APPENDIX E

RESPONSE LETTERS
October 27, 2000

Mr. Bill Johnson
Canadian Hydro Developers Inc.
200, 622 - 5th Avenue SW
Calgary, Alberta
T2P 0M6

Dear Mr. Johnson:

SUBJECT: GLACIER POWER LTD.
PROPOSED DUNVEGAN HYDROELECTRIC PROJECT
HISTORICAL RESOURCES IMPACT ASSESSMENT
FINAL REPORT, PERMIT 99-111

Staff of the Archaeological Survey, Provincial Museum of Alberta, and the Royal Tyrrell Museum of Palaeontology have received a copy of the Final Report prepared by your historical resources consultants, Fedirchuk McCullough and Associates Ltd. and Dr. L. V. Hills, detailing the results of the Historical Resources Impact Assessment which they completed for archaeological and palaeontological resources respectively for the captioned project.

HISTORICAL RESOURCES IMPACT ASSESSMENT

(1) Archaeological Resources (Permit 99-111)

Terms of Reference

Under Mitigative Research Permit 99-111, Fedirchuk McCullough and Associates Ltd. examined a proposed hydroelectric project located on the Peace River approximately 3 km west of the Highway 2 bridge crossing at Dunvegan. The Historical Resources Impact Assessment of the proposed Dunvegan Hydroelectric project included the examination of 16 target areas which were considered to be archaeologically sensitive. In addition, two powerline alternates and a north and south access road were also assessed. Archival research was also conducted relative to early historic period use of the area relative to Fort Dunvegan.

Results

As a result of the field studies, 22 prehistoric and three historic period sites were identified. The 22 archaeological sites include sites GlQp 1, 10, 11, 12, 13, 15, 16, 17, 18, 19 20, 21 & 22, GlQq 1-5, HaQp 1, 2 and HaQr1-3. The three historic period sites include GlQq-H1, GlQp-H1 and H2.

...cont.
The consultant has indicated that 7 of these 25 sites (GlQp-1, 11, 12, 15 & 20 and HaQr-1 & 2) are to be avoided by this development. The consultant has recommended that no further studies be required at an additional 14 sites including GlQp-10, 13, 16, 17, 18, 19 & 21, GlQq-1, 4, & 5, HaQp-1, HaQr-3 and Historic Period Sites GlQq H1 and GlQp-H1, H2 relative to this project. The consultant has recommended initial excavations at site GlQq-3, and the post development monitoring of sites GlQq-2 and HaQq-2 both of which may be undercut by water at FSL. In addition, the consultant has indicated that the North Access Road is to be re-routed, and has recommended that an Historical Resources Impact Assessment be required for the new route alignment. I agree with these recommendations.

(2) Palaeontological Resources

Terms of Reference

Dr. L. V. Hills conducted the required Palaeontological Impact Assessment on behalf of Glacier Power Ltd. Assessment consisted of:

(a) A Literature review to determine if there was a palaeontological potential within the formation and at this particular site.
(b) Discussions with staff of the Royal Tyrrell Museum of Palaeontology to determine if there were any newly discovered sites in the area that had not yet been reported in the Literature.
(c) A site visitation to determine if there were any significant resources exposed.

Results

(a) Fossil Finds: In the field, float of mussel coquinas were common, indicating their nearby occurrence in situ. However, no primary occurrences were found because of poor exposures. A single horizon with isolated *Ostrea* specimens was found at the base of the sandstone at KP 3.0. Specimens were collected for the Royal Tyrrell Museum of Palaeontology. No significant fossil occurrences were found during this field survey. On this basis the consultant has recommended that no pre-construction mitigative work is required. However, the consultant has indicated that construction of the south access road will result in the exposure of currently poorly exposed strata, and has recommended the monitoring of construction activities on this portion of the project. I agree with these recommendations.

(b) Dunvegan Type Section: The Type Section for the Dunvegan Formation is located in the study area. Type sections/sites are of national and international palaeontological value because they are of critical importance as standards of comparison for identification of lithological structure and lateral facies change, and fossil contents. The proposed Dunvegan project includes an area flanked by the middle and upper portions of the formation. There is potential of loss of access to this section due to slumping of the banks following construction of the project. Consequently the consultant has recommended a detailed stratigraphic and sedimentological study in the area of the Type Section prior to project development. I agree with this recommendation.

...cont.
(3) Potential Effects of Dam Failure on Historic Dunvegan

As required, the archaeological consultant has included a section in the report dealing with possible effects of dam failure on the Dunvegan Fort site. The consultant has indicated that if failure were to occur, the obvious consequence could be flooding. However, the consultant has also indicated that the maximum height of water rise would be less than 3 metres (the maximum depth of the headpond above normal water levels). They further suggest that predictable effects of rapidly rising and moving water would be bank erosion and the structures are some 20 metres from the bank and would not be affected. Similarly, while flooding could occur, the probability that flood waters could be of sufficient velocity to move the buildings is extremely low. The buildings could, however, conceivably be flooded by shallow flood waters. Staff of the Historic Sites Service have reviewed this material and agree that dam failure is not likely to have major impact on the structures at the site. Even in a worse case scenario, the height of the main fur trade and mission sites above the river probably precludes major damage. I agree with this assessment.

HISTORICAL RESOURCES ACT REQUIREMENTS

Alberta Community Development's remaining requirements regarding Glacier Power Ltd's proposed Dunvegan Hydro Project are outlined in the attached Schedule “B”.

Should you require additional information or have any questions regarding our Department's review of this project, please contact Barry Newton of the Historic Sites Service, (780-431-2330, Cultural Facilities and Historical Resources Division, Alberta Community Development, 8820 - 112 Street, Edmonton, Alberta, T6G 2P8; or Fax 780-427-3956).

On behalf of Alberta Community Development, I would like to thank you for your cooperation in our endeavour to conserve Alberta's past.

Sincerely,

Dr. W. J. Byung
Assistant Deputy Minister
Cultural Facilities and
Historical Resources Division

cc: Mr. Keith Gladwyn, Senior Technician, Alberta Energy and Utility Board
Anette Trimbee, Director, Environmental Assessment Branch, AEP
Gloria Fedichuk, Fedichuk McCullough & Associates Ltd.
Andy Neuman, Royal Tyrrell Museum of Palaeontology
Dr. J. W. Ives, Archaeology and Ethnology Section, P.M.A.
Barry Newton, Historic Sites Service, H2O\4825-023.FIN
SCHEDULE B
HISTORICAL RESOURCES ACT REQUIREMENTS
CANADIAN HYDRO DEVELOPERS INC./GLACIER POWER LTD.
PROPOSED DUNVEGAN HYDROELECTRIC PROJECT
(PROJECT FILE 4825-032)

(a) ARCHAEOLOGICAL RESOURCES

1. Historical Resources Impact Assessment

An Historical Resources Impact Assessment for archaeological resources, and any work resulting from this assessment is to be conducted on behalf of Canadian Hydro Developers Inc./Glacier Power Ltd. by an archaeologist qualified to hold an Archaeological Research Permit within the Province of Alberta. This assessment is to be conducted on the new route alignment for the proposed North Access Road.

Timing: The Historical Resources Impact Assessment shall consist of the conduct of a pre-construction impact assessment.

2. Archaeological Site GIQq-3

LEGAL DESCRIPTION: LSD 1, Sec. 19-80-5-W6M

REQUIREMENTS:

(1) The initial excavation of up to ten (10) 1 x 1 metre units to assess the site.

(2) Depending upon the results of these initial excavations additional work may be required at this site.

3. Archaeological Site GIQq-2

LEGAL DESCRIPTION: LSD 8, Sec. 15-80-5-W6M

REQUIREMENTS:

(1) The site area may be undercut by raised water levels therefore monitoring of the site after filling of the reservoir is required to determine if the site may be endangered. The monitoring is to be conducted by an archaeologist qualified to hold a research permit in the province of Alberta.

(2) Depending upon the results of the monitoring, additional work may be required at this site.

4. Archaeological Site HaQq-2

LEGAL DESCRIPTION: LSD 6, Sec. 11-81-6-W6M

...cont.
SCHEDULE B - CONTINUED

REQUIREMENTS:

(1) The site area may be undercut by raised water levels therefore monitoring of the site after filling of the reservoir is required to determine if the site may be endangered. The monitoring is to be conducted by an archaeologist qualified to hold a research permit in the province of Alberta.

(2) Depending upon the results of the monitoring, additional work may be required at this site.

(b) PALAEOENTOLOGICAL RESOURCES

1. Monitoring of Construction

The construction of the South Access Road is to be monitored by a palaeontologist qualified to conduct such work within the Province of Alberta.

2. Dunvegan Formation Type Section

A detailed stratigraphic and sedimentological study in the area of the Type Section is required prior to project development. This work is to be conducted a palaeontologist qualified to conduct such work within the Province of Alberta and is to include:

(a) The measuring of stratigraphic sections in about 6 locales along the river over an approximately 5 mile section.

(b) Recording the sedimentological information at these sections.

(c) Collection of rock samples to document the different facies at each section.

(c) FINAL REPORT

A copy of the Historical Resources Impact Assessment final report is to be submitted to Joan Darnkjar. Any interim reports are also to be submitted directly to Joan Darnkjar, Archaeological Information Manager, Archaeology and Ethnology Section, Provincial Museum of Alberta, c/o 8820 - 112 Street, Edmonton, Alberta, T6G 2P8.
DEPARTMENTAL CONTACTS

Andy Neuman
Curator
Collections Management
Royal Tyrrell Museum of Palaeontology
Box 7500
Drumheller, Alberta
T0J 0Y0

Tel. 403-823-7707
Fax. 403-823-7131

David Link
Boreal Forest Archaeologist
Archaeological Survey
Archaeology and Ethnology Section
Provincial Museum of Alberta
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Barry Newton
Resource Management Planner
Resource Management Program
Community Heritage Services
Historic Sites Service
Cultural Facilities and Historical Resources Division
Alberta Community Development
8820 - 112 Street
Edmonton, Alberta
T6G 2P8

Tel. 780-431-2330
Fax. 780-427-3956
June 16, 2005

Ms. Kelly Matheson
Glacier Power Ltd.
500, 1324 – 17th Avenue SW
Calgary, Alberta
T2T 5S8

Dear Ms. Matheson:

SUBJECT: GLACIER POWER LTD.
DUNVEGAN HYDROELECTRIC PROJECT
SOUTH POWER LINE AND ACCESS ROAD REVISIONS
SECTIONS 6 AND 7-80-4-W6M
FINAL REPORT, ARCHAEOLOGICAL RESEARCH PERMIT 2004-358

The Cultural Facilities and Historical Resources Division (CFHRD) of Alberta Community Development have recently reviewed a copy of the Final Report from FMA Heritage Resource Consultants Inc. regarding the results of the Historical Resources Impact Assessment that they conducted for the captioned project.

HISTORICAL RESOURCES IMPACT ASSESSMENT

Terms of Reference (Archaeological Research Permit 2004-358)

Under Archaeological Research Permit 2004-358, FMA Heritage Resource Consultants Inc. conducted an Historical Resources Impact Assessment for archaeological resources on a proposed relocated portion of a conjoined access road and powerline associated with the proposed Dunvegan Hydroelectric project. The proposed new impact zones comprise approximately 2 km of access of unspecified width along the descent into the south side of the Peace River valley opposite the Dunvegan Provincial recreation area. The consultant used foot traverses, visual inspections and 9 shovel tests to assess the area.

Results

No archaeological resources were encountered during the course of this assessment.

...cont.
Ms. Kelly Matheson
June 16, 2005
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**HISTORICAL RESOURCES ACT REQUIREMENTS/CLEARANCE**

Alberta Community Developments archaeological requirements with regard to South Power Line and Access Road projects have been addressed by the studies that have been completed by FMA Heritage Resource Consultants Inc. There are no further *archaeological* concerns with the South Power Line/Access Road project.

However, there are still outstanding *palaeontological* requirements for the South Access Road (Byrne to Johnson, October 27, 2000). In addition there are also outstanding archaeological and palaeontological requirements for other portions of the overall Dunvegan Hydroelectric project area (Byrne to Johnson, October 27, 2000). These requirements are outlined in the attached Schedule C of this letter.

Should you require additional information or have any questions regarding our Department's review of this project, please contact either Barry Newton of the Heritage Resource Management Branch, (780-431-2330), or Dan Spivak of the Royal Tyrrell Museum of Palaeontology (403-823-7707).

On behalf of Alberta Community Development, I would like to thank you and the Glacier Power Ltd. for your cooperation in our endeavour to conserve Alberta's past.

Sincerely,

Mark Rasmussen
Assistant Deputy Minister
Cultural Facilities and Historical Resources Division

cc: Jeremy Leyden, FMA Heritage Resources Consultants Inc.
    Dan Spivak, RTMP
    Laury North, Alberta Environment
    Susan Schlemko, NRCB
    Sat Lotla, EUB
SCHEDULE C
HISTORICAL RESOURCES ACT REQUIREMENTS
CANADIAN HYDRO DEVELOPERS INC./GLACIER POWER LTD.
PROPOSED DUNVEGAN HYDROELECTRIC PROJECT
(PROJECT FILE 4825-032)

(a) ARCHAEOLOGICAL RESOURCES

1. Historical Resources Impact Assessment

An Historical Resources Impact Assessment for archaeological resources, and any work resulting from this assessment is to be conducted on behalf of Canadian Hydro Developers Inc./Glacier Power Ltd. by an archaeologist qualified to hold an Archaeological Research Permit within the Province of Alberta. This assessment is to be conducted on the new route alignment for the proposed North Access Road.

Timing: The Historical Resources Impact Assessment shall consist of the conduct of a pre-construction impact assessment.

2. Archaeological Site GlQq-3

LEGAL DESCRIPTION: LSD 1, Sec. 19-80-5-W6M

REQUIREMENTS:

(1) The initial excavation of up to ten (10) 1 x 1 metre units to assess the site.

(2) Depending upon the results of these initial excavations additional work may be required at this site.

3. Archaeological Site GlQq-2

LEGAL DESCRIPTION: LSD 8, Sec. 15-80-5-W6M

REQUIREMENTS:

(1) The site area may be undercut by raised water levels therefore monitoring of the site after filling of the reservoir is required to determine if the site may be endangered. The monitoring is to be conducted by an archaeologist qualified to hold a research permit in the province of Alberta.

(2) Depending upon the results of the monitoring, additional work may be required at this site.

...cont.
4. Archaeological Site HaQq-2 (LSD 6, Sec. 11-81-6-W6M)

REQUIREMENTS:

(1) The site area may be undercut by raised water levels therefore monitoring of the site after filling of the reservoir is required to determine if the site may be endangered. The monitoring is to be conducted by an archaeologist qualified to hold a research permit in the province of Alberta.

(2) Depending upon the results of the monitoring, additional work may be required at this site.

(b) PALAEOENTOLOGICAL RESOURCES

Monitoring of Construction – South Power Line & Access Road

(1) The construction of the South Access Road and Power Line and revision areas are to be monitored by a palaeontologist qualified to conduct such work within the Province of Alberta.

(2) Depending upon the results of the monitoring, additional work may be required on this project.

2. Dunvegan Formation Type Section

A detailed stratigraphic and sedimentological study in the area of the Type Section is required prior to project development. This work is to be conducted a palaeontologist qualified to conduct such work within the Province of Alberta and is to include:

(a) The measuring of stratigraphic sections in about 6 locales along the river over an approximately 5-mile section.

(b) Recording the sedimentological information at these sections.

(c) Collection of rock samples to document the different facies at each section

(c) FINAL REPORTS

A copy of the Historical Resources Impact Assessment/Mitigation final report for archaeological/historic period resources is to be submitted to Joan Damkjjar. Any interim reports are also to be submitted directly to Joan Damkjjar, Archaeological Sites & Permits Coordinator, Heritage Resource Management Branch, 8820 - 112 Street, Edmonton, Alberta, T6G 2P8. Similarly all final reports and any interim reports for Palaeontological resources are to be submitted directly to Dan Spivak, Royal Tyrrell Museum of Palaeontology, Box 7500, Drumheller, Alberta, T0J 0Y0.
DEPARTMENTAL CONTACTS

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