National Energy Board

Reasons for Decision

Vector Pipeline Limited Partnership

GH-5-98

March 1999

Facilities

National Energy Board

Reasons for Decision

IN THE MATTER OF

Vector Pipeline Limited Partnership

Application dated 6 July 1998 for the Vector Pipeline Project

GH-5-98

March 1999

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Cat. No. NE22-1/1999-14E
ISBN 0-662-27597-7

This report is published separately in both official languages.

Copies are available from:
Publications Coordinator
National Energy Board
444, Seventh Avenue S.W.
Calgary, Alberta
T2P 0X8
Fax: (403) 292-5503
Phone: (403) 299-3562
Internet: www.neb.gc.ca

For pick-up at NEB office:
Library
Ground Floor

Printed in Canada

No. de cat. NE22-1/1999-14F
ISBN 0-662-83514-X

Ce rapport est publié séparément dans les deux langues officielles.

Exemplaires disponibles sur demande auprès du :
Coordonnateur des publications
Office national de l'énergie
444, Septième Avenue S.-O.
Calgary (Alberta)
T2P 0X8
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Internet : www.neb.gc.ca

En personne, au bureau de l'Office :
Bibliothèque
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Imprimé au Canada

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Act	National Energy Board Act	11
ANSI	Area of Natural and Scientific Interest	12
Board, NEB	National Energy Board	13
CAGR	Compound Annual Growth Rate	14
CAPP	Canadian Association of Petroleum Producers	15
CEAA	Canadian Environmental Assessment Act	16
CSFN	Chippewas of Sarnia First Nation	17
CoEnergy	CoEnergy Trading Company	18
Consumers' Gas	Enbridge Consumers' Gas Limited	19
DFO	Department of Fisheries and Oceans	20
Dth	Decatherm	21
Enbridge	Enbridge Inc.	22
EPN	Early Public Notification	23
EC	Environment Canada	24
GAPLO-Vector	Gas Pipeline Landowners Association of Ontario - Vector (formerly St. Clair - Dawn Landowners Association)	25
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km	kilometre(s)	28
kPa	kilopascals	29
m	metre(s)	30
m^3/d	cubic metres per day	31
MCN	MCN Energy Group Inc.	32

MichCon	Michigan Consolidated Gas Company
MMcfd	million cubic feet per day
MPa	Megapascals
NPS	Nominal Pipe Size
PA(s)	Precedent Agreement(s)
PJ	Petajoules
psi(g)	pounds per square inch (gauge)
TransCanada	TransCanada PipeLines Limited
U.S.	United States of America
Union	Union Gas Limited
Vector or Applicant	Vector Pipeline Limited Partnership
WIFN	Walpole Island First Nation
10^6 m^3/d	million cubic metres per day

Recital and Appearances 46

IN THE MATTER OF the *National Energy Board Act* (the "Act") and the Regulations made thereunder; and 47

IN THE MATTER OF an application dated 6 July 1998 by Vector Pipeline Limited Partnership for orders pursuant to section 58 and Part IV of the Act in respect of the proposed Vector Pipeline; and 48

IN THE MATTER OF Hearing Order GH-5-98. 49

HEARD in London, Ontario on 18, 19 and 20 January 1999. 50

BEFORE: 51

R. J. Harrison 52
Chair

K. W. Vollman 53
Member

D. Valiela 54
Member

APPEARANCES: 55

G. M. Nettleton 56
M. Henderson
Vector Pipeline Limited Partnership

N. J. Schultz 57
Canadian Association of Petroleum Producers

P. G. Vogel 58
R. Marttila
Gas Pipeline Landowners Association of Ontario - Vector
(formerly St. Clair - Dawn Landowners Association)

59
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60
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Enbridge Consumers' Gas

61
E. S. Decter
Pan Alberta Gas Ltd.

62
P. R. Jeffrey
TransCanada PipeLines Limited

63
E. Bourgeault
TriState Pipeline Project
St. Clair Pipelines (1996) Ltd.

64
G. Cameron
Union Gas Limited

65
P. G. Vogel
R. Marttila
Walpole Island First Nation

66
G. Delisle
Board Counsel

Chapter 1 67
Introduction

1.1 Background 68

By application dated 6 July 1998, Vector Pipeline Limited Partnership ("Vector" or the "Applicant") 69
applied to the National Energy Board (the "Board") pursuant to Part III, section 58 of the *National Energy Board Act* (the "Act") for an Order exempting it from the provisions of sections 29, 30 and 31 of the Act, authorizing Vector to construct and operate a natural gas pipeline in southwestern Ontario. Vector also applied, pursuant to Part IV of the Act, for an Order approving the methodology to be used to derive tolls for transportation service after the proposed facilities are in service and for a determination that it be designated as a Group 2 company for the purposes of financial reporting under the Board's Memorandum of Guidance dated 6 December 1995.

The Vector pipeline project is a new international pipeline project that would provide natural gas 70
transmission service between the large market hub located at Joliet near Chicago, Illinois and the existing hub located at Dawn, Ontario. The total project would consist of approximately 552 kilometres of natural gas pipeline. In its 6 July 1998 application, Vector requested approval of the Canadian portion of the Vector pipeline project, which consists of approximately 24 km of 1 067 mm (NPS 42) outside diameter pipeline, extending from a point along the international boundary in the St. Clair River near Sarnia, Ontario to a point near Dawn, Ontario (the "Vector Pipeline"). The location of the Vector Pipeline is shown in Figure 1-1. The initial capacity of the Vector Pipeline would be 28.3 $10^6\ m^3$ (1 Bcf) per day. The pipeline would have a maximum allowable operating pressure of 6 895 kPa (1 000 psi). Vector originally proposed an in-service date of 1 November 1999. Vector estimated the cost of the Vector Pipeline to be $35.4 million.

The Board decided to consider this application in an oral hearing and issued Hearing Order GH-5-98 on 71
7 October 1998, which set out the Directions on Procedure for the hearing. The list of issues that the Board considered at the hearing is included as Appendix I to these Reasons for Decision.

On 2 December 1998, Vector revised the in-service date for the proposed facilities from 72
1 November 1999 to October 2000. Vector submitted that the proponents of the U.S. portion of the project would not be able to provide transportation service between Joliet, Illinois and the international border until October 2000 due to the length of the U.S. regulatory processes. However, Vector indicated that it might conduct an open season to determine whether sufficient market demand exists for interim transportation service ("Stub-Year Service") between Belle River Mills, Michigan and Dawn, Ontario for the period from 1 November 1999 to October 2000.

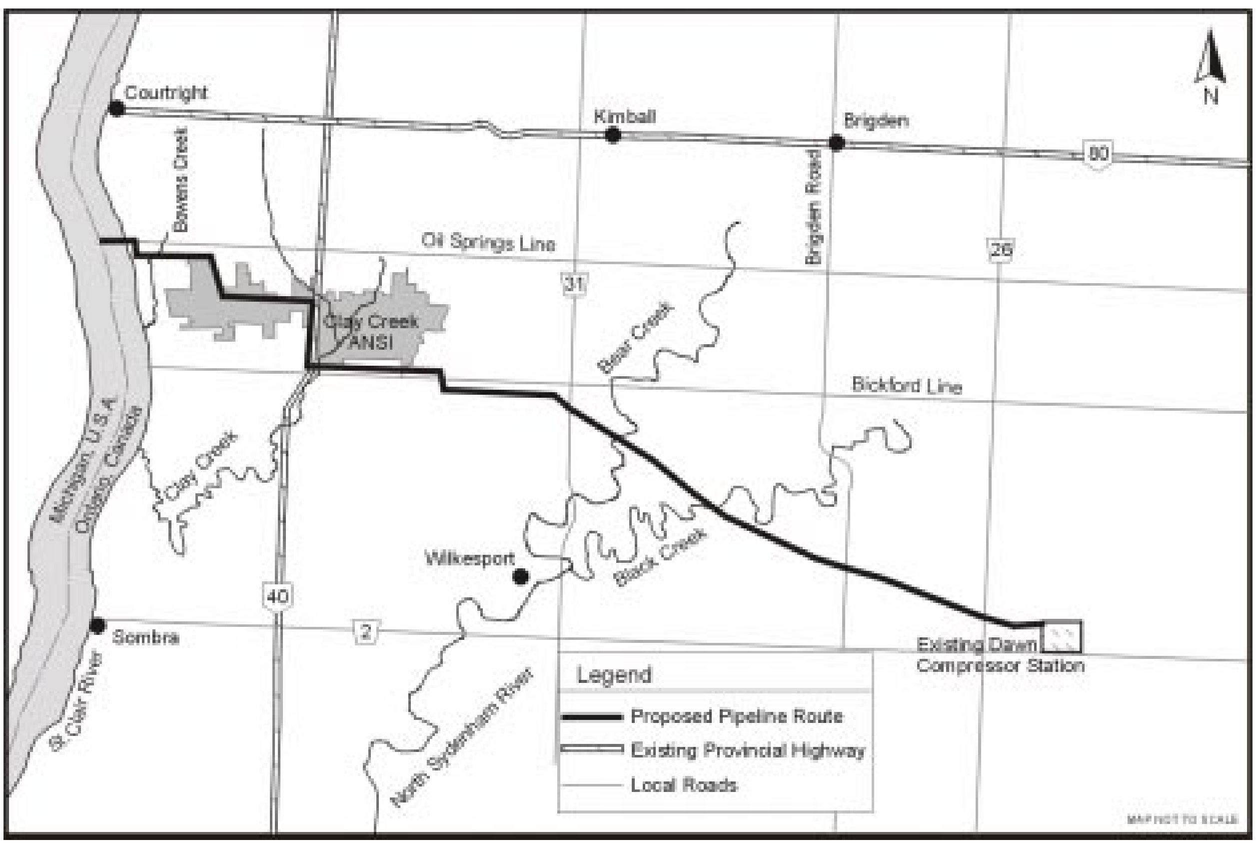
On 9 December 1998, the Canadian Association of Petroleum Producers ("CAPP") filed a motion requesting an adjournment of the hearing, on the grounds that the Stub-Year Service proposed by Vector was of a different character from the one that is the basis of the GH-5-98 proceeding. 73

Following an exchange of correspondence, on 17 December 1998, CAPP withdrew its motion for an adjournment after Vector indicated that a separate toll application would be filed with the Board for the Stub-Year Service, if Vector determined that such a service is warranted. Furthermore, Vector stated that it would accept a condition reflecting this commitment in any approval of the applied-for facilities. 74

The oral hearing was held in London, Ontario on 18, 19 and 20 January 1999. 75

At the opening of the hearing, Vector informed the Board that it had reached agreements with the Walpole Island First Nation ("WIFN") and the Gas Pipeline Landowners Association of Ontario -Vector ("GAPLO-Vector") respectively. Accordingly, WIFN and GAPLO-Vector withdrew from further participation in the hearing. 76

Figure 1-1 Location of the Proposed Vector Pipeline Route **77**



1.2 Environmental Screening 78

The Board conducted an environmental screening of the applied-for facilities in compliance with section 18 of the *Canadian Environmental Assessment Act* (the "CEAA"). In conducting this screening, the Board ensured that there was no duplication in the requirements under the CEAA and the Board's own regulatory process. 79

Chapter 2 80

Engineering

2.1 Facilities Description 81

Vector would design, construct and operate the proposed facilities in accordance with the *NEB Onshore Pipeline Regulations* and CSA Z662-96 "Oil and Gas Pipeline Systems" and all applicable standards, specifications and codes incorporated by reference in that standard. 82

The mainline pipe materials would be manufactured in accordance with requirements of CSA Z245.1-95 "Steel Line Pipe", Grade 483 MPa, Category II. All pipe would be coated with external fusion bonded epoxy coating. The minimum pipe wall thickness would be 16.24 mm at the St. Clair River, roadway and cased railway crossings; 16.42 mm at uncased railway crossings; and 10.59 mm along the general Class 1 pipeline route. Vector would meet all applicable requirements of the CSA Z662-96 and CSA Z245.1- 95 standards for fracture control design of the pipeline. 83

The facilities would also include: 84

- a mainline block valve equipped for automatic and remote operation; 85
- a pig trap with associated valves capable of receiving in-line inspection and cleaning tools; 86
- custody transfer facilities composed of metering, chromatograph equipment and emergency shut-down valves; 87
- a Supervisory Control and Data Acquisition ("SCADA") system; and
- an impressed cathodic protection system. 88

Vector would develop and employ a quality assurance program to ensure that all manufacturers, vendors, contractors and consultants are capable of and are meeting the design and technical requirements specified for the project. Vector would utilize third party inspection, testing and auditing during all phases of the project in the implementation of its quality assurance program goals. 89

2.2 St. Clair River Crossing 90

Vector would cross the St. Clair River using the horizontal directional drill technique. Vector conducted a crossing feasibility assessment and geotechnical investigation of the subsurface geology at both the entry and exit points of the proposed directional drill. Vector submitted that the investigation provided the evidence necessary to demonstrate that the conditions are very similar to those found at a directional drill crossing which was successfully completed by TransCanada PipeLines Limited ("TransCanada") in August 1996. Accordingly, Vector submitted that its proposed crossing is highly likely to succeed. 91

Vector indicated that the directional drill will pass through a thick clay layer, which is ideally suited for the proposed directional drill technique, beneath the St. Clair River and extend approximately 884 m (2900 feet) in length. The drill would be expected to require four passes of the hole opening tools to enable the pull through of approximately 914 m (3000 feet) of pre-built pipeline string. Vector indicated it would have a directional guidance system that, in combination with the specified clearance distances from existing underground and surface facilities, would ensure that the directional drill would be safely conducted within the accuracy and precision limit of 1% of drilled length.

92

During the hearing, no party disputed Vector's submissions with regard to the potential success of the directional drill.

93

Views of the Board

94

The Board is satisfied that the proposed facilities would be designed, constructed and operated in accordance with the Act, the NEB Onshore Pipeline Regulations, and widely accepted standards. Vector has demonstrated that the design of the facilities would be safe and appropriate for the purposes of the proposed service.

95

The Board is satisfied that the crossing of the St. Clair River using the directional drill crossing technique is an appropriate method with a high likelihood of success and that Vector would likely complete the crossing in a timely manner and within acceptable limits of accuracy.

Chapter 3 96

Environmental, Land and Socio-Economic Matters

3.1 Environmental Matters 97

3.1.1 Environmental Screening Report 98

The Board completed an environmental screening and an Environmental Screening Report (the "Screening Report") pursuant to the *Canadian Environmental Assessment Act* (the "CEAA") and the Board's regulatory process. The Board provided copies of the Screening Report to those federal agencies that provided specialist advice, to provincial regulatory agencies and other parties referenced in the Screening Report, and to Vector. The Screening Report includes information regarding the environmental conditions to be included in any exemption order granted in respect of this application. 99

The Board has considered the Screening Report and comments received on it in accordance with the GH-5-98 Directions on Procedure. The Board is of the view that, taking into account the implementation of the proposed mitigative measures and the requirements of the proposed environmental conditions to be included in any order issued, Vector's project as described in its application is not likely to cause significant adverse environmental effects. This constitutes a decision pursuant to paragraph 20(1)(a) of the CEAA, and was taken prior to making a decision under Part III of the NEB Act in respect of the applied-for facilities. 100

The CEAA determination and a summary of the comments received are included in Section 7 of the Screening Report. Copies of the comments received have been added as Attachment 2 to the Screening Report[1]. 101

3.1.2 Ministry of Energy, Science and Technology for Ontario 103

The Ontario Pipeline Coordination Committee ("OPCC") negotiated with Vector a set of environmental commitments related to the construction of the proposed facilities. By letter dated 19 November 1998 to the Ministry of Energy, Science and Technology for Ontario, Vector agreed to be bound by the commitments made to OPCC. Vector's undertakings to the OPCC include adhering to provincial requirements for all activities on Crown lands; reporting on construction scheduling; reporting on various aspects of proposed construction, monitoring and mitigation methods for watercourse crossings; adherence to sediment control requirements; compliance with fisheries windows; disposal of construction debris; water well monitoring and complaints resolution; and conducting soil testing and analyses for areas of suspected contamination at proposed water crossings. 104

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[1] Copies of the Environmental Screening Report are available from the Board's Publications Office, phone (403) 299-3562 or fax (403) 292-5503. 102

105

Views of the Board

106

The Board encourages and supports negotiated agreements between other regulatory agencies and pipeline proponents, but notes that such agreements do not involve the Board. However, where the public interest is served, the Board may reference in the Screening Report the subject matter of the agreements and associated undertakings. The Board notes that Vector has agreed to be bound by its undertakings to the OPCC.

107

3.1.3 Environment Canada

108

Environment Canada ("EC") submitted a letter of comment, dated 14 December 1998, regarding the proposed facilities in the context of specialist information and advice pursuant to subsection 12(3) of the CEAA. The letter provided observations, concerns and recommendations with respect to several environmental issues.

109

Regarding route selection, EC preferred Vector's proposed route which went south of the main portion of the Clay Creek Area of Natural and Scientific Interest ("ANSI"), as it reduced the amount of woodlot clearing, relative to the alternative potential routes. EC was concerned that one portion of the proposed route west of Highway 40, if constructed on the south side of the existing TransCanada right of way, could reduce habitat for breeding interior forest bird species, and therefore recommended locating the pipeline on the north side of the TransCanada right of way.

110

EC observed that the proposed winter vegetation clearing along the right of way would avoid the potential to disturb or destroy active nests of migratory bird species. EC was also concerned with seed mixes and intends to comment directly to Vector on this matter. As well, EC supports Vector's proposal to continuously monitor slurry volumes and to monitor changes in turbidity levels in the water column downstream, during the proposed horizontal directional drill crossing of the St. Clair River. EC strongly recommended that turbidity levels be continuously monitored. EC also made recommendations regarding the pumping of water onto vegetated areas, hydrostatic testing and erosion control. EC further recommended that it be provided with a copy of Vector's proposed study of species at risk as designated by the Committee On the Status of Endangered Wildlife In Canada ("COSEWIC"), once completed.

111

Given the proposed mitigative techniques, EC expected that any adverse water quality impacts due to erosion, sedimentation or accidental spills would be rendered insignificant. Overall, EC expects that the proposed project will not result in significant adverse environmental effects in areas related to its mandate, such as migratory birds, endangered species, wetland or water quality, if its recommendations are adopted.

Views of the Board 112

The Board notes that Vector adopted several of EC's recommendations in its evidence and committed to ongoing consultation during the construction phase. As well, Vector must comply with all conditions regarding environmental matters contained in any order granted in respect of the proposed facilities. 113

3.1.4 Department of Fisheries and Oceans 114

During the hearing, Vector provided a copy of its fisheries report to the Department of Fisheries and Oceans ("DFO") for review and stated that Vector would adopt the recommended method of construction for each watercourse crossing, based on discussions with DFO and the Ontario Ministry of Natural Resources prior to construction. Vector stated that it would apply to DFO for authorization pursuant to section 35(2) of the *Fisheries Act* for each watercourse proposed to be constructed using a wet crossing method. 115

Views of the Board 116

The Board notes that Vector recognizes and agrees to comply with the recommendations of DFO. As well, Vector must respond to specific concerns with regard to fisheries matters, as outlined in the conditions regarding environmental matters contained in any order granted in respect of the proposed facilities. 117

3.1.5 Walpole Island First Nation 118

In a 30 October 1998 letter, WIFN raised concerns with the potential environmental impacts of the Vector project on Walpole Island and on the St. Clair River in general. The overriding issue was the potential for toxic sediment release incidents during the construction or operation of the pipeline, and the subsequent impact of impaired water. The WIFN draws water from the St. Clair River for its water supply, downstream of the proposed crossing location, and also has identified the river as a traditional fishery. Specific environmental issues were: the adequacy of Vector's environmental assessment; environmental, technical and safety issues relating to pipeline construction; and the adequacy of technical studies. Following discussion of the above matters, WIFN and Vector arrived at a resolution in the form of a Memorandum of Understanding ("MOU"). The MOU states that WIFN has concluded that the proposed pipeline does not create a risk of significant adverse environmental effects, provided that appropriate design, mitigative measures, monitoring and contingency plans are implemented. The MOU provides for ongoing consultation on environmental matters throughout the life of the project. 119

Views of the Board *120*

Vector's MOU with WIFN, when appropriately and adequately carried out, should result in the avoidance and mitigation of possible adverse environmental impacts which WIFN identified. Moreover, compliance with the MOU would be addressed under the appropriate conditions contained in any order granted in respect of the proposed facilities. *121*

3.1.6 Gas Pipeline Landowners Association of Ontario - Vector 122

In its intervention, the Gas Pipeline Landowners Association of Ontario - Vector ("GAPLO-Vector"), an association of landowners directly affected by the Vector project, expressed general concerns with tile drains, soil compaction and crop loss. Following consultations in late December 1998 and early January 1999, Vector and GAPLO-Vector reached agreement on amendments to be made to Vector's initial Letter of Understanding ("LOU"), dated 21 December 1998. The issues resolved and reflected in the agreement included further soil studies, topsoil and subsoil handling, wet weather shutdown, depth of pipeline cover, tile drainage, subsidence effects, land restoration, easement re-vegetation, trapped land, and removal of excess material displaced by the pipeline. At the hearing, GAPLO-Vector withdrew from further participation in the proceeding as a result of having resolved its issues with Vector. 123

Views of the Board *124*

Vector's LOU with GAPLO-Vector, when appropriately and adequately carried out, should result in the avoidance and mitigation of possible adverse environmental impacts which GAPLO-Vector identified. Moreover, compliance with the LOU would be addressed under the appropriate conditions contained in any order granted in respect of the proposed facilities. *125*

3.2 Route Selection 126

Vector followed a two-step process to evaluate route alternatives for the proposed pipeline. The first step was the determination of the location of the St. Clair River crossing, and the second step was the selection of the route from the St. Clair River to the terminus of the pipeline at Dawn. 127

The proposed crossing location of the St. Clair River was selected based on: 128

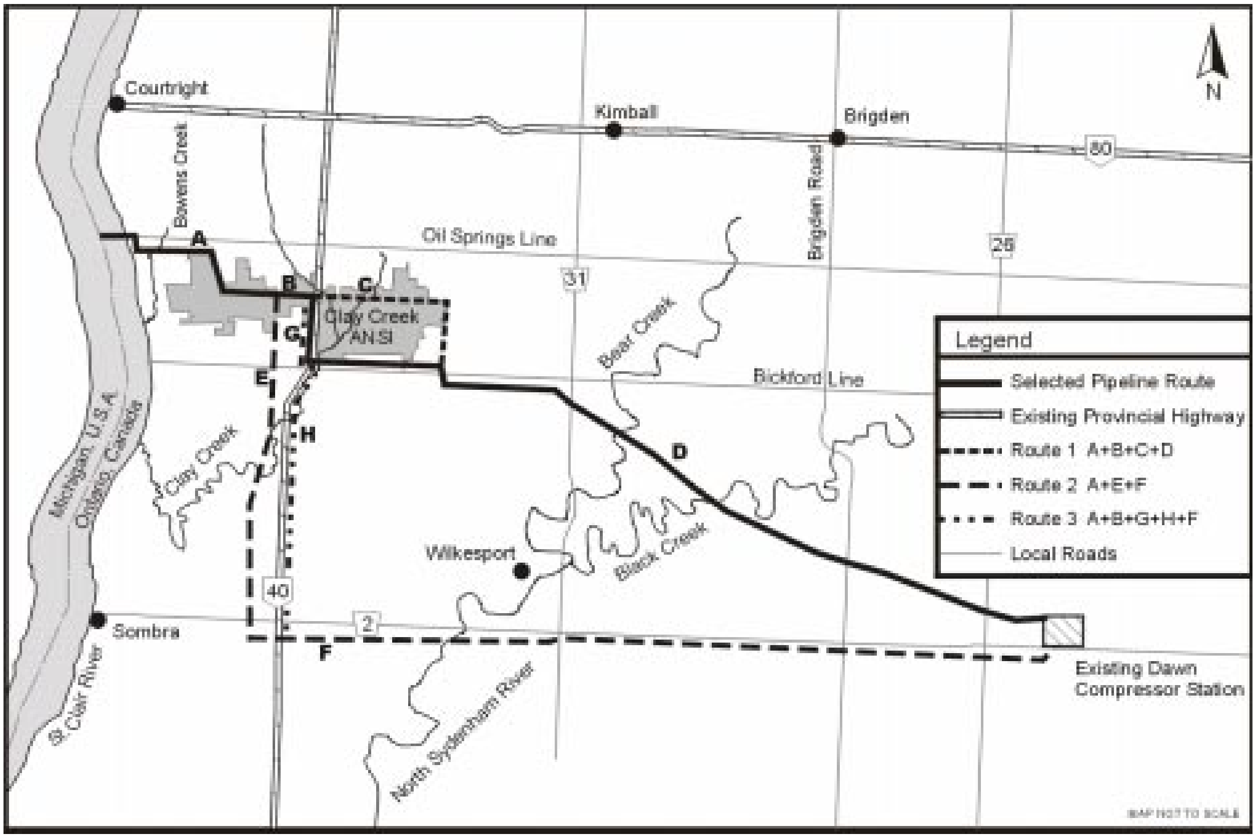
- the shorter distance from the directional drill entry point to exit point; 129
- the established utility corridor on each side of the river; 130
- the suitable topographic conditions for the set up of directional drill equipment; 131
- the geotechnical feasibility for drilling operations; and 132
- the proximity to other successfully drilled river crossings. 133

As shown in Figure 3-1, Vector evaluated four route alternatives from the St. Clair River to Dawn. The primary criterion was to minimize environmental and socio-economic impacts by selecting a route adjacent to existing linear development. Vector also considered: 134

- the length of each route; 135
- engineering factors; 136
- the number of residences within 200 metres of each route; 137
- the area of woodlot to be cleared; 138
- the number of stream crossings; 139
- the area of prime agricultural land and artificially drained land to be crossed; 140
- avoidance of diagonal field crossings; and 141
- avoidance of the Clay Creek Area of Natural and Scientific Interest (the "Clay Creek ANSI"). 142

143

Figure 3-1 Route Alternatives Evaluated by Vector



144

Using these criteria, Vector evaluated four alternative routes and selected the one referred to as Route 4 as its preferred route. Route 4 would place the proposed pipeline adjacent to the existing TransCanada right of way for most of its length with the exception of 4.4 km that would deviate to avoid the largest undisturbed eastern part of the Clay Creek ANSI. Vector submitted that, of the routes considered, this route would affect a relatively low amount of woodlot, avoid the Clay Creek ANSI east of Highway 40, require the least number of watercourse crossings, affect a small area of artificially drained lands and provide one of the shorter distances from the St. Clair River to Dawn. The total length of Route 4 is 24 km.

145

As described in Section 3.1.3 of these Reasons, in a letter to the Board dated 14 December 1998, Environment Canada stated its preference for the route selected by Vector. At the hearing, Vector submitted that it revised the alignment of the proposed pipeline to the north side of the TransCanada right of way west of Highway 40, and that this alignment corresponded with that preferred by Environment Canada.

Views of the Board 146

The Board is satisfied with the route alternatives considered by Vector and finds the proposed route acceptable. 147

3.3 Land Requirements 148

Vector stated that it purchased 2.42 hectares of land on the Canadian side of the St. Clair River. Vector submitted that this land is required for work space associated with the directional drill exit point and to accommodate the pull section of the pipeline. 149

Vector requested the approval of new permanent right of way for the proposed pipeline route. The new right of way would be 20 metres wide for the length of the pipeline. Vector also requires a 15 metre wide temporary work space adjacent to the length of the right of way. Vector stated that it planned to acquire easement agreements and temporary work space in the first quarter of 1999. 150

Vector stated that it requires a 20 m by 20 m surface lease for a valve site on its permanent easement. The preferred site for the block valve is on the east side of Grenfell Road in Lot 27, Concession 2, immediately north of and adjoining TransCanada's existing sales meter station. Vector stated that it is negotiating with the surface owner for either a surface lease or purchase of the land. 151

Vector stated that it requires a 100 m by 100 m surface lease for its Dawn meter station. It proposes to locate the meter station on the north side of and adjoining the existing TransCanada Dawn meter station site. Vector stated that it is in negotiation with the landowner for either a surface lease or purchase of the land for the meter station site. 152

Views of the Board 153

The Board accepts the proposed land requirements for the meter station, block valve location, pipeline right of way and temporary work space. 154

3.4 Public Consultation 155

Vector stated that a complete and adequate public consultation program was undertaken. Vector initiated an early public notification program in April 1998. The program objectives included: informing affected stakeholders of the proposed project; receiving and incorporating public input into project design; and establishing and fostering a relationship of trust with landowners. To achieve these objectives, Vector carried out a public consultation program consisting of: 156

- holding a public meeting; 157
- publishing newspaper advertisements; 158
- distributing letters and newsletters to affected parties, interested stakeholders and public agencies; 159
- contacting and meeting local, provincial and federal agencies and First Nations; 160
- contacting and personally visiting all directly affected landowners along and within 30 m of the proposed route; 161
- establishing a toll free number; and 162
- designing and committing to an ongoing consultation process. 163

Vector's application stated that input from various stakeholders was incorporated into the design and routing of the proposed facilities during a three-phased process. The phases were delineation of the study area, the identification and evaluation of alternative routes, and final route selection. 164

Further, Vector stated that, while most public comments on the pipeline route were positive, the public raised topics such as minimizing drainage disruption, wet weather shut down and tree displacement. Vector stated that discussions with landowners were amicable and productive, that the primary outstanding issue was the level of compensation, and that Vector was continuing to work with landowners to resolve concerns. At the hearing, Vector stated that it had worked cooperatively with GAPLO-Vector and resolved all outstanding issues and established a process for ongoing consultation. Discussion of these issues and their resolution is found in section 3.1.6 of these Reasons. 165

Vector also stated that it had consulted with potentially affected First Nations, namely the WIFN and the Chippewas of Sarnia First Nation ("CSFN"). The consultation included direct contacts, and in the case of WIFN, a negotiated Memorandum of Understanding. The CSFN wrote to the Board stating aboriginal interest in the bed of the St. Clair River, but chose not to make representations at the hearing. Further discussion of these matters is found in sections 3.1.5 and 3.5 of these Reasons for Decision. 166

In response to public interest in the proposed project, the Board held a public meeting in Sarnia on 9 December 1998. The purpose of the meeting was to inform interested parties of the Board's public hearing process, pipeline routing practices and land rights matters, and to answer any questions. About 25 landowners and interested persons attended the meeting. 167

Views of the Board 168

Based on Vector's public consultation program and given potentially affected parties' expression of satisfaction with the consultation process, the Board believes that the public consultation program was satisfactory. The Board notes Vector's stated commitment to ongoing consultation with GAPLO-Vector and WIFN. 169

3.5 First Nations Issues 170

Vector consulted the two First Nations located in the proposed project area, the CSFN and the WIFN. Contact with CSFN began in April 1998 during the preparation of the environmental assessment and socio-economic impact assessment. On 13 May 1998, CSFN advised that it was not directly affected by the project but was interested in the St. Clair River crossing with respect to a claim of an aboriginal interest in the bed of the St. Clair River. On 15 January 1999, CSFN wrote to the Board advising that, while it would not be making representations at the hearing, it holds responsible for their actions all those who would choose to ignore the claimed interest. CSFN did not raise any specific objections to the Vector route on the grounds of potential environmental effects on the current use of lands and resources for traditional purposes. 171

Vector made initial contact with WIFN through a 17 April 1998 letter, and subsequently met with WIFN on a number of occasions. While WIFN shares CSFN's concern with land claims matters, the main concern that WIFN brought before the Board was the potential project impact on the St. Clair River water quality, and hence on traditional hunting, gathering and fishing activity. More specifically, the concern was with the potential for toxic sediments release as a result of the construction and operation of the pipeline across the St. Clair River. 172

On 18 January 1999, the opening day of the hearing, Mr. Paul Vogel, counsel for WIFN, announced that all issues between Vector and WIFN had been resolved through a constructive consultation program, and WIFN withdrew from further participation in the hearing. Vector filed a Memorandum of Understanding spelling out Vector's environmental and consultation undertakings to WIFN. Both parties expressed mutual satisfaction with the consultation process. 173

Views of the Board 174

The Board notes that Vector advised both First Nations of the project early in the planning process and followed-up with an appropriate consultation program, which involved personal contact. The Board believes that Vector's environmental assessment and Memorandum of Understanding would, when appropriately and adequately carried out, avoid and mitigate adverse project impacts on the current use of lands and resources for traditional purposes. The Board notes that compliance with the terms of the Memorandum of Understanding would be addressed under the appropriate conditions contained in any order granted in respect of the proposed facilities. 175

With respect to the land claims issue, the Board notes that this is a matter outside its jurisdiction.

Chapter 4 177

Gas Supply, Markets and Transportation Contract Matters

4.1 Gas Supply 178

Vector has indicated that gas supply will be sourced from the market hub at Joliet, Illinois. Vector's shippers are expected to acquire their gas supply at the Joliet hub through short-term and intermediate-term supply contracts. Natural gas supply for these contracts could come from Western Canada, the Gulf Coast, the Mid-Continent and the Rocky Mountain producing areas. 179

Vector noted that the average daily throughput at the Joliet hub was 99.1 10^6 m^3/d (3.5 Bcf/d) in 1996. Pipeline capacity into the Joliet hub is now 286.1 10^6 m^3/d (10.1 Bcf/d) including the recently completed Northern Border expansion. The Alliance[1] project is expected to add another 37.5 10^6 m^3/d (1.3 Bcf/d) to the hub's capacity by October 2000. Vector expects that there will be some 158.6 10^6 m^3/d (5.6 Bcf/d) of excess capacity into the Joliet hub that Vector's shippers can access for supply requirements in the next few years. 180

Intervenors did not challenge upstream gas supply evidence provided by Vector. 182

Views of the Board *183*

The Board notes that the Vector shippers will have access to diversified supply sources in Western Canada, the Gulf Coast, the Mid-Continent and the Rocky Mountain producing areas. These are all established producing areas with significant volumes of remaining established gas reserves. The Board is of the view that these four producing areas will continue to develop additional gas supply from undiscovered potential resources as the market requires during the economic life of the project. In the Joliet hub area, increased available gas volumes can be expected as it appears that there is some underutilized capacity from U.S. pipelines as well as new pipeline capacity from Canada. *184*

The Board is satisfied that sufficient gas supply would likely be available to allow the proposed facilities to maintain viable utilization rates. *185*

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1 NEB Reasons for Decision dated November 1998 on an application dated 3 July 1997 by Alliance Pipeline Ltd. on behalf of the Alliance Pipeline Limited Partnership for the Alliance Pipeline Project. 181

186

4.2 Markets

187

Vector submitted the average of three forecasts for the Ontario and Quebec markets using DRI/McGraw Hill, Canadian Gas Association and TransCanada GH-2-97 Facilities Application data. The forecast indicated an average Compound Annual Growth Rate ("CAGR") of approximately 2.1 percent and 1.6 percent over the 1996-2005 period and the 2005-2010 period, respectively. Vector further submitted the average of three forecasts for the U.S. Northeast markets produced by the Gas Research Institute, the U.S. Department of Energy/Energy Information Administration and Cambridge Energy Research Associates, that predicted a CAGR of 2.1 percent over the 1996-2015 period.

188

Vector also filed a National Energy Services assessment of the potential impact on natural gas demand related to developments in the Ontario electricity generation industry. The assessment concluded that deregulation of the electricity industry in Ontario, combined with the reduction of power generation from nuclear assets and the increased electricity demand due to load growth, will lead to significant new gas-fired power generation in Ontario.

189

Vector argued that Eastern Canadian and the U.S. Northeast markets are collectively forecast to require 15.0 to 16.3 10^6 m^3/d (530 to 574 MMcfd) of additional transportation capacity, net of the approved pipeline project capacity, over the 1996 to 2000 period, growing to 52.9 10^6 m^3/d (1 868 MMcfd) over the 1996 to 2005 period.

190

In respect of the U.S. Midwest market, Vector stated that it would be possible for its shippers to access this market through connections with the Michigan Consolidated Gas Company ("MichCon") system and storage facilities in Ontario, in conjunction with services offered primarily by the U.S. portion of the Vector Project.

191

Vector argued that the proposed facilities will be partially used by accessing existing downstream excess capacity, as well as interruptible transportation, exchange mechanisms, winter peaking service and diversions. Vector further argued that, generally, these market services are of a very high quality with few interruptions. In addition, Vector submitted that one of its sponsors, MCN Energy Group Inc. ("MCN"), expects to have a physical requirement for the 5.7 10^6 m^3/d (200 MMcfd) of capacity subscribed by its affiliate CoEnergy Trading Company ("CoEnergy"), in order to use new storage facilities. Vector further submitted that Enbridge Consumers’ Gas Limited ("Consumers’ Gas") is expected to use some of the proposed capacity that Enbridge Inc. ("Enbridge") has contracted for.

192

In the short term, Vector indicated that its proposed system could initially be underutilized, due to lack of sufficient demand and take-away capacity, and it may need to rely on capturing a share of existing market requirements. Vector argued that capturing market share is consistent with a competitive market where there is greater pipeline-on-pipeline competition.

In the long term, Vector anticipates that its shippers will capture incremental requirements, particularly in light of the projections of market growth for Eastern Canada and the U.S. Northeast markets. Vector further submitted that sufficient transportation capacity downstream of Vector's system will be developed such that it will be used at a high rate, serving both Eastern Canadian and Northeastern U.S. requirements. 193

Vector provided an update on the status of several proposed projects, including the applied-for St. Clair Pipelines (1996) Ltd./TransCanada PipeLines Limited interconnect with the proposed Millennium Pipeline Project at Lake Erie, El Paso Energy's Tennessee Gas Pipeline expansion from Niagara Falls, Portland Natural Gas Transmission System's expansion to supply northern New England, and Union Gas Limited's ("Union") application for an additional 5.7 10^6 m^3/d (202 MMcfd) of capacity on its Dawn to Trafalgar system for 1 November 1999. Vector noted that in aggregate these proposed projects would provide over 42.5 10^6 m^3/d (1.5 Bcf/d) of pipeline expansion downstream of Vector to U.S. Northeast markets. 194

In respect of the evolution of the natural gas market, Vector submitted that Dawn is an emerging market centre. Vector further submitted that the market at the Dawn hub will become more liquid with the construction of Vector and other pipeline expansions. In addition, regulatory changes, particularly regarding title transfers, will increase the liquidity of the Dawn market centre. 195

Vector argued that specific end-user markets are less important for hub-to-hub applications such as Vector's. Vector further argued that subscribed capacity in the form of Precedent Agreements ("PAs") is a fair reflection of the "markets". Vector noted that, in the evolving North American competitive marketplace, the ownership of gas is likely to be transferred several times as it is delivered from the wellhead to the burner-tip, through market centres such as Joliet and Dawn. 196

The Canadian Association of Petroleum Producers ("CAPP") stated that perceived opportunity brings with it evident risks, including the risk that additional firm take-away capacity from Dawn will not materialize within a reasonable period after Vector commences service. For this reason, CAPP requested that, as proposed by Vector in its letter to CAPP dated 17 December 1998, a condition directing Vector not to place the applied-for facilities in service before 1 October 2000 be included in any order the Board may grant. In the event that Vector applies to the Board requesting an earlier in-service date, Vector would have to demonstrate the need and justification for an earlier in-service date. 197

Consumers' Gas, an affiliate of one of the project sponsors (Enbridge), supported the application. Consumers' Gas submitted that the Eastern Canadian market evidence indicates ongoing growth in the traditional residential, commercial and industrial markets and that announced power generation projects represent a significant increase in gas demand in the Eastern Canadian power generation market. Consumers' Gas stated that direct access between the Joliet and Dawn hubs will benefit both shippers and consumers in the form of additional transportation flexibility, improved market liquidity and increased security of supply. 198

TransCanada and Union did not have substantive objections to the proposed facilities. However, as discussed in Chapter 6 "Other Public Interest Considerations" of these Reasons, TransCanada noted the lack of evidence traditionally required by the Board, and Union raised concerns regarding the process of considering Vector's application. 199

The Ontario Ministry of Energy, Science and Technology ("Ontario") supported the application. Ontario was of the view, based on the information available to it, that the project is supported by the market and is founded on a sound economic basis. 200

Views of the Board *201*

The Board notes that the macro-market requirements forecasts were not challenged by any party. Additionally, Vector's contention that there is some existing high quality downstream capacity, which would be available with few interruptions, was not challenged. Vector's assessment that additional downstream pipeline capacity would be built in the long term was also not challenged. *202*

The Board is satisfied that the forecast growth in demand in the Ontario, Quebec and U.S. Northeast markets would be sufficient to support the proposed facilities over the life of the Project. In addition, the Board finds that Vector's long-term forecast of required incremental pipeline capacity from Dawn to the Ontario, Quebec, and U.S. Northeast markets is reasonable. *203*

The Board is of the view that, in the short term, Vector's proposed system might not be fully utilized. *204*

The Board notes, however, that Vector has determined that the market and downstream capacity will be there in the future, and that Vector and its shippers would take financial risk with respect to any unutilized capacity. This is demonstrated by the Project owners and shippers through the execution of the underpinning PAs. A discussion regarding the firmness of the PAs follows in Section 4.3 "Transportation Contracts". *205*

The Board considered the potential for market growth in the Ontario, Quebec and U.S. Northeast regions in conjunction with the "at-risk" nature of the Project, the experience of the shippers and their affiliates, and the hub-to-hub nature of the proposed service, particularly in respect of the potential for increased market liquidity at the Dawn hub. The Board is of the view that, in this instance, underutilization of the proposed facilities or decontracting on existing network pipelines would likely occur only in the short term. *206*

The Board accepts Vector's submission that incremental downstream capacity at Dawn, Ontario would likely be constructed to accommodate the forecast incremental market demand, resulting in the utilization of the proposed facilities at a reasonable rate over the long term. *207*

To mitigate the risk of additional firm take-away capacity from Dawn not materializing within a reasonable period after Vector commences service, the Board will include, as requested by CAPP and agreed to by Vector, a condition to any order granted, directing Vector not to place the applied-for facilities in-service before 1 October 2000. Should Vector seek an earlier in-service date, it would be required to apply to the Board and demonstrate the need and justification for an earlier in-service date. *208*

4.3 Transportation Contracts 209

Vector conducted an open season between 12 August and 30 September 1997 for the subscription of firm transportation service commencing October 2000. This process resulted in subscriptions by four shippers for about 23.4 10^6 m^3/d (828 MMcfd) or nearly 83 percent of the available firm capacity, for terms of 10 or 15 years as noted in Table 4-1 below. 210

Table 4-1 Vector Open Season Results 211

212

Shipper	Volume		Contract Term
	10^6 m^3/d	(MMcfd)	(years)
Enbridge Inc.	14.1	500	15
CoEnergy Trading Company	5.7	200	15
Shipper 3	2.2	78	15
Shipper 4	1.4	50	10
Total	**23.4**	**828**	

Vector filed copies of the pro forma transportation PAs that had been entered into with each of the shippers and the pro forma Transportation Agreement that would be executed once the conditions precedent have been met. In addition, Vector filed copies of the executed PAs with its affiliates, Enbridge and CoEnergy. Vector did not file copies of the other two executed PAs with non-affiliated shippers on the grounds that disclosure of the shipper identity could result in competing pipelines interfering with Vector's contracting efforts. Vector did, however, state that it was prepared to file these agreements provided that such information is kept confidential under section 16.1 of the Act. During the hearing, the Board requested Vector to file these two agreements and ordered that the information be kept confidential. 213

Under the terms of the pro forma Transportation Agreement, shippers are required to pay the applicable demand charges regardless of the volumes actually transported on the pipeline. 214

The applicant stated that it had developed a transportation queue for an additional 4.8 10^{6} m^3/d (170 MMcfd) but PAs with the shippers in the queue had not yet been signed. 215

Vector submitted that the level of shipper subscriptions represented strong support for its proposed transportation system from Joliet to Dawn. 216

Union argued that the condition in the PAs pertaining to Board of Directors approval was so broad that the agreements were more like letters of intent. Union also submitted that it was not aware of any facilities application where a shipper's contractual commitment had not received Board of Directors approval at the time the application was considered by the Board. For this reason, Union felt that it was unsatisfactory for the Board to be considering an application when the shippers have not confirmed that they want the capacity that constitutes the markets being examined by the Board. 217

Views of the Board *218*

The Board considers the existence of signed long-term transportation agreements to be strong evidence of the need for the Vector Pipeline. The fact that Vector's affiliates, Enbridge and CoEnergy, and the other market participants have made significant financial commitments in undertaking to pay demand charges regardless of the volumes actually transported, satisfies the Board that the Vector pipeline will be used and useful. *219*

The Board notes Union's views about the conditions contained in the PAs relating to Board of Directors' approval. In this connection, the Board recognizes the importance of the shipper commitments in support of the Vector application and, therefore, the Board will include a condition in any order granted requiring Vector to submit copies of the executed Transportation Agreements for the subscribed capacity (i.e., 23.4 $10^6 m^3/d$ *(828 MMcfd)) of the pipeline prior to the commencement of construction.* *220*

Chapter 5 221

Tolls, Tariffs and Financial Matters

5.1 Negotiated Toll Settlement 222

Vector applied for Board approval of a proposed methodology to derive tolls for transportation service when the proposed pipeline is put in service. Vector also requested to have the proposed toll methodology considered as a negotiated toll settlement for the purposes of the Board's *Guidelines for Negotiated Settlements of Traffic, Tolls and Tariffs* ("Guidelines for Negotiated Settlements") dated 23 August 1994, which include, inter alia, the following provisions: 223

- All parties having an interest in a pipeline company's traffic, tolls and tariffs should have a fair opportunity to participate and have their interests recognized and appropriately weighed in a negotiated settlement. 224
- The settlement process should be open and all interested parties should be invited to participate in the actual settlement negotiations. 225
- The Board will not accept a settlement which contains provisions that are illegal, or contrary to the Act. 226

Vector explained that its proposed methodology calculates tolls on a postage stamp basis for all movements from the international boundary near Sarnia, Ontario to the delivery point near Dawn, Ontario, a distance of approximately 24 km. It stated that the proposed toll methodology incorporates four incentive mechanisms and would involve determining yearly revenue requirements on a forward test-year basis. 227

Vector pointed out that the pipeline venture is currently financed by its partners by means of equity contributions and that the actual method by which the proposed facilities would be financed would be based on the prevailing debt and equity market conditions. 228

5.1.1 Key Provisions of Negotiated Toll Settlement 229

The key provisions of the negotiated toll settlement include the following for a 15-year term transportation agreement: 230

- Demand charges calculated on a per unit-of-capacity basis for recovery of fixed costs, including recovery of indicated operating costs and return on rate base. Commodity charges for recovery of variable costs for volumes actually shipped. 231

- Cost of service components of demand charges as follows: 232

  - Operating costs set at $1.4 million for the first year ("Base Operating Costs"), increasing annually to reflect changes in the Consumer Price Index ("CPI"). 233

  - Depreciation calculated using the reverse sum of the years' digits method, and income taxes calculated on a flowthrough basis. 234

  - Tolls adjusted so that the average annual depreciation rate for the entire term is 5% if a shipper does not extend its contracted term of service. 235

- Rate base components of demand charges as follows: 236

  - Initial tolls based on a rate base of $42 million. 237

  - Deemed capital structure of 55% debt and 45% equity. 238

  - Cost of debt calculated using weighted average of Vector's actual cost of debt. 239

  - Base return on equity set at 11.5%, subject to an incentive adjustment where, within limits of 9.5% and 13.5%, for the primary term, the return is inversely increased or decreased by 0.50% for each + 10% change in capital costs. No change to the base rate of return for + 5% changes in capital costs. 240

- Equal sharing between Vector and current tollpayers of differences between actual incurred operating costs and adjusted base operating costs. 241

- Tolls subject to a cap of CAN 1.3¢/Dth for 15-year term agreements. Rate caps 15% higher for term agreements shorter than 15 years. 242

- Tolls calculated based on 1.07 PJ/day for contracted quantities below 1.07 PJ/day. 243

- Tolls calculated based on 1.07 PJ/day plus one half of the difference between the aggregate contracted capacity and 1.07 PJ/day for quantities above 1.07 PJ/day. 244

The Negotiated Toll Agreement also provides that tolls for gas shipped under transportation agreements with terms of less than 15 years would be 15% above the rate applicable to 15 year agreements. 245

Vector would file new tariffs every year, with tolls to be made effective 1 April of the year in which the filing is made. Vector would apply for interim tolls for the period of 1 January to 31 March of the year. 246

To either refund or collect, on a prospective basis, the variance between interim and final tolls for a calendar year, Vector applied for the following deferral accounts: 247

- Return on Deemed Equity Variance; 248
- Operating Cost Performance Benefit Sharing Account; and 249
- CPI Adjustment Account. 250

The three-month variance in each account would accrue carrying charges at Vector's prevailing short term cost of debt rate and be either refunded or collected as appropriate in the next succeeding toll year. 251

Finally, the negotiated agreement provides for interruptible transportation service for which the maximum toll would be up to the 100% load factor derivative of the toll for firm transportation service. 252

5.1.2 Just and Reasonable Tolls 253

Vector submitted that no party challenged either the justness or the reasonableness of its proposed toll methodology. It also submitted that the methodology was negotiated as a package, where it would be inappropriate to consider any one aspect in isolation of the others. Vector suggested that the Board should consider the fact that over 82% of the available capacity has been subscribed for as a strong endorsement of the proposed toll methodology. 254

Vector explained that, when it conducted the open season for the available capacity between 12 August and 30 September 1997, all shippers, affiliate or not, were provided with the same opportunity to participate and enter into precedent agreements on similar terms and conditions of service on the pipeline. Vector submitted that the proposed toll methodology and the results of the non-discriminatory open season fall within the *Board's Guidelines for Negotiated Settlements*. 255

While TransCanada stated that it took no issue with Vector's proposal as filed, it commented that, if the Board approves the 15% toll premium for contract terms less than 15 years, it would be setting a precedent on whether or not toll premiums or discounts based solely on contract length violate section 62 of the Act. TransCanada also expressed its support for a Board finding that term-differentiated tolls do not violate section 62 of the Act. 256

Vector replied that the Board has already approved term-differentiated tolls for Express Pipeline where tolls were set at different rates for different terms of service. Vector also suggested that temporal differences in tolls have been considered indirectly in the Board's guidelines concerning brokering of capacity in the secondary market, where there was a clear indication that different timing in market-competitive conditions can be reflected through different tolls. 257

258

Views of the Board

The Board has considered Vector's proposed toll methodology and the Guidelines for Negotiated Settlements, dated 23 August 1994. 259

The Board is satisfied that all parties with an interest in Vector's traffic, tolls and tariffs as determined by the negotiated settlement have had a fair opportunity to inform themselves on the details of the settlement. In the Board's view, parties were given a fair opportunity to have their interests recognized and appropriately weighed in the settlement, as evidenced by the manner in which Vector conducted its open season and negotiated the settlement. The public hearing also provided further opportunity for shippers to voice their concerns. 260

The Board considers that, in the context of this application, the terms during which the tolls would be applied are a factor in determining whether the associated difference in the tolls reflects different circumstances and conditions pursuant to section 62 of the Act. Regarding deferral accounts, the Board is prepared to authorize Vector to maintain, for the period that the settlement is in effect, the requested deferral accounts to give effect to the settlement. The Board also authorizes Vector to dispose of the balances in such deferral accounts from time to time in accordance to the terms of the settlement and this Decision. 261

The Board is satisfied that the settlement complies with the Board's 23 August 1994 Guidelines for Negotiated Settlements, and that the methodology for determining tolls set forth in the settlement would result in tolls which are just and reasonable. 262

Decision **263**

The Board finds that the settlement filed by Vector contains a methodology for determining tolls which are just and reasonable. The Board approves the settlement as filed. **264**

5.2 Method of Regulation 265

Vector applied to be treated as a Group 2 company for the purposes of the Board's *Memorandum of Guidance on the Regulation of Group 2 Companies* dated 6 December 1995 ("Memorandum of Guidance") and the Board's *Cost Recovery Regulations*. 266

267

No intervenor contested Vector's application in that regard. In final argument, however, TransCanada questioned whether the time has now come for the Board to reconsider the distinction between Group 1 and Group 2 companies for reporting purposes in light of increasingly competitive markets and the Board's clear intention to advance further toward full economic deregulation.

268

Views of the Board

269

The Board acknowledges that, since the issuance of the initial Memorandum of Guidance in 1985, the distinction between Group 1 and Group 2 companies regarding reporting requirements has lessened Group 1 pipelines, typically larger pipelines with many shippers and requiring ongoing financial regulatory monitoring, were subject to elaborate reporting, including Quarterly Surveillance and Performance Measures Reports. However, because of negotiated settlements, certain Group 1 companies were relieved from filing these reports. On the other hand, Group 2 companies are still subject to minimal submission of financial information and are regulated on a complaint basis.

270

As the Memorandum of Guidance does not identify specific criteria for determining whether a pipeline company should be given Group 1 or Group 2 status, the Board developed a number of guiding factors including (i) the size of the facilities, (ii) whether the pipeline transports commodities for third parties, and (iii) whether the pipeline is regulated under traditional cost-of-service methodology.

271

Having considered these factors in the circumstances of this case, the Board is of the view that Vector should be designated as a Group 2 company for the purposes of the Memorandum of Guidance. The Board notes that Vector will be required to file its tolls and tariffs with the Board prior to commencement of operation, and annually thereafter as proposed in the negotiated toll settlement.

272

The Board notes that there is no direct link between the Group 1 or Group 2 designation of a pipeline company for regulatory purposes and the classification of a company for cost recovery purposes. The share of the Board's expense for which Vector would be responsible is established by operation of law and the Board has no discretion to exercise in respect of this matter.

273

Decision

274

The Board has decided to regulate Vector as a Group 2 company for the purposes of the Memorandum of Guidance.

275

Chapter 6

Other Public Interest Considerations

276

Vector submitted that the need and justification for the proposed facilities are demonstrated by strong support from shippers through the execution of Precedent Agreements ("PAs"). Vector stated that it was also important to recognize that it would not commence construction of the applied-for facilities for service commencing in October 2000 until transportation agreements for the subscribed level of capacity (i.e., 23.4 10^6 m^3/d or 828 MMcfd) had been executed.

277

Vector said that it will bear all the risk associated with unsubscribed capacity. Therefore, according to Vector, it has significant incentive to provide competitive market-driven tolls for its shippers, and has done so by offering tolls with a price cap.

278

Vector argued that another important aspect which justifies the need for the proposed pipeline facilities, and a finding that the facilities should be considered as being in the public interest, is the fact that Vector will offer a competitive alternative in providing transportation service to growing Eastern Canadian and U.S. Northeastern markets. Having more competitive transportation alternatives generally provides benefits such as increased security of supply and liquidity in Canadian markets, as well as pipe-on-pipe competition for incremental demand requirements. Vector agreed that all the players in a competitive market are at some risk when a new competitor enters the market. Vector submitted that it does not expect excess pipeline capacity into Eastern Canada and the Northeastern United States for any extended period as a result of its proposal.

279

Consumers' Gas argued that the Vector pipeline project will provide seamless natural gas transmission service between the Joliet and Dawn hubs. Direct access between the Joliet and Dawn hub sites provides both shippers and consumers a competitive and alternative means of accessing multiple U.S. and Canadian markets, supply basins, storage providers, and upstream transporters.

280

According to Consumers' Gas, Vector will contribute to the further integration of the natural gas transmission systems within North America and the enhancement of the operational flexibility of interconnecting pipelines. Benefits will accrue to both shippers and consumers.

281

TransCanada submitted that the Vector pipeline project reflects the continued evolution of competition in the pipeline capacity marketplace. The company stated that it does not take issue with any of the details of the Vector pipeline project. However, TransCanada did raise regulatory questions related to the "interface" between the regulator, an incumbent and a new market entrant.

282

TransCanada suggested that the NEB has been prepared to apply a more relaxed public interest test to new market entrants when they declare themselves to be at-risk. However, TransCanada pointed out that, in the GH-3-97[1] decision, the Board stated that "when there is potential for existing shippers to be harmed by a planned expansion, the Board has a heightened responsibility to ensure that the proposed expansion facilities are likely to be needed." TransCanada argued that in pipe-on-pipe competition, the entire network of pipelines is at-risk, i.e., the existence of Vector means that TransCanada shippers could be harmed. So, TransCanada asked how the Board can relax its standards for an at-risk pipeline when shippers on other systems could be harmed.

284

TransCanada did not suggest that the Board return to requiring detailed upstream and downstream transportation, supply and market evidence. Instead, TransCanada advocated that the Board create a level playing field to permit incumbent and new market entrants to compete fairly.

285

According to TransCanada, the Vector proposal is virtually devoid of the evidence traditionally required to satisfy the Board that the new facilities are required by the public convenience and necessity. TransCanada asked "how little does it take?" to gain a finding that a project is in the public interest.

286

Union also expressed concern about the type of evidence that was required to be on the public record in the Board's consideration of a pipeline application. Union submitted that it was unsatisfactory for the Board and parties to be considering an application where the shippers have not even confirmed that they want the capacity, that is, the "Board of Director approval" provision of the PAs has not been satisfied.

287

TransCanada suggested that a pipeline proposal like Vector invited the question of whether the public interest is broader than ensuring that the pursuit of private interests is done safely with a minimal impact on the environment. The Company contended that, in a competitive environment, the general concept of what constitutes the public interest may need adjustment.

288

As Vector is not the only pipeline proposal that would provide transportation between Joliet and Dawn, TransCanada also raised the question of what criteria the Board would use to approve pipeline projects. "Is it going to be 'first-come/first-served'? Will the Board merely approve everything and let the market select the ones that go ahead?"

289

TransCanada stated that perhaps a condition should be imposed requiring Vector to demonstrate to the Board's satisfaction, before construction commences, that at least 50 percent of Vector's design capacity is contracted to accommodate new or incremental markets. However, TransCanada acknowledged that this type of condition would be too difficult to track and demonstrate.

290

In its concluding remarks, TransCanada wondered whether the questions it had raised are best dealt with in "one-off pipeline proposal applications."

283

[1] NEB Reasons for Decision dated November 1998 on an application dated 3 July 1997 by Alliance Pipeline Ltd. on behalf of the Alliance Pipeline Limited Partnership for the Alliance Pipeline Project.

291

Views of the Board

292

Based on the evidence of the available supply, markets and shipper commitments, which will be required to be confirmed prior to construction, the Board finds that the proposed project is economically feasible.

293

In addition to economic feasibility, however, there are other public interest considerations which have benefits and costs. In general, the public interest is served by allowing competitive forces to work, except where there are costs that outweigh those benefits. The economic benefits of Vector relate to increased competition and the additional transportation option it offers to shippers. Competition usually results in increased economic efficiency, choice and competitive rate structures. Supporting market choice is consistent with views previously expressed by the Board in MH-2-97[1] *and which apply here as well: the market should be permitted to operate; undue influence on the market should not be exercised by any individual or small group of individuals; and shippers must be permitted to exercise choice to have access to alternative means of getting their products to market. The Board is also of the view that Vector will contribute to increased security of supply and liquidity in Canadian markets.*

295

The economic costs of Vector concern the negative impacts on third parties. The Board accepts TransCanada's argument that, when capacity is added to a market, all pipelines and shippers in that market are potentially at-risk. Risk is an essential element of competition. It should be noted that it is generally incumbents that have a competitive advantage in offering expanded capacity, because they are able to expand in smaller increments than a greenfield pipeline and can normally "roll-in" tolls. TransCanada argued that some of its shippers could be harmed because of Vector. However, Vector does not expect a lengthy period of excess pipeline capacity in Eastern Canada. The Board finds no evidence of the certainty or magnitude of potential harm and is not persuaded that it would be significant.

296

With respect to TransCanada's concerns related to levelling the playing field between incumbent pipelines and new market entrants, the Board notes that, after raising the concerns, TransCanada itself questioned whether this hearing was the appropriate forum for dealing with such matters. Nor did TransCanada oppose the proposed Vector project based on these concerns. The Board concluded that the record before it in this proceeding is not sufficient to permit findings on these broad concerns and, in any event, that it can dispose of Vector's application without such findings.

294

1 NEB Reasons for Decision dated October 1997 on an application dated 12 May 1997 by Novagas Canada Ltd. requesting that the Board inquire into the practices of Westcoast Energy Inc. with respect to gas shipping arrangements at Taylor, British Columbia.

Other potential costs of the Vector Pipeline Project include negative environmental impacts and negative impacts on landowners. Despite the finding that the environmental impacts of Vector are mitigable in terms of the requirements of the Canadian Environmental Assessment Act, Vector would create some disturbance to the land and waterways it crosses. Similarly, even though landowners are satisfied with Vector's arrangements with them, they would not be impacted at all if Vector were not built. *297*

It is difficult to quantify the value of leaving a particular corridor and its landowners undisturbed, just as it is difficult to measure the benefits of competition and choice. In the circumstances of the Vector Pipeline, the Board finds that the proposal's benefits will likely outweigh the costs, and therefore the project is in the public interest. *298*

299

Chapter 7

Disposition

300

The foregoing Chapters constitute our Decisions and Reasons for Decision in respect of the application heard before the Board in the GH-5-98 proceeding. The Board has decided, pursuant to section 58 of the Act, to issue an Order granting Vector exemption from sections 29(1), 30(1)(a) and 31 of the Act in respect of the proposed Vector Pipeline.

301

The Board has not granted Vector an exemption from the requirements of section 47 of the Act. Vector will therefore be required, before initiating service, to apply to the Board for leave to open the pipeline.

302

R. J. Harrison
Presiding Member

303

K. W. Vollman
Member

304

D. Valiela
Member

305

Calgary, Alberta
March, 1999

Appendix I 306

List of issues

In the Directions on Procedure, the Board identified, but did not limit itself to, the following issues for discussion during the hearing: 307

1. The economic feasibility of the proposed Vector Pipeline Project and, in particular, the unique nature of the hub-to-hub pipeline service. 308

2. The potential environmental effects and socio-economic effects of the proposed Vector Pipeline Project including those factors outlined in subsection 16(1) of the *Canadian Environmental Assessment Act.* 309

3. The appropriateness of the location of the proposed facilities, land requirements and land rights acquisition process. 310

4. Vector's request to be regulated as a Group 2 company, as described in the Board's Memorandum of Guidance dated 6 December 1995. 311

5. The safety and the design of the proposed facilities. 312

6. The terms and conditions to be included in any order which may be granted. 313

7. The reasonableness of the proposed tolling methodology. 314

Appendix II 315

Order XG-V16-15-99

IN THE MATTER OF the *National Energy Board Act* (the "Act") and the Regulations made thereunder; and 316

IN THE MATTER OF an application, pursuant to section 58 and Part IV of the Act, by Vector Pipeline Limited Partnership ("Vector"), filed with the Board under File 3400-V016-001. 317

B E F O R E the Board on 22 March 1999. 318

WHEREAS the Board has received an application dated 6 July 1998 made pursuant to section 58 of the Act from Vector for the construction and operation of 24 km of 1 067 mm outside diameter natural gas pipeline extending from a point along the international boundary between the State of Michigan, USA and the Province of Ontario, Canada in the channel of the St. Clair River to a point of connection near Dawn, Ontario (the "Vector Pipeline") at an estimated cost of $35.4 million; 319

AND WHEREAS pursuant to the *Canadian Environmental Assessment Act* (the "CEAA"), the Board has considered the information submitted by Vector and has performed an environmental screening of the proposal and has considered all comments received in accordance with Hearing Order GH-5-98 regarding the CEAA environmental screening document and the information submitted by Vector; 320

AND WHEREAS the Board has determined, pursuant to paragraph 20(1)(a) of the CEAA, that taking into account the implementation of Vector's proposed mitigative measures and those set out in the attached conditions, the proposal is not likely to cause significant adverse environmental effects; 321

AND WHEREAS the Board has examined the application pursuant to Hearing Order GH-5-98 and considers it to be in the public interest to grant the relief requested; 322

IT IS ORDERED that the project described as the Vector Pipeline and related facilities are exempt from the provisions of sections 29(1), 30(1)(a) and 31 of the Act, upon the following conditions: 323

324

1. The pipeline facilities in respect of which this Order is issued shall be the property of and shall be operated by Vector.

2. Unless the Board otherwise directs: 325

   (a) Vector shall cause the approved facilities to be designed, manufactured, located, constructed and installed in accordance with those specifications, drawings and other information or data set forth in its application, or as otherwise adduced in evidence before the Board, except as varied in accordance with subsection (b) hereof; and 326

(b) Vector shall cause no variation to be made to the specifications, drawings or other information or data referred to in subsection (a) without the prior approval of the Board. 327

3. Unless the Board otherwise directs, Vector shall implement or cause to be implemented all of the policies, practices, recommendations and procedures for the protection of the environment included in or referred to in its application, the environmental reports filed as part of its application, its undertakings made to regulatory agencies, or as otherwise adduced in evidence before the Board during the GH-5-98 proceeding. These undertakings include the ones made by Vector during the GH-5-98 proceeding, which are described in Schedule A to this Order. 328

Prior to Construction 329

4. Unless the Board otherwise directs, Vector shall, at least 30 days prior to the commencement of construction of the approved facilities, file with the Board for approval an Environmental Protection Plan ("EPP"). The EPP shall be developed in consultation with regulatory agencies, stakeholder groups, interested parties and landowners. The EPP shall include: 330

(a) any specific mitigative measures which are developed as a result of the pre-construction surveys; and 331

(b) an updated Environmental Effects and Mitigation Measures Summary identifying all relevant environmental issues and the respective mitigative measures to be implemented to render any environmental effects insignificant. 332

5. Unless the Board otherwise directs, Vector shall monitor, both before and after construction, all water wells within 100 m of the proposed right of way, for water quality and quantity. 333

6. Unless the Board otherwise directs, Vector shall, at least 10 days prior to the commencement of construction of the approved facilities, file with the Board a detailed construction schedule or schedules identifying major construction activities and shall notify the Board of any modifications to the schedule or schedules as they occur. 334

7. Unless the Board otherwise directs, Vector shall file with the Board, at least 10 days prior to the commencement of construction, a detailed list, including job descriptions and qualifications, of the personnel who will be responsible for the inspection of the various pipeline construction operations. 335

8. Unless the Board otherwise directs, Vector shall file with the Board copies of any permits, approvals or authorizations, which contain environmental conditions, issued by regulatory agencies for the applied-for facilities, along with an updated list showing the status of these permits, approvals or authorizations, as they are received. In addition, Vector shall maintain up-to-date files containing any such information at relevant construction offices. 336

9. Unless the Board otherwise directs, Vector shall construct the crossings of watercourses containing flow at the time of the crossing in the North Sydenham River watershed, including Black, Bear and Booth Creeks, using a dry crossing method, and shall file with the Board the results of relevant consultation with federal and provincial agencies. 337

10. Unless the Board otherwise directs, Vector shall, at least 21 days prior to the commencement of construction of each wet watercourse crossing (i.e., an open cut crossing method through a flowing watercourse), submit the following additional information to the Board for approval: 338

(a) a construction schedule for the crossing; 339

(b) the construction design of the crossing; 340

(c) the proposed duration of the construction of the crossing; 341

(d) in-stream timing restrictions identified by regulatory agencies; 342

(e) an erosion and sediment control plan; 343

(f) the predicted zone of influence for the potential effects of sedimentation; 344

(g) detailed fish habitat mapping, including the identification of sensitive habitats, within the zone of influence; 345

(h) the site-specific mitigative and restorative measures to be employed as a result of consultations with regulatory agencies; 346

(i) a detailed pre- and post-construction monitoring program protocol for fish species and fish habitat, including the identification of responsibilities and schedule; and 347

(j) the status of approvals, including any environmental conditions imposed on approvals which have been received. 348

11. Unless the Board otherwise directs, Vector shall, prior to the commencement of construction of any of the approved facilities, demonstrate to the Board's satisfaction that, in respect of the transportation of firm volumes on the Vector system, transportation contracts have been executed for the subscribed capacity (i.e., 23.4 10^6 m^3/d (828 MMcfd)). 349

12. Unless the Board otherwise directs, Vector shall, at least 30 days prior to the commencement of the construction of any of the approved facilities, file with the Board for approval a copy of the final St. Clair River Water Quality Monitoring Program and the results of all relevant consultation with federal agencies, provincial agencies and the Walpole Island First Nation. 350

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During Construction

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13. Unless the Board otherwise directs, Vector shall, during construction, maintain for audit purposes at each construction site, a copy of the welding procedures and non-destructive testing procedures used on the project together with all supporting documentation.

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14. Unless the Board otherwise directs, Vector shall, at least 10 days prior to the disposal of any drilling waste, file with the Board all information which was required of Vector to meet all relevant regulatory requirements and guidelines.

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15. Unless the Board otherwise directs, Vector shall, at least 5 business days prior to the first disposal of drilling wastes, in the case of substances in the drilling waste which exceed limits prescribed by the provincial requirements and guidelines contemplated in Condition 14 hereof, provide the Board with the data analysis as to any such substances, together with any plans for any mitigation with respect thereto which would be required to comply with such requirements and guidelines.

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16. Unless the Board otherwise directs, in the event that any specialized habitat for wildlife, significant plant communities, or any plants or wildlife with a designated status are discovered during construction, Vector shall, in consultation with the appropriate regulatory agencies, implement the appropriate mitigative measures, and shall immediately notify the Board of such action.

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17. Unless the Board otherwise directs, Vector shall file with the Board the results of any consultation with the Ministry of Natural Resources regarding wetlands, and shall ensure that any wetlands disturbed by construction and construction-related activities are restored to their original contours and function.

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Post Construction

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18. Unless the Board otherwise directs, Vector shall, at least 21 days prior to the commencement of the hydrostatic testing portion of the project, file with the Board the information required by the Board's *Onshore Pipeline Regulations* and any specific mitigative measures that Vector intends to use for hydrostatic testing.

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19. Unless the Board otherwise directs, Vector shall, at least 15 days prior applying for leave to open the pipeline, file with the Board, for approval, the operations and maintenance manuals and emergency procedures.

20. Unless the Board otherwise directs, Vector shall file with the Board and submit to Environment Canada and the Department of Fisheries and Oceans a post-construction environmental report within six months of the date that the approved facilities are placed in service. The post-construction environmental report shall set out the environmental issues that have arisen up to the date on which the report is filed and shall: 360

(a) indicate those issues resolved and those unresolved; 361

(b) describe the measures Vector proposes to take in respect of the unresolved issues; 362

(c) provide a detailed summary of any problems encountered during the directional drilling activities and the measures taken to deal with those problems, including the effectiveness of those measures; 363

(d) provide a report of the results of the water quality monitoring program and all other monitoring requirements identified in these conditions, conducted before, during and after construction, including all data acquired; and 364

(e) describe the effectiveness of the reclamation measures at the directional drill staging areas. 365

21. Unless the Board otherwise directs, Vector shall file with the Board and submit to Environment Canada and the Department of Fisheries and Oceans, on or before the 31 December that follows each of the first two complete growing seasons after the post-construction environmental report referred to in Condition 20 (the "Report") is filed: 366

(a) a list of the environmental issues indicated as unresolved in the Report and any that have arisen since the Report was filed; and 367

(b) a description of the measures Vector proposes to take in respect of any unresolved environmental issue. 368

General 369

22. Unless the Board otherwise directs, Vector shall not place the applied-for facilities in service before 1 October 2000. In the event that Vector applies to the Board requesting an earlier in-service date, Vector shall file with the Board and serve upon all GH-5-98 interested parties information that demonstrates the need and justification for an earlier in-service date. 370

23. Unless the Board otherwise directs prior to 31 December 2001, this Order shall expire on 31 December 2001 unless the construction of the approved facilities has commenced by that date.

NATIONAL ENERGY BOARD

Michel L. Mantha
Secretary

Schedule A 372

During the GH-5-98 proceedings, Vector committed to the following undertakings related to certain environmental issues: 373

(i) To conduct a survey of culvert and other drainage facilities within proximity of the proposed horizontal directional drill areas to identify any that could lead to inadvertent returns to the St. Clair River of drilling mud and sediments from surface disturbance, and to file the results of the survey with the Board. 374

(ii) To conduct detailed surveys for breeding birds, plants and reptiles along the proposed pipeline route during 1999, focussing on provincially rare and COSEWIC-listed species, and to file the results with both Environment Canada and the Board by the end of 1999. 375

(iii) To develop a mitigation plan, in consultation with Environment Canada and the Ministry of Natural Resources, for each species of special status that may be affected by the construction and operation of the pipeline, and to file these plans with the Board. 376

(iv) To conduct a survey of those watercourses containing flow during the pre-construction validation exercise, following the same methods as outlined in Vector's 1998 Fisheries Assessment (Exhibit B-24), and to file the results with the Board. 377

(v) To file with the Board for approval the proposed crossing method for each watercourse. 378

(vi) To carry out bank revegetation using bio-engineering techniques, where practical and in consultation with Environment Canada, the Department of Fisheries and Oceans, and the Ministry of Natural Resources. 379