

Fisheries and Oceans

Pêches et Océans

Fish Habitat Management Suite 101, 5204 – 50<sup>th</sup> Avenue Yellowknife, Northwest Territories X1A 1E2

#### TO/A:

Mr. Alan Ehrlich
Senior Environmental Assessment Officer
Mackenzie Valley Environmental Impact
Review Board
Box 938
200 Scotia Centre, 5102-50<sup>th</sup> Ave
Yellowknife, NT X1A 2N7
Fax (867) 920-4761

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6 January, 2004

### **MESSAGE**

Enclosed please find DFO-FHM Preliminary Screening Report and referral to EA for the following:

DFO File No. SC02159 MVLWB File No. MV2003L8-0007

Deh Cho Bridge Corporation, Bridge, Mackenzie River at Fort Providence, NT

#### FROM/DE:

J. David Tyson Area Habitat Biologist Western Arctic Area

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MACKA NZIE VALLEY
ENVIROLATENTAL TEMPLE
REVIEW BOARD

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Pêches et Océans

Fish Habitat Management Suite 101, 5204-50<sup>th</sup> Avenue Yellowknife, Northwest Territories X1A 1E2

Your file Voue réference

Our file Name référence \$C02159

6 January, 2004

Mackenzie Valley Environmental Impact Review Board Box 938 200 Scotia Centre, 5102-50<sup>th</sup> Ave Yellowknife, NT X1A 2N7

Attention: Todd Burlingame

RE: Deh Cho Bridge Corporation, Bridge, Mackenzie River at Fort Providence, NT

Dear Mr. Burlingame:

The Department of Fisheries and Oceans, Fish Habitat Management – Western Arctic Area (DFO) has conducted a Preliminary Screening for the proposed Deh Cho Bridge Corporation Mackenzie River Bridge project at Fort Providence, NT, in accordance with Section 124(1) of the *Mackenzie Valley Resource Management Act* (MVRMA). Please find the Preliminary Screening Report attached.

Based on comments received during the screening, DFO has determined the project might be a cause of public concern, as per Section 125(1)(a) of the MVRMA. DFO therefore refers the Deh Cho Bridge Corporation Mackenzie River Bridge project to the Mackenzie Valley Environmental Impact Review Board for Environmental Assessment, pursuant to Section 125(1)(b) of the MVRMA.

If you have any questions, feel free to contact me at (867) 669-4919, or by fax at (867) 669-4940.

J David Tyson

Area Habitat Biologist Fish Habitat Management

Department of Fisheries and Oceans- Western Arctic Area

Copy. Ron Allen, Area Director, DFO-WAA
Julie Dahl, Area Chief, Habitat, DFO-FHM
Stephen Mathyk, Regulatory Officer, MVLWB
Andrew Gamble, Manager, DCBC

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# PRELIMINARY SCREENING REPORT FORM

PRELIMINARY SCREENER: DFO			
DEEEDENCE / FILE		EIRB	1
REFERENCE / FILE	*	REFERENCE	•
NUMBER: SC02159		NUMBER:	
TITLE: Bridge Construction, Km 23	of Hwy#3, Near Fort	*	
Providence			
ORGANIZATION: Deh Cho Bridge Corp	poration		
<i>;</i>			
Type of Development:	⊠ New		
(CHECK ALL THAT APPLY)	⊠ New ☐ Amend	J. EIRB Ref. #	
		es permit, license or authorization	ın
	Does i	not require permit, license or auth	norization
2 2 4			
Project Summary			
<ul> <li>Proposed two-lane bridge to be built at cu</li> </ul>	rrent ferry crossing located	at Km 23 of Hwy #3, near Fort Prov	vidence.
<ul> <li>Length of the bridge is 1, 045 meters cons</li> </ul>	tructed of 9 continuous spa	ns made of steel girders and concret	e decking.
<ul> <li>The superstructure will be supported on eight</li> </ul>	ght piers constructed in the	watercourse and two abutments cor	structed on the approach berms.
<ul> <li>The piers will be concrete filled steel ca concrete panels.</li> </ul>	issons, the superstructure	will be made up of steel girders, a	nd the decking will be made up of
<ul> <li>The dimensions of the main span will be I</li> </ul>	85 metres long with 22 5 -	-of-se of alcourage of alcourage	
The state of the s	.co. modes iong with ZZ.3 i	delies of clearance above the river.	
Project Scope			
<ul> <li>Physical construction, including: placement</li> </ul>	nt of piers, bridge abutment	s, and approaches	
<ul> <li>Fish habitat compensation plan</li> </ul>			
Principal Activities (related to scoping)			
(CHECK ALL THAT APPLY)			
<u> </u>			
Construction		☐ Exploration	[]Doggamminuia-in-
Installation			Decommissioning
☑ Maintenance		Recreation	☐ Abandonment
Expansion		Municipal	☐ Aerial
Operation			☐ Harvesting
Repair		☑ Quany	<u> </u>
Research		Linear / Corridor	☐Scientific/
☐ Water Intake			
		☐ Sewage	☐ Solid Waste
Other:			
· .			
Principal Development Components ( <i>rel</i> a	ited to scopinal		
•	199		
☐ Access Road		<u></u>	•
Construction		☐ Waste <u>М</u> ападел	nent
abandonment/removal		☐ dispos	al of hazardous waste
		☐ waste	generation
M modification e.g., widening, straightening		☐ Sewa	
Automobile, Aircraft or Vessel Movemen	t		sal of sewage
☐ Blasting		☐ Geoscientific Sa	
Building		trenching	
Burning		☐ diamond drill	
☐ Burying		borehole core se	amplina

☐ Channeling ☐ Cut and Fill ☐ Cutting of Trees or Remo ☐ Dams and Impoundments ☐ construction ☐ abandonment/r ☐ modification ☐ Ditch Construction ☑ Drainage Alteration ☑ Drilling other than Geo-sc ☐ Ecological Surveys ☑ Excavation ☐ Explosive Storage ☐ Fuel Storage ☑ Topsoil, Overburden or S ☑ fill ☐ disposal	emoval eientific	□ bulk soil sampling □ Grave! □ Hydrological Testing □ Site Restoration □ grubbing □ planting/seed! □ reforestation □ scarify □ spraying □ re-contouring □ slashing and removal of □ Soll Testing □ Stream Crossing/Bridgin □ Tunnelling/Underground □ Other (describe):	vegetation
NTS Topographic Map She	of Numbers		•
85 F/5	er willingers		
Latitude / Longitude and U 61° 15' 45": 117° 31' 30"	ПИ System:		
Nearest Community and Wi Fort Providence; Mackenzie	ater Body: River		
Land Status (consultation )	information)		
☐ Free Hold / Private		☑ Federal Crown Land	☐ Municipal Land
Transboundary Implication	ns		
☐ British Columbia ☐ Nunayut	☐ Alberta ☐ Saskatchewan ☐ Wood Buffalo National Park	☐ Yukon ☐ Inuvialuit Settlement Region	•
Type of Transboundary Imp	olication: Impact / Effect	Development	
☑ Public Concern: NWT Ch	amber of Mines		
	Mines is also concerned that the application	nomics of the bridge. NWT Chamber of I increase the operating costs of existing and of tolls to commercial freight only and not t	

PHYSICAL - CHEMICAL EFFECTS	
IMPACT	MITIGATION
1. Ground Water	
☐ water table alteration	
water quality changes	
☐ infiltration changes	
☐ other	
□ N/A	
IMPACT	MITIGATION
2. Surface Water	
☑ flow or level changes	<ul> <li>No Mitigation – Piers will may increase scour (&lt;0.3m). These effects are projected to be minimal.</li> </ul>
⊠ water quality changes	<ul> <li>Clean blast rock to be used for in-stream activities.</li> </ul>
	<ul> <li>No equipment will be deployed in the water during approach construction. All materials to be removed from river bed after construction activities requiring in-stream work.</li> </ul>
	<ul> <li>Auger excavation to be confined within metal easings.</li> </ul>
	<ul> <li>Excavated material from foundation construction to be scrapped from ice surface and deposited off-site.</li> </ul>
	<ul> <li>Water monitoring to take place upstream and downstream of work area during construction.</li> </ul>
	<ul> <li>All construction materials, fuel and miscellaneous equipment will be stored above the high water mark.</li> </ul>
•	<ul> <li>Continuous inspection of equipment and vehicles to take place for on-ice work.</li> </ul>
	<ul> <li>Contingency Plans in place with the NWT 24-Hour Spill Line to be contacted at (867) 920-8130 in case of spills.</li> </ul>
water quantity changes	
☐ Drainage pattern changes	
☐ temperature	
☐ wetland changes / loss	
☑ other: ice action changes	<ul> <li>Piers, abutments and approaches designed for calculated ice force according to the Canadian Bridge Code CSA-S6-00.</li> </ul>
□ N/A	<ul> <li>Approaches are to be set at 2.0 m above calculated ice jam to avoid flooding.</li> </ul>

IMPACT	MITIGATION
3. Noise	
☑ noise in/near water	No Mitigation — Vehicle movement and construction.
other: noise increase	No Mitigation – Vehicle movement and construction.
□ N/A	The state of the s
IMPACT	MITIGATION
4. Land	
geologic structure changes	
☐ soil contamination	
☐ buffer zone loss	
soll compaction & settling	
☑ Destabilization / erosion	<ul> <li>Approach construction to take place between October and December to ensure froze conditions and decrease damage to highway pavement.</li> </ul>
permafrost regime alteration	r ·
☐ other: explosives/scarring	
□ N/A	
IMPACT	MITIGATION
<ol><li>Non Renewable Natural Resources</li></ol>	
☐ resource depletion	
other.	
⊠ N/A	
IMPACT	MITIGATION
6. Air/Climate/ Atmosphere	
☑ Other: air quality	<ul> <li>No Mitigation – Air quality will be affected by increased vehicle and equipment use (eg: Hydrocarbon Combustion).</li> </ul>
□ N/A	

# **BIOLOGICAL ENVIRONMENT**

IMPACT	-	М	TIGATION		
1.	Vegetation				
☐ spec	es composition				
🗋 врес	ies introduction				
☐ toxin	/ heavy accumulation				
☐ other	:				
□ N/A					
IMPACT	•	MI	<b>FIGATION</b>		
2.	Wildlife & Fish				
□ effect endange	s on rare, threatened or red species				
🛛 fish p	opulation changes				
☐ water	fowl population changes				
⊠ breed	ling disturbance		Maintenance activities should be sch migratory Birds.	eduled so as not to occ	म during the nesting period of
□ popul	ation reduction			·	
🗋 speci	es diversity change				
☐ healti (iden	ı changes tify)				
∐ beha√ (Ideπt	rioural changes ify)		·		
⊠ habita	t changes / effects	•	Habitat losses will occur within the f Fisheries Act Section 35(2) Authoriz alignment places the bridge approach causeways, minimizing habitat losses ferry landing will provide like-for-lik and monitoring requirements, as well commitments will be included in the	ation will be required fi tes and abutments over Reclamation of the fi te fish habitat compensations of the file.	om DFO. The planned the existing ferry landing try slipway and the north
⊐ game	species effects				
☐ toxins	/ heavy metals				
] forest	y changes				
] agrīcu	itural changes				
other;	waterfowl disturbance	•	Lighting should be installed on the pi that it does not attract or become a ha	ers and superstructure ( ward to migratory birds	of the bridge in such a way
□ N/A	•				

□ N/A

INTERACTING ENVIRONMENT	
IMPACT	MITIGATION
1. Habitat and Communities	
predator-prey	
☐ wildlife habitat / ecosystem Composition changes	
reduction / removal of keystone or endangered species	
☐ removal of wildlife conidor or buffer zone	
i other:	
□ N/A	
IMPACT	MITIGATION
2. Social and Economic	
☐ planning / zoning changes or conflicts	
☐ increase in urban facilities or services use	
☐ rental house	
airport operations / capacity changes	
☐ human health hazard	
☐ impair the recreational use of water or aesthetic quality ☐ affect water use for other purposes	<ul> <li>Access to ferry landings will be kept clear and a rour for the ferryboar will be maintained without interruption. Both the south and north approach will undergo a detour of 250m and 450m respectively.</li> <li>Agreements are in place or being negotiated with Northern Transportation Company</li> </ul>
	Limited and NWT Motor Transport Association.
	<ul> <li>Bridge dimensions to have vertical and horizontal clearances that should not limit oversized loads.</li> </ul>
affect other land use operations	
quality of life changes	
public concern	
☑ other: public safety hazards	<ul> <li>Substructure designed to resist impact of colliding stray vessels.</li> </ul>
☑ other: Navigation	• Will require a permit under Section 5 (1) (a) of the Navigable Waters Protection Act. As required within the NWPA, a sengrate concurrent review is been conducted by Fight.
□ N/A	and Oceans Canada, Canadian Coast Guard – Navigable Waters Protection.

IMPACT	MITIGATION
3. Cultural and Heritage	
effects to historic property	
increased economic pressure on historic properties	
change to or loss of historic resources	
☐ change to or loss of archaeological resources	
increased pressure on archaeological sites	
change to or loss of aesthetically important site	
effects to aboriginal lifestyle	
other.	
□ N/A	

#### NOTES:

The Preliminary Screening was initiated as a joint screening with the Mackenzie Valley Land and Water Board. However, DFO and MVLWB later agreed to submit separate screening reports.

# PRELIMINARY SCREENER / REFERRING BODY INFORMATION (CHECK ALL THAT APPLY)

<u>Federal</u>	RA or DRA	ADVICE	PERMIT REQUIRED
CANADIAN HERITAGE (PARKS CANADA)			
CANADIAN NUCLEAR SAFETY COMMISSION		<u>.</u>	
CANADIAN TRANSPORTATION AGENCY	· · · · · · · · · · · · · · · · · · ·		
ENVIRONMENT CANADA		Ø	
FISHERIES & OCEANS CANADA		<u>⊠</u>	
INDIAN AFFAIRS & NORTHERN DEVELOPMENT		⊠	
INDUSTRY CANADA			_
NATIONAL DEFENSE		· 🗖	
NATIONAL ENERGY BOARD		. 🗖	
NATURAL RESOURCES CANADA			
PUBLIC WORKS & GOVERNMENT SERVICES			
TRANSPORT CANADA			
NOGD		. 🗖	
<u>Territorial</u>			

RESOURCES, WILDLIFE AND ECONOMIC DEVELOPMENT		⊠	
MUNICIPAL AND COMMUNITY AFFAIRS		×	
TRANSPORTATION		<b>×</b>	
HEALTH BOARD		×	
PRINCE OF WALES HERITAGE		×	· 🗖
Aboriginal / First Nation			
DEH GAH GOT'IE DENE COUNCIL		×	
FORT PROVIDENCE METIS COUNCIL	. 🗆	 ⊠	
LIDLI KUE FIRST NATION			_
METIS LOCAL #52		. — <b>⊠</b>	
JEAN MARIE RIVER FIRST NATION		— ⊠	П
KA'A'GEE TU FIRST NATION		— ⊠	П
PEHDZEH KI DENE COUNCIL		   <b>X</b>	
DEH CHO FIRST NATION		_ ⊠	
Local Government			
Communities			
HAMLET OF FORT PROVIDENCE		<b>⊠</b>	<u>.</u>
VILLAGE OF FORT SIMPSON			П
<u>Other</u>			_
FORT PROVIDENCE RESOURCE MANAGEMENT BOARD		×	

# **REASONS FOR DECISION**

Issued pursuant to Section 121 of the Mackenzle Valley Resource Management Act (MVRMA).

#### APPLICATION:

- The application was submitted to DFO pursuant to Section 35(2) of the Fisheries Act and DFO conditionally accepted that the habitat compensation plan presented by the proponent would provide the necessary compensation in compliance with the DFO No Net Loss Policy. A Preliminary Screening was conducted in accordance with Section 124(1) of the MVRMA.
- There was no public hearing held in association with this application.

### DECISION:

DFO is satisfied that the project has been screened pursuant to the MVRMA and that the proposed compensation plan would compensate for habitat losses in a manner consistent with the DFO No Net Loss Policy with respect to Section 35 of the Fisheries Act. However.

The Deh Cho Bridge Corporation has yet to provide all the information requested by reviewers and as such the MVLWB has decided to place their Preliminary Screening on hold.

Date

- During the Preliminary Screening, the proponent altered the project such that additional permits will be required for components.
   Specifically, some quarrying will be conducted outside of the GNWT-DoT right-of-way.
- During the review process, the Northwest Territories Chamber of Mines expressed concern regarding the effects of bridge tolls on the costs of mining and exploration in the NWT and requested that the project be referred to the Mankenzie Valley Environmental Impact Review Board (MVEIRB) for Environmental Assessment.

As a result of comments received during the Preliminary Screening, DFO has determined that the Deh Cho Bridge Corporation Mackenzie Bridge project might be a cause of public concern, as per Section 125(1)(a) of the MVRMA. Pursuant to Section 125(1)(b) of the MVRMA, DFO therefore refers the Deh Cho Bridge Corporation Mackenzie Bridge project to the MVEIRB for Environmental Assessment.

Area Habitat Biologist

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Fisheries and Oceans Canada

Fish Habitat Management - Western Arctic Area

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Preliminary Screening Organization	
Fisheries and Oceans Canada	

-Signatures