

YUKON 2000

RESOURCE MANAGEMENT IN THE YUKON

Draft Discussion Paper

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DISCLAIMER AND ACKNOWLEDGMENT

The information, analysis and recommendations in this Draft Discussion Paper are entirely our responsibility and should not be attributed to the sponsors of this Yukon 2000 workshop or to anyone else.

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PREFACE

This paper is one of a series of linkage studies commissioned by the Department of Economic Development of the Yukon Territorial Government as part of the Yukon 2000 project. The purpose of this paper is to address the future of resource management in the Yukon:

- What is the importance and potential of renewable and nonrenewable resource development in the Yukon Territory?
- Why is it necessary to choose priorities of resource use in managing resources? What are general principles for setting these priorities?
- What are the major conflicts between resource users in the Yukon today?
- What are some alternative ways of resolving such conflicts?

The paper first introduces the reader in Chapter I to the nature and control of natural resources in the Yukon now. It then looks at some of the factors that will continue to influence resource management in the Yukon in Chapter II. Two major challenges are identified, these being the needs to set priorities and resolve conflicts among different resource users. These two challenges are addressed in general terms in Chapters III and IV, then Chapter V discusses specific resource use conflicts and ways of dealing with them. The final Chapter winds up with an arm-chair view of the major components of a land and resource management strategy in the Yukon in the year 2000.

I. INTRODUCTION

1.1 The Natural Resource Base in the Yukon

To discuss the current status and future trends in natural resource management in the Yukon, it is convenient to start with the resources themselves and their importance to the Yukon economy. Table 1 summarizes some facts on 11 natural resource sectors, based on data published by the Yukon Territorial Government.

Mining traditionally played a dominant role in the Yukon economy, but the downturn in this industry in 1981-82 displaced this position of dominance. However, recent events - the re-opening of the Cyprus Anvil mine at Faro and the opening of the Mount Skukum Gold Mine - indicate a significant upswing in this industry for the future. Along with mining, other dominant sectors in the Yukon economy are government, service industries and tourism.

Another general characteristic of the Yukon economy is the increasing importance of small businesses in all sectors: the trend away from the large employers (primarily mines) to many less-than-10-person operations.

1.2 Trends in Resource Development

Table 1 indicates some of the constraints that each sector faces in terms of expansion in the Yukon. Given these and the current status of these sectors; what can be said about future trends for renewable and nonrenewable resource development in the Yukon?

- * The mining and oil and gas sectors will make a comeback. The question is one of timing, with a likelihood that a comeback will be relatively slow.

- * Gold mining is the exception. Government policy should encourage the exploration efforts of smaller companies to offset the reliance of this sector on a few large, usually foreign-owned companies. Significantly, however, recent history emphasizes the need for Yukon to diversify its economic base from dependence on an industry that itself is highly dependent on external forces over which the Yukon has very little control.
- * Placer mining could run more smoothly if there were greater certainty in environmental protection requirements and in regulatory processes.
- * Emphasis on renewable resource industries will help to achieve greater diversity, stability, and self-sufficiency within the Yukon. Agriculture has the potential to expand, once land status is sorted out, inspection facilities are provided, and appropriate standards are determined. With more processing facilities, forestry too could increase substantially. Continuing expansion of these two sectors, however, will be limited by the land and forest resource base.
- * There is considerable potential for expansion of manufacturing and secondary processing of both renewable and nonrenewable resources. Constraints such as small local markets and high transportation costs would have to be considered, however.
- * Renewable resource-related tourism - outfitting, guiding, sport fishing and hunting - is a sector of steady growth. Here the need is to promote local as opposed to foreign-owned enterprises, and ensure that local accommodations and operations meet high quality standards.
- * While little hard data is available, subsistence hunting, trapping and fishing are very important factors in the Yukon economy and will continue to figure strongly in achieving self-sufficiency within the territory.

TABLE 1
Natural Resource-based
Sectors in the Yukon Economy

<u>SECTOR</u>	<u>ESTIMATED* VALUE (1985)</u>	<u>CHARACTERISTICS OF OPERATIONS</u>	<u>PRODUCT</u>	<u>CONSTRAINTS ON EXPANSION</u>
Hard-rock mining: production and exploration	pre-1982: \$250 million 1982 - 1985: \$20-30 million 1986: increase expected	3 major lode mines with 975 employees	gold, silver lead, zinc copper	- weakening world market - depletion of reserves in Yukon - uncertain land status due to land claims - uncertain regulatory regime
Placer mining	\$40 million	213 mines with 700 seasonal employees	gold	- uncertain regulatory regime regarding water licences and fisheries.
Oil and Gas	1982-1985: \$6 - 8 million	Large exploration operations in offshore		- weakened world prices
Agriculture	\$1.68 million	25 full-time, 75 part-time farmers	forage (50%), grains, vegetables	- unavailability of land - lack of inspection facilities - discriminatory tax laws - high costs of transport and services.
Forestry	\$5 million	primarily 1-2 person operations	fuelwood (50%), roundlogs, sawlogs, cones	- lack of kiln to produce finished lumber - small local market.

SECTOR	ESTIMATED* VALUE (1985)	CHARACTERISTICS OF OPERATIONS	PRODUCT	CONSTRAINTS ON EXPANSION
Commercial Fishing	\$328,000	mostly 1 person operations	chinook (95%), chum salmon; lake trout, white fish	- loss of Yukon salmon to Alaska fishery; uncertainties over interna- tional salmon treaty.
Sport Fishing & Hunting	\$4 million (direct and indirect spending)	guide and outfitting operations; mostly 1-2 person	salmon and trout, big game	- conflicts within sector over land use and tenure - conflicts with other land users. - declining stocks.
Re- creation Hunting & Fishing	\$10 million in food equivalent	1 person operations	fish and game	- competition for resources with sport and commercial users. - lack of support system.
Trapping	\$1 million	traditionally native dominated; recently, non- native trappers' returns are of greater value	lynx (50% by value); marten, muskrat, beaver, etc.	- international anti-fur lobby. - volatile fashion trends.
Tourism	\$87 million	largely seasonal but steady	accommoda- tions, wilderness tours, historic sites, native heritage and crafts.	- conflicts with other land users in some cases - international competition for tourist dollars - high capital costs for seasonal facilities.

Note: approximations only.

1.3 Jurisdiction over the Yukon's Resources

The current situation: In order to talk about resource management in Yukon, it is important to understand who has control and jurisdiction over Yukon's resources. Under the Canadian Constitution, each province owns and controls its land and resources. However, the northern parts of Canada that were left after the last provinces were formed and which now comprise the Yukon and Northwest Territories (NWT) have only been slowly evolving from colonial status to partially self-governing regions. They are not yet provinces established under the Constitution, but are political entities created by federal legislation, the Yukon Act and the Northwest Territories Act. In fact, though, the territories are much akin to provinces in that these federal statutes give the territorial governments powers similar to those given by the Constitution to the provincial governments.

With respect to land and resources, however, these are still held and controlled by the federal government, and managed by the Department of Indian Affairs and Northern Development (DIAND). The rationale has been that the territories are too undeveloped and sparsely populated to support themselves, and that Canada must retain control of their lands and resources to help underwrite the costs of providing facilities and supporting development in the Yukon and NWT. The exceptions to federal ownership are Commissioner's Lands - the lands that the federal government has transferred to the Yukon government to develop and manage. Right now, Commissioner's Lands comprise about 0.2% of the Yukon's total area.

The fact that over 99% of land in the Yukon is still owned and managed by the federal government is a sore point with Yukoners. Since the "landlord" is based several thousand kilometers away in Ottawa, it is often a long, frustrating

process for private citizens or the Yukon government to acquire even small parcels of land for municipal, commercial, agricultural or recreational development. Yukoners also resent not having a direct say over the way in which the Yukon's land and resources are used, through a local government that is responsible for these resources to local citizens.

Nonetheless, the Yukon Act gives the Yukon Territorial Government (YTG) powers to pass legislation that can affect the use of federally-owned land and resources. For example, the YTG is now responsible for managing wildlife, fish, agriculture and lands within municipalities. It can also pass laws to provide for environmental protection and pollution control, so long as its laws do not directly conflict with any federal laws in that subject area.

Devolution: Furthermore, political development in the Yukon is anything but static. There has been a longstanding commitment that it will eventually gain provincial status. The current government in Ottawa has promised to "devolve" powers to the YTG, including control over land and resources. These new powers are likely to be conferred in a step-wise fashion, through cooperation and negotiation between the federal and territorial governments.

Land claims: Overlying these jurisdictional developments are the land claims of the northern aboriginal people. In Yukon, negotiations are continuing to define the extent of Indian land rights and the jurisdictional basis on which the Indian people can realize self-government within the current and future Yukon government framework. Unfortunately, during this time, the status of land and resource affected by the negotiations has been uncertain. Consequently, development of any kind has been at a virtual standstill in the areas being negotiated. Once the issues of land selection, ownership and management have been resolved through the negotiation process, however, these constraints should be removed.

Effect of the federal nature of Canada: Even if the Yukon eventually gains full ownership and control over lands and resources, there will still be a role for the federal government to play in their development. This is because Canada is a federal country with a constitution that divides legislative powers between Ottawa and the provinces. For example, the federal government would still pass laws for the preservation of fish and fish habitat because the Constitution gives Parliament the authority to enact laws respecting coastal and inland fisheries. Though the Yukon could eventually regulate mining, Ottawa would still control foreign investment, taxation and the export of concentrates because the Constitution gives these legislative fields to Ottawa.

Offshore resources: The Yukon Act sets the Yukon's boundary on the Beaufort Sea at the low water mark, which by default, places all of this offshore area within the NWT. If the Yukon was a province, this boundary would preclude it from participating in the development of offshore oil and gas resources. However, while amending provincial boundaries requires changes to the Canadian Constitution, there are no legal impediments to the federal Parliament amending the Yukon Act to extend the Yukon's boundary to include a Yukon portion of the Beaufort offshore region. As for whether the federal government will share management and the revenues from offshore resources with the Yukon and the NWT, federal policy with the provinces has been to recognize provincial rights to management and revenue-sharing in the offshore. Combining this policy with the federal policy to devolve greater responsibility over resources to the YTG, the Yukon could conceivably negotiate an agreement with the federal government, similar to the Atlantic Accord between Canada and Newfoundland, under which the YTG would participate in the management and revenues of offshore oil and gas development in a Yukon sector of the Beaufort Sea.

II. THE CHALLENGES TO RESOURCE MANAGEMENT IN YUKON

The goals and challenges to resource development in Yukon stem from several sources: Yukoners' aspirations, economic trends, and limits to resources are the factors that are discussed here.

2.1 Aspirations

The Yukon has long since turned from a society dominated by the frontier challenges of the Klondike gold rush to a modern society seeking resource management goals that reflect its own cultural mix and aspirations for economic stability.

The aspirations that influence resource management in the Yukon have several sources. The first is the Indian culture and hopes for native development, now being expressed in land claims negotiations. The second is the vibrant entrepreneurial spirit that first led people to the Klondike, and is now expressed in the small resource-based and service-sector businesses that are thriving in the Yukon. Added to this sector is a core labour force associated with mining and its support systems that has stayed in Yukon despite the recession in this industry, and will continue to be a force in the evolution of Yukon society. A fourth influence are those who came to Yukon seeking a different style of life from southern Canada or the U.S. Their advocacy for preserving the natural environment reflects the love of the Yukon's wilderness felt by most Yukoners. Finally, there is the sector of territorial and federal government employees that will continue to be influential in the development of the Yukon economy through its sheer size.

2.2 Economic Trends

Despite the collapse of mining in the Yukon, exploration and development are continuing for underground gold mining, and the Faro lead, zinc mine is being reopened. So a mining industry continues. When world-wide recovery of metal prices occurs, there will at least be infrastructure and a nucleus of experienced miners to get things going. The recovery could be swift and dramatic, but most forecasters place its timing no sooner than the mid-1990's.

The other major influence on the pace of development is the government sector. Increases in federal and territorial expenditures can offset declines in other sectors of the economy and maintain the pace of development. But this approach to stabilizing the economy is not likely to be achieved when the federal government, itself, is short of money. What Yukoners can hope for is that federal spending in the territory will be maintained to provide steady, if not spectacular, expansion of infrastructure and development.

As to economic growth, there is clearly the prospect of continuing increase in tourism and in the many services that support it. Since this growing sector of the economy is increasingly dependent on the quality of the environment and is necessary to provide a more diversified and stable economic foundation for the Yukon, it seems reasonable to foresee more conservative policies toward resource development, with less tolerance of unregulated exploitation and more concern for planning and management.

2.3 Resource Management Goals

What can be discerned from this mix of aspirations and economic trends about future resource management in the Yukon?

It would seem that Yukoners wish to have a resource management system that accomplishes the following:

- increases the diversity of Yukon's economic base.
- increases Yukoners' access to land and resources.
- acknowledges the need to reach comprehensive settlements of native claims.
- provides for resource development within a framework of environmental protection.
- recognizes the importance of the non-wage and subsistence economies and their dependence on fish and wildlife.
- provides for public participation in resource planning and management.
- develops planning processes for identifying land and resource capabilities and for setting goals as to their use.

2.4 Limits to Resources

Accomplishing these goals requires facing two fundamental challenges. The first stems from the fact that there are limits to resources which inevitably result in competition for their use. The second challenge is the fact that many resource uses are incompatible; that is, two uses cannot occur simultaneously, or one use impacts on another use in a negative way.

Facing these challenges points to the need to carefully weigh the options and determine which choice best

fulfills the goals of the Yukon; in other words, to "plan" land and resource development. These challenges, however, often necessitate that the planning process be able to set priorities among resource uses and also resolve the conflicts that inevitably result whenever more than one user is interested in a resource. Carrying out these two important management strategies is the subject of the next sections.

III. SETTING PRIORITIES

3.1 How Governments Set Priorities

The political process: The primary way in which government priorities are set in a democracy like Canada is through the political process. That is, elected representatives gauge the desires and priorities of the electorate through direct contact, opinion polls and public meetings, and convey these to the government. Sometimes special government house committees are struck to develop goals in a particular field. In the Yukon, for instance, hearings were recently held by a special committee of the legislature on future renewable resource strategies. As well, governments establish boards and agencies to develop or apply policies in a particular field. For example, the Yukon Water Board is required by law to operate within policies and priorities laid down by Parliament, but these policies are often expressed in very general terms. Consequently, the Board implicitly sets priorities whenever it holds hearings and makes licensing decisions.

Regulatory processes: The many officials, agencies and committees that comprise the regulatory arm of government also indirectly set goals and priorities whenever they conduct investigations and reach conclusions about how laws and policies should be applied. A common problem here is a tendency of these agencies to define these priorities without regard to overall goals and policies. This leads to confusion and uncertainty as to what the regulatory process is trying to achieve, and to extra costs in terms of overlapping regulatory efforts and requirements. This problem was recently studied by the federal government in a comprehensive Regulatory Review.

Citizen participation: Most boards, agencies and committees create opportunities for citizens to influence the

choice of goals and priorities through hearing processes or other means of gathering public opinion. However, direct representation to elected members of Parliament and legislatures remains the most effective way of influencing goals and priorities in the broadest sense.

In the case of the Yukon, because most land and resources are federally owned and controlled from Ottawa, Yukoners have felt that they have fewer opportunities to influence government priorities in these areas. But now that Ottawa seems ready to change that situation through devolution, it is extremely important that Yukoners plan how they will manage the various resource sectors; in particular, how goals are to be set, priorities determined, and conflicts between the different claims to land and resources resolved.

3.2 Problems in Setting Priorities

In principle, priorities in resource use should be set according to standards of "efficient" and "effective" use for the "optimum benefits" of society as a whole. But this runs up against the fact that people have differing value systems, and consequently, differing perceptions about what use is in their best interests or of "optimum benefit" to them. All that resource economists, whose discipline centers on placing values on competing resource uses, can agree is that there is lots of room for disagreement about not only the specific values of resource uses, but even the appropriate methods to measure them.

A further problem is differing perceptions about "efficiency" and "effectiveness". What may be technically efficient and effective may not coincide with notions of social or political effectiveness at all. In fact, some social goals may well directly oppose goals of economic or technical efficiency.

3.3 Principles for Setting Priorities

Given this background, we suggest the following general principles for setting priorities of resource use:

1. There should be a context of overall goals and objectives established through a political or public planning process to guide decisions about priorities.
2. In choosing priorities, black and white decisions should be avoided wherever possible; there are usually ways of accommodating other resource uses to some extent without compromising the priority use. Choosing priorities should not be approached with an "all of this, none of that" attitude.
3. Similarly, "development" and "conservation" should not be considered to be opposing forces in all cases; in most situations conservation should be an integral component of development, and vice versa, in any priority-setting strategy.
4. Priorities should not be considered to be written in stone. They should be regularly re-assessed and altered if necessary to meet the changing needs and wants of Yukon society.
5. Priority-setting should be a local or regional effort as much as possible. The nature of resources, their possible uses, their "best" uses and local goals for their use vary from region to region in Yukon; priority-setting should reflect these differences.
6. At the same time, priority-setting should take account of "national" interests to the extent that resource use affects national goals.
7. Resource management and priorities should be based on sound assessment of the resource potential and environmental sensitivities at the local/regional level; good information is essential!
8. Priority-setting should be aimed at achieving a balanced economy based on fair and equitable recognition of the different interests in society.
9. In order to take local/regional attitudes into account, a priority-setting process should provide information to the affected public to allow them to

make informed decisions on alternative resource uses. It should also provide the opportunity to local residents to inform decision-makers as to their choice of priorities.

10. Setting priorities will inevitably involve resolving conflicts among resource users. Effective mechanisms for doing this should be at hand.

IV. RESOLVING CONFLICTS

4.1 How Conflicts Arise

Incompatible uses: Sometimes two or more uses just cannot occur at the same time, and a choice must be made as to whether Use A or Use B will prevail. For example, will a parcel of land be open for agriculture, or set aside as a park? Will a stream be classified as open for placer mining or closed to allow for fish spawning and rearing?

Adverse impacts/externalities - private: Often activities involved in or that result from one use may conflict with another use located nearby or using the same resource. For instance, the establishment of a mining exploration camp may conflict with the operations of a big game outfitter.

Adverse impacts/externalities - public: Disputes about the effects of a resource use may arise because of concerns or objections raised by members of the public who may not have a specific claim to the land or resource, but are concerned about deleterious impacts to it. In a way, these expressions of public concern are in defence of resources that cannot "defend" themselves. For example, the construction and operation of a deep-sea harbour may disrupt marine mammal habitat.

Regulatory requirements: Resource use conflicts may also arise through the exercise of the regulatory powers of government. In these cases, statutes give government agencies powers to set standards and rules of resource use, to carry out assessment of new operations, to issue permits and other forms of approval, to monitor activities for compliance, and to enforce the rules and conditions of approval. The decisions of government about these matters often result in conflict.

The most obvious conflict is when a user is not complying with the statute or with the conditions of his/her permit. However, disputes can also occur over the way in which a government official or agency is carrying out its mandate, with the way the law or regulation is being interpreted, or with the provisions of the statute or regulation itself. Indeed, conflicts can occur between regulatory agencies themselves over interpretation of mandates or of conditions of approval. It is obviously important that regulatory agencies "get their act together" to avoid confusion and frustration on the part of the public.

4.2 Remedies and Outcomes

If the conflict is between private parties, the parties can come to some mutual agreement privately, perhaps with the help of the regulatory agency involved. Alternatively, assuming that each has legal rights to carry out their respective uses, one or both parties can take the matter to the court. If use A interfered unlawfully with use B, the remedy will then be an award of damages and/or an injunction to stop A's activities.

If the conflict is one of "public interest", usually the concerned members of the public cannot resort to the courts because Canadian law does not recognize an individual citizen as having the right to come into court to protect the interests of the public as a whole. Only the Attorney-General can do that. Then, members of the public will appeal to the appropriate government agencies to intervene. The outcome will depend on the powers of the regulatory agency involved and whether the agency is inclined to use these powers. The agency may have the power to close down the damaging activity, but more usually, the agency will require the user to alter its activities so as to avoid further damage or to mitigate the

adverse effects. Occasionally, the agency may have the authority to require that the user pay compensation for the damages caused.

4.3 Principles of Conflict Resolution

There are a number of methods "on the market" that are aimed at resolving or, at least, predicting and defining conflicts: assessment and review systems, inquiries and hearings, public planning processes, advisory boards, negotiation, mediation, arbitration, and compensation plans. But what makes any given conflict resolution method effective?

1. It should ensure that all the interests that are affected by the conflict are represented in the resolution process.
2. It should be able to gather the pertinent information and provide it to all the parties that are affected, so that all parties can be equally well informed of the nature of the conflict and of options for dealing with it.
3. It should provide opportunities, through hearings, workshops, private or public meetings, for all the interested parties to discuss the nature of the conflict and the pros and cons of various options for dealing with it. It should encourage a "friendly" and relaxed atmosphere in these discussions, to waylay confrontational attitudes that lead to parties taking stubborn positions on issues.
4. It should instill confidence in the participating parties that their decisions and agreements will have a decided impact on how the issue is ultimately dealt with by "decision-makers", be they government, industry or judicial. This means that decision-makers must be obliged to take the results of these processes into account and give reasons for their decisions where possible.

V. RESOLVING RESOURCE USE CONFLICTS IN THE YUKON

Yukon faces several resource management conflicts for which it will require effective resolution methods. Here, we describe several "sectoral" conflicts - those that can best be identified according to the resource sectors that are involved. This is not an exhaustive survey of resource use conflicts but rather a sample of the types of conflicts and their associated problems. In each case, we recommend ways of managing the conflicts.

5.1 Land Use and Tenure: mining - parks and reserves - agriculture - outfitting and guiding

The conflicts: In Yukon, mining interests are worried by what they perceive to be an increasing trend to withdraw lands for conservation and preservation purposes. They see their options for future exploration and delineation of mineral reserves becoming increasingly narrowed, as more parks, reserves and recreational sites are considered.

On the other hand, those interested in creating parks and reserves claim that mining, especially in the exploration phase, is disruptive to other resource users because of its random and unpredictable nature. As well, they argue that mining is not precluded in many types of reserves, so long as measures are taken to ensure that mining activities do not disturb the natural resource for which the reserve is being created. Where full preservation is considered necessary and development activities are prohibited, such as in national parks, efforts are made to determine whether important nonrenewable resources are being locked up before a decision is made on park boundaries. But whether these efforts are sufficient to fully evaluate the extent of these resources is often debated by the conflicting parties.

Conflicts between agricultural and mining interests are not that common, mostly because good farm land is rarely good mining country. Exceptions in the future might be: (i) conflicts with oil and gas development (as is evidenced in the prairie provinces); (ii) competition with placer mining for water resources; and (iii) disruption of farm or rangeland by open-pit mines or quarrying. Agricultural interests may have more of a problem with parks and reserves. This conflict may be similar to that facing the mining industry; direct competition for land and the foreclosure of options to expand farm lands in the future.

Game outfitters are allocated permits under the Yukon Wildlife Act which give them exclusive rights to operate within designated areas. This protects them from other outfitters using their territory, but does not exclude mining and other industries from exploring and developing in their territory, potentially damaging the wildlife habitat and wilderness setting on which their operations depend. This conflict extends to fish camp operators, fishing guides and wilderness guiding operations. These types of operations can also potentially conflict with agriculture, and with park reserves if the designation excludes their activities.

Recommendations: Resolving conflicts in land use can best be addressed by ensuring that the land use administrative and legislative structure incorporates the following components:

- * Land use planning - to predict and head off major land use conflicts.
- * Referral and coordination - while governments tend to manage resources on a sector-by-sector basis, the goals and activities of the sectoral agencies must not conflict. Cooperative land use planning can help to achieve this, but in the absence of, or to complement, a planning process, managers must rely on clear and efficient referral and coordinative procedures.

- * Review and assessment - to predict conflicts and to investigate appropriate mitigative and avoidance measures. Review and assessment processes should be geared to the size of the proposed use; extensive for large-scale or unusual proposals, more streamlined for routine uses.
- * Approval - must reflect the objectives set under the planning process and adhere to the recommendations made in the review, assessment and referral procedures.
- * Re-assessment (Appeal) - to deal with conflicts that were overlooked, unforeseen, or not handled to the satisfaction of affected parties.
- * Statutory framework - to establish adequate authority to carry out all of the above responsibilities and to clearly indicate where these responsibilities lie. Statutes dealing with different resource sectors should coordinate and complement one another, so that there are no conflicting provisions.

How these activities could be incorporated into a future land management system in the Yukon is the subject of Chapter VI.

5.2 Renewable Resource Use: big game - fishing - wilderness

The conflict: While it's hard to believe that there is not enough wilderness in Yukon, conflicts between big game outfitters, fish camp operators and wilderness guides are rising. These uses have one thing in common; they depend on a wilderness environment. However, they are often in competition with each other as a result of differing activities and needs. Big game outfitters and fish camp operators have to make large investments in assets that are fixed in place - a comfortable lodge, service buildings and other facilities. To make this investment viable they need a reliable resource base, and this

means exclusive, or at least preferential, access to a defined territory for fishing or hunting. On the other hand, many fishing and wilderness guides and outfitters need only storage facilities in Whitehorse or some other centre. Their equipment is all movable and what they require is unrestricted access to as much wilderness as possible.

Recommendations: Resolving conflicts within this sector requires:

- * a review of legislation to determine whether new laws are needed to protect fish camp operators and to license fishing and wilderness guides and outfitters, and to decide whether amendments are needed in the Wildlife Act and regulations to better define the concession areas and rights of big game outfitters. New laws will have to accommodate both those who seek protected territories and those who ask for unrestricted access to wilderness.
- * close cooperation between the two agencies of the Yukon government that manage the different activities of these groups - the Department of Renewable Resources that is responsible for regulating hunting and fishing, and the Department of Tourism that is responsible for promoting high standards in tourist-related operations.
- * ensuring that the Wildlife Advisory Committee, comprised of representatives from these groups, has appropriate status and powers to be effective in bringing the concerns of the different groups to the attention of the government departments.
- * the encouragement of consultation among the groups and with the government departments so that as many disputes as possible are resolved by agreement.
- * in some cases, the legislation regulating these groups can provide for mediation and arbitration to resolve disputes.

5.3 Pollution and Abandonment: mining vs. other land and water users

The conflict: The discharge of solid and chemical wastes to land and water by mining operations is now regulated under legislation whereby operators must comply with the terms

and conditions of land use permits, land leases, and water licences to avoid penalties and criminal charges. Just the same, mining operations often come under fire from downstream or other land users who question the effectiveness of the penalties as deterrents to pollute.

A point of particular contention in Yukon is how to handle the abandonment of mines so that future risks to environmental and human safety are minimized. Tailings ponds must be sealed and made "leak-proof"; underground structures must be adequately filled or sealed; above-ground structures and equipment must be removed to prevent accidents; disturbed terrain must be rehabilitated. Mining companies often complain, however, that these activities are too costly, and that since mining is in the public interest, part of the responsibility should be shouldered by government.

There are other questions that governments, the industry and the public must resolve in the near future - questions like: is a company responsible for future, unforeseen environmental damage caused by an abandoned mine? If so, how far into the future should this responsibility extend? Who should pay for future mitigation measures, and how do we ensure that funds will be available?

Recommendations: Federal laws currently govern mine pollution and abandonment. Problems are that the Land Use Regulations made under the Territorial Lands Act do not apply to mining in the Yukon, and the licensing provisions of the Northern Inland Waters Act fail to deal explicitly with mine abandonment.

To resolve these problems requires:

- * amendments to the Yukon Quartz Mining Act to submit mining activities to regulation under the Land Use Regulation. This would bring regulatory requirements

for mining in line with those for other land users and would provide greater certainty regarding regulatory requirements for the mining industry.

- * amendments to the Northern Inland Waters Act to give explicit authority to the Water Board to require the filing of mine abandonment plans and to ensure their enforcement through bonding or other financial arrangements (e.g. a contributed abandonment fund).

A different approach would be for the Yukon legislature to enact comprehensive environmental management legislation. This would require:

- * an umbrella statute giving powers to require the filing of plans, conduct assessments, deal with emergencies and ensure enforcement.
- * individual statutes dealing with particular pollution problems, i.e.
 - water quality
 - air quality
 - land use and waste disposal
 - hazardous wastes and contaminants
 - pesticides

With such legislation in place, Yukon laws could supplement the federal laws. So long as they do not conflict with the federal provisions, the Yukon laws could make up for the inadequacies of the federal laws. They would also be in place to regulate mine pollution and abandonment when the federal government transfers jurisdiction over this sector to the Yukon.

These laws should encourage consultation among affected parties so that, where possible, conflicts are settled by agreement. Contracts should be used instead of regulations whenever a problem-solving approach is preferred to prosecutions and penalties as a means of gaining compliance with environmental protection requirements. It should be remembered that these requirements will almost always have to be judged in light of their economic effects.

5.4 Water Uses: placer mining vs. fisheries and other users

The conflict: Regulating the effects of placer mining on rivers and streams is one of the most hotly contested issues in Yukon. Placer mining affects fish activities and habitat because it disrupts stream bottoms, often diverts stream courses, and introduces a lot of sediment into the water. These all act to reduce the capacity of the stream to support fish, their eggs and young, and other aquatic life. At issue are the relative costs and effectiveness of various methods of treating placer mine discharges, versus the need and costs to achieve high standards of treatment in all streams affected by placer mining. In addition, other resource uses in conflict with placer mining are wilderness-based tourism, recreational activities and wildlife.

An underlying argument in all of these conflicts is the economic and social benefits derived from each resource use. Placer mining has a long history of economic benefit to the Yukon, first in the gold it produces and recently as a tourist attraction. It is also flagged as an important component of the Yukon's cultural heritage, representing an independent entrepreneurial spirit with which Yukoners identify. By comparison, the Yukon's fishing industry is less significant in an economic sense. Furthermore, many of the other values associated with protecting streams for fish, recreation, wildlife habitat and wilderness are difficult to reduce to dollars and cents in order to hold up as a comparison to the economic benefits of placer mining.

Recommendations: The inquiries and task force that have examined these conflicts identify two major needs of a technical nature - (i) a classification of streams as to their

placer use on one hand, and as to their fisheries use on the other, and (ii) a determination of maximum concentrations of pollutants that can safely be discharged into the various classes of streams. The main pollutant is the sediment released by placer mining. The highest concentrations should be tolerated in streams that have long been used for placer mining and have low fisheries values, whereas the lowest concentrations, or no pollution at all, should be the rule for streams with no past history of placer use and high fish values.

The problems are that the data required for stream classifications and for determining permissible sediment loads in a scientific manner are not now available and will take years to acquire. If the strict provisions of the federal Fisheries Act regarding injury to fish and fish habitat were to be applied to all Yukon streams in the meantime, placer mining would come to a halt. The need is for realistic rules and procedures until such time as the necessary technical data is available.

A possible approach would be:

- * The Water Board would hold public meetings in different regions of the Yukon to produce an immediate set of stream classifications based on: (i) technical data provided by the Department of Fisheries and Oceans and Yukon Fish and Wildlife Branch, where this is available, and (ii) on the oral and written presentations of placer miners and other Yukoners who are familiar with the placer mining history and with any special attributes or sensitivities of streams in that region.
- * In consultation with officials of the federal Department of Fisheries and Oceans and with the Yukon Fish and Wildlife Branch, the Water Board would prepare a set of guidelines as to maximum concentrations of sediments and other pollutants permitted to be discharged into the different classes of streams.
- * The Water Board would ask representatives of the placer mining, fisheries and conservation interests to

form an Advisory Council with a mandate to review and advise the Board on stream classification and pollution guidelines on an on-going basis.

- * Both the stream classification and the guidelines would be applied by the Water Board in current licensing decisions, but with the understanding that the classifications and guidelines will be updated in the future as better information is acquired. The Advisory Council would make recommendations to the Board concerning this updating.
- * The Water Board would use its judgment in applying the classifications and guidelines in particular cases, recognizing that for practical and economic considerations, a phasing-in period may sometimes be necessary.

This system cannot guarantee placer miners or other users of water who comply with the classifications and guidelines that they will not be prosecuted for offences under the federal Fisheries Act. But, should this system be put into operation in an effective way, experience in the rest of Canada where the same situation is prevalent (particularly British Columbia) indicates that the Department of Fisheries and Oceans will cooperate and prosecutions will be restricted to cases of flagrant abuse.

Because so much work has already been done in trying to regulate placer mining, the Water Board could get this new system operating, at least in some regions, in time for the next licensing season. It would be rough and ready and far from complete, but it could provide a new beginning that would in time earn the respect of the various conflicting users.

When devolution of water resources takes place, Yukon water quality legislation could continue the licensing role of the Water Board and give it a clear and explicit mandate to regulate placer mining in this way.

5.5 Managing the impacts of major projects

The conflicts: The Yukon has had its share of large-scale development projects to contend with. The Aishihik dam development, the proposed Alaska Pipeline project, and the port facility at Stokes Point are examples of projects which, through a variety of public processes, brought forward many objections and indicated the resource use conflicts generated by these developments. The establishment of Kluane and the Yukon North Slope National Parks were also "major projects" that raised the furor of competing land and resource users.

Hydroelectric development provides a good example of the types of impacts large projects can generate. The Yukon's hydroelectric potential is estimated to be about 11,000 megawatts. Its development could greatly help to reduce the Yukon's dependence on imported gasoline and diesel fuel for energy generation and the substantial drain on the Yukon's economy that this represents. Hydroelectric development, however, conflicts with other water resource uses that depend on natural flow regimes; fisheries and aquatic wildlife habitat, and to some degree recreation and domestic use. In early stages, hydroelectric development can interfere with other resource uses because of the necessity of imposing a flooding reserve over large areas of land pending final determinations about whether the project will proceed. Along with considering the impacts on these other resource uses, hydroelectric development must be assessed in light of: local demand outlooks (will a demand be there to make up for the costs of development?); other sources of demand (is export a feasible alternative?); and costs of development (what effect will the price required to pay for the development have on demand?).

Recommendations: The history of hydroelectric and other developments in southern Canada reveals how extremely difficult it is to determine when conditions are optimal for

initiating major new projects, particularly if government funding or guarantees are involved. Most provinces now have procedures whereby new projects are assessed and then reviewed by a utilities commission or a regulatory body like Alberta's Energy Resources Conservation Board, even if they are sponsored by a publicly-owned authority. After public hearings, recommendations are made to government. The final decision is basically a political one made by the provincial cabinet.

What Yukon requires is:

- * a social, economic and environmental impact assessment process that will publicly report on all aspects of a major project, relating it to the overall planning goals of the Yukon, predicting its adverse and beneficial impacts and recommending how these impacts can best be managed.
- * a board (e.g. Utilities Commission) with statutory authority to review all major new projects, whether public or private, and to recommend to government whether approval should be granted and the terms and conditions under which the project should be approved. All affected public groups would be given the opportunity to participate in public hearings held by the board.
- * a system for integrating these assessment and hearing processes with similar procedures established for projects on native settlement lands, because it will be not unusual for the impacts of projects to spill over from native lands to other parts of the Yukon and vice versa.

5.6 Conclusion

Reviewing the procedures we have recommended in the preceding pages for dealing with particular resource use conflicts, we find that governments have the following mechanisms available for resolving conflicts:

- land use planning to set goals and guidelines
- social, economic and environmental assessments for predictive and mitigative purposes
- public hearings, inquiries and task forces to define issues and make recommendations
- advisory boards to make recommendations to governments on management and standard setting
- consultative mechanisms, including contractual arrangements, that allow the parties to solve their own problems
- compensation systems to offset loss on the part of those adversely affected
- use of mediation and arbitration techniques.

Ultimate responsibility rests with the government and the legislature to have in place appropriate mechanisms and procedures for conflict resolution. Since government is also the decision-maker in many conflict situations, it is in its self-interest to ensure that these mechanisms and procedures function effectively and efficiently.

The next chapter proposes an overall system for managing land and its resources in the Yukon that would provide a framework for efficient and effective conflict resolution mechanisms and procedures.

VI. LAND AND RESOURCE MANAGEMENT
IN THE YUKON ... IN 2000?

6.1 Land Management in the Yukon Now

Currently, most land is managed and conflicts resolved under federal legislation and administrative bodies. The main components of this regime are:

- * The statutes: the Territorial Lands Act and its Regulations are the main pieces of legislation authorizing the sale, lease, or temporary use of federal lands. Other laws that can affect land use are mining acts and national and territorial parks acts.
- * The administration: federal land in Yukon is administered by the Regional Office of the Northern Affairs Program of the Department of Indian Affairs and Northern Development (DIAND). For most applications, this office refers applications for land leases and land use permits to advisory committees comprised of members from other federal agencies and from the YTG. The committee members offer comments and recommendations on the applications, which the Regional Land Office may or may not include when issuing the lease and permit. Very large-scale proposals may be referred to the federal Environment Assessment and Review Process (EARP) for more extensive consideration involving public participation.
- * Planning: there has been no formal land use planning to date. However, DIAND, the YTG, and the Council for Yukon Indians are now developing a cooperative Land Use Planning Program for the Yukon.

We see, then, that the current regime encompasses most of the basic components of land management for dealing with land use conflicts. However, there are problems in some of these components. For instance, the YTG wishes to have direct control over land in the Yukon, rather than simply advisory status to federal administrators, so that it can respond effectively to local and regional land use priorities.

Secondly, the advisory committee system is considered ineffective in coordinating government agencies; referrals are often made with insufficient time for members to respond, or their recommendations are ignored by DIAND's management office. It is significant to note that this committee was not established under any legislation, but simply because DIAND thought it a good idea to have such a committee. The effect, however, is that DIAND's managers are not obliged by law to refer applications to and take account of the comments of this committee. As a result, conflicts occur fairly frequently between government agencies representing different resource use interests, causing considerable confusion and uncertainty for prospective land users and the general public.

6.2 Land Use Management in the Future

Assuming that the Yukon will eventually gain jurisdiction over its lands through devolution, how could a future land management structure improve upon the present system to deal effectively with conflicts among mine development, park development, agriculture, outfitting and any other land uses?

A land use planning system: The principles of such a system are now being developed by the YTG, DIAND and the Yukon Indians. Land use planning will likely be carried out on a region-by-region basis, as is now occurring in the NWT. This type of process would help resolve conflicts in two ways. First, it would allow a forum for representatives of the various conflicting uses to try to reach mutually acceptable arrangements for land use within their region. Second, by setting land use objectives for a given region, it would make clear to all prospective land users just where priorities for that region lie.

Land Administration: As the YTG gains more control over land, it would be desirable to have one agency that is responsible for coordinating all of the various government activities that affect land use decisions and for providing a single referral point to the public on land use matters. Initially, these responsibilities would be purely administrative: receiving all land use applications, screening them as to "routine" and "nonroutine" uses, and referring them to the appropriate committee or level of government for a decision. The agency would be responsible for managing an established procedure for referring applications and issues to other federal and territorial government departments and agencies for input into land use decisions, and for maintaining and circulating updated information regarding the status of land to these agencies. A third important function would be to ensure that land use decisions comply with established land use plans and conservation policies as these are developed in the Yukon, notifying the senior levels of government when there is or will be a conflict with any of these policies. Just such a "single window" approach to land administration is apparently being developed within the YTG.

Review and Allocation - "routine" land uses: These are now handled by a federal land manager with advice from federal-territorial committees. This type of structure could simply be retained by the YTG; that is, a "land manager" with an advisory committee comprised of representatives from various territorial government departments. Alternatively, actual decision-making could be carried out by a territorial interdepartmental committee.

Review and Allocation - "major" land uses: There are various ways of dealing with land use issues and conflicts of a greater magnitude, such as proposed land uses that conflict with long-standing uses or with established land use policies and plans, or which generate considerable public controversy.

A permanent committee of YTG ministers with land and resource-related portfolios could be struck to deal with such matters. Alternatively, a committee at the deputy or assistant-deputy minister level could be formed. Choosing between these two alternatives would depend on whether it is desirable to resolve these issues at the political or bureaucratic level of government. A third alternative is to strike a board of government officials and/or nongovernment appointees that would be responsible for publicly assessing conflict situations and arriving at a decision that would be binding on the government. This body could be formed on an ad hoc basis as issues arise, or be a "standing" committee that responds as issues are referred to it. The policy advisory committee, comprised of government, native and other nongovernment representatives, that is being proposed under the Yukon land use planning process might be considered for this function. This option would provide a direct link between planning and decision-making functions.

Integration: How would this structure fit into the current administrative framework and then be adapted to future government structures as devolution occurs? The YTG is evidently already considering the establishment of a territorial agency that would take over administrative functions: receiving applications, referring them to appropriate decision-making bodies, and issuing land use permits and leases. Later, as devolution progresses, this agency could take on monitoring and enforcement functions, and even the decision-making responsibility for "routine" land uses. In this way, the YTG can develop the administrative structure best suited to the Yukon's needs; to "grow" into land use management responsibilities as these progress from shared federal-territorial to fully territorial areas of jurisdiction.

Similarly, committees to deal with routine and major land use applications could at first be made up of the federal and territorial members that now comprise the land use advisory committees, but eventually these committees would be replaced by territorial inter-departmental committees as complete jurisdiction is devolved.