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**Draft Initial Environmental Evaluation Of The
Northwestel Inc. Multi-departmental Mobile
Radio Project -Phases I & Iii " - Appendix "h"**

Type of Study: Reference Material

Date of Report: 1991

**Author: Spencer Environmental Management
Services Ltd.**

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**DRAFT INITIAL ENVIRONMENTAL EVALUATION OF
THE NORTHWESTEL INC. MULTI-DEPARTMENTAL
MOBILE RADIO AND DIGITAL MICROWAVE
PROJECT PHASES I AND III, DEMPSTER HIGHWAY,
YUKON/NWT**

APPENDIX H

PUBLIC CONSULTATION PROGRAM

Prepared for:

NORTHWESTEL INC.

Prepared by:

**SPENCER ENVIRONMENTAL
MANAGEMENT SERVICES LTD.**

November 1991

THIS REPORT PRINTED ON RECYCLED PAPER



APPENDIX H

H1 – Minutes of Public
Meetings

H2 – Letters of Support

H1 – MINUTES OF PUBLIC
MEETINGS



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Dr. Helmut Schoener
Dawson, YT
Y0B 1G0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

As requested, enclosed please find some notes from the meeting held in your community on May 7, 1991.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Tuesday, May 7, 1991
Project: Dempster Highway Project - Community Tour
Place: Downtown Hotel, Public Meeting, Dawson City
Time: Start: 20:00 Finish: 23:15
Attendance: John & Gail Hendley Akio Saito
Helmut Schoener Gord Crowe
Tony Garbowski Francois Varigas
Jane Vincent Dawn Mitchell (Yukon News)
Unidentified citizen Bob Laking
NorthwesTel:
M.S. Pelland
Dennis W. Johnson

Summary

- Three attendees felt strongly that no development should take place along the Dempster.
- Several attendees, as representatives of groups or in official position, abstained from comments at this time.
- Two attendees felt strongly that communication was key to their businesses and supported the undertaking.

Additional Comments

Minutes to be sent to Helmut Schoener.

Detailed Discussion

- Q/C • If this new system is hooked up to the old system, what's the point?
- A • The new system will run from Whitehorse to Tuktoyaktuk, not Dawson City to Inuvik. Other routes will be upgraded by 1998 or so.
- Q/C • What's the point of having a Rolls Royce in the Yukon and not having any one to drive it?
- A • The point is that we have to start somewhere. We do have a plan that includes upgrading all systems.
- Q/C • Is there a need for this new improved system?
- A • The feedback that I am receiving from other sources is yes.
- Q/C • What about the cellular system? Will we ever be compatible with the south?

- A • Not in the foreseeable future. The 800 system causes many problems in the north. The coverage is limited. We would require many more sites/towers for the 800 service. This system works well on flat ground. Our problem is mountains and pine needles, which absorb the radio waves. 800 service may be offered in the future, but would only be in areas that would warrant the expense.
- Q/C • What system do they have in Alaska?
- A • I am not sure.
- Q/C • What are you doing about the manufacture discontinue on Ruraltel/Aurora?
- A • We have placed orders with the manufacturer for the length of time that we hope we need parts and spares for the 400 service. Eventually we expect a new service to replace Ruraltel/Aurora.
- Q/C • People are using satellite service, why aren't you?
- A • Satellite works well for one way or broadcasts uses - single point to a lot of points. It is not cost-effective when we are talking about interactive point to point communication. Each community would require their own earth station and channel.
- Q/C • Diesel generators must cost a lot to run these sites. Why not use fibre instead?
- A • Costs would be huge - way more than the proposed system. To lay fibre cable in permafrost, if we could, would be extremely expensive.
- Q/C • Were there any comparisons between Alaska and ours?
- A • Yes, they are also using microwave to transmit.
- Q/C • How many sites between Whitehorse and Dawson?
- A • Seven or eight sites. (Upon checking, we have eight sites).
• At this point, explained that eight sites will have road access, how much area will be cleared, number of buildings involved, including diesel tanks with containment berms.
- Q/C • If you reduced your first estimate by three towers, can you not reduce your second estimate?
- A • No, we have tried this approach again. We looked are at the needed amount of towers.
- Q/C • Could all sites be accessed by helicopters instead of roadways?

- A • Due to emergencies, maintenance and fuel deliveries, this would not be practical. We need coverage from the highway.
- Q/C • I don't need these new services.
- A • These new services are being offered to all our customers, not just a select few. We need the revenue from all our customers, not just some.
- Q/C • I feel that the access roads will have a bigger impact than the towers.
- A • Some of the towers will have existing roads already. Some other people have hoped to use for other purposes as well, such as pull-outs for tourism.
- Q/C • Why do you need roads? Why not just use choppers?
- A • For easier access in case of emergencies, reducing cost of maintenance and lowering risks of fuel deliveries.
- Q/C • How often do you need to go to these sites?
- A • Once a year.
- Q/C • Then why not just use helicopters or snow cats?
- A • We need these roads for accessibility and to keep the costs down.
- Q/C • Why build this system for so few people?
- A • I cannot comment on our customer needs.
- Q/C • The Dempster is the last untouched area. One more step towards technology. This is an emotional subject.
- A • This will be addressed.
- Q/C • Can aviation communications be used on this system?
- A • Yes. We try to maximize uses.
- Q/C • I am still trying to get an answer on who's paying for this system?
- A • Let's just say that we agree to disagree.
- Q/C • Where is this tower that is over 100 feet?
- A • On the Yukon section, the north Klondike River site is over 100 feet.

- Q/C • The costs for telephone services are quite high?
- A • Yes, our toll rates are high, but local service is among the lowest in Canada.
- Q/C • Who's going to pay for this system?
- A • Increased services, new services, less maintenance costs. NorthwesTel has applied to our regulator to increase mobile rates. These increases will go to reduce our toll revenue. As we increase revenues in other services, we plan to reduce toll rates even more.
- Q/C • Hasn't the CRTC ordered all telephone companies to rate rebalance?
- A • No, the CRTC has not ordered NorthwesTel to rebalance. The CRTC has allowed NorthwesTel flexibility because of our unusual situation.
- Q/C • If you're concerned, why don't you ask who is for it, who is against it.
- A • At each meeting, minutes are being drafted and sent to each group. At that time we ask for your input.
- Q/C • Will the general public have access to your roads, gates?
- A • We are prepared to do whatever the general public would like us to do.
- Q/C • Let's have a vote on this now.
 - A vote taken. The results were as follows:
 - 5 people voted against the expansion
 - 3 people were from the Government
 - 2 people were in favour
 - Request for a copy of minutes by H. Schoener.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Dawson City Chamber of Commerce
Box 1006
Dawson City, YT
Y0B 1G0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for your letter of May 29, 1991, supporting Northwestel's proposed new changes to the Dempster Highway Microwave System.

We appreciated the opportunity to address the Chamber and the time that your group spent in informing us of your concerns and interest in this project.

Please find enclosed some notes from the meeting held with the Chamber on May 7, 1991.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Klondike Visitors Association
Box 389
Dawson City, YT
Y0B 1G0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Klondike Visitors Association on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Tuesday, May 7, 1991
Project: Dempster Highway Project - Community Tour
Place: Klondike Visitors Association
Dawson Chamber of Commerce
Downtown Hotel, Dawson City
Times: Start: 14:17 Finish: 16:20
Attendance: Glenn Bower Northwestel:
Brenda Caley Monique S. Pelland
Darlene Caley (Chamber Manager) Dennis W. Johnson
Bob Laking
Jerry McCully
Boyd Giles

Summary

- Attendees supported the project.
- Support Northwestel's efforts to minimize environmental impacts.

Detailed Discussion

- A • Outlined Northwestel's proposed plan for the Dempster Highway, the purpose of these meetings, the need for the new system and the support from those concerned.
- Q/C • How tall is the tower in the picture?
- A • Explained that this tower is approximately 200 feet tall. Each colour band is 40 feet and the tower has five bands of colour.
- Q/C • How many sites will require road access?
- A • Eight, and of these eight sites requiring road access, only three would be over one kilometre distance from the highway.
- Q/C • What about fencing at these sites?
- A • Northwestel is looking for any input from the public and is prepared to be very flexible about conditions around our sites.
- Q/C • Are we not on a microwave system now?
- A • Yes we are. At this time we are using an analog system which, although offers voice and some data transmission, will not offer the high speed transmission required in the future.

Q/C • Will the electronics be changed?

A • Yes, all electronics will be changed to allow for digital transmission.

Q/C • Where will the revenues come from to pay for this service?

A • These will come from new services that we will be offering: call management, video conferencing, distance education services, and high speed data transmission. There will be savings on maintenance and reliability. If a large customer in the Beaufort wants reliability, I can offer this with the new system. I cannot do this today. If I can't offer reliability, he may go somewhere else.

Q/C • What you are saying is that the potential market is in the Beaufort?

A • No, not really. As all users benefit from this system, all users will support the cost.

Q/C • In the CRTC process, were there any intervenors against this proposal?

A • No one came forward against our proposal. Northwestel is trying to give the same reliability as all the other telephone companies.

Q/C • If this does not pass, will you stay with the original system?

A • Yes, we would stay with the original system. We could not offer the new services though.

Q/C • Will there be any increases in charges?

A • Not in toll rates. In fact, Northwestel has applied for a reduction in long distance rates. We would hope that new services and cost savings will offset these decreases.

Q/C • Will this improve data links?

A • Yes, the new system will allow for high speed transmission.

Q/C • So far, any opposition with the plan?

A • So far, we have met with Chambers, town councils, Government agencies, tourism departments and Indian Bands. The response has been positive. One person in Inuvik was concerned about the visibility of our towers.

Q/C • What is a fire break?

A • This is an area that has been cleared around our towers to protect our sites. (Showed some pictures of existing sites with fire breaks.)

Q/C • When is the proposed completion date?

A • As I go through the presentation this will be explained.

Q/C • I cannot believe anyone would actually say no to this proposal.

Q/C • The ways I see it, if this does not go ahead the proposal will die.

A • That is correct.

Q/C • Will this system be better than the Cellular 400 technology?

A • Yes. We did have some problems with the Cellular 400 and are still experiencing some problems.

Q/C • Will Northwestel's new digital system keep up with the new services and/or changes?

A • Yes. As changes take place, Northwestel will be adding new services. One example is CCS-7, which is a protocol that allows one exchange to talk to another in a better manner.

Q/C • Is the \$30 million covering Whitehorse to Tuk?

A • Yes.

Q/C • What about south?

A • That will come later.

Q/C • Agreed that if changes are not made, competition will take a lot of profit from larger customers. Commented that he thinks this proposal is great.

- Sees three main concerns:
 - Environmental - seems we have a handle on this.
 - Costs - everyone's concerns.
 - Tourism - agrees we need this.
- Agrees with need. This is a good plan.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Dawson Indian Band
Box 599
Dawson City, YT
Y0B 1G0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Dawson City Indian Band on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Thursday, May 9, 1991
Project: Dempster Highway Project - Community Tour
Place: Dawson City Indian Band's Council Office
Time: Start: 11:00 Finished: 12:00
Attendance: Council: Northwestel:
Darren Taylor Monique S. Pelland
Debbie Nagano Dennis W. Johnson
Michael Taylor
Robert Rear
Angie Joseph-Rear

Summary

- The project is supported by this group.
- Need to deal with the Band directly with respect to land use application, checking site information, etc.
- Possibility of contract work is also important for the group.

Additional Commitment

- To send maps of all proposed sites and roads before the end of the month.

Detailed Discussion

Q/C • How many towers are proposed for the Dempster?

A • There are a total of twelve sites along the Yukon section. Four sites will be helicopter access only. Only one tower will be over 100 feet tall along this section.

Q/C • How long to complete this project?

A • Two full years, after site use approval is received.

Q/C • What does Renewable Resources say about access roads?

A • We have received neutral to favourable response from Renewable Resources at this time, probably because NorthwesTel's is flexible and will do whatever the public would like us to do. This could mean pull-outs, emergency phones and/or gates. NorthwesTel is very flexible about this concern. In other words, we have shown efforts in minimizing negative impacts and it is appreciated.

Q/C • The Dawson City Band would like to see the access roads left open for camping.
• If this does go through, what about possible work for the Dawson City Band?

A • NorthwTel will be tendering this project. Each job will be separate. Yes, the Dawson City Band would be able to apply for specific jobs on this project.

Q/C • Do you have a copy of the map?

A • Not this one. We will have maps available when they are finalized.

Q/C • Agrees that the roads will provide needs for the people and the tourists.

Darren would like a copy of map 1-250 of all sites and roads. Please also show the sites that require helicopter access.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

City of Dawson Council
Dawson, YT
Y0B 1G0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the City of Dawson Council on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Tuesday, May 7, 1991
Project: Dempster Highway Project - Community Tour
Place: Dawson City Council
Time: Start: 18:30 Finish: 19:58
Attendance: Mayor - Peter Jenkins
Councillors:
Lambert Curzon Tim Gerberding
Janet Lyon Carol Murray
Glen Evertt
NorthwesTel:
Monique S. Pelland
Dennis W. Johnson

Summary

- Official position from council to come later.
- Some attendees supported the benefit of the proposed system.
- Cost and visibility of sites were the main issues.

Detailed Discussion

- Q/C • What's the number of customers from Fort Simpson north?
- A • Approximately 12,000.
- Q/C • At what capital cost?
- A • The cost will be about \$30 million. This is an approximate number.
- Q/C • What is the cost from Dawson to Inuvik?
- A • We haven't considered this as the entire system must be built. The costs will be borne by all NorthwesTel customers.
- Q/C • What is the impact on the rate payer?
- A • No impact.
- Q/C • I feel that the majority of people are against this development. The costs are too high.
- A • If I can carry on, I will come back to you about the costs associated with this project.

- Q/C • We have satellite service now, why duplicate it?
- A • My understanding, after having discussed this with the Education Department of the Yukon Government, is that you do not have this service. But if you are using this now, our costs would be less.
- Q/C • How much of a requirement is needed now? What numbers do you have?
- A • We have aggregate numbers. With new services, we can make our costs back.
- Q/C • Questioning the \$30 million expenditure, do we need this?
- A • If we stay the same or use satellite, we do not have the coverage nor the reliability that we require.
- Q/C • Grow your revenues with increased services?
- A • I agree. We must also protect our existing customers and reduce our maintenance costs.
- Q/C • How much fuel does one of these sites take?
- A • I have no idea. But these sites require power to allow us the ability to transmit; diesel power must be used.
- Q/C • How far off the road are these towers?
- A • Of the twelve sites, eight will require road access. Of these eight, only three will be more than one kilometre away, one at 1.1 km, 1.5 km and 2.5 km.
- Q/C • Will tourists be allowed access to these roads?
- A • NorthwesTel has taken the position that we will do whatever the public would like us to do. Some people would like us to make some pull-outs for the tourists, some want garbage cans. NorthwesTel is very flexible on this issue.
- Q/C • What if you don't satisfy EARP?
- A • We don't build it.
- Q/C • 400 Cellular? Who's paying for this loser? Now you're adding 800, who's paying for this? Can you delay this system?
- A • If we are still looking down the road three years from now, we probably will not build this system. The costs will be even higher and the needs may have changed.

- Q/C • Can you name me one telephone company going into receivership?
- A • No, but some are not doing as well as others. The ones that are not doing as well have not kept up with the changes.
- Q/C • Who would build these sites?
- A • They will be contracted out.
- Q/C • You wouldn't package the deal?
- A • No, each function will be separate, e.g. tower, electronics, etc.
- Q/C • Are you building any sites on the Dempster that are on permafrost?
- A • Yes. We don't feel that many of the sites are on permafrost; a number are on rock, but if we encounter permafrost, there are specific methods to overcome this condition.
- Q/C • What about land claims?
- A • NorthwTel will negotiate conditional leases with the bands that are involved. When the land claims are settled, these leases would automatically fall into place.
- Q/C • What about trap lines?
- A • We will be receiving maps showing the locations of trap lines and these will be considered.
- Q/C • What's the life expectancy of this system?
- A • We feel that we can get 20 to 30 years out of this system. We want a minimum of 20 years for the electronics.
- Q/C • Will the new Environmental Act change your plans?
- A • No, we are doing more right now than required by the rules.
- Q/C • How many sites are needed to complete your commitment to YTG?
- A • We need eight more towers.
- Q/C • I take exception to three points:
1. No communication along the Dempster.
 2. No modernization of telecommunications.

3. No upgrade of services to the communities north of Whitehorse.
(These three points deal with the slide showing what will happen if Northwestel does not receive the approval needed.)

- A • At this point, explained the purpose and needs of Northwestel's proposal.
- Q/C • I still don't feel right about this \$30 million expenditure.
• Another point, you're still going to upgrade, so why spend so much? In five to ten years fibre will replace existing technology.
- A • Fibre is being used in high density areas, such as Vancouver and Toronto.
- Q/C • I see this being like the Cellular 400 system. The rate payers are being asked to pay for another unproven system.
- A • Not really. We will be sending out the minutes from this meeting and will be asking for your views on our proposal.
- Q/C • Until Council meets, we are not prepared to state one way or another right now. You will receive our answer after our next meeting.

MINUTES

Date: Wednesday, May 8, 1991
Project: Dempster Highway Project - Community Tour
Place: Village of Mayo Council
Time: Start: 13:00 Finish: 14:30
Attendance: Council:
Ken Cooper
Barry Graham
Gord Hind
Northwestel:
Monique S. Pelland
Dennis W. Johnson

Summary

- There was general support for the project.

Detailed Discussion

- Q/C • Explained that the loop (circle) or route diversity would act the same as the town water supply. A break in the water system does not mean the town's water supply would go out.
- What about community telephone? With this method, both parties would know what to expect. Have the bands discussed this?
- A • This is an entirely different subject. Where it exists, it relates to the exchange, i.e. where the calls start and end. The backbone network, because it is shared by so many users from everywhere, could never be handled that way.
- Q/C • What about revenue sharing? This would mean that the bands would receive x amount of dollars for each call.
- A • This would not work. We have no way of knowing where the call originated from.
- Q/C • What about 800 service moving north?
- A • We are looking at alternative cellular services. The problem with 800 service is that we would require more cell sites for the same coverage. But at this time we really don't know what we will be offering.
- Q/C • Will this new service entail a rate increase?

- A • Not directly. With the ability to increase our customer base, add new services and lower maintenance costs, we don't see any direct rate impact.
- On the other hand, all our operating costs have risen significantly over the last 5 or 6 years since a rate increase has taken place, so, yes, rates may rise in the future whether or not we build this system. As for toll rates, there is a company commitment to reduce them.
- Q/C • The re-routing is very important to Mayo.
- What are the chances of keeping competition out of the territory?
- A • We don't really see this is a concern here. With the thin market and high costs, we don't believe that competition will come to rural areas.
- A general discussion followed on what were seen as upcoming trends in telecommunication technologies.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Silver Trail Tourism Association
Box 268
Mayo, YT
Y0B 1M0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Silver Trail Association on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Wednesday, May 8, 1991
Project: Dempster Highway Project - Community Tour
Place: Village Council, Silver Trail Association, Mayo
Time: Start: 15:00 Finish: 16:35
Attendance: Joyce Ronaghan
Ken & Adaline Snider
Wilf Tuck
Unidentified concerned citizen
Northwestel:
Monique S. Pelland
Dennis W. Johnson

Summary

- The Silver Trail Association would support both the loop and mobile services along the Dempster.

Detailed Discussion

- Q/C • Do you need the red lights on the towers?
- A • No. On towers under 100 feet and outside of major air corridors, we do not need lights or the red and white bands of paint. We can paint these any colour we want.
- Q/C • I am very concerned that mobile service be maintained on the Dempster.
- What about satellite service?
- A • As satellite is point to point, this would not offer the services to our customers in between and not mobile service along the Dempster.
- Q/C • What about cellular service?
- A • At this time, no decisions have been made with regard to the type of public mobile service which could be implemented along the Dempster.
- Q/C • If you don't have access for the public, I think this will be a weakness. (Ken was talking about Northwestel's private service for YTG.)
- The Silver Trail Association would support both the loop and mobile services along the Dempster.



Northwestel Inc.
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M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Vuntut Gwitchin Band Council
General Delivery
Old Crow, Yukon
Y0B 1N0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Vuntut Gwitchin Band Council on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Friday, May 3, 1991
Project: Dempster Highway Project - Community Tour
Place: Old Crow, General Delivery YOB 1N0
Vuntut Gwitchin Band Council
Times: Started: 14:23 Finished: 15:45
Attendance: Gwitchin Band Council:
Rodger Kaye, Chief Gerald Nukon
Joe Peter Robert Bruce Jr.
Peter Tejah John Joseph Kaye Jr.
Erwin Later Carl Charlie
Northwestel
M.S. Pelland
G.D. Bushell

Summary

Requirements, as stated by Roger Kaye, are:

- 1) The Vuntut Gwitchin Tribal Council is to be kept as part of the process and 1:250,000 maps showing site locations are to be forwarded to our office for review and comments before or at the same time any land use applications are forwarded.
- 2) Access roads and the security of same are to be addressed in the design.
- 3) Group trapping areas are to be reviewed in conjunction with site and access road locations.
- 4) Northwestel must meet and discuss these matters with the Porcupine Caribou Herd Management Board. Porcupine Caribou Management Board have reps in Mayo, Dawson, Arctic Red, Aklavik, Fort McPherson.
- 5) Northwestel must facilitate the opportunity of employment for the Vuntut Gwitchin Tribe.

Additional Commitments

As per above summary.

Detailed Discussion

- Q/C • It was mentioned at this point that Northwestel should send over site location information and general information to the Vuntut Gwitchin Band Council in Old Crow before or at the same time as the land use application was made.
- A • Indicated that we would do this and also mentioned that we had initiated a 30-year lease agreement with the Dawson Indian Band previously regarding land under the land claims and that we were willing to deal with the band in coming up with lease conditions and an agreement for the land under claim and when

ownership of the land was transferred to the band, then we would have a lease agreement in place with the Old Crow Band regarding the respective site.

- Q/C • Indicated that we should send site location information to the band so that we can have our site maps compared with the band's maps so that they can identify if any of our sites or access roads come in contact with any of their trap lines, etc. The chief said that he was surprised that the land use people did not tell us about this.
- Also indicated that it was very important that we contact the Porcupine Management Board and meet with them to discuss the Dempster project.
- A • Indicated that this had been mentioned also in Inuvik and that this was a very good suggestion, and that we will do this once we were back in Whitehorse.
- Q/C • Would this system cost more or what?
- A • No, remember the cost of a fixed system or a dedicated system like the cable lines connecting to everyone's homes would be paid by the community. On this type of project where we are building the telephone infrastructure backbone system, the cost to pay for this will be spread over the Northwestel customer base throughout the Yukon and Northwest Territories. This cost would be spread out over a period of 20 or 30 years at a rate of return of 14% which is regulated by the CRTC.
- The total project cost to complete this system from Whitehorse along the Dempster Highway up to Tuk would be approximately \$30M.
- The total demands of customer needs help to generate the dollars.
- Q/C • Would there be a site from here to the highway to link Old Crow to communication system?
- A • In reviewing this we think that we would probably need two new sites to complete the link to the highway, but we may be able to do it with one. At this time, we have not completed studies on this.
- Q/C • What is the length of the longest access road and where is this site?
- A • Our longest access road is 4.5 km and this is located at our Richardson Mountain site.
- Q/C • In this area by your Richardson Mountain site, caribou do migrate through that area and it is too long a road to not cause problems with hunters using the road to gain access into this area. These roads would have to be fenced and padlocked so hunters cannot use the road.
- Another concern is with our group trapping area which runs from the border to Eagle Plains. We would have to see the site maps and determine if your access roads and sites are in any of these areas.

- A • We can send you our detailed maps to let you know where our sites are situated. We understand that you are currently in negotiations with the government over the choice of protected lands.
- Q/C • Yes, this would allow us to get down to business to discuss our likes and dislikes over the project with the negotiators in our discussions.
- A • How would this project along the Dempster affect your negotiations under the land claims?
- Q/C • Well, we would have to work a lease out.
- A • We have spent the last year discussing this project with government officials and various groups trying to find out exactly what we are supposed to do.
- Q/C • I am not sure that this project will jeopardize the land claim settlement in any way because we saw the Dawson Band and Northwestel come up with that lease agreement on withdrawn land, which will go in effect when the claims are agreed to and the Dawson Band takes over control of the land. We will still, however, have to review the group trapping areas in relation to your new sites and access roads.
- I would like to talk with two of the trappers who have trap lines in this area; they are not here today.
 - Yes, because another problem is that noise will scare the caribou, especially since your sites will go 24 hours a day. The Porcupine Caribou herd go through this area and may be affected and hunters will have to be stopped from getting access to this area.
 - In the land approval process, the Vuntut Gwitchin Tribal Council will have to be kept informed and information sent to us in Old Crow.
 - The construction phase will take how long?
- A • The construction phase for the Dempster portion will take a minimum of two years.
- Q/C • What about the construction tenders for the job?
- A • Well, we will have to go out to tender for this work, but we do want to make you part of this process. The band can put in a tender for road construction and clearing work on their own and we will indicate in tender documents that local hiring should be investigated by contracting personnel in completing their bids.
- Q/C • Will you be building a system like this down the Mackenzie Valley?
- A • Yes, we have an analog system currently down the Mackenzie Valley but our plan is to close the loop or circle first by building the Whitehorse-Dempster-Inuvik system, then we would proceed to upgrade the system along the Mackenzie Valley in the 1994-1997 time frame.

- Q/C • Are we doing or putting this system in for the oil companies?
- A • No, we are not putting this system in for the oil companies, but if in the future they come to use or require some of the services available with this system, then certainly they will be taken on as a customer. Likewise, if the pipeline were to come down the Dempster, then they could also obtain these services.
- Q/C • So you don't know if the pipeline is coming down the Dempster?
- A • No, we have no knowledge where or even if the pipeline project will go ahead. This is not the reason behind our proposed system. As discussed we are looking to provide a diversity route for our system, provide road coverage for the MDMRS project and upgrade our system to provide the capability to offer new services to our customers in upcoming years (tele-medicine, distance education, etc.).
- Q/C • In these trap line areas we do not want to disturb wildlife, etc. How often do you have people at these sites?
- A • We will have remote monitors or sensors at these sites so we should only have technicians, ideally with this type of equipment, only on-site once a year. Circumstances such as site failures or emergency situations may require us to be there at other times but our goal would be to go in once a year for general maintenance, etc.
- Q/C • We have got to close off the access roads to keep people out of our trap lines areas and not allow them easy access.
- We had a hard enough time as is to control the corridor without these roads going in and out.
 - We will need to look at say a 1:250,000 indicating where your sites will be located to identify these concerns.
- A • So your preference is to block the roads.
- Q/C • Yes.
- Q/C • ~~How~~ would the approvals work?
- A • Well, first, the environmental studies would be completed and OK'd by the RERC and then DIAND would have to give their approval to start construction. Likewise, we would have had to contact the bands on whose property our sites were on and complete draft copies of lease agreements for these sites to come in force once the band took ownership of the property.
- Q/C • Is there a hidden agenda behind this? The Dempster pipeline, is that the reason for building this system?

- A • As mentioned before, there is no hidden agenda. If the pipeline is built in 1995-2000 then we will have to discuss with the oil companies what services would be available wherever they decide to build it.
- Q/C • We know that the Territorial Government is all for the pipeline but the oil companies cannot build it for at least five years, but after this time it could be built along either the Dempster or Mackenzie Valley route.
- A • Well, we have no information regarding the pipeline route and this is not the reason that we are building this system.
- Q/C • Even myself, I know it can be reopened in three to five years and if the Energy Board approves it, then it's a go.
- As long as our land claims are settled, then we can get some money out of it.
 - What assurance do we have that the rates won't go up? Can you give assurances that they will go down?
- A • In looking back on our local rates, these rates have not increased since 1985/86 while since then the cost of operation has increased in price, the cost of food, airfares, hotel rates, etc. Knowing this, we know right now that there will be increases in local telephone rates. In the future, as for toll rates or long distance rates, it is a corporate goal to reduce these rates in the future.
- If we are able to provide new services to our customers, as will be available with the digital microwave system along the Dempster and provide them with a more reliable system, we should be able to expand our customer base and share the system costs over a larger number of customers which should result in lower toll rates.
 - I would add Northwestel filed with the CRTC for a 5% reduction in their toll rates in August of last year. I admit it is not much but it is a start.
 - Other areas we are looking at to help reduce costs to the customers are volume discount rates - the greater the number of calls, the lower the rate you pay, such as WATS service for business customers. There will also be a discount package for residential toll.
 - It is also a corporate goal to reduce message toll rates within the next five years.
- Q/C • **If you are not able to complete the circle, what you are saying is that we are the people who will pay the price by a lack of additional services and by having a less advanced system.**
- **But big business people benefit from it as well if it is put in place.**
- A • Yes, you are right.
- Also, from some groups we have heard that the visibility of the towers will deter visitors from travelling up the highway as it will take away from the wilderness perception.

- We tend to feel quite the opposite and this has also been indicated by some groups that the presence of the towers and communication facilities would encourage more tourists to go up the Dempster because communications, emergency and otherwise would be available.
- Q/C • If I can I would like to briefly summarize this matter with a number of main concerns:
 - a) The Vuntut Gwitchin Tribal Council is to be kept as part of the process and 1:250,000 maps showing site locations are to be forwarded to our office for review and comments before or at the same time any land use applications are forwarded.
 - b) Access roads and the security of same are to be addressed in the design.
 - c) Group trapping areas are to be reviewed in conjunction with site and access road locations.
 - d) Northwestel must meet and discuss these matters with the Porcupine Caribou Herd Management Board. Porcupine Caribou Management Board have reps in Mayo, Dawson, Arctic Red, Aklavik, Fort McPherson.
 - e) Northwestel must facilitate the opportunity of employment for the Vuntut Gwitchin Tribe.
- You expect to have the consultants answers by August and expect to hear from us before this time. What happens if you don't hear from us by this time?
- A • DIAND will not approve the land process without your approval.
- Q/C • In the area of site specifications, location of burial grounds and sacred lands will also have to be identified.
- A • We hope to have maps available and sent to you by the end of the month.
- Q/C • With these microwave sites along the highway, would I have trouble using the system with a phone or mobile in my car.
- A • We still have to identify what systems are to be used and placed in these sites but you are right in that when an additional mobile system is in place you should be able to call them from a mobile in your car.
- It is also one of the intents of this project to provide mobile radio coverage along the Dempster for the government departments.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Hamlet Council Executive
Band Council
Box 57
Fort McPherson, NWT
X0E 0J0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Fort McPherson Hamlet Council Executive and the Band Council on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.



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P.O. Bag 2727
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Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Tetlit Gwich'in Council
Box 86
Fort McPherson, NWT
X0E 0J0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

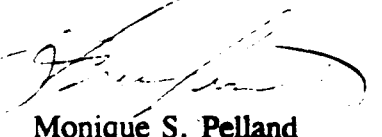
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Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES OF MEETINGS
on
PROPOSED TELECOMMUNICATIONS SYSTEM
North Yukon - MacKenzie Delta
April 29 - May 13, 1991

Each meeting consisted of:

- a) A standard introduction, identical in each case and noted only once, in Attachment 1.
- b) A standard presentation.
- c) Discussion items of each session in the form of minutes (Attachment 2).

Also included with specific minutes is follow-up material such as notification of concurrence, additional comments from the parties, and media briefs received to date.

Attachment 1 - Meeting Introduction

- Introduction of speakers and attendees.
- Distribution of NorthwesTel's public brief.
- Description of purpose of meeting:
 - Provide up-to-date information on a proposed telecommunication system from Whitehorse to Tuktoyaktuk, including a segment in the Dempster Highway corridor.
 - Gather input, whether comments, concerns or support, from interested parties.
- Outline of meeting locations:
 - Inuvik
 - Tuktoyaktuk
 - Fort McPherson
 - Old Crow
 - Dawson
 - Mayo
 - Whitehorse
 - Yellowknife (later)
- Outline of the different interest groups typically contacted:
 - Chambers of Commerce and Tourism Industry Associations
 - City or town councils
 - Band Councils
 - General public
- Meetings were expected to be informal and questions were welcomed at any time.
- Although the positions of interest groups were not requested at the meetings, minutes relating the general discussion taking place would be sent to them for concurrence. At that time, we would appreciate a statement of support or of the position of the group.
- Interruption of formal presentation to show pictures of existing microwave sites and some proposed locations on the Dempster.
- Outline differences between sites shown and proposed ones:
 - Reduction of height to less than 100 feet and location outside of major air corridor meant structure could be painted any colour and no lights were required. Applied to 11 out of 12 sites in the Yukon.
 - Lower height also allowed self support structure, without guy wires. This reduced site surface requirement.
 - Installation of fuel containment berms at all sites to prevent potential damage in event of fuel spills.
- Explained that of the 8 proposed road accessible sites in the Yukon, only 3 were located more than 1 km away from the highway, outside of the current 1 km no hunting zone, at 1.1, 1.5 and 2.5 km. Total additional road length had been reduced from 16 km to 11.5 km.

Other road accessible sites were between 0.25 km and 1 km from the highway.

MINUTES

Date: Wednesday, May 1, 1991
Project: Dempster Highway Project - Community Tour
Place: Fort McPherson - Hamlet office
Box 57, Fort McPherson, NWT X0E 0J0
Times: Start: 14:42 Finish: 16:38
Attendance: Administration Officer - Kurt Svendsen
Mayor - Charlie Snowshoe
Council: James Andre
Albert Peterson
Susan Blake
Matilda Peterson
Sub-chief - Mary Teya
Rebecca Francis
Northwestel: M.S. Pelland
G.D. Bushell
R. Charlie
Elders: Julia Koe
Eliza Kunnizzi

Summary

- The intent of the meeting was information exchange only.
- Main environmental concerns were length of access roads and visibility of towers.
- Potential availability of mobile radio along the Dempster seen as desirable.
- Possibilities of local employment were investigated.

Additional Commitment

- To send a hard copy of the presentation to the Council office.

Detailed Discussion

- Q/C • At the start of the presentation time, Charlie Snowshoe entered and wished to postpone the meeting until another time as the Band Council was not available since they were in Inuvik attending land claim meetings. Charlie and others felt that they could not comment on the matters to any degree without consultation with the Band. They in turn would probably wish to talk with others in Old Crow, etc.
- A • Inquired regarding the possibility of meeting or setting something up for Thursday in Inuvik with the Band members.
- Refocused on Northwestel's interest to address the meeting as an information session and not attach any conditions aside from this as NWTel would like to let them know about the project.
- Q/C • Agreed to treat the meeting as an information session and contacted Band members and some of the elders and sub-chief.
- Asked how will the cost of the new system affect their telephone bills or the rates they currently pay.
- A • With the new system we are proposing, we will be able to provide a variety of new services which are not now available. We hope that because of these new services

we will be able to attract a greater number of customers who want these services and consequently this larger number will share the associated costs which should result in stable or reduced rates in the long term.

Q/C • Is this guaranteed?

- A • This we do not know for sure! What we know is that with this new system we will be able to provide a number of new services along with services currently available. We feel that these new services are needed in the north and that northerners, both corporate and public, will be eager to obtain them. If this is true, then not only will our customers be happy with the new services but we will have a larger customer base to spread the system cost over - a cost which will be spread over 20 years or the equipment lifetime, on which in any one year we are allowed by the CRTC a maximum return of 14%.
- Obviously, on a corporate basis, we must, as with any business, balance the needs of the customers in order to obtain the best cost.
 - It would also be important to add that if we do have a pipeline coming down the Dempster, then it is important that communications infrastructure be available as the pipeline will require communication, both from a support role for its proper functioning and in the event of an emergency situation where shutdown controls are needed to avert possible environmental damage.
 - In looking at these areas, and in trying to share the cost of the system amongst all parties, big business and small, and our residential customers and ensuring the services that are offered and available to all market sectors, then the cost of the system will be spread out over a larger base and the rates per customer could go down.

Q/C • Somehow I don't believe that! The money for this system has to come from somewhere and tax payers are the ones to pay for it.

- A • No, not exactly. The cost of the private wire to your home you are required to pay for, but the cost to provide the entire system infrastructure is shared over the company base. Do you believe this?

Q/C • No, because of all the sharing between big businesses, the Dew Line/Defence people and residential customers, our rates should go down.

- Well, isn't that what she is saying!
- No, she said she was not sure.

- A • I am not going to tell you that your rates are never going to go up. For instance, we know that we have not increased our local rates since 1985 and these rates may have to be raised in the future. Just look how much everything else has increased in the past few years. It is, however, the focus of Northwestel to reduce long distance rates if services are available and shared, and therefore the cost of toll calls should go down. This I am willing to promise you.

Q/C • Why are we talking about the Yukon so much? I am interested in the Northwest Territories. I am not worried about Tuk.

- A • Why we focus on the Yukon is because in many of our other meetings with the various government tourism branches and other groups, they are interested in knowing about all of the sites and the entire system.
- Because we are here to explain about the system design, needs and concerns, we are reviewing both the NWT and Yukon sites.
- Q/C • Concerning the access roads into the sites, how often do you have people at the site?
- A • Our eventual goal with this type of equipment is to have someone complete maintenance activities once a year.
- Q/C • If I break down between here and Eagle Plains, I just about have to walk to Eagle, don't I. This is a long way. Are you going to have pay phones at these sites?
- A • We are looking at having mobile coverage along the highway.
- Q/C • Will this be a CB or a different type of mobile?
- A • At this time we have not decided exactly what type of mobile system we are going to use.
- It will be possible for groups to be able to get a private MDMRS type of system if they apply to us, but we are looking at a public system of mobile radio, but which type has not yet been decided.
- Q/C • I know that it certainly came as quite a surprise to me to find out that nothing along the Dempster road in the way of communications is available from NWTel right now.
- We have had the highway for ten years now and so far we haven't had any unspoken or serious disaster along the highway. The distance from Eagle Plains to Dawson is a long way and you can't make a phone call or nothing.
- You want something here.
- Northern Canada Power Commission (NCPC) has a project and they came in here with a proposal and a lawyer and they want to get a decision from us overnight.
- A • What we want at this time is to let you know about the project and get input from the Band about your concerns about the project. We do not want you to sign or agree to anything right now; it is more like an information period.
- Q/C • Well, as James has said, I agree that the rates will go up, after all business is business.
- A • Yes, but remember the CRTC will regulate Northwestel to a 14% rate of return and if we wished to raise our rates, the CRTC must approve this raise and determine that it is justified.
- I know, as a business person, that if I do not provide reliable and good value services, then we will lose our customers and if this happens, we will not be in very good shape.

- Because we have not had a rate adjustment of local rates since 1985 and everything is going up everywhere, it is likely that local rates may go up in the future.
 - On the other hand, it is one of our corporate goals or commitments to reduce toll rates in the future. We must rebalance our toll rates and expand the services and customer base that we have.
- Q/C • Hey now, you sound like Michael Wilson.
- A • In attempting to provide new services and reduce toll rates we must maintain or achieve a balance between both our business and residential customers in order to share costs over a larger base.
- Q/C • It seems right now that business gets all the breaks. They get better discounts for the more calls they make. This is not available to the regular guy, right now he gets no breaks.
- A • This right now has been the case but we are working on ways to offer such services to the residential customer. One example of this would be the new Between Friends service which is just in the planning stage. You will be able to specify numbers of friends to call and the more calls you make, you will get a benefit or break in cost.
- Q/C • Wanted to know if local people could be hired to dismantle these sites. Inquired whether we do this with Northwestel personnel or contract personnel or local hire.
- A • Explained that in the past we had done it in any of these ways. If Northwestel personnel were available, then this work could be undertaken by them. Should personnel not be available and a number of sites involved, then it would probably go out to tender for bids to dismantle. Likewise, in the past, local hire had been contracted on smaller jobs to complete the work but on a bid format.
- Q/C • Well, we are not all technicians, but we can use a shovel.
- A • We have been asked to provide this information by the government departments (DIAND) who require that we obtain environmental consultants whose credentials they accept as professionals to complete the required information to be included in the environmental impact report. We need the government approval of the report and findings and so we must hire consulting specialists to complete the required environmental studies to determine if any concerns exist with the project proposal and to provide recommendations for reduction of possible negative impacts of the project.
- Q/C • Remember, if we do not agree, we have the same power as the government and you will not be able to build. The government in the land use process has to send us the information and get our agreement to it. If you don't go by what we say, then tough luck. We have a say in this matter and if you don't get our agreement, you can't build.

- A • Yes, you are right. You can say no, but remember, the government can also say no to Northwestel even after you have said yes. They also have a final word. When you look at it from our point of view, a lot of people can say no to us on this project, but we still want to go ahead.
- I am forever an optimist, however, because we know how important this system and the proposed new services are to all of the Yukon and Northwest Territories.
- Q/C • Completion of the consultants reports by the end of August, but who are the consultants - are they Northwestel personnel?
- A • No, the consultants are going to be independent firms hired by Northwestel.
- Q/C • Do you have a booklet about the project for us to review.
- A • Yes, we will pass these out and leave extra copies for you.
- Q/C • You give us two reports, one that you presented and one written report.
- A • Yes, the written one is just about the same. We can send a copy of the presentation to the Hamlet office in Fort McPherson and forward a copy in the mail to you by Monday next week.
- Q/C • I prefer to see the wild animals instead of the towers, maybe these towers should be 10 miles away from the highway.
- How do the people of the Yukon feel about the visual impact?
- A • Showed one of the site pictures (Barnes Passive site) and indicated the site location.
- On the tower sites that are lower than 100 feet we can paint the tower any colour provided that they are not in an aviation flight path and MOT has no objections. When you look at this picture, we are wondering how much of the site you are going to really see, if it is painted a green or brown colour. Certainly, some of the sites will be seen but these we will try to minimize and hide the best we can.
- Q/C • Give the Tribal Council a call in Inuvik to see if they will give you a meeting time.
- Is true that only one tower is over 100 feet and that below 100 feet you can colour these towers any colour?
- A • Yes, along the Yukon section one tower is over 100 feet and we should be able to color these any color provided they are not in any flight path and MOT gives the authorization. On a preliminary check, MOT has indicated that they have no concerns with the sites.
- Q/C • Contact James Firth about seeing if the Tribal Council will meet with you in Inuvik tomorrow.

MINUTES

Date: Monday, April 29, 1991
Project: Dempster Highway Project - Community Tour
Place: Eskimo Inn, Inuvik
Times: 19:30-21:30
Attendance: Public meeting
 Gus Croatto (Northwestel employee)
 Mr. Stacy Campbell - The Inuvik Drum
 Northwestel
 M.S. Pelland
 D. Waloshuk
 G. Bushell

Summary

- The presentation was given for the benefit of the two attendees.
- Resulting newspaper article is attached.

NorthwestTel proposes 12 microwave towers

by Stacey Campbell

Twelve microwave towers, if built along the Dempster Highway, would greatly improve telephone service in the region, says NorthwestTel.

Representatives of the company are travelling to Delta communities and Old Crow in the Yukon to explain the proposal and counter any fears it might damage the wilderness.

"Our thought is that a tower every 20 kilometres or whatever will be a very small part of what travellers might see. They would be compensated by increased security and a better link to the outside world," says NorthwestTel's general manager of marketing and engineering, Monique Pelland, who was in Inuvik April 29.

"Improved communica-

tions will allow the area to better position itself for business development."

The proposed system would allow workers and travellers with mobile telephones to call the outside world from anywhere between Dawson and Tuktoyaktuk. The Dempster link would provide an alternate route for calls in case of a system failure in the South Mackenzie such as happened in 1989 when a microwave site near Fort Providence burned.

But there is some resistance to the idea.

"There's quite a strong movement in the Yukon with some people saying there shouldn't be anything done with the Dempster," says Pelland.

Inuvik Chamber of Commerce member Dick Hill met with NorthwestTel and says the chamber sup-

ports the project provided it goes ahead without major disruption to the environment.

"The hassle is from a group of preservationists in Whitehorse, a non-user

See Most, 2

Most towers under 100 feet

NWTEL, from 1

area," he says. "The addition of 12 small sites is an increment. All we ask is to keep that in perspective."

Eight of the sites would have road access and four would be reached by helicopter.

Pelland says some outfitters were worried about roads to the sites increasing penetration into the wilderness. But she says their concern was reduced when they found out the access roads would only be one kilometre long.

"We think there are very valid approaches to the system which would allow us to provide improved communication yet reduce impact on the environment to an acceptable level.



ure 100 by 100 feet with a couple of diesel tanks, a generator, and an emergency shelter for workers. In all locations except one the tower would be under

100 feet in height.

"If the towers are under 100 feet you don't have to paint them red and white as a hazard to aircraft," says Pelland.

NorthwestTel hopes to get approval from DIAND by the start of next fall and take two years after that to complete the \$30-million system.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Inuvik Chamber of Commerce
Inuvik, NWT
X0E 0T0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

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As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Monday, April 29, 1991
Project: Dempster Highway Project - Community Tour
Place: Eskimo Inn, Inuvik
Times: a) Scheduled: 13:00-14:30
b) Actual: 13:03-14:32
Attendance: Chamber of Commerce - Mr. Dick Hill
Town Council - Mrs. Cynthia Hill
Northwestel
M.S. Pelland
D. Waloshuk
G. Bushell
Canadian Broadcasting Corporation - Mr. Ken McGillivray

Summary

- General support stated on behalf of the Chamber of Commerce.
- Concern with delays and resulting additional costs.
- Formal notice to be introduced at the Town Council, recommending support while requesting continued care to minimize environmental impact.
- Concurred with importance of mobile coverage on the Dempster Highway to the safety of users, whether workers or travellers.

Additional Commitments

- Forward final copies of environmental study reports to the Arctic Institute to expand public information on the area.

Detailed Discussion

- Q/C
- Concerned with the delays already encountered by the project due to the environmental review process and the possible cost of such delays for the rate payers.
 - Awareness of the one-year delay already experienced and concerned with the ambiguity of the regulatory process in place regarding environmental and requirements.
 - Felt that there was general support by the Chamber for the project, as evidenced by the absence of opposition at the presentation due to all having already heard enough and that it was time to go ahead and get it built.
 - Feeling that we were preaching to the converted and that there was a need for more modern telecommunication infrastructure in the Delta.
 - The Dempster seen as a complementary system to the Mackenzie system, given the scheduling proposal outlined by MSP as a multi-phase project with completion/upgrade of Mackenzie Valley system in future years.
 - Medicine an important issue. Services to transmit X-rays to nursing stations?

- A: • Confirmed feasibility of that and other new services as per presentation.
- Q/C • Acknowledged the benefits of the system as presented by NWTel but felt that perhaps some of the public concern stemmed from more of a fear of the cumulative effect of everything being placed along the corridor. Also stressed the need to mitigate environmental concerns as much as possible.
- Indicated/reiterated concern but felt that new sites represented a very small impact from a site requirement (land, construction, etc.) or visual focus.
 - Indicated that implications of cancelling the project were not outlined strongly enough as infrastructure development important to oil development, etc. Lack of it could hurt the area.
 - It is important to put people's concerns first in the process. They hoped that local input would influence the decision. They felt that regulatory bodies had made decisions for them without proper consideration of local input. They were supportive of NWTel in trying to obtain this input in their process.
 - Comment about the colour of the buildings, etc. to ensure that they blend in.
- A • Responding to question discussed whether the implementation of this system would provide any benefits to Old Crow. MSP indicated that the system would allow NWTel to provide for future expansion of new services to Old Crow that without the system would not be possible. This was outside of the current system plan.
- Q/C • Pointed out that instead of referring to four of the government's existing system sites as being decommissioned or dismantled, we should indicate that these sites are to be returned to their natural condition instead.
- A • Agreed and reviewed project details. Of the 12 new sites, on the Yukon section, to be built up the Dempster, given the return to natural conditions of the 4 YTG Comshell sites, the net result or cumulative effect would be the placement of an additional 8 sites along the Dempster Corridor.
- Q/C • Felt it was important to also emphasize the fact that mobile coverage with this new system could be made available along the route.
- A • Confirmed that on the MDMRS system there would be channels available to customers for private mobile services should they wish to utilize them.
- Indicated that comments were made by some government parties to the effect that the visibility of the towers would result in less tourists using the highway but that NWTel's view was that the new system could enhance tourism due to the added safety aspect and emergency capability afforded by the presence of the system.
- Q/C • It was felt that having this safety net along the highway would help facilitate the decision of some tourists to travel this route.
- Interested to see if copies of final report can be sent to the Arctic Institute to expand their data base on the north.

- A
- MSP did not see any problems with this and indicated her agreement.
 - Indicated that final review of consultants was underway with award of work within two to three weeks.
 - Land claims issues to be dealt with as in other instances - discuss with Lands and complete conditional lease agreements. Comment that is good long-term revenue for Bands. Felt this not a major concern as Bands quite willing to negotiate leasing in the past at other NWTel sites.
- Q/C
- Inquired if terms of reference/information on local employment offices can be included in tender specifications. This would allow or facilitate contacts by contractors if interested in local labour forces.
- A
- Agreed to add any information on tender that could facilitate local hiring.
- Q/C
- Felt that we should stress the resulting availability of emergency services.
 - Question was raised if this large capital expenditure by NWTel would make a difference in telephone rates - more expensive?
- A
- Pointed out the financial impact of this project, together with other major capital expenditures, had been assessed together against rising maintenance costs and lack of new service revenues associated with retaining existing technology. Over the long term, company and customers better off with upgrade of the system. Added that, whether the system was built or not, there may be rate increases requested in future years as last rate increase was some 5 or 6 years ago and that all costs had risen. Stated company objective of reducing toll rates over time.
- Q/C
- Question arose in general discussion about long distance rates from Calgary (??) in non-peak hours having been reduced appreciably by telcos in the south. Would there be something like this available in the north?
- A
- Assured that the service referred to was Between Friends and that NorthwesTel was planning the introduction of that service later in the year.
- Q/C
- Indicated a motion of support for this project from the Inuvik Chamber of Commerce would be available through his office.
 - A motion of support would also be drafted for review by the Town Council.

NorthwestTel proposes 12 microwave towers

by Stacey Campbell

Twelve microwave towers, if built along the Dempster Highway, would greatly improve telephone service in the region, says NorthwestTel.

Representatives of the company are travelling to Delta communities and Old Crow in the Yukon to explain the proposal and counter any fears it might damage the wilderness.

"Our thought is that a tower every 20 kilometres or whatever will be a very small part of what travellers might see. They would be compensated by increased security and a better link to the outside world," says NorthwestTel's general manager of marketing and engineering, Monique Pelland, who was in Inuvik April 29.

"Improved communica-

tions will allow the area to better position itself for business development."

The proposed system would allow workers and travellers with mobile telephones to call the outside world from anywhere between Dawson and Tuktoyaktuk. The Dempster link would provide an alternate route for calls in case of a system failure in the South Mackenzie such as happened in 1989 when a microwave site near Fort Providence burned.

But there is some resistance to the idea.

"There's quite a strong movement in the Yukon with some people saying there shouldn't be anything done with the Dempster," says Pelland.

Inuvik Chamber of Commerce member Dick Hill met with NorthwestTel and says the chamber sup-

ports the project provided it goes ahead without major disruption to the environment.

"The hassle is from a group of preservationists in Whitehorse, a non-user

See Most, 2

Most towers under 100 feet

NWTEL, from 1

area," he says. "The addition of 12 small sites is an increment. All we ask is to keep that in perspective."

Eight of the sites would have road access and four would be reached by helicopter.

Pelland says some outfitters were worried about roads to the sites increasing penetration into the wilderness. But she says their concern was reduced when they found out the access roads would only be one kilometre long.

"We think there are very valid approaches to the system which would allow us to provide improved communication yet reduce impact on the environment to an acceptable level."

INUVIK
drum 50¢
Thursday, May 2, 1991 Volume 27 Issue 10 Reg. #0829

ure 100 by 100 feet with a couple of diesel tanks, a generator, and an emergency shelter for workers. In all locations except one the tower would be under

100 feet in height.

"If the towers are under 100 feet you don't have to paint them red and white as a hazard to aircraft," says Pelland.

NorthwestTel hopes to get approval from DIAND by the start of next fall and take two years after that to complete the \$30-million system.

July 8, 1991

Government of the Northwest Territories (Inuvik)
Inuvik, NWT
X0E 1C0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Government of the Northwest Territories (Inuvik) on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Wednesday, May 1, 1991
Project: Dempster Highway Project - Community Tour
Place: Territorial Government Officials, Inuvik
Times: Start: 09:00 Finish: 10:30
Attendance: Government NWT
R.O. Connelly, Regional Director
B. Cassidy, Regional Superintendent Transportation
M. Bundgand, Manager Tourism
Northwestel:
M.S. Pelland
G.D. Bushell
D. Waloshuk

Summary

- It was considered key to:
 - a) minimize visual impact
 - b) consult with the Porcupine Caribou Herd Management Board
- Should consensus be reached in these areas, the project would be supported.

Additional Commitment

- Provide environmental study reports to the Prince of Wales Heritage Centre.

Detailed Discussion

- Q/C • I thought that we already had a distance education system like this in Aklavik.
- A • Possibly, but it could be only audio based or the existing transmission system could not support the requirements of the new system/services we are proposing. Video conferencing, for example, would be very difficult to support if not impossible on an analog system.
- Q/C • I thought that we already had this on the government switch right now.
- A • Yes, you can have it on your system for inhouse calls but this is not available to the public right now. However, what we are referring to is offering these services between cities for residential, as well as corporate customers, on what is referred to as CCS7. This would not be available to the north unless a digital link was installed.

- Q/C • These new features require the Dempster link because the Mackenzie Valley system is analog! If the Dempster is the only link which can provide this service and the other system cannot, then we still do not have route diversity ensuring reliability of these new services.
- A • When we look at the Dempster link, and its completion, we will have the loop or circle for diversification in place but the Mackenzie Valley system will be still analog. What will happen is that on this project we will build the Whitehorse-Tuk digital system and tie this into the Mackenzie analog system to complete the loop. The new services will not be able to be carried by the Mackenzie Valley system but it will still take voice calls and fax machines. Once this is done, to answer your next question, Northwestel will then upgrade the Mackenzie Valley system to digital to carry the new services. This upgrade is planned in a later phase of our Transmission Evolution Plan.
- Q/C • Have Northwestel's marketing departments determined if areas such as Aklavik, Fort McPherson, etc. want these new services, such as CCS7.
- A • Generally, we expect very good demand, but location specific studies have not been made.
- Q/C • It seems to me that right now we are already supporting one of the highest telephone toll rates in Canada. Will this new system cause these rates to go up, down or what?
- A • It is one of Northwestel's corporate commitments to have the long distance toll rates come down. Presently the cost of this telephone infrastructure is shared over all of the Northwestel customers in both territories. By offering these new services we hope to attract new customers to expand our customer and revenue base and, therefore, lower toll rates. In addition to WATS services, we hope to offer Community Services and Between Friends, which will, if taken advantage of, result in lower costs to the business and residential customers. By reviewing and balancing our customer requirements, we are better able to provide new services in a timely fashion, while maintaining rates acceptable to the CRTC. The timing for the Dempster project is for 1992-1994 which will include two other phases and will complete the system from Whitehorse to Tuk. Then Northwestel will focus on the upgrading of the Mackenzie Valley system once the Whitehorse-Tuk build is complete. If we only maintain the existing system, service reliability may suffer and we could lose customers. The new services which we are talking about will allow us to talk to oil companies in the Beaufort area, general businesses, etc. to offer them new services which will allow us to reduce costs to the general public as the costs will be spread out over a larger customer base.
- Q/C • Inquired if the sites have to be on the height of land.

- A • Indicated that the primary concern in the system design was to ensure that direct line of sight was maintained between sites and the highway and also from site to site. While we would try to choose the highest property in a local area, the prime consideration would be to maintain the line of sight criteria.
- In previous meetings with other groups, there was mention that some would not drive the highway due to the lack of emergency services.
- Q/C • Said that this might be true, but felt that this would not be a big impact; she had talked to people who have travelled the highway and feels this is a weak issue or point.
- A • Did mention previous opinions and comments to the contrary from other groups that we had met with.
- Q/C • The people of Inuvik have a different focus regarding the highway than Yukon residents because it is their sole link from the south to the north and it is the only dependable link. She noted that we should weigh the responses we hear differently, dependent upon whether they come from the Yukon or Inuvik and whether we are hearing some of these responses from business people who see themselves in this light as opposed to those who are involved on the tourism side of things.
- If these towers go up, is it possible to take advantage of this by, say, using the sites as visual lookout points or by even having lookout points built on site? These sites then could be multi-use sites which would minimize the impact and allow tourists to still view the scenery with an unobstructed view from the site, for example, your Franks Channel site outside of Yellowknife.
- A • Certainly we would like to collaborate with authorities to do this if it is possible. We would like to take whatever measures are possible to reduce the visual impact of these sites, but in some cases I am wondering how much can be done from a visual perspective while maintaining the design constraints as a communication system.
- From a mobile road coverage perspective, we are limited with respect to what can be done regarding moving or hiding the site, as we must maintain road coverage and line of site. GDB will be seeing, when studies from the visual consultants are reviewed, what can be done with respect to the road, site and tower perspectives and if we can do something, we certainly will.
- Q/C • Mentioned that the project reports once completed, should also be sent to the Prince of Wales Heritage Centre for information purposes.
- A • Agreed this was a very good idea and will be done.
- Public concerns:
 - Also indicated that some of the groups had concerns regarding the access roads allowing access past the corridor into the outlying areas for hunting, etc. This was also something that we would have to address.

- Q/C • With respect to maintenance, how often will Northwestel personnel be required to be on site?
- A • With this new system technology, we are trying to achieve our maintenance/radio personnel being onsite only once a year.
- Q/C • Can the access radio/sites possibly be used for multi-purpose concerns such as litter barrels, view points, etc.?
- A • On this matter, we would be flexible but we would like to get some of your input regarding this as other groups would like to see the roads fenced and not provide access to everyone. So, we have one group wanting the roads open and another wanting them closed. Certainly, we will have to review these concerns on a site-specific basis to come up with possible solutions.
- Q/C • What would the reason be for not having all of the sites being helicopter accessible only?
- A • There would be a few reasons, such as the accessibility of the sites, the additional cost to maintain the site, the additional cost to refuel the site and the possible risk to the environment of fuel spills when transporting fuel by helicopter.
- Q/C • Certainly, when the roads are blown in during the winter months there would be no difference as far as access, whether it was a road or a chopper site.
- A • Cited Fraser example where ground crews reached site well before helicopter could fly in.
- Q/C • Very important that the Porcupine Caribou Herd Management Board be contacted.
• Would you cancel the project in the next two to three years if you do not do the project now?
- A • Well, we are not saying that the project would never be done, but we feel that the circumstances present right now and the need which is now evident might not all be in place in a few years' time. If this were the case and the system were put in after some customers had made different arrangements, the economics might not be favourable. We see a need now; if we cannot do it now, we may lose a source of funding that would help to pay for this project. We may find new reasons to do the project in the future, but right now a lot of these reasons have aligned themselves and timing is important.
• Say for example, if the pipeline were built in a few years and the telephone infrastructure were not in place, they may decide to provide their own system or go a different route before we could provide communications in the area.
- Q/C • This project could increase the already high cost of a phone bill.

- A
- Do you agree that if Northwestel loses customers, then this may increase your phone bill?
 - Conversely, by Northwestel providing multi-purpose services we can expand our customer base which would help reduce your bill.
 - Should the pipeline ever be built, it will require that communications facilities be available to ensure its proper functioning and control, and also to provide emergency controls and communication be in place should an emergency take place. This capacity would be essential to control and initiate emergency procedures to stop an environmental concern.
- Q/C
- Indicated that improved communications along the highway would be a benefit and he felt that the structures would not pose that much of a negative impact.
 - Felt that she could support the project with some reservations. She felt that the new services would be needed, but she is concerned about the impacts of all sites and feels that every effort has to be made to help the sites blend in and be as invisible as possible. All areas should be looked at to accomplish this, colouring, placement of site, etc.
 - Indicated that access permits would have to be applied for through his office and would take about six weeks until acceptance. There would, after application is accepted, be the possibility of one-year extension if required.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Gwitchin Tribal Council
Box 1509
Inuvik, NWT
X0E 0T0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Gwitchin Tribal Council on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Thursday, May 2, 1991
Project: Dempster Highway Project - Community Tour
Place: Gwitchin Tribal Council
Band Council Office, Inuvik
Times: Started: 14:23 Finished: 15:45
Attendance: Tribal Council: NorthwesTel:
Tom Wright M.S. Pelland
Ernest Firth R. Charlie
G.D. Bushell

Summary

- Strongly identified need to be informed on and involved in the land permitting process.
- Strong interest in employment potential.
- Need to protect ritual or sacred land.
- Support of project benefits.

Additional Commitments

- Forwarding of exact proposed site/road location by month-end.
- Confirmation of an approach/schedule to develop conditional lease agreements.
- Special care to be taken in the tendering process to facilitate local participation.

Detailed Discussion

- Q/C • With respect to MDMRS, you can pay a rental and get mobile coverage?
- A • Well, yes, the system is private, however, and the whole world cannot get onto this system. It is a dedicated system that you would be renting channels on.
- Q/C • Right now the YTG have to pay for the whole system.
- A • Yes, they are a customer and are paying for the mobile part of this system. NorthwesTel is paying for the backbone costs with respect to the system, the part that is for shared, multi-purpose use.
- Q/C • Is the system that they have in there right now going to be removed?
- A • Yes, the equipment that they have there is outdated and reaching the extent of its useful life.
- Q/C • This system diversity you talked about, you said that NorthwesTel has three routes like the tines on a fork. Are all of these sites microwave sites along those routes?

- A • Yes, those are all microwave sites along the existing system.
- Q/C • Of course, if a microwave site goes down or is knocked out, does that mean the whole system is down?
- A • Yes, that means that everyone above where that break occurs along these routes will be out of service or out of contact with the rest of the world until the system is repaired. This is why we are looking at system diversification through construction of the Dempster system which will tie us into the existing Mackenzie Valley system, thereby completing a circle route which as you can see, if a break occurs anywhere along the circle, can always route traffic in the other direction. This results in less disruptions for our customers.
- Q/C • So this is what you want to put in.
- A • The cost of this entire system would be in the neighbourhood of \$30M from Whitehorse through to Tuk.
• Currently the entire existing system is an analog system, both from Whitehorse to Dawson and from Tuk down the Mackenzie Valley system.
- Q/C • What do you envision as being the length of time before the consultants will have completed their environmental studies?
• Have the contracts been let out for consulting work regarding environmental studies right now?
- A • At the present time, one consultant, the archaeological one, has been accepted. We are currently reviewing tenders for the visual and wildlife/water/vegetation/resource consultant studies which we hope to have awarded within the next few weeks.
- Q/C • Well, who wants video conferencing. Yah, I suppose then you can see the guy instead of just listening to his voice. Must cost a couple of bucks. Oh boy, this is going to be costly!
- A • The cost of the entire project from Whitehorse through to Tuk would be in the neighbourhood of \$30M..
- Q/C • With respect to this project, how much construction work would you envision going to outside contractors? Since it's Gwitchin land, we would be interested in finding out what spin-offs we might be looking at during the construction phase?
- A • Some of the activities we envision going out to tender that would be available to local contractors would be construction of access roads, site clearing, building construction and possible dismantling of existing sites.
• This work would be in the neighbourhood of between 10% and 15% of the total project cost.
- Q/C • When you say locally, what do you mean?

- A • I mean that assuming there are qualified contractors in the area who have experience in building these facilities, we would encourage them to submit a tender bid and given their location, their knowledge and experience in the area, they should be able to submit a successful bid.
- Q/C • We would like to obtain the proposed site locations so that we can see which are on our lands and which may be of concern to us for other reasons.
- A • Yes, we don't have a problem with that. We can forward site map information by the end of the month.
- In looking at the schedule for this project, we hope to have consultant reports completed by mid-August with submission to the RERC by end of August. We would hope to have the go-ahead from the RERC in place by October 1991.
- Q/C • I would request that at the time of land use application that you forward this information to the Gwitchin Tribal Council office, Box 1509, Inuvik X0E 0T0 so that we are involved in the process and have time to outline our concerns and/or make comments. The contact for this information would be to the attention of Willard Hagen.
- Well, nobody would go for that! (i.e. a more costly fiber optic system)
- A • Previously Tom had commented that the Dempster system would be costly. In regard to this I would like to add that this system is not a service in itself but it carries all types of services to the customers. It is for this reason that there is no price specifically for this to the customer. We are providing a backbone system or telephone infrastructure that is needed by NorthwTel to carry existing and new services to our customers. The cost of this is shared by all customers in both territories spread over the life of the system and we are regulated by the CRTC to a rate of return of 14% on any given year. The CRTC also is responsible to review our capital plans and we submitted our capital plan for this project for approval in October of last year. It is in the last stage of approval and it is expected that we will receive this approval within the next few weeks.
- Q/C • What are we talking about for power at these sites?
- A • These sites will have diesel power at them housed in a power building approximately 12'x 20'. Also on site there will be a m/w repeater building measuring 12'x 36' complete with radio room and survival accommodations room. Fuel facilities and a concrete fuel containment berm will also be located on site. The entire area of the site would be approximately the same as that required for two small homes.
- Q/C • One of the problems with concrete in these areas is that it freezes and cracks. Maybe you should go and put one in and see how it works for a winter.
- A • We actually do have a few sites along the Mackenzie Valley system with this type of containment berm but certainly I will review this concern before we finalize our design plans.

- Q/C
- Another area of concern for us would be in identifying areas of archaeological concern and old burial grounds to make sure that these are not disturbed. Your archaeological study will have to address these concerns.
 - You could have the consultant visit Fort McPherson to discuss this with the people and identify any concern areas.
- A
- When the exact latitudes and longitudes of the sites are identified, we will forward a copy to your attention and get your input on them.
 - Previously in the land use process we would all pay for a land use permit, they would review this for a period of 45 days and then issue a permit and we would start construction activities. Because things obviously are slightly more complicated in this instance, we must develop a process so we can plan appropriately and keep all parties involved in the project while not delaying matters. We must apply to DIAND first for the land use application but no decisions will be made until all consulting studies have been completed. I am wondering if during this time we can come to an agreement on leasing arrangements on those lands that will be involved.
- Q/C
- Until we know exactly where the sites are to be located then we cannot come to an agreement because if a site is located on sacred land then this is impossible and the site will have to be relocated.
 - In order for someone to put something on our land, then to be agreed to, someone has to come to discuss this with us what leasing and pricing arrangements are to be agreed to.
 - You will have to give us the locations of the sites and we will get back to you with the concerns, etc.
 - Yes, we would want a full copy of all information that you would be sending to DIAND either before or at the time you forward your land use application to them.
 - The studies should also be sent to this office for review.
 - We would also want a say on what contracts are let for work to be completed on our land.
- A
- NorthwesTel has corporate guidelines regarding going out to tender and the awarding of tender contracts.
- Q/C
- Yes, we have guidelines ourselves.
 - We would want it spelt out in the specifications or tender documents, the terms and conditions regarding local hiring practices and the contractor will have to meet with us to discuss these matters.
- A
- With respect to land settlement still in progress, do you mean or are you saying that it will take us a year or so to reach an agreement regarding the land?
 - We have no problem in regard to coming to a conditional lease agreement concerning the land with the band and if under land claims the band takes control of the land, then a lease agreement will be in place. If it comes to pass then it comes to pass.

- If the pipeline were to ever go through and we were not ready or had nothing in place, then the cost of the system would not be shared once again. Quite frankly, given the delays we have encountered so far on this project, we cannot afford another 2-3 year delay.
- Q/C • The sooner you can get your system requirements to us, then the sooner we can get answers to you over our concerns, etc.
- A • We will have specifics on the site locations to you within a month.
 - Information on the land use application will be forwarded to you either before or at the same time as we submit this information to the government.
 - As I see things after you have reviewed the site location information you would get back to us on what terms and conditions you would like to see on a long-term lease (30 years), etc.
- Q/C • Are you going to put some of this information on film. I mean this is virgin terrain, it is a large project dollar-wise and it is quite a big thing?
- A • No, we had not planned on putting anything on film. Actually from our perspective, it is a relatively ordinary project when you look at it with only 12 sites being located in over a 400 mile stretch.
 - It is because of this that we would like to have all arrangements regarding land, etc. completed by the end of August 1991.
 - If we do not get the site use then the system simply will not happen.
- Q/C • Maybe we can get that other outfit to do it.
 - This system is definitely a benefit to the north.
 - Because you would be using our land we would like preference to choose and do some of the contract work.
- A • Why would you not just want to be a part of the tendering process after all given your location and knowledge of the area you should be in the best position to supply a successful bid on the work?
- Q/C • Yes, we would consider putting a tender in on the construction work.
- A • With respect to any tenders going out for road or clearing work we would make sure that you are aware of the tender and you should be able to get this work as you already have everything in place. NorthwesTel, as a company that is regulated, would have problems in entering into limiting agreements. The tendering process would certainly work the best.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Inuvik Visitor's Association
2 Firth Street
Inuvik, NWT
X0E 0T0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Northwestel is proposing to expand its microwave radio network - the backbone of our operations - by installing a modern, digital microwave communications system from Whitehorse, Yukon to Tuktoyaktuk, NWT, along the Dempster Highway corridor. The \$30 million project will provide a vital, reliable telecommunications link between the Yukon, the Mackenzie Delta and the rest of the world. As well, the proposed system will enable Northwestel to offer a wide range of new telecommunications services.

Please find enclosed an overview of the proposed project, as well as some notes from a meeting held in your community on April 29, 1991.

Your support for this project would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from your organization to this effect. This will be included in our formal submission to DIAND for site use permits and lease request.

This proposed project will have short and long-term economic benefits for the North.

If you have any questions or comments, please contact Cathie Bolstad at 668-5448.

Sincerely,

Monique S. Pelland
General Manager

:bmw
encl.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Hamlet of Tuktoyaktuk Council
Tuktoyaktuk, Inuvik
X0E 1C0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Hamlet of Tuktoyaktuk Council on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
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201 Lambert Street
Whitehorse, Yukon
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M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Inuvialuit Land Administration
Box 290
Tuktoyaktuk, NWT
X0E 1C0

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Northwestel is proposing to expand its microwave radio network - the backbone of our operations - by installing a modern, digital microwave communications system from Whitehorse, Yukon to Tuktoyaktuk, NWT, along the Dempster Highway corridor. The \$30 million project will provide a vital, reliable telecommunications link between the Yukon, the Mackenzie Delta and the rest of the world. As well, the proposed system will enable Northwestel to offer a wide range of new telecommunications services.

Please find enclosed an overview of the proposed project, as well as some notes from a meeting held in your community on April 30, 1991.

Your support for this project would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from your organization to this effect. This will be included in our formal submission to DIAND for site use permits and lease request.

Northwestel would be pleased to offer your executive an overview of the project and answer any questions you might have.

This proposed project will have short and long-term economic benefits for the North.

If you have any questions or would like to arrange for a presentation on the proposed project, please contact Cathie Bolstad at 668-5448.

Sincerely,

Monique S. Pelland
General Manager

:bmw
encl.

MINUTES

Date: Tuesday, April 30, 1991
Project: Dempster Highway Project - Community Tour
Place: Tuktoyaktuk - Hamlet office
Times: Start: 10:07 Finish: 11:58
Attendance: Hamlet Administrator - Rick Mills
Mayor - Eddy Dillon
Councillors:
Billy Emaghok
Denis Thrasher
Ruddy Vince
NorthwesTel
M.S. Pelland
D. Waloshuk
G. Bushell

Note: Inuvialuit Land Administration did not make it as R. Gruben had not notified them. Proposed to see about setting something up for Thursday.

Summary

- Attendees were generally in favour of the project.
- All were mindful of not intruding over someone else's right to manage their land.
- Concerns expressed were more financial than environmental.
- Good dialogue allowed review of other local concerns on the same occasion.

Detailed Discussion

- Q/C • Commented that he had a large concern regarding the expense of the new system and wondered why it was that the town or people of Tuk should support an additional perceived cost (something extra) when an existing system already links them to Yellowknife. Why support something that is going to increase their bill?
- A • Responded that this was not necessarily the case but she wished to describe the proposed services of the new system and return to the Mayor's question later in the presentation, at which time it would be easier to understand the answer because they would have a greater appreciation of the overall system.
- Did mention at this time that the cost of this project is not an upfront cost but is amortized over a period of 20 to 25 years, consequently in itself, should not necessarily result in any increased rates for the customer. It was also mentioned that in any system there comes a trade-off between necessary maintenance costs and replacement with newer technology allowing general expansion of new services. Without this upgrade, NorthwesTel could lose customers as it could not provide upcoming services and high reliability to customers, oil companies, etc.
 - Indicated that the proposed sites were to have survival shelters which in the past had been left open for emergency purposes.

- System design options considered:
 - Used the analogy of a satellite system being like an airplane where it was good from point to point but you could not get off along the route. Likewise, the benefit of a digital microwave system was that it was like a road where traffic could get on anywhere along the route.

- Q/C • Inquired if one of the reasons for completing this project was to enhance communication services for the Dew Line System.

- A • Indicated that this was not the case and in fact felt that aside from providing a few telephone lines to the Dew Line, they had their own communication system facilities.

- Q/C • Was interested in the reason why NWTel decided to put a satellite system in Paulatuk instead of a m/w system.

- A • Not entirely familiar with the project but felt that it was probably because the population was all localized in one central area and satellite is more cost-effective in this instance, given the point to point requirement of an isolated small community.

- Q/C • Inquired if one of the four new sites in the NWT breaks down, can the other sites still operate and transmit calls, i.e. take over for the missing site.

- A • Indicated no and explained that NorthwesTel tries to have a system diversity and/or redundancy (e.g. double equipment) at these sites in regard to obtaining a high reliability against total system outage. We must appreciate that equipment does fail but if diversity exists, then traffic may be routed through.

- Q/C • Likened it to sending messages by smoke signal and how the message would not get through if the middle individual fell asleep on his mountain top.

- A • Went on to explain how at a number of our existing sites route, space and electrical diversity were not always designed into the system in the past and how NWTel is currently involved in addressing this problem and over time will have all sites provided with a degree of site/system diversity. We are between now and 1998 involved in an upgrade and replacement project to address these system concerns on NorthwesTel's main backbone routes. The Dempster project is just one part, which is proposed to be in place by fall of 1993, of the entire upgrade project.
 - Mentioned that the CRTC has reviewed this project since last fall. The question period has taken place and there have been no objections to date on the feasibility of the project as the project is seen as being needed. Approval should proceed normally over the next few months.
 - Summarized previous public concerns:
 - Worried about the access roads providing routes outside of the corridor into the outlying areas.
 - Pictures were shown of a few of the sites showing the openness and the point was made that ATVs, etc. could gain access to these areas quite easily regardless of whether a road was present.

- It was also noted that some factors can be addressed to review the access problem.
- Q/C • Mentioned that it was not their place to really comment on how others wished to control their land.
- A • As requested in Inuvik, information could be made available to the public, so copies of environmental reports will also be sent to the Arctic Institute for future reference.
- Bids for most of the consulting work are now out and we hope to award some of these within the next two weeks.
 - Schedule:
 - NorthwesTel will be meeting with the public in the next few weeks in Inuvik, Tuk, Fort McPherson, Old Crow, Dawson, Mayo, Whitehorse and Yellowknife.
 - It is anticipated that the construction phase of this project would take two years for the Dempster segment.
 - The Tuk upgrade was scheduled to start in 1993 with completion in 1994.
- Q/C • When we move the system (i.e. the exchange and transmission terminal) off the Dew Line site, will the new system be a better system? Currently the equipment in place cannot strap a phone.
- A • A majority of the problems being encountered now are due to the old switch. A new switch is scheduled for Tuk in 1993 and this will offer/allow the new calling features discussed, such as call forwarding and eventually, call management features.
- Q/C • In the past, how many times has the system failed?
- A • Luckily, it has not failed that often to date, but the age of the existing Mackenzie Valley system equipment stops us from offering a variety of updated services in Tuk. Currently, the equipment used in the system has been manufacture-discontinued and is also projected to exhaust by 1993.
- We did have one instance in 1989 where we had an outage in Yellowknife for 36 hours because there was a fire at our Kakisa site in the NWT.
 - Yes, this site is just past our Mills Lake site and we had an individual set our site on fire.
- Q/C • New services do not come available with this upgraded equipment all at the same time.
- Services will come about based on need.
- A • In the short term, the project benefits for local people are those associated with road, building and clearing and construction activities. These are all subject to tendering policies adopted by NorthwesTel.
- Other short-term benefits are in relation to spin-offs, use of restaurants, services, hotels, etc., during construction phases. NorthwesTel will also encourage contractors to hire locally where possible.
 - Do you feel that you would support the project or not?

- Q/C • Obviously, from a community perspective, we would have to support the project and the new services/benefits offered. But one of our concerns would be the cost of the system and whether this would result in increased toll rates.
- A • We feel that these new services are needed in the north and that northerners, both corporate and public, will be eager to obtain them. If this is true, then not only will our customers be happy, but we will have a larger customer base to spread the costs over - a cost which has been spread over 30 years or the equipment lifetime, of which in any one year we are allowed a maximum rate of return of 14% by the CRTC. As for toll rates, we have already filed for an average 5% reduction, and further reductions will be a corporate objective over the next five years. Local rates should be expected to increase in the future as the last rate increase was in 1985/86, whether or not this system is built.
- The new system is expensive, but should not necessarily impact on customer bills or rates.
- Q/C • Would not be worried about the cost if he felt that the oil companies would share the cost but fears this might not be the case given the recent downturn in not only the Beaufort Sea drilling, but the general economy as a whole.
- Feels that the service they receive to date is very poor given the dollar return that NorthwesTel is receiving. He feels that even though their exchange is one of the busiest ones in the area, their service is still very poor.
- A • One of the problems that we have in areas such as Tuk is that we have no local personnel.
- A new switch is proposed for Tuk in 1993 and this should address a lot of the present concerns. Also, NorthwesTel will be trying a different cabling concept allowing remote administrations of moves and installation.
- Q/C • Some of the current resentment towards NWTel stems from the Reindeer Point subdivision decision. There is a sour feeling in the town regarding this subdivision and now NorthwesTel is asking for support on this new project.
- A • We are talking two types of service. There are dedicated systems, such as the wiring to your home, which you are responsible for paying for as no one else can use this service. Then we have shared systems, like the service between switches or inter-exchange transmission systems. NWTel tries to balance the costs and needs of the customers for dedicated or non-shared systems. It takes NorthwesTel between three to five years to put a large system together to position itself to provide services to customers in the future. In order to get ready, this will require large expenditures over this time and proper scheduling of all of our activities must be identified and balanced against the various customer needs. Not every project can be supported in the time frame desired by the customers, choices must be made.
- Q/C • Commented that he feels that the community would still support the project but feels that there might be a little animosity over Reindeer Point.

- Feels that there is a need for the system and the advanced technology so it will have to go ahead.
 - Their only concern is that the cost of this advanced system would affect their bills.
 - Wondered if this system is already paid for given customer payments, etc. throughout the years.
- A • NorthwesTel has allocated funds for this expenditure and system upgrade in their 5-Year Capital Plan. Given our current rate of return allowed by the CRTC, this expenditure is a planned one and fully supported.
- Q/C • If all goes well and the recession ends and there is a high use of the new system services, will the rates go down because of this use?
- A • Yes, that is a possibility, but remember the costs of this system will be shared and supported by the customer base of both the Yukon and Northwest Territories, so impact one way or the other will be small.
- We must balance the total costs and revenues in order to identify pricing direction and new service offerings.
- Q/C • NorthwesTel has been using and designing microwave systems for a long time so obviously they know what they are doing and this has to be the best and cheapest system. Satellite has to be very expensive.
- Will the weather conditions experienced in these areas affect the system?
- A • The system will be designed to take these weather conditions and unique circumstances into consideration and its performance will not be affected by them.
- Q/C • This is where the consultants come in.
- A • Yes, as a matter of fact, on our Yellowknife to Grumbler system we have had a few problems with system/signal fading, etc. and we are addressing these concerns right now.
- With the new system we have design redundancy, spare radios and system backup which are part of a well-designed system. This site redundancy allows a better system reliability and little, if any, outage concerns for our customers.
- Q/C • You can have our full support for the project if we can get our 68K out of the Reindeer Point Subdivision project (smile).
- Were there any representatives that came into town before this project to inquire about the concerns of the community regarding their services and thoughts?

- A • We do try to visit communities and city councils when we are in the areas to find out the feelings and needs of the people as it helps us manage our money better. Sometimes, however, that balance is not obtained but we are focusing on this area and trying to better our efforts. This is one reason we are now holding these public meetings to hear your concerns on this project.
- Q/C • For your proposed radio site land application, this will have to go to the Inuvialuit Land Administration. Contact Jane Bicknel at 977-2202.
- Payments - we try to get them to your office ASAP but it seems that the mail, etc. is always late in reaching your offices.
- A • Yes, the main service has been a problem, but we have now addressed this problem by extending the late payment date to a 45-day period. The community worker, R. Adams, does the best he can given his part-time status.
- Q/C • Can we use the same mobile phones on these new towers as we are using now?
- A • There will be mobile coverage on this new system and two types are currently available, but we have not yet decided which type will be used along this road system.
- Q/C • I think that we are all in favour of the project.
- I would like to add that we would like to see further training for R. Adams and appreciate this, and the furthering of his experience as a local community worker.
- A • We will be trying to do more in the future as this is one of our company focuses.
- There will be a new training session in Inuvik next week and we are hoping to get a program in the future at the College to get hands-on experience to the students.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

City of Whitehorse
City Hall
2121 - 2nd Avenue
Whitehorse, YT
Y1A 1C2

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the City of Whitehorse on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Monday, May 13, 1991
Project: Dempster Highway Project - Community Tour
Place: Whitehorse City Hall
Time: Start: 10:45 Finish: 11:50
Attendance: Mayor D. Branigan
Bryce Walt,
Chief Administration Officer
Northwestel:
Monique S. Pelland
Dennis W. Johnson

Summary

- A letter of support will be forthcoming from the city council.

Detailed Discussion

- Q/C • What's in place now, meaning along the Dempster Highway?
- A • Nothing along the Dempster Highway as of now.
- Q/C • What will be the costs?
- A • From Whitehorse to Inuvik the backbone system would cost approximately \$30 million.
- Q/C • What is lacking for cellular service?
- A • We have cellular service now. We have Cellular 400 service. The lower the frequency, the larger the coverage. Cellular 800 would require more sites for the same coverage. Also, 800 is more sensitive than 400 to terrain and trees. Again, this would affect coverage. We hope to introduce Cellular 800 service in urban areas like Whitehorse and Yellowknife by the end of this year.
- Q/C • What range will you have for Cellular 800?
- A • I cannot give you an answer without doing proper testing because of the nature of the terrain around Whitehorse.
- Q/C • Can you get approval from the CRTC for the Dempster microwave system?
- A • Yes, we believe this is forthcoming, following last fall submission of the Construction Program.
- Q/C • How's this going to affect us, the customer?
- A • This project will not affect the customer directly whether we go ahead or not. We do believe that with the new services that we can offer, maintenance cost reduction and customer growth, we can support our planned upgrade. However, we have not had a local

rate increase since 1986, yet all our costs have gone up since then. So it is fair to say some rate increases can be expected in the future, whether this system is built not.

Q/C • Is NorthwesTel independent of Bell or is Bell paying for this?

A • This project is a NorthwesTel undertaking.

Q/C • In your operating area, who is larger - the Yukon or the Northwest Territories?

A • The Northwest Territories is slightly larger. About 45% of the revenue is generated from the NWT, 45% in the Yukon and 10% in BC.

Q/C • Will the new Environmental Act have any bearing on you or the bands?

A • As the Act is not in place as of yet, in terms of regulations, this has no bearing on us. We plan to negotiate leases with the bands that will fall into place after land claims are settled.

Q/C • What is the maximum possible distance between sites?

A • Generally, 50 to 60 miles is the maximum between sites.

Q/C • Will you have to hire more people to service these new sites?

A • No. With remote testing and diagnostics, this will not be necessary.

Q/C • Can you give peripheral service?

A • Yes. We have the capability of expanding as we need it by adding spurs to the main route.

Q/C • Will this go to public tender?

A • Yes. Each function will be separate and will be tendered accordingly, i.e. tower, electronics, fencing, etc.

Q/C • In case of an earthquake, would we be out of service with the existing facilities, breaking down of a site?

A • Yes. Depending on where the quake was and the damage, all services from that point could be out.
• We are looking for support from the City Council.

Q/C • I don't see any downside to this. We will run this by Council before sending a formal response. The economic contribution to the Territory could come at a very opportune time since the recession could affect us for another year.

MINUTES

Date: August 20, 1991
Project: Dempster Highway Project
Place: Whitehorse Chamber of Commerce
Attendees: Northwestel:
 W.A. Dunbar
 G.D. Bushell
 C.A. Bolstad

Detailed Discussion

- Q/C With respect to redundancy, has there ever been a break in the Yukon side of the long distance route?
- A 1 1/4 years ago we had a 4 to 5 day outage which resulted from a fire at our Kakisa Microwave site. This affected our long distance service primarily to N.W.T. customers. Note, however, that we have a large number of forest fires burning in the Yukon right now. One in progress is threatening our site at Mt. Dave. We have had to shut down fuel at this time.
- Q/C You talk about the ability to introduce new services. Are these new services for Whitehorse?
- A Yes. In the future, communities will also get some of these new services.
- Q/C You talk about pay t.v. What are you talking about?
- A We would have facilities available to provide pay television on the phone network.
- Q/C With respect to the options you have considered, what percent of the project would you say is influenced by the government's requirements?
- A Meeting with the government's requirements could be assessed as being about 40 to 50% of the needs we assessed.
- Q/C How many sites are on withdrawn land (land claims)?
- A 1, possibly 2 within the Yukon. Consultants are still determining whether or not one of the proposed sites falls on withdrawn land.
- Q/C Are any access roads on withdrawn land?
- A We have made some changes as a result of the environmental/engineering process. We have access roads on the same sites that I referred to previously that are still in question. To answer, at maximum, there will be three sites possibly in question.

Q/C You have been referring to an original and a revised plan. Is the proposal you are showing us today the ultimate plan or are changes still possible?

A The initial proposal was exactly that -- a proposal. We then looked at concerns that were raised and tried to address them the best way possible. We wanted to take a re-look based on those concerns. The revised proposal you see today would be very difficult to change in order to reduce land usage, etc. Carrying a signal from A to B over a particular distance will require a minimum of X sites. Further reduction of sites based on this revised proposal is not a possibility as we have reached that limit already.

Q/C Will this improve the toll free 800 numbers? For example, could Yukoners access more 1-800 numbers they see advertised by outside companies?

A Outside companies make the decision to buy zone coverage into our area for their 800 numbers. If they don't feel the Yukon is a market to pursue, then they don't purchase the 800 numbers into our area. It is the decision of that business that makes it impossible for toll free calling from our area. These zones are already available to them. Whether or not we have this system will not change that. We are not in control of these people's marketing decisions.

Q/C How will this affect our telephone bills?

A The capital expenditure is amortized over twenty to thirty years. If we don't spend capital investment, we deteriorate. You will not see a rate increase as a direct result from this particular project.

Q/C Would this project benefit the NORAD system and service Alaska (North Warning System)?

A No. This is not at all related to the North Warning System. Norman Wells and Ft. Simpson will benefit, however.

Q/C What is the number of people you will be servicing?

A All the people in the Yukon and McKenzie Delta.

Q/C Will this affect your ability to bring on Cellular 800 service?

A This project does not address Cellular 800. We are, however, examining Cell sites at this time for Cellular 800 service next year. This service is limited to larger centres like Whitehorse and Yellowknife because of the technology.

Q/C What is the capital cost of the project?

A 30 Million dollars.

Q/C Is it servicing new customers?

A Not directly. However, with the ability to offer new services, of course, comes new clients.

Q/C How much of that 30 Million will be spent on the Yukon portion of the system?

A 11 sites in the Yukon and 6 sites in the N.W.T. would give one a rough idea of the split - 60%.

Q/C How much of that is actually injected back into Yukon business?

A 10 to 15%.



Northwestel Inc.
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Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Yukon Chamber of Commerce
Suite 205
302 Steele Street
Whitehorse, Yukon
Y1A 2C5

Re: **Proposed Telecommunications System**
North Yukon - Mackenzie Delta

Thank you very much for your letter of June 14, 1991, supporting Northwestel's proposed new changes to the Dempster Highway Microwave System.

Please find enclosed an overview of the proposed project, as well as some notes from a public meeting held in Whitehorse on May 6, 1991.

If you have any questions or would like to arrange for a presentation on the proposed project, please contact Cathie Bolstad at 668-5448.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Monday, May 6, 1991
Project: Dempster Highway Project - Community Tour
Place: Whitehorse
Times: Start: 1900
Attendance: Media:
Dave, CBC Radio Whitehorse
Dianne, Whitehorse Star
Other Attendees:
Rosy Anne, Northern Affairs
Ron Robbins, EMO
Messrs Wintemute & McArthur, YTG Communications
Russ Moore, RCMP
Project Bid Rep, Klohn-Leonoff Consultants
Julie Fisher (Mile 6 Dempster resident)
Evonne, YTG
Kevin Bolstad
NorthwesTel:
Monique Pelland, General Manager, Marketing & Engineering
Dennis Johnson, Customer Service Manager, Whitehorse
George Privett, Regulatory Analyst
Glenn Bushell, Civil Engineer (Dempster Project Engineer)
Cathie Bolstad, Corporate Communications Specialist

Summary

- Only one attendee from the public came.
- Other attendees have work-related interest in the proposed system.
- Strong support from the Emergency Measures Organization (see letter attached).
- Also attached is resulting article in the Whitehorse Star published Tuesday, May 7, 1991.

Detailed Discussion

- Q/C
- **Read** into the minutes a copy of a letter from EMO voicing support for the Dempster system.
 - With respect to redundancy, what does it take to break the link in the system you have now?
- A
- A severe ice storm or a forest fire could damage a site. This would cause a break. We had this occur a few years ago when our Kakisa Microwave site was set on fire by vandals. Service was disrupted for 23 hours.
- Q/C
- How could Old Crow be on the system?

- A • We would require one or two towers between Old Crow and the proposed system.
- Q/C • When would Old Crow be put on the new system?
- A • That is difficult to say. We consider communities on an annual basis. We would have to balance Old Crow's needs with those of communities without service.
- Q/C • What is the life of this service.
- A • The life of the towers is approximately 30 or more years since there is no emerging technology that could replace microwave transmission that we are aware of at this time. The life of radio technology is different. It would not be unusual to see the radio equipment component replaced over the life of the tower.
- Q/C • What has been the response to your proposal in other communities?
- A • We have been meeting in Inuvik, Tuktoyaktuk, Ft. MacPherson and Old Crow. We have had support everywhere for the intent of the project. Indian bands were generally supportive as long as we respected their future rights to the land and minimized environmental impacts. Businesses were very supportive. Customers primarily are concerned as to how it will affect their rates. I have explained to them that bringing in new services enabled by the digital network will actually enable us to increase our revenue base.
- Q/C • How much will the project cost NorthwesTel?
- A • The leg from Whitehorse to Tuk will cost approximately \$30 million dollars.
- Q/C • Where is the tower that is over 100 ft?
- A • On the Yukon section, the north Klondike River is the only tower over 100 feet in height.
- Q/C • How far off the road is that site?
- A • One-half kilometre from the road.
- Q/C • What kind of restrictions are you intending on putting on the access roads?
- A • We are taking suggestions. We are quite open about the types of barriers needed.

- Q/C • You spoke about route diversity. Why not use satellite - is there no other way?
- A • You will recall the airplane versus travelling by car scenario I used to describe satellite earlier in the presentation. Satellite would do nothing to cover the small communities along the way. There is no other way than microwave to meet all the needs.
- Q/C • Isn't there already communications along the Dempster?
- A • There are some pockets of communication. However, the technology and age of the equipment makes maintaining the little communication that exists very expensive and it will not last much longer.
- Q/C • What about M-SAT?
- A • Perhaps in 5 to 10 years M-SAT can provide for the needs. However, it is extremely high priced, and difficult for private communications. It has different uses than microwave. MSAT cannot offer high speed data and does not give route diversity.
- Q/C • If the CRTC approves the capital expenditure, and DIAND blocks the land use application, wouldn't NorthwesTel want a public process?
- A • That could take two or more years. We may not have that kind of time.

In closing, Ron Robbins noted that it is not just those along the Dempster that are affected by the project. All Yukoners will benefit.

Public shows scant interest in microwave tower plan

By DIANE BENSON

The one thing missing at Monday night's public meeting on the proposed \$30-million Dempster Highway telecommunications system was the public.

Only one person from the public was on hand to hear NorthwestTel's presentation. The other 18 people were representatives from NorthwestTel, the Yukon government, the media, the RCMP, the Emergency Measures Organization, the Department of Northern Development and the management committee of the Dempster Highway Corridor.

Stéphane Pelland, NorthwestTel's general manager of marketing and engineering, found the public's lack of participation reassuring.

"I can't be disappointed, because what I see is no opposition. The public has had communication, and they trust us to do a decent job."

Pelland explained the reasons behind the alternate routing system, and emphasized the circle of communication. She used the example of a highway. When it's blocked, there's no way to get through to your destination.

With a circle route, an alternative is accessible. In communication, a disruption in service along the line means the call will still get through on another route.

Pelland said that it can take up to 24 hours to restore communication to an area once the route has been disrupted.

The enhanced reliability will mean that new services, such as distance education, video conferencing, call management (knowing the telephone number of the person calling you), pay television, high speed data transmission and telemedicine will be possible, Pelland said.

"If we go satellite, it doesn't give any opportunity to service other communities. Fibre optics would mean burying a cable along the Dempster."

The high cost of the other systems and the lack of services available narrowed down the choice to the microwave system.

NorthwestTel has applied to the Canadian Radio-Television Telecommunications Commission for approval for the project, and expects it in the coming months.

Consent must come from the Department of Northern Development for land use permits and leases. An advisory committee, the Regional Environmental Review Committee, assists the department in deciding what level of review is required.

"We have been requested to give an environmental impact assessment," Pelland stated.

The system consists of 10 microwave transmission sites and two passive repeater sites. The microwave sites contain a tower, a structure, and a diesel generator complete with an environment containment unit for fuel storage. The repeater station is a billboard-like structure.

Four of the sites will be accessible by helicopter and eight will have road access.

The sites are required to be within viewing distance of other sites, and visible from the highway. They are separated by distances ranging from 21 to 56 kilometres.

Said Pelland: "I'm not going to tell you it's not visible. It has to be."

The land use of the tower and structure would be small, "the size of two very small houses," she said.

The towers' height is significant because towers higher than 300 metres must be painted red and white

and require support.

"We managed to get all but one of the towers under 1,000 feet (300 metres)," Pelland said. "Because they are under 1,000 feet, there is no need for guide wires."

They (the microwave sites) are all within one kilometre from the highway except three. We have reduced the requirement from 16 to 11 kilometres. We're hoping that by keeping the access, the 11-kilometre limit, we stay in the game corridor," she said.

Other concerns like the impact on wildlife, vegetation and archeological sites will be addressed in environmental studies.

Pelland said NorthwestTel has heard from diverse groups ranging from municipal governments, Indian bands, tourism representatives and the public. Once tenders have been reviewed and approvals given, construction can begin.

"If everything goes smoothly, we are talking of two and a half years for system turnout," Pelland said.

Cancellation of the project would mean no communications along the Dempster, no modernizing of services and no alternative routing.

Read at the meeting was a letter of "strong support" from Paul Albertson, president of the Emergency Measures Organization in the Yukon. It said improved communications is important for coping with disasters.

Asked how and when Old Crow and Aklavik, N.W.T. would receive the service, Pelland said, "It's a two- or three-site link-up. It's a future plan. What we're talking about now is the main line."

"Right now, Old Crow has some telecommunications. It's a matter of balancing the needs of the

community."

She said the entire system would likely be in use for 20 to 30 years.

"One concern in all the communities was rates. There is no direct correlation between the system and rates going up. What it means is that

I increase my business base and minimize my operating costs."

Public meetings have been held in Old Crow, Fort MacPherson, Tuktoyaktuk, and Inuvik. Others will be held shortly in Dawson City and Mayo.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Official Opposition Members
PC Yukon Caucus
Box 2703
Whitehorse, YT
Y1A 2C6

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Official Opposition Members on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Monday, May 6, 1991
Project: Dempster Highway Project - Community Tour
Place: 301 Lambert Street, Whitehorse
Times: Start: 12:00 Finish: 13:15
Attendance: Representatives of the Official Opposition:
Doug Phillips, MLA Whitehorse Riverdale North
Bill Brewster, MLA Kluane
Gordon Steele, Director of Research, PC Yukon Caucus
NorthwesTel
Monique S. Pelland, General Manager, Marketing & Engineering
Dennis Johnson, Customer Service Manager, Whitehorse
Cathie Bolstad, Corporate Communication Specialist

Summary

- No concerns with the project.
- Support for the public communication process adopted by NorthwesTel.

Detailed Discussion

Q/C • Is there mobile coverage on the Dempster right now?

A • No complete coverage. There are only four locations. The system that does exist for government employees is old and difficult to maintain - with manufacturer discontinued items making it expensive to maintain. It will not be in service much longer.

Q/C • Is this the system which serves Old Crow?

A • No. Old Crow is served by satellite. The microwave system in the Dempster corridor could eventually allow service to Old Crow on land line.

Q/C • Will this 30 million cost be reflected in the customers' rates?

A • The system itself will not make a direct impact on rates. The costs are rolled into NorthwesTel's total cost to provide all customers with service. The costs of such a large investment are amortized over approximately 20 to 30 years and all customers in NorthwesTel's operating area bear the cost of providing telephone service. There is no direct relation between the Dempster system and customer telephone rates.

When NorthwesTel examines any investment, the revenues and costs are considered. The ability to introduce Call Management services opens up a new source of revenues. In addition, NorthwesTel can lose some of its revenue base if

the Dempster System is not built. For example, companies such as Oil Companies in the Beaufort ask NorthwesTel about service reliability and what kind of redundancy is in place.

When NorthwesTel says they have no redundancy, then these types of customers go elsewhere and NorthwesTel loses that revenue base.

Hence, NorthwesTel must not only spend this money to meet our customers' needs, but also to maintain and expand the company's revenue base.

Q/C • How will this project affect customers' local and long distance rates.

A • NorthwesTel is committed to toll rates coming down. This is being done through modernization, reduction of operating costs and revenues from new services.

We have not studied the Dempster project in isolation. Rather an overall picture which includes the Dempster has been considered.

In looking at our local rates, an increase sometime in the future is inevitable for NorthwesTel's customers. NorthwesTel has not applied for a general increase in these rates since 1985 or 1986. Since that time our cost of operation has increased. The airfares for our technicians flying into sites for maintenance have certainly increased, as well as salaries and cost of materials. A rate increase is going to occur with or without the Dempster project.

The Dempster project will quite possibly help keep rates down. Over the long-term, NorthwesTel views the project as having a neutral to slight burden on the total rate base.

Q/C • Who will benefit and who will pay? Will Yukon residents pay for benefits NWT residents will have?

A • The immediate impact is the benefit to Yukon customers. For example, if a site north of Fort Nelson fails, the Yukon will have no communication south. NorthwesTel treats the project however as part of its entire operations and the benefits and costs apply to all customers.

Q/C • What is the impact of Unitel's application, if Long Distance competition is allowed?

A • Unitel has not applied to compete in NorthwesTel's operating area - only in operating areas of BCTel, Bell and the Maritime provinces. There is no specific impact on NorthwesTel directly.

If, however, we assume that it is deemed to be in the public's interest and Unitel is allowed to carry long distance traffic, then NorthwesTel proposes to give interconnection at the border. This would be handled by NorthwesTel by making

settlement agreements similar to those that exist at this time with connecting Telecom Canada members. Sometime in the future, if competition were allowed and Unitel cream skims in Whitehorse, for example, the local rates would be impacted significantly.

- Q/C • Raised concern regarding NorthwesTel's entering into the eastern arctic.
- A • Suggested this was an entirely separate matter and that NorthwesTel would be meeting regarding this matter at a separate time.
- If roads must go in, tourism in Inuvik has voiced interest in using them for tourist pull overs where garbage containers and rest stops could be located. NorthwesTel has expressed a willingness to work with these types of suggestions. Two roads are in contention with respect to traplines in Old Crow. NorthwesTel will be working with the people in Old Crow to resolve these issues.
- Q/C • Old Crow people seemed to get little resistance from the government with the development of a 12 kilometre road up the mountain. It should be expected by NorthwesTel that the company should not have to jump through any more hoops than the people in Old Crow had to jump through to get their roads developed.
- Q/C • Are there any sites which may be potential conflicts because of land claims negotiations?
- A • Yes. NorthwesTel has spoken to the Indian bands affected. These groups are receptive to entering into agreements which would come into effect should the land involved become property of the bands. We have one such agreement already with the Dawson Indian band and both parties to the agreement are satisfied because each knows where they stand.
- Q/C • Is there no alternate routing through Alaska?
- A • No. We provide north Alaska with their route to Alberta and southeaster Alaska.
- Q/C • Will there be a contract clause giving preference to bands in the tender process?
- A • No. NorthwesTel would have serious difficulty getting approval from the regulator if such a clause were in place. NorthwesTel in discussion with the Indian bands has advised them that there will be no preferential treatment. NorthwesTel will, however, try to address all small group concerns within the contract tender process. For example, tender information will be included in specification documents regarding investigation by contractors of local hire. NorthwesTel will also investigate the possibility of optional proposals identifying smaller contract sections which would allow smaller groups to tender contract sections of an otherwise larger contract. NorthwesTel feels that the bands locations should make them in a prime position to bid competitively.

- **Conclusion:**

NorthwesTel submits that the Dempster project is key to both the Yukon and the Northwest Territories with many benefits to all. NorthwesTel is sensitive to the concerns raised by all parties.

Bill Brewster expressed that he had no concerns with this project.

Doug Phillips expressed his satisfaction with the process NorthwesTel has initiated to ensure the public is informed and consulted.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

M.S. (Monique) Pelland
General Manager
Marketing and Engineering
(403) 668-5372
FAX: (403) 667-6214

July 8, 1991

Tourism Industry Association
3-208 Main Street
Whitehorse, YT
Y1A 2A9

Re: Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the recent opportunity to address the Tourism Industry Association on the proposed North Yukon - Mackenzie Delta telecommunications system by Northwestel.

Please find enclosed some notes from that meeting for your comments and concurrence.

As also mentioned at that time, indication of your support would greatly assist us in obtaining the necessary regulatory approval for site use permits. We would appreciate receiving a letter from you to this effect. This and other comments you may provide will be included in our formal submission to DIAND for site use permits and lease request.

We appreciate the time that your group spent in informing us of your concerns and interest in this project.

Yours truly,

Monique S. Pelland
General Manager

MSP/bmw
encl.

MINUTES

Date: Monday, May 13, 1991
Project: Dempster Highway Project - Community Tour
Place: Klondike Inn, Tourism Industry Association
Time: Start: 13:30 Finish: 14:48
Attendance: Tourism Industry Association:
Phil Dyke, President Garry Van der Veen
Larry Watling, Vice-President Bill Mueller
Chuck Holloway Lenore Jenkins
Goodie Sparling David Hett
Lise Thompson John Spicer
Willy Joe Klaus Roth
John Peacock Ron Pond
Peter Upton Marilyn King
NorthwestTel:
Monique S. Pelland
Dennis W. Johnson

Summary

- The Tourism Industry Association is concerned about visual impact.
- It also stressed the need to contact all membership before giving an official response.
- It supported the changes made to the system design already.

Additional Commitments

- Assured that Glenn Bushell would be available to work with the issues committee.

Detailed Discussion

Q/C • Will call management services be available in Whitehorse?

A • Yes.

Q/C • These features will only be available if the project goes ahead?

A • We need the project to go ahead to support the new features.

Q/C • How many of the new sites are in the Yukon?

A • All 12 sites shown on the Yukon section of the Dempster corridor are new.

Q/C • Are all of the sites on mountain tops?

- A • For the system to work, each site must be able to see the other site, so, yes, either on mountain tops or passes. The towers vary in size, but in the Yukon section, only one will be over 100 feet; this is the north Klondike River site.
- Q/C • How far are the sites from the road?
- A • All, but three are within 1 km. These three are at 1.1 km, 1.5 km and 2.5 km.
- Q/C • Is there any noise coming out of these sites?
- A • Yes. As these are powered by diesel generators, there is a low thump thump noise.
- Q/C • What's the life span of this system?
- A • The minimum life span of the entire system would be 20 years. The towers (as opposed to the radio equipment) could last much longer - 30 years maybe.
- Q/C • So this system will not be obsolete in ten years?
- A • No, this system will allow us to expand and grow over the years.
- Q/C • What's going to happen to our phone rates?
- A • Nothing specific. It will be paid for throughout the company. This will be amortized over 20 years. New services will help to offset the costs. Better reliability will allow us to better retain major customers. But I want to be very clear here. We have not had a local rate increase since 1985 or 1986 and all our costs have risen, so whether or not this system is built, future rate increases are likely.
- Q/C • I would rather see the \$30 million used in upgrading service along the Alaska Highway.
• Will cellular be available?
- A • Once we have the basic transmission system up, we can add new services, such as cellular. Without, we cannot add anything. If there is a demand, we can add services.
- Q/C • What effect will the Yukon Environmental Act have on this?
- A • Very little as the Act has not been passed and there are no regulations set up yet. Also, Northwestel has agreed to an environmental assessment already.
- Q/C • If you could reduce your original estimate of towers from 15 to 12, could you reduce this again?
- A • We have tried. The answer is no. This is the minimum required.
- Q/C • Do the storage tanks have to be red?

- A • No.
- Q/C • Have you hired the consultants yet?
- A • No. Bids are in but contracts have yet to be awarded.
- Q/C • Is there communication along the Dempster now?
- A • There are four sites now. The coverage is partial at best. The system is very old and getting parts is very difficult. It will not last much longer.
- Q/C • Why not upgrade the existing system?
- A • That system is old technology. Getting parts is harder and harder all the time.
- Q/C • If there was no YTG system, would this still be done?
- A • I'm not sure. Eventually, yes. The fact that the YTG ordered this speeded up our decision.
- Q/C • Is this system in place south of Whitehorse?
- A • We will be upgrading that system in the 1995 - 1998 time frame. The system now is analog and we will be upgrading this to digital.
- Q/C • Will cellular be up the highway to Beaver Creek?
- A • Not at this time. There are not enough customers wanting this service.
- Q/C • Will you be hiring Yukon people?
- A • Yes. There will be job opportunities. Each job will be tendered separately.
- Q/C • We have to cut this short, as we have other people meeting with us. Thank you. We will be taking this new proposal to our issues committee before giving an official response.



Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

June 19, 1991

Mr. Doug Urquhart
Secretariat
Porcupine Caribou Herd Management Board
Monarch Mountain Road
Atlin, BC
V0W 1A0

Dear Mr. Urquhart:

Further to our telephone conversation of last week, I am confirming Monique S. Pelland's attendance at the Porcupine Caribou Herd Management meeting in July. As you indicated, Monique will present our proposed Dempster Highway microwave project at 2:30 pm on Thursday, July 18, 1991. Robert Charlie will travel with her to the meeting.

Please call me at (403) 668-5390 or fax me at (403) 667-6214 if there is a change to these arrangements.

Thank you.

Yours truly,

(Mrs.) B.M. Wilson
Secretary

/bmw

cc: Robert G. Charlie
M.L. Larsen

MINUTES

Date: Thursday, July 18, 1991
Project: Dempster Highway Project - Community Tour
Place: Fort McPherson, NWT
Times: Start: 15:30 pm End: 17:05 pm
Attendees: Members of the Porcupine Caribou Herd Management Board:
Albert Peters, Chairperson
Doug Urquart, Secretary
Billy Germaine, Mayo
Carl Charlie, Old Crow
Larry Leigh, Yukon Fish & Game Association (to receive site maps)
Representative from YTG Renewable Resources
Johnny Charlie, Fort McPherson
Don Russell, Environment Canada, Canadian Wildlife Service (to receive site maps)
Roger Binne, Superintendent, Renewable Resources, Inuvik
Richard Gordon, Aklavik
Two guests
Other Board members not present:
Roy Moses, Old Crow
Stanley Njootli, Old Crow
Percy Henry, Dawson
Members of the public:
Joe Charlie
Abe Stewart, Jr.
John Robert
Margaret Koe
John Itsi
William Teya
James Martin
Robert Alexie
Northwestel:
Monique S. Pelland
Robert Charlie

Questions and answers during the session were as follows:

- Q/C Could you explain what is meant by video conferencing and comment on the demand that is expected for that service in the north.
- A Video conferencing is one of the new services that we will be able to provide with the new system. What it is essentially is a two-way television link, live, between various conference rooms. It can be between two, three, four or however many conference rooms you want to have. In terms of demand, we expect that groups who meet regularly, such as yourselves for example, do so face to face sometimes and use video conferencing other times for cost and travel time savings. We also expect video conferencing to be used for distance education. In other words, we would expect demand not only from businesses such as banks and government, but also for various interest groups that meet regularly or cannot easily meet

face to face because of distance or other factors. The reason we associate it with the system is because it also requires a high capacity or a high bandwidth - in other words, a very large pipe - and this capacity will be available on the proposed system.

Q/C Are diesel engines running continuously at the sites where you will install them?

A The diesels would be expected to run for long times without interruptions. Two things can happen depending on the type of installation. The diesels could run continuously as there is always a load requirement in the sites. If, on the other hand, we find that a new method, we are trialing now, proves in with much fuel savings, the diesels could run continuously approximately one-third of the time daily. Obviously, this could also vary depending on season, temperature, equipment load, etc.

Q/C What amount of fuel is used by diesels per year?

A This varies a lot depending on the site that we are talking about, not only because of weather variations, depending on how northerly or southerly the sites are, but also because in different sites we have different amounts of equipment and therefore different power requirements. I don't have any estimates for the Dempster corridor.

Q/C How often is fuel delivered to the site?

A Helicopter sites are refuelled once every two years and road accessible sites are normally covered once a year. The schedule would be similar for sites along the Dempster.

Q/C Could you explain how far off the highway the sites are?

A The twelve sites that we are proposing to build along the Dempster proper and on the Yukon side are anywhere from immediately beside the highway to 2.5 km away from the highway. In fact, three of those sites, only, are further out than 1 km from the highway and those 3 sites are respectively 1.1, 1.5 and 2.5 km from the highway.

Q/C How audible are the diesel engines?

Q Typically, I would say that the sound would be comparable to a tractor truck engine - in other words, a regular low thudding sound. These are small low revolution engines and are in insulated buildings, which reduces noise level as well.

Q/C Could we get away with just a couple of sites if it weren't for the need for highway radio coverage and why don't we go that route?

A We haven't done an indepth study of how many sites would be needed without highway coverage, however, it would certainly be a lot more than two sites. As I mentioned earlier, the distances, on average between sites, are anywhere between 20 and 50 miles. Given the length of the Dempster and if there were no mountains to interrupt visibility between sites and if we had the highest mountain peak at just the right location, I would assume that we might be able to cut down two sites, but I wouldn't see very much more than that. So, it is

not really something that is feasible in terms of closing the circle with just a few number of sites.

The other point I would like to reiterate is that the contract for MDMRS provides significant financial support to the proposed system. As a public carrier, we try to avoid having a system limited to a single application and then build another set of facilities for another application and so on and so forth. It is always better and more economical when we can try and cumulate the various applications on one common system and that is precisely what we are hoping to do here with the Dempster system.

Q/C What is the rationale for access roads to the sites?

A The reasons for access roads to the sites are:

- First, to make sure that we have quicker access in case of an emergency as a chopper may require more time in the case of bad weather to access the sites.
- Second, there is a matter of safety with respect to refuelling. It is definitely safer to refuel on the road than it is to refuel by air.
- The third reason is one of cost for preventative maintenance, as well as refuelling. Our experience shows that it is cheaper to maintain sites that are road accessible.

Q/C Will the roads be maintained in the winter?

A We don't have a definite answer to this right now. We are still looking at the requirements of access in the winter and also we would like some input on your part in terms of the pros and cons of having roads open in the winter.

Q/C If the road is not open during the winter, do you think having a road is really that much better than using a chopper since it would only be accessible during the summer or when there is no snow?

A Again the matter of refuelling safety comes to mind, as well as the availability of the site at a more cost-effective basis for preventative maintenance.

Q/C Who really cares if communications go down? It's amazing how people can adapt to these instances of outages and live with it. In the past there just wasn't any communication and so why do we think that we now need communications all the time. Maybe the concern about towers and tanks, etc. in terms of impact on the environment is greater than the need for communications. This is a personal opinion.

A This opinion is not supported by the various correspondence that the company receives on an ongoing basis. It also differs with many of the inputs that I have had from various communities during my tour in explaining our proposal for the Dempster. On the contrary, we have had several inputs that absolutely support the enhancement in communications and particularly the eventual availability of mobile communication all along the Dempster with, in some cases, people mentioning that this could be a life saving device. We also receive letters when we have outages in communities stressing the need to prevent outages in the future.

Q/C Do the towers in the Yukon require lights?

A Lights are only required when a tower is higher than 100 feet in height or if it is below 100 feet, when it is in a major air corridor. According to our preliminary verification with the Department of Transport, it would appear that all of our towers are outside of air corridors so since only one is higher than 100 ft, only one tower would require lighting on the Yukon side.

Q/C Do you think towers close to highway will be subject to vandalism? In other words, there is a lot of hunting - aren't you afraid somebody is going to shoot part of your equipment along the Dempster?

A I can only go by our past experience with a couple of hundred sites all over the territory and to date this has not been an issue.

Q/C Do access roads have security gates?

A This is one aspect on which we would like input from the Board and the rationale for having it one way or the other. I understand that you may have concerns with some of the longer access roads providing access to the back country. If that is the case, we have no objection in putting a gate on this road. On the other hand, there are some people who say well if you are going to do a road, you should still do it so that it has a minimum visual impact and, of course, a gate adds one more visual impact. So, we would like to have inputs as to the need for gates and the rationale for them so we can then assess with the various groups what would be the best solution. I would mention though that at some point somebody was recommending to fence the whole length of a road and in discussion with our environmental consultant, the point came up that this may not be a good idea as indeed a long fence could disrupt the flow of a herd or actually drive even some isolated animals to the road making them easier to shoot. We would also, obviously in this matter, have to do what is best for the environment, the herd, and so on.

Q/C Would it be possible to have telephone access from this system to some temporary camps or seasonal camps for general public, not in terms of a private system like the MDMRS, just in case of emergency, etc.?

A It will be possible over time to look at mobile or cellular for the area along the road. How far in the back country this would reach is not yet established nor is the exact time when this system would be added. With respect to telephone service, with poles, lines, etc., I assume we would have to submit the proposal to an environmental review. As, of course, a pole line and wires would have a much greater impact on the environment than just one tower every 20 or 50 miles, I would presume that this kind of a system would not readily be allowed.

Q/C Is this system going to include public phones on the highway?

A The company is certainly willing to install pay phones at various places on the highway. The question will really boil down to whether there is support for those phones or whether there

is more opposition because of visual impact of the phone booth. Maybe a good compromise would be to put some of those pay phones in areas where there already is some camp, pull-out or something of that nature. We are welcoming inputs on this matter.

Q/C Most sites used to have gates or barriers, etc., however, it would appear in the Yukon that they don't any more. Why?

A I can't really speak for the past and I believe that today where we don't have gates is simply because no need for them was identified. I am not aware of any specific issue or requests to have or not have gates. I would presume that if there was a need to have a gate, then maintaining one wouldn't be a problem.

Q/C What is the cost comparison of microwave vs. satellite?

Q The first item to mention in comparing microwave and satellite is that the two alternatives are not directly comparable. With respect to satellite system, we are talking of a system that is comparable to an airplane, as opposed to a road, for example. What this means is that when you use satellite you can go between two points, like an airplane goes between two airports. But if you want to touch base, as it were, anywhere in between you have to add another airport or you have to put in new facilities, the airplane has to land and then take off again. This is different to a road which is comparable to the microwave in that you can build pull-outs or junctions anywhere you really want, without adding cost to the road that much. The road is there - you can access or break out.

So, keeping that in mind, a satellite with 1/6 of the capacity between let's say Inuvik and Whitehorse, or Inuvik and Yellowknife, without the ability to provide some of the new services, and providing only partial route diversity, would cost the same over a period of 20 years, if not a bit more. This would only provide relief for one of the legs. For example, if you put a satellite out at Inuvik, you would relieve the single route problem for the Mackenzie Valley trunk, but you would do nothing for the people of the Yukon who would not be helped.

Q/C How does Old Crow communicate?

A Old Crow right now is serviced by satellite and there are no immediate changes proposed to this approach.

Q/C If we already have a satellite station in Old Crow and Inuvik, doesn't this complete the loop?

A No, as the Old Crow station can only handle Old Crow telephone traffic. Again it does nothing to protect the telecommunication facilities from Fort Nelson to Dawson.

Q/C If all you wanted was the loop, couldn't it be done cheaper away from the road?

A I believe we have covered that question before. No, it wouldn't be much cheaper and in fact if we didn't have the support of the various applications, then each separate system would wind up being more expensive in total for the subscribers, so this is definitely not a solution.

Q/C When is the initial environmental study going to be completed?

A The schedule is to complete the environmental studies by mid-August and have a restructured land use application by August 31.

Q/C Are enhanced services available via the Mackenzie Valley line? Is that the advantage to the customer that they will get the most for their money if we go via the Dempster?

A New services all the way up to Inuvik and Tuk will be available via the Dempster as we complete the whole system between Whitehorse and Tuk. As we upgrade later down the road the line via the Mackenzie, then new services can be made available between Fort Simpson and Inuvik. To note though that unless we build the Dempster system, then the route diversity will not be available to either routes existing or to anybody using communication services along those routes.

Q/C What is the option of response from DIAND on the land use application?

A I cannot speak for DIAND. However, as I understand, DIAND can answer anything from "yes" to "please do some further studies on some specific issues" to "no" and anything else in between. However, this is a bit of a new process for everybody and so I guess we will have to wait and just see.

Q/C In the initial 1989 submission, it didn't seem that you were trying to get feedback or recommendations or to consult with any of the public groups.

A In fact, there was a tour of several communities that was conducted in 1989, either at the same time or before we made the land use submission. Again, this year, we are making an extensive attempt at communicating with the groups and so I am afraid I can't say anything more but there was certainly a feeling that, yes, we were very open to discuss with various groups if they had any input.

Q/C Have we ever had any major spills refuelling?

A I am not aware that we have had a major refuelling spill. And, of course, right now with respect to fuel spills other than at refuelling time, we are equipping all of our tanks with concrete berms to avoid any kind of impact on the environment in the event of such a spill.

Q/C It would seem much better to have just the site without the access roads. In other words, the access road to us would be the issue as it is more difficult to return a site to its natural state when you have a whole road involved as opposed to just a tower site.

A I think this would depend on what was there before you built the access road. I also think the extent of the change would depend on the length of the access road. Several of the roads that we are proposing are continuations, sometimes quite short, of existing turn-offs and so one could state that the impact on the environment will kind of be minimal.

Q/C What is the time frame to start building the sites?

- A Should we get a positive response some 45 days after our land use application, that is in the October time frame, we would hope to start construction over the next summer for completion of the route by September 1993 or later in that same year.
- Q/C There is still talk of a Dempster highway pipeline. Is this going to impact Northwestel in any way or can this system be used to support the pipeline?
- A I am not an expert in pipeline construction so I can't really talk about whether there will be a pipeline and where that pipeline would be. However, if I am to assume that a pipeline, like other services, would preferably be permitted within the 1 km corridor on either side of the roadway, then this pipeline would definitely be close to the communication system and as such the same communication system could be used to ensure total monitoring of the pipeline and protection in terms of spill monitoring, maintenance and so on.
- Q/C One of our biggest concerns is fuel tanks getting shot and damaging the environment.
- A As I mentioned earlier, all our fuel tanks today are being either retrofitted, or when it's a new installation, are being built with berms or what I like to call them is cookie sheets that essentially are large enough to contain any amount of spill and therefore prevent any damage to the environment. We also have being installed at all of our remote sites now some monitoring capability directly into our network operating centre that let's us know if there has been damage to a site so that we can come in and repair as quickly as possible, so I would not think that this would be a major issue.
- Q/C With the new system, will the cost of phones or long distance go up?
- A Whether or not we build the new system, will not directly impact the cost of phones. In fact, whether or not we build the system, people should expect the cost of telephones to increase at some time or other. We have had no rate increases in this territory since 1985 or 1986 and you can well imagine that the cost of materials, equipment, maintenance and salaries has risen steadily over that time. I also don't know of any other supplier that sells their goods or services for the same price today as they did in 1986. All that is to say that, yes, of course, telephone costs will increase at some time.
- However, with respect to long distance, it is a corporate aim over the next several years to reduce rates so that people can use it more and so that we can expand the service. The other area to point out is that as a corporation, we draw our revenues from growth in the use of existing services, new services, and in cost savings through better equipment and reduced maintenance. This particular system would help us enhance all three of these goals and over time we expect the system to essentially pay for itself and actually help us in developing these new services so that we can reduce the amount of rate increases that we might otherwise have to request.
- Q/C How long is your stay in the communities? You are meeting with small groups and numbers - is that a good representation of the whole community? Do you think you are getting support?

- A We have stayed in communities anywhere between one-half to two days. This is a short time, however, we are also giving the opportunity to communities to comment further by asking for comments on the minutes of the meetings, after consulting among themselves and then to feedback to us the additional concerns or issues that they would like to communicate with us. In other words, we are also available whether or not we are in the community.
- Q/C The question was from Northwestel in this case and was to the Porcupine Caribou Herd Management Board as to what they saw as their major concerns and feelings and would there be support for the system?
- A The answer from the Board was as follows:

This should not be considered a final answer as they will want to see the full environmental report and to make a formal written submission with respect to concerns and recommendations to the Dempster proposal.

At this time though, they can definitely outline some questions or some concerns that we could start addressing. These are concerns with access roads in terms of the impact given the additional access to the back country, particularly with respect to the Richardson road which is the longest of the proposed access roads. Second, the impact of diesel engines on the herd. Third, the impact of the construction of the sites proper - what season would the construction be in and what kind of guidelines or criteria would the construction crews be under? Another concern was that for fuel or site damage due to a potential spill, and of course, the impact relating to the no hunting corridor of the porcupine caribou. There was also a request from the Board to send to them the detailed maps of the proposed sites, including the marking for the proposed access roads and some information as to the construction schedule with respect to time of year.

H2 – LETTERS OF
SUPPORT

DAWSON CITY CHAMBER OF COMMERCE

Box 1006, Dawson City, Yukon Y0B 1G0

May 29, 1991

Monique Pelland
Northwestel
P.O. Bag 2727
Whitehorse, Yukon
Y1A 4Y4

Dear Ms. Pelland:

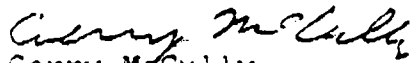
Thank you very much for your informative meeting with the Dawson City Chamber of Commerce on May 7, 1991.

The Dawson City Chamber of Commerce Board of Directors would like to extend their support for the new changes to the proposed Dempster Highway Microwave System.

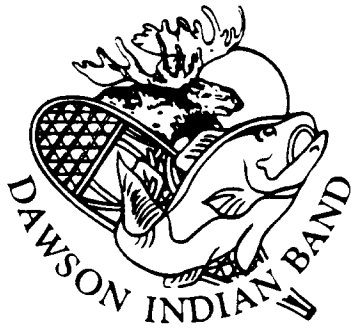
The Board of Directors understand that this system is needed on the Dempster Highway. By making changes to the initial proposal, Northwestel was able to ease many concerns that were raised.

The Dawson City Chamber of Commerce feels that as long as Northwestel continues to listen to the public and tries to make as many changes as possible to alleviate feasible concerns, the proposed Microwave System will be sufficient for the Dempster Highway.

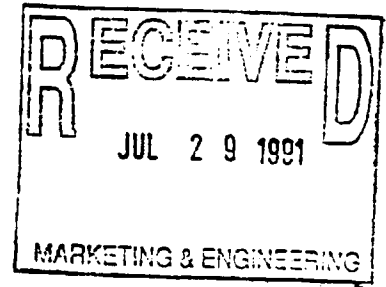
Yours truly,


Gerry McCully
President

GM/dc



P.O. Box 599, Dawson City, Yukon, Y0B 1G0, Phone (403) 993-5385, 993-538



July 24, 1991


Monique Pelland
Northwestel Inc.
Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

Dear Ms. Pelland.

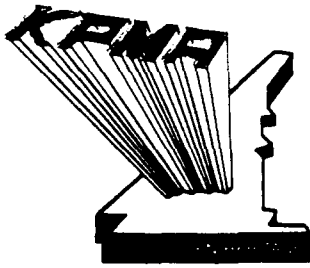
Re: Proposed Telecommunications System (North Yukon - Mackenzie Delta)

Please be advised the Dawson Indian Band supports this proposed project.

Sincerely,


Steve Taylor, Chief
Dawson Indian Band

ST/ca



KLONDIKE PLACER MINERS ASSOCIATION

P.O. Box 4427, Whitehorse, Yukon Y1A 3T5

Tel. (403) 667-2267

Monique S. Pelland
General Manager
Marketing & Engineering
Northwestel Inc
Bag 2727
Whitehorse, Yukon Y1A 4Y4

July 30, 1991

Dear Ms. Pelland:

The Klondike Placer Miners Association supports your proposal to expand your microwave radio network by installing a digital system from Whitehorse to Tuktoyaktuk along the Dempster Highway corridor.

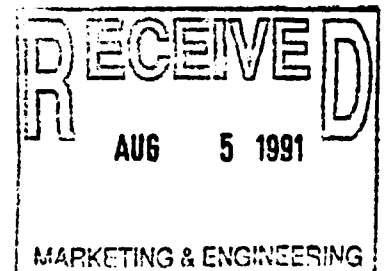
Improved infrastructure is an important element in northern economic development where high priority must be given to shifting the economic base away from its present unhealthy dependence on federal government transfers and direct expenditure toward a more normal reliance on wealth generation in the private sector.

It is also evident that this project will have minimal environmental impacts.

Government should provide every assistance to move this project smoothly through the regulatory process.

Sincerely,

Frank Taylor, President
KLONDIKE PLACER MINERS ASSOCIATION

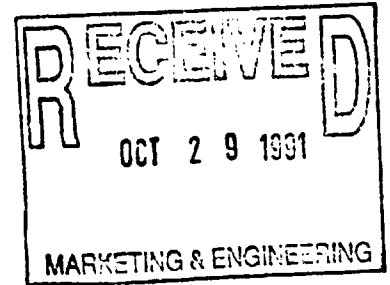


Affiliated With Yukon Chamber Of Mines



VILLAGE OF MAYO

October 25, 1991



Northwestel
Bag 2727
Whitehorse, YT
Y1A 4Y4

ATTENTION: Monique Pelland

In response to your request Council has passed the following motion:

Motion No. 91-125

THAT: Council supports the Northwestel proposal to construct microwave transmission facilities along the Dempster Highway corridor, contingent on a commitment by Northwestel to remove repeater sites and repair collateral damage to the environment resulting from these facilities when they become obsolete.

We trust that this is sufficient for your purposes.

Yours very truly,

for

Scott Widmeyer,
Acting Cao, Village of Mayo.

BOX 160 MAYO, YUKON Y0B 1M0 (403) 996-2317 FAX (403) 996-2907

Draft motion for Inuvik Town Council

Motion in Support of Dempster Microwave Telephone System

Moved by:

Seconded by:

That the Town of Inuvik support the application by Northwestel for the construction of a new microwave system along the Dempster Highway to improve the quality and dependability of telephone communications provide that any construction is carried out in an environmentally sensitive way.

*Motion passed by Inuvik Town Council
at a regular meeting wed, 8 Oct 91*

Dick/has

/



OFFICE OF THE REGIONAL DIRECTOR
GOVERNMENT OF THE NORTHWEST TERRITORIES
INUVIK, N.W.T. X0E 0T0

September 23, 1991

Monique S. Pelland
General Manager
Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4

Proposed Telecommunications System
North Yukon - Mackenzie Delta

Thank you very much for the notes of the meeting. I have discussed the notes with those who attended the meeting and we agreed to advise you that we support the project in the light of the suggestions discussed at the meeting.

Our preference is for the sites to be multi use wherever feasible. Sites where tourists could stop to take photographs, view interpretation plaques and dispose of waste would be some of the possibilities.

In those instances where you have the option of painting any colour, we would hope that you select a colour which is as organic as possible. We understand that, subject to the restrictions of line of sight, the towers will be constructed in as unobtrusive a manner as possible.

Thank you for the opportunity to provide our input.

Roger Connelly
Regional Director



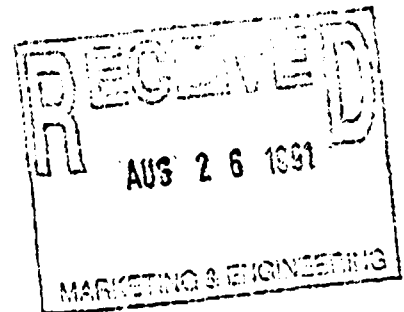
The City of Whitehorse

2121 SECOND AVENUE • WHITEHORSE, YUKON Y1A 1G2 • TELEPHONE (103) 667-6101
FAX (103) 668-2121 City Hall • (103) 668-7946 Purchasing • (103) 667-2697 Municipal Services

August 22, 1991

File: 1050-0401

Northwestel Inc.
P.O. Bag 2727
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4



Attention: Monique S. Pelland

Dear Ms. Pelland:

RE: Proposed Telecommunication System
North Yukon - Mackenzie Delta

Please be advised that Whitehorse City Council reviewed your proposal for a telecommunication system for the North Yukon. As the proposal would provide alternate linkage for the Whitehorse phone system with the south, City Council was wholeheartedly in support of your proposal.

Yours truly,

D. W. Branigan
Mayor



Commemorating the Golden Jubilee of the Alaska Highway

Yukon

Community and Transportation Services

Box 2703, Whitehorse, Yukon, Y1A 2C6
(403) 667-5220 (24 hr.) FAX (403) 667-7209

Our File:

Your File:

3020-7

May 3, 1991

Mr. R. Robbins
EMO Volunteer
Marsh Lake, Yukon

Dear Mr. Robbins:

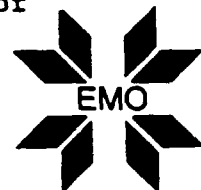
Due to my absence from the Territory on May 6, 1991 it is requested that you attend, on my behalf, the public meeting on the proposed Dempster microwave system.

This public meeting is scheduled for 1900 hours on May 6th at the Town Hall meeting room at the Gold Rush Inn.

The points that need to be impressed upon the participants include, but are not limited to:

- Emergency response relies heavily upon the ability to communicate in a reliable and consistent manner. The Yukon currently has a microwave link through Watson Lake. Should this link become the victim of an emergency or disaster which results in major impacts on the health and welfare of the people of the Yukon our ability to effectively coordinate support and assistance from contiguous jurisdictions would be impaired. This would likely result in a reduction of our ability to effect the relief of and recovery from impacts on lives, property and the environment.

- Radio (MDMRS) and telephone systems are used by all emergency managers in the Yukon. Hard copy (Facsimile) transmissions are available, without delay, through the telephone system. The EMO, in recognition of the importance of hard-copy communications during emergencies, previously installed facsimile machines in all municipal halls in the Yukon with the support and assistance of Emergency Preparedness Canada (EPC). To remove these "familiar" and reliable methods of



EMERGENCY
MEASURES
ORGANIZATION

emergency communications, due to the failure of our one transmission corridor to the rest of Canada, would result in the erosion of our ability to maintain;

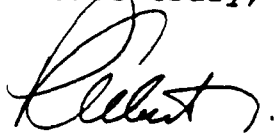
1. a high volume of communications traffic which is to be anticipated during a major emergency,
2. the requirement to communicate by hard-copy which reduces the possibility of errors and omissions on vital matters of public interest.

- The Yukon has in place a Mutual Aid Agreement with the Government of the Northwest Territories (GNWT). This agreement was invoked at our request to facilitate the evacuation and reception of the Old Crow residents threatened by a wildfire during the summer of 1990. This same mutual aid agreement would become even more tangible should we be able to communicate with the GNWT via a direct link which crosses our common boundary.

The Yukon is a seismically active area, is prone to power outages and winter storms, is sparsely populated and remote from sources of food, fuel and other vital goods. We must endeavor to establish countermeasures against disasters which enhance our preparedness to cope should disaster strike. The proposed microwave link up the Dempster is viewed as a key countermeasure to the failure of our southern communications corridor and our ability to coordinate vital support arrangements with our federal and provincial counterparts.

Thank you for your assistance in making representation to this public meeting on behalf of the Emergency Measures Organization of the Yukon.

Yours truly,



Paul Albertson
Director

cc. D. McArthur M-1A

encl.

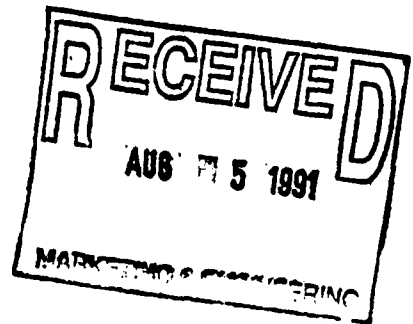
Yukon

Community and Transportation
Services
Box 2703, Whitehorse, Yukon Y1A 2C6
(403) 667-5811 Telex 036-8-260

Our File: 4200-24-2
Your File:

July 25, 1991

Monique S. Pelland
General Manager
Northwestel Inc.
P. O. Bag 2727
Whitehorse, Yukon
Y1A 4Y4



Dear Ms. Pelland:

Proposed Telecommunications System North Yukon - MacKenzie Delta

Thank you for providing me with the minutes of the public meeting held in Whitehorse on May 6, 1991.

I fully support your plans for installing a modern digital communications system from Whitehorse, Yukon to Tuktoyaktuk, N. W. T. along the Dempster Highway corridor. Route diversification is a critical element in any communications system and particularly so in the Yukon when you consider the major disruption in service that would be caused by the failure of a microwave site.

[REDACTED] has a vested interest in the implementation of the Multi-Departmental Mobile Radio System along the Dempster Highway. The requirement for effective communications to support police and ambulance services is apparent each time there is a serious accident. The safety of the travelling public is a prime concern. Highway maintenance and renewable resources personnel would also benefit from the new system. I would hope business enterprises would take advantage of the offerings within a new system.

.../2

M. S. Pelland

-2-

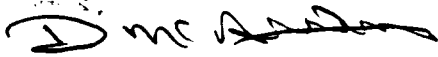
August 2, 1991

Some concern has been expressed about the impact microwave sites will have on the landscape and environment. I know that you are currently studying these issues and are sensitive to the concerns of the Dempster corridor. Every reasonable effort should be taken to locate microwave towers so that they aesthetically co-exist with the landscape.

Our Deputy Minister, Roger Graham, is pleased you have included the Yukon First Nations in your discussions and hoped there would be employment opportunities during the construction phase.

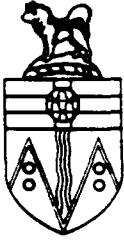
I wish you every success in this endeavor.

Yours truly,



D. McArthur
Director,
Communications Branch

JDM/klc

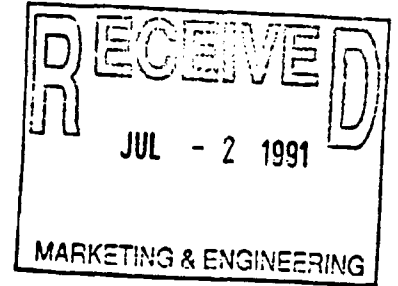


YUKON CHAMBER OF COMMERCE

Suite 205-302 Steele Street, Whitehorse, Yukon, Y1A 2C5

(403) 667-2000

June 14th, 1991



Ms. Monique Pelland
Northwestel
P.O. Bag 2727
Whitehorse, Yukon
Y1A 4Y3.

Dear Ms. Pelland,

We are writing to you to give our support for the changes to the proposed Dempster Highway Microwave System.

Enhancing the communication system will promote the future growth and success of business and industry in the Yukon.

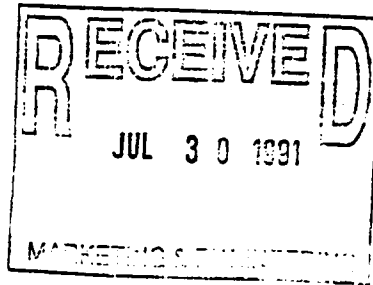
Yours truly,

Stuart J. Wallace
President



Royal Canadian Mounted Police
Gendarmerie royale du Canada

Security Classification / Designation
Classification / Designation Sécurité



Your file / Votre référence

Our file / Notre référence

July 25, 1991

M 1611-3

Northwestel Inc.,
P.O. Bag 2727,
301 Lambert Street,
Whitehorse, Yukon.
Y1A 4Y4

Attn: Ms. Monique S. Pelland
General Manager
Marketing & Engineering

Dear Ms. Pelland,

Re: Proposed Telecommunications Systems
North Yukon - MacKenzie Delta

I am in receipt of your letter dated July 9, 1991.

As the R.C.M.P.'s Informatics Officer for "M" Division, Yukon, I am very enthusiastic over the M.D.M.R.S. experience to date. It is, in my opinion, providing an excellent technical service to us that will allow for improved law enforcement response.

It is logical therefore, that the R.C.M.P. actively supports the extension of this technology into the North Yukon and MacKenzie Delta districts. In doing so, it will complete the circle, thereby providing a standard of service to these areas now enjoyed by the remainder of the Yukon.

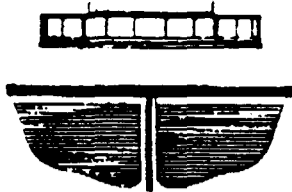
As a law enforcement agency, we view these proposed improvements as essential in the fulfillment of our mandate in the Yukon.

Sincerely,

R.M. Juby, Inspector,
Officer in Charge,
Administration & Personnel,
"M" Division.

4100 - 4th Avenue,
Whitehorse, Yukon.
Y1A 1H5

Canada

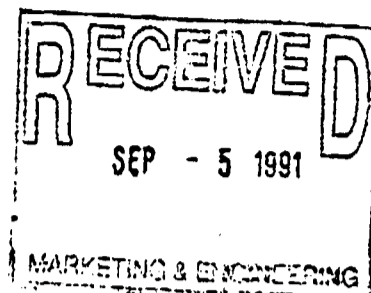


Whitehorse Chamber of Commerce

SUITE 101, 302 STEELE ST., WHITEHORSE, YUKON Y1A 2G5 (403) 667-7545

August 29, 1991

Ms. Monique Pelland
General Manager
Marketing and Engineering
NorthwestTel Inc.
301 Lambert Street
Whitehorse, Yukon
Y1A 4Y4



Dear Ms. Pelland,

In response to your letter requesting the support of the Whitehorse Chamber of Commerce for NorthwestTel's proposed telecommunications system, the Board of Directors met with Mr. Glen Busnell and Mr. Bill Dunbar on August 20th, 1991. Allow me to apologize for the fact that the rather crowded agenda of the Board of Directors did not allow this meeting to take place earlier.

Having reviewed the proposal in some detail the Whitehorse Chamber of Commerce by this letter offers our support for this project. We are satisfied that the proposed telecommunication system in the North Yukon- MacKenzie Delta will enhance Yukon's communications abilities and that NorthwestTel will take all necessary precautions to mitigate any impact upon the environment.

The Whitehorse Chamber of Commerce wishes NorthwestTel much success with this project.

Sincerely,

Terry Bergen
President

Forty years of **LOCAL MOTION** 1948-1988