

**TSIIGEHTCHIC FOREST USE
PLANNING WORKSHOP**

**Tsiigehtchic, NT
8 December 2000**

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SUMMARY

A Community Forest Use Planning Workshop was held in Tsiigehtchic on December 8th, 2001. Workshop participants included Gwich'in Renewable Resource Board (GRRB) staff, Department of Resources Wildlife and Economic Development (DRWED) staff, Gwichya Renewable Resource Council (RRC) members, and community members (see Appendix A). The goal of the workshop was to identify local forest use issues and to collect and map information about forest and land use in the Tsiigehtchic area. This information will be used to develop a sustainable Forest Use Plan for the community. Community Forest Use Plans will also be developed for Aklavik, Inuvik, and Fort McPherson. These plans will become part of the Forest Management Plan for the Gwich'in Settlement Area (GSA) being developed by the GRRB, GTC, DRWED staff, and the communities.



View of Riverbank across from Tsiigehtchic Townsite

Funding for this project was provided by the Gwich'in Renewable Resource Board and the First National Forestry Program. The Department of Resources Wildlife and Economic Development (GNWT) and the Gwich'in Tribal Council provided considerable staff time and other in kind support.

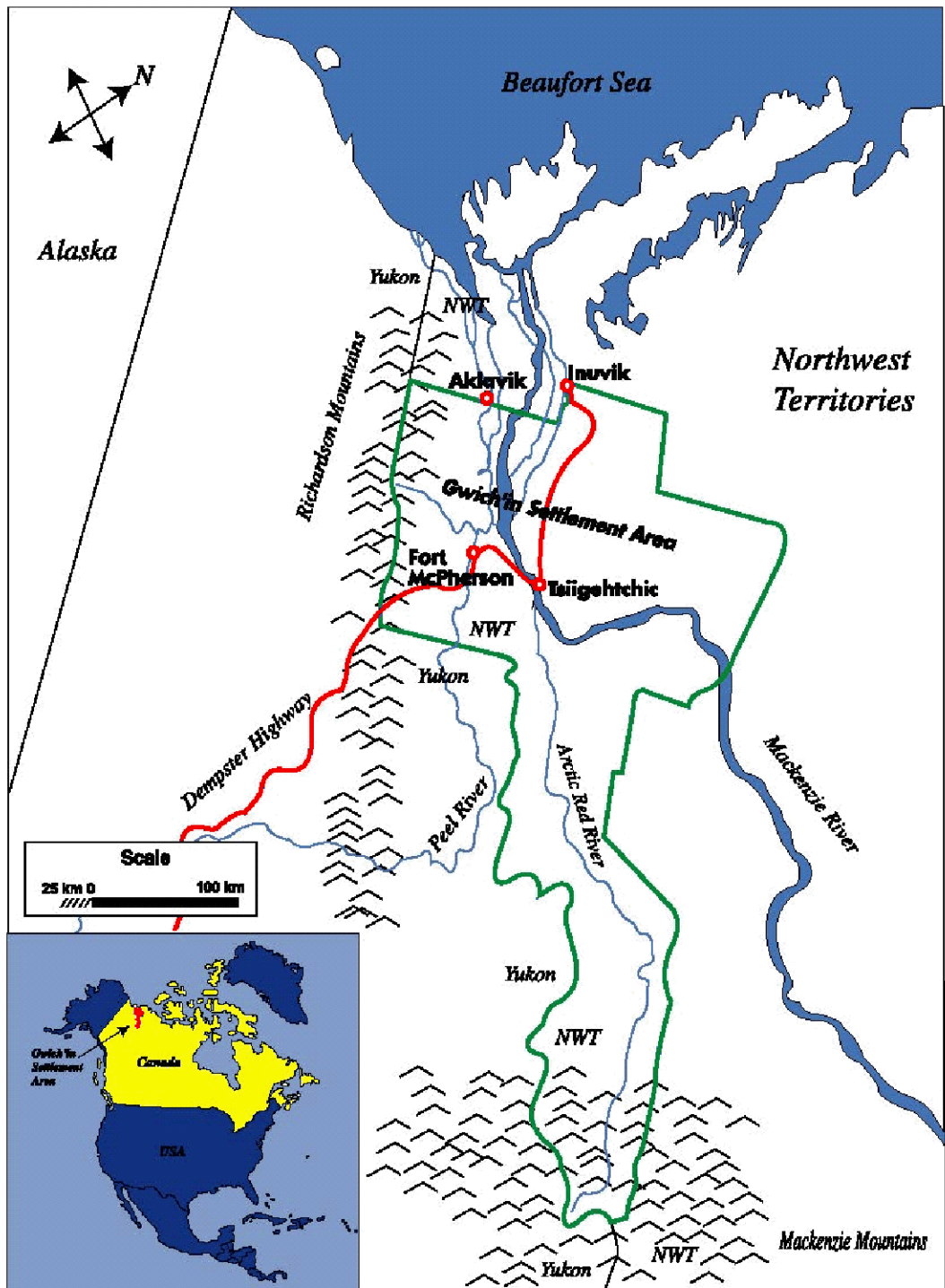


Fig 1. The Gwich'in Settlement Area.

BACKGROUND

The GRRB and DRWED began working on a Forest Management Plan in 1995 to guide forestry activities in the Gwich'in Settlement Area (Figure 1). Before the land claim, the Territorial Government managed the forests in the region from the Hay River office through local Renewable Resource officers. From 1973 to 1994, commercial permits for the harvest of 36,814 logs were issued. With the land claim in place, the communities wanted to protect timber resources for the future. In 1995, at the Regional RRC Meeting in Fort McPherson, it was decided that commercial forest regulations would be developed for Gwich'in private lands. A Forestry Working Group involving GTC, GRRB, and DRWED staff and community representatives was formed and met in November 1995 to discuss forest management. This group directed the GRRB to begin work on a forest management plan for the GSA.

The GRRB and DRWED, under direction from the Forestry Working Group, started research projects to provide background information needed for the Forest Management Plan. The following projects have been completed:

- forestry inventory of 3 productive areas in the GSA (Arctic Red River, Peel River, and Mackenzie River Delta);
- forest use survey of households in all communities;
- traditional knowledge forestry workshop; and,
- ecoforestry workshop.

The remaining projects are on-going:

- vegetation classification of the GSA;
- forest regeneration and productivity project;
- historical forest use project; and,
- developing sustainable non-timber forest products.

At the Traditional Knowledge Forestry Workshop (1997) concerns were raised about current forest harvesting practices in the settlement area. According to community elders, people are not spreading their cutting out enough and overharvesting in a few areas.

In 1998, the Silva Forest Foundation facilitated an 'Ecoforestry Training and Forestry Workshop' in Inuvik involving 25 participants from the settlement area. The focus of this workshop was to train community representatives, DRWED and GRRB staff in ecosystem-based forest management.

In 1999, the GTC hired a resource planner. This staff member began working with DRWED and GRRB staff on the Forest Management Plan.

FOREST USE IN THE TSIIGEHTCHIC AREA

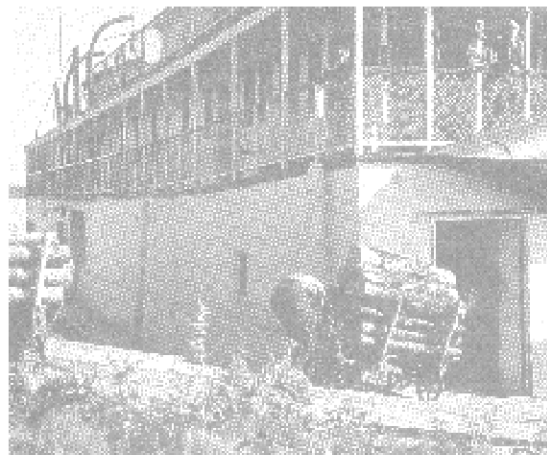
Past Forest Use

More wood was used in the past than is used today in Tsiigehtchic (Traditional Knowledge Forestry Workshop, 1997). Before oil became widely available in the 1950's, wood was used to heat homes and schools in the settlement. The mission school cut lots of wood along the Arctic Red River between the mouth and 20 miles upriver.



The settlement of Tsiigehtchic in the early 1900's.

Steamboats also used a lot of wood from the 1880's to the 1950's. Nap Norbert, a Tsiigehtchic elder who worked for the steamships, stated the ships burned 1 cord per hour (personal communication, 2000). Local people were often paid to cut and stack wood next to the riverbanks. According to Nap, steamboat staff working in the 1930's were paid \$8 a cord for wood and deckhands received \$2/day. Mostly dry wood was cut for firewood but some wood was cut green in winter and rafted down in the spring/summer.



Loading cordwood onto the Hudson Bay Company steamship, 'The Distributor'.

Lumber was needed during the construction of Inuvik in the 1950's and the oil boom in the 1970's. Logs were cut from the Tsiigehtchic area and stockpiled in Inuvik but they were not suitable for market. The trees growing up the Arctic Red River are too twisted.

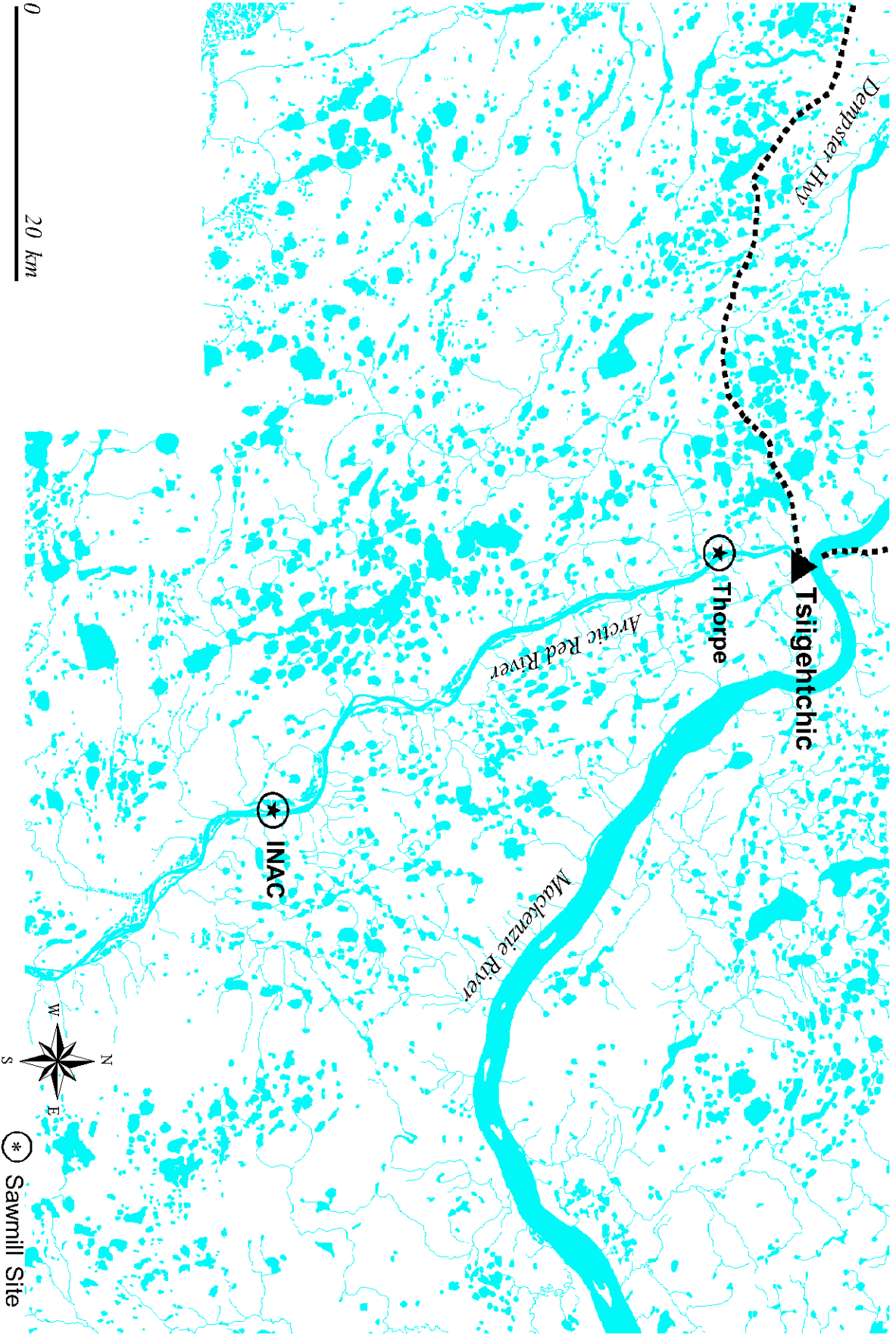
Sawmills operated up the Arctic Red River starting in the 1960's (see Figure 2 for locations). According to workshop participants, operators used cats and didn't clean up the brush very well. Jack Thorpe operated a sawmill at 7 miles until 1967. Then he started cutting wood at 25 miles and planned to move the sawmill there. Plans to move the mill fell through and he abandoned the site in the 1970's, leaving all the cut pilings behind. The federal government department, Indian and Northern Affairs Canada, operated a mill at 35 miles in the 1960's and 70's. Fred Sorenson took this sawmill over in the 1970's and moved the sawmill back to the Arctic Red townsite. Logs were rafted to town in the spring or hauled in on the ice road. Later, he moved the mill to Grandview in the Sahtu Settlement Area.

The Tsiigehtchic DGO (Designated Gwich'in Organization) purchased a wood miser with GNWT Department of Economic Development and Tourism funds in 1994. A few community members were trained to use it and made rough lumber by knocking off the top and bottom slabs. This wood was used to construct the Tourist Information building in Inuvik. The wood miser is not currently being used.



John Kendo Sr, Neil Firth, Fanny Greenland, Ruby Lennie, Jennifer Walker-Larsen, George Niditchi, Noel Andre, and Mike Gravel discussing and mapping sawmill locations.

Figure 2: Sawmill locations in the Tsiigehtchic area.



Current Forest Use

Most Tsiigehtchic residents cut timber along the Arctic Red River and its tributaries up to Jackfish Creek. Wood cutting locations were mapped during the Forest Use Survey in 1997 (Figure 3).

Subsistence Use:

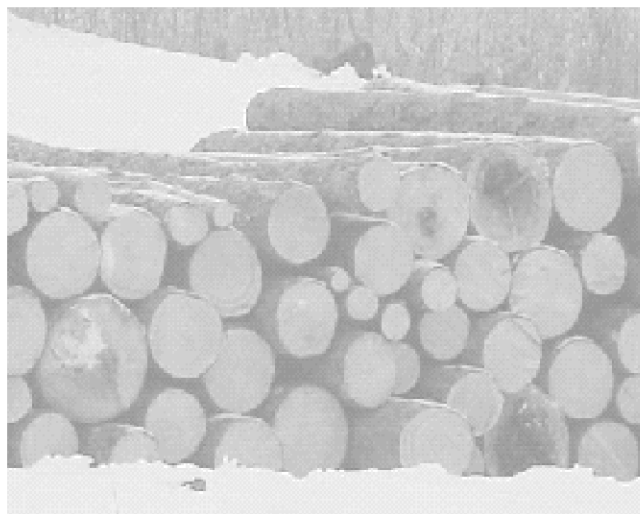
A. Firewood

Currently, much of the wood cut in the Tsiigehtchic area is used as firewood. Of the 33 households surveyed in the community in 1997, 61% reported using wood stoves in town and 42% reported using wood stoves at their camps (Table 1). Roughly 217 cords of firewood in total was reported cut in the Tsiigehtchic area in 1997.

Table 1: Firewood use by residents of Tsiigehtchic in 1997 (GRRB Forest Use Survey Data, based on 33 households surveyed).

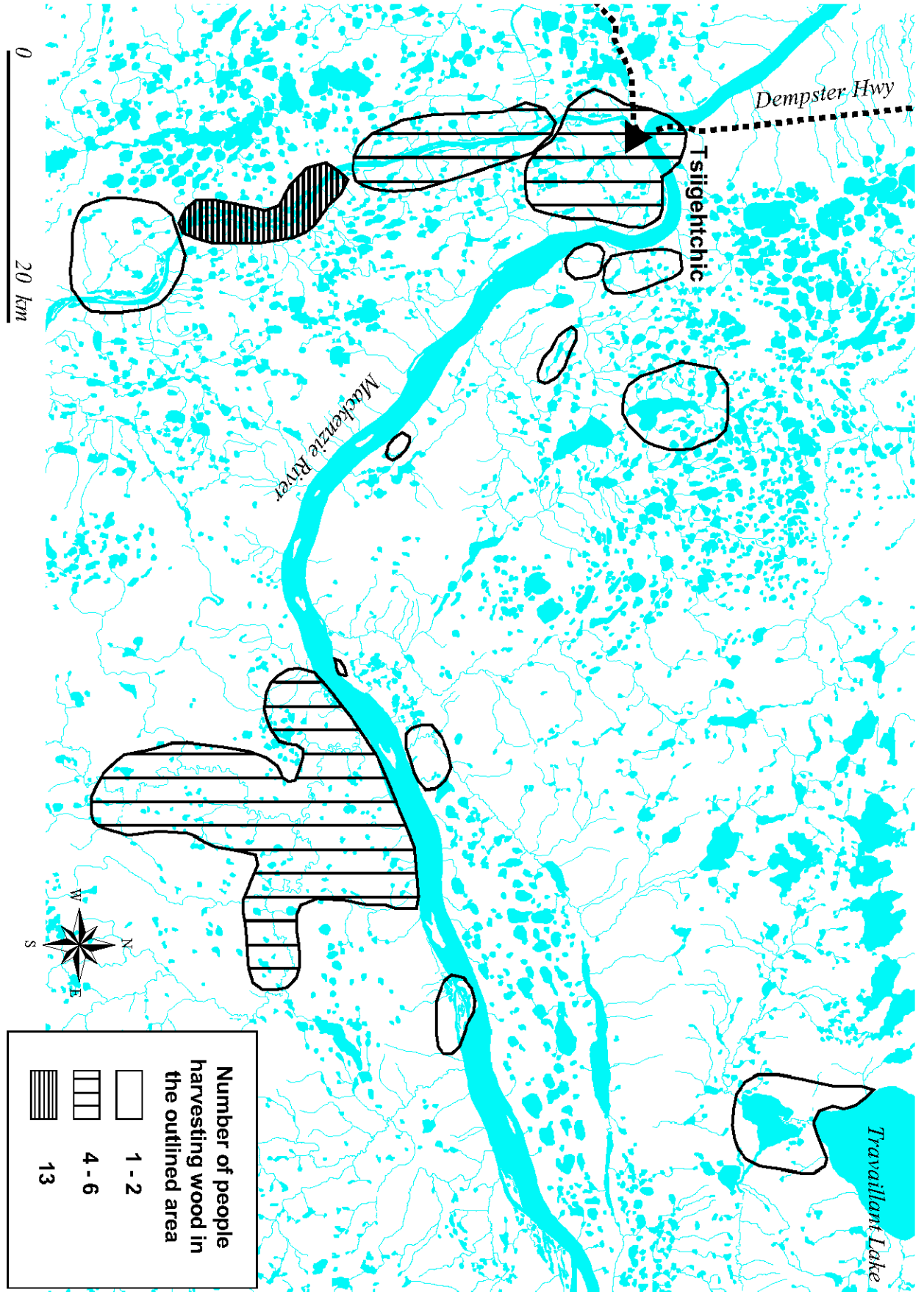
| Activity | Number of households | Average amount each year | Total amount |
|----------------------|-----------------------------|---------------------------------|---------------------|
| Firewood use in town | 20 | 7 cords | 140 cords |
| Firewood use at camp | 14 | 5.5 cords | 77 cords |

Workshop participants felt that firewood use has remained the same since the survey and will remain steady in the future.



Cordwood stacked outside a home in Tsiigehtchic.

Figure 3: Wood cutting locations (firewood and logs) of Tsiigehtchic residents (Forest Use Survey, 1997, 33 households).



A. Logs

Some trees are also cut for logs. About 15% of households interviewed during the Forest Use Survey (1997) reported cutting logs for personal use (Table 2). These are generally used as skids for boats, flagpoles, or foundations for cabins and tents.

Table 2: Use of logs by residents of Tsiigehtchic in 1997 (GRRB Forest Use Survey Data, based on 33 households surveyed).

| Activity | Number of households | Average number of logs | Total number of logs |
|-------------------------------|----------------------|------------------------|----------------------|
| Cutting logs for personal use | 5 | 62 logs | 310 logs |

Commercial Use:

There is a small local demand for firewood and logs, and a number of community members supplement their income by cutting wood commercially. In 1997, four households reported that they sold firewood (an average of 10 cords sold per household). Workshop participants felt that current firewood use is about the same.

In 1997, three households reported selling logs (total of 100 logs sold). The local demand for logs will likely increase in the future. Residents in the GSA are taking advantage of government homeowner incentive programs to own their own houses. Log homes are an attractive option for many home builders. A 20' by 20' log cabin was built with local logs from the Arctic Red River area for George Niditchi (Tsiigehtchic) as an employment training project in the summer of 2000. Between 46 and 48 logs were used, cut from islands about 25 miles up the Arctic Red River. In the summer of 2001, two privately-owned log homes will be constructed, one in Tsiigehtchic and one in Fort McPherson.



George Niditchi's new cabin constructed with local logs.

Increased oil and gas activity will also increase the demand for rough cut lumber. This lumber is used for building camps, building skids for machinery, and building foundations for structures. If the Mackenzie Valley pipeline is constructed, there will be a demand for woodchips.

FORESTRY ISSUES/CONCERNS AND POTENTIAL SOLUTIONS

Forest Values

The forests of the Gwich'in Settlement Area are important to residents of Tsiigehtchic. The forests provide wood for cabins and firewood, shelter for wildlife, clean air, and medicinal products. It is important that the forests remain healthy so traditional use can be continued by future generations.

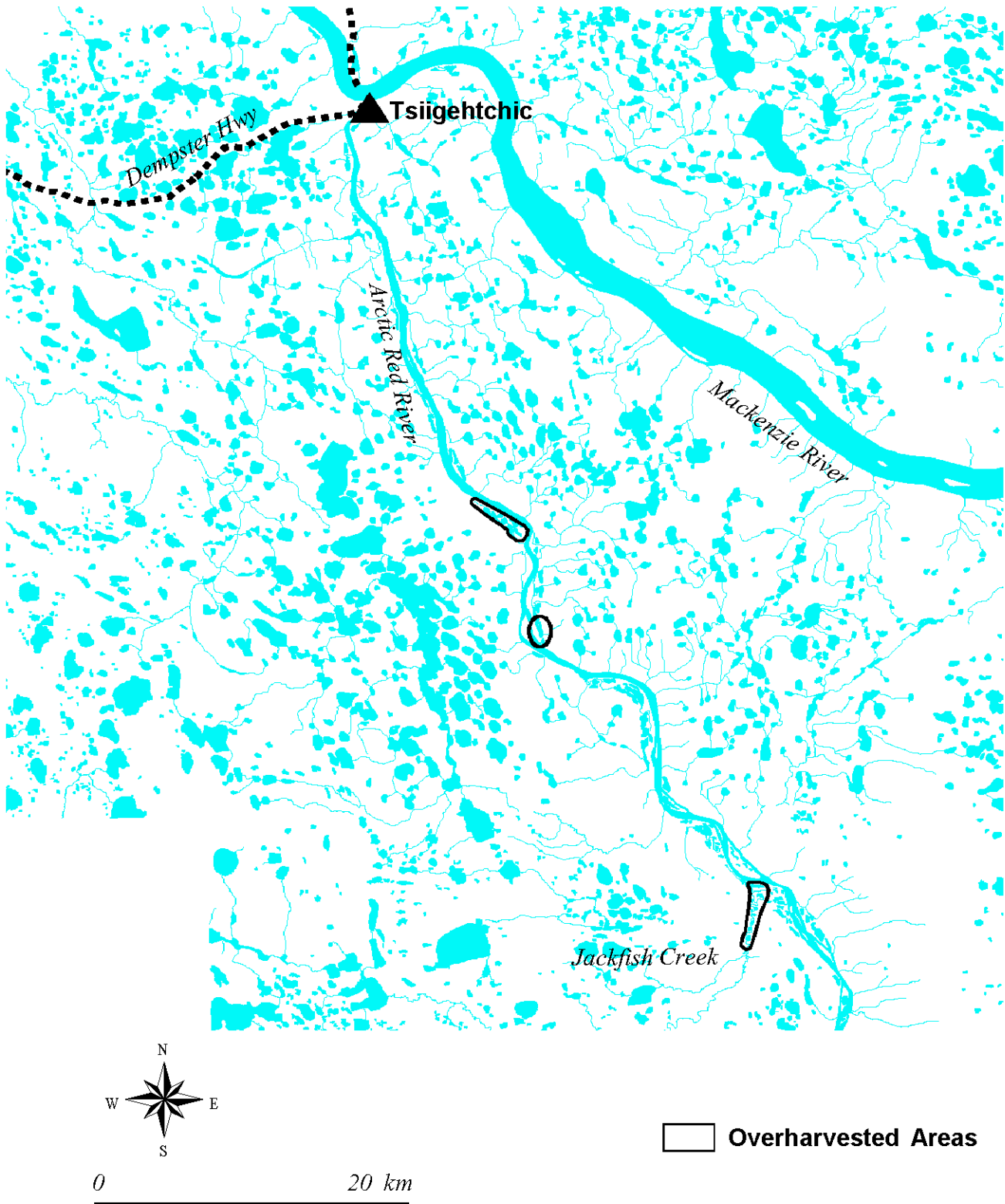
State of the Forests in the Tsiigehtchic Area

Workshop participants stated that there is little deadwood close to the community. From Tsiigehtchic to about 7 miles up the Arctic Red River, all the deadwood has been cleaned out due to increased harvesting pressure there. There is still lots of deadwood left farther upstream. There is also not much deadwood left by the fish lakes due to heavy use of firewood there. All the logs in some areas were cleared out by people cutting for the sawmills (Figure 4). The biggest and best trees up the Arctic Red are now being taken to build log homes. Trees must be large, tall, straight, not spiral-grained, and accessible by boat or snowmobile.



John Kendo, Jr., Thomas Kendo, Louis Jerome, and Neil Firth reviewing past cutting areas on map.

Figure 4: Overharvested areas identified by workshop participants



Harvesting Practices

Heavy equipment is not used for logging in the Gwich'in Settlement Area. For both subsistence and commercial purposes, wood cutters access stands by boat or snowmobile, cut trees with chainsaws, then raft or haul the wood to the final location.

Workshop participants generally felt that most people harvest trees in a responsible manner. Education is needed to ensure people understand the importance of good harvesting practices. Workshop participants identified the following forest practices as being especially important for harvesters to follow.

1. *Do not waste wood*

People should use the wood they cut. When cutting for logs, people should not cut a large tree down and only take the larger 20 foot length.

2. *Use driftwood for firewood and building*

People need to use more driftwood. Driftwood is piled high in many places. Nap got enough driftwood at high water one year to burn for a year. Instead of cutting live trees driftwood can also be used to build log homes.

3. *Clean Up*

Branches left after cutting should be spread out rather than piled. All garbage should be taken out of the bush, not left.



Annie Norbert, Nap Norbert, and Noel Andre provide comments on the community plan.

Forest Management

Workshop participants discussed current forest management in the Gwich'in Settlement Area, identified issues that needed to be addressed, and suggested possible management solutions.

1. *Committee to oversee forest management*

Community residents felt a committee is needed to oversee forest management in the GSA. The Forestry Working Group with representation from each of the four communities currently fulfills this role. This group will oversee development and implementation of the Forest Management Plan.

2. *Community firewood harvest*

Tsiigehtchic should organize a community firewood harvest. Firewood could then be sold at cost to residents.

3. *Increase use of driftwood*

There is lots of driftwood available that is easy to collect for firewood. There should be a community program to harvest firewood and sell at cost or someone should be encouraged to start a firewood business and use driftwood.

4. *Hold General Assembly to promote and enforce Forest Management Plan*

When the Plan is complete, a general community assembly should be held to educate people about the Plan, good harvesting practices, and timber harvesting and permitting regulations. The Chief should attend these meetings.

5. *Education Pamphlet*

The RRC should develop a pamphlet that shows areas where people should not cut wood (i.e. gravesites, sensitive areas, people's trapping areas, etc) and outlines good timber harvest practices.

6. *Tree Planting*

Trees should be planted in areas that were overharvested in the past. Tree seedlings should be made available to community members to plant at their camps and at gravesites.

7. *Research potential impacts of global warming*

Weather seems to be changing in the region. There should be more research on the effects of global warming related to forestry, tree growth, forest fires, and insect outbreaks.

AREAS PROTECTED FROM FORESTRY ACTIVITIES

Workshop participants discussed existing protected areas in the Tsiigehtchic region. Currently there are two types of protected areas near Tsiigehtchic: national protected areas and areas protected by the proposed Gwich'in Land Use Plan.

National Protected Areas

There are two national protected areas near Tsiigehtchic: Mackenzie River (Thunder River to Point Separation) is a National Heritage Site and Arctic Red River is a National Heritage River. These designations are to promote conservation. Both personal and commercial forest use is allowed in these areas.

Gwich'in Land Use Plan

The Gwich'in Land Use Plan is now complete and is awaiting approval from DIAND. The Plan allows timber cutting for personal use in all areas of the Gwich'in Settlement Area, however the Plan proposes two types of protected areas where commercial forestry (and other developments) would not be allowed. See Figure 5 for a map of these areas.

1. *Gwich'in Protected Areas* – areas of outstanding wildlife significance. These areas include Travaillant Lake/Mackenzie/Tree River and Arctic Red River near Tsiigehtchic.
2. *Gwich'in Heritage Protected Areas* – areas of outstanding historical or cultural significance. These areas include Thunder River, Old Arctic Red, Jackfish Creek, Martin House, and Bernard Creek near Tsiigehtchic.

Other Areas

Workshop participants discussed whether any area required additional protection from forestry activities. It was generally felt that because there is lots of deadwood available for firewood there was no need to give protection from subsistence harvesting to any area. However, people should avoid cutting timber in the following areas:

1. Rengleng River

There has been a lot of cutting off the Dempster highway at Rengleng River and at the mouth of Rengleng on the east branch of the Mackenzie River (see Figure 6). No timber harvest permits should be issued for these areas except for local camp owners.

2. Cultural sites

It is important to avoid cutting at cultural sites, such as gravesites. The Gwich'in Social and Cultural Institute should make residents aware of the locations of these sites so they can be left alone.

Figure 5: Protected areas in the Tsiigehtchic region established by the Gwich'in Land use Plan.

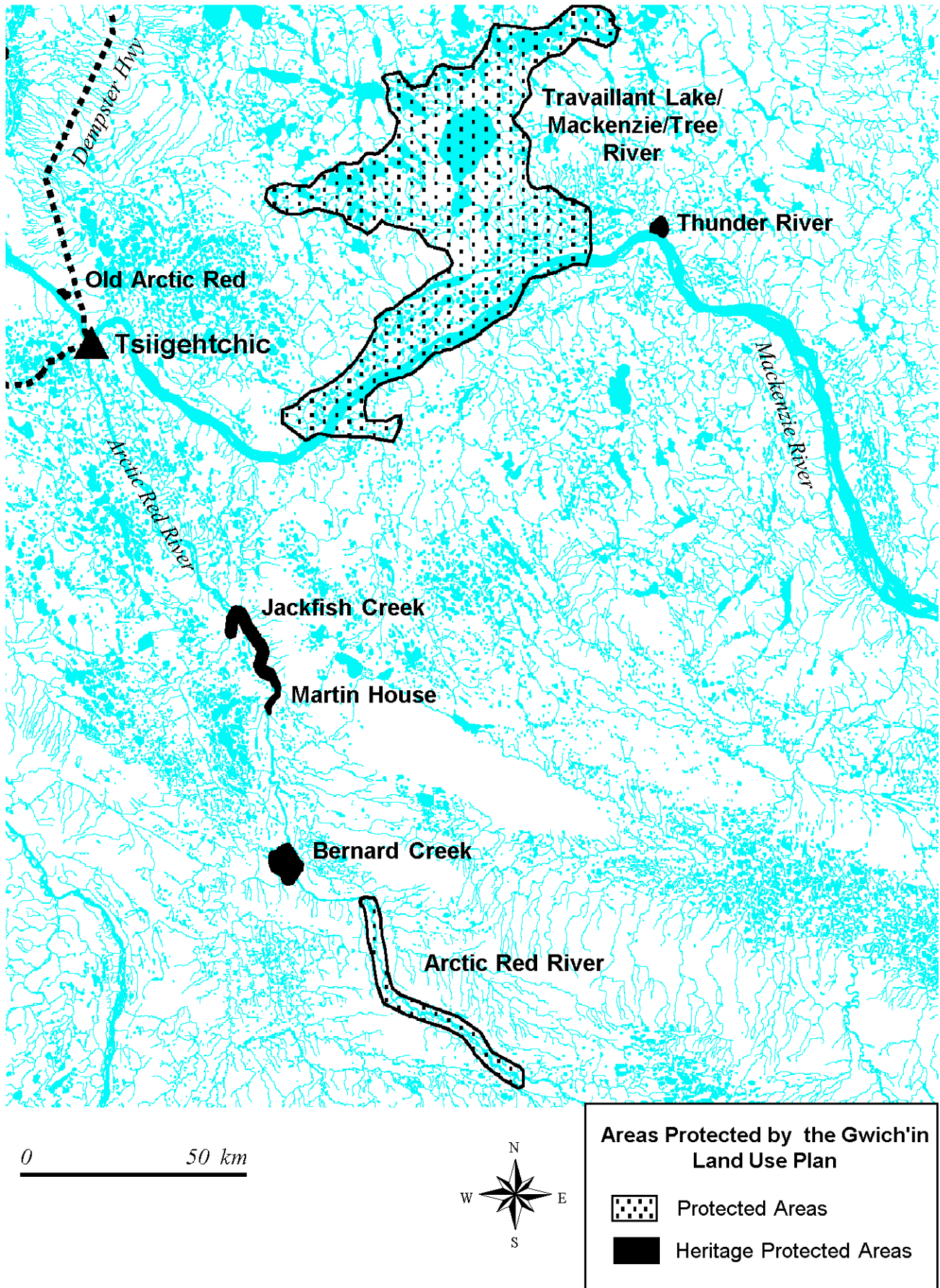
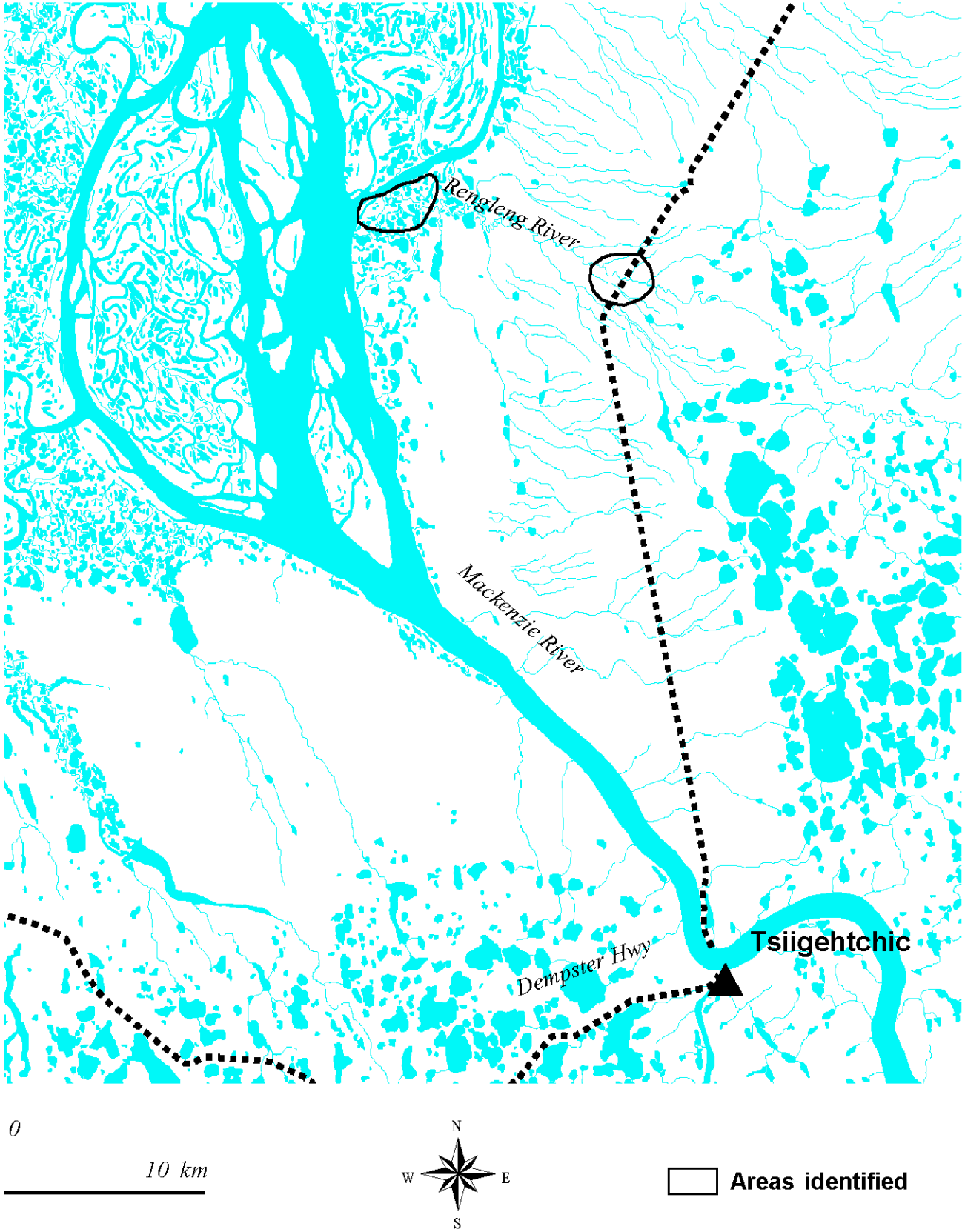


Figure 6: Areas identified by workshop participants that should be protected from timber harvesting, except subsistence harvesting by local camp owners.



3. *Close to the community*

Workshop participants felt that there was too much cutting near the community and there is not much deadwood left. They proposed that no wood should be cut within 2 km of town.

4. *Near other people's camps*

People need to ask permission when cutting within 500 m of another person's camp or trapline.

AREAS THAT SHOULD BE PROTECTED FROM FIRE

Fire is a natural part of the region and plays an important role in keeping the land healthy. However, fire can threaten people, communities and areas with high wildlife value or traditional value. Consideration must be given to when and where fires are fought.

Brief discussions took place regarding fire management and fire fighting decision making in the Region. Maps were used to show the recent history of fire in the McPherson area. It was clearly evident that wherever fire has occurred in the past forty years, no new fires have started. The maps also showed how new fires run into old burns and stopped.

The maps were a good tool to show how some of the Region's largest fires (1989 and 1999) occurred in areas where many fires were previously put out. This allowed for large, uncontrollable fires to move in when the conditions were right: hot, dry, windy, and lots of fuel (older forests).



Group discussing areas that should be protected from fire. In photo from left to right are Brian Dokum, John Kendo Jr., John Kendo, Sr, Thomas Kendo, John Kendo, Louis Gerome, Neil Firth, David Cardinal, Ruby Lennie, John Norbert, Wayne Cardinal, Fred Andre, and Mike Gravel.

By fighting all fires, the forest continues to get older and eventually will be prime for a large fire. By allowing fires to play a natural role, many smaller fires will dominate the land. This creates a mix of young and old forest. It is this mix of forest ages that benefit animals the most and reduces the likelihood of large fires spreading across an area.

Workshop participants generally accepted the fact that RWED is primarily concerned with protecting human life and communities from forest fires. The need for more fire management talks was indicated and will take place during the winter or spring months.

APPENDIX A: WORKSHOP PARTICIPANTS

| | |
|-----------------------------------|------------------------------------|
| Fred Andre (RRC Co-ordinator) | Billy Clark |
| John Norbert (RRC) | George Niditchi (Community member) |
| Noel Andre (RRC) | Brian Dokum (Community member) |
| Julie-Anne Andre (RRC) | Nap Norbert (Community member) |
| Thomas Kendo (Community member) | Annie Norbert (Community member) |
| Louis Jerome (Community member) | Neil Firth (FWG) |
| Ruby Lennie (Community member) | Fanny Greenland (FWG) |
| Wayne Cardinal (Community member) | Mike Gravel (DRWED) |
| David Cardinal (Community member) | Lawrence Lewis (DRWED) |
| John Kendo Jr. (Community member) | Alex Benitah (GTC) |
| John Kendo Sr. (Community member) | Jennifer Walker-Larsen (GRRB) |
| Barney Natsi (Community member) | John Edwards (GRRB) |

| | |
|-------|-----------------------------------------------------------------|
| DRWED | Department of Resources Wildlife and Economic Development, GNWT |
| GRRB | Gwich'in Renewable Resource Board |
| GTC | Gwich'in Tribal Council |
| RRC | Renewable Resource Council |
| FWG | Forestry Working Group |

APPENDIX B: FLIPCHART NOTES

Break Out Groups Session 1:

Discussion Questions: Do the numbers sound right? (Forest Use Survey)
 Do people still go to the same places?
 Is there lots of deadwood?
 Do people use more wood now?
 Will firewood use stay the same in the future?

Group 1:

Forest use survey info seems accurate.
 People cut wood in the same places.
 No deadwood left near town, need to go 7-8 miles away.
 Wood use about the same.
 Not many people selling wood (only 3), there is demand but people don't want to do the work.
 High oil price, \$900-1000 to fill oil tank, \$1.03/L for heating oil, more people may cut in the future to save money but there will be more jobs with oil and gas and people might not bother.
 Firewood costs \$200-\$250/cord

Group 2:

Potential exists to harvest EV-006.
 Cut up the piles and piles of driftwood in the delta – start at Point Separation.
 Used to burn straight driftwood about 10-15 cords per year. Only, it is hard wood on the chainsaw causing more wear and tear.
 Use the fire crew and boat to cut up wood for the community.
 There's still lots of wood up the Red
 Oil prices are going up so we will need to use more wood but even wood prices went up really high
 Demand for log homes will undoubtedly result in more fuelwood consumption
 Pipeline to use woodchips
 \$800 a month for rent way too much – John Kendo Sr.
 People don't cut at some of the spots written on the map (Forest Use Survey) – George

Group 3:

Dry wood cleaned out about 7 miles up the Red
 So much cutting over the years, not much dead wood around town
 Not much wood by fish lakes, people use them and get wood
 Winters have been warmer, less heat needed and less wood burned
 Cord of firewood costs \$175-\$250

Break Out Groups Session 2:

Discussion Questions: Do the numbers sound right?
 Do people still go to the same places?
 Are there lots of logs out there?
 Do people use more logs now?
 Will log use stay the same in the future?

Group 1:

Forest Use Survey numbers about right.
 Wood here not good for lumber (twists)

Group 2:

Oil companies will use wood for blocking and pilings
 Local lumber pilings will be used more often
 Survey of wood use – number of logs used by year or community seemed high, yet maybe have not factored in the building of T'loondih.
 Some fine deadwood near the Yukon border likely more than 50x50 yds
 Fish lakes are all out of dry wood because of high use

Group 3:

more logs houses built will increase demand
 Noel Andre worked about 7 years cutting wood. Pretty well cleaned out. Fred Sorenson cleaned out 40 miles and 7 miles. Priests that were cutting around here never cleaned up their mess. Places were overrun with cats back in the 60's, quite a bit taken out.

Break Out Groups Session 3:

Forest Concerns/Issues and Potential Solutions

Discussion Questions: 1. What are some responsible forest practices?
 2. How should forests be managed in the GSA?

Group 1:

Have a community harvest and sell it at cost
 Sell wood as a business
 RRC make pamphlet encouraging good harvest practices, maps of areas to avoid, etc.
 Lots of driftwood out there – community program to harvest firewood or encourage someone to start a business with firewood
 Driftwood also good for building – building log homes

Group 2:

Need to utilize driftwood – lots of places where it is piled high. Nap said he got enough wood one high water to last until April

Wastage – don't leave good parts, don't just take a 20' length

Pamphlet showing where sensitive areas are

Billy Cardinal's trap line – people are using his trapline to get to hunting areas, there is an optional outline that can work

Need to have leaders hear this stuff

Group 3:

People don't really girdle trees around here

Monitors for people and companies needed

On protecting areas from cutting: what's the point, a forest fire will take it anyways

Education needed to teach about leaving big trees as a seed source.

Safe and efficient cutting practices

Good idea to plant trees

Dig around the snow when falling a tree

Look into effects of global warming and consider long term implications of this, more mild winters? more fires? more insects?

Need to have general assembly to promote and 'enforce' new forest management plan

Areas of cutting should be enforced, trees should be all used up not leaving anything behind (John Kendo)

Tree planting at gravesite locations, people's camps

People should avoid cutting on traplines and pick up all garbage on site

Have a map listing all traplines, gravesites, etc

RWED has 45 gallon drum sitting at Trout Lake – take it away

Lots of unwanted cutting going on around Rengleng River

The Chief should attend these meetings

Educate people at General Assembly about Forest Management Plan. Take names and figure out who does not have info on the new plan.

APPENDIX C: WORKSHOP AGENDA



AGENDA Tsiigehtchic Community Forest Use Planning Workshop

Dec 8th, 2000
10 am to 5 p.m, lunch provided

There will be a morning coffee break and an afternoon coffee break
Lunch will be 12:00 - 1:00 p.m.

1. **Welcome**
 - Participants introduce themselves
 - Explain format of the workshop

2. **Workshop Objectives**
 - | Provide input to the Forest Management Plan
 - | Identify forestry concerns in the Tsiigehtchic area and in the GSA as a whole.
 - | Identify potential management solutions to forestry issues.
 - | Map historic forest use in the Tsiigehtchic area
 - | Identify areas that should be protected from forestry activities
 - | Identify areas that should be protected from forest fires

3. **Introduction to the Forest Management Plan**

4. **Forest Use in the Tsiigehtchic Area**
 - A) Historic forest use - steamships, sawmills, etc.
 - Mapping of logging sites, sawmill sites, cut-out areas, etc

B) Current forest use

Summary of results from forest use survey

Has forest use changed since the survey?

Will forest use change in the future?

5. **Forest Concerns in the Tsiigehtchic area**
 - overview of forest use survey information
 - break-out groups to identify additional concerns
 - Open forum to discuss/prioritize concerns
6. **Potential Solutions to Issues/Concerns - break-out groups**
 - Open forum to discuss potential solutions*
7. **Protected Areas from Forest Activities**
 - Overview of existing protected areas and level of protection
 - Do some areas need to be protected from timber cutting?
8. **Protected Areas from Forest Fires**
 - discussion, mapping exercise
9. **Forest Monitoring**
 - Current monitoring
 - What should we monitor
 - Timber Permitting Process
10. **Summary and Closing**
 - Recap of workshop
 - Where to from here