Sustainability Solutions For Your Business

Fisheries and Aquaculture Asset Mapping

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1. Project Introduction and Background

Based on a culture of co-existence with land and water, Aboriginal communities in the Great Lakes basin have a history of fishing for food, ceremony and commerce that precedes the arrival of European settlers. Lake trout, whitefish and sturgeon were the main species captured, originally with nets made from twisted and knotted strands of willow bark. In winter, fish were speared through holes in the ice.

The commercial fishing industry began in the 1820s and expanded through the 1880s. Prior to 1800, fisheries were an economic and cultural backbone of the First Nation communities on Georgian Bay. Yet, by the late 1800s and early 1900s, supporting fish populations were decimated by the commercial fishing industry owned and operated by large Euro-Canadian and American fishing fleets in Lake Huron and Georgian Bay. Despite stress on the environment, catches increased again through the 1900s with the introduction of modernized gear. By the 1950s, the heyday of the commercial fishery on the Great Lakes was over. The supply of the most valuable species declined due to over-exploitation and habitat alteration.

Nevertheless, the fishery remains viable and is a core economic activity of Aboriginal communities within the Robinson-Huron Treaty. Of the 27 First Nations within the service area of the Waubetek Business Development Corporation (Figure 1), many are actively engaged in commercial fisheries; however, Aboriginal participation has not been fully quantified. The Ontario Ministry of Natural Resources and Forestry (OMNRF) manages the commercial fisheries in the region by setting quotas for the commercially important species.

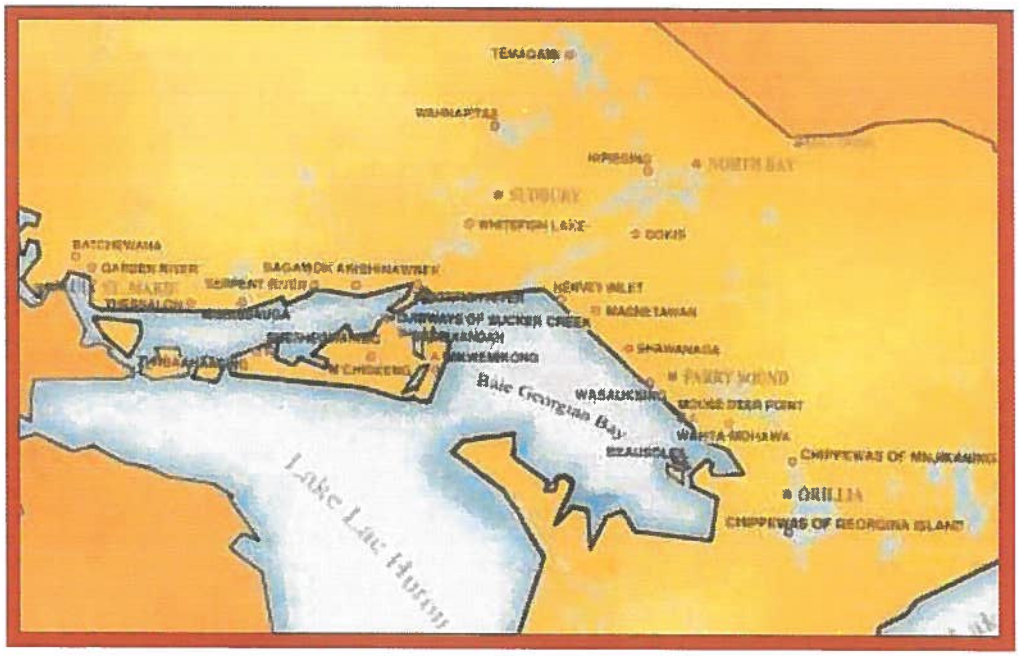


Figure 1: Waubetek Business Development Corporation Service Area (Source: Government of Canada)

Participation in the commercial fishery is largely non-Aboriginal - there are 37 licenced commercial fisheries and 9 Aboriginal rights-based fisheries in the region. Lake whitefish is the main species representing over 67% of the catch. Lake trout, yellow perch, walleye, sturgeon and cisco are other significant species. In 2010, the commercial fishery on Lake Huron generated approximately 1.9 million kilograms of fish valued in excess of $4.5 million annually. The yield returns to First Nations communities and individuals are far below the potential for these fisheries. The major benefit from the resource accrues largely to non-Aboriginal interests.

Aquaculture has also become a significant industry in Ontario, and particularly in Waubetek's service area. Presently, commercial aquaculture in Ontario generates approximately 5,500 tonnes of fish annually, 95% of which is rainbow trout, having a farm-gate value of approximately $18 million dollars. Cage culture operations account for nearly three-quarters of all fish commercially farmed in Ontario.

Six companies currently operate nine cage culture sites in Lake Huron, where production exceeds 4,000 tonnes of rainbow trout per annum; however, growth has stabilized with continued expansion in the Aboriginal sector over the last 10 years. At the smallest of these operations, annual production is about 160 tonnes per year whereas annual output exceeds 1,000 tonnes at the largest site. Three of these operations are Aboriginal-owned and are within Waubetek's service area. Moreover, in view of the available bio-physical resource and the opportunity that aquaculture presents, other Aboriginal communities have expressed interest in the sector.

In the fall of 2004, Waubetek established an *ad hoc* working group to consider opportunities to develop more meaningful Aboriginal participation in the fisheries and aquaculture sectors of the region, including the opportunities for synergistic integration of these sectors through avenues such as processing, marketing, transportation, infrastructure, enhancement, etc. In 2005, the group met for a two-day planning session to formalize the *ad hoc* process and establish the Waubetek Aboriginal Fisheries Initiative (WAFI) Committee to lead the exercise.

The WAFI Committee established a process to develop a long-term strategic plan leading to more meaningfully engagement in the fisheries (commercial & recreational), aquaculture and fish processing sectors and related businesses in the region. The WAFI Committee identified one main objective and several targeted outcomes as a foundation for their strategic plan. The Waubetek Aboriginal Fisheries Strategy - Action Plan identified the following as one of their Strategic Objective / Action:

- Coordinate planning and implementation of an asset mapping exercise within the Waubetek service area to enhance fisheries and aquaculture development and aquatic resource management.

This Strategic Objective/Action had the following targeted outcomes:

- Prepare a Terms of Reference for an asset mapping initiative within the Waubetek service area to develop a regional asset map pertaining to sustainable development of aquatic resources;
- Secure funding to undertake the asset mapping initiative;
- Identify and contract with a qualified organization to conduct the asset mapping exercise; and,
- Use the asset map to establish resource management plans and to leverage resources for fisheries and aquaculture development.

The strategy was built around community meetings and discussions, and guided by the wisdom of elders. The development of a bottom-up strategy was identified as an approach that would enable all community members to contribute to the plan that have a vested interest in its creation and implementation and lead to the development of viable business and employment opportunities in fisheries-based industries.

2. Purpose and Scope of Work

Asset Mapping is a type of inventory that starts by identifying and locating what already exists. It is an exercise conducted to provide guidance to regions seeking to strengthen their competitive position in the global economy. By identifying the available asset base, a community can capitalize on its strengths and identify potential areas of weakness that may require specific efforts to overcome. It looks for opportunities to use and build on these existing resources and is an important beginning step in providing a strategic or operational advantage toward achieving economic and workforce development goals. Asset mapping also allows communities to leverage their assets to broaden the scope and breadth of economic development initiatives. For First Nations, key assets could include human resources, their bio-physical resource base; networks and linkages, access to funding and investment, etc.

The scope of work for the Fisheries and Aquaculture Asset Mapping project is to identify:

- assets as they pertain to economic opportunities for First Nations and aboriginal entrepreneurs in sustainable development of fisheries and aquaculture;
- the principal advantages within each First Nation community and the region at large for sustainable aboriginal fisheries and aquaculture development; and,
- the principal challenges within each First Nation community and the region at large for sustainable aboriginal fisheries and aquaculture development.

3. METHODOLOGY

A review of relevant target community publications was conducted to identify preliminary assets, key organizations/individuals and any community-specific concerns. This assisted in determining the appropriate organizations, individuals, and representatives that should be included in the workshops. It also aided in having a preliminary understanding of the issues and key resources that may be available and help to facilitate discussions at the workshops.

> A Whole Assets Approach was used to complete the Fisheries and Aquaculture Asset Mapping exercise. It took into account all the assets that are part of people's view of their immediate community as well as the surrounding areas. Because communities are not islands unto themselves, it means going outside the community to see what is important about surrounding and interconnected areas. Whole asset mapping is comprehensive and although it takes longer, it can provide a complete map of the community and its support system.

Workshops were organized in four (4) locations throughout the Waubetek service area in order to obtain representatives from all communities in a strategic manner and allowed for communities with similar interests to be brought together within an area. The four locations included:

- Nipissing – Atikameksheng, Temagami, Wahnapitae, Nipissing, Henvey Inlet,
- Garden River – Batchewana, Garden River, Thessalon, Mississauga, Serpent River, Sagamok
- Aundeck Omni Kaning - Whitefish River, Aundeck Omni Kaning, M'Chigeeng, Sheguiandah, Wikwemikong, Sheshegwaning, Zhiibaahaasing
- Wasauksing –Georgina Island, Rama, Beausoleil, Wahta Mohawk, Moose Deer Point, Wasauksing, Shawanaga, Dokis, Magnetewan

For each workshop, a representative of Chief and Council, the resource management department and the economic development department for each First Nation was invited. In addition, an elder and several local First Nation community representatives currently involved in fisheries were invited. Invitations were also made to non-Aboriginal representatives in the fisheries industry.

The objectives of the workshops were to:

- Identify important fisheries and aquaculture assets;
- Build an understanding of the working group's appreciation of these assets;
- Identify threats to these assets;
- Plan how the group could sustain and build upon the collective value of these assets; and,
- Instil that asset mapping supports a common view of what is important, to affirm or broaden what you think, and to hear and appreciate the values of others.

Each workshop started with an introduction to the Waubetek Fisheries Strategy and the purpose of the workshop, which is to identify community assets relevant to fisheries and aquaculture. The asset mapping process was described as a process to inventory, rank and evaluate the

assets related to fisheries and aquaculture. An awareness of these assets would allow the communities to build on their current assets, and subsequently develop ways to enhance these assets and foster a sustainable industry.

Assets were further described as either tangible or non-tangible:

- Tangible, concrete, physical items
  - Natural resources like fisheries and aquaculture;
  - Businesses like fish processing plants, fisheries supplies, logistical support; and,
  - Infrastructure like utilities, transportation, wharfs, cold storage.
- Intangible items
  - Research and development like colleges, universities, and training centres;
  - Fisheries management services like band natural resource departments, Anishnabek/Ontario Fisheries Resource Centre (A/OFRC); and,
  - Financial and Political resources like Union of Ontario Indians, Waubetek Business Development Corporation.

Each participant then brainstormed what they saw as the top six assets in the community, and categorized them according into one of five categories:

Economic	Businesses and economic opportunities
Service	Educational and community services
Social	People and organizations in our communities
Built	Physical things we build like roads and buildings
Natural	Environment, fisheries, water

Figure 2: Asset Mapping

The group then discussed what supported and threatened the asset/s in the chosen asset grouping. After the workshops concluded, key organizations and individuals identified during the workshops were contacted in order to obtain additional information on relevant resources, services and programs that could be supportive to the project. This was also used to verify the accuracy of the information, seek additional information that may be useful in identifying assets and/or determine how these assets could be leveraged in achieving the goals of the Fisheries

Strategy. It will also be used to determine appropriate contact information for follow up, when the Fisheries and Aquaculture Asset Mapping project was complete.

4. Industry Overview

Before discussing the assets in the context of identified gaps and synergies, it is important to understand the assets that are necessary to support commercial fisheries and aquaculture operations. The following two sections provide a brief overview of these operations with a view to better understand what assets are lacking for the Waubetek service area and what opportunities are present.

4.1. Fisheries

History:

Commercial fishing on the Great Lakes began about 1800, and by 1900, it had become an important regional industry. The potential always existed for a large commercial fishery on the Great Lakes, but its development awaited either the growth of a large local market or a means to transport fish to a large external market. There is little evidence of a commercial fishery on the Canadian shores of the lakes until the 1820's and 1830's. However, the existence of large-scale fisheries may be inferred from the existence of legislation to protect in the Great Lakes between1807-1843 (McCullough, 1989).

At the time of the lakes' discovery by Europeans, the Aboriginal population inhabiting the shores of the Great Lakes was significant. Aboriginal people made extensive use of the fish resources of the area. For example, the Ojibwa in the vicinity of Sault St. Marie fished the area regularly. The Ojibwa traded dried fish to inland groups, but in general, Aboriginal fisheries were subsistence fisheries however this fishery did have some characteristics of a commercial fishery which were accentuated after the arrival of Europeans (McCullough, 1989).

Source: McCullough, 1989

The fishery expanded in the 19th century and became an industry that was shared between Canada and the United States; in the nineteenth century about 20 per cent of the catch was in Canadian waters. Regionally, Canada and the United States continue to share the fishery in the region and the catch in Canada in the present day has increased to about 40 per cent of all fish caught commercially. For Canada, traditionally the Great Lakes produced almost 50 per cent (by value) of all freshwater fish produced in the country; today, as a result of increases in catch in other inland water and lower unit values for Great Lakes fish, only about one-third of

freshwater fish in the commercial market come from the Great Lakes (McCullough, 1989; OMNR, 2015).

Fishery:

Capturing fish and transporting them from the sea to a fishing port requires an integrated fishing unit; a vessel or fleet that can carry them to fishing grounds where they will operate gear to catch the fish and partially process and preserve them immediately and then bring them to port in good condition. The vessel must be safe, seaworthy, and habitable and must be equipped to carry, set, and retrieve the fishing gear. The gear must be suitable for the species of fish sought and the grounds being fished. The vessel must be supplied to travel to and from the fishing ground and to operate while fishing. It must be arranged to permit the necessary stowage and transport of the catch. The vessel must also be provided with space to handle the fishing gear and the catch, (Royce, 1972).

The primary determinants of vessel size and design are the distance to the fishing grounds and the kind of gear to be used. On nearby grounds in sheltered waters, small vessels can make short trips to land with fish fresh or even alive. The use of trawls, seines, gill nets, traps and hooks is commonly used in commercial fisheries. Specifically in the Great Lakes, and northern Ontario, gill nets are commonly used. They are especially favored by small-boat fishermen in sheltered waters because they can be operated by hand or with simple hauling machinery (Royce, 1972).

Fish are highly perishable and begin to deteriorate immediately after death. Once the fish is killed it must be consumed or preserved before it becomes inedible; a period that may be as short as a few hours. Readily available ice is used to chill the fish immediately and kept them cold throughout the processing, marketing and distribution phases (Royce, 1972).

Marketing:

Fish have been traditionally marketed whole, either entire, or gutted, or gutted and beheaded, although with the development of better means of preservation and distribution, there has been an evolution in the processing of fish product before delivery to the consumer, i.e. fillets, steaks, canned portions, sawed portions, fish cakes and sausages (Royce, 1972; OMNR, 2015).

The Ontario Ministry of Natural Resources and Forestry is responsible for issuing commercial fishing licences. They enter and maintain the licence data and approve the licence and quota adjustments.

Ontario's licensed (non-aboriginal) commercial fishery is regulated by a series of Federal and Provincial legislative Acts. Most commercial fishing licences are issued subject to a number of terms and conditions, which provide details on the fishing operation such as:

- waters from which the fish may be taken (including lake and quota zone)
- species, size and quantity of fish that may be taken (species and quantity of fish that may be taken is referred to as the Quota)
- fishing gear that may be used
- persons who may engage in fishing under the licence
- the loading, landing, handling and transportation of fish
- the periods and times of day during which fishing operations may be conducted

Allocations are allotted to resource conservation, Aboriginal food and ceremonial fishery, commercial fishery and angling fishery and other stakeholders.

All fish landed in the Province of Ontario by a non-aboriginal commercial fishery are subject to inspection prior to offloading the day's catch. Processed fish, which are exported from Canada, are regulated by the Canadian Food Inspection Agency.
(Source: OCFA, 2015)

Export Economy:

Canada exports over 80% of its fish and seafood production to more than 130 countries (Rodger, 2006). In 2004, exports (685,249 tonnes) were valued at $4.4 billion (Rodger, 2006). The US is Canada's largest export market (63% of Canada's seafood trade is with the US), followed by Japan and the European Union (Rodger, 2006). The US market is the third largest consumer of seafood in the world. US consumption of fishery products was 7.4 kg of edible meat per person in 2003 (Rodger, 2006). The sector generated $61 billion in consumer sales in 2003 (Rodger, 2006). In addition, more is spent on recreational fisheries, which increases the economic impact of fisheries (Rodger, 2006). In 2011, there were more than 500 commercial fishing licences in Ontario who caught nearly 12,000 metric tonnes of fish with a dockside value of more than $33 million and contributed $234 million to Ontario's economy. This fish are processed and sold to food stores and restaurants in Ontario, the US and around the world (OMNR, 2015).

Local Economy:

Many people are employed in the fisheries industry. Often, the fishing industry "kick-starts" employment in many other secondary industries and can influence society at a broader scale (Rodger, 2006). Figure 3 presents the number of assets and supporting features are necessary to make the fishery successful.

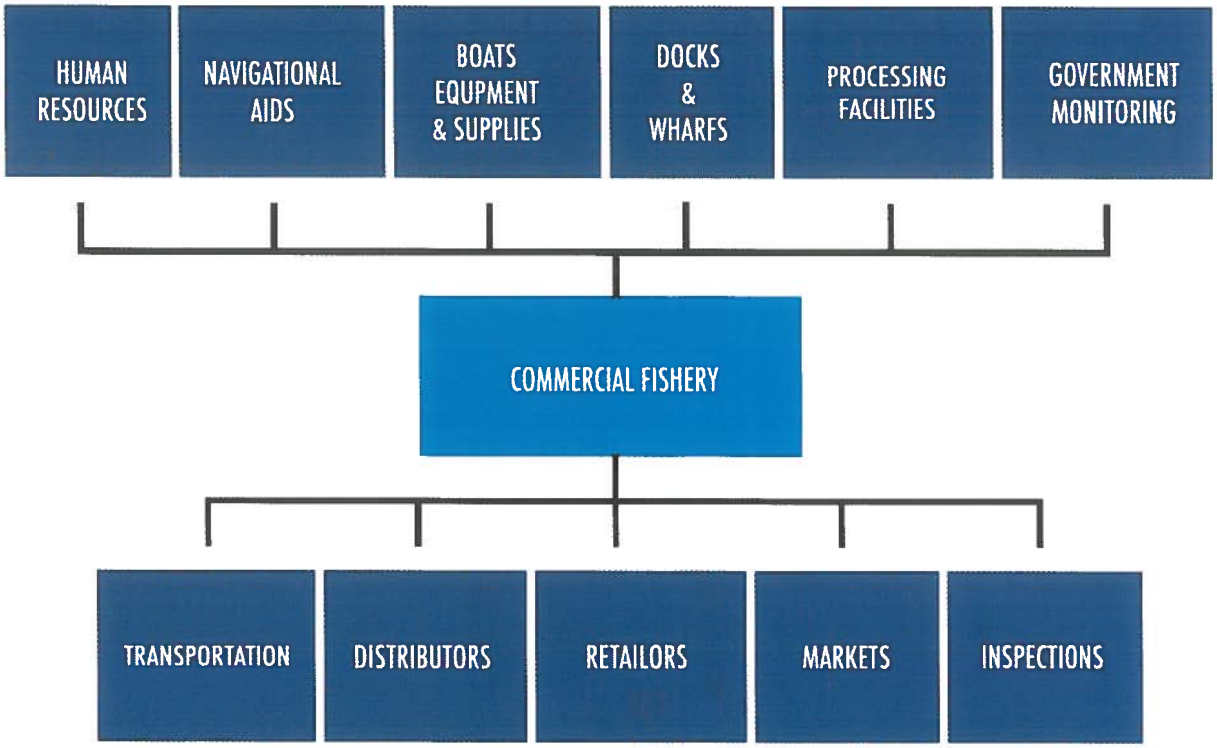


Figure 3: Assets and supporting features for a commercial fishery

Trucks, trains and ships are needed to transport products to market, where distributors and retailers are employed to market the fish. Furthermore, boats must be built and maintained. The boats are equipped with expensive motors, machinery, electrical and communication equipment, safety gear, etc.; often produced far away. Wharves, docks, holding tanks, aquaculture ponds and pens and processing facilities must be also built and equipped, often using specialized material and machinery produced inland. Waterbody charts must be made and buoys and other navigational aids are set and maintained. Governments undertake monitoring of fishing activities and require biologists, statisticians, researchers and administrators to manage the industry. Nets, ice, salt, fish pellets, packaging equipment and supplies, food, fuel, paint, specialized clothing and other consumables are needed to maintain production (Rodger, 2006).

Source: Northern Ontario Aquaculture Association, 2015

4.2. Aquaculture

Aquaculture is a significant departure from the traditional "search and capture" fisheries in Canada in that production processes are controlled in whole or in part. This control enables the manipulation of production processes that would otherwise be impossible. It allows for ownership or tenure as fish are no longer a common property resource. Thus many see the opportunity to create an innovative new aquaculture industry. Nevertheless, a new spectrum of problems are faced when cultured plants and animals are reared in large numbers in close proximity one to another. These problems suggest a growing need for new technologies and institutions to assure the technical and economic basis for commercial aquaculture in Canada (Pritchard, 1976; Moccia et al., 1997).

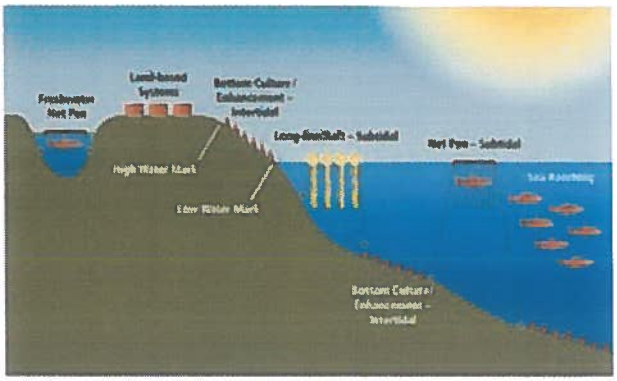
Some of the advantages and benefits associated with aquaculture include (Pritchard, 1976; CIAA, 2015):

- Canadians have come to expect and appreciate inexpensive, high quality and variety foodstuffs, but increasingly have become disenchanted with what is being offered. Aquaculture promises specialized products that could satisfy consumer specification with variety and quality unobtainable through traditional fisheries;
- The assets of rural Canada are being recognized both properly and more widely as governments seek distribution of social and economic benefits to rural areas. Aquaculture and associated services loom high on development among such opportunities, and there is active search with business circles for rural investments that could be financially self-sustaining;
- Aquaculture is a form of renewable resource production that is compatible with good environmental guidelines, although uncontrolled development could pose threats to

natural populations through disease introductions, genetic mixing, and the build-up of organic wastes; and,

- Employment options are particularly limited in remote areas where aquaculture might be feasible.

Wild fisheries resources in Canada will be increasingly replaced or augmented by aquaculture as they diminish or encounter difficulty in satisfying market demands. The driving force behind aquaculture must be first and foremost an economic one. Markets have to be created or found for its products, and the rewards must compensate for the cost of production inputs (Pritchard, 1976; CIAA, 2015). In fact, in planning a commercial aquaculture, several requirements must be met including site selection, operational skills and a production system:



Source: DFO, 200.

Site Selection

This is particularly true in the self-sufficiency and intensive-farming forms of aquaculture that rely to a much greater degree on natural ingredients rather than in factory food production. All must consider factors such as water quality and quantity, conflicting uses for the site including contamination from other activities, cost of site servicing and distance to markets. Canada has abundant inland waters that are relatively clean and suitable for aquaculture. Few of these sites have been inventoried with a view to selecting possible sites for aquaculture and to preventing their deterioration so that potential bioindustries will be able to operate. (Pritchard, 1976;Moccia et al., 1997; NOAA, 2015).

Operational Skills – Managerial, Scientific and Technical Skills

The lack of clear-cut business plans and of skills to implement an operation is a likely cause of failure. Cash flow management can be essential to financial survival in the start-up phase of a new business, as there may be no revenue generated for over a year or more after initial construction of an operation (Pritchard, 1976; Moccia et al., 1997; NOAA, 2015).

Production System

Input ingredients include water supplies, feed and rearing systems, seedstock, drugs and disease control, general supplies, finance and insurance, and transport and storage utilities (Pritchard, 1976; Moccia et al., 1997; NOAA, 2015).

- Water supplies can come from springs, pumped wells or surface water supplies. Surface waters are often in abundant supply and provide the higher summer temperatures to promote faster growth, which may not be the case with groundwater sources.

- Animals – selection of animal species must be made on availability, ease of husbandry including the ability to reproduce in confinement, resistance to disease and predation, food conversion capacity and product value;
- Feeding and Rearing Systems – rearing systems may include tanks and cages secured in open water bodies, whereas feeding systems may range from hand feeding, fish-activated demand feeders, timer controlled feeders to computer controlled flexauger feed delivery systems. Feed is the largest variable expense in the cost of raising fish and typically represents about one-third to on-half of the variable cost of production. stationary floating suspensions to fully controlled environmental systems with automated material handling;
- Drugs/Disease control – a plan for prevention and control of infectious diseases is a most vital ingredient of aquaculture ventures to minimize risks.

Market studies to assess the various marketing options are also required, and include wholesale and retail trade, speciality products, exports, home use, hotel and restaurant trade, resource enhancement and recreational fisheries. In Ontario, several hundred private trout hatcheries are operating, all on a small-scale, although many are looking toward grow-out operations as a form of expansion. Fish feed industry and numerous marking analyses have been made (Pritchard, 1976; Moccia et al., 1997).

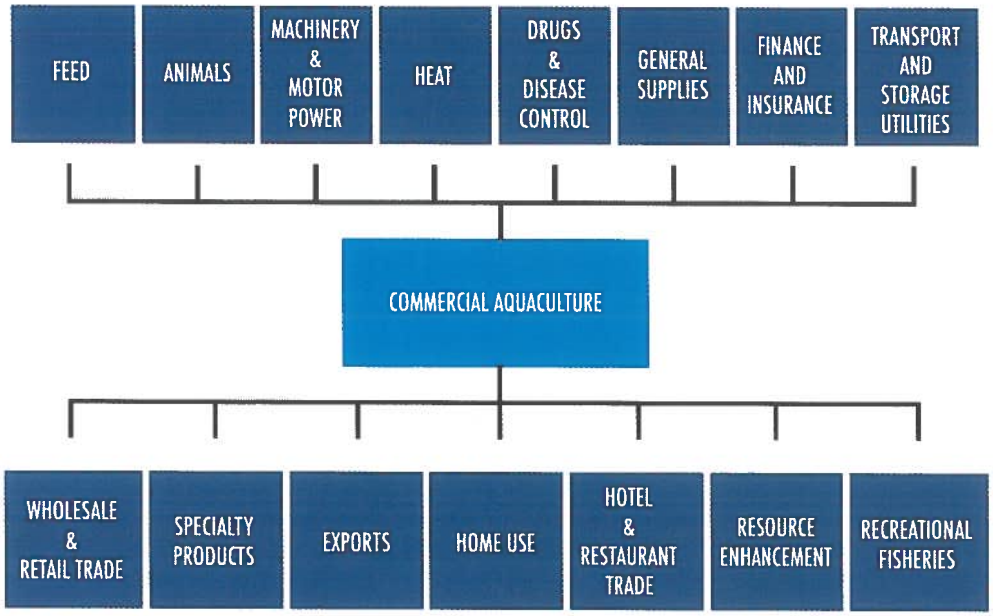


Figure 4: Assets and supporting features for aquaculture.

The impacts of aquaculture on the local community can be varied. Supporters and opponents present very different portraits of the industry and its role in community development and economic diversification. On the one hand, supporters perceive it as a creator of good jobs and a spur for local entrepreneurialism. On the other hand, critics see it as disruptive and damaging to traditional and emerging industries. The relationship between aquaculture firms and

communities may be tense. Firms expressed frustration with the work ethic and commitment of the local labour force, however there is a strong positive impact of aquaculture on community economies through the number and range of businesses which creates diversification of the economies in the communities (Young and Matthews, 2010).

Aquaculture involves long hours, physical labour and time away from family – similar to other resource industries (i.e. forestry and fisheries) – it tends to involve large organizations as opposed to small-scale, owner-operated fisheries. Often criticized as being exploitive, however some data suggests average salary is on par with national averages (Young and Matthews, 2010). In fact, Young and Matthews (2010) looked at the employment impact and found:

- Large companies (100+ employees) are driving employment, as opposed to small business;
- Aquaculture employment varies seasonally, but most employees are engaged in full-time work;
- Nearly half of those employed are young (21 – 35 years old);
- Three quarters of those employed are male; and,
- Low employment of Aboriginal workforce.

An example of benefits of an aquaculture industry in Port Hardy, BC, demonstrates the variety of assets useful to promoting and supporting the development of an aquaculture industry in the province. Some benefits include:

- Accounting
- Advertising
- Air transportation
- Boat moorage
- Boat repair
- Boat sales
- Carpentry
- Child care
- Construction
- Electronics supply and maintenance
- Fuel supply
- Ground transportation
- Hardware supply
- Hotel and accommodations
- Workplace health and safety
- Computing/information technology services
- Land surveying
- Legal services
- Machine works and repair
- Machinery parts
- Marine conservation
- Marine navigation equipment
- Marine research
- Printing and stationary
- Processing
- Road building
- Security
- Storage
- Tires
- Waste management
- Welding

5. Results and Analysis

The results of the workshop and targeted interviews are summarized below by asset type. For a complete list of the assets, as well as contact information, refer to Appendix D.

It is important to note that the list generated from this project is by no means exhaustive. In some cases, there was no representation from several First Nations due to timing and competing priorities. Efforts were made to contact each First Nation to obtain a list of assets adjacent to their communities; however this was not always possible in the timeframe of the project. Regardless, the list of fisheries and aquaculture assets presented in this report represents a baseline inventory that will serve as a starting point for potential entrepreneurs to create new opportunities. It is expected, and encouraged, that new assets will be identified in the future which can be added to this list.

5.1. Economic Assets

Economic assets can be grouped into seven categories, which include community fish derbies, aquaculture, supporting small-business ventures, funding organizations, fisheries and markets. Table 1 provides a list of the actual economic assets that were identified as being operational and in a specific location.

Table 1: Actual Economic Assets

Community Fish Derbies

- Dokis First Nation fish derby, to educate youth and the community about fish stocking in addition to undertaking fundraising
- Sagamok First Nation fishing Derbies
- Wikwemikong Ice Fishing Derby

Aquaculture

- Buzwah Fisheries
- Fulltime Fisheries
- Aqua-cage Fisheries Ltd

Supporting Small-Business Ventures

- Eight (8) hunting camps with guides for fishing, which also includes a fishing policy and permitting scheme around Dokis First Nation.
- Dukes Fish and Chips in Aundeck Omni Kaning.
- Ben's Bait and Boat in Garden River, which hosts a fish derby as well as maintains a boat launch, bait/tackle store and an outfitting service.
- Ecotourism operator in Dokis First Nation.
- Wasse-Giizhik Tours and Accommodations in Wikwemikong, which offers fishing and touring.

Funding Organizations

- Numerous Economic Development offices within First Nations, that provides funding opportunities for small businesses.
- Waubetek Business Development Corporation, an Aboriginal-owned and controlled organization that delivers business financing and economic development services to First Nations and

Aboriginal entrepreneurs in North-Eastern Ontario. Waubetek supports capital programs of up to $100K for individuals and up to $250K for communities; loans of up to $500K.

Fisheries

- Wikwemikong area of Georgian Bay
- Whalesback area of the North Shore, including a commercial fishing program with 5 commercial fishermen from Sagamok First Nation
- Lake Nipissing
- Wasauksing area, of Georgian Bay

Markets

- Herbert Fisheries market includes fish stand in Killarney

Table 2 provides a list of potential economic assets that have value but may not be located in a specific location or have not been fully realized or operational to date. For example, the fact that aquaculture has been already been developed on First Nations waters and has an established market represents a potential asset for many First Nations. Map A1 – 4 in Appendix A shows these assets on one of four regional maps.

Table 2: Potential Economic Assets

Aquaculture

- An existing Aboriginal aquaculture industry with access to aquaculture markets and inputs
- Business plans have already been developed for aquaculture projects, which can serve as models for other projects
- Future aquaculture project near Serpent River including a partnership and business plan.

Supporting Small-Business Ventures

- Potential camp near Shawanaga First Nation.
- There are several entrepreneurs and business owners in the Wasauksing area, operating tourism and fishing guide services.
- There are several joint ventures and partnerships, e.g. Fish n' Chips and local fisherman in the Thessalon area
- Several small engine, truck and coach mechanics that can service fishing boats

Fisheries

- Several commercial licenses are held by aboriginal fisherman, although the actual communities and quota size has not been disclosed
- Several communal licenses although the quota size has not been disclosed

Mineral Development Companies

- Long term arrangements with mining companies, and First Nation Limited Partnerships.
- Some mining companies may have an interest to promote local environmental stewardship initiatives, i.e. restocking lakes and supporting aquaculture/fish hatcheries.

Markets

- Sudbury market for fish products, with a "sustainable fisheries" branding.

- General brand/marketing of Aboriginal fishery products.
- Distribution channels in Sudbury, including Eat Local and Farmer's market.
- Potential markets in Little Current and other major communities for fish products.
- Potential markets in the Wasauksing area for a "fishing experience".

Evolving Markets

- Fish waste could be used as a fertilizer, i.e. Meekers

Other Assets

- Wasauksing First Nation has a fishing permit mechanism which is concurrently enforced by Ministry of Natural Resources and Forestry Conservation Officers
- Potential cooperation amongst First Nation communities on shared resources
- The Waubetek Fisheries Strategy is being implemented and should encourage the development of fisheries-related business opportunities
- Potential opportunities associated with Williams Treaty

5.2. Service Assets

Service assets can be grouped into four categories, including First Nation lands and resources departments, scientific research, educational organizations, and business development offices. Table 3 provides a list of the actual service assets that were identified as being operational and in a specific location.

Table 3: Actual Service Assets

First Nation Lands and Resource Departments:

- Nipissing First Nation has a well-developed and functional Fisheries Management team, which includes a fisheries law and fisheries management plan
- Mississauga First Nation Lands and Resources Department has developed a number of key relationships with several government regulatory agencies including the Ministry of the Environment for fish contaminate analysis and interpretation, and Fisheries and Oceans Canada for Species at Risk Recovery Strategies
- Dokis First Nation has a number of staff and technicians with fisheries background, and carries out fish tagging and assessment projects in order to monitor stocks. Some of this work is funded through a cottager's association. Dokis First Nation also participates in the Mattawa/Nipissing Conservation Authority water management of the Nipissing/French River
- Temagami First Nation has GIS capacity to map resources and actively participates in stewardship advisory committees
- Wasauksing has a policy for a number of lakes restricting fishing on a rotating basis. Furthermore, Wasauksing had Three Mile Lake assessed by A/OFRC for fisheries potential to allow the development of a fisheries management plan, including protective measures (i.e. no motors, buffer around lake)
- Shawanaga First Nation supports a Fishing Policy which is regularly monitored
- The Sagamok First Nation has a developed Resource Department with one technician with an environmental degree
- Aundeck Omni Kaning has gained experience with habitat restoration efforts in Sucker Creek

- Serpent River First Nation is currently putting in place an Environmental Review Panel to oversee and manage the review of development projects such as aquaculture within their traditional territory

Scientific Research:

- Anishnabek/Ontario Fisheries Resource Centre is a "Centre of Excellence" for fisheries assessment and management, the A/OFRC employs standardized assessment tools, innovative science and technology and traditional knowledge to evaluate stock status and stresses on fish populations and their habitats.
- Nipissing First Nation is partnering with Fish-Wiks which looks at understanding western and Indigenous knowledge systems and explores how the different processes by which knowledge is acquired, transmitted and used can be harnessed to enhance Canadian fisheries policy
- Temagami has initiated and supported research on some lakes/resources to determine feasibility/ sustainability of a fish hatchery.
- University of Guelph – Aquaculture Centre

University of Guelph – Aquaculture Centre

Established in 1990 as a collaborative venture between the University of Guelph and the Ontario Ministry of Agriculture, Food and Rural Affairs. It coordinates a variety of research, extension and educational activities, including the Aquaculture Centre, the Alma Aquaculture Research Station and the MSc-Aquaculture degree program. The Aquaculture Centre cooperates with Provincial and National aquaculture institutions and associations to facilitate information and technology transfer to the private sector. Educational activities include a non-thesis graduate degree program, and a variety of technical training workshops for farmers as well as 'Certificate' training programs for either novices or fisheries professionals.

(Source: http://www.aps.uoguelph.ca/~aquacentre/)

Educational Organizations:

- Sault College in Sault Ste. Marie, Cambrian College in Sudbury and Canadore College in North Bay offers programs in environmental management and other programs that support fisheries and aquaculture industries.
- Laurentian University in Sudbury offers biological and resource management programs
- Nipissing University in North Bay and Algoma University in Sault Ste. Marie offers programs that support fisheries and aquaculture industries
- Dokis First Nation undertakes regular school trips to educate youth about fisheries

Business Development Offices:

- Waubetek Business Development Corporation delivers business financing and economic development services to First Nations and Aboriginal entrepreneurs in north-eastern Ontario and also provides technical advice on aquaculture

Table 4 provides a list of potential service assets that have value but may not be located in a specific location or have not been fully realized or operational to date. Map A1 – 4 in Appendix A shows these assets on one of four regional maps.

Table 4: Potential Service Assets
First Nation Lands and Resource Departments
• Chippewa Ottawa Resource Authority (CORA) provides biological services that ensure proper

regulation of tribal fisheries and cooperative management with federal and state agencies. The Intertribal Fisheries Assessment Program (ITFAP) serves as the center for fishery catch statistics, recommends harvest levels, carries out population research and studies, and represents CORA on numerous interagency committees and organizations.

- Great Lakes Indian Fish and Wildlife (GLIFWC) provides natural resource management expertise, conservation enforcement, legal and policy analysis, and public information services in support of the exercise of treaty rights during well-regulated, off-reservation seasons throughout the treaty ceded territories.
- Akwesasne Environmental Department has experience in Environmental Monitoring.

Scientific Research

- Living with Lakes Centre in Sudbury, is a multidisciplinary research and monitoring institute designed to assist in the protection and management of northern aquatic ecosystems.

Educational Organizations

- Bio-Centre in Thessalon comprises 45 acres of farmland, 16 greenhouses and 15 support buildings, including a testing lab and a 6,000-square-foot stainless-steel-lined refrigeration unit.
- Several elementary and high schools were identified, including Wikwemikong where programming was being considered to focus on fisheries and aquaculture, which would advance youth interest. This is also being considered in the Wasauksing area.

5.3. Social Assets

Social assets can be grouped into four categories, including experienced fisherman, community members with fisheries-related experience, community members with other skill sets, and other assets. Table 5 provides a list of the actual social assets that were identified as being operational and in a specific location.

Table 5: Actual Social Assets

Experienced Fisherman

- Experienced fisherman with training in Sheguiandah First Nation
- Experienced fisherman (Joe and Mike Jones) willing to act as resource people in Garden River First Nation
- Experienced fisherman (willing to act as mentors) in M'Chigeeng and Sheshegwaning First Nation
- Wikwemikong has 4-5 local commercial fisherman willing to act as trainers
- Magnetewan First Nation has a local, small-scale operator/ fisherman
- M'Chigeeng First Nation and Aundeck Omni Kaning First Nation have experienced subsistence fisherman with an interest in transitioning to commercial fisherman

Community Members with Fisheries-Related Experience

- Wasauksing First Nation has band staff with a fisheries skill set, i.e. biologist, technicians
- Several people with fishing and tug operation experience;
- Kevin Chiblow in Mississauga First Nation and a small group of independent fisherman that sell to the community

- Mississauga First Nation has five people with a fisheries education and background experience Garden River First Nation has several individuals with mechanical and academic capacity to support fisheries-related businesses
- Aundeck Omni Kaning has at least four people with experience working in fish processing plant

Community Members with Other Skill Sets

- Several people with fisheries-related knowledge
- Youth and young adults with fisheries-related training and experience
- Business owners
- Experienced entrepreneurs in most communities that could act as mentors/role models for new entrepreneurs
- M'Chigeeng First Nation has two graduates with degrees in fisheries and/or environmental studies
- All First Nations have adequate human resources
- Shawanaga First Nation has a local labour market which could undertake fisheries monitoring) and technical work

Other Assets

- Communal fishing licenses (approximately 40,000 lbs quota)
- Serpent River First Nation has communal licenses along the North Shore which could be used to teach youth to fish

Table 6 provides a list of potential social assets that have value but may not be located in a specific location or have not been fully realized or operational to date. Map A1 – 4 in Appendix A shows these assets on one of four regional maps.

Table 6: Potential Social Assets

Other Assets

- Cultural values and ceremonies, i.e. "Fish every Friday"
- Traditional Ecological Knowledge
- General local knowledge of the resource near communities
- Treaty rights to lakes/fisheries within the Robinson Huron Area
- Specific rights to fishery (map of Manitoulin Island)

5.4. Built Assets

Built assets can be grouped into eight categories, including road, rail and water transportation, marinas, docks and boat launches, boats and fishing equipment, hunting and fishing camps, rearing ponds and hatcheries, fish processing and assessment infrastructure, fisheries support infrastructure, and aquaculture. Table 7 provides a list of the actual built assets that were identified as being operational and in a specific location.

Table 7: Actual Built Assets

Road, Rail and Water Transportation

- Magnetewan First Nation and other communities have access to Highway 400/69
- Sheguiandah First Nation has access to Highway 6
- Trans-Canada highway provides access to Garden River First Nation and other communities along the north shore
- CP Rail line near Magnetewan First Nation

Marinas, Docks and Boat Launches: Boat Launches/Docks

- Docks near Sagamok First Nation
- Access to Bay of Islands waters through the band-owned marina and McGregor Bay marina (private, aboriginal owned) via docks/marina near Whitefish River First Nation
- Marinas near Whitefish River, Moose Deer Point, Georgina Island, Wasauksing First Nations
- Harbourview Marina near Aundeck Omni Kaning
- Sagamok Point Marina
- Sagamok First Nation has a partnership with Spanish marina and boat storage
- Serpent River First Nation has access via the road to John Island camp, to north shore waters near Stockwater Bay
- Garden River First Nation has good access to most of their lands
- Wasauksing First Nation has a developed road to Depot Harbour

Boats and Fishing Equipment

- Aboriginal owned tugs
- Sheguiandah First Nation has band-owned boats and nets
- Dokis First Nation has band-owned boats which are used for fisheries, hunting and assessment purposes

Hunting and Fishing Lodges

- There are several aboriginal-owned fishing lodges near Sagamok, Dokis, Temagami, Mississauga and Wahnipitae First Nations

Rearing Ponds and Hatcheries

- Dokis First Nation had an on-reserve fish hatchery (1987) and currently has several off-reserve fish ponds
- Shawanaga First Nation has a walleye hatchery
- Several walleye rearing ponds and buildings along the Georgian Bay coast

Fish Processing and Assessment Infrastructure

- Nipissing First Nation has a fish processing plant, with the ability to certify fish
- Nipissing First Nation has a laboratory area, which can be used to carry out Fall Walleye Index Netting and population assessment

Fisheries Support Infrastructure

- Manitoulin Hotel near Aundeck Omni Kaning First Nation
- Temagami has ice fishing hut rentals
- Office space in many band-owned buildings throughout the service area

- Sagamok First Nation has ice makers and cold storage units
- Kool-it Ice operation

Aquaculture

- Wikwemikong has two existing aquaculture operations
- Fisheries operations near Killarney and Pays Plat are examples of successful businesses
- Aundeck Omni Kaning First Nation has an aquaculture farm which is currently under lease

Table 8 provides a list of potential built assets that have value but may not be located in a specific location or have not been fully realized or operational to date. Map A1 – 4 in Appendix A shows these assets on one of four regional maps.

Table 8: Potential Built Assets

Road, Rail and Water Transportation

- Shipping lanes along Georgian Bay for transporting goods

Marinas, Docks and Boat Launches

- Magnetewan First Nation has several old docks and an operating fishery wharf

Hunting and Fishing Lodges

- Ritchie Falls, near Sagamok First Nation, is a hunting and fishing camp that could also be used as an educational facility in the future

Rearing Ponds and Hatcheries

- Magnetewan First Nation has a concrete building with an old pumphouse; it requires fisheries equipment and some upgrades but could be developed into a fish hatchery
- Dokis First Nation has two locations for fish ponds to be developed in the future

Fisheries Support Infrastructure

- Bio Centre near Thessalon First Nation has a walk-in freezer

5.5. Natural Assets

Natural assets can be grouped into five categories, including waterbodies with commercial fish species, fisheries, aquaculture, sensitive areas and natural areas. Table 9 provides a list of the actual built assets that were identified as being operational and in a specific location.

Table 9: Actual Natural Assets

Waterbodies with Commercial Fish Species

- Many coldwater lakes along the north shore of Lake Huron, i.e. Lauzon Lake, Big and Small Chiblow Lake, Matinenda Lake
- Several inland lakes in the Elliot Lake region
- Several lakes north of Garden River First Nation

Fisheries

- 37 commercial and 9 aboriginal-owned fisheries operations
- Lake Nipissing and the French (upper, middle and lower) River near Dokis First Nation
- The Shawanaga River has northern pike, musky, bass and walleye
- Strong walleye population close to Shawanaga First Nation
- North shore of Lake Huron, near M'chigeeng First Nation, has a whitefish fishery currently being harvested by Purvis Fisheries (approximately 2500 lbs)
- Several lakes in the Temagami area with walleye and lake trout fishery
- Garden River has been a "recreational" trout fishery for anglers, but is currently restricted in use

Aquaculture

- Sheshegwaning First Nation has undeveloped, deep water areas for potential aquaculture facilities
- M'Chigeeng First Nation has deep water areas with the potential for aquaculture
- Available land and water access for potential aquaculture facilities
- Many areas have naturally ideal conditions for aquaculture

Sensitive Areas

- Spawning grounds on the Magnetewan and Shawanaga River
- Spawning sanctuaries near Dokis First Nation
- Dokis First Nation has band-directed, fish habitat enhancements for spawning sturgeon and walleye

Natural Areas

- Depot Harbour with deep water in Wasauksing First Nation

Table 10 provides a list of potential natural assets that have value but may not be located in a specific location or have not been fully realized or operational to date. Map A1 – 4 in Appendix A shows these assets on one of four regional maps.

Table 10: Potential Natural Assets

Fisheries

- Other fish species that could be commercialized and marketed, i.e. northern pike, white sucker

Natural Areas

- Most First Nations in the Waubetek service area have easy access to water, although in some cases the access is undeveloped with docking infrastructure, i.e. Shawanaga First Nation
- Treaties provide priority access to waters and the inhabiting fish

Others

- Local community members have knowledge of lakes and the area
- Wasauksing First Nation identified natural medicines and aquatic plants
- Water quality in most lakes in northern Ontario is excellent
- Location of the lakes relative to their market and surrounding resources

6. GAPS IN THE CURRENT ASSETS

Gaps were identified within each First Nation community and the region at large for the development of a sustainable aboriginal fisheries and aquaculture industry. This discussion is organized according to the five categories: Economic, Service, Social, Built and Natural. Each category includes the main themes that were identified during the project.

Source: A/OFRC

6.1. Economic Assets

Several themes related to the economic assets became evident during the workshops and subsequent interviews. This included:

- business development;
- markets;
- infrastructure;
- operational;
- community owned assets;
- partnerships; and,
- cooperation amongst First Nations.

Business Development:

There appears to be a general need to develop an "entrepreneurial" culture amongst First Nations communities, as well as stronger foundation in general business concepts such as business planning, financial management and market development. Resources currently exist to support these entrepreneurial opportunities, however awareness of these resources is necessary and the expectations of this support needs to be managed. Serpent River First Nation fostered entrepreneurial opportunities well by utilizing their available resources and continuing to advance their aquaculture project. An initiative that could support the development of an entrepreneurial culture could be a fisheries-related business network, which would facilitate business development in the fisheries sector and support entrepreneurial learning.

Markets:

The market associated with commercial fisheries can be volatile and affected by forces outside the control of the fisherman. The market can be further limited locally due to the allocation of quotas. This limitation creates some uncertainty and unpredictability with fisheries as a viable economic industry, and suggests that diversification of markets is necessary to sustain fisheries operations. New businesses will require market-share development and in some

cases there is a need to educate the market and promote Aboriginal-derived fisheries products. However, there is a potential concern with "ownership" issues for Aboriginal products which may result in reluctance to sharing knowledge to support these products. There are also some fisheries products that come from a number of small operators that are independently operated. In order to make these effective, there will be a need to address market and sales regulation issues as well, i.e. inspected and certified fish products to ensure food "traceability" for public safety.

Infrastructure:

There also appears to be a lack of equipment and supporting infrastructure to developing a fisheries industry. Fish processing facilities are underutilized or lacking in some areas. Suppliers to the fishery and aquaculture industry are not always well-known. Fish hatcheries are developed in some communities but appear to be underutilized or unable to service areas outside their community. In some cases, there is limited room to develop infrastructure on lands within communities, as available and prime locations are currently occupied. Without having a finalized land code or land use plan, projects can be delayed and frustrate potential developers from pursuing these opportunities further. As well, the capital cost of adequate equipment and infrastructure development can be high.

Operational:

Some of the issues associated with operating these assets stem from seasonal businesses that may not be generating income during the off-season, such as hunting and fishing camps. There is the potential to market these assets for alternate purposes during the off-season, i.e. educational centres and schools. This is important as maintaining sufficient cashflow is necessary to ensure these assets can be sustained and utilized fully. Many of these assets require ongoing maintenance and occasionally replacement of equipment which can be costly. Added to this, insurance can be difficult to obtain by First Nations which would mitigate risks associated with the operation of these assets. There continues to be several unpredictable costs associated with operating these assets, which included fuel prices and experienced reliable labour.

Community-owned assets:

There is a perception that many economic assets are better suited for private ownership, although there are advantages in minimizing risk through band-ownership. However, band-owned assets and businesses do not operate the same as private ownership. In some cases, band-owned businesses operate based on defined hours (i.e. 9 am to 5 pm, Monday to Friday), whereas entrepreneurs often invest significant hours (outside the regular hours) into their business. Furthermore, there is also the perception that band-owned business may be more susceptible to changing priorities by the First Nation and resources may be reallocated based on political changes and/or support.

Partnerships:

There appears to be a lack of partnership opportunities with other non-Aboriginal businesses

and other economic sectors. Partnerships with mineral development companies could be used to support fisheries enhancement initiatives. Mineral companies interested in undertaking their environmental stewardship initiatives could work with local communities to pursue community projects. There are some benefits to this potential arrangement, as well as some risks. Yet in some cases, infrastructure to support these projects many not be in place, i.e. hatcheries. The community may be unprepared or organized to work with mining companies or it may not be a community priority to organize a mining-related environmental/fisheries project at the time of the request. Further, the mining company may only support the project for a defined period. There would also be a need to ensure there is a common vision for these projects.

Nipissing First Nation Fisheries Management

In 2005, the Ministry of Natural Resources developed a formalized licence for the commercial fishery on Lake Nipissing. An Aboriginal Communal Fishing Licence (ACFL) established the regulations that would apply to harvest reporting, net marking, and harvest quota limitations. In 2005, Nipissing First Nation developed a set of "Fisheries Laws" which were intended to serve as a method of self-regulation for the commercial fishery. The ACFL and NFN's Fisheries Laws were very similar; the main difference was the proposed harvest quota

(Source: OMNR Interim Fisheries Management Plan 2005 – 2010).

Cooperation amongst First Nations:

There appears to be reluctance for some First Nations to cooperate on larger projects and initiatives. As an example, the purchase and operation of the Ontario Ministry of Natural Resources and Forestry fisheries tug to support the development of a fishery in the North Shore. Although there were significant administrative issues associated with the transfer of tug, there were also unresolved issues to the utilization of the tug by each First Nation. In addition to a lack of qualified key individuals, it appears that trust, community-centred interest, competition and disinterest in sharing fishing quotas may be preventing cooperation amongst these communities.

6.2. Service Assets

Several themes related to the service assets became evident during the workshops and subsequent interviews. This included:

- funding;
- capacity;
- inconsistent mandates/vision/purpose;
- communication and knowledge; and,
- authority amongst First Nations.

Funding

Funding to maintain service assets was identified as a gap. There a number of funding programs available to support the development and early phases of a business until it can be become self-sustaining. However, service programs such as educational programs for school aged youth may require ongoing, long-term funding and in-kind support to be sustainable. Resource management services with First Nation are also longer term programs but continually require funding to maintain their activities. Yet they remain without a business model to generate income. In some cases, such as the Dokis First Nation, fundraising is undertaken

annually to support their fisheries initiatives, along with in-kind services and volunteering. The Serpent River Environmental Review Panel has also considered this and is considering user-pay system, i.e. application fees or cost-recovery, for development projects being reviewed.

Capacity:

Most First Nations have resource departments however many were perceived as working in isolation or silos of each other. They are often limited by capacity, and since each community has their own sets of priorities, fisheries may not always be a high priority as it depends on the community's location, available fisheries and available markets. There is often insufficient personnel within resource departments, particularly in small bands, and skills set necessary to effectively manage fisheries. There is a cost and time to train staff to undertake fisheries activities, and with employee turnover, the cost becomes higher by losing this skill set. In order to effectively implement fishing policies it requires ongoing monitoring, which becomes difficult with insufficient capacity.

Inconsistent Mandates/Vision/Purpose:

There appears to be an incongruent vision amongst resource management partners as it relates to Aboriginal fisheries. The mandates of external organizations do not always align with the fisheries objectives of First Nations. In some cases, there is a perception that political decisions made by band leadership is a compromise and agreements that are made come with "strings" attached for various services and program for fisheries management. Regional organizations such as A/OFRC have restrictions on who they can work with, what services they provide and how they carry out those services, and may not be a solution at this time.

Communication and Knowledge:

There appears to be a need to promote and communicate the Waubetek Fisheries Strategy and other fisheries and aquaculture initiatives to achieve effective implementation. Even with awareness of the Strategy, there is still a lack of knowledge specifics, such as the availability of fisheries quotas allocations for First Nations, which can erode the motivation of some members to pursue these viable opportunities. Ongoing communication is necessary to ensure effectiveness of these initiatives. The Shawanaga First Nation policy on fishing requires ongoing communication to individuals, who are aware of the policy, however may disregard community needs in favour of individual needs. Similarly, the Dokis First Nation's fish tagging and assessment program has shown that the community needs to be aware and educated on the program.

Authority Amongst First Nations:

The issue of authority was also raised several times during the workshops in several ways. There was a feeling that there is unwillingness by government to cooperate with allocations of fisheries quotas to First Nations. Even when a formal fisheries management service is established, such as the Nipissing First Nation where an Aboriginal Fisheries law was created, there continues to be ongoing challenges between community and individual rights. Shawanaga First Nation has not established a fisheries law but has implemented a fishing

policy which is regularly monitored. However, they still encounters difficulty with non-member compliance. Dokis First Nation has also implemented a fishing policy and has strong community support and success in managing fishing activities. Despite this, the legal process and its implications have not been fully developed and may require bylaws to support the fishing policy.

6.3. Social Assets

Several themes related to the social assets became evident during the workshops and subsequent interviews. This included:

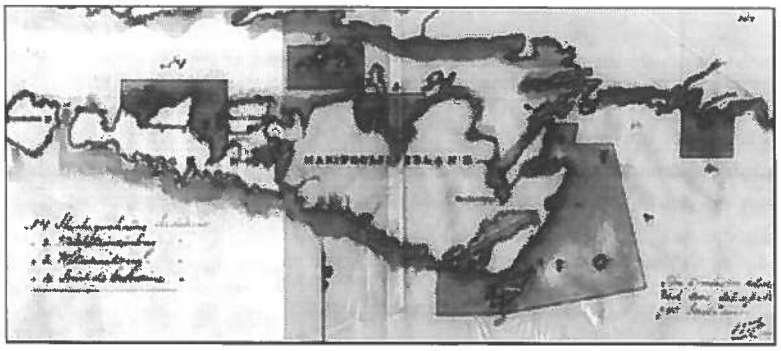
- career opportunities and development;
- treaty issues;
- traditional knowledge; and,
- business sustainability amongst First Nations.

Career Opportunities and Development:

There are a broad range of jobs and professions associated with fisheries and aquaculture, including fisherman, technicians, biologists, entrepreneurs and operators. Currently, there does not appear to be enough people trained, experienced and qualified to take on some of these roles. Youth do not seem to be interested in fisheries-related occupations, although they may not be fully aware of the types of jobs associated with this field. This may also be due to more attractive occupations associated with other resource sectors, such as mining. Fisheries jobs can sometimes be a low paying, hardworking job that does not always appeal to youth. Wage assistance programs, incentives for experienced entrepreneurs to provide mentoring and further promotion of natural resource occupations may assist in attracting more youth to fisheries jobs.

Treaty Issues:

While treaty rights certainly represent an asset to First Nations, there continues to be some gaps associated with them. Inter-treaty issues may develop and require good communication amongst First Nations and ongoing management. There continues to be cultural differences between the Aboriginal and non-Aboriginal communities, and there appears to be a lack of understanding about Aboriginal rights to fisheries resources which can lead to some conflicting positions amongst resource users. The need to educate and keep lines of communication open is necessary to improve these perceptions. In some cases, fishing rights may not be fully applied although there is a perception that these rights have been limited



Source: Photo provided courtesy of Sam Debassige (2015)

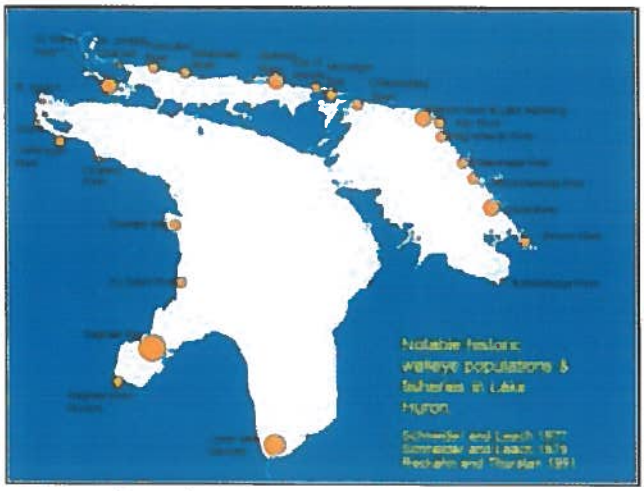
through the imposition of communal fishing licenses. There is also delicate management of community rights and individual rights to fish.

Traditional Knowledge:

Traditional knowledge represents an enormous asset that can be utilized when there is a lack of science information for a particular waterbody or fish species. Unfortunately, there is little financial support for those individuals that hold traditional knowledge. There is a concern that this information may be lost over time, although some First Nations are taking efforts to document this information, such as Dokis First Nation. Documenting this information comes with other concerns though, such as the inappropriate use or misuse of the information which can lead to a lack of sharing in some circumstances.

Business Sustainability Amongst First Nations

The Ontario Commercial Fisheries Association (OCFA) controls and determines the costs and amounts of fish for sale. However there is a perception that OCFA is disassociated with Aboriginal commercial fisherman. Aboriginal Communal Fishing Licenses appear to be insufficient and add a tedious reporting system to wrap up results and provide summaries. However, without this, it is often difficult to access large markets for fisheries products. This makes it problematic for smaller operators to be sustainable. Smaller-scale operators are notoriously underselling each other and undervaluing the product. Smaller First Nations do not always have the capacity and resources to develop these fisheries markets on their own like larger First Nations. A network of fisheries-related business could promote and provide opportunities for First Nations to work together and achieve partnership opportunities, such as through a fisheries cooperative.



Source: Schneider and Leach, 1977.

6.4. Built Assets

Several themes related to the built assets became evident during the workshops and subsequent interviews. This included:

- environmental impacts;
- socio-economic impacts;
- infrastructure maintenance; and,
- gaps in infrastructure.

Environmental Impacts:

One of the significant gaps associated with built assets was the environmental impact from built structures. Several docks in the Magnetewan area could be upgraded and utilized to improve access to fisheries resources. Upgrading could also address issues associated with fluctuating water levels along Georgian Bay. While this would be beneficial, it increases the potential for water pollution in these areas. Permitting through the municipalities and the Ministry of Environment and Climate Change may assist in managing this impact. Highway 69/400 represents an opportunity to provide additional ground transportation north and south of the areas in Georgian Bay. Other ground transportation includes Highway 17 along the north shore, Highway 6 and 540 on Manitoulin Island and Highway 11 in northeastern Ontario. The increase in transportation routes increases the potential for road accidents and the development of roads in any area increase the potential for disrupting fish migration routes and potential oil spills from equipment and vehicle use. With the recent events occurring in Gogama, there was similar concern with the increased use of rail lines. Other infrastructure such as fish hatcheries do raise the issue the issue of introducing disease amongst the natural population as well as impacting the natural genetics of wild populations.

Socio-Economic Impacts:

The development of ground transportation infrastructure such as highway 69/400 has been delayed over the last several years which make the realization of this asset unfulfilled to date. There is also some concern with increased levels of traffic in some areas, whereas there has and, likely will be, a total absence of traffic in other areas, which has led to bypassing some towns, i.e. Nobel.

Infrastructure maintenance:

The development of infrastructure is an expensive undertaking. By using existing infrastructure and upgrading it to meet future uses, it reduces the overall costs however there are still some risks that need to be managed. Building codes and safety issues need to be addressed and may require additional upgrading to meet standards. Aging equipment will need to be retrofitted or replaced in some cases. Sources of power to operate these assets may be necessary and/or need to upgrade. Licensing and insurance may also need to be upgraded or established, along with some form of security to address potential vandalism in remote areas. Training for facilities will be necessary to operate equipment properly. Ongoing maintenance and operational costs of these assets needs to be managed to maintain the value of the asset and maximize its utilization.

Infrastructure underutilization:

In some cases, it appears that some built assets and infrastructure are being underutilized. There is a need to have a better understanding of the assets and what their potential use could be amongst the First Nations. The use of these assets by other sectors, in addition to fisheries, should also be explored. This, along with appropriate siting and location of these assets and effective market development would ensure the full use of these assets and ensure their

sustainability. Kool-it Ice and Harbourview marina appear to have considered these factors however there may be capacity to increase their operations.

6.5. Natural Assets

Several themes related to the natural assets became evident during the workshops and subsequent interviews. This included:

- changing environmental conditions;
- lack of science and knowledge;
- conflicting uses of the resources;
- under-utilization of the resource; and,
- environmental impacts.

Changing Environmental Conditions:
Environmental conditions in this area are changing and several emerging issues could impact natural assets. Threats to the ecosystem could result in an imbalance and a subsequent decline in fisheries resources. Fluctuating and declining water levels in Lake Huron could impact access to water and affect nearshore fish habitat. The ecological impact on fisheries communities from invasive species such as Asian carp, round goby, rusty crayfish, spiny water flea was also raised. The impact of managing fish communities with several aquatic Species at Risk, such as lake sturgeon was also identified as a concern.

Lack of Science and Knowledge:
There appears to be a lack of, and availability, of scientific data and knowledge to support mutually agreeable decisions related to fisheries management. Government organizations like the Ministry of Natural Resources and Forestry routinely undertake fisheries assessment to support fisheries management. This data, along with ongoing work by A/OFRC, is helping to fill knowledge gaps in those waterbodies and fisheries identified as priority for First Nations. In terms of aquaculture, Fisheries and Oceans Canada continues to provide some ongoing support to national science research for the aquaculture industry, although it has been curtailed in Ontario. Despite this, there is still a requirement for industry to undertake their own site-specific environmental and feasibility studies to support their proposed and actual operations. Funding is available through Waubetek which could be used to support new projects. Potential projects such as the site location near M'Chigeeng First Nation, may be eligible for this funding, if requested. This funding would allow a location to be determined for a potential aquaculture facility near M'Chigeeng.

Conflicting Uses of the Resources:
Treaties that were made between various First Nations and the government have led to overlap in some areas, which have created challenges to access of fisheries resources. Where there is a lack of collaboration amongst First Nations with respect to fisheries, it becomes difficult to manage and becomes further aggravated with the imposition of federal and provincial legislation related to fisheries. There continues to be conflict amongst various fishing sectors, i.e.

commercial, recreational and aquaculture, and other economic sectors, i.e. forestry and mining. This conflict could result in restrictions on the access to fisheries resources due to overfishing or other population threats. This may be mitigated by the creation of protected areas and the use of more sustainable recreational fishing methods, i.e. catch and release.

Under-Utilization of the Resource:
In some cases, some fish species are being underutilized to create or support fisheries opportunities. For example, suckers represent a species that is plentiful and could be used to support a market for dog food as has been piloted on the north shore. However, there is currently limited infrastructure and training to support these types of initiatives.

Environmental Impacts:
A number of environmental impacts could occur from other resource sectors. Water control dams to support hydropower and flood control could have impacts upon migratory routes for some fish. Mineral development has and could impact fisheries waters and impact stocks in some areas, despite improved practices and restoration efforts. In addition to mining, the pulp and paper industry has also created some pollution threats from effluent discharge that has led to changes in fish communities and water quality in general. Population growth has led to increased shoreline development and impacts to nearshore fish habitat. There is a need to develop the capacity to manage these threats internally and to develop environmental protection measures in some cases, to maintain clean waters, i.e. restrictions on boats, sewage and salt.

7. OPPORTUNITIES AND POTENTIAL SYNERGIES AMONGST COMMUNITIES

Opportunities and potential synergies with the current assets were identified within each First Nation community and the region at large for the development of a sustainable aboriginal fisheries and aquaculture industry. This discussion is organized according to the five categories: Economic, Service, Social, Built and Natural. Each category includes the main themes that were identified during the project.

7.1. Economic Assets

Several themes related to the economic assets became evident during the workshops and subsequent interviews. This included:

- funding;
- partnerships;
- labour market; and,
- leveraging business advantages amongst First Nations.

Source: Northern Ontario Aquaculture Association, 2015.

Funding:

There are a number of funding sources available to support the development of fisheries and aquaculture business, including: Community, Aboriginal Communal Fishing License (ACFL), Industry, Own Source Revenue (OSR), Canada Ontario Resource Development Agreement (CORDA), Aboriginal Affairs and Northern Development Canada (AANDC), FedNor, Waubetek Business Development Corporation, Rama (Ontario First Nations Limited Partnership), Dreamcatcher, Trillium, Lands Environment Action Fund (LEAF), Aboriginal Funds for Species at Risk (AFSAR). Specific to aquaculture, there is the Aboriginal-focused funding to support fisheries, e.g. National Aboriginal Aquaculture Fund which is administered by Waubetek.

Partnerships:

There appears to be need for a forum for fisheries and aquaculture business to discuss best practices, share knowledge, funding options, etc. This forum could be an opportunity for First Nations and Aboriginal owned businesses and assets to periodically come together to build relationships and form partnerships. This could be extended to other stakeholders in the industry, or other sectors. For example, partnerships with the mineral development sector could be used to leverage resources (funding, staff, equipment, technology) for mining rehabilitation project initiatives to support and undertake environmental/fisheries projects. Partnerships could build capacity, support local fisheries and lead to the obtaining infrastructure necessary to develop a fisheries and aquaculture industry.

Labour Market:

There is a readily-available labour market in many communities that are seeking work in fisheries and aquaculture industry that is consistent with their values and upbringing. These include commercial fisherman, hunting and fishing camps, aquaculture facilities and fisheries-related service business such as marinas, repair shops, equipment suppliers, etc. Various incentives could be explored to attract and retain this group in the industry, such as wage subsidies, training opportunities, sales commissions, etc.

Maori Fisheries, New Zealand

Up until 2004, Maori commercial fishing assets were owned and managed by the Treaty of Waitangi Fisheries Commission or Te Ohu Kai Moana for the benefit of all Maori. Maori received these assets through an agreement with the Crown in the late 1980s and in the early 1990s to settle historical Treaty of Waitangi breaches by the Crown.

In the mid 1980s, New Zealand's highest courts found that the Crown had not done enough to protect Maori commercial fishing interests since the signing of the Treaty of Waitangi in 1840.

Through negotiation, a proportion of fishing quota in New Zealand's Quota Management System (QMS), shares in fishing companies and cash were subsequently returned to Maori to settle all commercial fishing claims under the Treaty. This was an interim settlement and was enshrined by the Maori Fisheries Act 1989.

In 1992, the opportunity to finalise all commercial fisheries claims under the Treaty was realised when Nelson-based Sealord Products was put up for sale. What is now colloquially known as the "Sealord deal", Maori were provided with $150 million, a part of which was used to buy a half share of Sealord and received a guarantee for future quota. The deal was given effect through the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, which constituted the Treaty of Waitangi Fisheries Commission.

(**Source**: http://www.afl.maori.nz/history.html)

Leveraging Business Advantages Amongst First Nations:

First Nations should strive to leverage the business advantages they may have over other competitors in the market. A key advantage for most Aboriginal aquaculture is

that there are no provincial permits required. In spite of that, ongoing monitoring of aquaculture site conditions is still completed by the operators to ensure their operations are sustainable within that particular area. Most First Nations have easy access to the water with abundant shoreline to support the development of fisheries-related infrastructure. Marinas located in these areas, provide a good link between the water and ground transportation. Several major highways run through many of the First Nations in northern Ontario and provide good access to potential markets. There appears to be a good market for fisheries products and numerous species and fish products could be marketed. The branding of wild-caught or Aboriginal farmed fish is appealing to the market. With the good linkages between communities, there are opportunities for shared ventures/products for these markets. Successful models exist in other parts of the world, including the Maori in New Zealand.

7.2. Service Assets

Several themes related to the service assets became evident during the workshops and subsequent interviews. This included:

- regional organizations;
- resource management initiatives;
- relationship building; and,
- education and awareness amongst First Nations.

Regional Organizations:
Several organizations have acted on a regional basis and have been successful for fisheries-related business development, including: A/OFRC, Waubetek and Aboriginal Financial Institutions (AFI). Anishnabek/Ontario Fisheries Resource Centre (A/OFRC) is a "Centre of Excellence" for fisheries assessment and management, and employs standardized assessment tools, innovative science and technology and traditional knowledge to evaluate stock status and stresses on fish populations and their habitats. Waubetek Business Development Corporation is an Aboriginal-owned and controlled organization that delivers business financing and economic development services to First Nations and Aboriginal entrepreneurs in north-eastern Ontario. Waubetek also provides technical advice on aquaculture. These organizations have been effective in leveraging resources across the service area and provide a broad perspective on cross-cutting issues. Strategies related to fisheries, tourism and mining have been developed as a result. Further utilization and support for the development and expansion of these organizations to augment individual First Nation resources should be considered.

Resource Management Initiatives:
One of the key resource management initiatives affecting fisheries and aquaculture is the Waubetek Fisheries Strategy, which is currently being implemented throughout the service area. However, several other First Nations are also undertaking and developing their own capacity to managing fisheries resources. For example, Dokis First Nation has developed in-house capacity to support fisheries management in a more affordable and effective manner. This skill set allows for a lower cost assessment of fish population to obtain data to support fisheries management. This data can be used to protection resources in activities such as water

management planning and fisheries activities. Not only does this encourage compliance, but it builds community capacity to engage in resource management. The Dokis First Nations example is likely a useful model for resource-limited communities.

Relationship Building:

The Waubetek Fisheries Strategy also supports a cooperative approach amongst First Nations. However, some First Nations have also developed good relationship with other organizations. The Mississagi First Nation maintains a good network with several government staff and agencies include the Ministry of the Environment, Fisheries and Oceans Canada, the Great Lakes Indian Fish and Wildlife Commission and the Chippewa/Ottawa Resource Association. This has allowed Mississagi to build capacity internally, through the leveraging of expertise in this other organizations. By obtaining program funding for several projects and providing in-kind expertise, Mississauga has built a knowledge base, and experience which contributes to creating political autonomy. This would allow the communities to pursue future opportunities envisioned for the community.

Education and Awareness Amongst First Nations:

A number of educational and awareness initiatives have been considered and developed, which have shown potential to be successful. The Dokis First Nation has undertaken community engagement through a tagging program. This program has raised awareness with the community about the important fisheries in their community. Dokis has also considered school programming that can develop skills and raise awareness in youth that could possibly "go home" to create awareness with parents. They have also considered independent training and research sources at the post-secondary level. Wikwemikong is considering a similar initiative, in collaboration with Kenjgewin Teg Educational Institute (KTE) and other outdoor programs. This collaboration would provide a venue for research, preserves education, promotes awareness of treaty and promotes and maintains practical skills. In addition to providing education and awareness with youth, there is also the need to continue to raise awareness and understanding of Aboriginal fisheries through Fisheries Advisory committees.

7.3. Social Assets

Several themes related to the social assets became evident during the workshops and subsequent interviews. This included:

- cultural values and traditional knowledge;
- knowledgeable community members; and,
- labour market and marketing opportunities amongst First Nations.

Cultural Values and Traditional Knowledge:

The cultural values and traditional knowledge in all communities influences their perspectives on fisheries management and aquaculture development. The teachings of elders have been passed down and this knowledge has created experienced, trained and knowledgeable community members. This circle of cultural resources has grown with technology such as the use of internet-based applications, GIS and social media. There continues to be a community

desire to participate in fisheries through the demonstration of environmental stewardship, which allows for a sustainable use of the resources, which is consistent with a traditional lifestyle.

Knowledgeable Community Members:

Many communities have several fishermen who are experienced, trained and knowledgeable, and readily available in the community and willing to teach our youth. There are also a number of small scale fishermen in the communities, who operate low-cost operations but are knowledgeable about the area's fisheries resources. Other individuals in the community can also readily provide traditional knowledge, which is particularly useful where scientific study lacks. Communities also have numerous entrepreneurs that could be role models and mentors to help new/young entrepreneurs. This mentoring would assist in a greater sense of ownership of fisheries and aquaculture business opportunities if they are taught by "one of our own".

Labour Market and Marketing Opportunities Amongst First Nations:

There is a readily-available, young and local labour market in many communities that may only require minor training to obtain employment in the fisheries and aquaculture industry. Community Aboriginal Skills and Employment Training (ASETs) and Waubetek both provide training funds for youth to partake in this industry either through technical or entrepreneurial skills useful for fisheries/environmental projects. Furthermore, there are existing business owners and operators who are willing to encourage interest and mentor this young labour market in fisheries – related careers.

Source: A/OFRC

There is also an opportunity to access a much larger market from communal licenses. The commercial quotas that are available provide additional opportunities to gain access to these markets. However, in order to secure these larger markets, there is a need for First Nations to work together to create new business ventures and opportunities. A cooperative fisheries in the communities is one option, however others should also be explored.

7.4. Built Assets

Several themes related to the built assets became evident during the workshops and subsequent interviews. This included:

- location; being centrally located and easily accessible to serve multiple purposes and

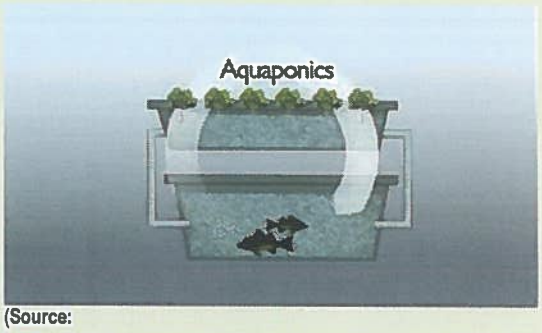
markets and the assets meet market demands in the area;
- easily accessible to markets, producers and suppliers; and,
- business expansion capacity.

Location:

Built assets need to be able to serve multiple markets in a variety of locations in order to be sustainable. This can be accomplished by being located centrally. Harbour Vue Marina and Kool-It Ice are located centrally amongst a number of communities and markets. Dokis First Nations has several band-owned boats that service the community in a number of different means, including fisheries related work. The Thessalon BioCentre is considering a multi-use function as an educational, fish processing, and cold storage facility and could service the north shore of Lake Huron along Highway 17. Aquaponics is another emerging opportunity that could be pursued for the Thessalon BioCentre. Stockwater Bay near Serpent River was identified as having an access road which connects the fisheries water with highway 17, thus allowing connection with several communities and markets along the north shore. By being adjacent to Highway 17 (and other highways such as 6, 400/69 and 11), fisheries-related businesses are able to provide lower-cost shipping for potential customers, clients and suppliers in an easily accessible manner.

Aquaponics

The cultivation of plants and fish in an integrated system in which wastewater from fish tanks is used to provide the nutrients for hydroponically grown plants, and the nutrient-free water produced by the plants is circulated back to the fish tanks.



(Source: https://dictionary.search.yahoo.com/search;_ylt=A0L

Easily Accessible To Markets, Producers And Suppliers:

Businesses need to meet the market demands in the local area. Harbour Vue marine is a full service marina, which address the numerous users in the area, including docking, gas and repair services. Kool-it ice also offers services to a broad range of markets in the Manitoulin and north shore area. The Thessalon Bio-Centre could also support lower cost shipping of fisheries products by providing ice to transport products at proper temperatures. The docks in Magnetewan were identified as providing a deep water access for local users. Magnetewan is also developing a fish hatchery which will address local needs by renovating an old pumphouse building. The Dokis First Nation has several band-owned boats that service the community in a number of different means, including fisheries related work that meets local needs.

Business Expansion Capacity:

In order to be successful, a business enterprise needs to have continuous development of capacity within an organization. By having a strong business plan, access to a broad network,

and collaborating and sharing best practices with other successful business, they are positioned well to expand to other markets. Some infrastructure assets could be band owned/partnered, which would spreads the risk and allows larger projects to be pursued. For example, the Shawanaga First Nation fish hatchery has developed technical skills that can be utilized to expand into other species at some point in the future.

7.5. Natural Assets

Several themes related to the natural assets became evident during the workshops and subsequent interviews. This included:

- priority access to Aboriginal communities;
- cultural value and broad public appeal; and,
- varied market opportunities with natural lakes amongst First Nations.

Priority Access To Aboriginal Communities:
First Nations in northern Ontario have priority access to many of the natural assets. It will require collaboration amongst the First Nations by networking and sharing common resources in order to maximize their opportunities with the fisheries and aquaculture industry.

Cultural Value And Broad Public Appeal:
Natural assets such as lakes and fisheries have had great cultural value within the communities. Spawning grounds have been easy to access and to monitor, and First Nations are very aware of the status of the fish populations and environmental conditions. There is a large potential to create economic opportunities through these natural assets by building relationship, i.e. co-op, community investment. The marketing of organic aquaculture products and wild-caught fish is certainly a potential viable opportunity for many communities.

Varied Market Opportunities With Natural Lakes Amongst First Nations:
The close proximity and access to a large number of lakes provides many opportunities for First Nations communities. In addition to aquaculture and commercial fisheries, there exist opportunities in recreational fishing and tourism. There appears to be quota available for commercial fisherman to pursue and there are well-developed cage operations on Manitoulin, which provide the basis for a strong industry to develop.

8. SUMMARY OF KEY OPPORTUNITIES

The purpose of this report was to develop a regional asset map for First Nations communities within the Waubetek service area with respect to fisheries and aquaculture development. The asset map will provide an inventory to First Nations communities and to Waubetek which will allow them to strengthen their competitive position in the fisheries and aquaculture sector. Although every community has its own unique set of assets that it can take advantage of, it is anticipated that this asset mapping report will provide a strategic or operational advantage toward achieving economic and workforce development goals. By having an inventory of assets, communities are in a better position to capitalize on their inherent strengths and identify solutions to potential challenges that may require targeted efforts to overcome. Furthermore, this report has identified region-wide approaches which will allow communities to leverage their assets and to work cooperatively to broaden the scope and breadth of economic development initiatives.

An example that was suggested several times during the project was the concept of a fisheries cooperative. Several communities would join the cooperative and be better positioned to sell their products to a larger market. This would also allow for leveraging of the cooperative to secure cost-effective supplies, logistical arrangements for transporting products, ensure a more reliable source for markets and ultimately, a sustainable economic opportunity for participating communities.

In order for these types of ideas to flourish, several items should be addressed to foster a better environment for these initiatives to develop. These include:

1. Regular forums for fisheries and aquaculture management and business development could be held within the Waubetek area to promote the development of the sector, share knowledge and experiences and foster relationships and partnerships.
2. Regionalize the management of issues that impact many First Nations through existing organizations such as A/OFRC and Waubetek. A/OFRC could be considered with an expanded mandate to support the development of fisheries management structures common to all First Nation.
3. Business Development training for entrepreneurs could be developed, expanded and delivered in cost-effective and innovative ways to promote business sustainability.
4. Renewed effort to promote fisheries and aquaculture careers with youth across the service by providing opportunities for training, gaining experience and having mentors in place.
5. Environmental sustainability should be developed at the onset of this emerging industry to ensure long-term sustainability of the industry and to maintain the integrity of the supporting ecosystem.

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Appendix A

Relevant maps, figures and tables

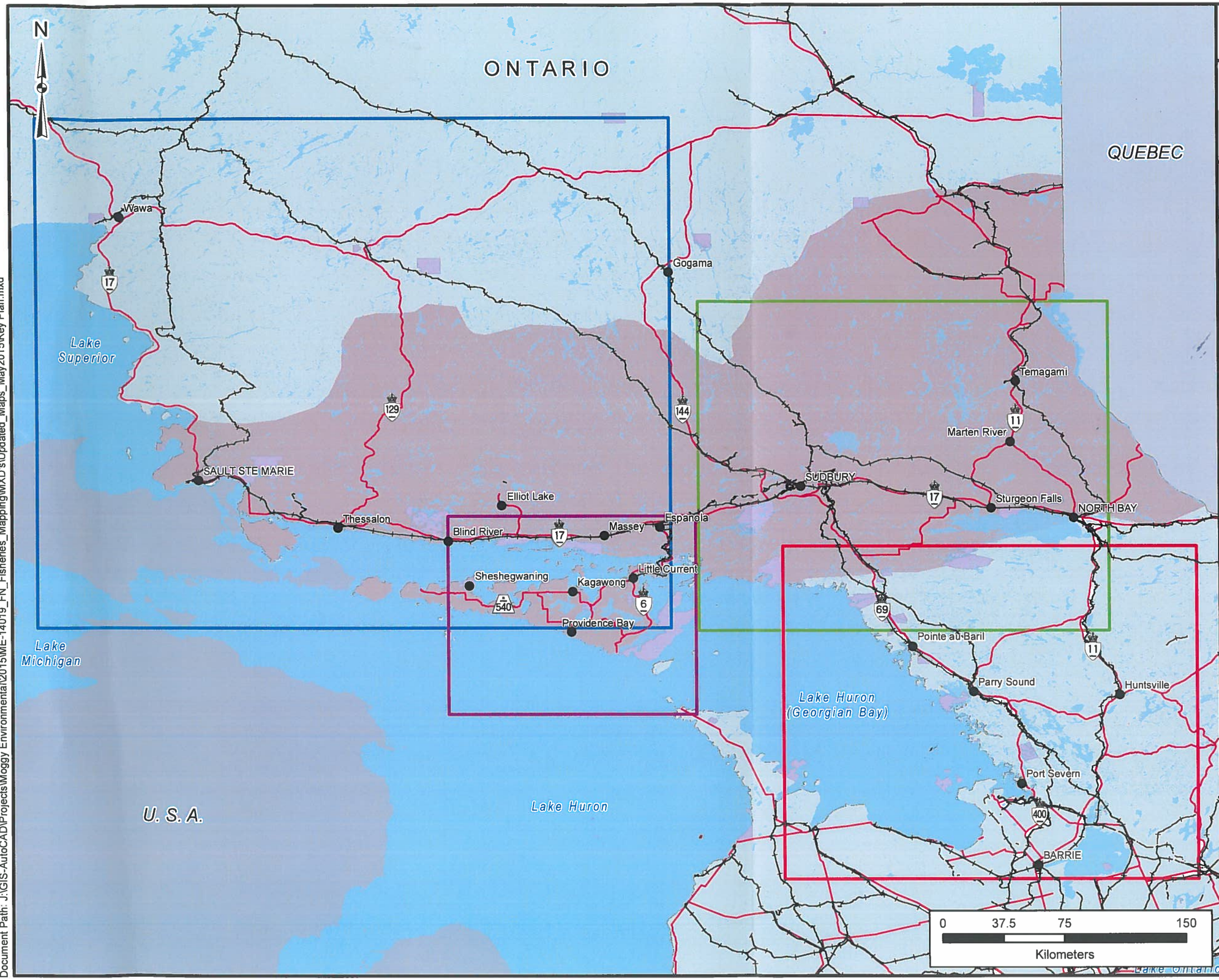
Map A1: Key Map of the Waubetek Service Area

Map A2: Northwest Region

Map A3: Northeast Region

Map A4: Manitoulin Region

Map A5: Georgian Bay Region



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NOTES:

LEGEND:
- Railway
- Major Highway
- Waterbody
- First Nations Community
- Robinson-Huron Treaty Area (1850)
- Georgian Bay Region
- Manitoulin Region
- Northeast Region
- Northwest Region

PROJECT TITLE
WAUBETEK BUSINESS DEVELOPMENT CORPORATION - FISHERIES AND AQUACULTURE ASSET MAPPING

DRAWING TITLE
KEY PLAN

DATA SOURCES
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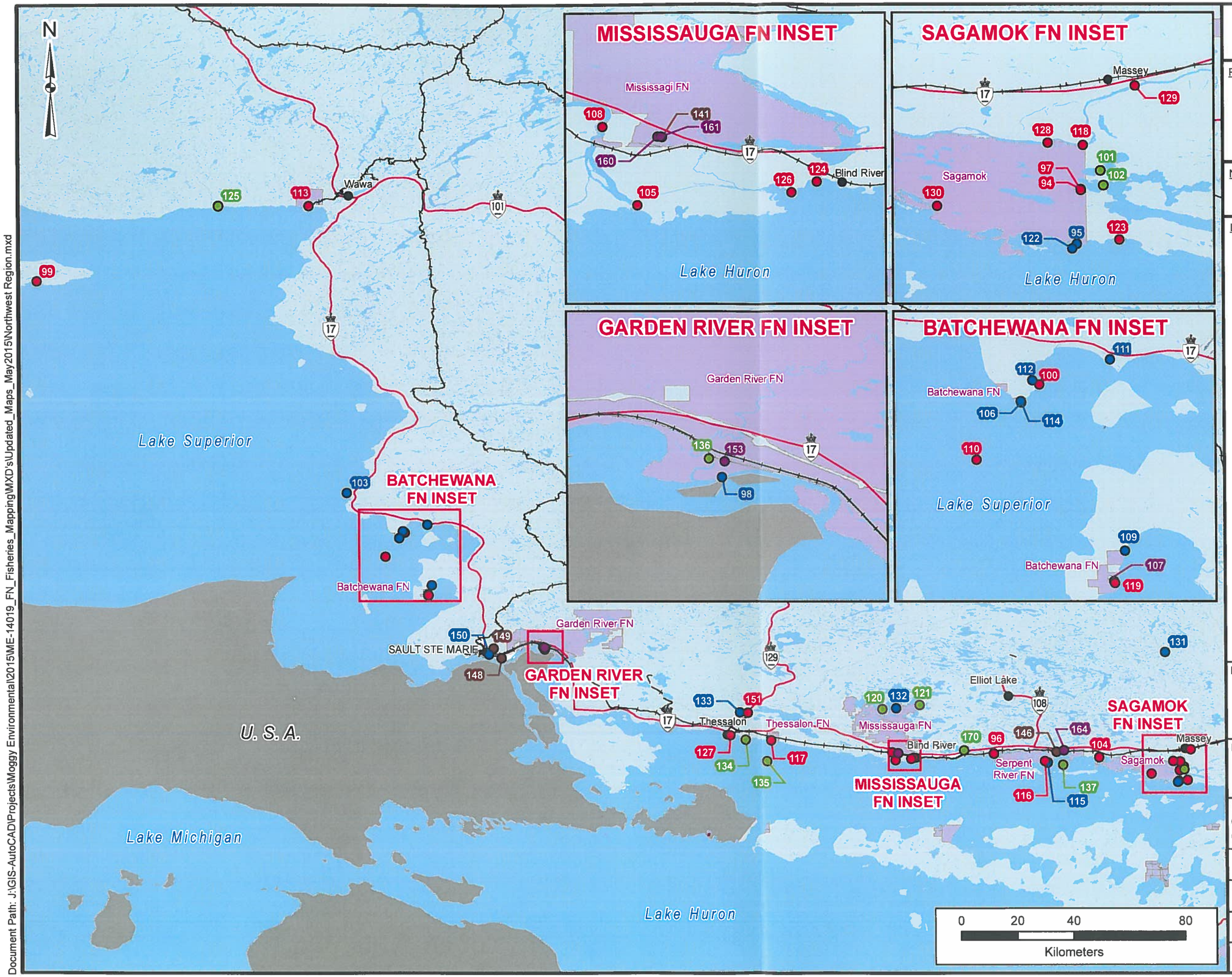
D. Moggy	ME-14019

FIGURE 1



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NOTES:

LEGEND:

Fisheries Insfrastructure
- Built
- Economic
- Natural
- Service
- Social
- Railway
- Major Highway
- Waterbody
- First Nations Community

PROJECT TITLE
WAUBETEK BUSINESS DEVELOPMENT CORPORATION - FISHERIES AND AQUACULTURE ASSET MAPPING

DRAWING TITLE
NORTHWEST REGION

DATA SOURCES

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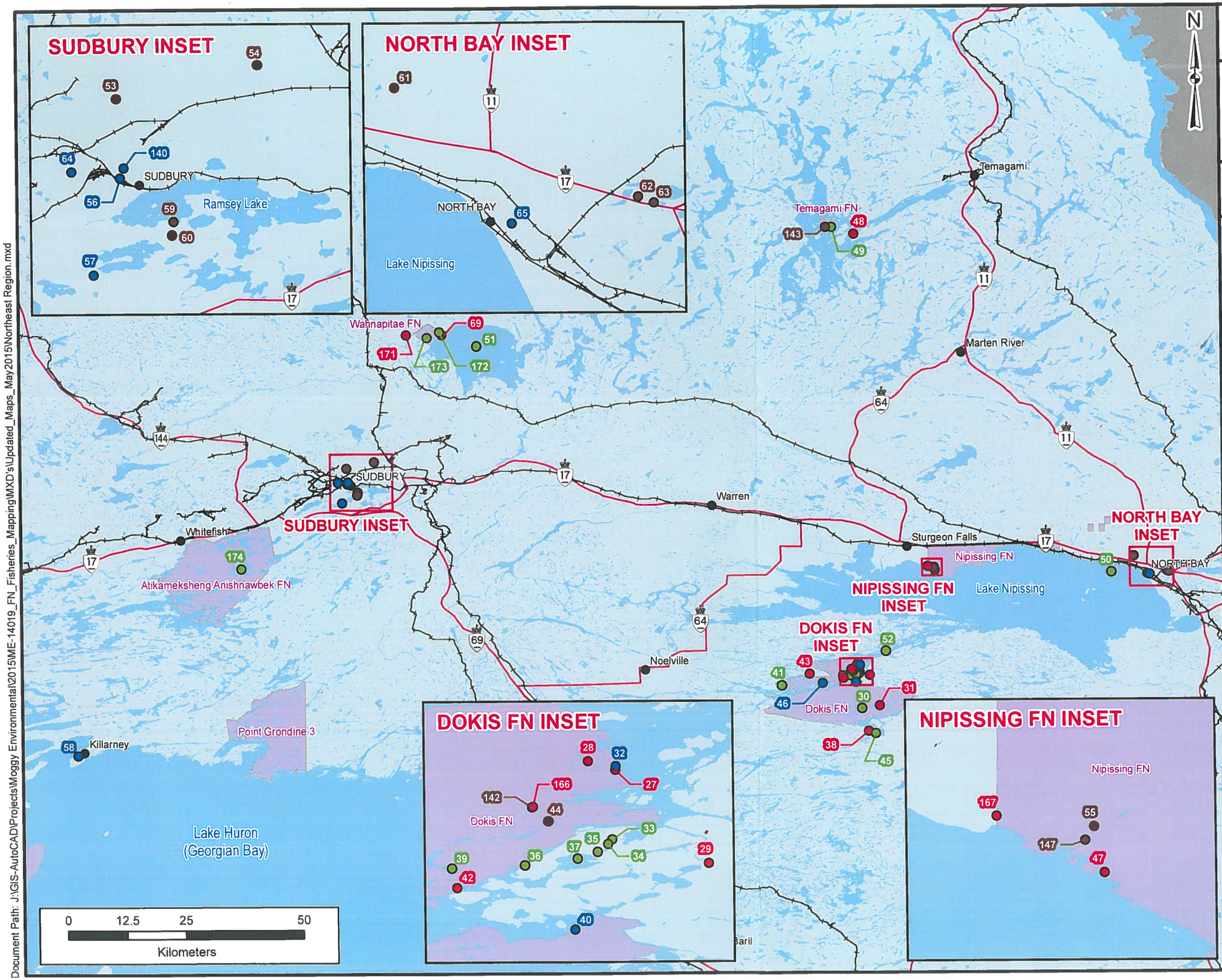
FIGURE 2



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NOTES:

LEGEND:

Fisheries Infrastructure
- Built
- Economic
- Natural
- Service
- Social

Railway
Major Highway
Waterbody
First Nations Community

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NORTHEAST REGION

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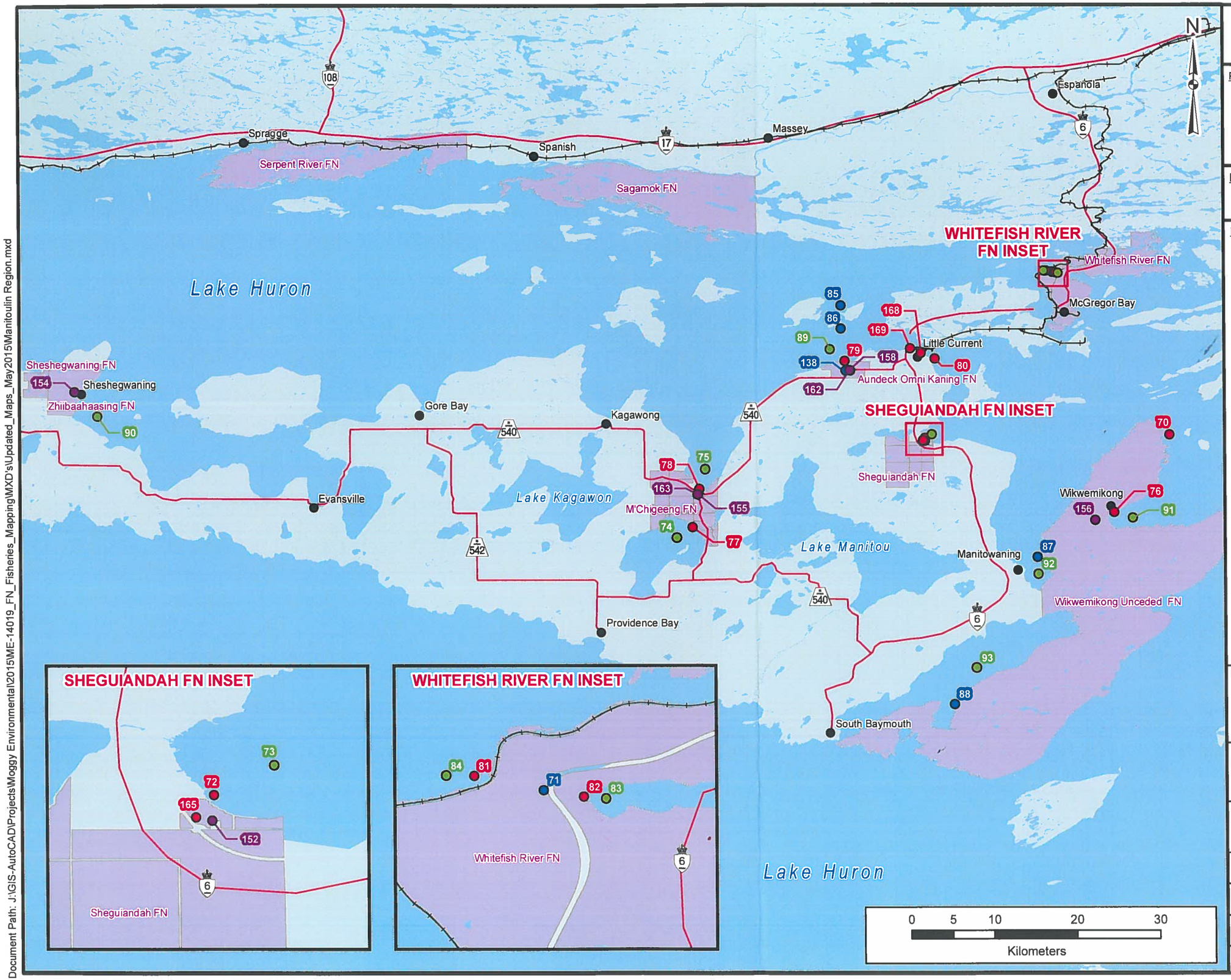
FIGURE 3



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- Natural
- Service
- Social

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Major Highway
Waterbody
First Nations Community

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MANITOULIN REGION

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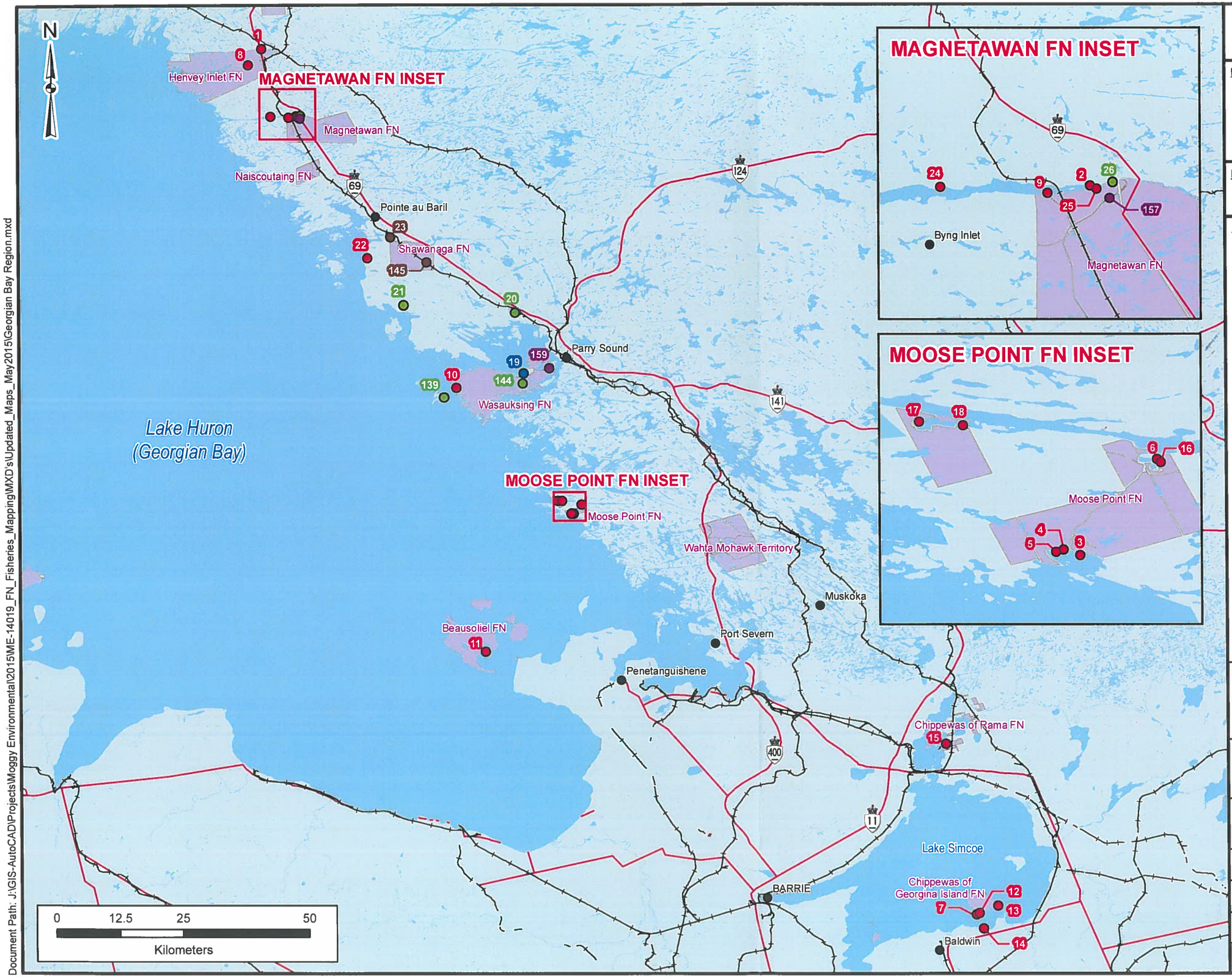
FIGURE 4



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LEGEND:

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- Built
- Economic
- Natural
- Service
- Social

Railway
Major Highway
Waterbody
First Nations Community

PROJECT TITLE
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GEORGIAN BAY REGION

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FIGURE 5

Appendix B
Workshop attendees and notes

Table B1: Nipissing Workshop Attendees

Who	Community
Doug McKenzie	Temagami First Nation
Aruya Assault	UOI
Heather Sawdon	Atikameksheng Anisknawbek
Woody Becker	Temagami First Nation
Peter Beaucage	Nipissing First Nation
Todd Gordon	Waubetek
Curtis Avery	A/OFRC
Peter Meisenheimer	A/OFRC
Andrew Ecclestone	A/OFRC
Henrietta Commanda	Nipissing First Nation
Clint Couchie	Nipissing First Nation

Table B2: Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Economic	Capital – capital programs of up to $100K for individuals and up to $250K for communities; loans of up to $500K; NAAF studies for aquaculture (WBDC)	Aboriginal-focussed funding to support fisheries, e.g. NAAF	Entrepreneurial culture needs to be developed
	Aboriginal Fisheries Strategy (WBDC)	Flexibility in the scale of their operation vs non-aboriginal (communal vs commercial license)	Lack of fisheries-related network
	Opportunities with Treaty 20	Successful economic models in other parts of Canada/World, i.e. Naori in New Zealand	Volatile market
	Existing aquaculture industry specifically Aboriginal; access to aquaculture markets; access to inputs		Reduction in some funding, e.g aboriginal equity program
	Brand/marketing of aboriginal fishery products		
	Cooperation amongst communities on shared resources		
	Long term funding with mining companies; First Nation Limited partnerships		
	Commercial licenses held by aboriginal fisherman; communal licenses – who has what and where		

Table B2 (continued): Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Services	Fisheries management techniques	Regional organization – AFI (Aboriginal financial initiative);A/OFRC; Waubetek – business and aquaculture in Ontario wide	Working in isolation/silos
	Research and monitoring services and equipment	Advisory committees – opportunity to educate about Aboriginal Fisheries	Community priorities, other then fisheries
	Knowledge of policy, legislation related to commercial/recreational fisheries		Mandate of regional organizations (restrictions on how, who can be worked with)
	Capacity		Authority (fisheries Law) – responsibility (enforcement/disputes – monitoring and compliance
	GIS/mapping of resources (Temagami)		Capacity – under developed/resources; small band resources
	Resource departments – fisheries management plans, and by-laws		
	Research on local lakes, i.e Round Lake/fish water quality		
	Fisheries Law		
	Fish wicx		
	Research on some lakes/resources to determine feasibility /sustainability – Temagami area; fish hatchery		
	Advisory committees (stewardship) – Temagami		
	Business Development officers		
	Treaty rights (union of Ontario Indians)		
	Self – governing natural resources		

Table B2 (continued): Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Social	Local knowledge of the resource	ASETs – provides training funds for youth	Youth – interest is declining in fisheries – jobs/careers
	Traditional ecological knowledge	WBDC provides post-secondary graduate funding support for for-profit businesses (interns)	Inter-treaty issues
	Youth	Existing business owners and operators can encourage interest in fisheries – related careers/jobs – creating a culture of business	Other career choices (mining vs fisheries)
	People with knowledge; elders to youth; youth with training; business owners	Recognition of the opportunity associated with the cultural value	Financial support not there for traditional people
	Ceremonies	The circle of cultural resources has grown with people and technology (GIS)	Lacking a network of fisheries related business opportunities
		Values-oriented vs rights-oriented	

Table B2 (continued): Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Built	Fish processing plant – Nipissing FN	Continuous development of capacity within an organization (the successful business/enterprise)	Volatile market for fish (commercialization of fish) – branding; diversification; need for industry knowledge at a national/global scale
	Laboratory for Fall Walleye Index Netting and population assessment	Expansion of existing businesses	Geographic distances to markets
	Office space	Collaboration/share best practices of successful business	Declining interest by youth (aboriginal – commercial; non-aboriginal – recreational)
	Boat launches/docks	Access to inventory/business directory	Need a better understanding of the current assets (capacity, function)
	Killarney fisheries and Pays Plat – examples of successful businesses		
	Existing aquaculture (x2) in Wikwemikong		
	Aboriginal owned tugs		
	Fishing lodges (aboriginal owned) – Sagamok, Dokis, Temagami, Mississauga, Wahnipitae		
	Marinas – Whitefish River, Moose Deer Point, Georgina Island, Wasauksing		
	Ice fishing hut rentals - Temagami		

Table B2 (continued): Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Natural	Access to fish	Priority access to natural assets by Aboriginal people	Water control dams
	Water quality impairments	Great cultural value attached to natural assets within communities	Dispersed nature of access to resources; amongst/between First nations and between Canada and US; lack of collaboration amongst First Nations wrt Fisheries
	Access to water, via treaties	Fisheries law/management plans developed by First Nations – enforcement/jurisdictional issues to be resolved; need for regional FN mgmt. plans that includes aboriginal/non-aboriginal fisheries	Treaties between FN and with government not amongst FN; artefacts of the treaty making process
	Knowledge of lakes and the area		Imposition of federal/provincial laws
	Specific lakes in Temagami area, including species of walleye and lake trout		Ecological impact on natural resources from fisheries, i.e. invasive species
	Location to market and surround resources (i.e. lakes)		Conflict amongst commercial/recreational/aquaculture
	Natural conditions are ideal for aquaculture		
	Great Lakes are close by		

Table B3: Little Current Workshop Attendees

Who	Community
Mike McLeod	Sheshegwaning First Nation
Peter Nahwegahbo	Aundeck Omni Kaning
Sam Debassige	MChigeeng First Nation
Ernest Wakegijk	Sheshegwaning First Nation
Norman Assiniwe	Wikwemikong
J. Terry Debassige	MChigeeng First Nation
Delano Altiman	Aundeck Omni Kaning
Ray Jackson	Wikwemikong
Jim Andrews	Whitefish River First Nation
Rhonda Peltier	Thessalon First Nation
Terrence Corbiere	Wikwemikong
Taryn Bobiwash	Serpent River First Nation
Dustin Lawrence	Serpent River First Nation
Taymor Day	Serpent River First Nation
Patty Ann Owl	Serpent River First Nation

Table B4: Little Current Workshop Notes

	Assets	Opportunities	Gaps
Economic	Aquaculture advantage – no provincial licence requirements	Non permits (license)	Who monitors sites
	Serpent River Aquaculture project – partnership and business plan	No red tape from MNR, MOE, OFCA	Developing our own business opportunities
	Joint Ventures and partnerships, e.g. Fish n' Chips and local fisherman – Thessalon FN	Natural resources (land/water) – access to our lands	Fish hatcheries not in place; fish processing, feed & supply and fish food businesses
	Buzwah (hires part time)/Full-Time (located in South Bay, and also includes an organic operation and is currently expanding) Fisheries Facilities – both operations can act as trainers/mentors	Shoreline and water	No incentives/benefits for plant operators
	Fish waste could be used a fertilizer, i.e. Meekers	Manpower/employment opportunities, and opportunities for expansion	Weather conditions could be a disadvantage (stormy, windy and can't go out)
	Herbert - market includes fish stand, others; hires staff; license to buy fish	Good market	
	Dukes Fish n' Chips – AOK FN	Knowledge of suppliers (commercial fisherman)	

Table B4 (continued): Little Current Workshop Notes

	Assets	Opportunities	Gaps
Services	Thessalon Economic Development – Funding opportunities for small business		
	Wikwemikong pubic and high schools (3X); learn about fisheries – advance youth interest – Sheshegwaning FN	Could be collaborated with KTE and other outdoor programs	No funding
		Provide a venue for research	May result in loss of interest
		Preserves education	School management (principal) may not support
		Promotes awareness of treaty	
		Promotes and maintains practical skills	
	Luke Wassegijig – Wass tours – fishing and touring	Opportunity to support the food industry	Inclement weather
		Tours could be collaborated with other FNs and industries	Licensing may be an issue for food and insurance issues
		Promotion with Great Spirit Circle Trail	Liabilities with boat operations and tours
	Waubetek guidance on aquaculture (technical experience)		
	Experience with habitat improvement; work with A/OFRC to undertake rehabilitation work – AOK FN		
	Serpent River Environmental Review Panel to support sustainable development	Good opportunity for partnership and provide an education hub	No funds to support centre
		Could support the transfer of knowledge	May need assistance with sharing of information
	Waubetek Fisheries Strategy – cooperatives amongst fisherman	Strategy is currently being implemented	Funds may be ending
		Supports a cooperative approach amongst FNs	Need for additional marketing and promotion
			Need for additional communication strategy
	Bio Centre – Thessalon FN	Great opportunity for a partnership	Underutilized
		Can also act as a fish processing plan	Lack of people to continue
		Opportunity to provide leadership	Letting go of authority to run business
		Aquaponics opportunity	Business capacity is limited

Table B4 (continued): Little Current Workshop Notes

	Assets	Opportunities	Gaps
Social	Communal license (teaching youth to fish) – North Shore; MNR agreements – Serpent River FN	Opportunity to access to large market	Limiting our rights to aboriginal
	Subsistence fisherman with interest in transitioning to commercial fisherman – 3-4 people in M'chigeeng and 2 people in AOK FN	Able to sustain and feed our families	
	Experienced fisherman (acting as mentors) in M'chigeeng and Sheshegwaning	Need them to teach our youth knowledgeable	
	Aborignal rights to fishery – assertion of claim (see map of Manitoulin Island) – Sam Debassige		
	Local commercial fisherman in Wikwemikong, as trainers (4-5 people)		
	Manpower – all FNs	Opportunity to work together	Not everybody wants to work
	2 graduates with environmental degrees in Fisheries/environmental studies – M'chigeeng FN	Knowledgeable of the procedures of environmental projects	
	Experience processing plant workers (4 ppl and others in other FNs) – AOK FN		
	Communal license (40000lbs quota) – could be more if it can be fished		

Table B4 (continued): Little Current Workshop Notes

	Assets	Opportunities	Gaps
Built	Access to north shore waters – Stockwater Bay (access road to John Island camp) – Serpent River FN	Already an existing road	Start-up risks (roads, feasible market)
		Close access to highway	Pollution in the water
		Close to other markets	Other industries that use the area
	Bio Centre with a walk-in freezer – Thessalon FN	Need ice to transport at proper temperatures	Power/maintenance
		Close access to transportation	Road accidents because the product is being transported more and further
		Close to other resources	
	Access to Bay of Islands (band-owned) and McGregor Bay (private, band member owned) via docks/marina – Whitefish River FN		
	Aquaculture farm (currently under lease) – AOK FN		
	Manitoulin Hotel		
	Harbourview Marina	Aboriginal owned	Under utilization
		Close to others	Over used, more maintenance is required
		Gas and repair	
	Cool-it Ice operation	Needs ice	Under utilization
		Close to others	

Table B4 (continued): Little Current Workshop Notes

	Assets	Opportunities	Gaps
Natural	Inland lakes – Elliot Lake region associated with development – Serpent River FN	Lots of lakes, lots of opportunities	Elliot Lake Inland Development:
		Sports fishing	Mining and natural resource development
		Attracts tourist – revenue generation	People and shoreline development/utilization
		Job creation – tour guides	Need for higher environmental standards for industry and development
	2500 lbs whitefish (Purvis Fisheries) near M'chigeeng	Good opportunity for commercial fishing business – a lot of quota available	Overfishing, regulations, recreational fishers
		Utilizing quota sharing	Don't have the boats or capacity
			Need training for youth
	Potential aquaculture location near M'chigeeng (deepwater)	Well-developed cage operations on Manitoulin	Not well sheltered
			May be regulated
			Environmental conditions and locations not determined/understood yet
	Sucker Creek – sucker and smelts	Habitat enhancement has been completed	Sucker Creek suckers/smelts – not well developed market
	Undeveloped, deep water for aquaculture facilities (location has been determined) – Sheshegwaning FN		

Table B5: Garden River Workshop Attendees

Who	Community
Jacob Day	Garden River First Nation
Joe Tom Sayer	Sheguiandah First Nation
Chief Lyle Sayer	Garden River First Nation
Alexis Vanderheyden	Garden River First Nation
Williard Pine	Garden River First Nation
Janet Esquimaux	Missanabie Cree First Nation
Scott McCabe	Missanabie Cree First Nation
Dana Boyer	Mississagi First Nation
Carla Marcellus	Mississagi First Nation
Arnelda Bennett	Sagamok First Nation

Table B6: Garden River Workshop Notes

	Assets	Opportunities	Gaps
Economic	Market in Little Current – Sheguiandah FN	Location and proximity to resources and markets, i.e. water, TransCanada highway, USA	No room to develop on FN's; prime locations are occupied; no land code; lack of a land use plan/official plan
			Market is limited due to the allocation of quotas
	Ben's Bait and Boat – fish derby's, boat launch, bait/tackle, outfitting	Equipment and buildings exist in comm.	Limited equipment
		Relationships with other FN	Replacement values for equipment
			Insurance on FN's is problematic
			Fuel costs are variable, and sometimes unpredictable
			Price of safe equipment is high
	Bus. plans for aquacult. & tourism projects		
	Funding sources	Funding sources are available: Community, ACFL, Industry, OSR, CORDA, AANDC, FedNor, Waubetek, Rama (UNNLP), Dreamcatcher, Trillium, Leaf, AFSAR	Annually based
			<$35,000
			Awareness of funding opportunity
			Proposal development/experience
			Political changes/ support
			Other priorities take precedence
			Business plan development
	Waubetek Fisheries Strategy	Needs a forum to discuss best practices, share knowledge, funding, etc	FNs are reluctant/hesitant to work together due to:
			o Trust, Self-interest, Competition
			o Do not want to share quota because it is not enough for themselves
	Small engine/mechanical – truck and coach mechanics, that can service boats for fishing (Social Asset)		
	Sagamok fishing derby (Social Asset)		

Table B6 (continued): Garden River Workshop Notes

	Assets	Opportunities	Gaps
Services	Mississauga First Nation Lands and Resources Department – relationships with regulatory agencies (MOE, DFO)	Networking with government staff/agencies Capacity building internally; utilization of others expertise In-kind expertise Funding Building knowledge base Political autonomy – self-regulating government Increase opportunities Vision Jurisdiction – exercise their own before others come, i.e. GLIFWC/CORA	Political – chief and council; compromise agreements with "strings" attached Funding may be limited External mandates Apathy – motivating own people to pursue opportunities New or existing legislation – impacts resource users Lack of a shared Vision
	Great Lakes Indian Fish and Wildlife (GLIFWC) – Wiscounsin, Minnesota, Michigan Tribes – with resources, experience, knowledge and information		
	Akwesasne Env. Dept. (Henry Lickers) – experience in Environmental Monitoring		
	Memorandum of Understanding with MOE for fish contaminate analysis and interpretation		
	Tim Haxton and Steve (DFO) – SAR Recovery Strategies (up to Red Rock Falls); MFN provides baseline data/information; experience with assessment and management		
	Sault College – Fish and Wildlife program		
	Sagamok – commercial fishing program with 5 commercial fisherman		
	Sagamok Lands and Resources Department – Samantha with an Environmental Degree		

Table B6 (continued): Garden River Workshop Notes

	Assets	Opportunities	Gaps
Social	People and their experience; tug experience; fishing (Kevin Chibelow in Mississauga and a small group of independent fisherman that sell to the community); education (5 people with fisheries background)	Trained people	Not enough people trained
		Elder's teachings – passing down knowledge (TEK)	More promotion for natural resources areas
		Experienced commercial fisherman/woman	Broader range of trade: fisherman, environmentalists, repair, loggers, water technicians, engineers
		Number of available workers	Capacity – experienced and qualified
		Level of education required is not high	ACFL – Funding not enough; Reporting System is tedious, wrap up results, summaries , voice
		ACFL funding and Quota	Dependency on Ontario Works
		Reporting System – Daily Catch Reports (DCR)	Healthy way of life (Minobimadziwin)
			Quota not enough
	Treaty rights – protected, rights based on resource use – Sheguinhah First Nation	Treaty rights and Inherent rights	Ontario Commercial Fisheries Association (OCFA) disassociated with Aboriginal Commercial fisherman
		Quotas available, as per OCFA	OCFA controls/determines costs and amounts of fish for sale
		International opportunities; markets overseas, but requires large supply	Smaller FN's don't have the capacity development as other FN's
			FN's working together and achieving partnership opportunities
	Experienced fisherman with training – Sheguiandah First Nation		
	Experienced fisherman (Joe and Mike Jones) as resource people – Garden River First Nation		
	Cultural ceremonies – need to be re-emphasized, i.e. "Fish every Friday"		
	Several individuals in Garden River with mechanical and academic capacity		

Table B6 (continued): Garden River Workshop Notes

	Assets	Opportunities	Gaps
Built	Access to highway – Sheguiandah FN	Access to markets; low cost shipping; access to facilities	Security issues and vandalism
	Band-owned boats/nets – Sheguiandah FN	Location; access to natural resources; geopolitical issues not serious in Canada	Cultural differences/ignorance; racism; aboriginal rights not well understood and often backlash to asserting rights
	TransCanada highway access – Garden River FN	Low shipping costs	Politics/business don't mix – community assets/political decisions
	Good access to most of reserve – Garden River FN	Infrastructure is available and when band owned/partnered, spreads the risk and allows larger projects to be pursued	
	Ritchie Falls (Sagamok) for hunting and fishing camps; educational facility (future)	Business plans	
	Ice makers, cold storage units – Sagamok FN	Collective risk/benefit	
	Walleye rearing ponds and buildings; Sagamok docks; Sagamok Point Marina	Presence/social	
	Fish processing plant with a business plan ready	Occupancy	
	Partnership with Spanish marina and boat storage		

Table B6 (continued): Garden River Workshop Notes

	Assets	Opportunities	Gaps
Natural	Coldwater lakes, i.e. Lauzon, Chibelow (big and small), Matineda, north channel, Lake Huron	Lots of lakes around communities	lack of data and fisheries management decision agreement
		Organic market, wild-caught fish	Invasive species
			Species at risk
			Other industry sectors, i.e. Forestry roads/crossings
			Pollution threats, i.e. paper mill effluent, shoreline development, mining, etc
	Access to water – Sheguiandah FN	Access to lakeshore/water	In some cases, no infrastructure to support fisheries
		Fewer third parties to negotiate with	Fluctuating water levels particularly in Lake Huron
	Lake north of garden river community		Protected areas – perhaps a catch and release; lack of planning
	Garden river "recreational" fishery		Capacity to manage

Table B7: Wasausking Workshop Attendees

Who	Community
Gail Jacko	Shawanaga First Nation
Dale Pann	Shawanaga First Nation
Gerald Joseph	Shawanaga First Nation
Adam Pawis	Magnetewan First Nation
Jennifer Predie	Wasauksing First Nation
Ryan Tabo	Wasauksing First Nation
Randy	Wasauksing First Nation
Gerry Duquette	Dokis First Nation
Arik Theijsmeyer	FedNor

Table B8: Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Economic	Hunting/Fishing camps (potential) – Shawanaga First Nation		
	Eight (8) hunting camps with guides for fishing, includes FN fishing policy and permitting scheme – Dokis First Nation	Licensing and monitoring supports resource management and creation of a sustainable fishery	Are seasonal businesses, not generating income in the off season
		Creates jobs	Not being fully utilized to their potential throughout the year
		Provides opportunities for education	
		Opportunity to collect demographic and statistical data	
		The market associated with these camps is "rich"	
	Fish Derbys – used to educate youth and the community about fish stocking and fundraising for ? – Dokis First Nation		
	Dokis Marina + 5 other marinas in the area – Dokis First Nation	Aboriginal owned assets and managed	Band-owned businesses don't have the same "investment" as private ownership, e.g. band hours vs entrepreneur hours
		Located close to community waters and existing fisheries	Private ventures rely on income cashflow to operate vs band funding
		Creates mentorship opportunities for youth entering the industry	New businesses require market-share development
		Job creation from operation	May be difficult to maintain experienced, reliable labour
		Incentives could be explored to participate in sharing revenues, i.e. sales commissions	
	Ecotourism operator – Dokis First Nation		
	Sudbury market for fish products, with a "sustainable fisheries" branding – include other marketable species - FedNor	Numerous products that could be marketed (fish products, and species)	May be a need to educate market and promote aboriginal products
		Location of Sudbury is close to many communities with easy access via highway 69/400	Concern of ownership issues for aboriginal products (need for patenting)

		Branding of wild-caught/aboriginal fish is appealing to market	May be a reluctance to sharing knowledge to support these products
		Logistics – ease of getting products to market	Products come from a number of small operators, independently operated
		Opportunities for shared ventures/products with other close communities near Sudbury	Need to address market/sales regulation, i.e. inspected/certified fish products
			Need to address food "traceability" for public safety
	Distribution channels in Sudbury, including Eat Local and Farmer's market - FedNor		
	Fisheries Quota for Wasauksing waters - WFN		
	Mining companies with an interest to promote local environmental stewardship initiatives, i.e. restocking lakes and supporting aquaculture/fish hatcheries – FedNor	Employment opportunities are possible with this initiatives (direct or indirect)	Some concerns with the impact and risks of mining on the environment
		Creates business opportunities with First Nations	Infrastructure to support these projects many not be in place, i.e. hatcheries
		Mining companies have resources (funding, staff, equipment, technology)	Community may not be prepared/organized to work with mining companies
		Training opportunities for FN to undertake environmental/fisheries projects	Long term support for these markets may be uncertain, i.e. mining company only supports a project for a defined period
			May not be a community priority to organize for a mining related environmental/fisheries project
			Need to ensure there is a common vision of the purpose of these projects
	Wasauksing FN has a fishing permit scheme which is enforced by OMNRF conservation officers (concurrent enforcement with provincial legistlation) – Wasauksing FN		
	Wasauksing FN owns a full service marina – Wasauksing FN		

	Entrepreneurs and business owners in the Wasauksing area, operating tourisms and fishing guides services – Wasauksing FN (Randy)		
	Potential market in Wasauksign FN area for "fishing experience" – Wasauksing FN		

Table B8 (continued): Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Service	Shawanaga Band Fishing Policy, i.e. 3 fish/family/day – Shawanaga FN	Sustainable harvesting	Individuals may disregard community needs in favour of individual needs
		Community driven – better buy-in	Difficulty with managing non-member fishers
	Band staff technicians with fisheries background – Dokis FN	In-house and local knowledge and skills	Employee turnover – can lose skill set
		More affordable and accessible when the skill set is in-house	Not every community has these skill sets
			Cost associated with losing this skill set
	Fish tagging and assessment program and experience – Dokis FN	Low-cost assessment of fish population	Lack of education, non-reporting – community needs to be aware of the program and its purpose
		Community engagement is improved when tagging is used	Training required to undertake this type of program
		Data to support fisheries management	
	Band support to staff to participate in fisheries initiatives – Dokis FN		
	Fund has been established to support fisheries-related activities (from cottager's association) – Dokis FN	Readily available, and community funded	Paper work to support accountable use of money
			Staff capacity to manage fundraising
	Participation (seat/voice) in Mattawa/Nipissing CA water management of Nipissing/French River – Dokis FN	Community input and partnerships	Changing priorities of the government may impact long term status
		Allows for protection of resources	Assuming consent – government/develop may view these talks as consultation/consent
		Build community capacity to engage in resource management	Lack of influence in some cases
			Bureaucracy – may be cumbersome
	Monitoring and "enforcement" of band-issued fishing permits, with a band-developed fishing policy – Dokis FN	Encourages compliance	Lack of staff to monitor and enforce
		Raises awareness	Cost of running a program like this
			Training for enforcement

			Clear bylaws are needed to support this
			Legal process/implications are not fully developed or possibly supported
	Regular school trips to educate youth about fisheries – Dokis FN	Skills and awareness can be ingrained with youth, and possibly "go home" to teach parents	Provincial-controlled curriculum not representing local traditions
		First Nation controlled school's curriculum	
		Independent training and research sources (post-secondary)	
	Living with Lakes Centre in Sudbury, with fisheries expertise - FedNor		
	Wasauksing has a policy for a number of lakes restricting fishing on a rotating basis – Wasauksing FN		
	School programs in the Wasauksing area are open to incorporating fisheries and aquaculture related programming – Wasauksing FN		
	Three Mile Lake has been assessed by A/OFRC for fisheries potential and development of a fisheries management plan, including protective measures (i.e. no motors, buffer around lake)	A/OFRC is independently funded, and has the appropriate training, resources and expertise	Lack of funding by First Nations to address all potential projects
	Quota for First Nations	Some unused in First Nations	Lack of knowledge on availability
			Government unwillingness to cooperate

Table B8 (continued): Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Social	Traditional knowledge	Readily available in the community	Can be lost
		Long term history	Abuse/misuse of information concern promotes lack of sharing
		Provides info. where scientific study lacks	
		Provides a competitive advantage to non-aboriginal communities	
		Encourages natural ways to utilize the environment	
	Community desire to participate in fisheries and sustainable resource use	Sustainable use of resources	Need a complete buy-in, individual vs community rights
		Natural way of living – more balanced – consistent with traditional lifestyle	
		Demonstrates environmental stewardship	
	Treaty rights to lakes/fisheries within the Robinson Huron Area	Collective rights/voice	Non-native access
		Support other First Nations	Lack of understanding by non-Aboriginal treaty rights
			Not fully utilized
	Local labour market to undertake monitoring (fishing) and technical work – Shawanaga FN	Only requires minor training to undertake fisheries jobs	Low paying, hard work jobs, not a lot of interest by young people
		Generally a young labour market	Wage assistance programs no well known
	Band staff with previous/existing fisheries skill sets (ie.biologist, technicians) – Wasauksing FN		
	Experienced entrepreneurs acting as mentors/role models	Greater sense of ownership	Lack of incentives for experienced entrepreneurs to provide mentoring
		Role models	
		Mentors to help new/young entrepreneurs	
	Cultural values		
	Local, small-scale operator/ fisherman – Magnetewan FN	Low-cost operations	Difficult to access large markets
		Knowledge of the local area	Underselling each other/undervaluing product
		Common in most communities	
	Market looking for "fishing experience" – Wasauksing FN		

Table B8 (continued): Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Built	Concrete building with an old pumphouse – requires fisheries equipment and some upgrades to be a fish hatchery – Magnetewan FN	Can be used (renovated) to reduce costs of developing a fish hatchery	Building codes may add costs
			Need to upgrade to address codes, standards
	Several old docks and an operating fishery wharf – Magnetewan FN	Deep water access	Safety concerns
		Closer to roads	Changing water levels
		Close to railway	Permits, MOE, municipal
		Already operational	Usage fees, docking fees
	Highway 400/69 access – Magnetewan FN	Access to potential customers/clients	Construction delays on 69/400
		Connecting communities together	Impacts on the environment
			Bypass small towns
			Disruption of fish migration routes
			Increase in traffic
			Oil spills
	CP Rail line – Magnetewan FN		Disruption of fish migration routes
			Increase in traffic
			Oil spills
	Shipping lanes in Georgian Bay – Mag. FN	Connecting communities together	
	Shawanaga walleye hatchery	A lot of technical skills	Changing perceptions
		Regulated by area FN's	Aging equipment
		Able to expand to other species	Diseases
			Operational costs
	On-reserve fish hatchery (1987) and several off-reserve fish ponds – Dokis FN		
	First Nations boats (band-owned) used for fisheries, hunting and assessment purposed – Dokis FN	Band owned boats	Liabilities (insurance)
		Customized boats for different needs	Maintenance and operational costs (i.e. gas, oil, etc)
			Licenses
			Training required by operators
	Future location of two fish ponds – Dokis		
	Road to Depot Harbout – Wasauksing FN		

Table B8 (continued): Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Natural	Shoreline access to Georgian Bay – however in some cases (Shawanaga) the access is undeveloped	Access to water – too much at times	Invasive species
		Same treaty area – collaboration with other first nations for similar/complimentary markets/products	Threat to ecosystem – unbalanced (decline in food source)
		Community networking and sharing of resources	Development – residential, commercial, industrial
		Potential to create an economic vehicle, i.e. co-op, community investment, build relationships	Population growth
		Teachings maintained and used – healthy lifestyle and communities	Industrial pollution
			Environmental concerns
			Over exploitation
			Lack of environmental protection measures in some cases, to maintain clean waters, i.e. restrictions on boats, sewage and salt
	Spawning grounds on Magnetewan/Shawanaga River	Spawning grounds – easy to access and to monitor	Easy access increases potential for over exploration
	Spawning sanctuaries – Dokis FN		
	Shawanaga River with northern pike, musky, bass, and strong walleye population close to Shawanaga		
	Available land and water access for potential aquaculture facilities – Shaw. FN		
	Depot Harbour with deep water in Wasauksing FN		
	Existing fisheries in Lake Nipissing, French (upper, middle and lower) River – Dokis FN		
	Band-directed, fish habitat enhancements to spawning areas for sturgeon/walleye – Dokis FN		
	Other fish species, i.e. northern pike, sucker, that could be marketed – Dokis FN	Harvest all species – keep balance understanding and education	

Appendix C
Interviews

Table C1: Interviews

Who	Community
Kirby Wahsquonaikèzhik	Whitefish River First Nation
Randy Restoule	Dokis First Nation
Dan Stechy	Canadian Aquaculture Systems Inc.
Bill Patterson	Canadian Aquaculture Systems Inc.
Gerry Duquette	Dokis First Nation
Patty-Ann Owl	Serpent River First Nation
John Brosseau	Serpent River First Nation
Kathy Bebamesh	Aundeck Omni Kaning
Peter Nahwegahbo	Aundeck Omni Kaning
Marilyn Nichols	Wahnapitae First Nation
Bob Chiblow	Mississagi River First Nation

Appendix D

Major fish species found in the Waubetek Service Area and their commercial value

Table D1: Commonly found fish species in the Waubetek Service, production values, and commercial use.

Fish species	Canadian Production (2003)		Commercial Uses	Landings and Values
	Quantity (tonnes)	Value ($)		
Rainbow Trout	6,811	32,803	Farmed rainbow trout can usually be found whole, dressed, fresh or frozen in supermarkets across North America.	Aquaculture production is now the source of most commercial trout in North America, especially rainbow trout.
Northern Pike	2,323	1,740	Northern pike is marketed fresh and frozen as a whole fish. The flesh is firm, white and finely textured. The taste is considered excellent, but for the best flavour, the fish should be skinned before cooking. It can be infested with parasites, including the broad tapeworm, so should be thoroughly cooked. It is also a valuable game fish.	Pike are landed year-round. The largest commercial catches are taken in Manitoba, followed by Saskatchewan. Most of the catch is incidental to other fishing operations carried out. Canadian commercial catches average about 2,000 to 3, 000 tonnes per year. Northern pike does not culture well as it will not accept artificial food.
Rainbow Smelt	3,244	N/A	The greatest portion of the commercial catch is made up of 2 to 3 year old smelt. Very good to eat and make a fine export product. The smelt can often be bought fresh in local markets, but the US and Japan has both imported smelt from Canada in the past.	Sport fishery enthusiasts in the Great Lakes often use dip nets. There is interest in farming smelt as it is a valuable baitfish in many sport fisheries.
Lake Sturgeon	172	795	Due to the short supply, sturgeon is an expensive fish. The firm white flesh is rich in flavour and also very tasty as a smoked product. Sturgeon is the source of "real" caviar.	About 75% of the landings were lake sturgeon. The lake sturgeon is currently listed as a XX of provincial *Endangered Species Act* and under consideration for federal *Species at Risk Act* listing.

Table C1 (continued): Commonly found fish species in the Waubetek Service, production values, and commercial use.

Fish species	Canadian Production (2003)		Commercial Uses	Landings and Values
	Quantity (tonnes)	Value ($)		
White sucker	4,496	1,253	White sucker is seldom seen in the marketplace because the name lacks market appeal. As a result, it is often processed in a variety of ways under the name "mullet". It is marketed mainly as headless, dressed, whole fish and as mince frozen fish. At one time, the primary use was in the preparation of pet food; however, it is now more highly valued food fish for its soft-textured sweet white meat. Minnow-sized suckers are also used as live bait by anglers and as food for game fish reared in hatcheries. Suckers may represent an under-utilized species.	Both commercial and sport fisherman catch the white sucker using weirs, dip nets, hoopnets and poundnets. At other times of the year, it is caught by commercial fisherman using gillnets. It can also be caught with hook and line baited with worms, grubs and other bait.
Lake trout	702	617	Lake trout is available fresh or frozen, dressed, head dressed, or in tray-packed steaks and individually quick frozen fillets.	Lake trout's slow growth and slow maturation rate mean that they are often taken before the reach maturity and before they have a chance to spawn. About 50% of Canadian landings come from Saskatchewan with the balance from the Great Lakes, especially Lake Superior. There is only a small commercial exploitation of lake trout, since even with hatcheries operating in both the Canada and the US, the population has been slow to increase. Lake trout is not farmed; see Rainbow trout.
Walleye	7,352	34,604	Walleye is marketed in fillets in both fresh and frozen form and as whole, dressed fish. It is highly valued for its firm, finely flaked flesh, which has a succulent texture and a sweet taste.	Commercial catches are caught primarily with gillnets set from boats during the summer and beneath the ice in winter. In some locations, stationary poundnets are also used.

Table C1 (continued): Commonly found fish species in the Waubetek Service, production values, and commercial use.

Fish species	Canadian Production (2003)		Commercial Uses	Landings and Values
Lake whitefish	6,873	7,770	The lake whitefish is a medium-fat fish with large flakes of white flesh and a delicate, sweet flavour. It can be used in most salmon and trout recipes and is also excellent smoked. It is marketed fresh and frozen, whole, dressed and as fillets, but is also available in minced blocks, individually quick frozen and as tray-packed fillets. There is a strong demand for the roe, which is marketed as "golden caviar"	The lake whitefish is commercially fished by gillnets set in open water during the summer and below the ice in the winter. In some areas, trapnets and poundnets are used.
Yellow perch	3,507	16,152	Most of the commercial catch is marketed in the US as fillets, but there is a growing market in Canada, where it is marketed as fresh and frozen whole fish and fillets. Its firm, white flesh and sweet taste make it an excellent pan fish.	The Great Lakes have the greatest abundance of yellow perch and it is the stock that supplies almost the entire commercial fishery. Yellow perch is caught commercially by gillnets, poundnets and trapnets.

Appendix E
Asset Contact List

Table E1: Asset Contact List

#	Region	Category	Name	Contact
1	Georgian Bay	Built	Henvey Inlet Docks	Judy Contin; phone: (705)857-2331
2	Georgian Bay	Built	Magnetawan Docks	Adam Pawis; phone : (705) 383-2477
3	Georgian Bay	Built	Moose Deer Point Docks 1	Moose Deer Point First Nation; phone: (705) 375-5209
4	Georgian Bay	Built	Moose Deer Point Docks 2	Moose Deer Point First Nation; phone: (705) 375-5209
5	Georgian Bay	Built	Moose Deer Point Docks 3	Moose Deer Point First Nation; phone: (705) 375-5209
6	Georgian Bay	Built	Moose Deer Point Docks 4	Moose Deer Point First Nation; phone: (705) 375-5209
7	Georgian Bay	Built	Georgina Island Access Dock	Georgina Island First Nation; phone: (705) 437-1337
8	Georgian Bay	Built	Potential Water Access Point	Judy Contin; phone: (705) 857-2331
9	Georgian Bay	Built	Potential Wharf	Adam Pawis; phone : (705) 383-2477
10	Georgian Bay	Built	Parry Island Dock	Ryan Tabobondung; phone: (705) 746-2531
11	Georgian Bay	Built	Beausoliel Dock/Ferry Access	Beausoleil First Nation; phone: (705) 247-2051
12	Georgian Bay	Built	Potential Marina	Georgina Island First Nation; phone: (705) 437-1337
13	Georgian Bay	Built	East Point Marina	Georgina Island First Nation; phone: (705) 437-1337
14	Georgian Bay	Built	Marina	Georgina Island First Nation; phone: (705) 437-1337
15	Georgian Bay	Built	Ojibway Bay Marina	Steven A. Sanderson ; Phone: (705) 326-5855
16	Georgian Bay	Built	Moose Deer Point Marina	phone: (705) 375-5155
17	Georgian Bay	Built	Unnamed Moose Deer Point Docks 1	Moose Deer Point First Nation; phone: (705) 375-5209

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
18	Georgian Bay	Built	Unnamed Moose Deer Point Docks 2	Moose Deer Point First Nation; phone: (705) 375-5209
19	Georgian Bay	Economic	Aqua-Cage Fisheries Ltd	phone: (705) 774-9613
20	Georgian Bay	Natural	Blair Creek	Adam Pawis; phone : (705) 383-2477
21	Georgian Bay	Natural	Shebeshekong River	Adam Pawis; phone : (705) 383-2477
22	Georgian Bay	Built	Fish Hatchery	Adam Pawis; phone : (705) 383-2477
23	Georgian Bay	Service	Fish Monitoring Station	Adam Pawis; phone : (705) 383-2477
24	Georgian Bay	Built	Industrial Infrastructure	Adam Pawis; phone : (705) 383-2477
25	Georgian Bay	Built	Future Hatchery	Adam Pawis; phone : (705) 383-2477
26	Georgian Bay	Natural	Magnetawan River	Adam Pawis; phone : (705) 383-2477
27	Northeast	Built	Migisi Hatchery	Randy Restoule; phone: (705) 763-2200
28	Northeast	Built	Future Fish Pond	Randy Restoule; phone: (705) 763-2200
29	Northeast	Built	Existing Fish Pond	Randy Restoule; phone: (705) 763-2200
30	Northeast	Natural	Woodcock Lake	Randy Restoule; phone: (705) 763-2200
31	Northeast	Built	Woodcock Lake Launch	Randy Restoule; phone: (705) 763-2200
32	Northeast	Economic	Riverview Cottages	Randy Restoule; phone: (705) 763-2200
33	Northeast	Natural	Fish Habitat Enhancement	Randy Restoule; phone: (705) 763-2200
34	Northeast	Natural	Fish Habitat Enhancement 2	Randy Restoule; phone: (705) 763-2200
35	Northeast	Natural	Fish Habitat Enhancement 3	Randy Restoule; phone: (705) 763-2200
36	Northeast	Natural	Sensitive Fish Habitat	Randy Restoule; phone: (705) 763-2200
37	Northeast	Natural	Sensitive Fish Habitat	Randy Restoule; phone: (705) 763-2200
38	Northeast	Built	Mathews Fish Hatchery	Randy Restoule; phone: (705) 763-2200
39	Northeast	Natural	Fishery	Randy Restoule; phone: (705) 763-2200
40	Northeast	Economic	Cold Spring Camp	Randy Restoule; phone: (705) 763-2200
41	Northeast	Natural	Sensitive Fish Habitat	Randy Restoule; phone: (705) 763-2200
42	Northeast	Built	Old Graveyard Landing	Randy Restoule; phone: (705) 763-2200
43	Northeast	Built	Otter Bay Access	Randy Restoule; phone: (705) 763-2200
44	Northeast	Service	Tikibi Trail	Randy Restoule; phone: (705) 763-2200
45	Northeast	Natural	Memesagamesing Lake	Randy Restoule; phone: (705) 763-2200

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
46	Northeast	Economic	Papsa A Camp	Randy Restoule; phone: (705) 763-2200
47	Northeast	Built	Nipissing Water Access	Thomas Lambert; phone: (705) 753-2050
48	Northeast	Built	Bear Island Access	Temagami First Nation; phone: (705) 237-8943
49	Northeast	Natural	Lake Temagami	Temagami First Nation; phone: (705) 237-8943
50	Northeast	Natural	Lake Nipissing	Thomas Lambert; phone: (705) 753-2050
51	Northeast	Natural	Lake Wahnapitae	Marilyn Nichols: phone: (705) 858-0610
52	Northeast	Natural	French River	Randy Restoule; phone: (705) 763-2200
53	Northeast	Service	College Boreal	phone: (800) 361-6673
54	Northeast	Service	Cambrian College	phone: (705) 566-8101
55	Northeast	Service	Nipissing FN Fisheries Mgmt	Clint Couchie; phone: (705) 753-2050
56	Northeast	Economic	Sudbury Farmers' Market	
57	Northeast	Economic	Herbert Fisheries (Office)	phone: (705) 222-1942
58	Northeast	Economic	Herbert Fisheries	phone: (705) 287-2214
59	Northeast	Service	Living with Lakes Centre	phone: (705) 675-1151
60	Northeast	Service	Laurentian University	phone: (705) 675-1151
61	Northeast	Service	Nipissing University	phone: (705) 474-3450
62	Northeast	Service	Canadore College	phone: (705) 474-7600
63	Northeast	Service	A/OFRC	Peter Meisenhiemer; phone: (705) 472-7888
64	Northeast	Economic	City of Greater Sudbury	phone: (705)-671-2489
65	Northeast	Economic	North Bay	phone: (705) 474-0400
66	Northeast	Built	Highway 11	
67	Northeast	Built	Highway 17	
68	Northeast	Built	Highway 69/400	
69	Northeast	Built	Wahnipitae Docks	Marilyn Nichols: phone: (705) 858-0610
70	Manitoulin	Built	Boat Access	Wikwemikong Lands Director; phone: (705) 859-3122

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
71	Manitoulin	Economic	Waubetek Business Development Corporation	phone: (705) 285-4275
72	Manitoulin	Built	Water Access	Sheguiandah First Nation; phone: (705)368-2781
73	Manitoulin	Natural	Sheguiandah Bay	Sheguiandah First Nation; phone: (705)368-2781
74	Manitoulin	Natural	Lake Mindemoya	M'Chigeeng First Nation; phone: (705) 377-5362
75	Manitoulin	Natural	West Bay	M'Chigeeng First Nation; phone: (705) 377-5362
76	Manitoulin	Built	Wikwemikong Marina	Dwayne Dokum; phone: (705) 859-2036
77	Manitoulin	Built	Breakwater Dock	M'Chigeeng First Nation; phone: (705) 377-5362
78	Manitoulin	Built	M'Chigeeng Marina	M'Chigeeng First Nation; phone: (705) 377-5362
79	Manitoulin	Built	AOK Docking Facility	Kathy Bebamash; phone: (705) 368-2228
80	Manitoulin	Built	Harbourvue Marina	phone: (705) 368-3212
81	Manitoulin	Built	Stillwater Marina	phone: (705) 285-4359
82	Manitoulin	Built	J&G Marina	phone: (705) 285-4293
83	Manitoulin	Natural	McGregor Bay	Whitefish River First Nation; phone: (705) 285-4335
84	Manitoulin	Natural	Bay of Islands	Whitefish River First Nation; phone: (705) 285-4335
85	Manitoulin	Economic	AOK Cages	Kathy Bebamash; phone: (705) 368-2228
86	Manitoulin	Economic	Potential Aquaculture Site	Kathy Bebamash; phone: (705) 368-2228

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
87	Manitoulin	Economic	Buzwah Fisheries	Ben Kanaswe; phone: (705) 859-1807
88	Manitoulin	Economic	Fulltime Fisheries	Armando and Rose Shawanda; phone: (705) 968-0132
89	Manitoulin	Natural	North Channel	
90	Manitoulin	Natural	Bayfield Sound	Sheshewaning First Nation; phone: (705) 283-3292
91	Manitoulin	Natural	Smith Bay	Wikwemikong Lands Director; (705) 859-3122
92	Manitoulin	Natural	Manitowaning Bay	Wikwemikong Lands Director; (705) 859-3122
93	Manitoulin	Natural	South Bay	Wikwemikong Lands Director; (705) 859-3122
94	Northwest	Built	Cold Storage and Icemaking	Arnelda Bennett; phone: (705) 865-2421
96	Northwest	Built	Deepwater Harbour	Patty-Ann Owl; phone: 705-844-1219
97	Northwest	Built	Rearing Pond	Arnelda Bennett; phone: (705) 865-2421
98	Northwest	Economic	Ben's Bait and Tackle	Garden River First Nation; phone: (705) 946-2212
99	Northwest	Built	Batchewana First Nation Dock	Batchewana First Nation; phone: (705) 759-0914
100	Northwest	Built	Government Dock & Boat Launch	Batchewana First Nation; phone: (705) 759-0914
101	Northwest	Natural	Recreational Fishing Derby Lake	Arnelda Bennett; phone: (705) 865-2421
102	Northwest	Natural	Recreational Fishing Derby Lake	Arnelda Bennett; phone: (705) 865-2421
103	Northwest	Economic	Presteve Fisheries	Batchewana First Nation; phone: (705) 759-0914
104	Northwest	Built	Spanish Marina	phone: (705) 844-1077
105	Northwest	Built	Blind River Boat Launch	Mississauga First Nation; phone: (705) 356-1621

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
106	Northwest	Economic	Corbeil Point Fisheries	Batchewana First Nation; phone: (705) 759-0914
107	Northwest	Social	Aboriginal Fisherman	Batchewana First Nation; phone: (705) 759-0914
108	Northwest	Built	Mississagi Falls Boat Launch	Mississauga First Nation; phone: (705) 356-1621
109	Northwest	Economic	Mike Neveau Fisheries	Batchewana First Nation; phone: (705) 759-0914
110	Northwest	Built	Pete Robinson Fish Camp	Batchewana First Nation; phone: (705) 759-0914
111	Northwest	Economic	Bjornaa Fisheries	Batchewana First Nation; phone: (705) 759-0914
112	Northwest	Economic	Agawa Fisheries	Batchewana First Nation; phone: (705) 759-0914
113	Northwest	Built	Boat Launch	Batchewana First Nation; phone: (705) 759-0914
114	Northwest	Economic	Sayers Fisheries	Batchewana First Nation; phone: (705) 759-0914
115	Northwest	Economic	Potential Aquaculture Facility	Patty-Ann Owl; phone: (705) 844-1219
116	Northwest	Built	Serpent River Water Access	Patty-Ann Owl; phone: (705) 844-1219
117	Northwest	Built	Potential Cold Storage Facility	Rhonda Peltier; phone: (705) 842-2247
118	Northwest	Built	Sagamok Water Access	Arnelda Bennett; phone: (705) 865-2421
119	Northwest	Built	Goulais Bay Dock	Batchewana First Nation; phone: (705) 759-0914
120	Northwest	Natural	Chiblow Lake	Mississauga First Nation; phone: (705) 356-1621
121	Northwest	Natural	Matinenda Lake	Mississauga First Nation; phone: (705) 356-1621
122	Northwest	Economic	Potential Aquaculture	Arnelda Bennett; phone: (705) 865-2421

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
123	Northwest	Built	Potential Dock	Arnelda Bennett; phone: (705) 865-2421
124	Northwest	Built	Blind River Dock	Mississauga First Nation; phone: (705) 356-1621
125	Northwest	Natural	Natural Harbour	Batchewana First Nation; phone: (705) 759-0914
126	Northwest	Built	Blind River Dock	Mississauga First Nation; phone: (705) 356-1621
127	Northwest	Built	Thessalon Dock	Rhonda Peltier; phone: (705) 842-2247
128	Northwest	Built	Potential Boat Launch	Arnelda Bennett; phone: (705) 865-2421
129	Northwest	Built	Boat Launch	Arnelda Bennett; phone: (705) 865-2421
130	Northwest	Built	McBean Harbour	Arnelda Bennett; phone: (705) 865-2421
131	Northwest	Economic	Ritchie Falls	Arnelda Bennett; phone: (705) 865-2421
132	Northwest	Economic	Potential Aquaculture	Mississauga First Nation; phone: (705) 356-1621
133	Northwest	Economic	Potential Fish Processing Plant	Rhonda Peltier; phone: (705) 842-2247
134	Northwest	Natural	Sensitive Fish Habitat	Rhonda Peltier; phone: (705) 842-2247
135	Northwest	Natural	Grants Island	Rhonda Peltier; phone: (705) 842-2247
136	Northwest	Natural	Garden River	Garden River First Nation; phone: (705) 946-2212
137	Northwest	Natural	Whalesback	Patty-Ann Owl; phone: (705) 844-1219
138	Manitoulin	Economic	Duke's Fish and Chips	Kathy Bebamash; phone: (705) 368-2228
139	Georgian Bay	Natural	Georgian Bay	
140	Northeast	Economic	Eat Local	phone: (705) 521-6717
141	Northwest	Service	Mississagi River First Nation Lands Department	Mississauga First Nation; phone: (705) 356-1621
142	Northeast	Service	Dokis First Nation Lands Department	Randy Restoule; phone: (705) 763-2200
143	Northeast	Service	Temagami First Nation Lands Department	Temagami First Nation; phone: (705) 237-8943

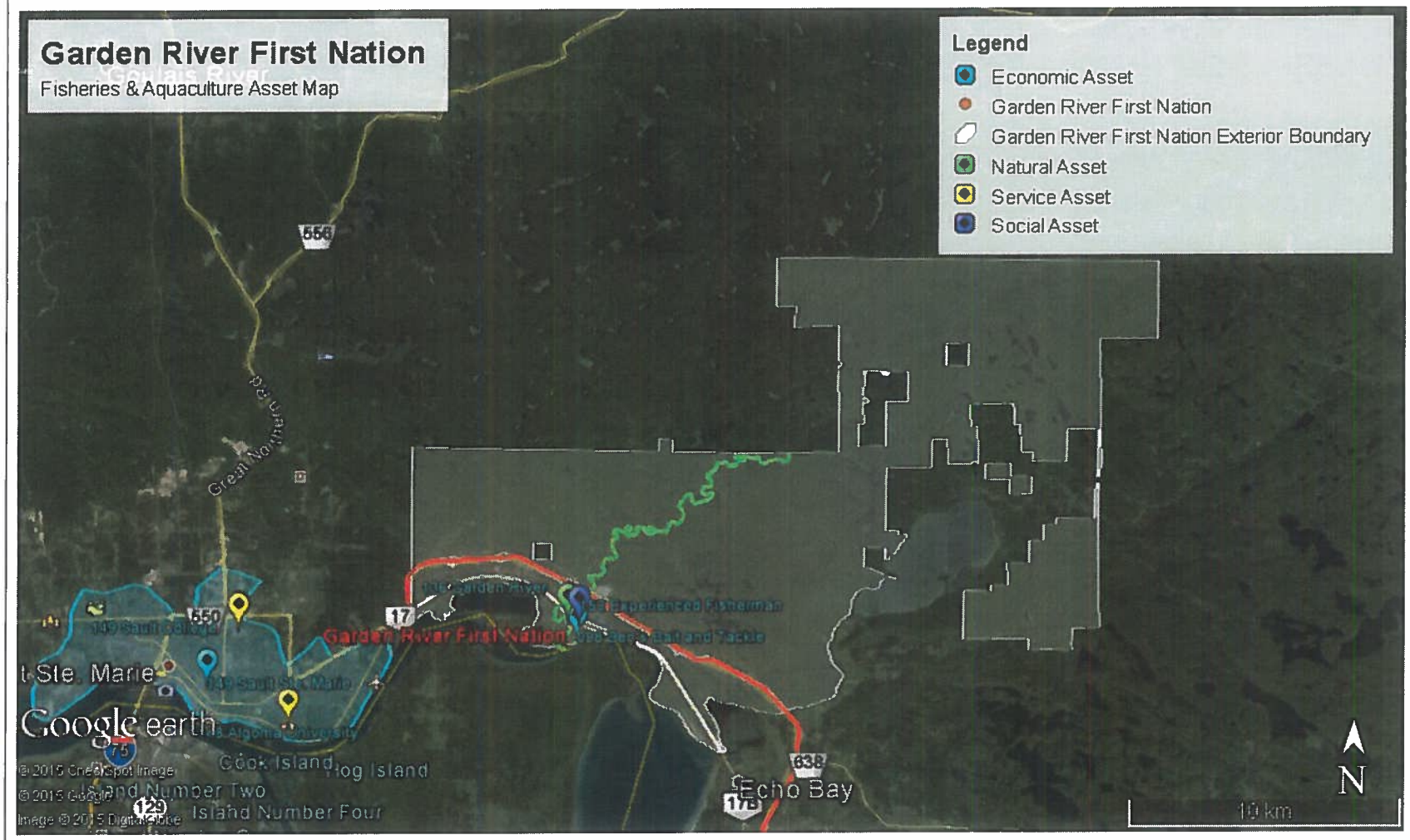
Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
144	Georgian Bay	Natural	Three Mile Lake	Ryan Tabobondung; phone: (705) 746-2531
145	Georgian Bay	Service	Shawanga First Nation Lands Department	705.366.2526
146	Northwest	Service	Environmental Review Panel	Patty-Ann Owl; phone: (705) 844-1219
147	Northeast	Service	Fish-Wiks	Clint Couchie; phone: (705) 753-2050
148	Northwest	Service	Algoma University	phone: (705) 949-2301
149	Northwest	Service	Sault College	phone: (705) 759-2554
150	Northwest	Economic	Sault Ste. Marie	phone: (705) 759-2500
151	Northwest	Built	Bio-Centre	Rhonda Peltier; phone: (705) 842-2247
152	Manitoulin	Social	Experienced Fisherman	Sheguiandah First Nation; Phone: (705)368-2781
153	Northwest	Social	Experienced Fisherman	Garden River First Nation; phone: (705) 946-2212
154	Manitoulin	Social	Experienced Fisherman	Sheshewaning First Nation; phone: (705) 283-3292
155	Manitoulin	Social	Experienced Fisherman	M'Chigeeng First Nation; Phone: (705) 377-5362
156	Manitoulin	Social	Experienced Fisherman	Wikwemikong Lands Director; (705) 859-3122
157	Georgian Bay	Social	Experienced Fisherman	Adam Pawis; phone: (705) 383-2477
158	Manitoulin	Social	Experienced Fisherman	Kathy Bebamash; phone: (705) 368-2228
159	Georgian Bay	Social	Wasauksing First Nation Fisheries Skills	Ryan Tabobondung; phone: (705) 746-2531
160	Northwest	Social	Independent Fisherman	Mississauga First Nation; phone: (705) 356-1621
161	Northwest	Social	Fisheries Skills	Mississauga First Nation; phone: (705) 356-1621

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
162	Manitoulin	Social	Fish Processing Skills	Kathy Bebamash; phone: (705) 368-2228
163	Manitoulin	Social	Fisheries Skills	M'Chigeeng First Nation; Phone: (705) 377-5362
164	Northwest	Social	Serpent River Communal Licence	Patty-Ann Owl; phone: (705) 844-1219
165	Manitoulin	Built	Fisheries Equipment	Sheguiandah First Nation; phone: (705) 368-2781
166	Northeast	Built	Fisheries Equipment	Randy Restoule; phone: (705) 763-2200
167	Northeast	Built	Nipissing Fish Processing Plant	Clint Couchie; phone: (705) 753-2050
168	Manitoulin	Built	Manitoulin Hotel	phone: (705) 368-9966
169	Manitoulin	Built	Kool-It Ice	phone: (705) 368-2550
170	Northwest	Natural	Lauzon Lake	Mississauga First Nation; phone: (705) 356-1621
171	Northeast	Built	Mine Site	Marilyn Nichols: phone: (705) 858-0610
172	Northeast	Natural	Post Creek	Marilyn Nichols: phone: (705) 858-0610
173	Northeast	Natural	East Bass Lake	Marilyn Nichols: phone: (705) 858-0610
174	Northeast	Natural	Round Lake	Heather Sawdon; phone: (705) 692-3651

Appendix F
Community Asset Maps



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F9: Garden River First Nation		
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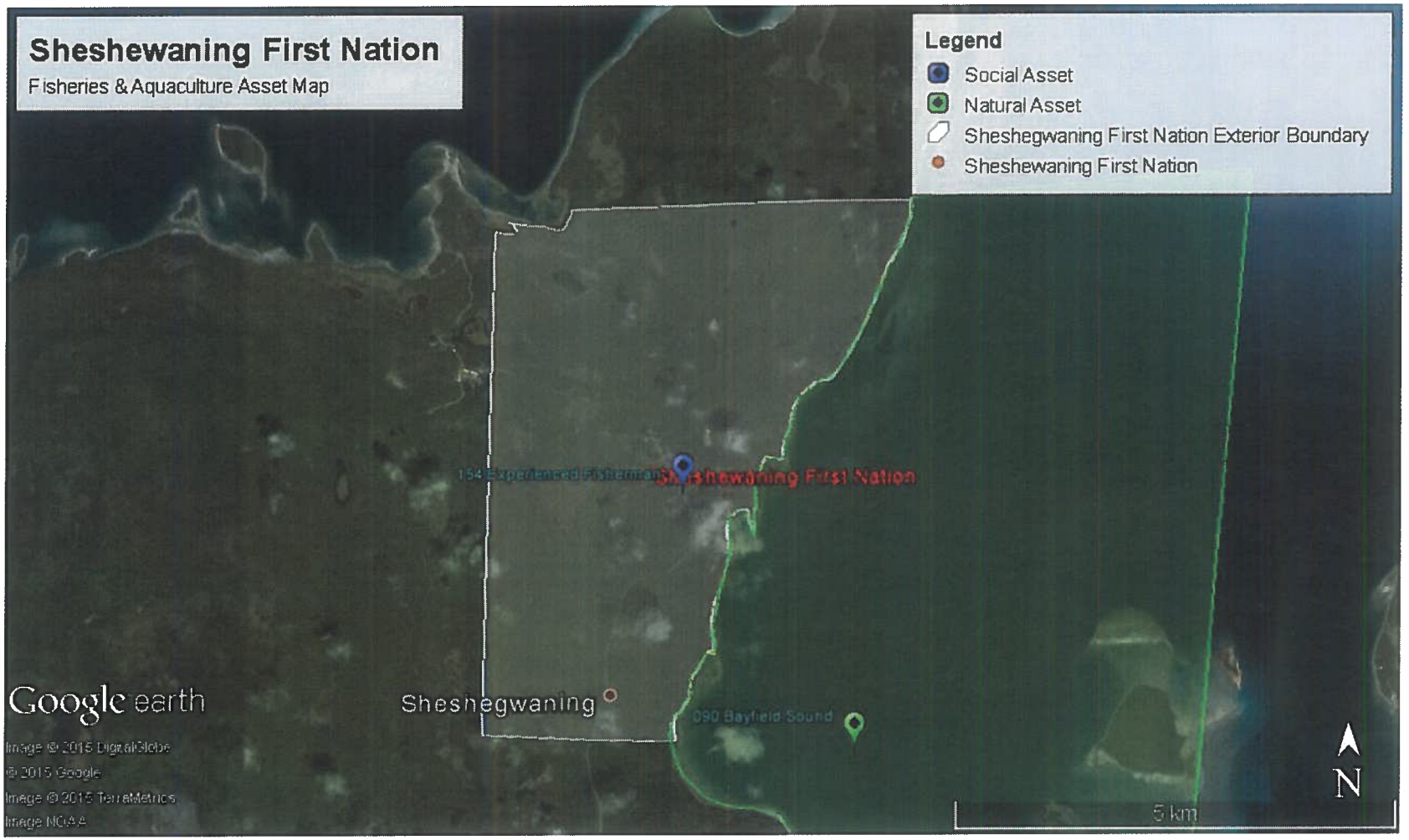
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



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SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015

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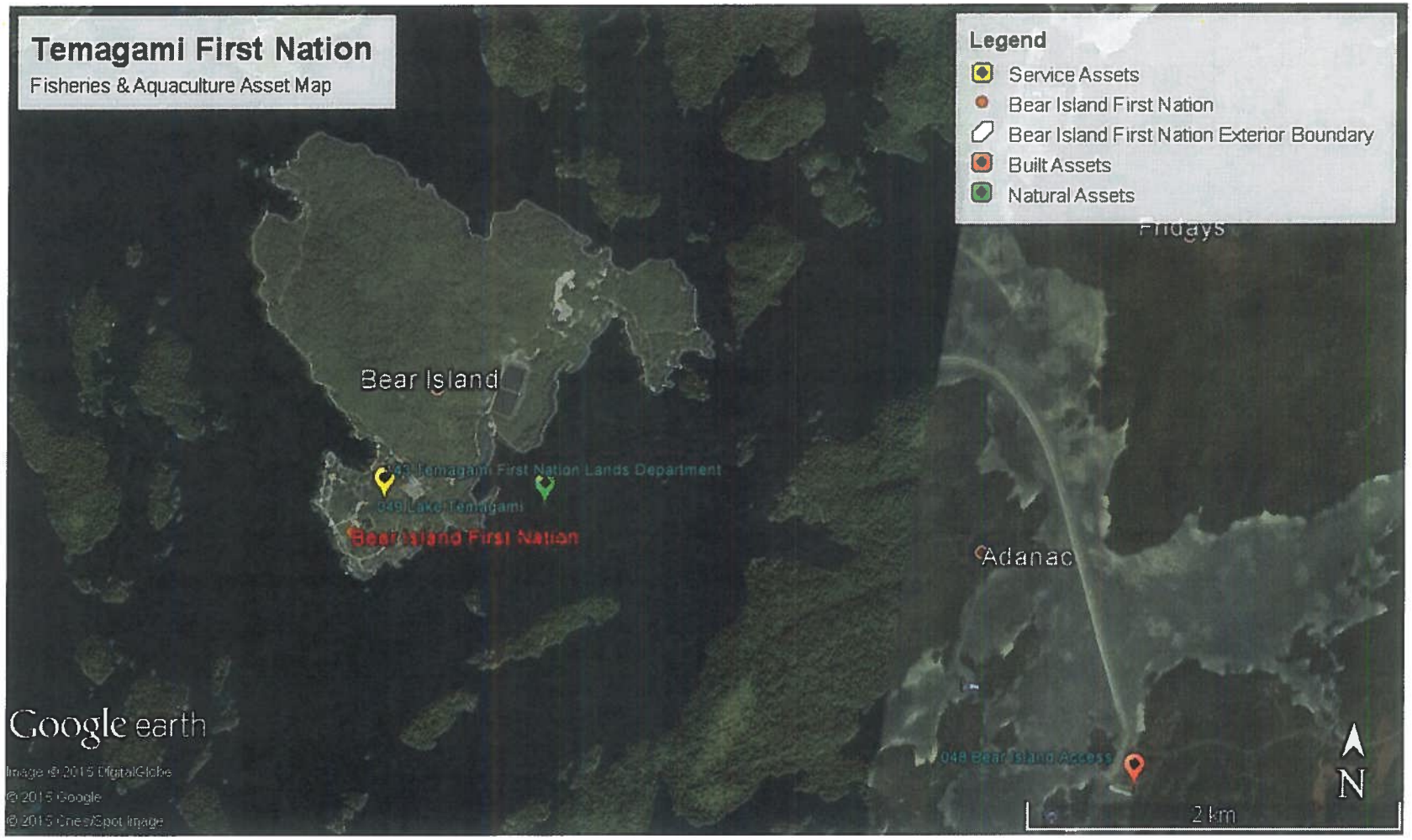
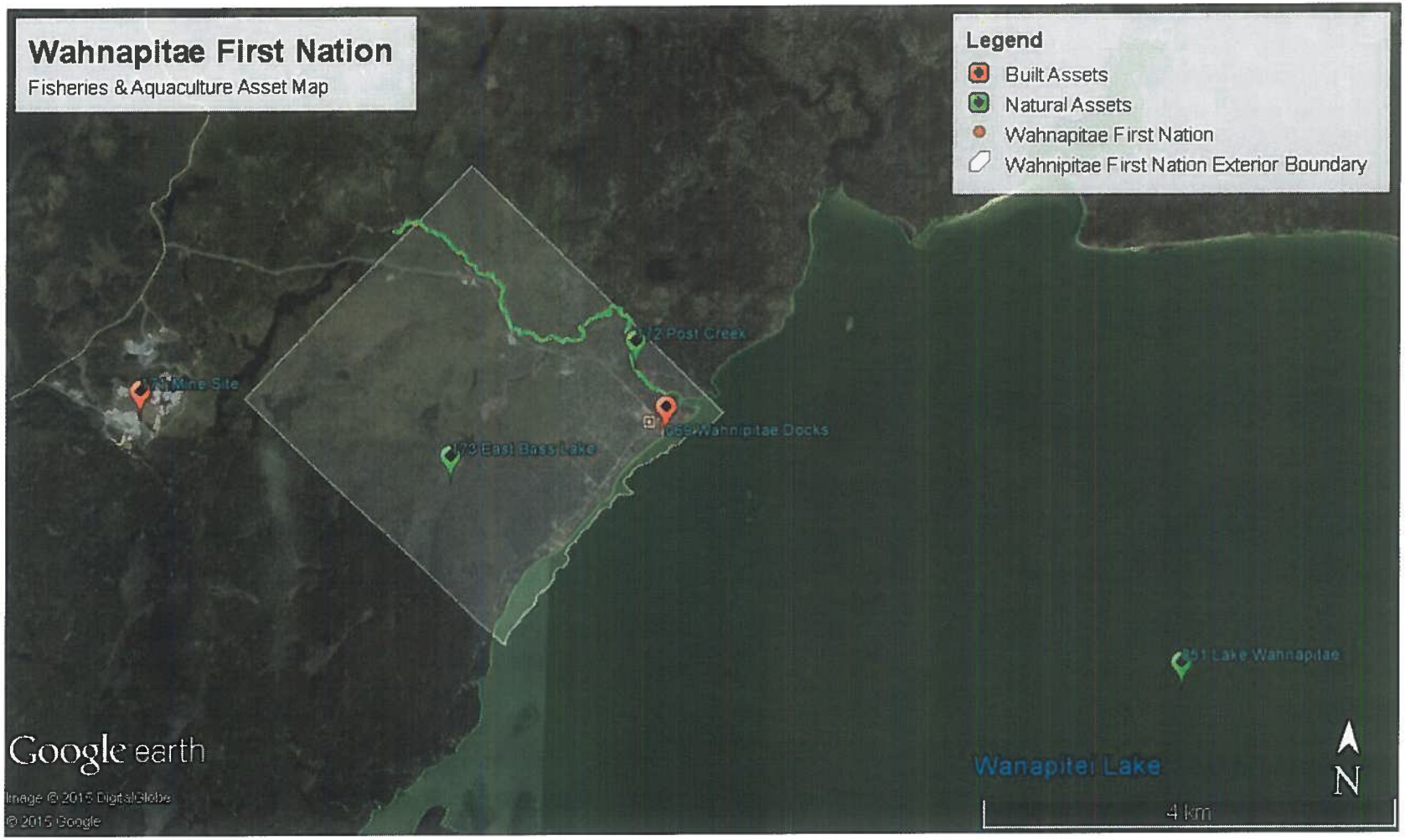
Sudbury, ON P3A 3T0



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F20: Temagami First Nation			
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping			
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015	

LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F21: Thessalon First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F22: Wahnapitae First Nation		
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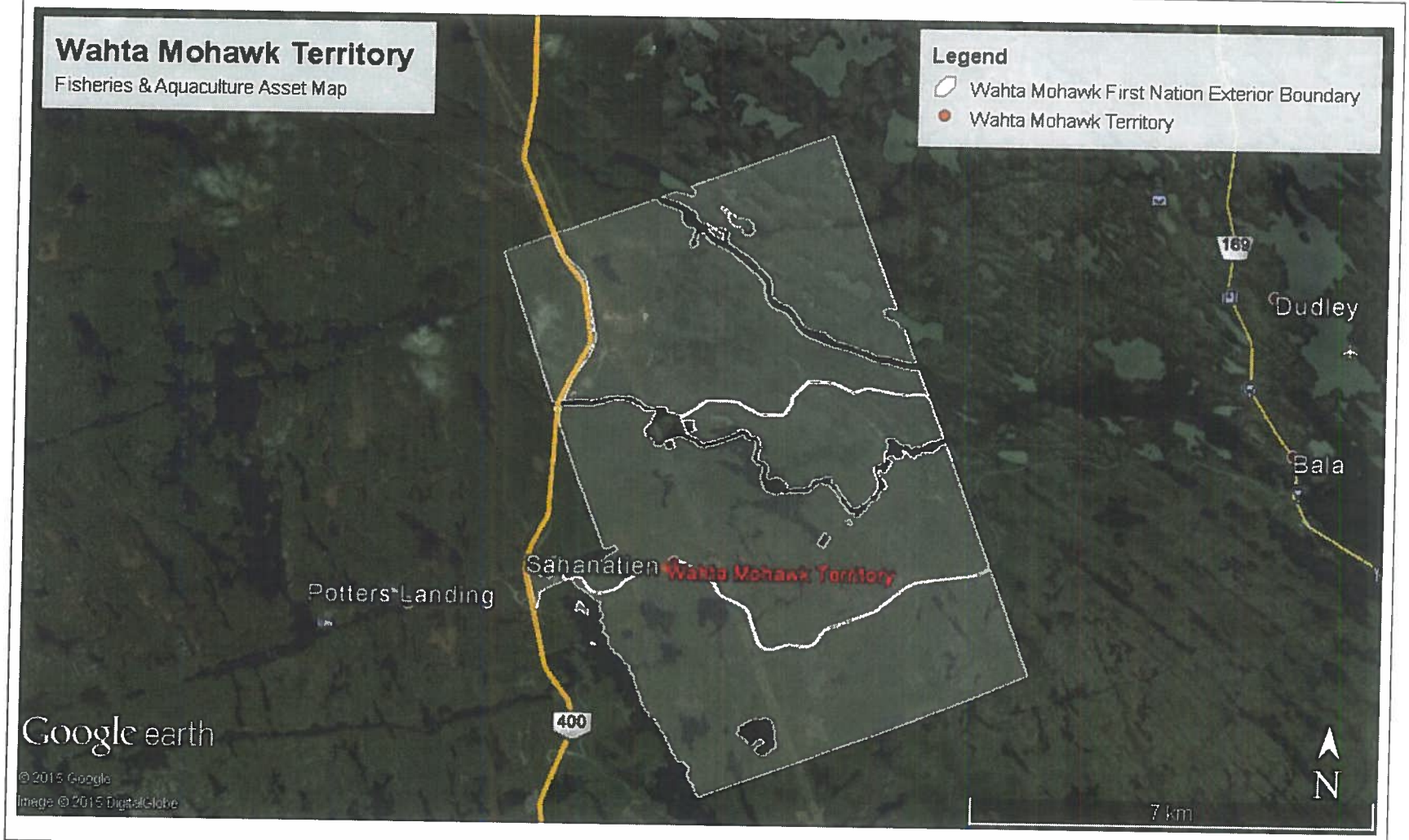
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F23: Wahta Mohawk Territory		
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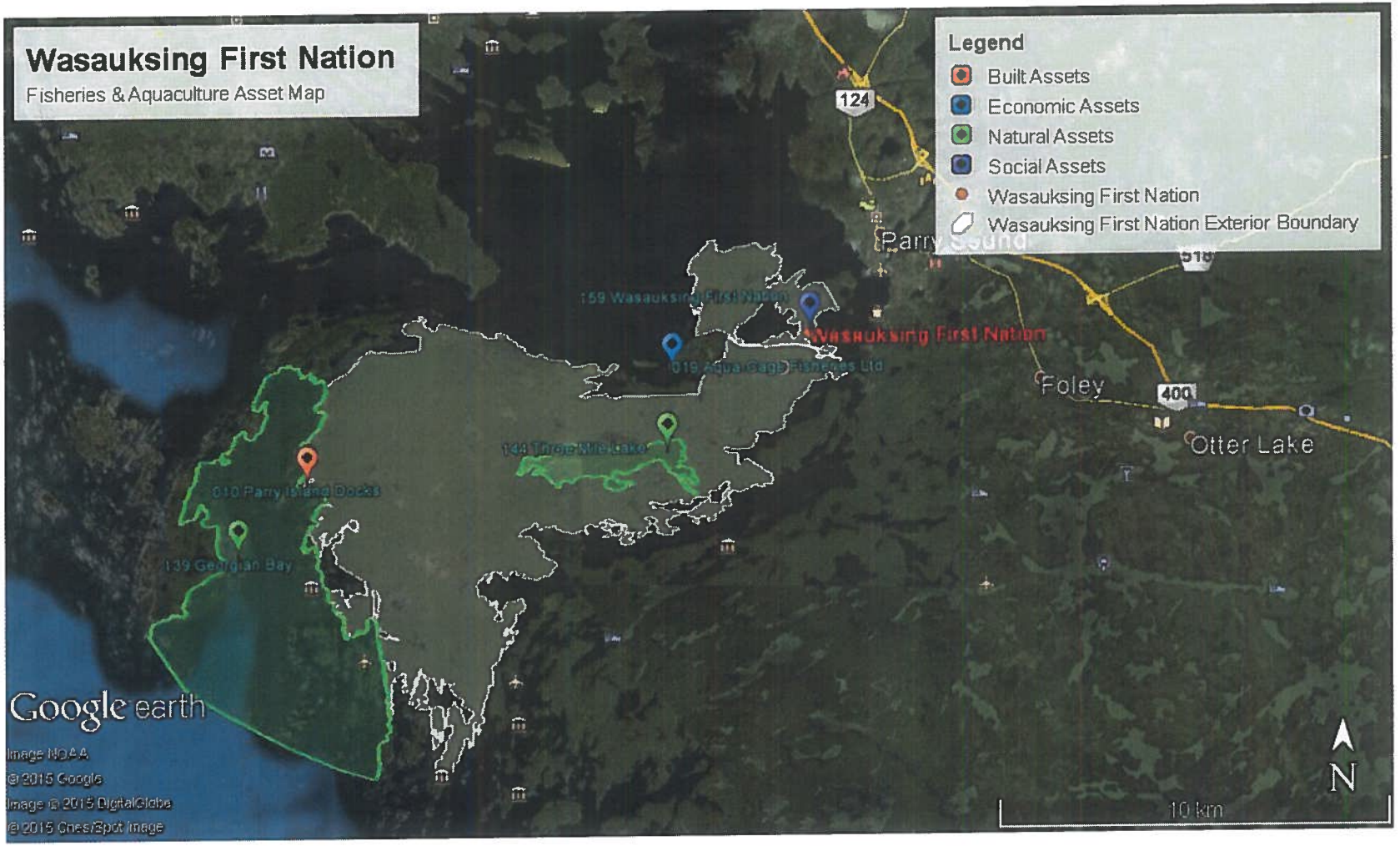
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F24: Wasauksing First Nation		
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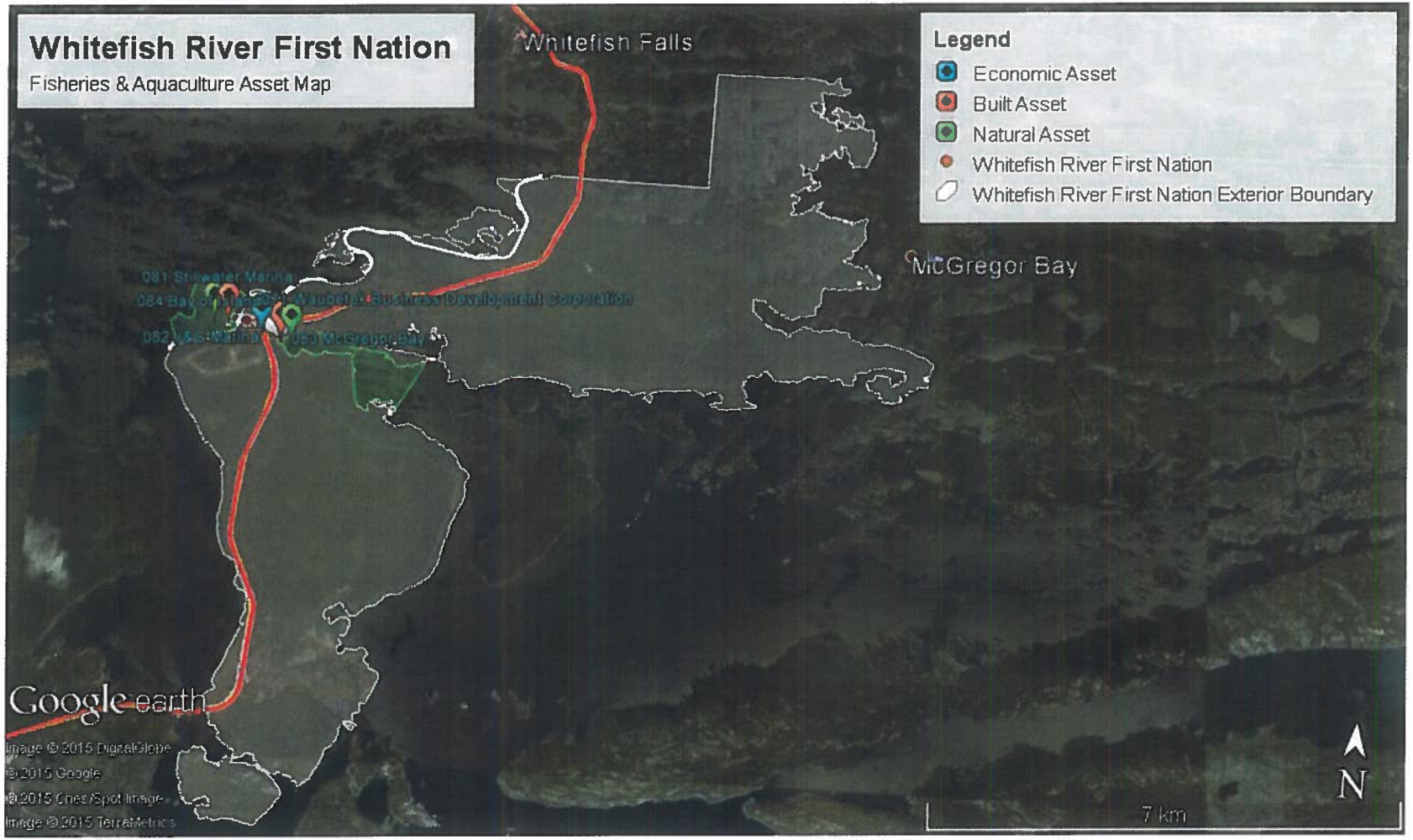
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F25: Whitefish River First Nation		
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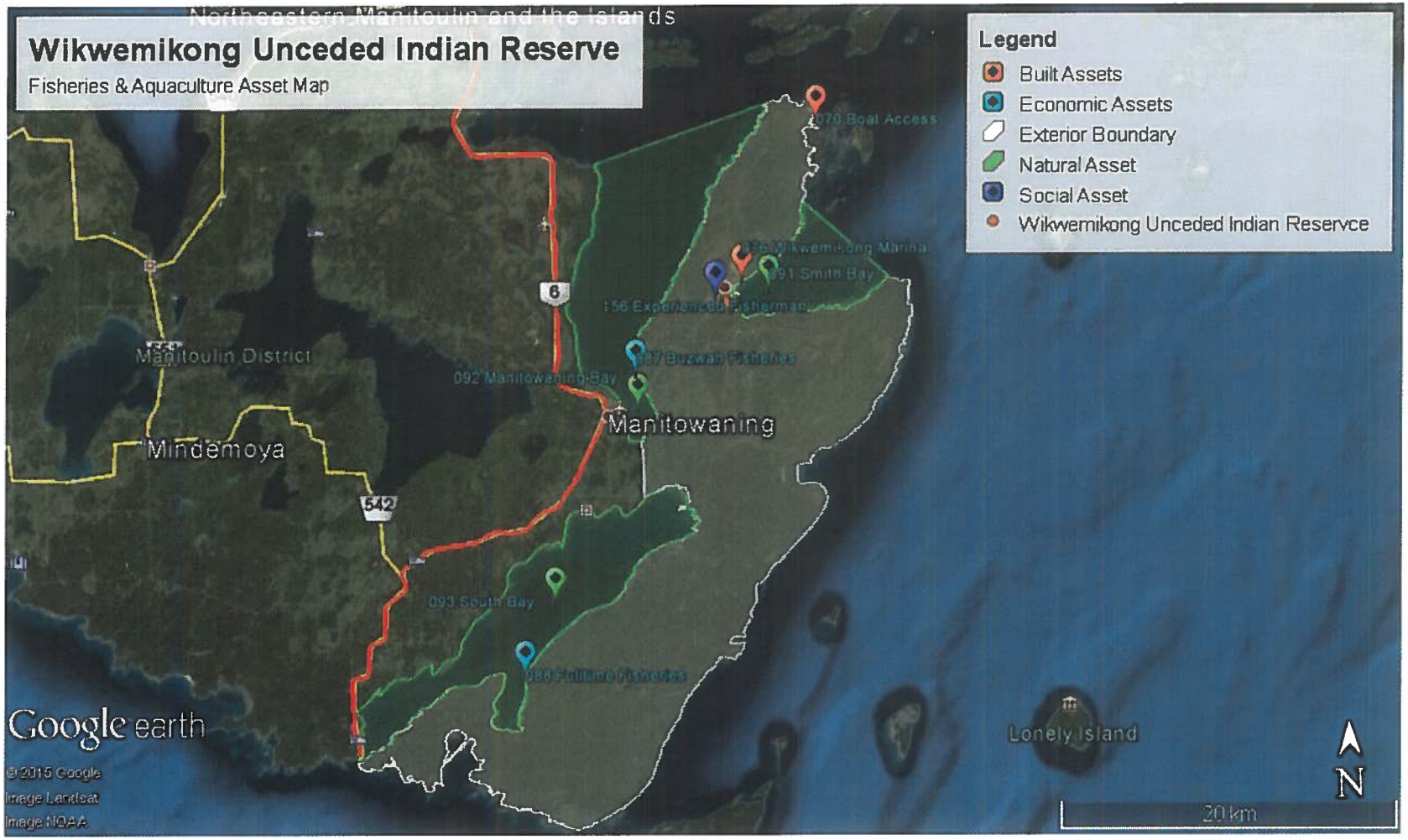
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F26: Wikwemikong Unceded Indian Reserve		
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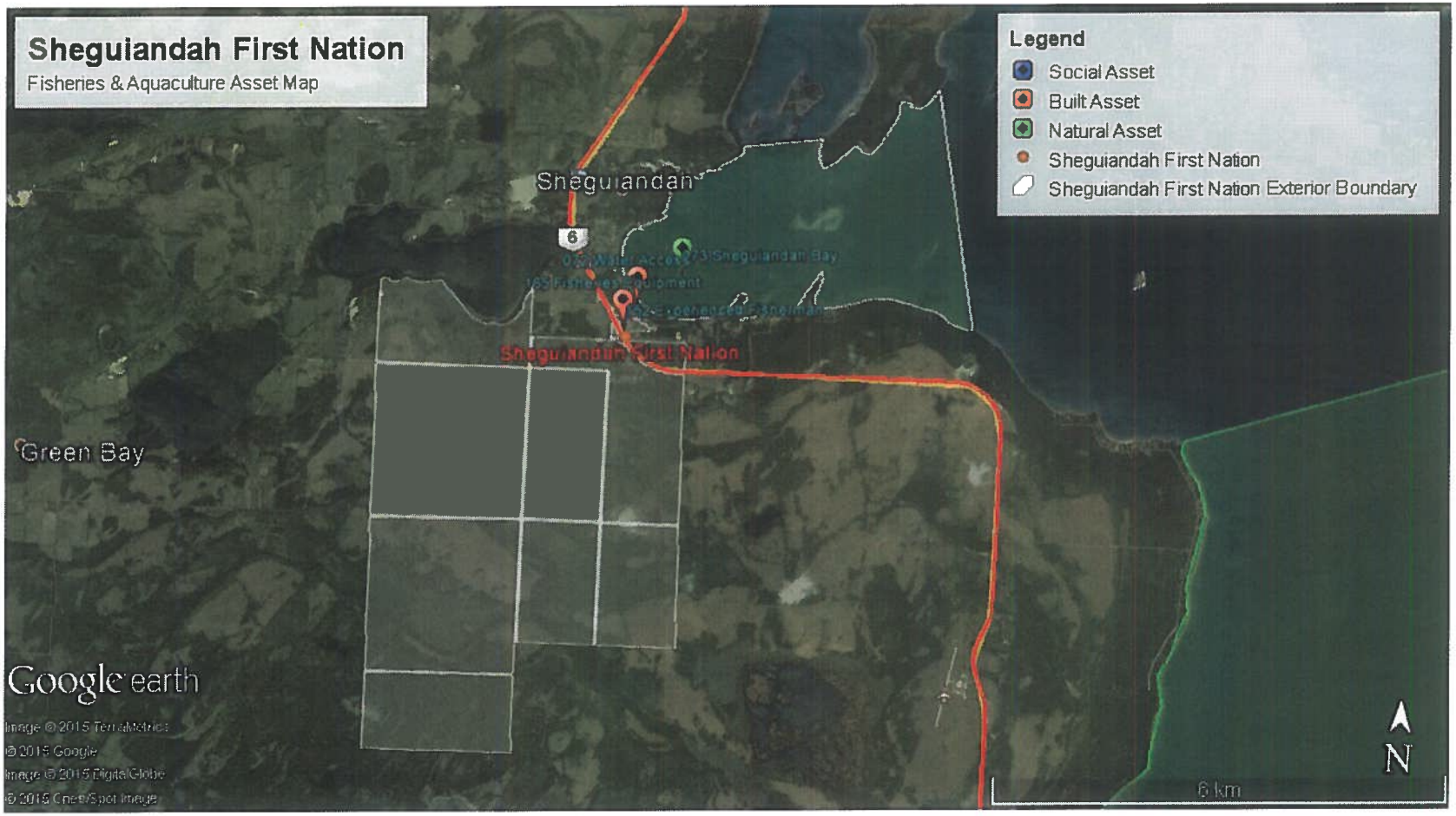
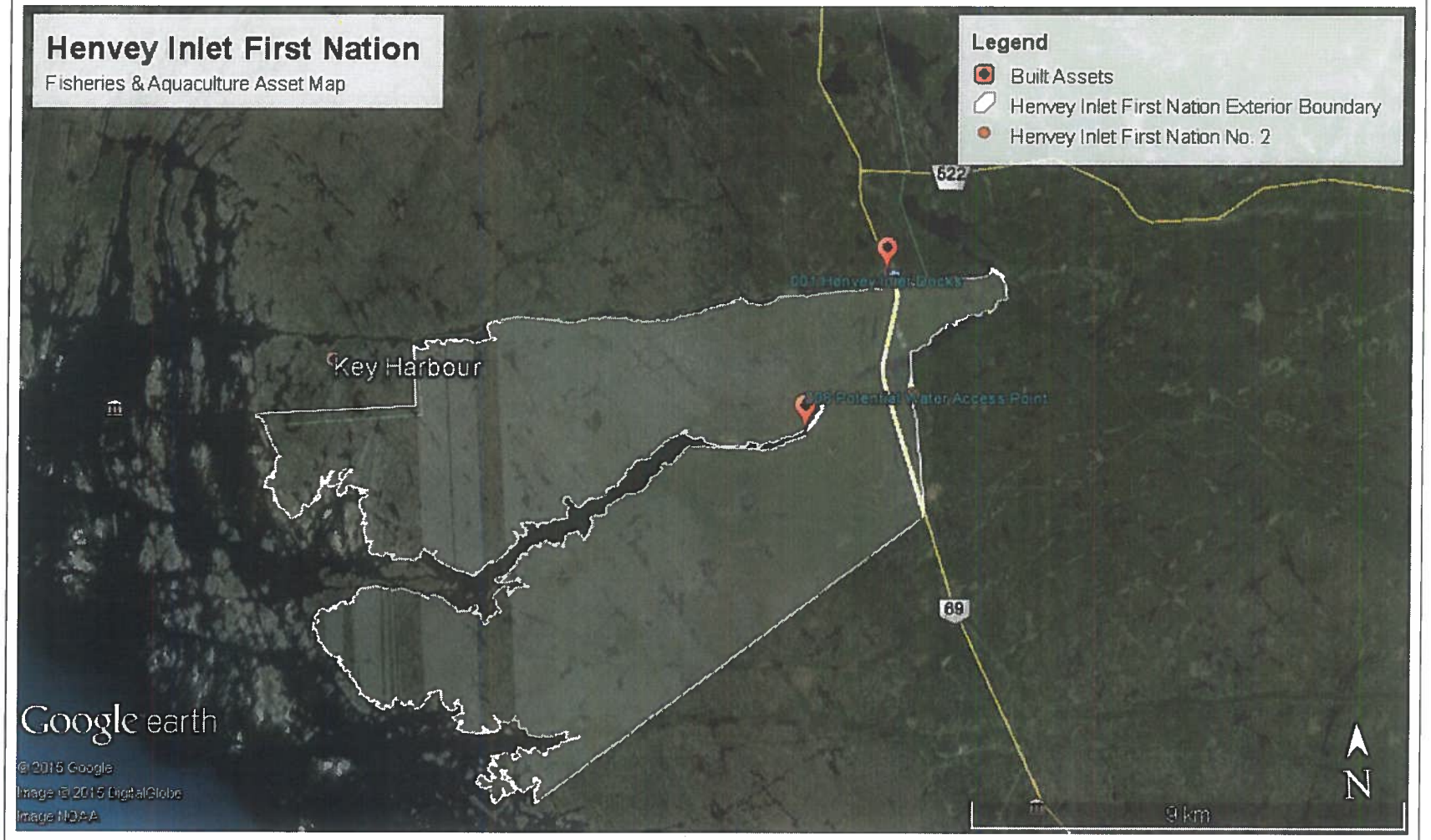
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015

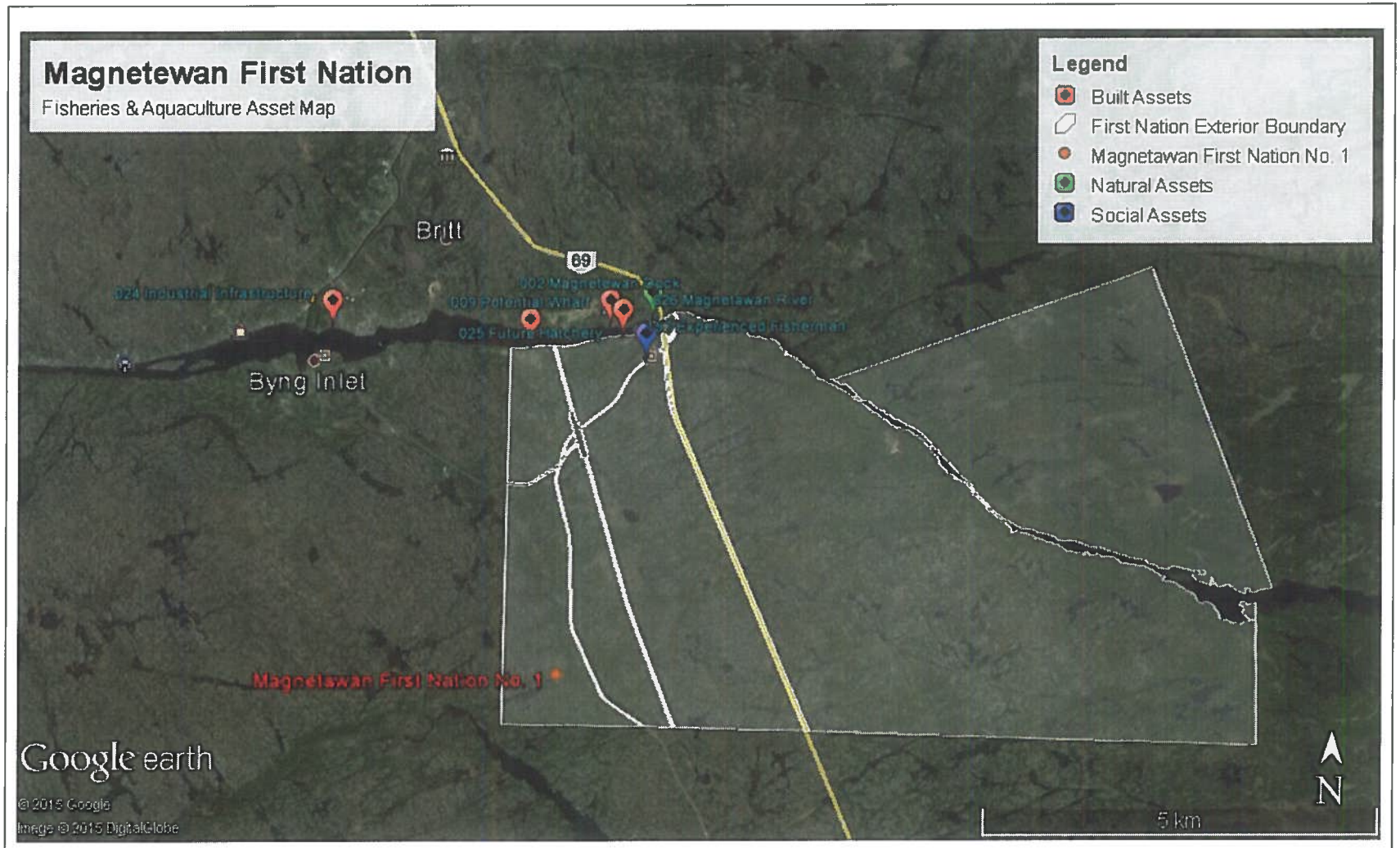
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F27: Zhiibahaasing First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F28: Sheguiandah First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015

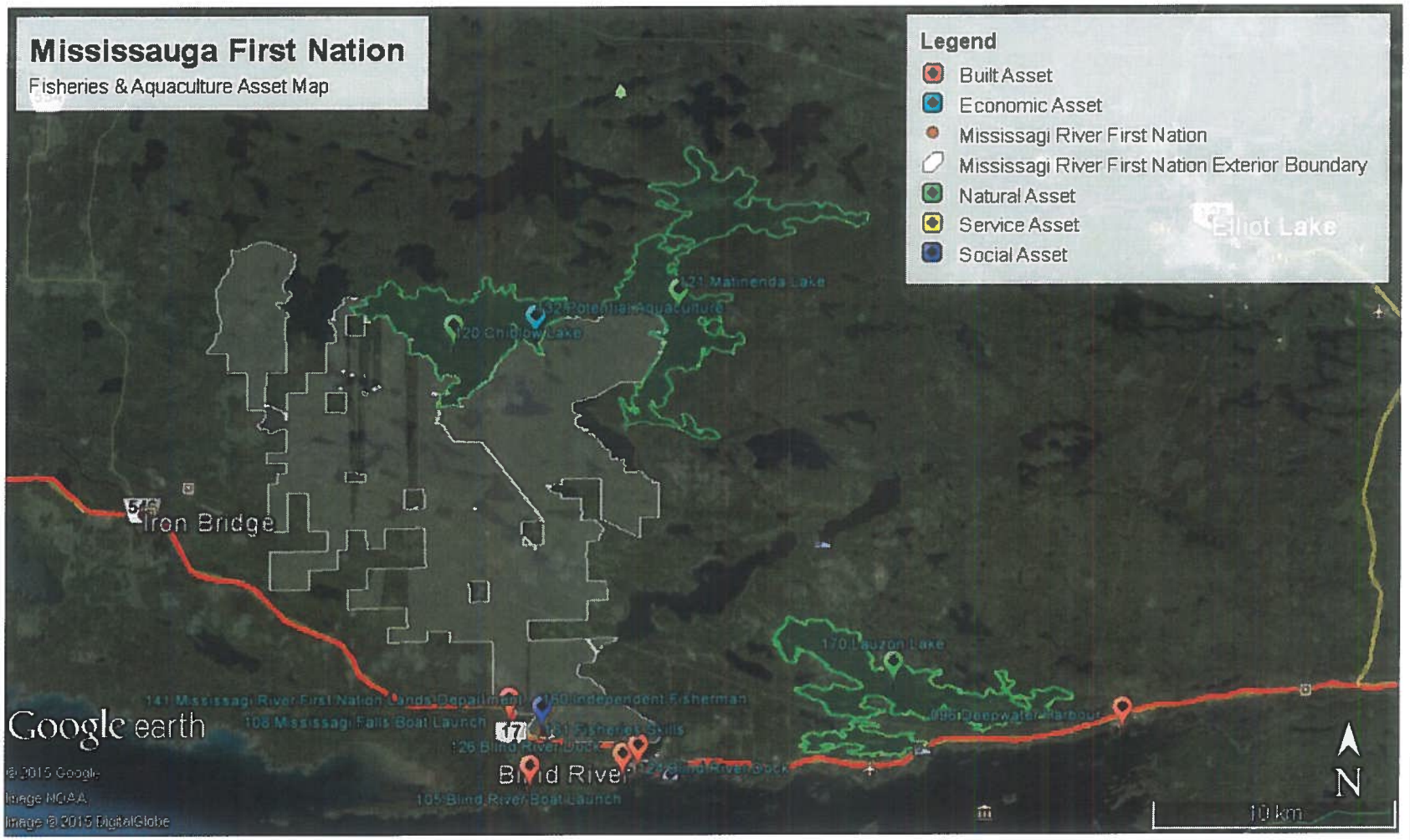


LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F10: Henvey Inlet First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015

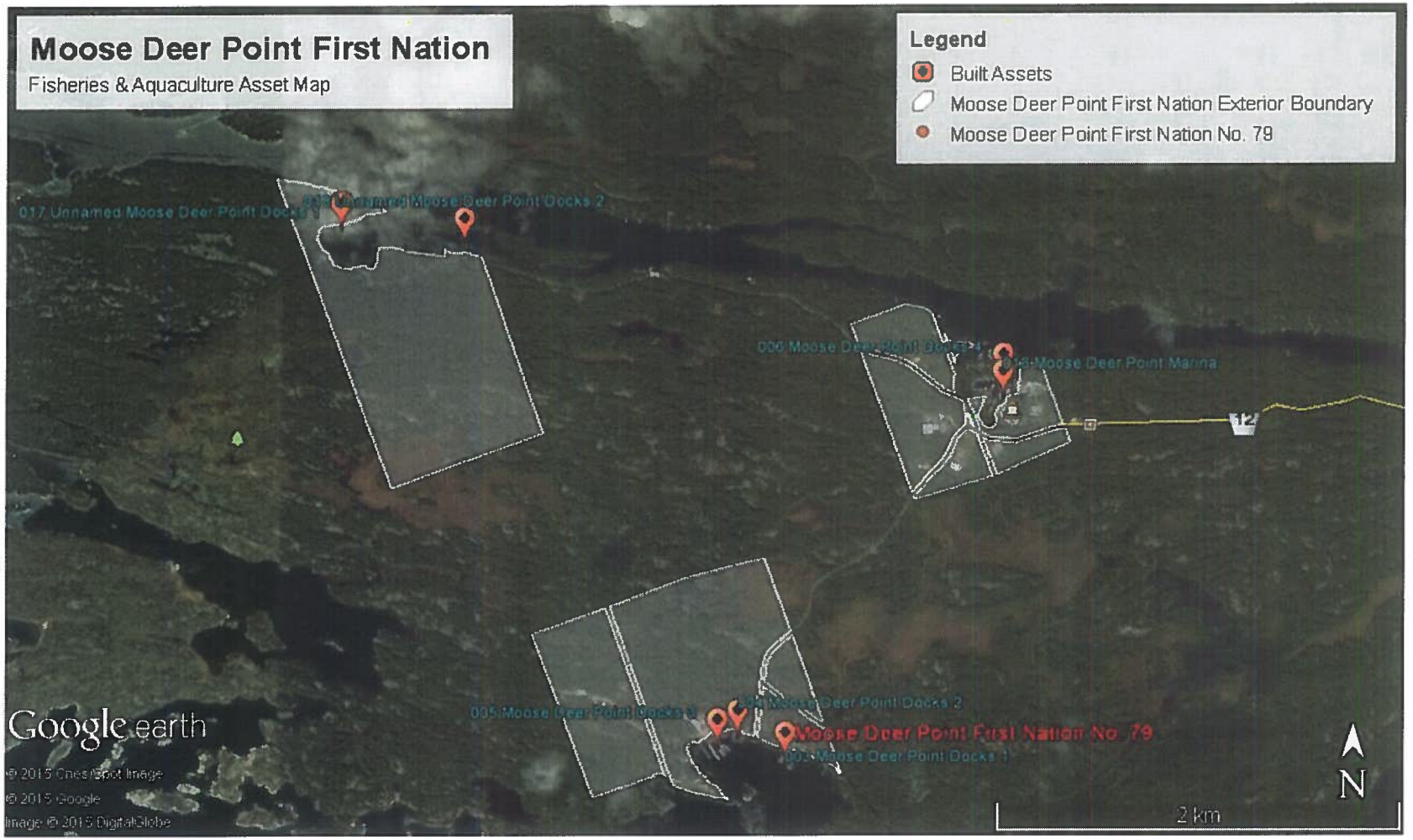


LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F11: Magnetawan First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015

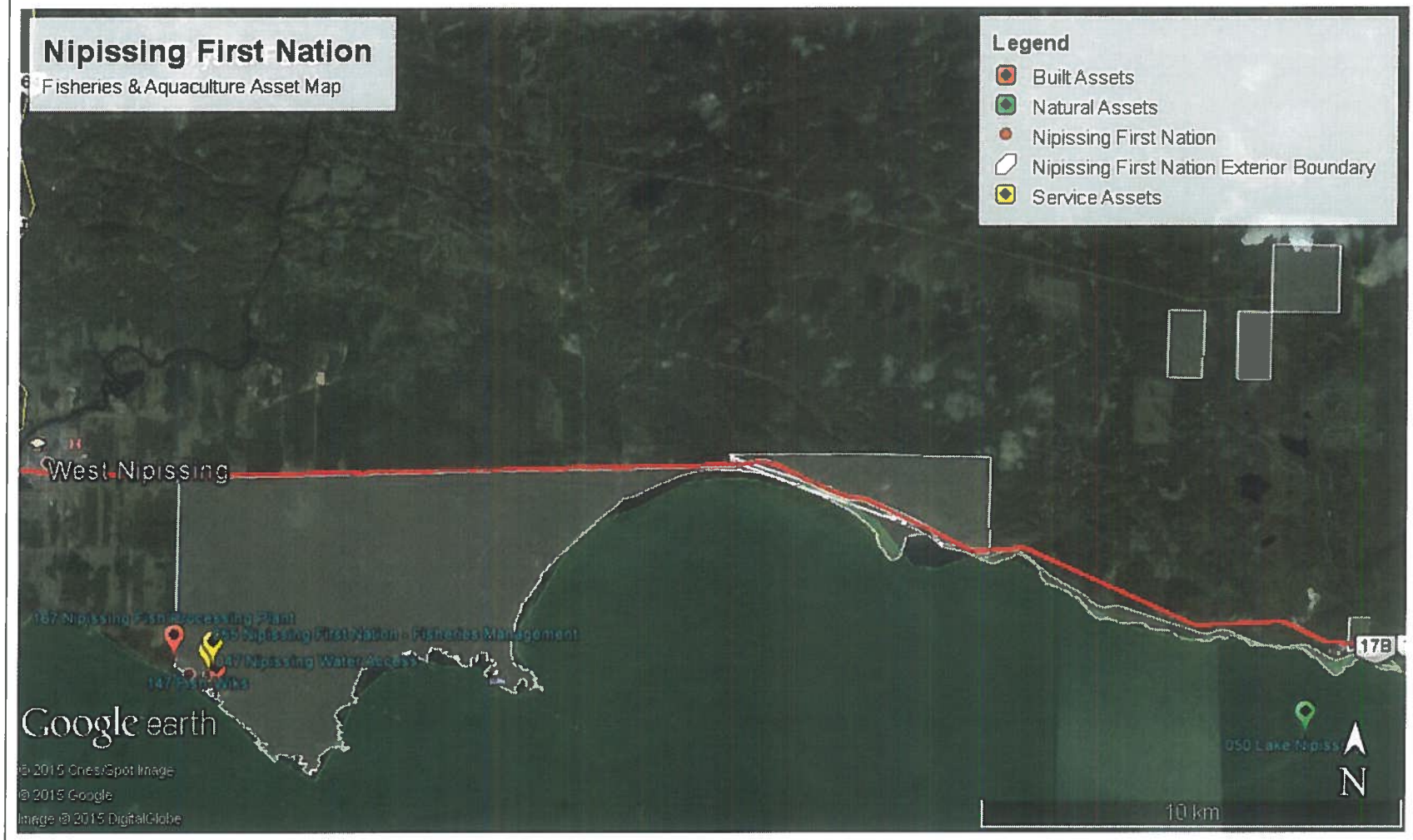
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F12: M'Chigeeng First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



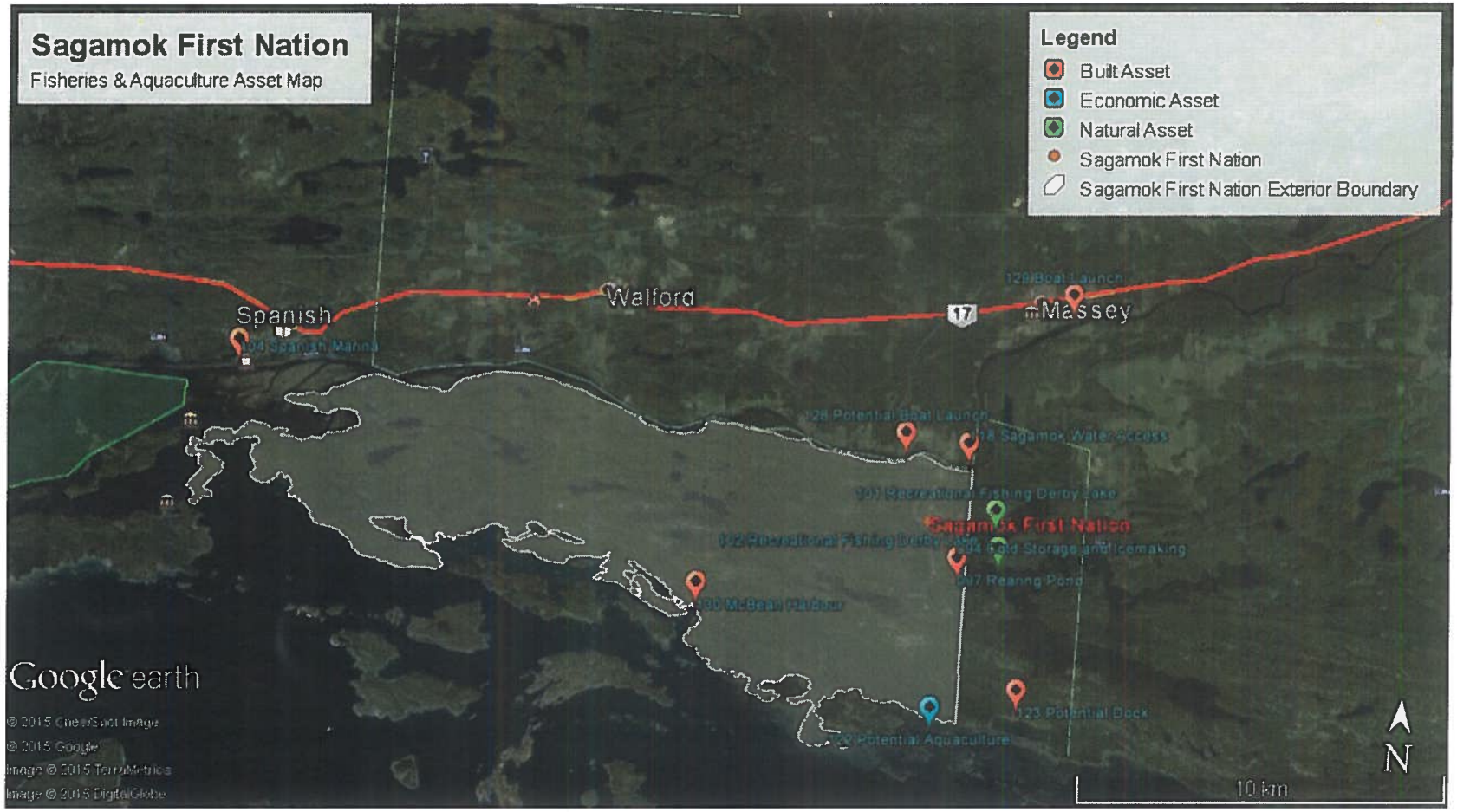
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F13: Mississauga First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



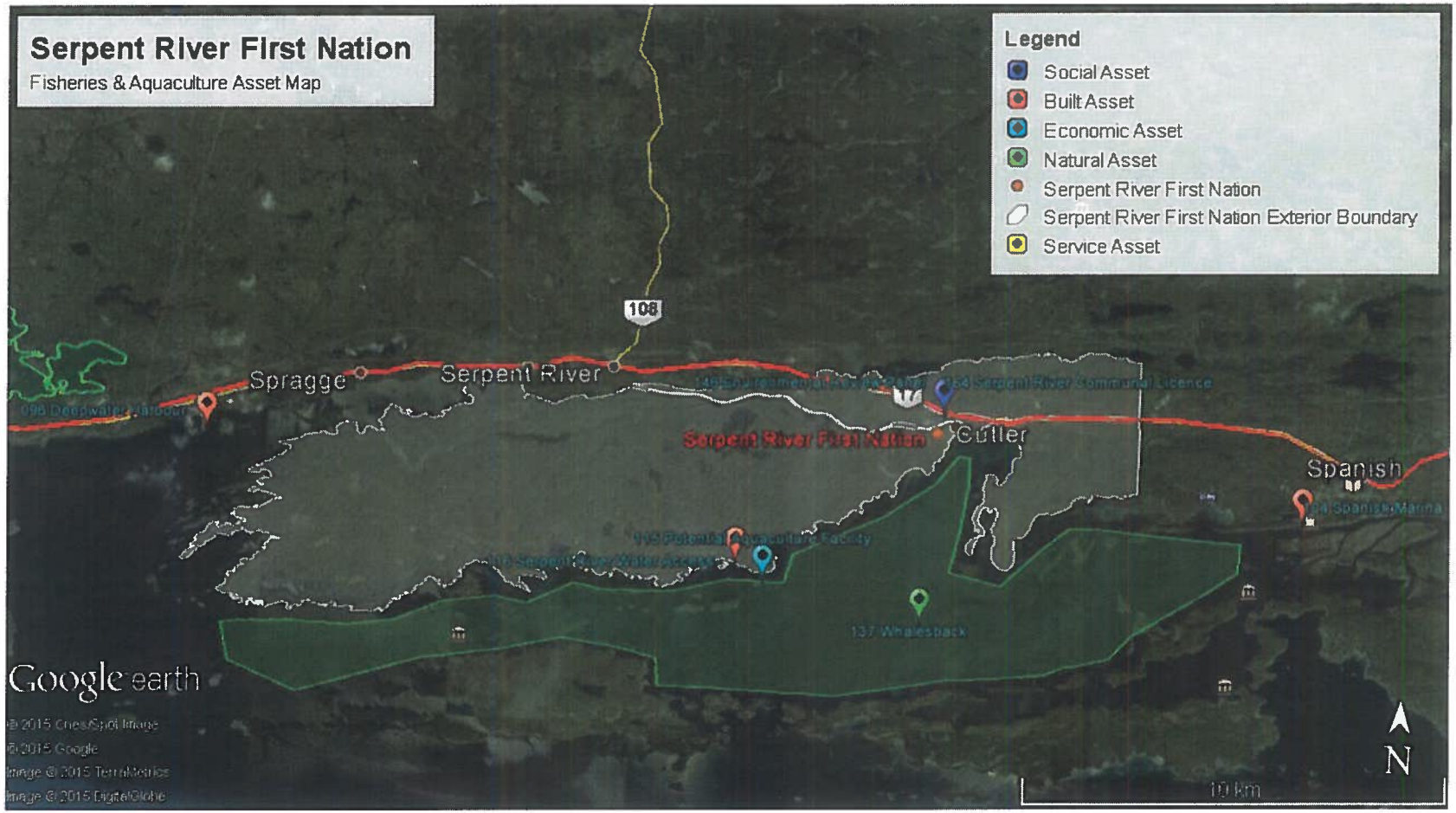
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F14: Moose Deer Point First Nation			
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping			
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015	



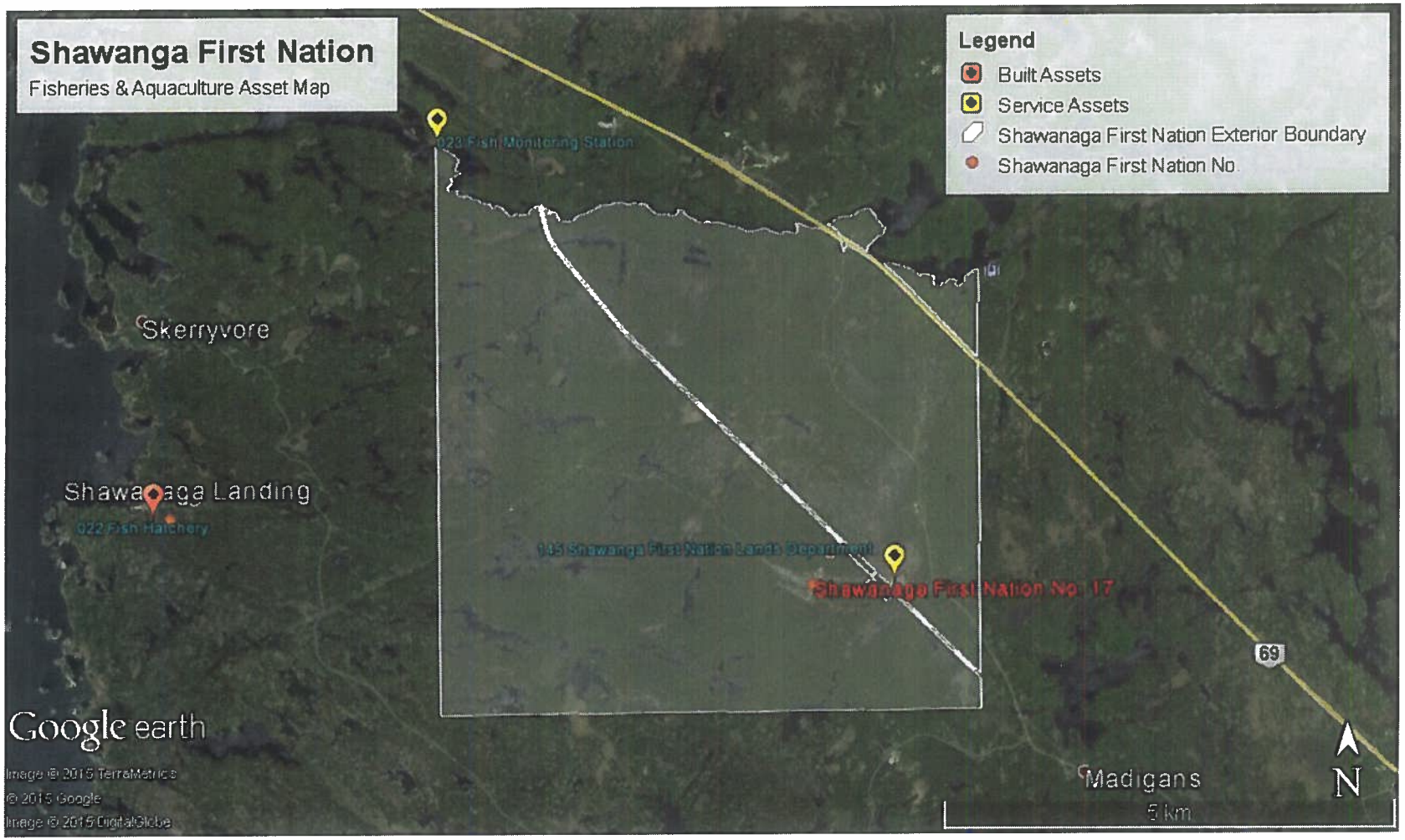
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F15: Nipissing First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



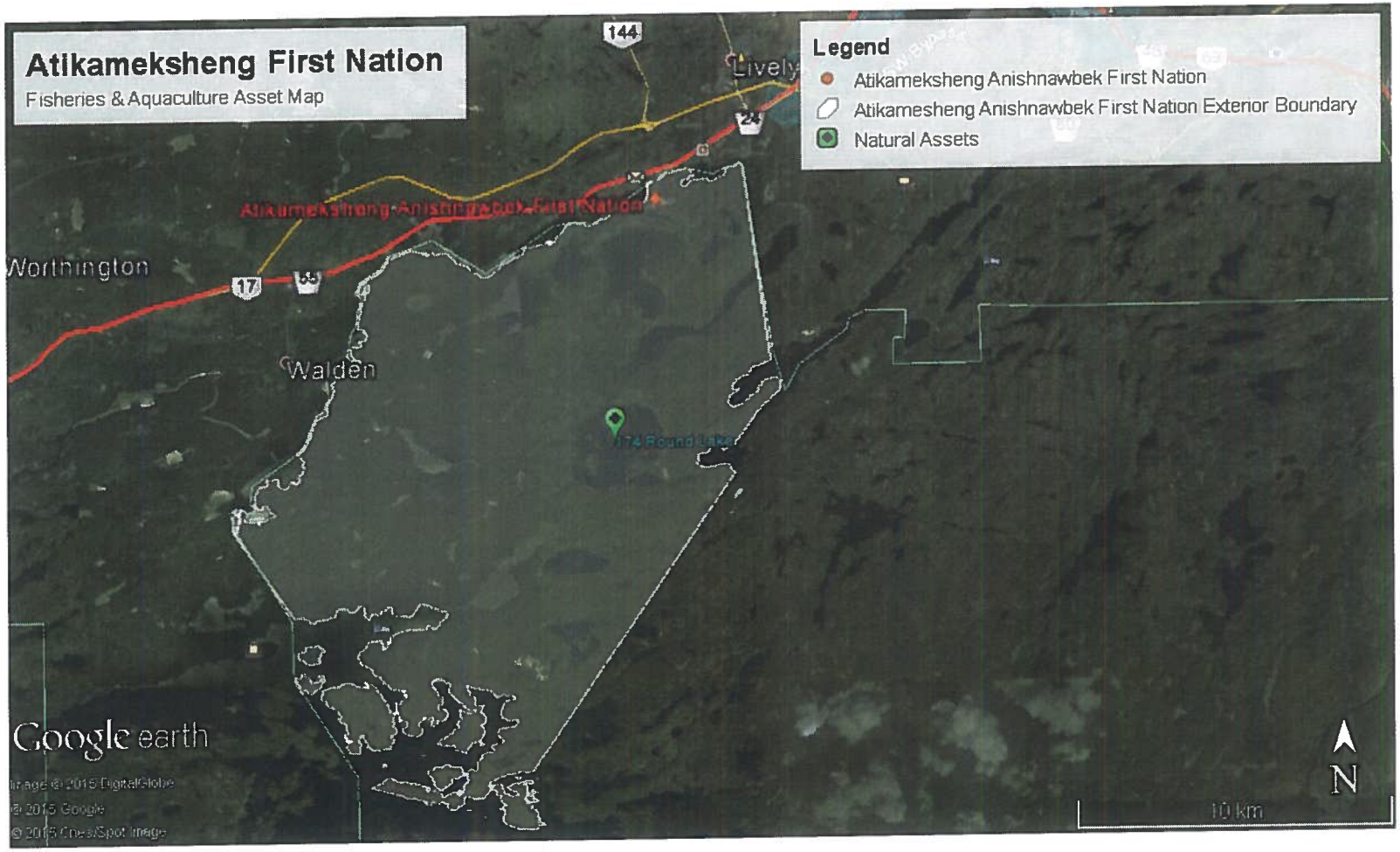
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F16: Sagamok First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F17: Serpent River First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015

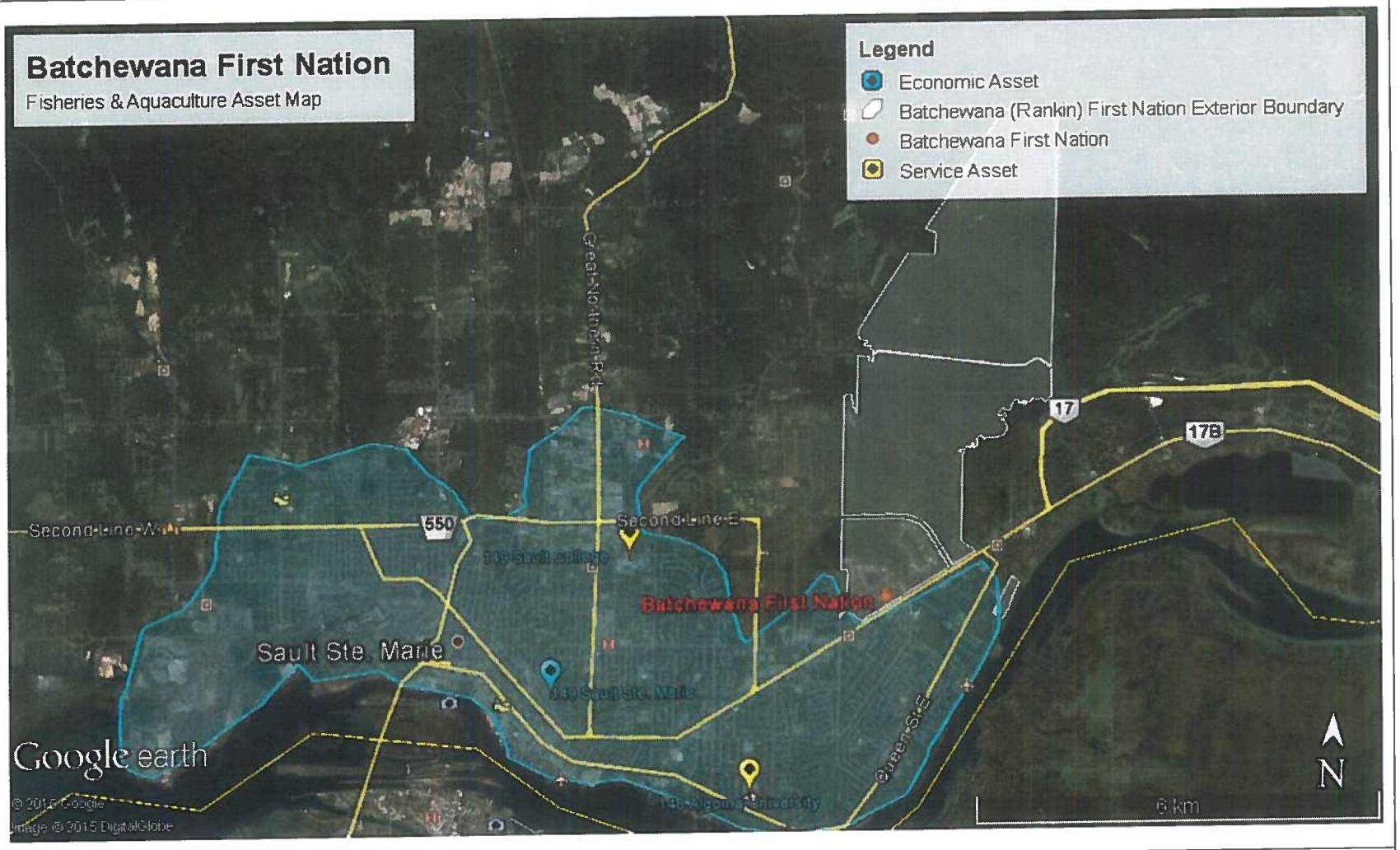


LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F18: Shawanga First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F1: Atikameksheng Anishnawbek First Nation			
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping			
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015	

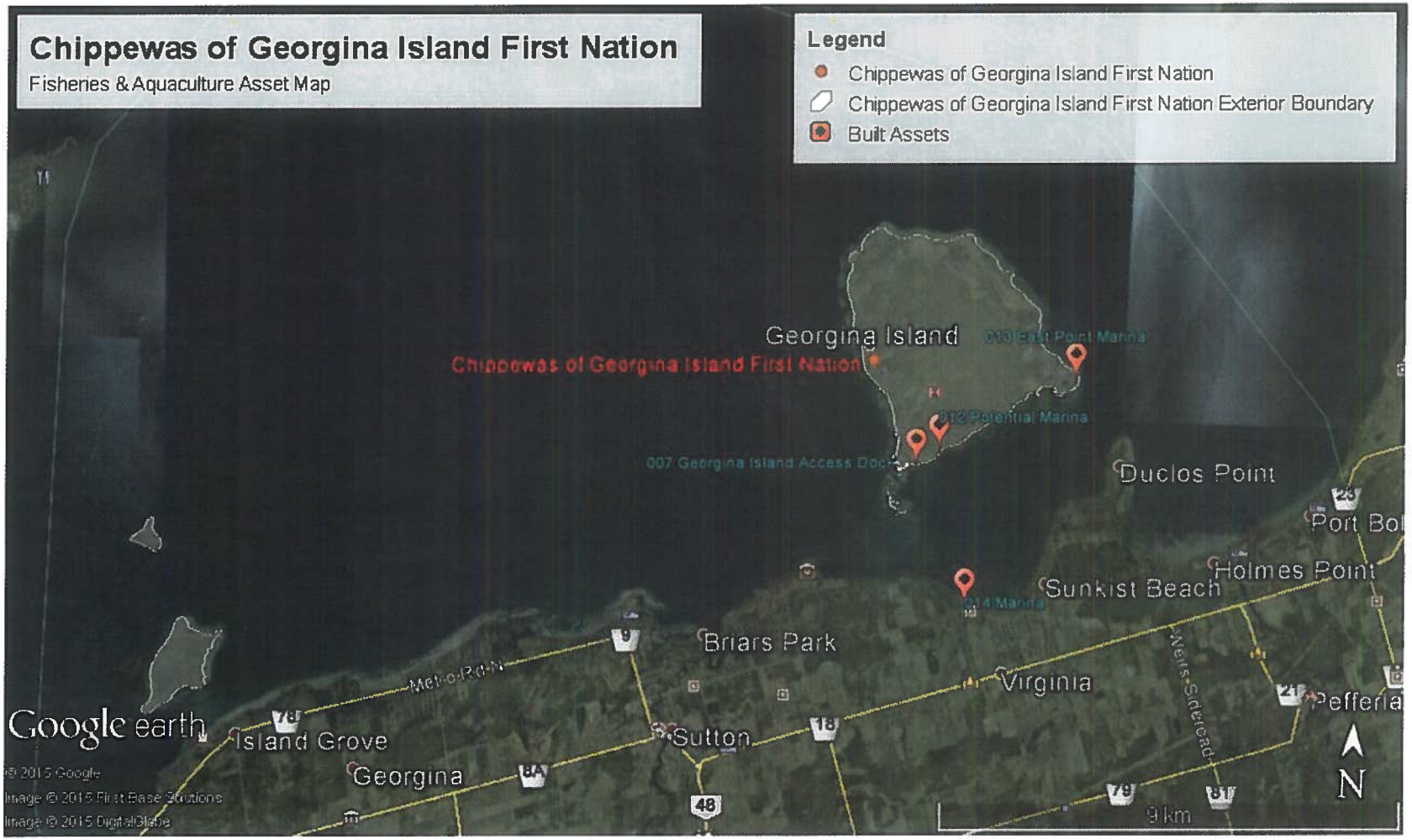
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F2: Aundeck Omni Kaning First Nation			
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping			
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015	



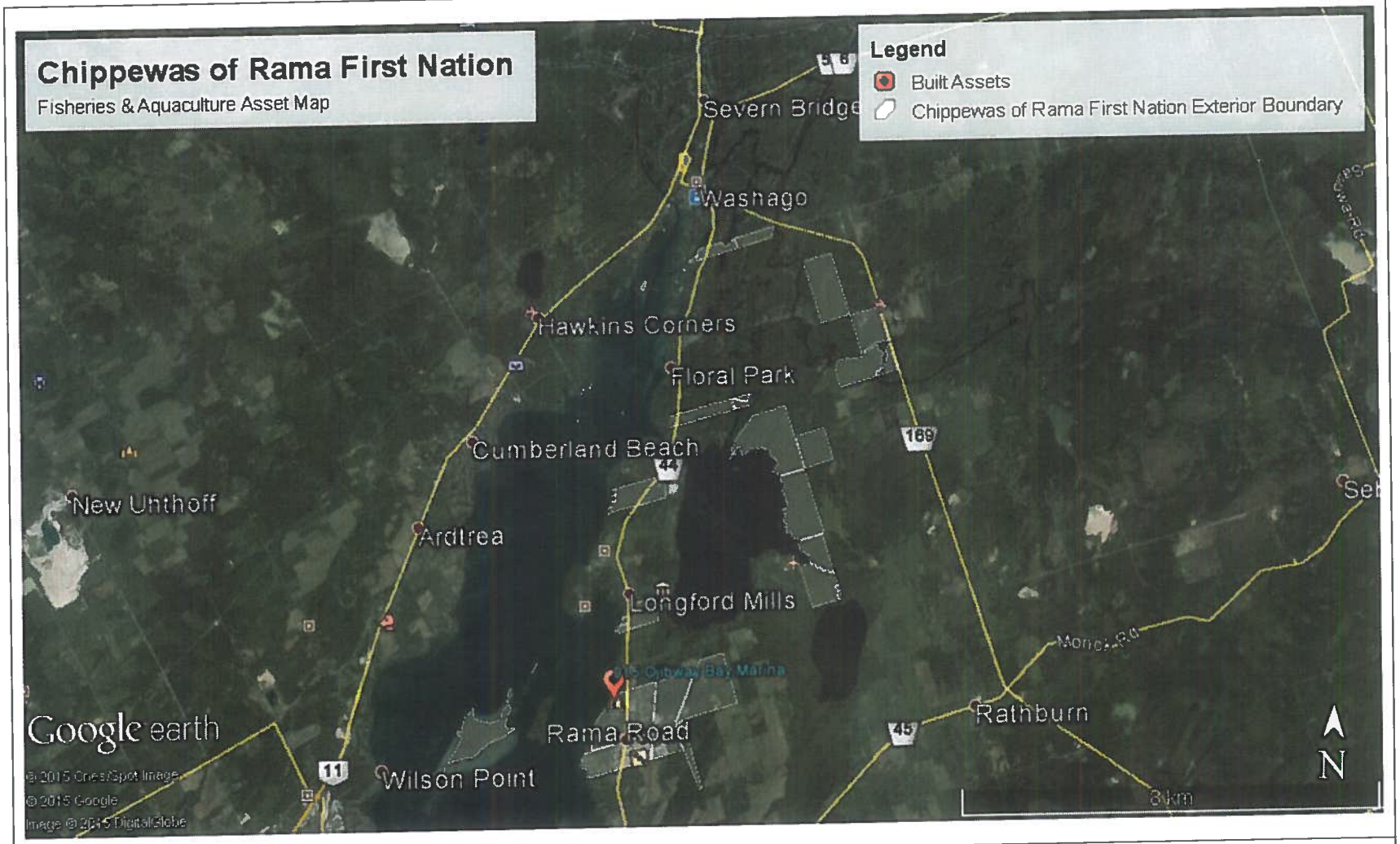
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F3: Batchewana First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015

LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F4: Batchewana First Nation (NW)			
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping			
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015	

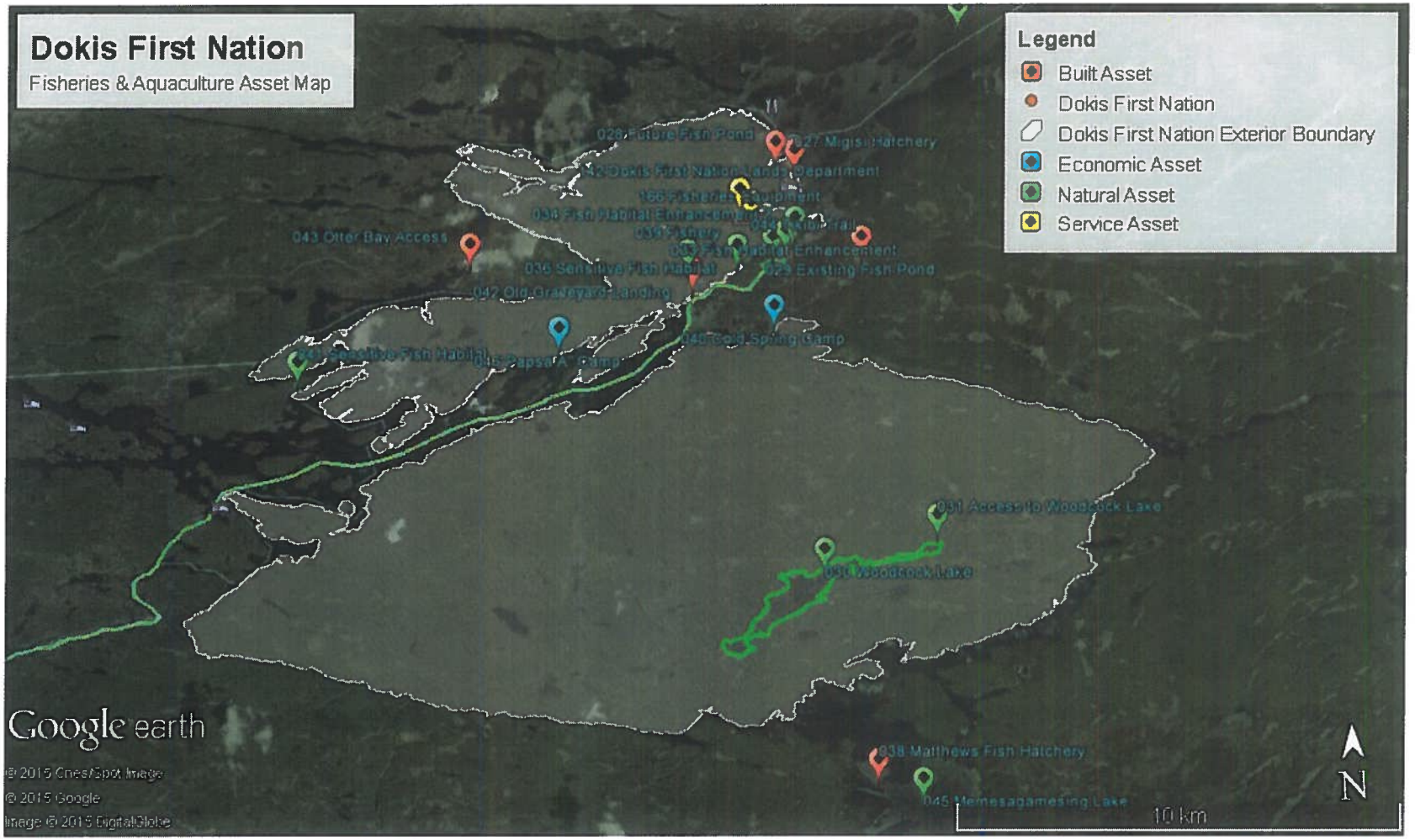
LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F5: Beausoliel First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F6: Chippewas of Georgina Island First Nation			
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping			
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015	



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F7: Chippewas of Rama First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015



LEGEND	As Shown	MOGGY environmental	**DRAWING TITLE:**	Figure F8: Dokis First Nation		
SCALE:	As Shown		**PROJECT TITLE:**	Fisheries and Aquaculture Asset Mapping		
DESIGNED BY:	DJM		**FILE #:**	ME-14019	**DATE:**	May 23, 2015

Table C1: Interviews

Who	Community
Kirby Wahsquonaikezhik	Whitefish River First Nation
Randy Restoule	Dokis First Nation
Dan Stechy	Canadian Aquaculture Systems Inc.
Bill Patterson	Canadian Aquaculture Systems Inc.
Gerry Duquette	Dokis First Nation
Patty-Ann Owl	Serpent River First Nation
John Brosseau	Serpent River First Nation
Kathy Bebamesh	Aundeck Omni Kaning
Peter Nahwegahbo	Aundeck Omni Kaning
Marilyn Nichols	Wahnapitae First Nation
Bob Chiblow	Mississagi River First Nation

Appendix D

Major fish species found in the Waubetek Service Area and their commercial value

Table D1: Commonly found fish species in the Waubetek Service, production values, and commercial use.

Fish species	Canadian Production (2003) Quantity (tonnes)	Canadian Production (2003) Value ($)	Commercial Uses	Landings and Values
Rainbow Trout	6,811	32,803	Farmed rainbow trout can usually be found whole, dressed, fresh or frozen in supermarkets across North America.	Aquaculture production is now the source of most commercial trout in North America, especially rainbow trout.
Northern Pike	2,323	1,740	Northern pike is marketed fresh and frozen as a whole fish. The flesh is firm, white and finely textured. The taste is considered excellent, but for the best flavour, the fish should be skinned before cooking. It can be infested with parasites, including the broad tapeworm, so should be thoroughly cooked. It is also a valuable game fish.	Pike are landed year-round. The largest commercial catches are taken in Manitoba, followed by Saskatchewan. Most of the catch is incidental to other fishing operations carried out. Canadian commercial catches average about 2,000 to 3, 000 tonnes per year. Northern pike does not culture well as it will not accept artificial food.
Rainbow Smelt	3,244	N/A	The greatest portion of the commercial catch is made up of 2 to 3 year old smelt. Very good to eat and make a fine export product. The smelt can often be bought fresh in local markets, but the US and Japan has both imported smelt from Canada in the past.	Sport fishery enthusiasts in the Great Lakes often use dip nets. There is interest in farming smelt as it is a valuable baitfish in many sport fisheries.
Lake Sturgeon	172	795	Due to the short supply, sturgeon is an expensive fish. The firm white flesh is rich in flavour and also very tasty as a smoked product. Sturgeon is the source of "real" caviar.	About 75% of the landings were lake sturgeon. The lake sturgeon is currently listed as a XX of provincial *Endangered Species Act* and under consideration for federal *Species at Risk Act* listing.

Table C1 (continued): Commonly found fish species in the Waubetek Service, production values, and commercial use.

Fish species	Canadian Production (2003)		Commercial Uses	Landings and Values
	Quantity (tonnes)	Value ($)		
White sucker	4,496	1,253	White sucker is seldom seen in the marketplace because the name lacks market appeal. As a result, it is often processed in a variety of ways under the name "mullet". It is marketed mainly as headless, dressed, whole fish and as mince frozen fish. At one time, the primary use was in the preparation of pet food; however, it is now more highly valued food fish for its soft-textured sweet white meat. Minnow-sized suckers are also used as live bait by anglers and as food for game fish reared in hatcheries. Suckers may represent an under-utilized species.	Both commercial and sport fisherman catch the white sucker using weirs, dip nets, hoopnets and poundnets. At other times of the year, it is caught by commercial fisherman using gillnets. It can also be caught with hook and line baited with worms, grubs and other bait.
Lake trout	702	617	Lake trout is available fresh or frozen, dressed, head dressed, or in tray-packed steaks and individually quick frozen fillets.	Lake trout's slow growth and slow maturation rate mean that they are often taken before the reach maturity and before they have a chance to spawn. About 50% of Canadian landings come from Saskatchewan with the balance from the Great Lakes, especially Lake Superior. There is only a small commercial exploitation of lake trout, since even with hatcheries operating in both the Canada and the US, the population has been slow to increase. Lake trout is not farmed; see Rainbow trout.
Walleye	7,352	34,604	Walleye is marketed in fillets in both fresh and frozen form and as whole, dressed fish. It is highly valued for its firm, finely flaked flesh, which has a succulent texture and a sweet taste.	Commercial catches are caught primarily with gillnets set from boats during the summer and beneath the ice in winter. In some locations, stationary poundnets are also used.

Table C1 (continued): Commonly found fish species in the Waubetek Service, production values, and commercial use.

Fish species	Canadian Production (2003)		Commercial Uses	Landings and Values
Lake whitefish	6,873	7,770	The lake whitefish is a medium-fat fish with large flakes of white flesh and a delicate, sweet flavour. It can be used in most salmon and trout recipes and is also excellent smoked. It is marketed fresh and frozen, whole, dressed and as fillets, but is also available in minced blocks, individually quick frozen and as tray-packed fillets. There is a strong demand for the roe, which is marketed as "golden caviar"	The lake whitefish is commercially fished by gillnets set in open water during the summer and below the ice in the winter. In some areas, trapnets and poundnets are used.
Yellow perch	3,507	16,152	Most of the commercial catch is marketed in the US as fillets, but there is a growing market in Canada, where it is marketed as fresh and frozen whole fish and fillets. Its firm, white flesh and sweet taste make it an excellent pan fish.	The Great Lakes have the greatest abundance of yellow perch and it is the stock that supplies almost the entire commercial fishery. Yellow perch is caught commercially by gillnets, poundnets and trapnets.

Appendix E
Asset Contact List

Table E1: Asset Contact List

#	Region	Category	Name	Contact
1	Georgian Bay	Built	Henvey Inlet Docks	Judy Contin; phone: (705)857-2331
2	Georgian Bay	Built	Magnetawan Docks	Adam Pawis; phone : (705) 383-2477
3	Georgian Bay	Built	Moose Deer Point Docks 1	Moose Deer Point First Nation; phone: (705) 375-5209
4	Georgian Bay	Built	Moose Deer Point Docks 2	Moose Deer Point First Nation; phone: (705) 375-5209
5	Georgian Bay	Built	Moose Deer Point Docks 3	Moose Deer Point First Nation; phone: (705) 375-5209
6	Georgian Bay	Built	Moose Deer Point Docks 4	Moose Deer Point First Nation; phone: (705) 375-5209
7	Georgian Bay	Built	Georgina Island Access Dock	Georgina Island First Nation; phone: (705) 437-1337
8	Georgian Bay	Built	Potential Water Access Point	Judy Contin; phone: (705) 857-2331
9	Georgian Bay	Built	Potential Wharf	Adam Pawis; phone : (705) 383-2477
10	Georgian Bay	Built	Parry Island Dock	Ryan Tabobondung; phone: (705) 746-2531
11	Georgian Bay	Built	Beausoliel Dock/Ferry Access	Beausoleil First Nation; phone: (705) 247-2051
12	Georgian Bay	Built	Potential Marina	Georgina Island First Nation; phone: (705) 437-1337
13	Georgian Bay	Built	East Point Marina	Georgina Island First Nation; phone: (705) 437-1337
14	Georgian Bay	Built	Marina	Georgina Island First Nation; phone: (705) 437-1337
15	Georgian Bay	Built	Ojibway Bay Marina	Steven A. Sanderson ; Phone: (705) 326-5855
16	Georgian Bay	Built	Moose Deer Point Marina	phone: (705) 375-5155
17	Georgian Bay	Built	Unnamed Moose Deer Point Docks 1	Moose Deer Point First Nation; phone: (705) 375-5209

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
18	Georgian Bay	Built	Unnamed Moose Deer Point Docks 2	Moose Deer Point First Nation; phone: (705) 375-5209
19	Georgian Bay	Economic	Aqua-Cage Fisheries Ltd	phone: (705) 774-9613
20	Georgian Bay	Natural	Blair Creek	Adam Pawis; phone : (705) 383-2477
21	Georgian Bay	Natural	Shebeshekong River	Adam Pawis; phone : (705) 383-2477
22	Georgian Bay	Built	Fish Hatchery	Adam Pawis; phone : (705) 383-2477
23	Georgian Bay	Service	Fish Monitoring Station	Adam Pawis; phone : (705) 383-2477
24	Georgian Bay	Built	Industrial Infrastructure	Adam Pawis; phone : (705) 383-2477
25	Georgian Bay	Built	Future Hatchery	Adam Pawis; phone : (705) 383-2477
26	Georgian Bay	Natural	Magnetawan River	Adam Pawis; phone : (705) 383-2477
27	Northeast	Built	Migisi Hatchery	Randy Restoule; phone: (705) 763-2200
28	Northeast	Built	Future Fish Pond	Randy Restoule; phone: (705) 763-2200
29	Northeast	Built	Existing Fish Pond	Randy Restoule; phone: (705) 763-2200
30	Northeast	Natural	Woodcock Lake	Randy Restoule; phone: (705) 763-2200
31	Northeast	Built	Woodcock Lake Launch	Randy Restoule; phone: (705) 763-2200
32	Northeast	Economic	Riverview Cottages	Randy Restoule; phone: (705) 763-2200
33	Northeast	Natural	Fish Habitat Enhancement	Randy Restoule; phone: (705) 763-2200
34	Northeast	Natural	Fish Habitat Enhancement 2	Randy Restoule; phone: (705) 763-2200
35	Northeast	Natural	Fish Habitat Enhancement 3	Randy Restoule; phone: (705) 763-2200
36	Northeast	Natural	Sensitive Fish Habitat	Randy Restoule; phone: (705) 763-2200
37	Northeast	Natural	Sensitive Fish Habitat	Randy Restoule; phone: (705) 763-2200
38	Northeast	Built	Mathews Fish Hatchery	Randy Restoule; phone: (705) 763-2200
39	Northeast	Natural	Fishery	Randy Restoule; phone: (705) 763-2200
40	Northeast	Economic	Cold Spring Camp	Randy Restoule; phone: (705) 763-2200
41	Northeast	Natural	Sensitive Fish Habitat	Randy Restoule; phone: (705) 763-2200
42	Northeast	Built	Old Graveyard Landing	Randy Restoule; phone: (705) 763-2200
43	Northeast	Built	Otter Bay Access	Randy Restoule; phone: (705) 763-2200
44	Northeast	Service	Tikibi Trail	Randy Restoule; phone: (705) 763-2200
45	Northeast	Natural	Memesagamesing Lake	Randy Restoule; phone: (705) 763-2200

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
46	Northeast	Economic	Papsa A Camp	Randy Restoule; phone: (705) 763-2200
47	Northeast	Built	Nipissing Water Access	Thomas Lambert; phone: (705) 753-2050
48	Northeast	Built	Bear Island Access	Temagami First Nation; phone: (705) 237-8943
49	Northeast	Natural	Lake Temagami	Temagami First Nation; phone: (705) 237-8943
50	Northeast	Natural	Lake Nipissing	Thomas Lambert; phone: (705) 753-2050
51	Northeast	Natural	Lake Wahnapitae	Marilyn Nichols: phone: (705) 858-0610
52	Northeast	Natural	French River	Randy Restoule; phone: (705) 763-2200
53	Northeast	Service	College Boreal	phone: (800) 361-6673
54	Northeast	Service	Cambrian College	phone: (705) 566-8101
55	Northeast	Service	Nipissing FN Fisheries Mgmt	Clint Couchie; phone: (705) 753-2050
56	Northeast	Economic	Sudbury Farmers' Market	
57	Northeast	Economic	Herbert Fisheries (Office)	phone: (705) 222-1942
58	Northeast	Economic	Herbert Fisheries	phone: (705) 287-2214
59	Northeast	Service	Living with Lakes Centre	phone: (705) 675-1151
60	Northeast	Service	Laurentian University	phone: (705) 675-1151
61	Northeast	Service	Nipissing University	phone: (705) 474-3450
62	Northeast	Service	Canadore College	phone: (705) 474-7600
63	Northeast	Service	A/OFRC	Peter Meisenhiemer; phone: (705) 472-7888
64	Northeast	Economic	City of Greater Sudbury	phone: (705)-671-2489
65	Northeast	Economic	North Bay	phone: (705) 474-0400
66	Northeast	Built	Highway 11	
67	Northeast	Built	Highway 17	
68	Northeast	Built	Highway 69/400	
69	Northeast	Built	Wahnipitae Docks	Marilyn Nichols: phone: (705) 858-0610
70	Manitoulin	Built	Boat Access	Wikwemikong Lands Director; phone: (705) 859-3122

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
71	Manitoulin	Economic	Waubetek Business Development Corporation	phone: (705) 285-4275
72	Manitoulin	Built	Water Access	Sheguiandah First Nation; phone: (705)368-2781
73	Manitoulin	Natural	Sheguiandah Bay	Sheguiandah First Nation; phone: (705)368-2781
74	Manitoulin	Natural	Lake Mindemoya	M'Chigeeng First Nation; phone: (705) 377-5362
75	Manitoulin	Natural	West Bay	M'Chigeeng First Nation; phone: (705) 377-5362
76	Manitoulin	Built	Wikwemikong Marina	Dwayne Dokum; phone: (705) 859-2036
77	Manitoulin	Built	Breakwater Dock	M'Chigeeng First Nation; phone: (705) 377-5362
78	Manitoulin	Built	M'Chigeeng Marina	M'Chigeeng First Nation; phone: (705) 377-5362
79	Manitoulin	Built	AOK Docking Facility	Kathy Bebamash; phone: (705) 368-2228
80	Manitoulin	Built	Harbourvue Marina	phone: (705) 368-3212
81	Manitoulin	Built	Stillwater Marina	phone: (705) 285-4359
82	Manitoulin	Built	J&G Marina	phone: (705) 285-4293
83	Manitoulin	Natural	McGregor Bay	Whitefish River First Nation; phone: (705) 285-4335
84	Manitoulin	Natural	Bay of Islands	Whitefish River First Nation; phone: (705) 285-4335
85	Manitoulin	Economic	AOK Cages	Kathy Bebamash; phone: (705) 368-2228
86	Manitoulin	Economic	Potential Aquaculture Site	Kathy Bebamash; phone: (705) 368-2228

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
87	Manitoulin	Economic	Buzwah Fisheries	Ben Kanaswe; phone: (705) 859-1807
88	Manitoulin	Economic	Fulltime Fisheries	Armando and Rose Shawanda; phone: (705) 968-0132
89	Manitoulin	Natural	North Channel	
90	Manitoulin	Natural	Bayfield Sound	Sheshewaning First Nation; phone: (705) 283-3292
91	Manitoulin	Natural	Smith Bay	Wikwemikong Lands Director; (705) 859-3122
92	Manitoulin	Natural	Manitowaning Bay	Wikwemikong Lands Director; (705) 859-3122
93	Manitoulin	Natural	South Bay	Wikwemikong Lands Director; (705) 859-3122
94	Northwest	Built	Cold Storage and Icemaking	Arnelda Bennett; phone: (705) 865-2421
96	Northwest	Built	Deepwater Harbour	Patty-Ann Owl; phone: 705-844-1219
97	Northwest	Built	Rearing Pond	Arnelda Bennett; phone: (705) 865-2421
98	Northwest	Economic	Ben's Bait and Tackle	Garden River First Nation; phone: (705) 946-2212
99	Northwest	Built	Batchewana First Nation Dock	Batchewana First Nation; phone: (705) 759-0914
100	Northwest	Built	Government Dock & Boat Launch	Batchewana First Nation; phone: (705) 759-0914
101	Northwest	Natural	Recreational Fishing Derby Lake	Arnelda Bennett; phone: (705) 865-2421
102	Northwest	Natural	Recreational Fishing Derby Lake	Arnelda Bennett; phone: (705) 865-2421
103	Northwest	Economic	Presteve Fisheries	Batchewana First Nation; phone: (705) 759-0914
104	Northwest	Built	Spanish Marina	phone: (705) 844-1077
105	Northwest	Built	Blind River Boat Launch	Mississauga First Nation; phone: (705) 356-1621

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
106	Northwest	Economic	Corbeil Point Fisheries	Batchewana First Nation; phone: (705) 759-0914
107	Northwest	Social	Aboriginal Fisherman	Batchewana First Nation; phone: (705) 759-0914
108	Northwest	Built	Mississagi Falls Boat Launch	Mississauga First Nation; phone: (705) 356-1621
109	Northwest	Economic	Mike Neveau Fisheries	Batchewana First Nation; phone: (705) 759-0914
110	Northwest	Built	Pete Robinson Fish Camp	Batchewana First Nation; phone: (705) 759-0914
111	Northwest	Economic	Bjornaa Fisheries	Batchewana First Nation; phone: (705) 759-0914
112	Northwest	Economic	Agawa Fisheries	Batchewana First Nation; phone: (705) 759-0914
113	Northwest	Built	Boat Launch	Batchewana First Nation; phone: (705) 759-0914
114	Northwest	Economic	Sayers Fisheries	Batchewana First Nation; phone: (705) 759-0914
115	Northwest	Economic	Potential Aquaculture Facility	Patty-Ann Owl; phone: (705) 844-1219
116	Northwest	Built	Serpent River Water Access	Patty-Ann Owl; phone: (705) 844-1219
117	Northwest	Built	Potential Cold Storage Facility	Rhonda Peltier; phone: (705) 842-2247
118	Northwest	Built	Sagamok Water Access	Arnelda Bennett; phone: (705) 865-2421
119	Northwest	Built	Goulais Bay Dock	Batchewana First Nation; phone: (705) 759-0914
120	Northwest	Natural	Chiblow Lake	Mississauga First Nation; phone: (705) 356-1621
121	Northwest	Natural	Matinenda Lake	Mississauga First Nation; phone: (705) 356-1621
122	Northwest	Economic	Potential Aquaculture	Arnelda Bennett; phone: (705) 865-2421

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
123	Northwest	Built	Potential Dock	Arnelda Bennett; phone: (705) 865-2421
124	Northwest	Built	Blind River Dock	Mississauga First Nation; phone: (705) 356-1621
125	Northwest	Natural	Natural Harbour	Batchewana First Nation; phone: (705) 759-0914
126	Northwest	Built	Blind River Dock	Mississauga First Nation; phone: (705) 356-1621
127	Northwest	Built	Thessalon Dock	Rhonda Peltier; phone: (705) 842-2247
128	Northwest	Built	Potential Boat Launch	Arnelda Bennett; phone: (705) 865-2421
129	Northwest	Built	Boat Launch	Arnelda Bennett; phone: (705) 865-2421
130	Northwest	Built	McBean Harbour	Arnelda Bennett; phone: (705) 865-2421
131	Northwest	Economic	Ritchie Falls	Arnelda Bennett; phone: (705) 865-2421
132	Northwest	Economic	Potential Aquaculture	Mississauga First Nation; phone: (705) 356-1621
133	Northwest	Economic	Potential Fish Processing Plant	Rhonda Peltier; phone: (705) 842-2247
134	Northwest	Natural	Sensitive Fish Habitat	Rhonda Peltier; phone: (705) 842-2247
135	Northwest	Natural	Grants Island	Rhonda Peltier; phone: (705) 842-2247
136	Northwest	Natural	Garden River	Garden River First Nation; phone: (705) 946-2212
137	Northwest	Natural	Whalesback	Patty-Ann Owl; phone: (705) 844-1219
138	Manitoulin	Economic	Duke's Fish and Chips	Kathy Bebamash; phone: (705) 368-2228
139	Georgian Bay	Natural	Georgian Bay	
140	Northeast	Economic	Eat Local	phone: (705) 521-6717
141	Northwest	Service	Mississagi River First Nation Lands Department	Mississauga First Nation; phone: (705) 356-1621
142	Northeast	Service	Dokis First Nation Lands Department	Randy Restoule; phone: (705) 763-2200
143	Northeast	Service	Temagami First Nation Lands Department	Temagami First Nation; phone: (705) 237-8943

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
144	Georgian Bay	Natural	Three Mile Lake	Ryan Tabobondung; phone: (705) 746-2531
145	Georgian Bay	Service	Shawanga First Nation Lands Department	705.366.2526
146	Northwest	Service	Environmental Review Panel	Patty-Ann Owl; phone: (705) 844-1219
147	Northeast	Service	Fish-Wiks	Clint Couchie; phone: (705) 753-2050
148	Northwest	Service	Algoma University	phone: (705) 949-2301
149	Northwest	Service	Sault College	phone: (705) 759-2554
150	Northwest	Economic	Sault Ste. Marie	phone: (705) 759-2500
151	Northwest	Built	Bio-Centre	Rhonda Peltier; phone: (705) 842-2247
152	Manitoulin	Social	Experienced Fisherman	Sheguiandah First Nation; Phone: (705)368-2781
153	Northwest	Social	Experienced Fisherman	Garden River First Nation; phone: (705) 946-2212
154	Manitoulin	Social	Experienced Fisherman	Sheshewaning First Nation; phone: (705) 283-3292
155	Manitoulin	Social	Experienced Fisherman	M'Chigeeng First Nation; Phone: (705) 377-5362
156	Manitoulin	Social	Experienced Fisherman	Wikwemikong Lands Director; (705) 859-3122
157	Georgian Bay	Social	Experienced Fisherman	Adam Pawis; phone: (705) 383-2477
158	Manitoulin	Social	Experienced Fisherman	Kathy Bebamash; phone: (705) 368-2228
159	Georgian Bay	Social	Wasauksing First Nation Fisheries Skills	Ryan Tabobondung; phone: (705) 746-2531
160	Northwest	Social	Independent Fisherman	Mississauga First Nation; phone: (705) 356-1621
161	Northwest	Social	Fisheries Skills	Mississauga First Nation; phone: (705) 356-1621

Table E1: Asset Contact List (Continued)

#	Region	Category	Name	Contact
162	Manitoulin	Social	Fish Processing Skills	Kathy Bebamash; phone: (705) 368-2228
163	Manitoulin	Social	Fisheries Skills	M'Chigeeng First Nation; Phone: (705) 377-5362
164	Northwest	Social	Serpent River Communal Licence	Patty-Ann Owl; phone: (705) 844-1219
165	Manitoulin	Built	Fisheries Equipment	Sheguiandah First Nation; phone: (705) 368-2781
166	Northeast	Built	Fisheries Equipment	Randy Restoule; phone: (705) 763-2200
167	Northeast	Built	Nipissing Fish Processing Plant	Clint Couchie; phone: (705) 753-2050
168	Manitoulin	Built	Manitoulin Hotel	phone: (705) 368-9966
169	Manitoulin	Built	Kool-It Ice	phone: (705) 368-2550
170	Northwest	Natural	Lauzon Lake	Mississauga First Nation; phone: (705) 356-1621
171	Northeast	Built	Mine Site	Marilyn Nichols: phone: (705) 858-0610
172	Northeast	Natural	Post Creek	Marilyn Nichols: phone: (705) 858-0610
173	Northeast	Natural	East Bass Lake	Marilyn Nichols: phone: (705) 858-0610
174	Northeast	Natural	Round Lake	Heather Sawdon; phone: (705) 692-3651

Table B1: Nipissing Workshop Attendees

Who	Community
Doug McKenzie	Temagami First Nation
Aruya Assault	UOI
Heather Sawdon	Atikameksheng Anisknawbek
Woody Becker	Temagami First Nation
Peter Beaucage	Nipissing First Nation
Todd Gordon	Waubetek
Curtis Avery	A/OFRC
Peter Meisenheimer	A/OFRC
Andrew Ecclestone	A/OFRC
Henrietta Commanda	Nipissing First Nation
Clint Couchie	Nipissing First Nation

Table B2: Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Economic	Capital – capital programs of up to $100K for individuals and up to $250K for communities; loans of up to $500K; NAAF studies for aquaculture (WBDC)	Aboriginal-focussed funding to support fisheries, e.g. NAAF	Entrepreneurial culture needs to be developed
	Aboriginal Fisheries Strategy (WBDC)	Flexibility in the scale of their operation vs non-aboriginal (communal vs commercial license)	Lack of fisheries-related network
	Opportunities with Treaty 20	Successful economic models in other parts of Canada/World, i.e. Naori in New Zealand	Volatile market
	Existing aquaculture industry specifically Aboriginal; access to aquaculture markets; access to inputs		Reduction in some funding, e.g aboriginal equity program
	Brand/marketing of aboriginal fishery products		
	Cooperation amongst communities on shared resources		
	Long term funding with mining companies; First Nation Limited partnerships		
	Commercial licenses held by aboriginal fisherman; communal licenses – who has what and where		

Table B2 (continued): Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Services	Fisheries management techniques	Regional organization – AFI (Aboriginal financial initiative);A/OFRC; Waubetek – business and aquaculture in Ontario wide	Working in isolation/silos
	Research and monitoring services and equipment	Advisory committees – opportunity to educate about Aboriginal Fisheries	Community priorities, other then fisheries
	Knowledge of policy, legislation related to commercial/recreational fisheries		Mandate of regional organizations (restrictions on how, who can be worked with)
	Capacity		Authority (fisheries Law) – responsibility (enforcement/disputes – monitoring and compliance
	GIS/mapping of resources (Temagami)		Capacity – under developed/resources; small band resources
	Resource departments – fisheries management plans, and by-laws		
	Research on local lakes, i.e Round Lake/fish water quality		
	Fisheries Law		
	Fish wicx		
	Research on some lakes/resources to determine feasibility /sustainability – Temagami area; fish hatchery		
	Advisory committees (stewardship) – Temagami		
	Business Development officers		
	Treaty rights (union of Ontario Indians)		
	Self – governing natural resources		

Table B2 (continued): Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Social	Local knowledge of the resource	ASETs – provides training funds for youth	Youth – interest is declining in fisheries – jobs/careers
	Traditional ecological knowledge	WBDC provides post-secondary graduate funding support for for-profit businesses (interns)	Inter-treaty issues
	Youth	Existing business owners and operators can encourage interest in fisheries – related careers/jobs – creating a culture of business	Other career choices (mining vs fisheries)
	People with knowledge; elders to youth; youth with training; business owners	Recognition of the opportunity associated with the cultural value	Financial support not there for traditional people
	Ceremonies	The circle of cultural resources has grown with people and technology (GIS)	Lacking a network of fisheries related business opportunities
		Values-oriented vs rights-oriented	

Table B2 (continued): Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Built	Fish processing plant – Nipissing FN	Continuous development of capacity within an organization (the successful business/enterprise)	Volatile market for fish (commercialization of fish) – branding; diversification; need for industry knowledge at a national/global scale
	Laboratory for Fall Walleye Index Netting and population assessment	Expansion of existing businesses	Geographic distances to markets
	Office space	Collaboration/share best practices of successful business	Declining interest by youth (aboriginal – commercial; non-aboriginal – recreational)
	Boat launches/docks	Access to inventory/business directory	Need a better understanding of the current assets (capacity, function)
	Killarney fisheries and Pays Plat – examples of successful businesses		
	Existing aquaculture (x2) in Wikwemikong		
	Aboriginal owned tugs		
	Fishing lodges (aboriginal owned) – Sagamok, Dokis, Temagami, Mississauga, Wahnipitae		
	Marinas – Whitefish River, Moose Deer Point, Georgina Island, Wasauksing		
	Ice fishing hut rentals - Temagami		

Table B2 (continued): Nipissing Workshop Notes

	Assets	Opportunities	Gaps
Natural	Access to fish	Priority access to natural assets by Aboriginal people	Water control dams
	Water quality impairments	Great cultural value attached to natural assets within communities	Dispersed nature of access to resources; amongst/between First nations and between Canada and US; lack of collaboration amongst First Nations wrt Fisheries
	Access to water, via treaties	Fisheries law/management plans developed by First Nations – enforcement/jurisdictional issues to be resolved; need for regional FN mgmt. plans that includes aboriginal/non-aboriginal fisheries	Treaties between FN and with government not amongst FN; artefacts of the treaty making process
	Knowledge of lakes and the area		Imposition of federal/provincial laws
	Specific lakes in Temagami area, including species of walleye and lake trout		Ecological impact on natural resources from fisheries, i.e. invasive species
	Location to market and surround resources (i.e. lakes)		Conflict amongst commercial/recreational/aquaculture
	Natural conditions are ideal for aquaculture		
	Great Lakes are close by		

Table B3: Little Current Workshop Attendees

Who	Community
Mike McLeod	Sheshegwaning First Nation
Peter Nahwegahbo	Aundeck Omni Kaning
Sam Debassige	MChigeeng First Nation
Ernest Wakegijk	Sheshegwaning First Nation
Norman Assiniwe	Wikwemikong
J. Terry Debassige	MChigeeng First Nation
Delano Altiman	Aundeck Omni Kaning
Ray Jackson	Wikwemikong
Jim Andrews	Whitefish River First Nation
Rhonda Peltier	Thessalon First Nation
Terrence Corbiere	Wikwemikong
Taryn Bobiwash	Serpent River First Nation
Dustin Lawrence	Serpent River First Nation
Taymor Day	Serpent River First Nation
Patty Ann Owl	Serpent River First Nation

Table B4: Little Current Workshop Notes

	Assets	Opportunities	Gaps
Economic	Aquaculture advantage – no provincial licence requirements	Non permits (license)	Who monitors sites
	Serpent River Aquaculture project – partnership and business plan	No red tape from MNR, MOE, OFCA	Developing our own business opportunities
	Joint Ventures and partnerships, e.g. Fish n' Chips and local fisherman – Thessalon FN	Natural resources (land/water) – access to our lands	Fish hatcheries not in place; fish processing, feed & supply and fish food businesses
	Buzwah (hires part time)/Full-Time (located in South Bay, and also includes an organic operation and is currently expanding) Fisheries Facilities – both operations can act as trainers/mentors	Shoreline and water	No incentives/benefits for plant operators
	Fish waste could be used a fertilizer, i.e. Meekers	Manpower/employment opportunities, and opportunities for expansion	Weather conditions could be a disadvantage (stormy, windy and can't go out)
	Herbert - market includes fish stand, others; hires staff; license to buy fish	Good market	
	Dukes Fish n' Chips – AOK FN	Knowledge of suppliers (commercial fisherman)	

Table B4 (continued): Little Current Workshop Notes

	Assets	Opportunities	Gaps
Services	Thessalon Economic Development – Funding opportunities for small business		
	Wikwemikong pubic and high schools (3X); learn about fisheries – advance youth interest – Sheshegwaning FN	Could be collaborated with KTE and other outdoor programs	No funding
		Provide a venue for research	May result in loss of interest
		Preserves education	School management (principal) may not support
		Promotes awareness of treaty	
		Promotes and maintains practical skills	
	Luke Wassegijig – Wass tours – fishing and touring	Opportunity to support the food industry	Inclement weather
		Tours could be collaborated with other FNs and industries	Licensing may be an issue for food and insurance issues
		Promotion with Great Spirit Circle Trail	Liabilities with boat operations and tours
	Waubetek guidance on aquaculture (technical experience)		
	Experience with habitat improvement; work with A/OFRC to undertake rehabilitation work – AOK FN		
	Serpent River Environmental Review Panel to support sustainable development	Good opportunity for partnership and provide an education hub	No funds to support centre
		Could support the transfer of knowledge	May need assistance with sharing of information
	Waubetek Fisheries Strategy – cooperatives amongst fisherman	Strategy is currently being implemented	Funds may be ending
		Supports a cooperative approach amongst FNs	Need for additional marketing and promotion
			Need for additional communication strategy
	Bio Centre – Thessalon FN	Great opportunity for a partnership	Underutilized
		Can also act as a fish processing plan	Lack of people to continue
		Opportunity to provide leadership	Letting go of authority to run business
		Aquaponics opportunity	Business capacity is limited

Table B4 (continued): Little Current Workshop Notes

	Assets	Opportunities	Gaps
Social	Communal license (teaching youth to fish) – North Shore; MNR agreements – Serpent River FN	Opportunity to access to large market	Limiting our rights to aboriginal
	Subsistence fisherman with interest in transitioning to commercial fisherman – 3-4 people in M'chigeeng and 2 people in AOK FN	Able to sustain and feed our families	
	Experienced fisherman (acting as mentors) in M'chigeeng and Sheshegwaning	Need them to teach our youth knowledgeable	
	Aborignal rights to fishery – assertion of claim (see map of Manitoulin Island) – Sam Debassige		
	Local commercial fisherman in Wikwemikong, as trainers (4-5 people)		
	Manpower – all FNs	Opportunity to work together	Not everybody wants to work
	2 graduates with environmental degrees in Fisheries/environmental studies – M'chigeeng FN	Knowledgeable of the procedures of environmental projects	
	Experience processing plant workers (4 ppl and others in other FNs) – AOK FN		
	Communal license (40000lbs quota) – could be more if it can be fished		

Table B4 (continued): Little Current Workshop Notes

	Assets	Opportunities	Gaps
Built	Access to north shore waters – Stockwater Bay (access road to John Island camp) – Serpent River FN	Already an existing road	Start-up risks (roads, feasible market)
		Close access to highway	Pollution in the water
		Close to other markets	Other industries that use the area
	Bio Centre with a walk-in freezer – Thessalon FN	Need ice to transport at proper temperatures	Power/maintenance
		Close access to transportation	Road accidents because the product is being transported more and further
		Close to other resources	
	Access to Bay of Islands (band-owned) and McGregor Bay (private, band member owned) via docks/marina – Whitefish River FN		
	Aquaculture farm (currently under lease) – AOK FN		
	Manitoulin Hotel		
	Harbourview Marina	Aboriginal owned	Under utilization
		Close to others	Over used, more maintenance is required
		Gas and repair	
	Cool-it Ice operation	Needs ice	Under utilization
		Close to others	

Table B4 (continued): Little Current Workshop Notes

	Assets	Opportunities	Gaps
Natural	Inland lakes – Elliot Lake region associated with development – Serpent River FN	Lots of lakes, lots of opportunities	Elliot Lake Inland Development:
		Sports fishing	Mining and natural resource development
		Attracts tourist – revenue generation	People and shoreline development/utilization
		Job creation – tour guides	Need for higher environmental standards for industry and development
	2500 lbs whitefish (Purvis Fisheries) near M'chigeeng	Good opportunity for commercial fishing business – a lot of quota available	Overfishing, regulations, recreational fishers
		Utilizing quota sharing	Don't have the boats or capacity
			Need training for youth
	Potential aquaculture location near M'chigeeng (deepwater)	Well-developed cage operations on Manitoulin	Not well sheltered
			May be regulated
			Environmental conditions and locations not determined/understood yet
	Sucker Creek – sucker and smelts	Habitat enhancement has been completed	Sucker Creek suckers/smelts – not well developed market
	Undeveloped, deep water for aquaculture facilities (location has been determined) – Sheshegwaning FN		

Table B5: Garden River Workshop Attendees

Who	Community
Jacob Day	Garden River First Nation
Joe Tom Sayer	Sheguiandah First Nation
Chief Lyle Sayer	Garden River First Nation
Alexis Vanderheyden	Garden River First Nation
Williard Pine	Garden River First Nation
Janet Esquimaux	Missanabie Cree First Nation
Scott McCabe	Missanabie Cree First Nation
Dana Boyer	Mississagi First Nation
Carla Marcellus	Mississagi First Nation
Arnelda Bennett	Sagamok First Nation

Table B6: Garden River Workshop Notes

	Assets	Opportunities	Gaps
Economic	Market in Little Current – Sheguiandah FN	Location and proximity to resources and markets, i.e. water, TransCanada highway, USA	No room to develop on FN's; prime locations are occupied; no land code; lack of a land use plan/official plan
			Market is limited due to the allocation of quotas
	Ben's Bait and Boat – fish derby's, boat launch, bait/tackle, outfitting	Equipment and buildings exist in comm.	Limited equipment
		Relationships with other FN	Replacement values for equipment
			Insurance on FN's is problematic
			Fuel costs are variable, and sometimes unpredictable
			Price of safe equipment is high
	Bus. plans for aquacult. & tourism projects		
	Funding sources	Funding sources are available: Community, ACFL, Industry, OSR, CORDA, AANDC, FedNor, Waubetek, Rama (UNNLP), Dreamcatcher, Trillium, Leaf, AFSAR	Annually based
			<$35,000
			Awareness of funding opportunity
			Proposal development/experience
			Political changes/ support
			Other priorities take precedence
			Business plan development
	Waubetek Fisheries Strategy	Needs a forum to discuss best practices, share knowledge, funding, etc	FNs are reluctant/hesitant to work together due to:
			o Trust, Self-interest, Competition
			o Do not want to share quota because it is not enough for themselves
	Small engine/mechanical – truck and coach mechanics, that can service boats for fishing (Social Asset)		
	Sagamok fishing derby (Social Asset)		

Table B6 (continued): Garden River Workshop Notes

	Assets	Opportunities	Gaps
Services	Mississauga First Nation Lands and Resources Department – relationships with regulatory agencies (MOE, DFO)	Networking with government staff/agencies Capacity building internally; utilization of others expertise In-kind expertise Funding Building knowledge base Political autonomy – self-regulating government Increase opportunities Vision Jurisdiction – exercise their own before others come, i.e. GLIFWC/CORA	Political – chief and council; compromise agreements with "strings" attached Funding may be limited External mandates Apathy – motivating own people to pursue opportunities New or existing legislation – impacts resource users Lack of a shared Vision
	Great Lakes Indian Fish and Wildlife (GLIFWC) – Wiscounsin, Minnesota, Michigan Tribes – with resources, experience, knowledge and information		
	Akwesasne Env. Dept. (Henry Lickers) – experience in Environmental Monitoring		
	Memorandum of Understanding with MOE for fish contaminate analysis and interpretation		
	Tim Haxton and Steve (DFO) – SAR Recovery Strategies (up to Red Rock Falls); MFN provides baseline data/information; experience with assessment and management		
	Sault College – Fish and Wildlife program		
	Sagamok – commercial fishing program with 5 commercial fisherman		
	Sagamok Lands and Resources Department – Samantha with an Environmental Degree		

Table B6 (continued): Garden River Workshop Notes

	Assets	Opportunities	Gaps
Social	People and their experience; tug experience; fishing (Kevin Chibelow in Mississauga and a small group of independent fisherman that sell to the community); education (5 people with fisheries background)	Trained people	Not enough people trained
		Elder's teachings – passing down knowledge (TEK)	More promotion for natural resources areas
		Experienced commercial fisherman/woman	Broader range of trade: fisherman, environmentalists, repair, loggers, water technicians, engineers
		Number of available workers	Capacity – experienced and qualified
		Level of education required is not high	ACFL – Funding not enough; Reporting System is tedious, wrap up results, summaries , voice
		ACFL funding and Quota	Dependency on Ontario Works
		Reporting System – Daily Catch Reports (DCR)	Healthy way of life (Minobimadziwin)
			Quota not enough
	Treaty rights – protected, rights based on resource use – Sheguinhah First Nation	Treaty rights and Inherent rights	Ontario Commercial Fisheries Association (OCFA) disassociated with Aboriginal Commercial fisherman
		Quotas available, as per OCFA	OCFA controls/determines costs and amounts of fish for sale
		International opportunities; markets overseas, but requires large supply	Smaller FN's don't have the capacity development as other FN's
			FN's working together and achieving partnership opportunities
	Experienced fisherman with training – Sheguiandah First Nation		
	Experienced fisherman (Joe and Mike Jones) as resource people – Garden River First Nation		
	Cultural ceremonies – need to be re-emphasized, i.e. "Fish every Friday"		
	Several individuals in Garden River with mechanical and academic capacity		

Table B6 (continued): Garden River Workshop Notes

	Assets	Opportunities	Gaps
Built	Access to highway – Sheguiandah FN	Access to markets; low cost shipping; access to facilities Location; access to natural resources; geopolitical issues not serious in Canada Low shipping costs Infrastructure is available and when band owned/partnered, spreads the risk and allows larger projects to be pursued Business plans Collective risk/benefit Presence/social Occupancy	Security issues and vandalism Cultural differences/ignorance; racism; aboriginal rights not well understood and often backlash to asserting rights Politics/business don't mix – community assets/political decisions
	Band-owned boats/nets – Sheguiandah FN		
	TransCanada highway access – Garden River FN		
	Good access to most of reserve – Garden River FN		
	Ritchie Falls (Sagamok) for hunting and fishing camps; educational facility (future)		
	Ice makers, cold storage units – Sagamok FN		
	Walleye rearing ponds and buildings; Sagamok docks; Sagamok Point Marina		
	Fish processing plant with a business plan ready		
	Partnership with Spanish marina and boat storage		

Table B6 (continued): Garden River Workshop Notes

	Assets	Opportunities	Gaps
Natural	Coldwater lakes, i.e. Lauzon, Chibelow (big and small), Matineda, north channel, Lake Huron	Lots of lakes around communities	lack of data and fisheries management decision agreement
		Organic market, wild-caught fish	Invasive species
			Species at risk
			Other industry sectors, i.e. Forestry roads/crossings
			Pollution threats, i.e. paper mill effluent, shoreline development, mining, etc
	Access to water – Sheguiandah FN	Access to lakeshore/water	In some cases, no infrastructure to support fisheries
		Fewer third parties to negotiate with	Fluctuating water levels particularly in Lake Huron
	Lake north of garden river community		Protected areas – perhaps a catch and release; lack of planning
	Garden river "recreational" fishery		Capacity to manage

Table B7: Wasausking Workshop Attendees

Who	Community
Gail Jacko	Shawanaga First Nation
Dale Pann	Shawanaga First Nation
Gerald Joseph	Shawanaga First Nation
Adam Pawis	Magnetewan First Nation
Jennifer Predie	Wasauksing First Nation
Ryan Tabo	Wasauksing First Nation
Randy	Wasauksing First Nation
Gerry Duquette	Dokis First Nation
Arik Theijsmeyer	FedNor

Table B8: Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Economic	Hunting/Fishing camps (potential) – Shawanaga First Nation		
	Eight (8) hunting camps with guides for fishing, includes FN fishing policy and permitting scheme – Dokis First Nation	Licensing and monitoring supports resource management and creation of a sustainable fishery	Are seasonal businesses, not generating income in the off season
		Creates jobs	Not being fully utilized to their potential throughout the year
		Provides opportunities for education	
		Opportunity to collect demographic and statistical data	
		The market associated with these camps is "rich"	
	Fish Derbys – used to educate youth and the community about fish stocking and fundraising for ? – Dokis First Nation		
	Dokis Marina + 5 other marinas in the area – Dokis First Nation	Aboriginal owned assets and managed	Band-owned businesses don't have the same "investment" as private ownership, e.g. band hours vs entrepreneur hours
		Located close to community waters and existing fisheries	Private ventures rely on income cashflow to operate vs band funding
		Creates mentorship opportunities for youth entering the industry	New businesses require market-share development
		Job creation from operation	May be difficult to maintain experienced, reliable labour
		Incentives could be explored to participate in sharing revenues, i.e. sales commissions	
	Ecotourism operator – Dokis First Nation		
	Sudbury market for fish products, with a "sustainable fisheries" branding – include other marketable species - FedNor	Numerous products that could be marketed (fish products, and species)	May be a need to educate market and promote aboriginal products
		Location of Sudbury is close to many communities with easy access via highway 69/400	Concern of ownership issues for aboriginal products (need for patenting)

		Branding of wild-caught/aboriginal fish is appealing to market	May be a reluctance to sharing knowledge to support these products
		Logistics – ease of getting products to market	Products come from a number of small operators, independently operated
		Opportunities for shared ventures/products with other close communities near Sudbury	Need to address market/sales regulation, i.e. inspected/certified fish products
			Need to address food "traceability" for public safety
	Distribution channels in Sudbury, including Eat Local and Farmer's market - FedNor		
	Fisheries Quota for Wasauksing waters - WFN		
	Mining companies with an interest to promote local environmental stewardship initiatives, i.e. restocking lakes and supporting aquaculture/fish hatcheries – FedNor	Employment opportunities are possible with this initiatives (direct or indirect)	Some concerns with the impact and risks of mining on the environment
		Creates business opportunities with First Nations	Infrastructure to support these projects many not be in place, i.e. hatcheries
		Mining companies have resources (funding, staff, equipment, technology)	Community may not be prepared/organized to work with mining companies
		Training opportunities for FN to undertake environmental/fisheries projects	Long term support for these markets may be uncertain, i.e. mining company only supports a project for a defined period
			May not be a community priority to organize for a mining related environmental/fisheries project
			Need to ensure there is a common vision of the purpose of these projects
	Wasauksing FN has a fishing permit scheme which is enforced by OMNRF conservation officers (concurrent enforcement with provincial legistlation) – Wasauksing FN		
	Wasauksing FN owns a full service marina – Wasauksing FN		

	Entrepreneurs and business owners in the Wasauksing area, operating tourisms and fishing guides services – Wasauksing FN (Randy)		
	Potential market in Wasauksign FN area for "fishing experience" – Wasauksing FN		

Table B8 (continued): Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Service	Shawanaga Band Fishing Policy, i.e. 3 fish/family/day – Shawanaga FN	Sustainable harvesting	Individuals may disregard community needs in favour of individual needs
		Community driven – better buy-in	Difficulty with managing non-member fishers
	Band staff technicians with fisheries background – Dokis FN	In-house and local knowledge and skills	Employee turnover – can lose skill set
		More affordable and accessible when the skill set is in-house	Not every community has these skill sets
			Cost associated with losing this skill set
	Fish tagging and assessment program and experience – Dokis FN	Low-cost assessment of fish population	Lack of education, non-reporting – community needs to be aware of the program and its purpose
		Community engagement is improved when tagging is used	Training required to undertake this type of program
		Data to support fisheries management	
	Band support to staff to participate in fisheries initiatives – Dokis FN		
	Fund has been established to support fisheries-related activities (from cottager's association) – Dokis FN	Readily available, and community funded	Paper work to support accountable use of money
			Staff capacity to manage fundraising
	Participation (seat/voice) in Mattawa/Nipissing CA water management of Nipissing/French River – Dokis FN	Community input and partnerships	Changing priorities of the government may impact long term status
		Allows for protection of resources	Assuming consent – government/develop may view these talks as consultation/consent
		Build community capacity to engage in resource management	Lack of influence in some cases
			Bureaucracy – may be cumbersome
	Monitoring and "enforcement" of band-issued fishing permits, with a band-developed fishing policy – Dokis FN	Encourages compliance	Lack of staff to monitor and enforce
		Raises awareness	Cost of running a program like this
			Training for enforcement

			Clear bylaws are needed to support this
			Legal process/implications are not fully developed or possibly supported
	Regular school trips to educate youth about fisheries – Dokis FN	Skills and awareness can be ingrained with youth, and possibly "go home" to teach parents	Provincial-controlled curriculum not representing local traditions
		First Nation controlled school's curriculum	
		Independent training and research sources (post-secondary)	
	Living with Lakes Centre in Sudbury, with fisheries expertise - FedNor		
	Wasauksing has a policy for a number of lakes restricting fishing on a rotating basis – Wasauksing FN		
	School programs in the Wasauksing area are open to incorporating fisheries and aquaculture related programming – Wasauksing FN		
	Three Mile Lake has been assessed by A/OFRC for fisheries potential and development of a fisheries management plan, including protective measures (i.e. no motors, buffer around lake)	A/OFRC is independently funded, and has the appropriate training, resources and expertise	Lack of funding by First Nations to address all potential projects
	Quota for First Nations	Some unused in First Nations	Lack of knowledge on availability
			Government unwillingness to cooperate

Table B8 (continued): Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Social	Traditional knowledge	Readily available in the community	Can be lost
		Long term history	Abuse/misuse of information concern promotes lack of sharing
		Provides info. where scientific study lacks	
		Provides a competitive advantage to non-aboriginal communities	
		Encourages natural ways to utilize the environment	
	Community desire to participate in fisheries and sustainable resource use	Sustainable use of resources	Need a complete buy-in, individual vs community rights
		Natural way of living – more balanced – consistent with traditional lifestyle	
		Demonstrates environmental stewardship	
	Treaty rights to lakes/fisheries within the Robinson Huron Area	Collective rights/voice	Non-native access
		Support other First Nations	Lack of understanding by non-Aboriginal treaty rights
			Not fully utilized
	Local labour market to undertake monitoring (fishing) and technical work – Shawanaga FN	Only requires minor training to undertake fisheries jobs	Low paying, hard work jobs, not a lot of interest by young people
		Generally a young labour market	Wage assistance programs no well known
	Band staff with previous/existing fisheries skill sets (ie.biologist, technicians) – Wasauksing FN		
	Experienced entrepreneurs acting as mentors/role models	Greater sense of ownership	Lack of incentives for experienced entrepreneurs to provide mentoring
		Role models	
		Mentors to help new/young entrepreneurs	
	Cultural values		
	Local, small-scale operator/ fisherman – Magnetewan FN	Low-cost operations	Difficult to access large markets
		Knowledge of the local area	Underselling each other/undervaluing product
		Common in most communities	
	Market looking for "fishing experience" – Wasauksing FN		

Table B8 (continued): Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Built	Concrete building with an old pumphouse – requires fisheries equipment and some upgrades to be a fish hatchery – Magnetewan FN	Can be used (renovated) to reduce costs of developing a fish hatchery	Building codes may add costs
			Need to upgrade to address codes, standards
	Several old docks and an operating fishery wharf – Magnetewan FN	Deep water access	Safety concerns
		Closer to roads	Changing water levels
		Close to railway	Permits, MOE, municipal
		Already operational	Usage fees, docking fees
	Highway 400/69 access – Magnetewan FN	Access to potential customers/clients	Construction delays on 69/400
		Connecting communities together	Impacts on the environment
			Bypass small towns
			Disruption of fish migration routes
			Increase in traffic
			Oil spills
	CP Rail line – Magnetewan FN		Disruption of fish migration routes
			Increase in traffic
			Oil spills
	Shipping lanes in Georgian Bay – Mag. FN	Connecting communities together	
	Shawanaga walleye hatchery	A lot of technical skills	Changing perceptions
		Regulated by area FN's	Aging equipment
		Able to expand to other species	Diseases
			Operational costs
	On-reserve fish hatchery (1987) and several off-reserve fish ponds – Dokis FN		
	First Nations boats (band-owned) used for fisheries, hunting and assessment purposed – Dokis FN	Band owned boats	Liabilities (insurance)
		Customized boats for different needs	Maintenance and operational costs (i.e. gas, oil, etc)
			Licenses
			Training required by operators
	Future location of two fish ponds – Dokis		
	Road to Depot Harbout – Wasauksing FN		

Table B8 (continued): Wasausking Workshop Notes

	Assets	Opportunities	Gaps
Natural	Shoreline access to Georgian Bay – however in some cases (Shawanaga) the access is undeveloped	Access to water – too much at times	Invasive species
		Same treaty area – collaboration with other first nations for similar/complimentary markets/products	Threat to ecosystem – unbalanced (decline in food source)
		Community networking and sharing of resources	Development – residential, commercial, industrial
		Potential to create an economic vehicle, i.e. co-op, community investment, build relationships	Population growth
		Teachings maintained and used – healthy lifestyle and communities	Industrial pollution
			Environmental concerns
			Over exploitation
			Lack of environmental protection measures in some cases, to maintain clean waters, i.e. restrictions on boats, sewage and salt
	Spawning grounds on Magnetewan/Shawanaga River	Spawning grounds – easy to access and to monitor	Easy access increases potential for over exploration
	Spawning sanctuaries – Dokis FN		
	Shawanaga River with northern pike, musky, bass, and strong walleye population close to Shawanaga		
	Available land and water access for potential aquaculture facilities – Shaw. FN		
	Depot Harbour with deep water in Wasauksing FN		
	Existing fisheries in Lake Nipissing, French (upper, middle and lower) River – Dokis FN		
	Band-directed, fish habitat enhancements to spawning areas for sturgeon/walleye – Dokis FN		
	Other fish species, i.e. northern pike, sucker, that could be marketed – Dokis FN	Harvest all species – keep balance understanding and education	