

ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

NOVA GAS TRANSMISSION LTD.

APPLICATION TO CONSTRUCT A SWEET

NATURAL GAS TRANSMISSION PIPELINE

CENTRAL ALBERTA SYSTEM MAIN PIPELINE LOOP #2

SUNDRE TO CARSTAIRS AREA (HARMATTAN SECTION)

Decision 98-14

Application No. 1003985

1 INTRODUCTION

NOVA Gas Transmission Ltd. (NGTL) applied on 26 November 1996 for a permit to construct a sweet natural gas transmission pipeline approximately 31.2 kilometres (km) in length with a maximum 1219.2-millimetre (mm) outside diameter (OD) from an existing pipeline tie-in point located in Legal Subdivision 8, Section 6, Township 33, Range 4, West of the 5th Meridian, to an existing pipeline tie-in point in Lsd 9-29-30-2 W5M. NGTL identified this segment of pipeline as the Harmattan section of NGTL's Central Alberta Mainpipeline System Loop #2.

By letter dated 16 January 1997, the Edwards family, owners of the northwest, southwest, and southeast quarters of Section 6-31-2 W5M, contacted the Board indicating concerns with the location of the proposed pipeline on their property. NGTL requested that the Board proceed to approve the pipeline route to a point northwest of the Edwards' land, since the only outstanding concerns related to the location of the portion of the pipeline on the Edwards' land. The Board further received indication from the Edwards, in a letter dated 30 July 1997, that they were not taking a position with respect to NGTL's request. The Board was satisfied that the need for this portion of pipeline was demonstrated by NGTL and, therefore, granted a permit for the portion of the pipeline from Lsd 8-6-33-4 W5M to Lsd 9-11-31-3 W5M, as described in Application No. 1009914. The Board directed that the remaining 7.0 km portion of the Harmattan pipeline from Lsd 9-11-31-3 W5M to Lsd 9-29-30-2 W5M, as described in Application No. 1003985, be considered at a hearing. Citing the time required to receive regulatory approval, NGTL advised that construction of the remaining 7.0 km would be scheduled for the spring/summer of 1998.

The locations of the existing pipeline corridor proposed and alternative routes presented at the hearing by both parties are shown on the attached figure.

2 NOTICE AND HEARING

A public hearing of Application 1003985 was originally scheduled for 30 July 1997. In response to the Edwards' request for an adjournment, the hearing was postponed to 27 August 1997. At the opening of the hearing on 27 August 1997, the Edwards made a request for a further adjournment, which was granted. The application was considered at a hearing in the Westcott Hall, Westcott Road, Alberta, on 2 October 1997, before Board Chair C. Bélanger, and Acting Board Members K. G. Sharp, P.Eng. and R. J. Willard, P.Eng. Those who appeared at the hearing are listed in the following table.

THOSE WHO APPEARED AT THE HEARING

Principals and Representatives (Abbreviations Used in Report)

Witnesses

NOVA Gas Transmission Ltd. (NGTL)

J. M. Liteplo
H. D. Williamson, Q.C.

D. J. Thompson
K. J. Phaff, P.Eng.
C. D. Shaw, P.Eng

The Edwards Family (the Edwards)

S. M. Munro
B. K. O'Ferrall

G. (Grant) Edwards
G. (Gary) Edwards
D. Edwards
R. A. Berrien,
Berrien Associates Ltd.

Alberta Energy and Utilities Board staff

D. F. Brezina, Board Counsel
P. R. Forbes, C.E.T.

3 PRELIMINARY MATTERS

At the onset of the hearing, several issues were raised by the Edwards with respect to the completeness of a separate application by them for the relocation of NGTL's existing pipelines and the Foothills Pipe Pipelines (Alberta) Ltd. (Foothills) pipeline, which currently occupy the pipeline corridor across the Edwards' land. The Edwards viewed the existing pipelines as inappropriately positioned relative to their future land use, and wanted all pipelines relocated. The Edwards believed that approval of another pipeline within the existing coordinator would be contrary to their application for relocation.

Board reiterated its previous ruling as set out in its correspondence of 15 April 1997, which was to proceed to a hearing to review NGTL's application for the proposed pipeline. The Board indicated it was prepared to hear all the evidence submitted by the parties relevant to NGTL's application and within the Board's jurisdiction, including routing and alternative routing. The Board also restated its view that the relocation application by the Edwards was incomplete. Once a complete application was filed, the Board would consider the application and the matters within its jurisdiction. By the 2 October hearing date, the Board had not received the additional information required to permit an examination of the Edwards' application.

At the commencement of the hearing, the Board and hearing participants viewed the proposed route on the Edwards' land in the northwest, southwest, and southeast quarters of Section 6-31-2 W5M.

4 BOARD COMMENTS

4.1 Public Consultation

The Board considers it essential that there be effective communication between applicants and the public who are potentially affected by proposed facilities so that concerns may be raised, properly addressed, and if possible, resolved without a public hearing. Applicants' public consultation programs should provide all potentially affected parties with sufficient information to understand the proposal and its potential impacts. To facilitate this understanding, the Board expects applicants to convey technical information in a manner which is understandable to persons not fully familiar with the operations of the energy industry. In addition, the Board expects landowners and other members of the public to participate actively in consultation programs.

In their written submissions and during the hearing, NGTL and the Edwards commented on each other's lack of commitment to meaningful consultation and dispute resolution and on the inadequacy of their respective efforts in this regard. While the Board has insufficient evidence to ascertain the cause of the problem, it is apparent that the dialogue between both parties has been less than constructive for some time. In the Board's view, it is regrettable that NGTL and the Edwards were unable to communicate more effectively in this case.

5 ISSUES

The Board notes that the Edwards did not dispute the need for the pipeline to permit NGTL to serve its customers in an efficient manner.

The Board considers the issues to be:

- \$ route selection,
- \$ impacts on land use, and
- \$ impacts of existing pipelines and safety.

6 ROUTE SELECTION

6.1 Views of NGTL

NGTL applied to construct approximately 7.0 km of new pipeline from a pipeline tie-in point located in Lsd 9-11-31-3 W5M to a pipeline tie-in point in Lsd 9-29-30-2 W5M. As amended, the proposed pipeline would be located within an existing pipeline right of way (ROW), utilizing an existing pipeline corridor. This corridor is 58.43 metres (m) wide containing two NGTL 762 mm OD and 1067 mm OD pipelines constructed in 1965 and 1971 respectively, and a 1067 mm OD Foothills pipeline constructed in 1981. NGTL indicated that the distances from Mr. Gary Edwards' residence to the two existing NGTL pipelines are approximately 65 m and 77 m respectively, and approximately 52 m to the Foothills pipeline. NGTL stated that the proposed pipeline would be approximately 89 m from Mr. Gary Edwards' residence.

NGTL provided an Alternative Routing Study which investigated three additional routes. All of the alternative routes would avoid the Edwards' land except for a portion of Route A, which would traverse lands occupied by the Edwards in the northeast quarter of 36-30-3 W5M. NGTL indicated that although it believed that the alternative routes were technically feasible, the applied-for route was superior because of the following:

- C it followed the existing pipeline corridor for 100 per cent of its length in conformance with the Board's Informational Letter 80-11, *Joint Use of Right of Way* (IL 80-11),
- C it is shorter than the alternative routes by approximately 700 m to 1100 m and, therefore, will cause the least amount of environmental impact and land disturbance,
- C it crosses the least amount of cultivated lands,
- C the cost is approximately \$1 million to \$1.3 million lower than the alternatives, and
- C no new landowners would be impacted by the applied-for route.

In response to the Edwards' proposed alternative routes, NGTL indicated that the routes were unacceptable since they were not based upon sound engineering practices, would add additional angles that were not technically practical, would add additional length and cost, and would cause a fragmentation of the Edwards' land. Additionally, NGTL believed that locating the pipelines on alternative routes would not minimize the impacts that may already exist because of the existing pipelines and therefore, would simply increase pipeline ROWs on the Edwards' lands.

6.2 Views of the Edwards

The Edwards family indicated that they were opposed to the routing of the pipeline along the existing corridor, regardless of whether or not it was placed within the existing ROW. The Edwards were opposed to adding any additional pipelines within the existing corridor, since it would further impact the family's ability to expand its dairy farm. While a total relocation of all pipelines remained the Edwards' preference, they suggested three alternative routes.

The Edwards indicated that they wished to establish a new corridor to which existing pipelines could be relocated. The Edwards believed that this would lead to an appropriate pipeline corridor to the advantage of both parties. The Edwards believed that an alternative route on their land for the proposed pipeline would be the first in a series of steps towards the achievement of this goal. The Edwards' alternatives were mostly on their own property so as not to pose a problem to their neighbours. The Edwards were prepared to accept incremental fragmentation of their land to advance their long term objective of relocation.

The Edwards did not agree with NGTL's critique of their alternative routes. The Edwards stated that the angles, routing, and length were similar to those of the NGTL alternatives. Additionally, the Edwards believed that since their alternatives were similar to NGTL's, the costs of deviating from the corridor would also be similar. Therefore, the Edwards believed that if NGTL's alternative routes were acceptable from a technical point of view, then the Edwards' alternative routes were also acceptable.

6.3 Views of the Board

The Board is of the opinion that the criteria used by NGTL to determine the appropriateness of the route of its proposed pipeline generally encompass the considerations and constraints that pertain to the selection of a pipeline route. Therefore, the Board finds the criteria acceptable. However, with respect to the process NGTL followed in using the criteria to determine the appropriateness of the applied-for route, the Board is not satisfied that NGTL consulted potentially affected landowners about alternative routes through and around the Edwards' property in a meaningful way. The Board would have been assisted in its deliberations by better information on the views of these parties on NGTL's alternative routes. In addition, it is not evident that the Edwards were fully consulted in NGTL's investigation of alternative routes.

With respect to the study of alternative routes put forward by the Edwards, the Board notes that no cost estimates were provided. In the Board's opinion, it would have been possible for the Edwards to obtain cost estimates from different sources. While the Board believes that the costs of the Edwards' alternative routes would be of an order of magnitude similar to NGTL's alternative routes, the lack of cost estimates precluded the Board from fully evaluating the merits of one alternative route over another or comparing the Edwards' alternatives to the routes considered by NGTL. In addition, no evidence was provided in support of the Edwards' contention that their neighbours, the Murphys and the Klincks, consented to their proposed alternatives.

Notwithstanding the deficiencies in the route selection studies provided by NGTL and the Edwards, the Board is satisfied that it has sufficient evidence to assess the appropriateness of NGTL's applied-for route. In this regard, the following findings are apparent to the Board. The proposed route and the alternatives put forward by NGTL and the Edwards are technically feasible. All alternative routes are costlier than the proposed route. The environmental impacts of NGTL's proposed route is less than any of the alternative routes as new land would be disturbed with each one. In the following section, the Board will address the proposed route's compatibility with existing and intended land uses.

7 IMPACTS ON LAND USE

7.1 Views of NGTL

In response to the Edwards' concerns regarding the impact of the proposed pipeline on their ability to expand their dairy farm, NGTL indicated that it would place the new pipeline within the existing pipeline ROW and therefore, no additional land would be sterilized to accommodate the 1.5 km of pipeline on the Edwards' land. NGTL stated that it would only require an additional 22 m for temporary work space, instead of the 19 m of new permanent ROW that would be required if the proposed pipeline were to parallel the existing ROW. NGTL indicated that the proposed pipeline would not cause any incremental impacts on the Edwards' ability to expand their dairy farm, other than those which may exist as a result of the existing pipelines. Additionally, NGTL explained that with the exception of permanent structures such as buildings, improvements such as fences, corrals, and mobile buildings could be placed on NGTL ROWs with NGTL's consent. Also NGTL would not recommend permanent buildings be built immediately adjacent to its ROWs.

NGTL indicated its two existing pipelines across the Edwards' land were constructed in 1965 and 1971 respectively, when the pipeline corridor was first established. The Foothills pipeline, which is under federal jurisdiction, was constructed in 1981. NGTL believed that by constructing the proposed pipeline within an existing corridor, it would minimize the number of landowners affected and meet the Board's expectations for joint use of ROWs as set out in IL 80-11. For this reason, NGTL believed using the existing corridor would be in the public interest.

Furthermore, NGTL indicated that it believed the Edwards purchased the land with one existing NGTL pipeline on it and that the Edwards signed easements for the second NGTL pipeline and Foothills pipeline after subsequent land purchases. Additionally, NGTL indicated that the Foothills pipeline was placed between the NGTL pipelines and the Edwards' residence. NGTL noted that its proposed pipeline would be located on the other side of the existing pipelines and therefore, farther away from the Edwards' residence, buildings, and yard than the existing pipelines.

7.2 Views of the Edwards

To expand the Edwards family farm operations, Mr. Gary Edwards and Mr. Grant Edwards, sons of Mr. Jack Edwards, indicated that they wanted to start their own dairy and breeding operations. Mr. Gary Edwards indicated that he had sufficient financing to proceed with his plan. The Edwards indicated that their preference was to develop farm yards in the northwest and southeast quarters of Section 6, each capable of supporting 100 head of cattle, because of the need for independent mortgage security, disease control, fire safety separation, and avoidance of asset concentration. Additionally, they believed that it is important to site the operations within the family's existing lands and in close proximity to each other to facilitate labour exchange, to manage heifer and dry cow exchange without trucking, to keep their families close for babysitting and visits, and to facilitate security and premise checks. With the natural slope of the land falling towards the northeast and the need to manage manure disposal in that direction, the Edwards believed the most cost effective location for the yards were the southwest corners of the two quarter sections. Given that properly planned yards in these locations would require a number of permanent and temporary facilities in locations currently occupied by the existing pipeline ROWs, the Edwards contended that such developments were precluded and that their ability to maximize the agricultural use of their lands was therefore limited. The Edwards acknowledged that NGTL allows, with the exception of permanent structures such as buildings, such structures as fences, corrals, and mobile buildings to be placed on its ROWs. However, in order to expand their dairy farm, the Edwards submitted that they needed to place permanent structures on the existing ROWs. Therefore, the Edwards believed that the proposed routing should be rejected as additional use of the existing ROW would further hamper any opportunity to have the existing pipelines eventually relocated to a different alignment on their land in the future. Additionally, the Edwards believed that if the proposed routing were approved, more pipelines were likely to be placed in the corridor in the future, resulting ultimately in the expansion of the corridor and the sterilization of additional land.

With regards to the purchase of their lands, the Edwards indicated that the southwest quarter was purchased in 1960. The Edwards were unclear as to whether an NGTL pipeline existed at that time. However, with regards to signing an easement for the second NGTL pipeline and subsequent Foothills pipeline, the Edwards believed that they never signed an easement because neither NGTL nor Foothills would agree to change the word *Aines* to *Aine* in their respective agreements.

Therefore, the Edwards believed that the ROWs for the second NGTL pipeline and the Foothills pipeline were obtained through some form of right of entry order.

With regards to IL 80-11, the Edwards believed its intent was to minimize the impacts of multiple ROWs on landowners' ability to use their lands by fostering the joint use of ROWs. They submitted that placing the proposed pipeline in the existing ROW was not in the public interest in this instance because this would further impact expansion to their dairy farm. In addition, the Edwards were of the view that the principles enunciated in IL 80-11 should only be applied in situations where the initial route selection took into account proper land use planning standards. They contended that this was not the case on their lands.

7.3 Views of the Board

In IL 80-11, the Board requests that joint use of unused portions of ROWs be considered by pipeline proponents where such a practice would be feasible and would significantly reduce the impact on a landowner's use of land. Given the feasibility of using an unused portion of the ROW in this case, the Board believes that it is appropriate to consider the objectives underlying IL 80-11 in evaluating the acceptability of the land use impacts of the proposed pipeline route.

The Board is of the view that placing the proposed pipeline in the existing pipeline corridor in a manner which obviates the need for additional ROW will have no long-term, adverse incremental impact on the current use of the Edwards' land for dairy farming. While there will be short-term impacts on land use resulting from the construction of the pipeline, the Board believes that these impacts can be easily mitigated within one to two years of construction. It is satisfied with NGTL's mitigation plans.

With respect to future land use, the Board acknowledges the Edwards' concerns with respect to their ability to start two new dairy farms on their property in an optimum manner given the existing pipeline corridor across their land. The Board notes that the pipelines within the existing corridor were constructed over the period 1961 to 1981, whereas the Edwards' development plans appear to be more recent. It would have been difficult when decisions were taken to approve these pipelines to have considered their impacts on future developments when plans were not yet fully conceived. The Board is of the view that the presence of an additional pipeline within the existing corridor will not, in and of itself, change the ability of the Edwards to realize their intended expansion.

The Board also acknowledges the Edwards' desire to locate the proposed pipeline elsewhere on their land and, ultimately, to have the existing pipelines relocated in close proximity to it in order to facilitate their development plans. In this regard, the Board notes that the Edwards' relocation application is not yet before it because the application is deficient. Should the application eventually move forward, its outcome is obviously unknown at this time. Under these circumstances and taking into account the additional environmental and cost impacts of an alternative route, the Board is not persuaded that it should sanction further fragmentation of the Edwards' land as proposed by the Edwards. While the presence of an additional pipeline in the existing corridor may complicate the question of relocation, the Board believes that the Edwards' case for relocation would not be unduly hampered as a result.

The Board is satisfied that, taking into account the uncontroverted need for the pipeline and the unfavourable aspects of the alternative routes, the proposed pipeline would not have substantial adverse incremental effects on future land uses which would militate against its selection given

its location within an existing pipeline corridor. Therefore, the Board finds the proposed route acceptable.

8 IMPACTS OF EXISTING PIPELINES AND SAFETY

A number of issues were raised in the course of the hearing with respect to the impacts of existing pipelines and safety.

8.1 Views of NGTL

NGTL referenced its safety record and stated its belief that its network of pipelines was the most technologically advanced and among the safest of pipeline systems.

With regards to the inability of trees to grow to full maturity in the pipeline corridor near Mr. Gary Edwards' residence notwithstanding repeated plantings, NGTL indicated that the majority of the locations in question were on Foothills' ROW. However, NGTL believed that the problem could be the result of a number of factors not necessarily related to the presence of pipelines. It had directed one of its environmental specialists to assess the problem and it was the specialist's opinion that the problem could be due to insufficient moisture, wind damage caused by inadequate support of the trees, the type of soil, lack of nutrients, or improper planting procedures. NGTL indicated that it had mailed a publication by Alberta Agriculture, Food and Rural Development, to the Edwards that explains the growing of shelter belts in Alberta, in the hopes that this would be helpful to them. NGTL further indicated that since the bulk of the problem trees were located on the Foothills ROW, it was not prepared to replace any of them.

With regards to the Edwards' concerns with the lack of growth of wild stands of trees on the existing ROW, NGTL believed that these types of trees may have initially been removed and have never grown back for various reasons. NGTL could not provide a specific solution to this problem, but suggested that the problem was likely a direct result of the Edwards' cattle trampling any new growth.

In response to the Edwards' concerns regarding weeds and thistles growing on the existing ROW, NGTL believed that this problem was not due to poor construction and maintenance practices as suggested by the Edwards. NGTL indicated that weed seeds can remain dormant within the top soil, and if the top soil is disturbed, the dormant seeds could be exposed and develop. NGTL stated that it could be possible to control the weeds by spraying the hay field. However, NGTL was reluctant to do this because the hay field may be negatively affected.

8.2 Views of the Edwards

Mr. Gary Edwards expressed a general concern about his family's safety with the number of large diameter pipelines in close proximity to his residence.

The Edwards believed that the tree problems near Mr. Gary Edwards' residence were caused by the pipeline ROW. The Edwards indicated that they had made many attempts to grow trees and had tried many types of trees; however, none of them would grow satisfactorily on the ROW. The Edwards did not dispute that the majority of the problem trees were on the Foothills ROW, although they thought that the combined heat effect of multiple pipelines may have contributed to the continued losses.

The Edwards indicated that wild stands of trees were also not growing on the existing ROW. The Edwards agreed with NGTL's assessment that trees did grow better off the pipeline ROW and did not dispute NGTL's contention that the trees may not be growing back as a result of the activity of the Edwards' cattle.

With regards to the problem of weeds and thistles growing on the ROW, the Edwards believed that this was primarily due to poor construction and maintenance practices and that NGTL has not fully addressed this concern. However, the Edwards agreed that spraying may affect the hay field and, therefore, acknowledged that this may not be an appropriate solution.

8.3 Views of the Board

While the Board recognizes the Edwards' concerns and perceptions regarding safety, it is satisfied that NGTL does comply with the appropriate regulations, codes, and standards with regards to its pipelines. These regulations, codes, and standards exist to protect public safety.

With respect to the problem of sustained tree growth near the residence of Mr. Gary Edwards, the Board acknowledges NGTL's attempt to analyze the problem and suggest solutions to the Edwards. However, it is the Board's view that it would have been more appropriate for the Edwards to have raised these concerns with the appropriate operator, Foothills. In the interest of cooperation, NGTL may wish to raise the matter with Foothills and ask it to review the concerns on the Edwards' behalf. However, the Board believes that NGTL should continue to assess any problems with tree growth on its ROWs and make every effort to resolve them.

There was insufficient evidence presented at the hearing to enable the Board to determine a cause for the lack of regrowth of wild tree stands or identify a solution. As with the problem near the residence of Mr. Gary Edwards, the Board expects NGTL to work with the Edwards to address their concerns.

With regard to weeds and thistles that may have resulted from the pipeline ROWs, the Board accepts NGTL's position that weed seeds may lie dormant within the top soil, and that by disturbing the top soil, the dormant seeds may be exposed and develop. However, the Board believes that the development of any dormant weed seeds and the existing problem of weeds and thistles are a direct result of the ground disturbances performed by both NGTL and Foothills. The Board believes that any future disturbance could cause additional weeds and thistles along the ROWs. Since the majority of pipeline ROWs belong to NGTL, the Board believes that NGTL should determine methods to resolve the weed and thistle problems that are acceptable to the Edwards and continue to maintain weed and thistle control on the ROWs.

9 DECISION

Having carefully considered all of the evidence, the Board approves Application No. 1003985 and directs that the appropriate permit/licence be issued for the pipeline.

DATED at Calgary, Alberta, on 26 June 1998.

ALBERTA ENERGY AND UTILITIES BOARD

<Original signed by>

C. Bélanger
Board Chair

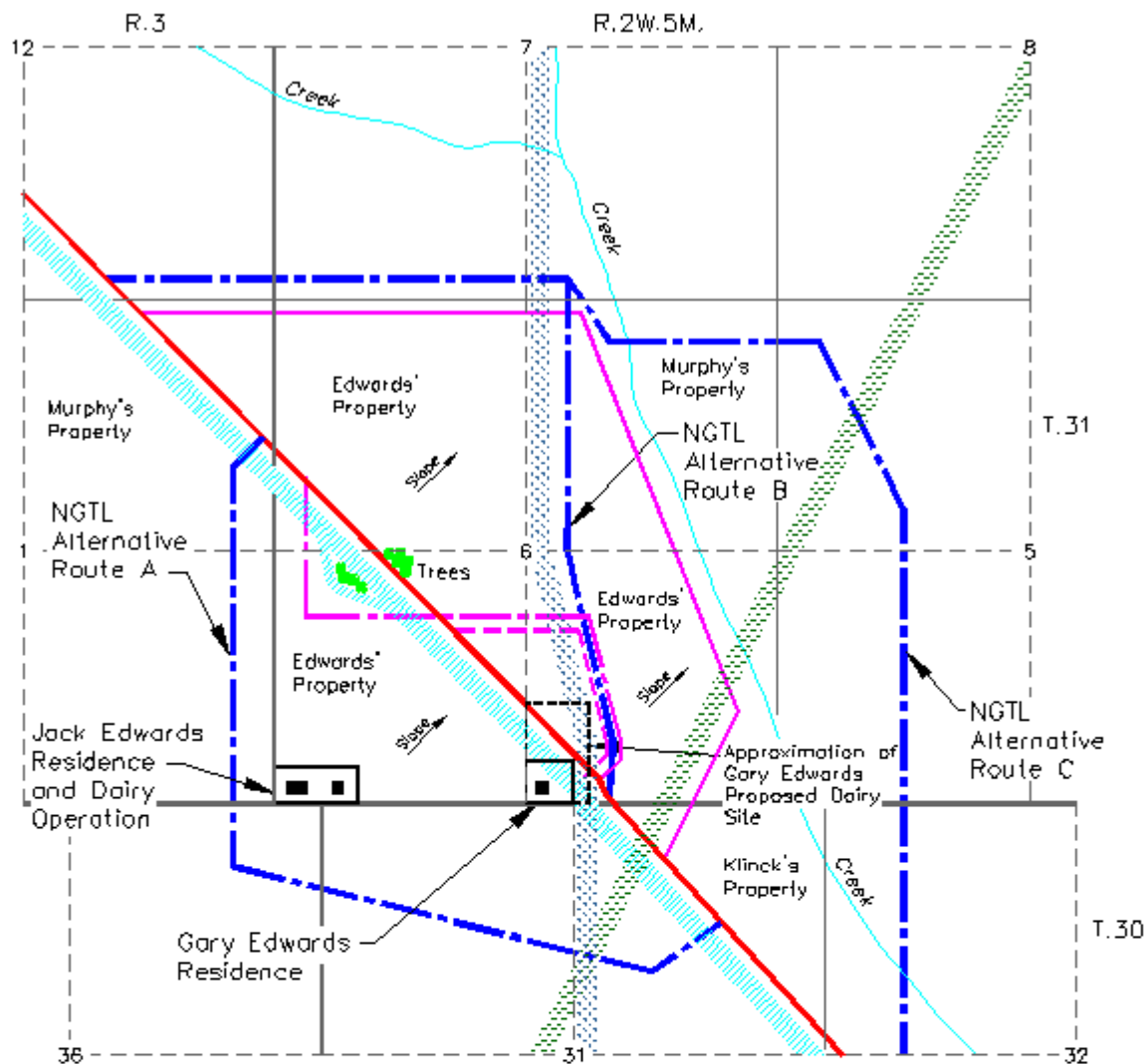
<Original signed by>

K. G. Sharp, P.Eng.
Acting Board Member

<Original signed by>

R. J. Willard, P.Eng.*
Acting Board Member

* R. J. Willard was not available for signing but concurs with the contents and the issuance of this report.



Legend

- | | | | |
|--|---|--|---------------------------------|
| | Proposed NGTL Pipeline Route | | Existing Pipeline Corridor |
| | Study of Alternative Routes A, B, C. | | Edwards Alternative Route No. 1 |
| | Abandoned Electric Transmission Line Right of Way | | Edwards Alternative Route No. 3 |
| | Existing Electric Transmission Line Corridor | | Edwards Alternative Route No. 4 |

Note: The Edwards' alternative route No. 2 is the same as alternative route No. 1, with existing lines relocated on the same alignment. However the relocation of existing lines is not addressed in this decision report.

Current Land Feature and Proposed Alternative Routes

Application 1003985

NOVA GAS TRANSMISSION LTD.

Decision 98-14