i>	X	Pies; good in moose stew	Specific variety unknown	S5		
Spruce	<i>Picea glauca</i>	x	Waterproofing canoes; root for medicine; spruce gum on cuts and chewed to make teeth white		S5		
St. John's wort	<i>Hypericum perforatum</i>	x	Bouquets ; typically makes you feel good; orally can inhibit ailments		SE5		
Stinging nettle	<i>Urtica dioica</i>	X	Medicinal; told to stay away from it because of skin irritation		SE2		
Sumac (staghorn)	<i>Rhus typhina</i>	x	Tea from berries - high in Vitamin C, bitter taste		S5		
Sweet fern	<i>Comptonia peregrine</i>		Tea	Not a true fern, but a deciduous shrub			
Sweet grass	<i>Hierochloe odorata</i>		Used in a smudge; tea, in medicine bag; decoration	Smelt it near Dunnville, but not located (in restricted area possibly)			
Tamarack	<i>Larix laracina</i>		In medicine bag (to heal); tea from bark good for colds; use with white sage and birch for calming burns				
Thistle	<i>Cirsium arvense (Canada thistle)</i>	x	Salve for cough, tickling (rub on chest when sleeping).	OPG lists Russian Thistle. There are multiple types of thistle in Ontario. Hill's Thistle (<i>Cirsium hillii</i>) and Pitcher's Thistle (<i>Cirsium</i>		Threatened (<i>Hill's Thistle</i> only) Endangered, SARA Schedule 1 (<i>Pitcher's Thistle</i> only)	Threatened (<i>Hill's Thistle</i> only) Endangered (<i>Pitcher's Thistle</i> only)

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Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
				<i>pitcheri</i>) are both species at risk.			
Three-flowered avens	<i>Geum triflorum</i>	x	Eye wash; sore gums, throats; chapped lips (when mixed with animal fat)	OPG lists yellow and white avens	S5		
Tobacco - Northern, Buffalo and Red Indian	<i>Nicotiniana tabacum</i>		Offering to plant to ask the plant to do the good it is meant to do, or in harvesting, or being around water (in prayer as offering), cigars, used in a smudge, in medicine bag (symbolic of friendship and peace)				
Trillium	<i>Trillium grandiflorum</i>	x	Root for medicine	There is more than one type of Trillium in Ontario. The Drooping Trillium (<i>Trillium flexipes</i>) is endangered.	S5	Endangered, SARA Schedule 1 <i>(Drooping Trillium only)</i>	Endangered <i>(Drooping Trillium only)</i>
Turkey tail mushroom	<i>Trametes versicolor</i>		Medicinal				
Vervain	<i>Verbena hastata</i>	x	Medicinal		S5		
Water cress	<i>Nasturtium officinale</i>		Good for salads				
Water lily	<i>Nymphaeaceae</i>		Medicinal; backyard plant (lily pad)				
Weecay - wild iris	<i>Iris sibirica</i>	x	Root for throat medicine	Grows along river banks along Wye River	SE1		
White sage	<i>Salvia apiana</i>		Smudging				
Wild ginger	<i>Asarum canadense</i>		Often traded; cooking; spiritual medicine from sturgeon plant; tea				
Wild grapes	<i>Vitis sylvestris</i>		Leaves and fruit used				
Wild leeks	<i>Allium tricoccum</i>	X	Traded; pickled; spring tonic	Wild leeks are of special concern in Quebec.	S5		
Willow	<i>Salix</i>	x	Pain killer (aspirin); ground willow bark used as pain killer for toothache and joint pain. Can also be taken as a tea. Red willow bark is used smoking mixture	Specific variety unknown			
Wintergreen	<i>Pyrola asarifolia</i>	x	Chew instead of gum; tea in moderation for arthritis	Found in Huronia. There are multiple types of wintergreen in Ontario. The spotted wintergreen	S5	Endangered, SARA Schedule 1 <i>(spotted</i>	Endangered <i>(spotted wintergreen only)</i>

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Species Mentioned by Métis Interviewees	Scientific name	Listed by OPG	Description of Métis Use	Comments	NHIC "s ranking"	COSEWIC	COSSARO
				(<i>Chimaphila maculata</i>) is endangered.		wintergreen only)	
Witch-hazel	<i>Hamamelis virginiana</i>		Used as an astringent				
Yarrow (Arbadine)	<i>Achillea millefolium</i>	x	Tea to suppress bleeding and fevers; flower has healing powers as infusion, anti-inflammatory, flowers are drunk for upper respiratory phlegm or as an eczema wash; inhalation for hay fever and mild asthma; oil is massaged into inflamed joints; chest rub for chesty colds and influenza, leaves stop a nosebleed; poultice wrap on cuts and grazes; reduce fevers and as a digestive tonic; tincture use for urinary disorders or menstrual problems and cardiovascular complaints; compress to sooth varicose veins; mild anaesthetic; stopped itching of insect bites; flowers chewed to reduce swollen glands; tea to relieve pain during childbirth		SE		
Yellow birch			Tapped for syrup; not as sweet as maple syrup. Sap used as spring cleanser				
Yellow dock	<i>Rumex crispus</i>	X	Medicinal	Also known as curly dock	SE5		

Appendix B

Fact Sheets: Plant Species of Interest



Appendix C

Traditional Ecological Knowledge Interview Questions



TEK Interview Questions

Métis Nation of Ontario Southern Ontario Traditional Ecological Knowledge Study

PREAMBLE

[Introduce yourself]. I work with AECOM and have been hired on behalf of the Métis Nation of Ontario (MNO) to conduct this study.

The purpose of this interview is to gather information about traditional Métis uses of plant species found in Southern Ontario. This information will be used to assist the MNO in better understanding the potential impacts of the Darlington New Nuclear Project on the Métis Way-of-Life.

While the particular focus of this study is on learning more from you about Métis use of plant species, I would also like to ask you some general questions about your knowledge and your family's way of life. This information will be a valuable contribution to the record of Métis traditional knowledge that the MNO is building.

A copy of the transcript and video will be made available to you and the Métis Nation of Ontario. Are you willing to have your interview videotaped and audio taped for these purposes?

QUESTIONS

Date:

Time:

Location of interview:

Family History

1. What is your full name and date of birth?
2. What were the names of your father and mother?
3. What were the names of your grandparents, if known?
4. What were the names of your great grandparents, if known?



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Southern Ontario Métis Traditional Plant Use**

Métis Heritage

5. When did you learn about being Métis?
6. Do you belong to a Métis community? If so, can you please identify the community on the map?

Plant Knowledge

7. Did you gather plants (berries, vegetables, herbs, trees, shrubs, mushrooms, aquatic plants, etc.) as a child? If so, where and what were the names of the plants (refer to map and mark areas or places)?
8. Have you gathered plants as an adult? If so, where, and what are the names of the plants (refer to map and mark areas or places)? If no, why not?
9. Did your parents or other relatives gather plants? If so, where, and what are the names of the plants (refer to map and mark areas or places)?
10. A) These cards contain images of different plant species [*refer to cards*]. Have you or your family gathered any of these? If so, where, and what are the names of the plants (refer to map and mark areas or places)?

B) Which of the plants have you or someone from your household gathered in the last year? [*complete table*]

Plant	Total produced / harvested in last year	# of hours spent gathering	% used in household	% sold or traded	Market Price

C) What was done with the plants you and your family have gathered? [*complete table*]

Plant	Eaten in Household	Sold / traded	Spiritual use	Crafts / Building	Other



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11. Did you harvest trees? If yes, for what purpose?
12. Do you know of any traditional Métis names for plants?
13. Do you know any Métis songs that are associated with plants?
14. Do you know any Métis recipes that use traditional resources?

Importance of Resources to the Métis Way of Life

15. Is resource harvesting integral to your Métis identity? Please explain.
16. Have you noticed changes over time to resources that you have traditionally harvested?
17. Have you noticed any changes to access to resources? Are you concerned about on-going access to resources?
18. Do you consider access to resources to be integral to the Métis way of life?
19. Have you noticed any change to the health of the ecosystem? Are you concerned with changes to the ecosystem?

Other

20. Do you have any other knowledge about the area through conversations or stories from family or friends? If so, describe what you know from these sources.

Questions not about plants, but still ask:

21. Have you hunted? If so, where, and what species (refer to map and mark areas or places)?
22. What methods did you use to hunt?
23. What was done with the meat, pelts or hides of the animals? Was it for food or sale, or given away?
24. Have you fished? If so, where, and what species (refer to map and mark areas or places)?
25. What methods did you use to fish?
26. What was done with the fish? Was it for food or sale, or given away?



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27. Did your parents or other relatives hunt or fish? If so, where, and what species (refer to map and mark areas or places)?
28. Do you know of any spiritual or sacred sites (burial grounds)? If so, can you locate them on the map?
29. Do you know of any archaeological sites in the area?
30. What language or languages did you know while growing up? What language or languages did your parents and other relatives speak?
31. Is there anything else that is integral to the Métis Way-of-Life that you would like to tell me about?

