



January 31, 2006

Mr. Herb Norwegian
Chairman
Deh Cho Land Use Planning Committee
Box 199, Fort Providence
NWT X0E 0L0

Dear Mr. Norwegian:

Re: Response to November 2005 Draft of Dehcho Land Use Plan

The Canadian Association of Petroleum Producers (CAPP) represents 150 companies that explore for, develop and produce more than 98 per cent of Canada's natural gas and crude oil. CAPP also has 125 associate member companies that provide a wide range of services that support the upstream oil and natural gas industry. Together, these members and associate members are an important part of a \$90-billion-a-year national industry that affects the livelihoods of more than half a million Canadians.

Thank you for the opportunity to provide comments on the November 2005 draft of the Dehcho Land Use Plan (the Plan). CAPP has reviewed the Plan and has provided an overview of our concerns in the letter below and some more detailed comments in the accompanying attachments.

CAPP is pleased to note the draft Plan reflects comments made in our previous submissions to the Dehcho Land Use Planning Committee (the Committee). We also acknowledge the timely response from the Committee to our comments and the effort made to keep industry informed on the ongoing development of the Plan.

However, despite the current revisions, CAPP remains concerned that the plan still contains components that will unnecessarily constrain activity in the Deh Cho

Access to Resources

The Plan as drafted places geographic and operational constraints on industry as oil and gas activity is restricted from most of the Dehcho region. Many regions where it is permitted are isolated zones of limited area or of low oil and gas potential. The cumulative effects thresholds proposed place further constraints on industry's activities in those areas where activity is allowed. CAPP recognizes

that the conditions of the Plan are to be reviewed through adaptive management, however we feel that the initial conditions put in place are overly burdensome and place uncompetitive conditions on activity in the Dehcho. Ultimately, the Dehcho region could be deprived of the benefits from responsible development.

Cumulative Effects

CAPP recognizes the many revisions made to the cumulative effects thresholds proposed in the draft, but we remain concerned that the thresholds are unnecessarily restrictive and will ultimately prohibit industry from undertaking commercially viable projects.

To some extent, this has already been demonstrated through the baseline analysis of the cumulative effects footprint in the region. The thresholds proposed are being surpassed in the limited areas in the Dehcho where development is already occurring. However, the oil and gas developments in the region have not progressed to commercial production operations. If the thresholds proposed preclude commercial development, there is no incentive for companies to explore and develop. The attachment provided further outlines some of the operational impacts that industry foresees should the Plan be adopted as proposed.

Complexity and Mandate of the Plan

The Plan needs to clearly present the land use vision for the region, focusing on which zones are being protected, what values are being protected, and what type of activities will be prohibited in each type of zone. To this end, we recommend putting the zone descriptions in the Plan and not the Background Report. As drafted, the Plan contains several provisions that are traditionally addressed through the regulatory approval process or a benefit plan, and not in a land use planning exercise. Many of the Conformity Requirements, Actions, and Recommendations identified in the Plan - for example consultation and revegetation - fall outside the scope of land use plans and would be better addressed through these other means.

Constraints on Industry and Economic Well-Being

CAPP notes that the purpose of the Plan is to “promote the social, cultural and economic well-being of the residents and communities of the Dehcho territories, having regard to the interests of all Canadians.” CAPP believes that the Plan must continue to be revised to take into account the economic opportunities that can arise from oil and gas development. At the very least, greater flexibility must be introduced in order to better realize development opportunities as they arise. The Plan, as drafted, fails to appropriately promote the economic well-being generated from responsible development of the region through its excessive restrictions on industry.

Approval Timeline

CAPP recommends extending the deadline for final approval of the Plan beyond the end of March to allow for thorough and meaningful consultation on the next draft. We are concerned that there will be insufficient time to incorporate and review changes made as a result of comments on this draft as well as those that will be brought forward in the Regional Forum in February.

If you would like to discuss our comments, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Alvarez', with a long horizontal flourish extending to the right.

Pierre Alvarez
President
Canadian Association of Petroleum Producers

CC: Honourable Joe Handley, Premier of Northwest Territories
Deputy Minister Michael Horgan, INAC

CAPP Detailed Comments

CAPP has previously outlined our concerns with iterations of the draft Plan in our submissions and consultations sessions with the Committee. We believe many of the points previously raised continue to be of concern, however, in this submission, we will focus on the more critical points.

Cumulative Effects

CAPP notes that revisions have been made to the cumulative effects components of the Plan to simplify the terms and application of the thresholds. We believe these, to some extent, reflect our concern that there is currently insufficient science relevant to the Dehcho to establish with certainty the cumulative effects thresholds. Furthermore, we are pleased to note that the latest draft contains specific actions aimed at addressing the data gaps, though there are no specific measures or funding identified to do so.

However, CAPP remains concerned about the overall impact of the cumulative effects approach in the draft Plan on industry activity. The draft Plan states that in areas of “concentrated development” the proposed thresholds are being surpassed. Yet oil and gas development will almost certainly occur in concentration. It is unlikely that activity would be evenly spaced but rather concentrated where there is oil and gas potential. The fact the thresholds have been surpassed in those few areas where development is occurring strongly suggests that the thresholds proposed will not allow for the full cycle of future oil and gas activity.

Reclamation

The Plan has measured the baseline disturbance levels across the region without taking into account reclamation or remediation of land, nor identifying appropriate means to do so. This has most likely resulted in a baseline disturbance level that is higher than actual disturbance on the ground.

Linear Disturbances

The draft Plan fails to take into account the significant information that suggests size, access, and human use are all factors in determining the effect of a linear disturbance. The Plan characterizes all linear disturbances equally.

Linear Disturbance Definition

The draft Plan states that any linear disturbance of 1.5m or less in width will not be included in the density analysis; the “Deh Cho Cumulative Effects Study Phase 1: Management Indicators and Thresholds” (Salmo Report), upon which the cumulative effects component of the draft Plan is largely based, proposed any linear disturbance over 3m wide. In CAPP’s previous submission, we pointed out that there was no scientific evidence to suggest that 1.5m wide was an ecologically significant barrier. CAPP was informed 1.5m has been chosen because this width triggers regulatory approval. We question why this one indicator is based on regulatory approval when all others are

based on the Salmo Report. Cumulative effects should be based on ecological significance and environmental impact as determined through scientific research.

CAPP notes that every other cumulative effects indicator and thresholds proposed in the Plan, including the linear density threshold of $1.8\text{km}/\text{km}^2$, is based on the Salmo Report with the exception of the linear disturbance width criteria. No explanation for this aberration is provided.

Impact on Activities of Linear Disturbance Thresholds

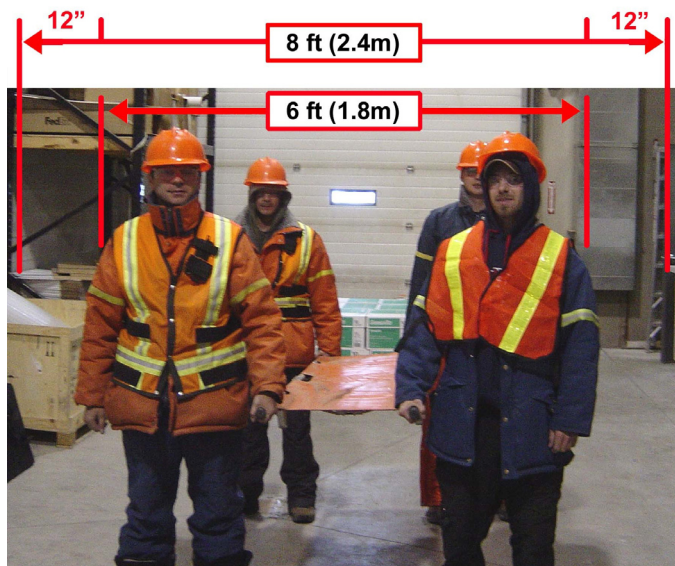
CAPP is suggesting that the 1.5m definition for linear disturbance be re-examined as it poses a significant operational challenge to conduct seismic operations under that width of line.

Seismic Safety Issues

Companies conducting seismic operations work to reduce their footprint wherever possible; however they also have a responsibility to provide for the safety of their workers. Below are some preliminary safety concerns in operating with line widths under 1.5m that CAPP has identified, with assistance from the Canadian Association of Geophysical Contractors (CAGC).

The requirement to work on narrow lines potentially creates an unsafe work environment:

- Narrow line widths and deep snow may impede safe escape routes for slashers while felling
- Access to, and removal of, an injured party may be restricted and slow, potentially increasing the extent of injuries suffered
- Too narrow for vehicle response (incl. Quads, Skidoos, Argos) to injured workers
- Too narrow for four people to carry a stretcher, increasing the probability of hazardous egress (see picture)
- Helicopter use is restricted during hours of winter operations, increasing response time to incidents



Heli-Portable Seismic Issues

Heli-portable is one of the few seismic acquisition methods typically used that has a disturbance less than 1.5m wide. Heli-portable seismic may be the most appropriate choice under some circumstances; however, it has several operational constraints that limit its appropriateness to the entire Dehcho region under all conditions.

In many parts of the Dehcho, seismic operations are conducted in winter to reduce impact on muskeg. During the winter, limited daylight conditions would prohibit, or increase the risk for, air borne operations for the majority of the day.. CAPP also notes that the use of heli-portable could contravene the intent of Recommendation #24, concerning low flying aircraft over significant features and habitat. During the summer, low flying helicopters could impact wildlife given the life cycle seasons identified in Table 3 of the Plan.

Additionally, it should be noted heli-portable seismic can be substantially more expensive than conventional terrestrial seismic. Increasing costs for exploration can render the Dehcho less competitive for the oil and gas industry when compared to other regions.

Analysis of Impact of Linear Corridor Density Threshold

We have focused our linear disturbance thresholds comments on the corridor definition because we believe that if seismic lines are captured as cumulative effects, there is little chance of development proceeding.

CAPP engaged Golder Associates to conduct an assessment of the impact of the thresholds on industry activity, specifically what levels of development would surpass the thresholds. Each development pattern is unique and would depend on geography (road access and water sources) and geology (depth of oil or gas formation, determining seismic line width and spacing). As such, the calculations should be seen as rough approximations as circumstances would obviously vary the outcome. The numbers below are based on a zero disturbance baseline. The full text of the hypothetical oil and gas project and thresholds and accompanying diagrams are contained in the included Appendix.

The Golder analysis assumed a progression of oil and gas activity from 2-D seismic to exploratory wells and supporting infrastructure to a 3-D seismic program. The grid for 3-D seismic was assumed to be 300mX400m¹. The scenario did not progress beyond 3-D seismic as there are too many variables surrounding number of wells, well locations and supporting infrastructure to posit any scenario with reasonable certainty.

¹ Assumed a reasonable approximation for the Dehcho region.

The Golder analysis concluded that no more than roughly 20% of a quarter oil and gas grid, or 12km² of a total 60 km², could be overlaid with a 3-D seismic program without surpassing the thresholds.² Past 3-D seismic programs in the area have been significantly bigger in scope, ranging from 40 to 200 km².

The thresholds proposed may not allow for the proper investigation or delineation of an identified reserve. A 3-D seismic program alone could meet the threshold, leaving no flexibility to develop additional wells and infrastructure. Furthermore, it can be assumed that these scenarios are somewhat generous as they assume a zero percent baseline disturbance. CAPP believes that under the conditions described above there is no opportunity for a development to progress to a commercially viable operation.

Additional Comments

CAPP would also like to draw attention to the following comments:

Extension of Special Infrastructure Corridor: It is CAPP's understanding that the Dehcho First Nations, Pehdzeh Ki First Nation and INAC have recently negotiated an infrastructure corridor north from Fort Simpson to the boundary with the Sahtu Settlement Area. CAPP supports this zone being included in the next draft of the Plan.

Conformity Determination: Figure 1, p.51 outlines the process for conformity determination. This Table should be altered to include the process for determining exceptions to the Plan.

CR #6 – Existing Rights, Dispositions, Authorizations and Activities: CAPP requests clarification on the meaning of “alter the non-conforming use” with regards to existing rights, dispositions, authorizations and activities. Oil and gas activity progresses through several stages in the transition from exploration to production and it should be explicit that as development progresses, it should not be seen as a new use but rather as a continuation of the existing use.

² Golder's analysis is based on the assumption put forth in the Plan that a quarter oil and gas grid is roughly equivalent to 60km². However, a quarter oil and gas grid is roughly 51.8 km². This change in area lowers even further the amount of linear disturbance that can occur.

Appendix: Extracted from “Report on Access Density Thresholds: Definitions and Potential Implications”, prepared by Golder Associates for CAPP, January 2006

Hypothetical Oil and Gas Project

Oil and gas exploration has a characteristic progression which necessitates the development of access; access densities tend to increase as development proceeds. A typical oil and gas exploration play could proceed along a trajectory described by the following scenario. Once a company has purchased the rights to explore for oil and gas on a lease, a 2D seismic program is conducted to explore the area for potential reserves. Within a typical quarter of an oil and gas grid, the example project provided could result in approximately 26 km of seismic line and a total linear density of 0.44 km/km^2 (Figure 1, below). In this case, the main access road is outside the grid resulting in a road density of 0 km/km^2 .

Following analysis of the 2D seismic data, an exploratory drilling program could be initiated. Figure 2 illustrates the use of seismic lines to access the well, development of a single lease for an exploratory well, and access to water required for drilling. Please note that project details, such as a camp or a remote sump were not incorporated, as the figures attempt to provide a simple illustration only. Road and total linear densities associated with the development of one exploratory well for this scenario are 0.18 and 0.62 km/km^2 , respectively.

The development of 3 wells and associated access in an around the quarter grid could look like Figure 3. Road and total linear densities associated with the development of the three wells in Figure 3 are 0.58 and 1.01 km/km^2 , respectively. The scenario in Figure 3 is an example of the maximum amount of road access allowed within a quarter oil and gas grid according to the DCLUP (2005).

Successful exploratory wells typically lead to a 3D seismic program designed to better delineate the extent of an oil and gas resource. The 3D programs consist of source (lines on which the energy source is generated) and receiver lines (lines where the data is recorded). Figure 4 illustrates a 3D seismic program over a portion of a quarter oil and gas grid where the source and receiver lines are 300 and 400 m apart, respectively. In this case, the linear access density is about 2.56 km/km^2 , well beyond the threshold allowed by the proposed DCLUP (2005). To be under the DCLUP threshold of 1.8 km/km^2 , the 3D seismic program cannot exceed approximately 20% of a typical quarter oil and gas grid or about 12 km^2 (Figure 5). Complete coverage of a typical quarter oil and gas grid with this configuration of a 3D program results in a total access density of over 6 km/km^2 (Figure 6).

The depicted scenarios do not take into account access that may have occurred in the area as a result of previous exploration activities, or additional linear disturbance created by other resource industries and other human activities (e.g., trapping, recreation). The amount of 3D seismic allowed within a quarter oil and gas grid according to the DCLUP (2005) thresholds could be considerably less if linear disturbances were already present on the landscape.

The systematic development of an oil and gas field may not be possible within the cumulative effects thresholds for total linear disturbance densities as currently outlined in the DCLUP (2005). Further, the constraints imposed by the thresholds could mean that identified hydrocarbon resources within a given grid could not be investigated, delineated or extracted, if those resources were outside the explored area (e.g., no existing cutlines to use as access or flowline rights-of-way). Another scenario could be that a pipeline could not be built to transport product from a well or a number of wells, because the thresholds had been met.

