

Bosworth Creek HISTORY PROJECT

Focus Group Report

Norman Wells, NT

September 9, 2008



Prepared for:
Sahtu Renewable Resources Board



Prepared by:
SENE Consultants Ltd.
December, 2008

Executive Summary

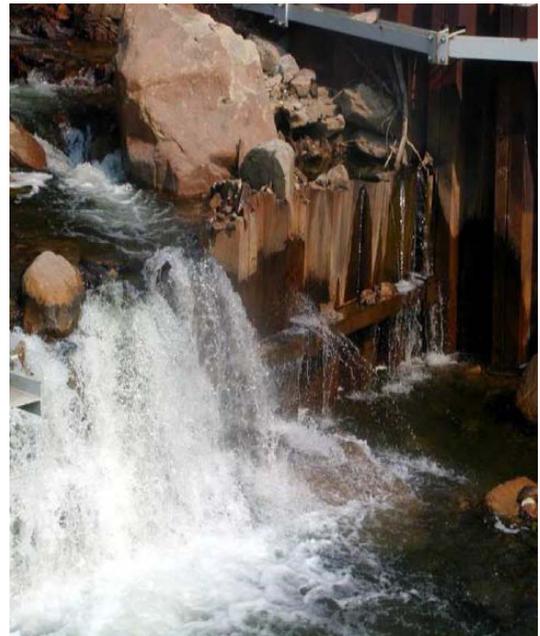
The Bosworth Creek watershed is ideally located for subsistence fishing near the Norman Wells/Tłı̄gōłı̄ community. The Bosworth Creek History Project was initiated by the Sahtu Renewable Resources Board to gain an understanding of an important aspect of harvesting history in this area, including traditional practices and knowledge of Dene and Métis residents, and local knowledge and practices of long-term non-indigenous residents. In particular, people's perspectives on the cumulative effects of water flow disruption through construction of a weir on the creek, as well as impacts of the reclamation process on fish habitat and harvesting practices, can provide insights that can be applied to future planning processes. The current project allowed for a preliminary scoping of traditional/local knowledge, and recommendations for future work.

The Bosworth Creek Monitoring Project is primarily concerned with identifying the natural re-establishment of subsistence species that were precluded from spawning in the creek for 45 years by the weir. These species include, but are not restricted to, whitefish, grayling and suckers. The core goal of this focus group was to identify these and other species as being present prior to the 1960 weir construction.

The focus group discussions covered a wide variety of topics beyond the scope of the original list of questions, expanding considerably the historical context for the monitoring program. In particular, we were fortunate to document for the first time the story of the relocation of the Dene/Métis community at Bosworth Creek. Other topics included personal/family biographies in the Norman Wells area, place name history, community life at Bosworth Creek, impacts on the creek, and youth involvement in monitoring.

The Norman Wells Land Corporation would like to incorporate this project as part of their larger Métis History Project. They also have recommendations for follow-up interviews; expansion of the Bosworth Creek monitoring program; and development of the traditional knowledge component of the program with the schools. Many of the stories and historical observations remain undocumented to the knowledge of the participants. This was an opportunity to discuss a new partnership with the Norman Wells Land Corporation in developing the program.

The group recommended mapping the old Bosworth Creek community, and documenting the relocation of the community in more detail. A history of Bosworth Creek ecology from the perspective of harvesters and land users was suggested, including place names and trails. There was strong support for involving high school students in a next phase of the history project. The group also expressed support for the scientific monitoring program, and suggested specific ways that it could be expanded.



The weir site at the lower Bosworth Creek bridge between 1960 – 2005.

Photo courtesy Glen Guthrie.

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Appendices

Appendix A – *Bosworth Creek History Project: Focus Group Poster, September 9, 2008.*

Appendix B – Slide presentation: “Bosworth Creek Monitoring Project.” Glen Guthrie, Sahtu Renewable Resources Board.

Appendix C – Slide presentation: “Bosworth Creek Weir Removal Project.” Deborah Simmons, SENES Consultants Ltd.

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Bosworth Creek History Project

Focus Group Report
September 9, 2008-12-01
SENES Consultants

Background

The Bosworth Creek watershed is ideally located for subsistence fishing near the Norman Wells/Tłı̄gōłı̄ community. The Bosworth Creek History Project was initiated by the Sahtu Renewable Resources Board to gain an understanding of an important aspect of harvesting history in this area, including traditional practices and knowledge of Dene and Métis residents, and local knowledge and practices of long-term non-indigenous residents. In particular, people's perspectives on the cumulative effects of water flow disruption through construction of a weir on the creek, as well as impacts of the reclamation process on fish habitat and harvesting practices, can provide insights that can be applied to future planning processes. The History Project allows for a preliminary scoping of traditional/local knowledge, and recommendations for future work.



Field trip to the old Bosworth Creek weir site.

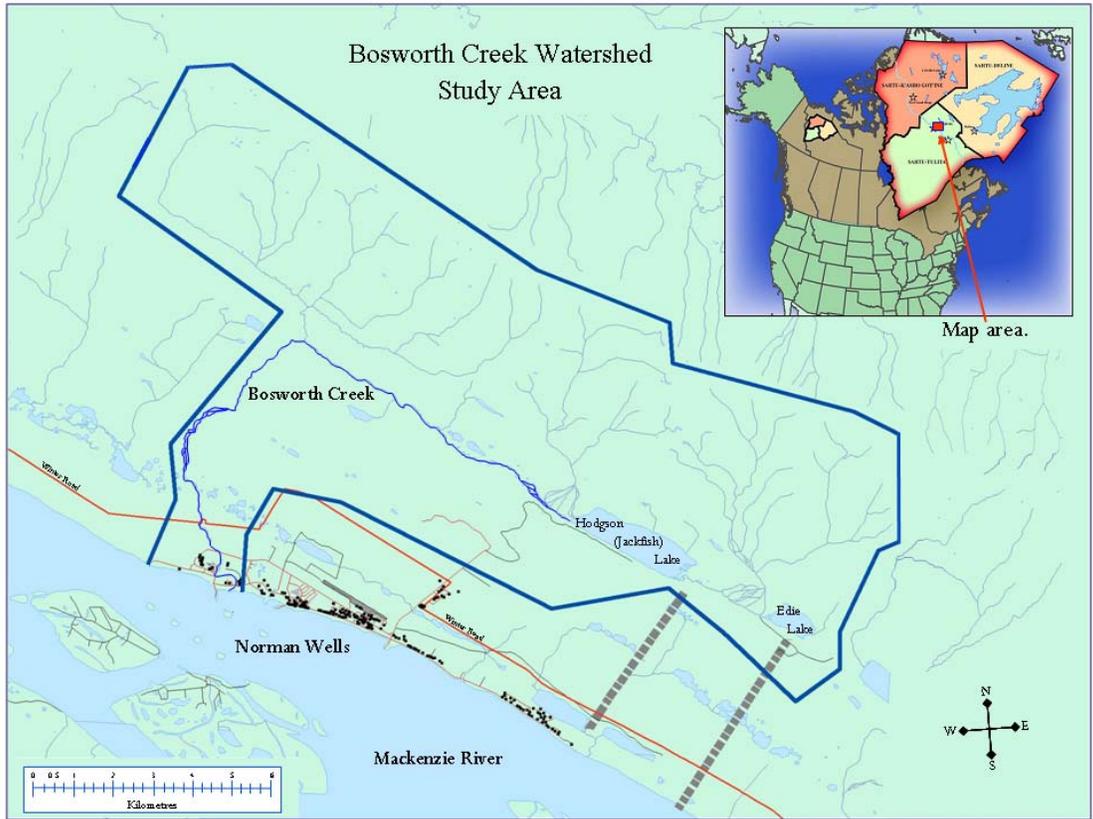


Figure 1: Map of Bosworth Creek Study Area
Courtesy of the Sahtu Renewable Resources Board

Participants

Community Partner

Norman Wells Renewable Resources Council

Facilitation

Deborah Simmons, SENES Consultants
Glen Guthrie, Sahtu Renewable Resources Board

Youth Assistants

Mark Meulenbroek
Yvonne Meulenbroek

Focus Group Members

Rodger Odgaard, President, Norman Wells Land Corporation
Edward Oudzi
Ed Hodson
John Louison

Transcription

Adelle Guigon, AMG Word Processing Services



Left to right: Glen Guthrie, Edward Oudzi, Yvonne Meulenbroek, Mark Meulenbroek, Ed Hodson, Rodger Odgaard

Approach and Methods

The Bosworth Creek Monitoring Project is primarily concerned with identifying the natural re-establishment of subsistence species that were precluded from spawning in the creek for 45 years by the weir. These species include, but are not restricted to, whitefish, grayling and suckers. The core goal of this focus group was to identify these and other species as being present prior to the 1960 weir construction.

Participants were identified with the assistance of the Norman Wells Renewable Resources Council, Edward Oudzi, and Glen Guthrie. They were selected based on their knowledge and experience of Norman Wells history. Two youth assistants who are centrally involved in the monitoring program were also asked to participate. They assisted with hosting, audio recording, and photographic documentation of the event.

Since this was a scoping exercise, the discussion format following initial presentations was relatively unstructured. However, a number of questions were identified in preparation for the meeting.

- What is the traditional name for Bosworth Creek?
- What species were found in the creek prior to 1960? any pictures that people have?
- Was this creek a major subsistence source prior to 1960?
- What was break-up like before 1960?
- Where there any industrial impacts to the creek before the weir was built? (eg. barge shoved up the creek)
- What are people's impressions of the restoration?

The focus group was a full day in duration. The agenda was as follows:

- Introductions and consent protocol
- Presentation: Bosworth Creek Monitoring Project (Glen Guthrie)
- Presentation: Bosworth Creek Weir Removal Project (Deborah Simmons)
- Discussion
- Field trip to Bosworth Creek weir and restoration site
- Discussion and recommendations

The audio recording was transcribed, and the transcription was coded using QSR NVivo software. This coding served to identify the main topic areas that were discussed.



Clockwise from left: Rodger Odgaard, Edward Oudzi, Deborah Simmons, Mark Meulenbroek, John Louison, Glen Guthrie

Structure of this Report

This report includes a results summary with an outline of topics discussed by the focus group. The outline structures the detailed results section, which is drawn from the focus group transcript. The final section summarizes the recommendations developed by the group. Appendices include the poster used to publicize the focus group, and slide presentations by Glen Guthrie (Sahtu Renewable Resources Board) and Deborah Simmons (SENES Consultants).

Summary of Results

This was considered by project participants as a preliminary scoping project. The Norman Wells Land Corporation would like to incorporate this project as part of their larger Métis History Project. They also have recommendations for follow-up interviews; expansion of the Bosworth Creek monitoring program; and development of the traditional knowledge component of the program with the schools. Many of the stories and historical observations remain undocumented to the knowledge of the participants. It was very fortunate that the Rodger Odgaard, President of the Norman Wells Land Corporation, was able to participate in most of the day's activities. This was an opportunity to discuss a new partnership in developing the program (see Detailed Results S9: Recommendations).

The discussions throughout the day covered a wide variety of topics beyond the scope of the original list of questions, expanding considerably the historical context for the monitoring program. In particular, we were fortunate to document for the first time the story of the relocation of the Dene/Métis community at Bosworth Creek.



Focus Group Topics

Narratives drawn from the focus group transcript are provided in the Detailed Results section according to the following list of topics:

1. Personal/family biographies
 - a. John Louison
 - b. Ed Hodgson
 - c. Edward Oudzi
2. Place name history
3. Community life at Bosworth Creek
 - a. Childhood
 - b. Oil seepage
 - c. Indigenous oil use
 - d. Traditional medicine and water use
 - e. Canol pipeline era
 - f. Cabin
 - g. Gravesites
4. Relocation from Bosworth Creek
5. Fish
6. Impacts on the creek
 - a. Dam, bridge and dredging
 - b. Contamination
7. General impact concerns
 - a. Contamination
 - b. Erosion
8. Youth involvement
9. Recommendations



Detailed Results

NOTE: Narrative drawn directly from the transcript is in non-italicized text. Italicized text is by the report author, or where specified in square brackets, interjections by other participants.

1 *Participant Biographies*

a. John Louison

John Louison's great-grandfather was named Andre Niara. John is a member of the K'asho Got'ine First Nation from Fort Good Hope, but worked for many years in Norman Wells. He now operates one of the Esso boats for the Norman Wells Land Corporation.

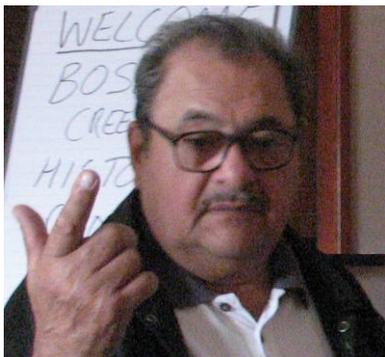
Sucker Creek and around here was traditional Fort Good Hope hunting area way back. And the proof is across the river at Charlie Barnaby's dad's camp. People used to live there, and at Florence Lake, and on the edge of the mountains – the T'seleies, the Bonifaces and I'm not sure who else have cabins up here. My mother and my aunt survived the relocation from Bosworth Creek. But then they were married.

I'm 69. Some people want me to go to meetings and so on. I'm beginning to realize why I had a good life. I tried my best, now why should I get back was the attitude I had. But now I realize this thing is important.



b. Ed Hodgson

Well, we were always here, like, from day one. My dad used to be a boat person, he had a scow. In the old days they called them scows. And the way they moved around was tracking. People would pull the boats or dog teams would be hooked up and they would take the freight up to the uranium mines, up at Port Radium. And they used sails and stuff like that. Any means to move. But he had a little put-put there, a four-cylinder job that didn't have enough power. So he had to use other means like sails and dragging and stuff like that. Depending on the load that they hauled the river.



Mom's family was Blondin. George Blondin was her brother. Blondins, they have a little baby buried here. Just upstream from the Bosworth. They were going to push it over and I said, hey, there's a body there. Because I was there when they buried it. Just a baby, George Blondin's, or maybe his brother Edward Blondin's baby. I'm losing track of my relatives.

I have quite a time now that I'm retired. I go down to Florida in the winter time and I tell stories to the Americans about my ancestors, how they survived the harsh winters in the old days. I said, they didn't

have the guns or anything to kill their moose. So what they did was they took young wolves as they were born, and they're actually killers. So they trained the dogs to bring a moose down and then they finished it with their arrows. They found it quite interesting. I'm going to go into storytelling, I think.

c. Edward Oudzi

My grandfather was from Ross River in the Yukon Territory. And so they would travel across the mountains every once in awhile bringing fur over to Tulit'a. My grandfather had a brother and when the got to Tulita there was two brothers and three sisters. The sisters got married at Tulita. My grandfather's brother got married over at Fort Rae with a Dogrib [*Ṭḥcḥo*]. And my grandfather, he went out with the peoples to Horton Lake [*Araḳə Ṭúé*]. Then he met my grandmother out there. Very romantic.



Then he went back to Tulita and all the way down to Fort Rae to see his brother. He said he was going to get married too, so he said he won't be able to see him again. And he came back. As soon as he got back to Tulit'a he went to Horton Lake again. Then he ran into my grandmother and they walked all the way to Fort Good Hope. Then when they got to Fort Good Hope they got married. There was no wedding party, just the three of them over at the church. My grandfather and my grandmother and the priest. They got married, they went home, they went to sleep. The next morning their tent was all gone. They took off to Horton Lake again. That's how we ended up around Colville Lake.

I got lots of relatives, even him [*Ed Hodgson*]. I'm related to the Blondins, and the Modestes too, from Great Bear Lake. We're all related up here.

I did lots of travelling when I was young. My dad used to travel to Tulit'a to see all his relatives. And to Deline. Then after he got, he couldn't make it again, so it was my turn. [*When I first came to Norman Wells*] I walked from Colville Lake. I walked ahead of my dogs. I started out with four dogs and one of my dogs got run over in Good Hope. I came to Norman Wells with three dogs. Two hundred and forty-four miles. It's shorter over by Turton Lake.



Mark Meulenbroek and Edward Oudzi

2 Place name history

Ed Hodgson

The creek is named after the geologist that worked around Norman Wells. This guy was named Dr. Bosworth. His name went on the creek because it had bluefish. And the name Norman he carried on to Fort Norman. You know, he'd do all the geology work. And he was the person who kind of confirmed the potential, the petroleum potential in this area. I've got a book that tells you where all this stuff is. All the wells that were drilled in the area.

Edward Oudzi

They used to call it the Jackfish Creek – after, connected to Jackfish Lake. *Qhdate* in Dene language.

3 Community Life at Bosworth Creek

a. Childhood

Ed Hodgson

My family moved down here in '39 from Bluefish and we stayed in tents here. When we first came Bosworth Creek was an attraction for us kids. We'd go down there and play. In those days the brush came, the willows came right down to the river. There was lots of rabbits.

So what happened here with the natives at Sucker Creek, they would come over and visit. At the beginning, in the '20s, there was some people settled up at just above



Ed Hodgson takes the group on a tour of the old cemetery.

Edward's place there. In fact, the houses are still there and there's an impression of an old boat. And there's a bullpen. I often wondered why that bullpen was there. So I asked my friend Hammer Nelson, who the mountain is named after here, I said, what's that bullpen for? Oh, he says, in the old days they brought the oxen in to pull the rig around and move equipment around. The ox's name was Nick. The first winter the guys stayed here, come March time, the guys were running low on food so they had to kill old Nick for meat. So that got them by the winter.

That's where they drilled, they struck gas, they drilled one well there and struck gas at 800 feet. It's quite a historic site because there's an old wheel there of a rig. It's pretty well grown in. There's the impressions of the old houses too. I took a little metal detector and went up there and found me some cups and saucers. But I never got anything too big. I just thought, well, someday someone's going to want to take it seriously and get more stuff from there. That land belongs to our organization [*the Norman Wells Land Corporation*]. So at that time there was a settlement there. That was the settlement of Norman Wells. There was George Hurst, an old trapper.

Yeah, on that rig site there's that big tree there with a bent branch on top and there's a rock point there. I often tell my grandson about the marker. He knows exactly where to look. But a lot of people went out there looking and they couldn't find it. And there's a log across the trail, too. Well camouflaged. But we've got to get that place marked some time. Good history there.

What else about that place? Yeah. Well, in those days they just had scows. My dad was actually doing some expediting for the geologists and that. But he came on board later. It was pretty hard to get around in those days. They had dog teams for mail and nobody wintered here too much. So what they had to do, if they were going to leave here, in 1919-20, it's the first time that they wintered here. In 1919 it was discovered. And they wintered here and that's the time old Nick got killed because they were short of food. They had natives around them, so they were okay. The guys would hunt and bring meat in exchange for tea or whatever.

In 1914 or 17 DC I think it was, that Old Mackenzie paddled down here and he encountered the natives at Sucker Creek. They were there and he offered them tea, but they didn't like his tea. It tasted different to them.

On the banks that's where people lived. In those days they gotta keep warm. They freeze to death if they had tepees or whatever. They didn't have the garments we have today. So only one place, in the banks. It was warm. I know years ago my dad had goats and they put them, he made a little hut into the bank and the body heat of the goats kept it warm. At Bluefish, we used to go down and milk the goats. Yeah. I don't think I'd be here today talking to you if I didn't have goat milk. It filled me right out. I was not a very well child.



b. Oil Seepage

Ed Hodgson

In the oil patch you find gas seepages here and in Bosworth's report he indicated that there was a gas seepage around the bend past where you guys worked there. Today it's still going. Also, seepage lake is still producing a little oil. It's got a film on there. So you know, all those years it hasn't changed all that much.

I know when we came down in '39, we kids were playing on the shore lines with little boats. But we couldn't because that whole shore line was caked with wax, oil, like, seepage. And until '54 I think it was that you could go down and light a little match on there and the gas would light up. The oil right on the rocks. There was lots of it. But I often wondered why it quit. I suspect it was some communication between the reservoir and the top surface. So they, as the field got depleted it got, dropped.

c. Indigenous oil use

Ed Hodgson

But the natives, Mackenzie said in his journal, he used to come over here to Patrick and they used to put oil on their canoes, but it never lasted because after a while it wore. It didn't firm up. They used spruce gum too.



d. Traditional medicine and water use

Edward Oudzi

We also have lots of Indian medicine along the shore line and under the water and lots on the land. We also use the water to boil our medicine. We also use the water, this Bosworth Creek, it has clean water. Just at the mouth of the creek there's a lot of mess. I know it's changed a lot from 1960. Just a little, little project changed things every year. Not just in Norman Wells. It's the same all over.

e. Canol pipeline era

Ed Hodgson

So when the Americans came in '42 there was a lot of coloured people and they weren't allowed to have guns. So I was catching rabbits and right away, one of the guy's name was Smokey, he wanted to deal with me, rabbits for candies. And he had these little sea cans. They had three candies in there and some cookies. I bargained with him and we made a good deal there for rabbits in exchange. Anyway, I didn't know how to take those people. It was all new to us.

So my mom said, tell him the story about the bears. I told Smokey, I said, you gotta understand, I said, I do this for a living and the bears are my friend. But they don't like when people get too close to me. So I looked kind of [*scary*]. So it worked for me, but Smokey and his group there were very scared of the Colonel because they were very strict with them. Later on I learned that they were prisoners, indentured labourers.

Canol was just opening, so there was a saw mill at Saw Mill Point there that Sherwith was running, so they gave him 30 coloured people to help him with the mill to keep up with the lumber requirements. So any time they needed wood for the oil distributor, which was a paddlewheel boat, they gave them coloured people to cut wood and keep that old boiler running. Because the boats were working overtime to accommodate the freight that's coming down.



Edward Oudzi at Bosworth Creek, Dehcho/Mackenzie River docking area in the background.

f. Cabin

Glen Guthrie

There's a cabin at Bosworth, an old wrecked one. Up the creek. We haven't been in them or looked around the bush.

Rodger Odgaard

Those are skid shacks, off the Canol, or Imperial. They skid them right up the creek in the winter time. I thought maybe they left them there for the workers to go up there and stay in there and go swimming. They were for recreation. There's just bunk beds in there.

g. Gravesites

In the afternoon, the group took a tour on the Imperial Oil lease property and the elders pointed out what may be old grave sites (to be confirmed). We also toured a graveyard on the lease that was restored and continues to be maintained by Ed Hodgson.

Ed Hodgson

The people used to tie their dogs by those old trees there, but I'm told more recently that it was a graveyard for the people from the '20s.

4 Relocation from Bosworth Creek

Rodger Odgaard

There is a letter Pete Fraser wrote before he passed away years back. In this letter, when Esso kicked everybody out of there my granny said, okay, fine, well, give me a tent. And Imperial gave her a big army tent and she took it across to Sucker Creek and took her family to Sucker Creek. And Ed [*Edward Oudzi*] was just five years old (he's now 60, 70 years old). That's 60 years ago, in the '50s.

Raymond Yakeleya wants to have a lawsuit against Imperial Oil for doing that. He's an Aboriginal photographer and documentary filmmaker.

People moved this way. All along the river bank up this way, to where the current town is. From Cece Jackson's up this way. Right now is a pretty good time to go out and look at it. If you actually drive along the road you can see the old camp sites on the riverbank on that side. You can tell, you can see the outlines where the tents used to be and the tent frames. Some of them even have the stoves still there.



Rodger Odgaard at the weir site.

Right below Ruby McDonald's is the first place down there, then on this side of Pat Tourangeau's and on the other side of Pat Tourangeau's, on this side of the dock. You can see where all the sites were up on the bank.

The [bulldozers] were pushing the houses over. That's why she's still living there, where her house burned down. They had rifles out. They pushed everything over, but when they came to old Cece Jackson's house they were met with a couple of rifles and there was a standoff there. One afternoon. They shut the bulldozer off. So they went around because there was, like, five houses on this side of Cece's house that were bulldozed right over. And they were Esso houses. And if you walked on the shore you could still see them. You can see the dirt and crushed houses and then more dirt on top. Right across from where I live. There's, like, five of them. And there's cellars in the ground too. They all had cellars. We used to play in them when we were kids.

I want to build a house there, because it's the historical place where my family comes from.

My grandfather was the first one. It was either my grandfather or my great-grandfather who was apparently the first one that spotted this, it was a guitar then, and he was having it up. He took it Good Hope, to Father Robin to send it out, and that was the last he heard of it. The little story that I know. That my mother told me. And then my aunt lives with Yakeleya from Tulita and was telling me the same identical story. And my Aunt Cecile Tourangeau too, the same thing. They did their best for people to follow up on it, but it got lost in the discussion.

Seven different families were relocated – Jacksons, Dillons, Doctors, Blondins, McDonalds, Hodgsons [seventh family not named]. Probably some more too. That's just the ones I know. John [Louison] might know more. Some people really had some hard feelings about it. Like my granny's sister Elizabeth and John. Little Joe, too, he said to



get something out of it. But I tell you, my granny, when Raymond Yakeleya came to town and interviewed a few people my uncle and I went to see my granny and talk to her about it. She said, no. I don't want to sue nobody. I have good life. I had a good life. I don't feel that way. But that was my granny. So maybe she was a victim of this injustice, but she didn't feel that she had to or wanted to have any hard feelings. She didn't have any hard feelings. She didn't want to pursue with Raymond Yakeleya's court case. She's not being a stick in the mud, it's just the way she is.

This history has really never been documented of the people who lived at Bosworth Creek, and where they lived.

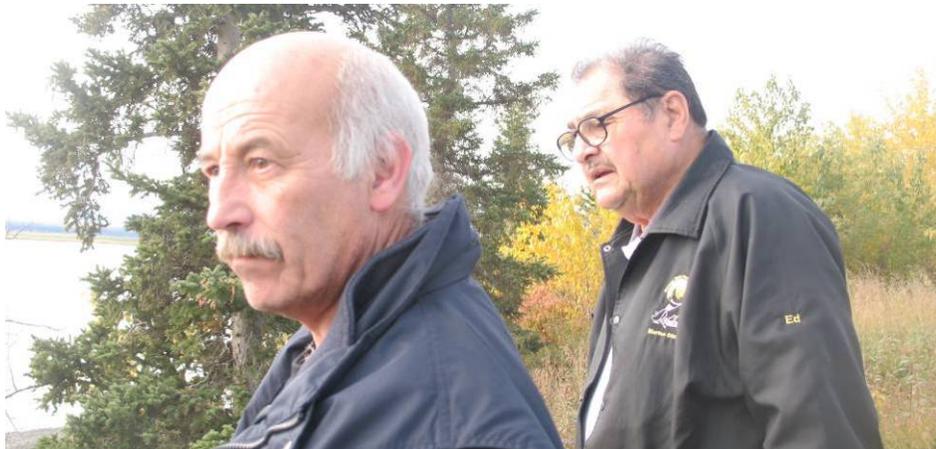
Ed Hodgson

I remember every bit of it. Because we were involved in it as well. It was in '44. We got moved across river. My family got moved in March across river to Sucker Creek. Because Esso's tent, they gave it to us and moved us over there. But then we froze over there because we weren't equipped with a woodstove. We were burning gas here. Lucky there was some families over there that helped us. But my poor mother went through hell because we'd lost my dad a couple years prior to that.

My sister and I often talk about it. She says she still could see snow underneath the big logs that they put our tent on. Through the cracks you could see the snow going by. But it was very bitterly cold that March and it was all we could do to survive. A lot of times the natives were not allowed to build anything. The government and Esso sort of frowned on people settling here. So they tried to push them out and it was very difficult for the natives. It was a white man's camp and that was it. We weren't welcome.

But the one guy that really saved my neck, and I worked 34 years for them, was McKinnon. Ronald McKinnon. He was the superintendent here and he hired me for a dishwasher in later years. He treated people very good. And he treated the natives well, too. But you got people after him that weren't so nice. So we had to struggle a bit. We didn't get any kind of compensation for being moved. They gave us a little grub and they gave us that tent. But we weren't equipped to cut wood. It was a tent that was full of holes. They were old tents.

So they moved our community across the river to Sucker Creek, yes. That's when the expansion started coming in. Canol was here and everything was growing around us. I could see what Esso was up to. They wanted to get rid of us because they wanted that



field. That's where the source of fuel was. In fact, in later years, when I got married, I had a building and where that building is now there's a well right there. So that was an Esso house they moved into town here.

But people had come, they lived here for generations. We're not talking about people who came just attracted to getting jobs with the company or anything. In fact, people were not getting jobs. I was always very bitter, very bitter, because some of my good friends burned to death because they had to get material from a dump to put tarpaper shacks up. And sure they were drinking. And naturally they were drinking. I'd drink too if I was put in a situation like that. And then they would have poor material and it would catch fire and they would burn. So we lost, I lost Shorty McDonald, my friend, and Joe Lennie and his wife, and old Joe Dillon, who was very good to us kids when we were very little. He'd always have candies and stuff for us and Joe was a character himself. He was outstanding. He was Jimmy's step-father, he brought Jimmy up.

As I got older and had more seniority in the company I was running the field and I had to hire captains and deckhands. So to make my operation run Esso would back off a bit for me. So I went across and got a building for George Doctor. I put it behind the graveyard. Your dad knows George Doctor. So he had his family up there and one day Esso came along and said, sorry, George, you're going to have to move. We need this property here. So they took the building and they burned it down. You know? As far as I was concerned that was George's building, but the company didn't look at it that way. The thing is, the government supported what Esso was doing because they have a natural interest in this field.

So those days were not very pleasant and I don't like even talking about it anymore.



Yvonne Meulenbroek records a story told by Ed Hodgson.

5 Fish

Edward Oudzi

When I used to work with those two peoples from Calgary we checked all the creeks toward Good Hope and we just checked a few creeks and then they take me to Good Hope and they leave me in Good Hope and they take somebody else to go up to Little Chicago. And we just keep moving back like that. Then after we got all that done in the last we came to Bosworth Creek. That's the time we landed up just past that little cabin there.

And every time we, they dig out two graves about that big. And we also take, scooped up some gravel to look for fish eggs. And we got lots of fish eggs. The ones we have to move that the rocks, some of them are caught between the rocks. And the way I think about it is that the fish starting to spawn this time of the year and the smaller fish spawns along the shoreline, the mouth of the creeks. And the fish eggs could run with the current miles and miles away. Some of them get caught between the rocks. They grow right there. Most of those fish eggs get eaten by birds, by other fish. Those fish eggs, they become fish. They might be just like mosquitoes. They freeze and come back to life. There's lots of creeks that overflow. There's no water. But still in springtime there's little fish swim.

Ed Hodgson

I don't remember ever seeing people set nets at the mouth of Bosworth Creek. I'll tell you, I'll go back a ways now. There was whitefish in Jackfish Lake before everything started here. Used to have a guy named Henry Cadieux, I think he's got some relatives in Yellowknife. Kids anyway. And they used to fish up there. They'd give us fish. I remember the whitefish were a nice size. Over the years jackfish sort of took over.

But people used to always fish in that creek. For grayling. In fact, I planted I think it was two wild fish in there from Sucker Creek and the kids heard about it and they fished it out right away. I wanted those fish to grow up to the falls or whatever. Some of them made it, but not all of them.



Photo courtesy Glen Guthrie.

One of the things I used to see when they had that water there, the drinking water, and I put my fish in there, I put 10 fish in there. They didn't last long because they got fished out. I think the fish took off up creek because there was no food stuff around that water area.

6 *Impacts on the creek*

a. Dam, Bridge and Dredging

Ed Hodgson

The original water reservoir for the town was a barge shoved up the creek. I remember that very well because we had a fellow here, in fact, there was some erosion on both ends of that barge. So what they were going to do was blow that barge out of the creek and put a different type of culvert. There wasn't much left by the time they blew it, around 1960. So as they were getting ready to pull the dynamite I remember that I had a guy coming from across the river on a cat. He had no communication. And I could see him coming. So I jumped in my truck to warn him, but it was such a close call. I just got to the guy and I said, come on. We jumped underneath the cab. And they let go of that explosion. It blew lumber all over the place and rocks, and even it blew a big rock and hit the fuel tank on the cat and went through the tank. And we had a big tank across the creek there and there was lumber laying all over the place. So you know, that's how close that came. Had we let that guy come, that's why he might have got killed. I never did recognized for that.

Lots of firewood. Good firewood. Even 401 was a 40 feet high building and



Photo courtesy Glen Guthrie.

there's was boards all over the top and the separator house where we had the oil coming to there was dents in the roof all over the place. My poor little guy operator was on top of the hill there. His snuff running on the side of his face.

There's been a bridge there since the '70s, late '60s. They built that bridge when they built the weir. That was their drinking water, the main water coming into the town. That was the idea of it. When the wooden barge eroded all the water gone down and they had no drinking water to speak of.

The barges came down one way during Canol from waterways down McMurray and down this way. They only made one trip and they didn't have enough power boats to take them all. So they came down with the current. They just had steerage, that's all. And they lost one barge in the Slave Lake. It got away on them, and it was cats and everything. It went down. And they recently, not that many years ago, fished them out. They're still running. They just had to do some mechanical stuff.

The wooden barge that they used to dam this before they built the weir was permanent was a permanent fixture since the 1940s. They had tried other means for a dam. Logs. They put logs in there. They did everything they could. And as the town grew of course it took more water and they needed bigger. You couldn't run motors to Jackfish Lake.

And between Seepage Lake and Bosworth Creek there was some dredging done. By heavy equipment. They didn't want the water level to come up any higher at Seepage Lake. So they dredged down from Seepage Lake towards Bosworth. If you walk back there you'll see some big high knolls where they pulled the dirt. That was done late fall though. The ground's too soft in the summer time.



Dehcho/Mackenzie River, near Bosworth Creek.

b. Contamination

Rodger Odgaard

Where the old production warehouse is, there was barrels all along that fence right on top of the creek that had crosses and skulls on them in the '80s. They don't keep them there anymore, but they were all stored. Their most hazardous materials were stored in the production warehouse yard right along that fence right on top of the creek. You can walk up there and the hill starts right below the fence. I been back there about eight years ago walking by the truck and I would actually try and take samples below there. Not from lately, but from the years past.

I don't want to scare you guys [*monitoring researchers and students*]. I want to get more resources, I think, of what's going on in McMurray in the oil sands projects with the water quality. The only largest on-shore producing oil field in North America other than Norman Wells is McMurray. Norman Wells is the largest on-shore producing oil field in North America. It has been for 20 years (inaudible). Now what's going on in McMurray is crazy. Norman Wells is a lot different. Norman Wells is not McMurray. Norman Wells is a beautiful, clean town. But like we're saying, this Esso plant opened up the way it is right now in 1985. From 1921 until 1985, that's 64, 65 years, for that period, before all the environmental stuff came around they used to dump their stuff and bury it, drop it in the water, put it here, they didn't care where they put their stuff.

You guys might be, I believe, walking around some old sites. And the stories you guys are telling me about gobs of this and that, that's just the tip of the iceberg.

7 General impact concerns

a. Contamination

Rodger Odgaard

In the old days they'd take all their garbage out and they'd put it on the ice, let it sink. And they knew damn well what they were doing. They were polluting the water. The water source for the Indians up here. Taking care of these communities. But what I'm boiling it down to is the Canol. When I was up at Arctic Red River trapping, as this is as it happens, and they found in the Yukon, 200 miles off the pipeline highway, the Alaska pipeline, the Alaska highway right of way, 200 miles they took all their Agent Orange, PCBs, and DTDs, they took them 200 miles off the right of way, 400 yards upstream, 200 yards inland of a native town and buried them. They took their most harmful waste 200 miles out of their way and buried them upstream on the same side of town as a small little town in the Yukon. And they found them because they were popping up through the shore. Ten-gallon drums with the lids



coming off. And they used PCPs in their paint.

On the CBC report with the Access to Information Act they said there was six sites like that. And that was just one of them. And they would not say where the other five were. Now, that information is out there. That's documented. That is as it happened. So what I'm getting at is I think it might go a lot farther than just this information. They were actually poisoning people in the North. Poisoning the water systems. And they still could be because these things are continuing to leak out. That's why getting a handle on this is so important.

b. Erosion

John Louison

They'd always go down the river, and I experienced this in my lifetime, that you realize that you go up and down the river quite often every year and the leaves from the '50s, I realized that the whole Mackenzie River people said the water was low. It's not low. It's eroding. And the water is going down with it. So when I go 15 miles above Good Hope and they call it Lucas Creek, there used to be lots of fish there. But now I'm not sure because now you see the creek is way above the river level, water level. That used to be quite level with the river. Pretty well all summer. You never seen any big creek bed high, but now it's way up there. You kind of wonder if the fish are spawning up there now or what's happening up there. You kind of worry about these things. It's Mother Nature playing its role.

In 1964 there used to be a cabin up there (inaudible) River. And old John McCann used to have a cabin there. It used to be quite a ways from the river bank. Probably to the next house there. Now when I came back in 1968 it was probably 10 feet. And a few years later it was hanging. Now there's no sign of it. It just fell over the whole river. Can you imagine how much erosion is happening on the Mackenzie River?

Rodger Odgaard

The amount of erosion on the other side of the islands over here, on that shore, is unbelievable. There's no cable right there and we're trying to salvage it before it falls in the river. We've lost almost 20 metres of bank in three years. Well, 50 feet of bank has eroded away. John McDonald's cabin at Six Mile Island they lost about 25 feet, 30 feet of bank in the last few years. Easy. They've had to move their cabin back multiple times.



And we got pilings coming out of the ground that never moved in 30 years coming out two, three feet. Cumulative effects.

Glen Guthrie

What I'm wondering about that is, we found a lot more ground water happening around here over the last few years. I'm wondering if the water's seeping in there and, of course, freeze spot. Every time it freezes it expands and pushes these things up.

8 Youth involvement

There was a lot of interest in the school monitoring program, and the youth assistants as well as Glen Guthrie talked about the role and accomplishments of the students in the Bosworth Creek monitoring project. This focus group was an opportunity for the students to understand the role of people's historical and traditional knowledge in monitoring.

Mark Meulenbroek

Well, it all started, I guess, when we won the regional science fair and then Glen proposed to us about this job. Our project was about a tsunami-proof home. And then I guess we really didn't do much at the start because we weren't really sure about what to do. But then after that we started to go out and catch fish. Something like that.

Little hand nets. Of course now we use two nets so that we can chase them into the bigger one, kind of like a corral. You chase them with the small net so that they end up in the bigger net. And they still get away. But that's Yvonne's specialty.

I catch butterflies and dragonflies and I put them in jars of ethanol and gas, pretty much to kill them. To pin them. Then I pin them for display and to also keep a collection in the archive of what kinds of species we have in the creek. I also have to put the dates on them so that we know each time they come out. So if they come out later in the year then you'll know that there's some kind of globalization pattern thing going on. Climate change. I'm also taking samples of the water and the soil where the creek used to be at the bottom of the creek and we found some high spike uranium in some places. But it might be contaminated. We're not sure yet. [*Glen: Uranium, arsenic, polonium. We test for all of them. They're way below safety concerns, but they're elevated in some areas. That could just be naturally occurring.*]



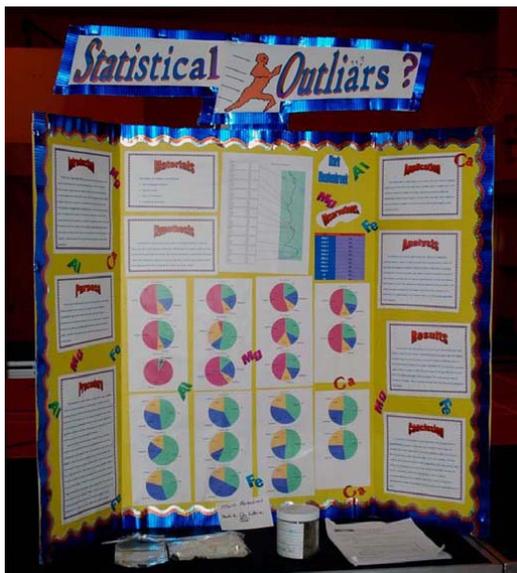
Mark Meulenbroek
Photo by Yvonne Meulenbroek.

And then also just recently we found a hole in the creek, a small hole, with this grey-like soil, gunk, kind of. It smells like petroleum. Like, oil and gas. One of the things I learned about testing stuff is that you don't sniff it. Just in case you might just fall on your butt one of these days sniffing the wrong stuff. [*Yvonne: I fell in the river and got some in my mouth one time. It tasted really weird. That rainbowy stuff that floats.*] If you kick it the oil comes to the surface and reflects.

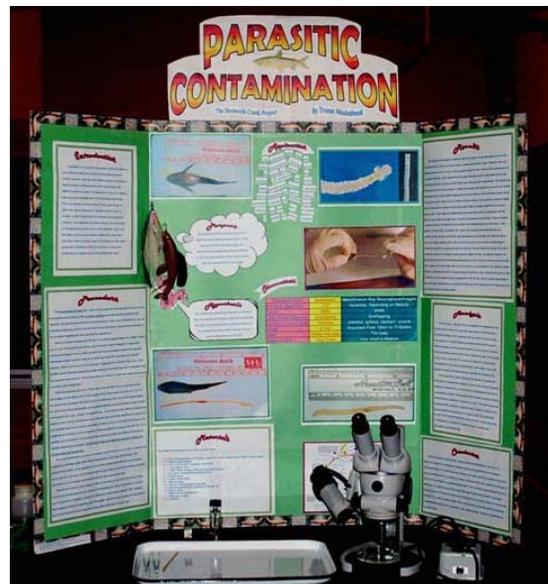
[Glen: There's oil in the water all throughout Bosworth Creek and part of the watershed. Some of it is obviously petroleum based, it's coming from the oil. But a lot of it might also be organic. It could be vegetable oil because a lot of these plants that live in the water release an oil product and that could be a lot of the sheen that we see on the creek is probably vegetable oil. But what Mark's talking about is certainly not vegetable oil. It comes up from the creek. It's petroleum oil. The sample that he collected on Saturday, you're holding a ball of petroleum in your hand. It's like when you're walking along there's a lot of places in the creek where you sink down a couple inches and that's because you've got a creek underneath the creek going into the thing. So you're stepping on these areas where there's lots of water and it sinks down. This is sort of similar to that, but when you sink down you go down quite a bit and when you bring your foot back up you get stuff that's coming up that doesn't occur normally, like when you're walking. The sediment's quicklime, too.]

At first it was just the two of us, and then we had four other people. Nate, Nigel, Ila and Cat. And then after that, during the winter, we had those four other kids. And then they also left. They're still in town though. And we had Chelsea who was interested, but then she had to go back to Tulita or Inuvik. We keep training the students. [Glen: Yvonne was doing that with Chelsea in June, with benthic invertebrates.]

Many people did Science Fair presentations on Bosworth Creek. Last year there were tons. I wasn't there, but I heard from other people that there were about five Bosworth Creek presentations. The next year after that, we went to the national science fair. We didn't win any prizes in the Canada-wide science fair, but the next year Yvonne went bronze in the Canada-wide national science fair.



2007 Regional Science Fair. Project by Mark Meulenbroek. Photo courtesy Glen Guthrie.



2007 Regional Science Fair. Project by Yvonne Meulenbroek. Photo courtesy Glen Guthrie.

Glen Guthrie

The students have worked with professionals from universities. They've gained this expertise and Dr. Donna Giberson from University of Prince Edward Island will be working with Yvonne on a Canadian publication. Mark and I have publications of our own, pending.

What I'm doing right now is I'm working with Mackenzie Mountain School. The Grade 10 to 12 Experiential Science Program has just been adopted by the GNWT. We have brand new text books out that are northern content, not from Alberta anymore. And there's a lot of latitude in these courses. I'm working with the science teacher and the principal right now. Last year we were getting the kids from the Grade 10 to 12 Experiential Science Project involved in the project at various times. The teacher took them down there to do some field trip stuff. What I'm doing this winter is I'm contracting a consultant, along with a couple of teachers, who can actually write lesson plans, so that I don't have to be here and the teacher who's developing it doesn't have to be here, just anybody who's teaching at Mackenzie Mountain School and is teaching Grade 10 goes, we're doing this science project today and we're going to be working on the creek and this is what we're going to do.

The goal of this project is to set up long-term monitoring by the school so that we have kids monitoring these under the expertise of adults and others so that this will be an ongoing, long-term monitoring program that won't die if I leave. I want this project to go on long term and I'm right now in the process of securing long-term funding. It's not going to be a huge amount of funding, but it will pay for local transportation and soil and water testing and this kind of thing. So, basically we're getting the students from Mackenzie Mountain School involved in this on a larger scale. We've had a number of other students out working on the project for various times.



Danna Schock frog presentation July 12, 2007. *Photo courtesy Glen Guthrie.*

Yvonne Meulenbroek

We have a bunch of fish. We have stiflebacks, sculpen, grayling, jackfish, and we have a whole bunch more. And we have a little list. I'm more into the benthics lately because we haven't had as many fish in the creek this year as we've had earlier. [*Glen: It could be due to high water this year.*]

We can use a dip net and I have a technique down for finding my benthics a lot better. And we haven't done the one where you pour ethanol into the sample to kill everything because it's easier to find live samples. But I guess next summer we'll start doing that. It's where you have a net with a set parameter and you just dust off the rocks within there and under them and in the sand. And then you pour it out of the bottle to check what you've got. Then you can say so many square metres has so many mayflies or stoneflies. Usually if you have mayflies and stoneflies it's a healthy environment because they're very sensitive, but they have different levels of sensitivity to midges and worms and snails. So if you have a whole bunch of snails and midges and you have none of the other, I think of them as the happier benthics. If you have more benthics you tend to have more fish.



Yvonne Meulenbroek and Glen Guthrie

Ed Hodgson

Now, if you're talking about getting the students involved it's a good idea. Because they could monitor, put some sand and stuff in there and they can monitor that, see how we're improving.



Yvonne, Mark Meulenbroek and Aisla Philips using a seine net with Peter Brunette (Department of Fisheries and Oceans).

Photo courtesy Glen Guthrie.

9 Recommendations

a. People to interview

Rodger Odgaard

Cece Jackson has an excellent story of James Jackson, and Joe Dillon.

Ed Hodgson

Jean Regan. He lives in Fort Smith. He's a pilot and he's moving to Fort Smith, from Kelowna. He lived up here many years. He's a pilot. He's in the process of moving, from what I hear. He's probably flying now. I think he flies for Buffalo. Anyway, the story has it that he had some people on his float plane and they were fishing at Lac du Bois. And all of a sudden things started happening. They dropped their fishing rods in the lake and took off. There was some kind of movement in the lake. That's all I know.

Have you talked to Cece [*McCauley*]? Talk to Ruby McDonald because she was at Sucker Creek. When we came there, I think we ate her out of the house. That's the story I'm giving.

And John Hodgson. John is, he's not well.

b. Future history research

Rodger Odgaard

I'd really like to help because we're trying to document this for our Métis history project. We've got to map the old communities. I've been trying to kick off this Métis history project and I'd like the relocation to be one of the chapters. To start right from the beginning when, like I said, cave man and then Fort Good Hope and then Tulita, then the white man, then the oil. And another chapter would be the cabins, like Andrew Nelson and Bosworth, Oscar Granite. There's cabins in the bush that hardly anybody knows about or sees.

In doing an environmental assessment and a baseline study we should go right back to day one, and identify who used to stay there when Imperial first came here, who stayed there on the shore, who got their water out of that creek, who was asked to move. It falls right in line with our Métis history project, so if we sponsor them and help them they'll have the kids working on it, Debby working on it.

Glen Guthrie

As you know, I'm the president of the historical society and we have two main goals. The first we're accomplishing quite well. Four or five years ago the museum was selling approximately 15% of northern content. Now we're selling over 85% of northern content. So local artisans and others.

The other is to move away from the pure documentation of oil and gas to more of the community and regional level. Part of this project will be used as a display in the museum about Norman Wells area. This is why this is totally important. I knew, I heard stories that there were people compromised and pushed off their property. I had no idea it

was this many people. I didn't realize that they hadn't been compensated either, it sounds like.

Deborah Simmons

You could actually look at how people historically used to use the creek, the history of the ecology starting from people's stories this time around. Emphasizing the knowledge and role that people had in as harvesters in this area. Roger was the guy that helped me with the mapping of land use and the creek is five years before, 2000 and before, right? So he'll be an expert, and in fact that data is at the Norman Wells GIS office. The maps document who was hunting and he had harvesting zones that he set up.

c. Monitoring Recommendations

Rodger Odgaard

I wonder, do you think you guys could expand your study? Can you just come straight down and do all the water sources, like Beaver Lake and the creek, the Dip Creek? Actually, what I'm looking at is an intense soil sample of the whole damn town. I know where the old dump sites are. Where they used to dump all the contaminated waste on the river bank. Where those sump sites were is right where the arena is. The community hall is the old sump site. It's crazy. We're sitting on an old dump site, basically.

Ed Hodgson

It's a good project. I think it's a healthy project because it's one of a kind.



Summary of Recommendations

a. Traditional Knowledge/History

- Include history of settlement and relocation
- Toxic waste storage
- Land use
 - four wheelers
 - trapping/snares
 - cabin-tent sites
 - grave sites
- Place names
- Traditional trails
- Include high school students in history project
- Science fair project – TK as starting point

b. Partnership with Norman Wells Land Corporation

- Presentation at Land Corporation meeting
- Proposal that this be integrated with Métis History Project
- Proposal for funding contribution
- Contributions to curriculum development in the school
- New documents for Land Corporation to review
 - Summary of youth/school program
 - Summary of international science contributions
 - List of next steps

c. Next steps

- Core sampling for contaminants and history of benthic invertebrates
- Expand soil sampling and water sampling
- High water introductions from other watersheds
- Evolution of sandbars from island and dock
- Fishing derby
- Monitoring fish run
- Assessing revegetation – problems and recommended solutions
- Focus on flare stack - testing berries for contaminants / compare vegetation within and external to heat perimeter.



Appendix A

Bosworth Creek History Project
Focus Group Poster
September 9, 2008

Bosworth Creek History Project

Focus Group



In 1960, a weir was constructed in Bosworth Creek. You are invited to assist in a project to document the history of the creek before and after 1960, and since removal of the weir.

Agenda

Tuesday, September 9, 9 am-4 pm, at the Legion
Facilitation by Deborah Simmons, SENES Consultants

1. Introduction to the Bosworth Creek History Project
Presentations by Glen Guthrie and Deborah Simmons

— COFFEE BREAK —

2. Field trip to Bosworth Creek

— CATERED LUNCH —

3. Discussion Topics:

Industrial impacts before 1960
Fishing in the creek before and after 1960
Changes in the fish populations
Changes in spring breakup
Impacts of the restoration



Sponsored by the Sahtu Renewable Resources Board
For more information, contact Glen Guthrie, 587-2075



Appendix B

Slide Presentation:
“Bosworth Creek Monitoring Project”
Glen Guthrie, Sahtu Renewable Resources Board

Appendix C

Slide Presentation:
“Bosworth Creek Removal Project”
Deborah Simmons, SENES Consultants Ltd.