

# 4 Action Communities

Once construction of the pipeline and related projects is underway, those communities that have become the centres of urban, industrial and bureaucratic growth in the North will undergo a special impact. These communities include Inuvik, Norman Wells, Fort Simpson, Yellowknife, Hay River and, because of its role as a transshipment centre and its emerging importance to Beaufort Sea oil and gas exploration, Tuktoyaktuk. I think it will be useful to refer to these communities as action communities.

The action communities represent major forces for social and economic change in the northern hinterland. It is there that white society and native society come face to face and what happens in and around them will have a large bearing on how northern society as a whole will evolve. It is by means of the agencies and institutions that it has located in the action communities that the dominant society has brought the northern hinterland under the sway of the metropolis. It is through the action communities that decisions about government services or industrial development, taken thousands of miles away, are implemented. The growth of these communities and a dependence on services that they provide have drawn the native people closer into a way of life dominated by government and the industrial system.

With the great build-up of governmental institutions and the growth of mining and oil and gas exploration, the action communities have grown substantially in recent years. The growth of their populations, based largely on in-migration, has outstripped that of the native communities, (which can rely only on natural increase). During the 1961-1971 Census decade, Inuvik grew at an annual rate of 7.82 percent and Hay River grew at an annual rate of 6.19 percent.

In some of the action communities, the native population is at present a significant part of the total population. They are the majority in Tuktoyaktuk, about half the population in Inuvik and Fort Simpson. In Hay River, Yellowknife, Pine Point and Norman Wells, however, they are a minority (their numbers were never significant in the case of the latter two communities). Present native populations in the action communities comprise both persons who have traditionally

been located near the communities, and persons who have migrated to the communities from smaller settlements or from the land. The white population of the action communities consists of a mixture of government employees, people in local business, and representatives of business interests from the South.

As construction of the pipeline proceeds, action communities will encounter two kinds of problems: those that derive from the mixed white and native populations within the communities, and those that derive from the physical and financial capability of such communities to absorb more people and activity than they have to cope with at present, and to provide for future growth. The first category encompasses several pathologies that have been observed with increasing — even alarming — frequency during recent years in the cities and towns that have borne the brunt of the northerly expansion of the urban, industrial and bureaucratic frontiers. The second category encompasses a number of issues critical to the question of how communities might meet the costs of, and derive benefits from, the pipeline. These issues relate to such things as town planning and impact funding.

Not all of the problems and issues I discuss affect only the action communities, and, to some extent, the points that are made in the following pages apply to all of the communities of the Mackenzie Valley and Western Arctic. But they derive from a consideration of the impact of pipeline construction in the action communities.

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## Consequences of Rapid Growth

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The relationship between white and native people is complex, but the overriding fact is that white people have been dominant and native people subservient. Native people have had to give way before the imperatives of the white man, and they have been urged to modify their values, attitudes and social structures in response to white society. At times, such as the long years of the fur and mission era, this challenge was

not overwhelmingly difficult to meet. Even today, in the outlying native communities, where native culture is still highly visible and where the white presence is limited, native people have found it possible to make accommodations and adjustments. In the action communities, however, where the white presence is dominant, and where it has intruded so completely into the native people's lives, the native people have found it far more difficult to adapt. In these communities, they have become hemmed in; their cultures and languages have become surrounded and have been overwhelmed by the dominant culture and language. They have also lost some of their access to the land and its resources.

The native people of the action communities have become split off from their own means of production, are unable to move out of the way of the dominant society, and are incapable of fully understanding or striking back at the forces that have come to cramp them into restricted physical and psychological ghettos. Their response to these pressures has been violence directed against themselves: drunkenness and alcoholism, beatings, child neglect, and suicides. It is the violence of people who take out their anger and frustration on one another. Death by violence, including suicide, is many times more frequent among native people than among other Canadians. It is currently the leading cause of death in the Northwest Territories, and most violent deaths are alcohol-related. Even the most cursory examination of the causes of social pathology reveals how essential it is to strengthen native society before the next wave of white in-migration takes place.

In addition to the violence, the predicament of the urbanized native people has had other, less obvious, consequences: greatly reduced access to their traditional diets and substitution of less nutritional foods, a weakening of the extended family leading to the breakdown of the support systems, such as care for indigent and aged family members, on which native people once relied. In fact, many of the health and welfare measures that government has initiated and expanded throughout the North are direct responses to this breakdown, which has coincided with the spread of the industrial system throughout the North.

I do not mean to imply that native people are the only group that finds the action communities difficult places in which to live. Many white people do not feel at home in them either, even though these communities represent frontier extensions of mainstream North American society. The severe climate, the tensions between white and native people, remoteness from their own home and families, and difficulties in adjusting to new and usually very different circumstances have led to problems such as alcoholism among white northerners. But their condition is in no way comparable to that of the native people.

Many well-adjusted native individuals and families can be found in these communities to prove exceptions to what I have been saying. My thesis must always be understood as

referring to the dominant and overriding pattern, to the basic conflict that is fundamental to life in the action communities. To point only to the successful native entrepreneur or bush pilot is to overlook the fact that most native people who live in the action communities live on the margins and often in a state of continuous crisis.

Whatever occurs in the North, many native people will, either by choice or by necessity, continue to live in the larger communities of the Mackenzie Valley and Mackenzie Delta. If there is a movement back to villages and the land, it will take time to gather momentum to have any real effect on the distribution of population. Meanwhile, oil and gas exploration and development will continue, and we may assume that a pipeline will be built in due course; the impact of such industrial development on the populations of the action communities will be large. And, in these communities, it will be necessary to try to mitigate the problems that these impacts are likely to cause for all residents, both native and white.

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## Pathology of Rapid Growth

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The mitigation of socially related medical problems, such as malnutrition, alcohol-related injuries and deaths, injuries due to violence, and suicides, is a major concern of all northerners, but especially of the native people. The conditions that breed such pathologies will likely intensify in the action communities if the pipeline and related projects are built: houses will become more crowded, the already high costs of living will increase, and the native people of the action communities will have even less access to the land. There will be an intensified need to provide and maintain the, at times, inadequate level of health services now available in the Northwest Territories.

*1. Every effort should be made now to identify the kinds of problems in health care delivery that will undoubtedly occur during pipeline construction. Funding mechanisms and special programs should be in place well before the construction phase to ensure that the health care and delivery system will be able to cope with the problems brought by the pipeline.*

*2. In the action communities, planning for health care delivery during pipeline construction should involve not only both senior levels of government, but also local white and native spokesmen.*

*3. Control of native health care delivery should be in the hands of the people themselves. This would allow them, for example, to establish programs for the training of native para-professional health workers. Models that could be useful in the Canadian North include the North Slope Borough health program in Alaska, which trains and employs residents in each community to be primary providers of health care in the*

community; and the tradition in Greenland of para-professional involvement in health care services.

The Alaska Community Mental Health Services Act of 1975 was enacted to help communities plan, organize and finance community mental health services through locally developed, administered and controlled programs.

*4. Legislation similar to that enacted in Alaska should be enacted in the Northwest Territories to help the people of the action communities deal with the stress that will inevitably accompany the changes brought by pipeline construction and related activities.*

Mental health will not be the only area of health care that will require substantial community action and participation. However, there is a lack of understanding generally in society about the problems of mental health and particularly in a cross-cultural setting like that of the North. The practices that are applied – if any are applied at all – are often culturally irrelevant and may be based on serious misconceptions of what the problems are. This is why community involvement in mental health treatment is so important: the community often understands itself much better than does the outside professional.

Crisis intervention centres, also called distress lines or suicide prevention lines, exist in about 95 communities in Canada. The entire Northwest Territories are served by the distress lines established in Yellowknife in 1972. The telephones are manned by volunteers who provide a listening and referral service; some callers need help with a personal crisis, and others simply need referral to another agency. Ideally, the lines should be staffed on a 24-hour basis, but at the very least they should be operating when other services are not available. However, the lack of permanent, stable funding (the line was originally operated with Local Initiatives Program (LIP) funds) has meant irregular hours of service and may lead to a complete shut-down of the facility.

*5. At a time when the stress of changing lifestyles in the North is becoming greater, there is a vital need for at least one crisis centre, staffed by a paid co-ordinator and sufficient trained volunteers. The effectiveness of a crisis handling service for northern communities during pipeline construction depends upon early funding so that distress lines will be a well-established and familiar service to those in need of help. For those without a telephone or not familiar with its operation, friendship centres, which are described later in this section, should be available, particularly during the height of construction.*

The fact that most deaths among native people are caused by alcohol-related injuries, accidents and violence indicates that the problem of alcohol abuse is extensive. The effects of alcohol abuse are also reflected in the incidence of child neglect, crimes of violence, violations of the liquor ordinance, family breakdowns and other social problems. The evidence

suggests that, because of increased access to alcohol and because of changes to the social and cultural fabric of the community at a rate that exceeds the capacity of the community to adapt, we should anticipate a rise in alcohol consumption during pipeline construction.

The decrease in alcohol consumption that has occurred since 1974 may be attributed to a new awareness by the native people and their determination to solve their alcohol problem. Recently enacted legislation on local option has resulted in some communities electing to go dry by prohibiting the sale of alcohol in their communities. Unfortunately, this approach is unlikely to be effective in the action communities where the non-native population is predominant, and where drinking is socially accepted. Even if the native people of these communities choose to go dry, bootlegged liquor will be available, and there will be strong pressures on people to continue drinking.

Adequate legislation and enforcement policies may be useful preventive measures in matters such as serving liquor to minors and to those already intoxicated.

*6. To control liquor sales and consumption to and among pipeline personnel during the construction of the pipeline, the Company and its contractors should operate licensed premises within the camps, in full compliance with the Northwest Territorial Liquor Ordinance. Pipeline workers should have only restricted access to communities, especially those communities that prohibit alcohol. Workers found taking liquor or drugs into any community, or bootlegging to local people, should be fired immediately and returned to point of hire. The enforcement of drug-use legislation within camps should be carried out by the RCMP.*

The Alcohol and Drug Co-ordinating Council of the Government of the Northwest Territories provides funding for an approach to alcohol problems that involves greater community control of alcohol use and the consequences of its abuse, in accordance with the perceptions of each community or of each group within a community. The success of these programs to date indicates that if native people are given the time and the opportunity to develop these programs before major industrial developments begin in the areas, there is a good chance of some success.

*7. Funding for community-based programs to control alcohol use should be continued and strengthened. By relying on the support systems that are available in any community, some progress in controlling alcohol dependence can be made.*

In Volume One, I referred to evidence that I heard on this subject in communities such as Fort McPherson and Fort Simpson. Alcohol abuse can be beaten if the people themselves are fighting it, and if they feel that they have at least an even chance of winning. But they will not always win.

*8. Funds for facilities such as detoxification and rehabilitation centres will be needed if the communities are to be able to*

*cope with new problems created by the pipeline or existing problems aggravated by it.*

Development of the native economy, enlargement of the renewable resource sector, and participation by native people in the orderly development of the non-renewable resource sector will greatly reduce welfare dependence among native people in the action communities. In the meantime, however, those people who cannot cope with the pressures of change and development will need support. As well, in-migrant job-seekers who are unable to secure employment will also likely require welfare.

We can expect the cost of living to rise during pipeline construction, just as it did in Alaska. This would create new strains for people on fixed incomes, and for people receiving relatively low non-pipeline wages.

**9.** *Government social assistance payments must be increased to meet the higher cost of living that pipeline construction will bring.*

Communities in the Mackenzie Valley and Western Arctic, particularly the smaller communities, could lose, at least temporarily, significant parts of the local work force. This may put great pressure on the social welfare agencies: for example, women who take jobs directly on the pipeline, or who replace local men who have done so, would require day care services; and family and marital stress may increase under the pressure of difficult work conditions.

**10.** *To strengthen and expand programs and staff to deal with such problems, local people should be trained to work with professional social workers. Native para-professionals should be trained to work with the families of native workers that have accepted pipeline employment. As well, financial counselling should be available during this period of increased wage employment and cash flow to give native northerners a better understanding of money management.*

Solutions offered for the social problems of the Northwest Territories are typically those that have had some success in the South, particularly in urban areas, where the practice of social work and social administration has developed, and where the social workers have been trained. Such solutions may have little relevance in the North, where distinctive cultural conditions have resulted in different behavioural patterns and responses.

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## Physical and Financial Aspects of Growth

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Several attempts have been made to predict how rapidly the major communities of the Mackenzie Valley and the Mackenzie Delta will grow during the construction of the pipeline and related gas gathering and processing facilities. In 1975, Stanley and Associates, an Edmonton consulting firm, prepared a fairly detailed forecast for the Northwest Territories Association of Municipalities. This forecast relied heavily on forecasts contained in community plans that had previously been prepared for Mackenzie Valley and Mackenzie Delta communities by a number of consultants.

In the case of Inuvik, Stanley and Associates predicted that under conditions of normal growth – that is, if a pipeline is not built – the population would increase from a projected figure of 3,500 in 1975 to 5,800 in 1985, and that thereafter it would continue to grow at an annual rate of 5 percent. Under conditions of accelerated growth – that is if a pipeline and associated developments are undertaken – the population would increase from a projected figure of 4,100 in 1975 to 10,000 in 1985. With the pipeline, therefore, the 1985 population is expected to be almost double what it would be without the pipeline. Similar patterns were projected for Fort Simpson and Hay River. Normal growth in Fort Simpson would see the population increase from 1,180 in 1975 to 2,120 in 1985, whereas accelerated growth would raise it from 1,310 to 3,020 in those same years. At Hay River, normal growth during the period 1975-1985 would see the population increase from 3,730 to 5,960, whereas accelerated growth would take it from 3,920 to 8,740 (F26981-82).

Since the Stanley report was published, construction of a pipeline along the Mackenzie Valley has been postponed for a period of years. But when the pipeline comes, we can expect the rate of population increase to be similar to that indicated by the accelerated growth figures. In Volume One, I cited evidence on the rapid growth of Alaskan communities, particularly the city of Valdez. Figures collected by the Fairbanks North Star Borough Planning and Zoning Department, and presented by Susan Fison as evidence before the Alaska Highway Pipeline Inquiry in July 1977, indicate that the Fairbanks regional population rose from 50,450 in 1973 to 73,519 in 1976, an increase of about 23,000, or 46 percent (Alaska Highway Pipeline Inquiry, Exhibit 124, p. 5).

The predications made by Stanley and Associates appear to assume smooth growth at a relatively constant annual rate for both normal and accelerated growth situations. In reality, the growth of a frontier community that is experiencing a boom is quite different. If a pipeline is built, there will probably be large annual variations in the rate of growth in the action communities, with the highest growth rates probably occurring just before and during the initial years of pipeline construction. When construction is completed,

population growth will likely taper off substantially, but this will depend on what other projects are anticipated. In Alaska, for example, growth has slowed temporarily now that the oil pipeline is completed, but with the advent of projects such as the construction of the Alcan gas pipeline, drilling on the outer continental shelf, and exploration in Naval Petroleum Reserve Number 4, the population is expected to increase once again. Typically, there is nothing smooth about growth on the frontier.

The Stanley report does not say where the new residents of the Mackenzie Valley and Delta communities will come from, nor who they will be. A reading of the report indicates that it was assumed that the growing population will be relatively homogeneous. Pipeline construction workers are not included in the population growth figures, because these people will be housed in camps away from the communities. The report is concerned only with those people who will remain in the communities for some period of time, however variable. Some of these people will be employees of large corporations, such as banks and department stores and of government; they and their families will be moved there by their employers. This group should not cause many difficulties for planners and local and regional government officials because the employers would normally provide their housing. Moreover, when large employers have a substantial body of local employees, they often invest in a community and provide facilities that the community itself cannot easily afford. Property owned by the companies can be a significant source of tax revenues for the community. As well, the employees are usually well-paid, responsible residents who often take an active part in community affairs.

Many of the new residents, however, will be persons who have come to the region on their own in the hope of finding some kind of work, but with no commitment to stay. If they do find employment, they might remain for a time; but frequently they would leave after a few months or even weeks, only to be replaced by others like themselves. It was transients like these, and the families they brought with them, that created a wide range of problems in Alaska: they put a strain on community resources, but contributed little toward meeting community costs.

Transient workers should be viewed as an unattached and highly mobile body of labour that moves around within a large region in the hope of finding short-term employment. Although it should be possible to estimate the size of this population and to predict its movements on a regional basis — for example, Western Canada, the Maritimes — it would be impossible to predict how many of them might arrive at any particular northern community as it became the scene of a boom. Much would depend, for example, on preconceptions about the community itself, and about employment conditions elsewhere, and on attempts made to discourage immigration. Even then, the most careful predictions of local impact could be wrong by a considerable margin.

Another component of population in a northern boom community will be native people who have come from the smaller settlements in search of employment, and who decided to stay for a time. Because it will be a low income population, its demand on community resources will probably exceed its contributions to community revenues. It will probably put additional pressures on housing, which will already be in very short supply. Native areas within the action communities will no doubt become even more overcrowded.

Planning required for the regular growth assumed by Stanley and Associates differs substantially from that required by the disjointed growth that is likely to take place on the frontier. Growth of the type projected in the Stanley report, whether normal or accelerated, involves simply looking ahead along a growth curve to determine when the capacity of municipal infrastructure and services needs to be expanded. Even with normal growth, there would be some miscalculation, but by and large, targets would be met.

Planning for the rapid and disjointed growth induced by a pipeline and related projects will be far more difficult. A flexible approach is needed that allows for smooth growth by some parts of a community's population and for erratic growth by other parts. In addition, there must be ready access to both expertise and funding, and there must be a way of obtaining quick and reliable data on what is happening to the community. These data will assist in determining the proportion of the in-migrant population that will remain after the pipeline project is completed, and the proportion that is transient.

Fairbanks, Alaska, because it has experienced more boom-induced growth surges than most North American communities, provides an example of how to handle community planning during periods of rapid and unpredictable growth. With the coming of the Alyeska pipeline, the Fairbanks North Star Borough established a Pipeline Impact Information Center, whose job was to define and measure the various components of growth, and to present this information to the city and borough in a manner that would provide a basis for planning. The Fairbanks North Star Borough is one of the wealthiest in Alaska, and had substantial resources to back up its planning. It also received impact funding from the state government.

Some things, however, the borough did not handle well. Housing was a major difficulty throughout the pipeline project, but no satisfactory system of providing additional or emergency housing was devised. Those persons that could afford high rents or mortgage payments obtained housing, others did not. The transient native people who came into the main hiring centres from the remote villages of Alaska simply hung around town while they were waiting for jobs on the pipeline. No special hostel or half-way facilities were provided for them. Indeed, the borough gave no special

attention to the difficulties that these culturally different people encountered in an urban setting.

### *Information, Planning and Impact Funding*

Postponement of the pipeline project has given us the time we need to initiate and establish processes that will help northerners cope with the pipeline, and the transformation that it will bring. The conditions exist now for information gathering, planning and impact funding in a way that reflects the wishes of the local people.

The planning process that I outline in the following paragraphs gives residents of the action communities a substantial role in planning. The people of the communities must be fully involved in the identification of issues, and the formulation of measures to deal with them. The people must also be involved in setting priorities so that impact funds, which will inevitably be limited, can be spent most effectively. A real concern about the future of their communities will ensure that planning that is undertaken locally is responsible and realistic. By the time we are ready to build a pipeline in the Mackenzie Valley, we should be in a position to set up the machinery needed to carry out the recommendations that follow.

*11. Impact information centres, modelled on the Fairbanks North Star Borough Impact Information Center of Alaska, should be established. There should perhaps be one centre for the Mackenzie Delta, one for the middle Mackenzie and one for the Great Slave Lake area. The centres should be funded by government; they should be established well before construction of the pipeline begins and should continue for an appropriate follow-up period, such as two years, after construction is completed. Each centre should operate openly, and should distribute its information to government, to the pipeline company, and to any other person or group that needs it.*

*12. The centres should gather and distribute data on variables such as employment, income, prices, costs, shifts in local supply and demand, the changing status of particular groups, incidence of crime and violence, and alcohol consumption. Each impact information centre should be concerned not only with the action community in which it is located, but also with any nearby communities that might be influenced by the pipeline project or by the impact of rapid growth in the action community. In this way, information gathered by the centre could assist in regionally coordinated planning, as well as in local planning.*

Planning is difficult in an area in which the future is as uncertain as that of the Mackenzie Valley. Before planning can start, a number of basic questions need to be answered. What is an appropriate time frame for planning: will the planning be concerned only with short-range problems, or will it apply to a prolonged period, say ten years? What geographic or societal unit should planners deal with: should

they plan for individual communities, for groups of communities, or for a broad region.

*13. Planning related to the pipeline project should be kept as simple as possible; it should have a local focus and deal with those communities that will be immediately affected by the pipeline. Apart from a reasonable period for follow up, such planning should not extend beyond the period of pipeline construction.*

In this report, we are concerned with planning for extraordinary circumstances that may be caused by the pipeline and related developments. These circumstances will have their greatest impact at the local community level, and local people should, therefore, be in a position to modify and control them. We are not concerned here, for example, with the planning and construction of normal community facilities. Rather, we are concerned with how communities should meet extraordinary demands that could occur rapidly and that could be transitory. If, for example, more classrooms are needed, the community would decide, on the basis of what it considers best for its children, whether to use portable facilities or to double-shift existing facilities.

I am not saying these difficulties can be resolved before construction of the pipeline begins, but I hope that we can make a good start toward their resolution. If they are not dealt with, the divisions that presently characterize the action communities of the Mackenzie Valley may become aggravated.

There remains the definition of planning objectives. What exactly are we trying to resolve? At what level of government must action be taken? Will the problem respond to short-term solutions, or is it something that will go away or turn into some other kind of problem with time? Can the problem be solved with money, or is it a physical bottleneck that no amount of money can alleviate in the time available? What institutional factors impinge on the development of a solution to the problem?

*14. Local planning to ameliorate or modify the impact of the pipeline should be closely related to the procedures of the Agency and to the activities of regional and territorial governments. It should be underway well before construction of the pipeline begins and should be an integral part of the final review of the pipeline design.*

Local planners should assess the data assembled by the impact information centres, as well as other pertinent information and, with the help of professional staff from government and the Agency, should develop programs to moderate the local impact of the pipeline. Thereafter, as pipeline construction proceeds, the programs should be revised to match changing circumstances. In this way, each community would be able to evaluate the local effects of the project and draw up its own measures to deal with them, both before and during construction of the pipeline.

Planning, no matter how detailed, is useless unless it leads to a practical program. Moreover, in the communities that will be affected by the pipeline, the practical results will have to come swiftly: the time between the identification of needs, the setting of local priorities, the review of these priorities, the release of funds, and the implementation of the particular proposal, must be kept short. Some projects, such as the provision of additional housing, additional hospital beds, additional detoxification centres, and additional professional staff to man such facilities, may involve substantial sums of money.

**15.** *To ensure that ameliorative measures can be implemented without delay, someone in the planning sequence should be empowered to hold funds, including major funds, and to release them quickly as the need arises.*

Current plans call for the major part of pipeline construction to take place in winter. As a consequence, significant numbers of people could be without jobs for a considerable part of the year. Projects to moderate the impacts of the pipeline could be carried out during the slack season, providing that the technical and resource conditions governing them permitted this, and they could thus be used to counter the cyclical nature of pipeline construction in the region.

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## Specific Problem Areas

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There are a number of major problems that could only become aggravated, unless steps to resolve or at least modify them are taken before construction of the pipeline begins.

**16.** *Although the medical requirements of pipeline workers and other in-migrants will probably impose a severe strain on existing health facilities and services in the North, the provision of medical services to pipeline employees must not be allowed to jeopardize the health facilities or health programs of the communities of the Northwest Territories.*

Under the Northwest Territories Public Health Ordinance, the pipeline company and its contractors will be responsible for providing medical services for their employees. Although the pipeline companies have said they will not use community facilities and staff, emergency situations and pressures on the Company's facilities may require them to do so. It is especially important to establish the nature and extent of the facilities and services that the Company will need. The pipeline is to be built during the arctic winter when darkness and intense cold impair not only productivity, but also alertness and awareness. Under such circumstances, and even with the best possible safety measures, there will be accidents, medical problems related to exposure to cold temperatures, and psychiatric problems arising out of reactions to cold, darkness and isolation. The Company should be prepared to

cope with all of these problems, and cannot be allowed to burden facilities in nearby communities because of inadequacies in its own planning.

**17.** *Realistic projections of both the pipeline employees' and the public's needs should be available before construction of the pipeline begins, so that the medical problems that will have to be met during construction can be properly estimated and provided for.*

As I said earlier, it is difficult to estimate the size and distribution, and therefore the demands, of the transient population, and of the native population that will be attracted to the action communities. Planning for these populations should focus on the development of quick and flexible means to meet their requirements. Portable facilities, such as hospital units and nursing stations may be one solution.

**18.** *Although some upgrading and expansion of hospital facilities in the major communities will be necessary to handle pipeline-related effects, the long-term needs of the communities must take precedence over the short-term needs of pipeline personnel.*

**19.** *Demands on sanitation programs will, without doubt, increase during construction of the pipeline. More environmental health officers for inspection and enforcement services will be needed as the water and sewer requirements of construction camps are added to those of rapidly growing communities. The problems of human waste disposal must be addressed now to ensure that conditions of good public health prevail before pipeline-induced rapid growth occurs.*

The pipeline project and related activities will undoubtedly impose a burden on the school facilities of the major communities, and it is likely that it will be possible for only a part of the increased enrollment that may result to be accommodated in existing classrooms.

**20.** *Planning to accommodate in the school system the increased number of pupils that will result from pipeline-induced growth should start soon and should include forecasts of the numbers and needs of pupils.*

Accurate forecasting should become easier as the final design stage is approached. Planners must always distinguish between short-term problems, for example, temporary overcrowding, which may be resolved by measures such as double shifting, and problems resulting from long-term population growth, which could require the expansion of school facilities and staff.

Construction of permanent schools and classrooms financed out of normal government revenue must, even during peak pipeline construction, reflect the long-term needs of the individual communities. Students entering the school system during population surges that accompany pipeline construction could be accommodated in modular classrooms.

In Alaska, it proved difficult to ameliorate the housing crisis

that accompanied the construction of the trans-Alaska pipeline, not because the United States lacked the resources to build houses, but because housing, traditionally, is not an area of government involvement. Housing is regarded as an area for private initiative, and government, to a great extent, lacks the agencies and funds necessary to deal effectively with housing shortages. Because Canadians tend to regard housing, especially in the North, as more of a public responsibility than the United States does, the problem might not be as severe in Canada as it was in Alaska. Nevertheless, there could be significant housing problems.

The influx of people into the North with the advent of pipeline construction will put pressure on the poor housing situation that exists at present. The Northwest Territories Housing Corporation, which uses federal funds through the National Housing Act and through Treasury Board directly, has inadequate funds to redress the housing situation. Indeed, the corporation cannot keep pace with new family formation, cannot match the existing shortfall, and does not have sufficient funds to rehabilitate and repair the existing housing stock. As the housing demand grows, overcrowding, use of substandard units, inflated building costs, and in general, an inadequate housing supply are likely to become more common. In addition, the supply of land to meet the present allocations of housing is restricted, and servicing is falling behind because of lack of planning.

*21. The fundamental requirement to ensure the smooth delivery of serviced land is a survey of current housing adequacy, and a land use and site development plan for each community. Although the Company intends to provide its own housing for permanent staff, its housing plans must be consistent with community development objectives and must be subject to community regulation. The Company and the federal and territorial government should share equally in the cost of assembling and developing serviced land in the action communities.*

The Northwest Territories Housing Corporation's housing policies to encourage home ownership are still inconsistent with its staff housing policy, which offers considerable benefit to persons who rent. Also, the Housing Corporation's policy of charging 25 percent of income for rental conflicts with the low maximum rents that exist in housing provided by government and major private sector employers. The Company should provide low-interest mortgages in place of and at better rates than rental allowances, which would encourage home ownership and stability. Rental subsidies to Company employees should conform with existing public housing subsidies in the Northwest Territories.

There must be safeguards to ensure that the supply of materials for housing construction in the Northwest Territories is not adversely affected by heavy demand that pipeline construction places on northern transportation systems. Funds for housing construction should not be reallocated

from other parts of the Northwest Territories or from smaller communities to larger ones. Mobile housing units that could be transferred rapidly from one location to another offer one solution to the problem of extraordinary surges in accommodation demand that will occur. The impact information centres, described above, should advise in-migrants on the unavailability of housing in the communities, and zoning regulations should be strictly enforced to avoid indiscriminate trailer and camp settling, which, on unserviced land, can create serious health problems.

Government's first priority is to ensure adequate housing for northerners at a time when pipeline construction activities will create a high demand and short supply. Estimates of housing needs should be frequently reviewed, in light of the difficulty of predicting the overall level of future activity in such an unstable region.

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## Camps and Communities

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In the chapter Employment and Manpower Delivery, I dealt with the conditions that should prevail within pipeline camps regarding such matters as food, recreation, accommodation and security. I shall now consider the relationships that should prevail between construction workers housed in the camps and residents in near-by communities. My recommendations apply to all communities in the Mackenzie Valley and Mackenzie Delta, and not only to the action communities.

Many misconceptions have arisen about construction camps and their occupants. The fact is, construction workers are decent human beings who are trying to make a living and to save some money, and who must work long hours to do so. According to Professors Bering-Gould and Bennett, the attitudes and aspirations of the thousands of people living in the pipeline camp near Valdez, Alaska did not differ significantly from those of the residents of Valdez.

Workers who have comfortable housing facilities, good food and accommodation, proper recreational facilities and access to liquor (under controlled conditions) present fewer problems than workers who are poorly housed, badly fed, and treated like adolescents. The collective agreements that govern pipeline construction and that will apply to the Mackenzie Valley pipeline require a high standard of accommodation for pipeline workers. The quality of life in camp is not the only thing that determines whether a labour force will be easy to manage or not: treatment on the job and conditions of leave are also important factors. Nevertheless, the quality of camps has a major influence on the behaviour of workers during off-hours both in camp and in nearby communities.

*22. Construction camps must be of a high standard and should*



meet the requirements set out in the chapter on *Employment and Manpower Delivery*.

Persons living in even the best of camps will want and, under certain conditions, should have access to nearby communities. However, the degree to which communities or groups within communities can accommodate or tolerate visitors varies. Although larger communities, such as Inuvik and Hay River, have had long experience with exploration crews, barge crews and construction crews and a considerable part of the local economy is based on expenditures by transient populations, not all parts of the populations of these communities are equally tolerant of outside intrusion. Native populations of the action communities have proved vulnerable to exploitation by unattached and irresponsible transients. However, in general, and within certain limits, action communities have established means of dealing with transients.

The smaller communities of the Mackenzie Valley and the Mackenzie Delta, those in which native people form the majority of the population, are far less able to withstand the influx of considerable numbers of visitors. The stability of relationships within such communities is important to their continuity and harmony. The intrusion of a few visitors, under conditions which the community can control, will not generally pose a problem, but should such visits occur at a frequency and under conditions with which the community cannot cope, the community may be presented with social problems of the most serious kind.

**23.** *Insofar as technical constraints governing pipeline construction will allow, camp facilities should be located far from communities, so that access to towns and villages is difficult and camp residents are discouraged from going. However, access to the action communities should not, and probably cannot, be restricted; workers who want to go to town will find some means of getting there.*

**24.** *Behaviour on the part of pipeline employees that is anti-social and disruptive to the well-being of the communities should not be condoned. Employees found guilty of disorderly and drunken behaviour, assault, and destruction of property, should be dismissed and returned to point of hire.*

**25.** *In action communities, facilities such as bars that pipeliners would frequent should be located away from residential areas.*

**26.** *Pipeline workers should be discouraged from visiting the smaller, largely native communities of the Mackenzie Valley and Delta. Means of restricting access to the small communities should be the subject of discussions between the native people, the Company, the unions, and the Agency.*

People from the communities will be attracted to pipeline construction camps for a variety of reasons. Local people who wish to learn about the pipeline or the camp, or who wish to

visit relatives who are working on pipeline construction should not be prohibited from visiting camps.

**27.** *Access to camps, and to facilities for visitors within camps, must be of a kind that is not hazardous to the visitors, and that does not interfere with the normal operations of the camp. Access to camps must be carefully monitored and controlled by the Company.*

**28.** *At each camp, a comfortable lounge, or similar facility, should be provided in which pipeline workers and local people can meet and visit with each other. If a sufficient number of local people want to visit a particular camp, perhaps because several local people are working there, special arrangements should be made with respect to transportation and to accommodation of visitors. However, no such arrangements should be allowed to interfere with the prime purpose of the camp, which is to house people who are there to build the pipeline.*

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## Community Energy Supply

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A gas pipeline in the Mackenzie Valley should provide two things for northerners an assured energy supply and a reduction in energy costs. At least that is the way northerners feel about it – they believe it would not be right that gas from the North should pass by northern communities only to service industries and homes thousands of miles away. I think the case they have made is a good one.

**29.** *To assure energy supply to communities close to the pipeline, the Company should either provide valves and fittings at appropriate locations along the trunk line or guarantee to provide them at a future time but at costs current at the time of the trunk line construction. The Company should enter into a commitment that will last as long as the operating life of the pipeline lasts, to make gas available to communities as and when it is requested to do so.*

The reduction of energy costs could be more difficult to accomplish. Evidence presented to this Inquiry suggests that, if gas were made available to communities, only Inuvik, Norman Wells and Fort Simpson would clearly experience a cost reduction over currently available energy sources. Benefits to smaller communities are likely to be insignificant or non-existent. However, economic studies are very sensitive to assumptions about oil (and gas) prices and market growth, and it is therefore impossible to be precise in marginal cases.

Whether energy costs to communities will be reduced or not depends not on the price of the gas itself but on the capital cost of installing lateral lines and distribution grids. Capital costs are heavily influenced by economies of scale: the higher the volume in any market, the lower the per capita cost. This fact, of course, benefits the action communities and works against the smaller communities in the North. However, even

the largest communities of the Northwest Territories represent markets of minimal size in terms of recovering the full costs of supplying natural gas to them.

A number of subsidy schemes have been proposed to ensure that natural gas would be more widely available in the Mackenzie Valley and Mackenzie Delta. Foothills proposed to lower the price of gas service to residential and commercial customers in several communities by passing the cost on to southern users of northern gas. The Northwest Territories Association of Municipalities showed that if Inuvik, Norman Wells and Fort Simpson, all of which would experience substantial energy price reductions through the use of gas, were to pass some of these gains to other communities, energy costs in most communities in the region could be lowered. In addition, the Association recommended that any royalty on non-renewable resources ought to be applied first to achieve a reduction in energy costs throughout the Northwest Territories, to a level equal to the average energy cost reduction that is experienced by communities that can be economically supplied with natural gas.

Another factor is that energy costs vary considerably throughout the region. Norman Wells provides its customers with lower oil-product prices than are paid almost anywhere in Canada, and in some northern communities and for certain classes of consumers, the price of electrical energy is lower than in many major southern Canadian cities.

In my opinion, northerners should receive the benefit of reduced energy costs from northern gas production. This reduction could be achieved in two ways: through an inter-regional pricing policy that would ensure that southern users subsidize northern customers, and a system of cross-subsidization in the North within particular regions.

**30.** *Some form of rent or special tax should be levied against gas owners, gas field operators and pipeline operators and the returns should be used to lower energy costs on a per unit of consumption basis by class of customer, throughout the region (Industrial customers are charged less for gas and accordingly would receive a smaller subsidy than residential customers.)*

*Costs should be reduced to the point where residents, businesses and industries in the most favoured communities (from an unsubsidized energy cost standpoint) in the North would pay energy prices equivalent to the most favoured communities in the South.*

This does not mean that annual energy costs for northern consumers will equal those of the southern basing-point. The severe climate and longer winter of the North would still militate against northerners. But it would mean a considerable reduction in user-costs over those that apply in the North at present.

The benefits from extensive subsidy schemes that would result in an equal price for natural gas or, indeed, any form of energy to all larger communities are, in my opinion, questionable. There is already an artificiality and distortion of regional activity patterns, and the imposition of energy pricing policies that do not to some degree reflect local cost variations would further aggravate this trend. There is not much to be gained from action communities subsidizing each other's energy costs. And, in the same way that it is inappropriate for Hay River to share totally with Inuvik the economic benefits it derives from being a rail terminus, so it is undesirable for Inuvik to share totally with Hay River the economic benefits it receives from its proximity to a pipeline. But it does seem appropriate for action communities to subsidize the cost of supplying energy costs to the smaller communities in their local area of influence.

Thus Inuvik would subsidize communities in the Mackenzie Delta, Norman Wells would subsidize Fort Good Hope and Fort Norman, and Fort Simpson would subsidize Wrigley. I am not saying that energy prices should be the same in all of these communities but that natural gas-induced cost reductions in the larger communities should be used to reduce energy prices in the smaller communities.

**31.** *In the region, there should be an area pricing scheme for energy by which the cost savings obtained by larger communities from use of natural gas would be passed on to the smaller communities in their local area.*