

A REPORT AND RECOMMENDATIONS ON THE  
YUKON TERRITORY - ITS LAND AND  
RELATED RESOURCES

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YUKON  
COMMUNITY AND  
TRANSPORTATION  
SERVICES

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## INTRODUCTION

This report relates the findings and recommendations of the author regarding land utilization and resource management in the Yukon Territory. Five basic needs of society are dependent on land and related resources. These needs are: food, shelter (a place to live), jobs (income), recreation and culture, and quality environment. The extent that these needs can be met is dependent upon the supply and availability of the resource. The method of managing these resources to meet those needs are components of a "Comprehensive Land Use Plan". Planning is a process made up of three basic steps:

- (1) determine the objectives or goals (decide where you want to go),
- (2) analyze what you have (resource inventories, capabilities, assets)
- (3) decide how to reach your goals and objectives (programs to meet where you want to go with what you have).

This report puts forward for consideration a system by which resource and land use management plans could be developed for the future. The acceptance and implementation of recommendations contained within this report should enable the Yukon Territorial Government to manage resources through utilization of this orderly process.

## BACKGROUND

One can read in reports, newspapers and hear on street corners, an old cliché, "The Yukon is the last Frontier". Another paralled statement repeated many times is that "Yukon is unique and things have to be done different up here".

People who express these clichés, do so with a sense of pride. As one attempts to analyze resource management problems in the Yukon, one quickly realizes that neither of these familiar statements are valid in the context with which they are expressed. The only area in which the Yukon is the "last frontier" and "unique" is that most decisions are made thousands of miles away in Ottawa. The real fallacy in this type of administration is recognizing problems twenty years "behind the times" and "unique" because no concentrated effort is being made to overcome these problems. The Yukon is not so different that it could not benefit from experiences and knowledge gained elsewhere. It is unfortunate that these myths exist as recognition of modern technology and management could enable the Yukon to be a Canadian model of excellence. It is the intent of the author to examine the problems of land and related resources in the context of this report. In carrying out this assignment, one must be aware of how and by whom resources are being managed.

Administration of natural resources in the Yukon is divided between the Minister of Indian Affairs and Northern Development (Federal Government) and the Commissioner of the Yukon (Yukon Territorial Government). This division of responsibility was made possible by the passing of the "Yukon Act" 1952-53. This Act has been updated and amended several times, but there are still broad areas of responsibility which are open to interpretation. Society in general is now beginning to appreciate that most natural resources inter-relate and depend one upon the other. This inter-dependency is collectively referred to as ecology. Unfortunately, when one divides administrative responsibility by resource discipline, management of any single resource is often at the sacrifice of some other related resource. This situation is further aggravated in the Yukon as resource responsibility is divided between Federal and Territorial Government. Perhaps the best way of explaining the problems which now exist, one should look at each of the resource discipline areas.

LAND

Responsibility for surface rights administration in the Yukon is divided between the Federal and Territorial Government. The Minister of the Department of Indian Affairs and Northern Development administers Federal Lands through legislative authority of the "Territorial Lands Act" and "Territorial Land Regulations".

Some lands have been transferred to Yukon Territory under the control of the Commissioner of the Yukon, and are administered under the legislative authority of the "Lands Ordinance" and "Land Regulations". Both the "Territorial Lands Act" and the "Lands Ordinance" deal with procedures and methods of land disposal. Land Use on Federal Lands is controlled under the "Territorial Land Use Regulations". These regulations more specifically set out environmental protection criteria for temporary uses of land. Land use under the Yukon Territorial Government authority falls within the jurisdiction of the "Area Development Ordinance" and "Area Development Regulations".

The Federal Government has set up two advisory groups to assess applications under these two major legislative authorities. The "Federal-Territorial Lands Advisory Committee" advises and recommends on applications for land disposal. The "Land Use Advisory Committee" advises and recommends on land use permit applications.

The Territorial Government has a Lands Administration Unit under Local Government which deals with concerns on Commissioner's lands. The Municipalities have land use authority within the boundaries of their authorities. This magnitude of acts and regulations promotes confusion to the general public, and it becomes difficult to recognize which agencies have authority over what jurisdiction. The various land authorities are illustrated in the following chart.

<u>Legislation</u>	<u>Jurisdiction</u>	<u>Purpose</u>
Territorial Lands Act	Federal	Land disposal
Territorial Lands Regulations	Federal	Terms of disposition
Territorial Land Use Regulations	Federal	Environmental constraints and land use
Lands Ordinance	Yukon	Land Disposal
Land Regulations	Yukon	Terms of disposition
Area Development Ordinance	Yukon	Land use zoning
Area Development Regulations	Yukon	Zoning regulations
Municipal Ordinance	Municipal	Establish Municipal Government
Municipal Zoning Regulations	Municipal	Zoning and land use Control
Local Improvement District Ordinance	Yukon	Advisory capacity to Commissioner for zoning control

In addition to all these Acts, Regulations, Ordinances and Bylaws, many reserves are established through correspondence between the Commissioner and the Minister. Most of the reserves are along major highways as "Development Control Areas" parallel to the transportation corridor. This maze of legislative authorities assists and contributes to administrative chaos and three resulting actions occur.

- (1) The general public is mis-informed as to who has authority for what, resulting in frustration in their attempts to find an answer.
- (2) Independent administrative decisions are made which affect another authority without acknowledgment by that authority.
- (3) The public ignores all authorities and carries forward their desires, fully appreciating the administrative chaos, and knowing that it may be years before their unauthorized action is found out. When the activity is recognized, again it may take years for positive corrective measures to be enforced, if enforced at all.

The Federal disposition policy basically is "to make land available when and where it is required consistent with the protection of public interest". The Territorial Government is responsible for services, thus they act in the advisor capacity to the Federal Agency on "public interest". This advisory capacity is accomplished through the Federal-Territorial Lands Advisory Committee. The "public interest" is usually expressed in judgement as to whether or not the disposition will necessitate additional service costs.

The Territorial Government does not have any definite disposition policy on those lands under the control of the Commissioner. Lands are made available within fully serviced, surveyed subdivisions, with all other types of applications apparently being judged on their individual merits. Again, the dominant concern is added cost of servicing if disposition is accepted by Government. This lack of positive policy has in effect been interpreted as land being unavailable. Opposed to the lack of land availability is the inherent desire of most "Homo Sapiens" to have "their own place in the sun".

The onus for making land available is on Government. The demand for a variety of alternative subdivisions is recognized by Municipal, Territorial and Federal Governments. Action programs are much harder to recognize as each level of Government has a tendency to "pass the buck".

COMMUNITY SUBDIVISIONS

Existing and new subdivisions are being developed by bureaucrats and planners who feel they are meeting the needs of the public. There appears to be an assumption that public needs are being met due to the fact that the demand for lots is greater than lot availability. The fallacy of this assumption is obvious. If all other alternative building sites are frozen, the public is forced to accept those which are available.

There is little evidence that the public has had the opportunity to participate in designing the kinds of subdivisions they desire.

Subdivisions with different levels of services should be developed. There is demand for acreage lots fully serviced, partially serviced and unserviced. Public interest has to be protected with regard to the environment. Using this criteria, if a partially serviced site requires that a field septic system be part of the development, the acreage required per building site is dependent upon the capability of the soil, rather than the cost of services. Unfortunately, costs have been the overbearing decision maker on subdivision development, and thus the urban areas in the Yukon become stereotypes of their Southern Canadian counterparts. The difference being that in Southern Canada, the cost of land is also a burden. This is not the case in the Yukon where the land is owned by the developer (Territorial Government) and sold at the cost of service development only.

There may be reasons, based on development control, waste disposal, and environmental protection, which would suggest the Territorial Government provide unserviced lots on long term lease rather than outright sale. Any lots which are serviced or have partial services could be sold through adherence to the existing regulations.

It is recommended that at least three levels of acreage and/or rural residential uses be recognized and developed within the Yukon.

1. Acreage lots

These are strictly residential lots within the municipal boundaries. The areas selected should be selected according to scenic values, timber vegetation, and location to existing access. The services provided might include all or combination of road, sewer, water, hydro and telephone. The minimum acreage suggested would be 1 acre and maximum 3 acres. These would be recommended guidelines only, and are dependent upon location and environmental concerns.

2. Rural residential

These are acreage subdivisions outside or inside of existing municipal boundaries which are designated as primarily residential use and some minor agricultural endeavours. These subdivisions would be designed for those desiring building sites and space rather than productivity. The area selected would be according to location of existing access and preferably, be partially covered by timber. It would be intended for those people who desire rural living which may include the keeping of some animals and/or large garden. The size should be minimum of 5 acres, with a maximum 10 acres, but again be dependent upon location and terrain. The services provided would be minimum, which would include all or combination of road, hydro and telephone.

3. Small Farm

These subdivisions would meet the requirements of those people who desire country living along with hobby farming or rural pursuits. The area should be selected according to the capability of the land to produce agricultural crops. The soil capability studies to be conducted during 1976 will assist in selecting most suitable areas. Permitted uses would include small livestock enterprises and market gardening. The size of lots should be minimum of 10 acres and maximum of 30 acres. These are guides only, and dependent upon location and terrain. The services provided could be all or any of roads, hydro and telephone.

General

The building standards in all levels of subdivisions would be minimum of the National Building Code. Within

the Acreage Lots the standards and zoning should be of a higher quality as they are meant for residence only. Those of rural residence and small farm could be somewhat less than the Acreage Lot standard. Regulations would be required to guard against further subdivision of these lots. In no case should commercial or industrial use be tolerated, unless it is compatible with rural living such as a commercial market garden and greenhouse production. Both rural residence and small farm could be planned and allocated within one area if the terrain allows such development, and uses are compatible. Both of these latter two subdivisions may have a charge against the land over and above the cost of services.

#### Squatters

The lack of alternatives, other than fully serviced lots in subdivisions, can be partially blamed for the existing squatter situation. Certainly, there are other contributing factors as to why people take illegal possession of land, but the unavailability of alternative building sites is an argument which can be documented.

The creditability of government regarding its ability to manage land is reflected through the handling of the squatter situation. The Land Ordinance (Section 26) and the Territorial Lands Act (Section 16) specifically set out restrictions against the unlawful use and possession of Crown Lands. Enforcement of the existing legislation is necessary if squatter developments are to be stopped.

In order to deal with the present squatters, a recommended policy would be:

1. Inspect every situation and document as to location, occupants' case history, value of improvements.
2. Provide alternative building sites within surveyed subdivisions. These sites would have a variety of service levels provided according to the subdivision design.
3. Legalize the squatter if
  - (a) the building meets the standards of existing building codes
  - (b) If the building is in a location either designated or to be designated as a subdivision with compatible services

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- (c) the squatter agrees to pay service costs which include survey costs, roads or whatever
  - (d) that the environment is adequately protected by this use.
4. If the squatter has to relocate, they should be given a definite time period and this should be enforced.

#### Maps & Surveys

Communications between agencies and between the general public and agencies is a common problem to all levels of Government. Communications regarding land problems are exceedingly difficult in the Yukon due to a lack of a definite control network. In the past, the most common landmark was by milepost description. The present metric conversion is replacing milepost markers with kilometer posts. The various Government Agencies use a variety of maps with several different map scales. A Map Reference System is being used in the Yukon in the form of Group Sheets. Each sheet covers an area forty-eight by sixty-four miles. One of the priorities for land administration would be to develop one uniform land identification system for the Yukon. Four major steps are required in development of a system.

1. Decide upon which system to be used and establish a control network. Demarcation is fundamental to boundary definition, and is an essential prerequisite. Both primary and secondary control network is necessary which would permit an accurate ground reference.

Most of North America uses a section, township, range grid system. There are some disadvantages to this system, but it is understood by the general public. Canada is now turning to the metric system, and adoption of the "Universal Transverse Mercator" system may be more appropriate for adoption in the Yukon. Demarcation in any detail could be confined to areas within and

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surrounding existing communities. Some additional demarcation and monumentation should take place along all major highway systems in the Yukon.

2. The creation of accurate large scale base maps that are tied into and show the control network. This could be achieved through the use of aerial photography.
3. Develop a lands registry which provides for the inter-relationships of different users using a common co-ordinate grid system and a common means of describing land. All land parcels would be reflected on maps with established ground control.
4. Conversion of any present existing survey plans into the co-ordinate grid system.

This whole process would involve close liaison and communication between the users and the system designer. The system should be designed so that it could be handled manually at present, but be capable of conversion to computer at some future date.

#### TERRITORIAL LAND ADMINISTRATION

The Commissioner's lands are presently administered by the Territorial Lands Branch under the Department of Local Government. The areas of responsibility cover subdivision planning and development, land disposition and maintaining files and land records. The present administration has many difficulties most of which could be overcome with better organization and assignment of responsibility.

The land administrations in the Yukon have continuing difficulties in land identification and Crown land registry. Federal lands presently administer about twenty-four hundred leases and agreements. Approximately 50% of these documents cover areas which are described by metes and bounds description. There is no specific legislation under the Territorial Lands Act referring to the necessity of maintaining a Crown Lands Register. Further to this, the Department of Indian Affairs and Northern Development, charged with the land administration responsibility, are not responsible for recording land

held by other Federal Departments. Thus, there is no Central Crown Register. This has created difficulties in assuring that all dispositions were transferred from Federal to Territorial Lands within Block Land Transfer areas.

The Territorial Government has legislation regarding a Land Register, but it appears to be somewhat misplaced under the Territorial "Lands Regulations" Section 5(2) "Sale of Land". Contributing to these difficulties is the lack of an orderly survey system previously mentioned.

The first action required is to separate specific land responsibility areas by management function. Three areas can be set out as the following:

1. Files, Records and Registry

The present system has land files in a central registry and information pertaining to a specific land parcel may be filed on more than one file. A modern land administration has a prime responsibility of knowing what land it controls, and what disposition applies to that land. An updated land registry is the essential tool in achieving this responsibility.

Five major steps are required in this section:

- A. Assigning responsibility for files, records and land registry to one individual.
- B. Institute a proper set of land files by individual land parcel. This filing system should be located within the Lands Office.
- C. Any recording that goes into the Registry should have an authorizing requisition initialled by the Lands Administrator.
- D. Obtain the services of a draftsman for plotting and map production. Within any lands administration, there is a need for quick retrieval of information. A combination of proper files and an updated registry contained within the Lands Offices, along with proper drafting compliment should provide this asset.

- E. Records and files should be microfilmed and this film stored in a vault in another building. The present system has limited security. It is vulnerable to defacement as well as total destruction in the event of fire. Subsequent reconstruction would be almost impossible due to the lack of a proper back-up system.

## 2. Land Disposition

This area of responsibility covers sale agreements, lease agreements, as well as quarry and timber permits. Much of the work load involves exacting document preparation and public inquiries with regard to land availability. Related to most agreements are records on accounts payable and revenues received.

Two major steps are required within this management function:

- A. Assign the area of disposition to one individual. The various legal documents issued on land agreements must be accurate. Consistency, accuracy and any necessary follow-up can be better achieved by having one person charged with full time responsibility. Also, any delay in issuing agreements results in public reaction.
- B. The services of a land inspector should be acquired. Proper land inspection reports would not only record "what is" but could indicate "what should be". Presently, most information is dependent upon the applicant and analysis of the application form. Enforcement of existing regulations are a must if proper management is to take place. At the present, enforcement is not taking place, and resulting problems are normal occurrences.

## 3. Development

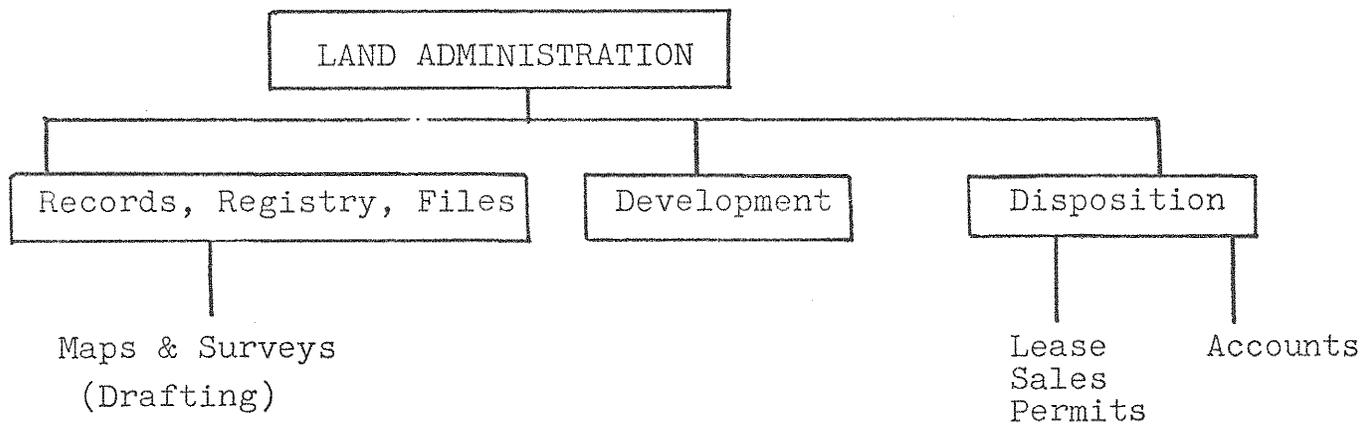
Subdivision development has already been discussed in an earlier section. The present administration has development split in responsibility between several divisions and different departments. Definite

decisions are required within this specific area as the amount and type of development carried forward is subject to immediate public reaction. There presently exists some confusion as to the role and responsibility of planning for development and the actual development itself.

Several steps are required in defining a proper management system for development.

1. The land planning function within communities should not be under Lands Administration, but rather under the responsibility of the Local Government Advisory Services. This group works most closely with both Municipal Councils and Local Improvement District Boards in designing the total community structure.
2. The actual on site service planning and development should be the responsibility of the Municipal Engineering Branch or hired consultants.
3. The role of Lands Administration in development would be to co-ordinate the total development to assure it corresponds with the agreed upon community plan. The development, upon completion, would be the responsibility of the disposition section.
4. Land Use Planning outside of communities should be the responsibility of a resource orientated body with broader terms of reference than that of the Department of Local Government. Under such a system the resources surrounding a community would be planned and managed in full consultation with that community. This land use planning concept is dealt with in more detail in a later section of this report.

A recommended organizational structure for the Territorial Lands Branch might look like the following:



## AGRICULTURE

The majority of dispositions for agricultural use are under Federal jurisdiction. Some of the earliest such leases and sales date back to the Gold Rush Days.

The existing policies covering agriculture disposition are for agriculture, agricultural/residential and grazing. The disposition policy has now been frozen while information regarding climate and soil capability is being gathered. The recognition of the fallacy of providing agricultural use on lands without sufficient information is more than twenty years behind the times. Agricultural studies dating back to the early 1960's recommended no further agricultural disposition.

The majority of people who have received "agriculture" land really wanted acreage and rural residential lots. These were unavailable and so people quickly learned that the only way to obtain an acreage lot was to apply for agriculture/residential lots. In order to gain title to this property certain improvements had to be developed. One such improvement was that of bush removal and cultivation. Unfortunately, trees were removed from land which did not have any agricultural potential. Early recognition of the requirements for a variety of building sites, plus competent land inspectors, knowledgeable about land capability, could have avoided this mis-use of land. The Territorial Government currently administers several agricultural/residential leases within the block land transfer areas.

The more extensive type of agriculture lease is that of grazing. Again, the policy leaves a great deal to be desired if it is to be used for agricultural purposes. Firstly, no competent range manager classified the land according to its carrying capacity. The figure of 40 acres per animal is used as a criteria for acreages given out under grazing leases. There is very little natural grazing area in the Yukon, and in most cases, 40 acres per animal would result in overgrazing. If a leaseholder wished to carry out improvements, these would not be permissible under the terms of present grazing leases.

The existing grazing lease becomes operational for horse grazing and is not relevant to an agriculture endeavour. The lease describes a tract of land for grazing purposes, but it may never be utilized by the horses owned by the leaseholder. Horse grazing in the Yukon is in reality, a free range situation.

In some areas, horse grazing is in direct competition with wildlife utilization. Uncontrolled grazing also adds to hazardous and unsafe driving conditions on Yukon Highways.

In order to rationalize an agriculture land policy for the Yukon, we should be familiar with the relevant facts. Several detrimental factors cannot be overlooked and include:

1. Marketing outlets are at a great distance and freight costs are extremely high. The total market for production is the consumptive needs of Yukoners. This would indicate that a few producers could supply total requirements and thus production would have to be strictly controlled.
2. At present, agricultural infrastructure does not exist in the Yukon. There are no agricultural machinery dealerships, no chemical and fertilizer dealerships, no livestock feed dealerships. There is no technical advisory service such as that supplied in Southern Canada. There are no agriculture credit agencies, nor farm assistance programs.
3. Processing facilities for agriculture produce are not available in the Yukon. Beef production would require slaughter houses along with proper government inspection and grading. Vegetable production would require packaging and retail outlets.
4. Climate in the Yukon is varied and frost free periods are short. The occurrence of frost at any time during the growing season makes production an exceedingly high risk venture. The choice of crops which can be produced is quite limited. Rainfall does not supply crop moisture requirements and irrigation would be necessary if any significant production is to be achieved.
5. Soils which are capable of agriculture production are low in available nutrients. Decomposition is slow because of the dry, cool climate. Nutrients would have to be added to the soil in the form of fertilizers if crop production is to be maintained.
6. The most desirable climate and soil combination for agriculture may be located some distance from the consumer market. Any production from these areas would require freighting produce to the population center of Whitehorse.

7. The growing season is quite short and winter season long, and sometimes severe. Any livestock production would require eight to nine months of winter feed. In order to operate in a high risk area, like the Yukon, a livestock producer should have one year's additional feed supply in storage.

The Federal Government emphasizes that their responsibility is in the area of supplying land for agriculture disposition. An agriculture policy and infrastructure support is the responsibility of the Territorial Government. Improper disposition on unsuitable lands has led the Federal Government to initiate studies on soil and climate. It seems quite clear that history indicates agriculture production is possible in the Yukon. All production evidence indicates that commercial production is not a viable enterprise. Thus, the information being gathered on soil and climate will only indicate where production is possible, but does nothing towards development of an agriculture policy.

One can conclude that an overall goal of the Territorial Government is "To Make the Yukon a Better Place to Live". If a number of people wish to attempt agriculture endeavours, then some agriculture policy should be considered. It has already been concluded that commercial agriculture is not a viable, nor a completely self-supporting enterprise.

Acceptance of the position that commercial agriculture is not a viable industry, and does not add to Yukon's economic base, is the first positive step to be taken by Government and Yukoners. Adoption of this position will enable energies and monies to be directed to those endeavours which are feasible.

Hobby farming and subsistence agriculture endeavours may provide satisfying modes of living for some Yukoners. It should also be recognized that a few Yukoners are presently attempting agriculture production in a subsistence enterprise. Future technology may enable one to overcome the present production barriers.

Recognizing these factors, the first step in any policy would be to leave future options as flexible as possible. This means that the most suitable agriculture lands should be reserved from irreversible uses. The few individual Yukoners now in farming, and making attempts at viability, should be encouraged through:

1. Agriculture lands should be provided to meet their proven needs through long term leases.
2. The leases would allow for improvements.
3. Improvements would be owned by the leaseholder.
4. The lease should be assignable with the approval of the Territorial Government.
5. A reasonable rent system which relates to use and productivity should be established.

Any new applications for agriculture land would have to be judged on their individual merits. Knowledgeable producers with financial capability should be the only type of applications considered for commercial endeavours.

The grazing lease policy should be terminated in its existing form. A more rational approach would be an annual permit to graze animals. The permittee would then be charged a range fee per head. This system would reflect the present method of grazing management.

Immediate development of "Rural Residential" and "Small Farm" subdivisions would satisfy the majority of Yukoners requesting agriculture acreages. There should be immediate recognition that bush removal and cultivation may not be desirable. Rather than enforcing the covenants of the present leases, the lease-holders should be interviewed regarding their requirements under existing present use. The agreements which contain lease-options would require new agreements for sale, but these agreements would be for rural residential and small farm holdings. The existing land under agreement should be viewed from the possibility of rural subdivision development.

The two areas which should be encouraged are those of home gardening and greenhouse production. Any policies developed with regard to this type of production would be applicable to more Yukoners than an agricultural policy. Recent technology and research is being conducted in Ontario, Manitoba and Alaska on tunnel greenhouse production and hydroponics. The Yukon Territorial Government could assist Yukoners through three actions:

1. Provide a technical advisory service through hiring

experienced qualified extension personnel, and making this service available to the general public.

2. Investigate and make available most recent information regarding greenhouse production, adaptable garden crop varieties and management techniques.
3. Formulate an assistance policy for greenhouse construction and community garden plot development.

The philosophy behind these policies would be to encourage production for home consumption, but a ready market is available for surplus production by Yukoners who are interested in consumption but not production. Alaska is carrying out research and development on a variety of horticulture crops. Close co-operation should be encouraged between the Yukon and the Plant Materials Center, Palmer, Alaska, in regards to obtaining suitable varieties and plant materials.

GAME

The responsibility for game falls within the Legislative powers of the Commissioner of the Yukon. The Yukon Act states this responsibility as "the preservation of game in the Territory". Under modern techniques of management "preservation" is not applicable and the word "conservation" is a truer reflection of man having some management inputs. Modern Resource Management disciplines are no longer solely concerned with "game", but rather accept a degree of responsibility for management of "wildlife" in the broader context of all nature's species whether or not they are utilized as game.

In the Yukon the major wildlife species utilized for food and recreational hunting are moose and caribou. Sheep, goat and grizzly bear are utilized more in the area of trophy hunting, rather than as a food source.

The major trophy hunting in the Yukon is carried out by non-residents through services provided by Big Game Outfitters. As Yukoners become more affluent, there will be competition between residents and non-residents for trophy animals. Decisions are required in regards to closing hunting to non-residents in those areas easily accessible and utilized by Yukoners.

A system of "game management zones" now covers the Yukon, but this can only assist the present outdated management method of setting seasons and limits. Hunting regulations and seasonal limits were the sole techniques used in Southern Canada for many years. The fallacy of this method is now realized as population of some game have declined to the extent that they are no longer a huntable species.

Wildlife managers are now looking at habitat management and manipulation as a more effective method of species management. Two techniques used in wildlife management are inventories of habitat and monitoring of population. Management in the Yukon is in its infancy as there is insufficient knowledge regarding either of the above. Habitat manipulation is near impossible as both the land resource and the vegetative cover are managed by the Federal Government.

Another concept presently being utilized is that of selecting out critical habitat areas and protecting these from conflicting uses. This system in the past has been in the form of "game sanctuaries". Two problems exist with this concept:

1. Proper management might dictate that periodic hunting should take place within sanctuary areas.
2. Status Indians do not regard sanctuaries as occupied Crown Land, and therefore, hunt game on these areas. This defeats the functional purpose of the sanctuary. A newer concept may be more applicable to the Yukon, and that is the creation of Wildlife Management Areas. These could be located in critical habitat areas, defined as occupied Crown Land, and management would fall under the jurisdiction of the Territorial Government.

One of the most apparent conflicts with wildlife management in the Yukon exists between mining exploration access roads (tote trails), and critical sheep and moose habitat. A second area is that of forest fire suppression and protection. Fire control becomes extremely critical with regard to fur and caribou management. This is not stating that all fire is detrimental as one of the modern techniques of moose habitat re-juvenation is controlled burning. What it does indicate is that fire suppression planning has to be closely co-ordinated with wildlife management.

The present system of land management allows horses to graze on an open range system. In some areas of the Yukon there are definite conflicting uses between horse grazing and moose habitat. Establishing these critical areas, where conflicts occur, as Wildlife Management Areas would give wildlife managers the legislative power to control grazing.

Fur production in the Yukon has undergone the same economic inclines and declines prevalent across Canada. The present high market for furs, especially long haired fur, would indicate that some degree of management should be directed to this natural resource. The Yukon has been divided into Registered Trapline Areas, but little has been accomplished in advising trappers on management techniques, processing or marketing of furs. In order to rejuvenate this industry, qualified staff are required to work with the trappers, and design programs to assist them in their industry.

Immediate needs appear to be modernizing equipment, operational credit, and habitat maintenance. Trapline management is required so that fur-bearers are harvested on a sustained yield basis.

### FISHERIES

Responsibility for fisheries management in the Yukon is split between the Federal and Territorial Government. The major economic fish are the numerous species of salmon which spawn in the rivers and tributaries of the Yukon and Alsek River Watersheds. Salmon travel across International boundaries, spend their life span between salt and fresh water, and therefore, are controlled by Federal jurisdiction. Commercial fishing is also under the control of the Federal Government.

Sport fishing is under the control of the Territorial Government, and administered by the Game Branch. Seasonal limits and regulations are established jointly by the two levels of Government, but revenue from license sales returns to the Territorial authority. At the present time, there are no fisheries biologists on the Territorial staff.

The division of authorities between the two Governments has the effect that very little inventory has been carried out in the Yukon. Commercial fishing has not been treated as part of the economic resource base. No attempts have been made to determine sustainable yields from the lakes in the Yukon.

The major concern regarding fish populations in the Yukon centres around blockage of spawning activities. Fisheries biologists are concerned with any water storage proposals which would effect salmon spawning. Their second concern is in relationship to land use activities on stream crossings which would cause blockage and/or sedimentation.

The major economic activity concerning fisheries in the Yukon is that of sport fishing. The tourist industry has increased dramatically in the last five years. This has put pressure on sport fishing opportunity. Angler success has declined over the past few years with an increase in dissatisfied Yukon fishermen. There has been insufficient research and information gathered on fish populations to isolate reasons for declining populations and angler success. The best sport fishing opportunities in the Yukon are located in lakes which are inaccessible except by float planes.

These lakes will come under pressure from fly-in fishing excursions. There would appear to be an opportunity and demand for fishing lodges on some of these isolated lakes. Haphazard development should not be allowed. Inventories of fish populations and recreational opportunity are required on all potential sport fishing lakes in the Yukon. Direct conflicts can occur between commercial fishing and angling. Potential conflicts could occur between lodge development and wildlife populations. In order to overcome these conflicts, any development and management should be under the direction of a multi-dicipline resource organization.

Decisions are required on well defined levels of responsibility for the Yukon Fisheries. The Territorial Government should have responsibilities for all activities relating to fresh water species including both sport and commercial opportunities. The development of a fish hatchery should be investigated as one solution to overcome fish propagation problems.

#### FORESTRY

Forest management in the Yukon falls under the jurisdiction of the Yukon Lands & Forest Service, Department of Indian Affairs and Northern Development. At present, the legislative authority is contained within the Territorial Lands Act due to the absence of a Federal "Forestry Act".

Production from Yukon's forest, that is wood fiber, does not contribute substantial monies to the Yukon economic base. However, utilization by wildlife, fur bearers, and people through recreational use and the aesthetics of scenic viewing, make forestry a natural resource of major economic importance.

Tree growth in the Yukon is very slow, and a complete growth cycle may require 150 years to maturity. Such growth rates would indicate that fiber use of forestry is secondary to other forms of vegetative utilization. A semi-arid climate make forests very susceptible to fire. Indications are that the Yukon has been burned over in the last 100 years with the exception of a few timber stands along river flats where ground conditions were wet.

An increase in tourist numbers increased the occurrences of man-made fires. In order to accommodate campers and hopefully reduce fire hazards, the Forestry Service established campgrounds along major Yukon transportation routes. These campgrounds have now been transferred to the Territorial Government for management, and will be dealt with in a later section of this report.

The Yukon is difficult to manage with regard to fire suppression and protection. The timbered area is vast and access is very limited. The Forestry Service has found it necessary to prioritize fire protection levels. The first concern and highest priority are those areas of human population. This priority zoning of fire suppression leaves the majority of the Yukon in a zone where no suppression occurs unless the fire threatens a zone of higher prioritization. When one deals with wildlife management, this zonation may have detrimental affects on wildlife populations and habitat. It clearly indicates that planning should be closely co-ordinated between these resource managers. The main hindrance to any planning at present is the lack of proper inventories of both forestry and wildlife. Vegetation removal by fire can drastically alter a watershed through speed of snow melt, runoff, and soil erosion. Additional consequences can be the effect on the fisheries resource from additional sedimentation, water supply for water storage and human consumption.

The Yukon Forest Service has recently established a nursery on which to carry out forestry research. One additional asset this facility could supply to the Yukon is in the form of propagating ornamental shrubbery. One of dominant factors retarding landscaping and home beautification is the absence of available nursery stock. A nursery located in the Yukon could overcome this void and supply stock to the general public at a nominal fee. The public in turn would be assured of a supply of indigenous species and adapted ornamentals.

The existing Yukon Forestry Service has all the essential requirements needed to foster the beginning of a Natural Resource Department. Equipment and facilities are valued in the eight million dollar range. Field offices and staff are located throughout the Yukon. The present single resources management responsibility provides the opportunity to gain efficiency through combining resource disciplines under one authority. The interdependency of resource utilization, and a proposal to overcome the existing fragmented management will be dealt with later in this report.

The intent of the foregoing section is merely to point out relationship between forest management and those resource users that are dependent upon that management, but are not part of the management operation.

#### PARKS & RECREATION

Although outdoor recreation is not a resource, this activity is usually dependent upon one or more of the natural resources. At the present time, an affluent society, in general, is applying pressure for recreational outlets as leisure time, access and mobility increase. Any recreational facilities developed should be closely co-ordinated and planned with full knowledge of the effects on the natural resource base.

Recreational planning in the Yukon is fragmented between various departments in the Territorial Government and Federal Government, (Department of Indian and Northern Affairs). A Parks Planner is located in the Department of Tourism and Information Services, and the Recreation Branch is located in the Department of Education. Monies for capital assistance to build community recreation facilities are administered by the Department of Local Government. The Federal Department of Indian Affairs and Northern Development design and develop cottage lot subdivisions for summer recreational use.

The first step in rationalizing a functional approach would be to separate Community recreational facilities and the recreational outlets provided for Yukoners in general. The accomodation of community needs outside of community boundaries would then fall under the responsibility of a multi-resource administration. The accomodation of recreational facilities within communities would fall under the administrative jurisdiction which supplies community services such as the Department of Local Government. The community facilities under this system could be planned for within the context of community development. The broader requirements would be considered under a Regional resource utilization scheme as several resource disciplines are usually concered with these overall developments. The logical location of the overall recreation planning would be under a Renewable Resource Department. The Department of Tourism and Information Services is directly related to economic opportunity and could function more realistically under some overall Economic Development structure. Recreational planning would become part of the total resource planning responsibility with administration and management being carried out under a Parks Branch within the Renewable Resource Department.

Three main areas of management would be:

1. Territorial Parks
2. Campgrounds
3. Cottage Lot Subdivisions

These three recreation outlets should be dealt with in more detail as follows:

#### Territorial Parks

One system used by Governments to provide a recreational base is to set aside land areas for public use and refer to these areas as "Parks". A Parks system has been recommended by the Territorial Government for the Yukon.

Parks should be the responsibility of Government. Large tracts of land are usually involved and the development should be provided through public funds as the Parks are reserved for public use. The selection, planning and development of these Parks should be a multi-resource task rather than through a single discipline approach. After the selection and planning process has been completed, there may well be opportunity for private investment within the Park area. This is a common practise within several Provincial Parks where there is a need for accomodation, lodges and other types of commercial concessions.

Various levels and types of recreational subdivisions could be met within a well planned Yukon Park system. One such type of demand is that of providing seasonal travel trailer occupancy sites. This would be an area where Yukoners could reserve a site for seasonal use only, as not everyone desires a permanent recreational cottage site.

Another type of facility that could be accomodated within Territorial Parks is that of Wilderness cabins. This program is being successfully managed in Alaska and the twelve month demand is far greater than the supply. The concept involves isolated cabins, built by Government, access being hiking or by canoe in summer, snowmobile and/or skiing in winter. Day use fees are charged with a maximum stay period of two weeks. The renters supply their own food and sleeping comforts. The idea of the program is to provide people the opportunity to obtain a wilderness-living experience.

### Campgrounds

Two separate levels of campground development are necessary in the Yukon. There should be those designed primarily to meet the needs of Yukoners and those developed primarily to accomodate the tourist trade.

The separation in responsibility becomes important to management of these different facilities. Campgrounds for the travelling public (the tourist) lend themselves to private as well as a public investment. In order to maintain high standards, private campgrounds should be licensed under the control of the Territorial Government. The government should be prepared to provide technical advise and site planning assistance to private operators. Specific standards dealing with layout and facilities are required to provide investors with the guidelines for development proposals. In areas where there is a lack of private facilities or where private investment would be uneconomical, the Territorial Government has an obligation to develop the campsite facilities. However, the Government should not be in competition with private enterprise providing a set of standards is being met by private investors.

### Cottage Lot Subdivisions

The Federal Government is presently in charge of cottage lot subdivision development for summer recreational use. The planning of cottage lot subdivisions is not being treated in the context of meeting the total planned recreational needs of Yukoners. A more rational approach would be to look at all alternative sites, recreation capabilities, distance from those creating demand, the type of lot requested, the level of services required by the market, and possible conflicting resource uses created by any particular subdivision development. In order to accomodate this planning effort, it would be necessary to carry out a recreational capability inventory over much of the southern portion of the Yukon. A minimum would be a recreational capability inventory of all major water bodies in the Yukon.

The development of cottage subdivisions can be considered a permanent land use allocation, and thus ramifications of such decisions should be considered from a total resource impact. As with community subdivisions, alternative types of cottage subdivisions should be considered. The level of services provided could vary from road, water and electricity to isolation with no services, and only access by air or water.

The possibility of accomodating cottage development within Territorial Parks should not be overlooked. It is envisioned that such developments could be considered as part of the Master or Management Plan.

### HIGHWAYS

The development of transportation routes are a major activity which have permanent effects on land use along its corridors. Any new highway needs to be planned for maximum utilization by all resources with minimum environmental conflict. The two major highways in the Yukon, the Alaska and the Klondike, have several lodges located on them which are no longer viable enterprises. The spacing and location of these lodges was left to the discretion of the individual entrepreneur who applied for a building site. In some instances, the highways were realigned and straightened, and existing lodges were by-passed which virtually forced them out of business.

Several considerations are required prior to new highway development:

1. Any new major road should require land use allocation approval.
2. Any proposal put forward for approval should contain an environmental impact statement.
3. The location of new routes should achieve maximum resource consideration prior to approval.

Decisions are required with regard to location of service centers along highways. The services should be planned so that they are located in centers which are adequately spaced to provide opportunity for economic viability. In remote access areas such as the Dempster Highway and the Campbell Highway, the service centers may have to be built by Government and leased to private management. This would assure a standard of service is available in those areas where the enterprise would not be economically viable under private ownership.

Service requirements should be investigated along both the Alaska and the Klondike Highways. Decisions are required as to where service centers are necessary with full consideration given to existing services. A starting point would be to refuse any new application until such a study is finalized and decisions are made. These new applicants could be directed to the existing communities along these routes. When the service centers have been designated, an acquisition program should be initiated to acquire the present abandoned lodges along highways. Any new areas designated, which do not contain existing services, could be opened up for competition. A set of standards should be developed for highway services. This would include Government assistance in design and layout of any particular facility, especially roadside campgrounds and trailer courts.

#### MINING

The mining industry provides the basic economic structure for the Yukon as it directly employs 17% of the work force and contributes about 25% of the total wage and salaries. The present day industry is mainly mining base metals as compared to gold in the 1890's. This extraction activity of non-renewable resources has caused some conflicts with the renewable resources. Some of the most obvious concerns are tote trails through critical wildlife habitat, garbage and litter left at campsites, dilapidated buildings at abandoned mine sites, and potential pollution from arsenic ponds near water bodies.

Most of these conflicts could be minimized by closer co-operation between industry and Government. It is in the best interest of mining companies to have stable populations rather than transient workers. In order to maintain stable populations, social amenities become quite important for family life. The maintenance of renewable resources becomes important to the mining companies as they provide the base for some of these amenities such as hunting, fishing, recreational and cultural activities.

The present system utilized in the Yukon for controlling exploration activity and protecting the environment falls under the Territorial Land Use Regulations. The Yukon is divided into management zones where these regulations are enforced. The majority activity area of mining and exploration in the Yukon is in a non-management zone. It is evident the industry has had strong lobbying powers with Government in declaring

the management zones. At the same time, the industry is emphatic that it is not damaging the renewable resource base. It becomes apparent that, if in fact, the mining industry is concerned with environmental and renewable resource protection, then they have nothing to fear from having Land Use Regulations being applicable to the total Yukon.

In the area of co-operation, Government could assist the industry by the establishment of staging areas for exploration activities. Ideally these staging areas would contain the necessary components of an airstrip, garbage dump, fuel storage and equipment compound. They would be spaced every hundred miles or so in major activity areas and preferably have road and/or water access.

Mining and exploration companies should be required to post performance bonds. The amount would be dependent upon the size of operation and would be refunded upon satisfactory completion and clean up of their exploration or mining activity. Staging areas containing garbage dumps would greatly facilitate the industry in meeting the terms and conditions of the performance bond.

Tote trails should be subject to Land Use allocation and require approval prior to development. Under such a system, the renewable resource managers could assist in planning access which provides minimum conflict with wildlife, forestry and recreation. This could also provide for maximum benefit of these trails in opening up new recreational opportunities for Yukoners.

The present Land Use Regulations often have enforcement officers policing contractors and operators hired by large companies to carry out certain activities. This necessitates a very detailed set of guidelines and costly supervision on behalf of Government. Under a system of posting a performance bond, the company would be responsible for the operators activities. Government would then set the acceptable standards and companies could devise the methods by which these standards are met. This would allow greater flexibility to operators who often require a change in plans to meet unforeseen problems. It should also eliminate constant Government intervention and costly inspections for supervision.

## WATER

The jurisdiction responsibility for managing water in the Yukon falls under the Federal Government. The overall authority is contained within the "Northern Inland Water Act".

There is provision under the Act for the establishment of a Yukon Territory Water Board. The main object of the Board is to provide for compensation, development and utilization of the water resources for optimum benefit of Yukoners and other Canadians. The mechanism of control is implemented through the issuance of licenses.

Potable water for domestic use is not of prime concern and thus very little information exists in this area, for the Yukon. There is a definite need for information on groundwater availability, location and yield. One first step in assisting to gather information would be the licensing of well drillers and tabulating their drilling results. Groundwater hydrology studies should be carried out in all communities in the Yukon. Any rural subdivision planning would require this information. Irrigation potential should be known prior to any decisions regarding garden and farm land use allocation. Major development proposals such as water storage reservoirs for hydro electric projects come before the Water Board for licensing. The implications of such a development affect many resources and thus should require an environmental impact statement prior to applying for a license.

It is recommended that the responsibility for water allocation fall under the jurisdiction of a Yukon Board. Later in this report, there is a recommendation on the formation of a resource regulatory board, to have authority over all Yukon resources. This Commission could replace the existing Water Board as the regulatory body.

## LAND USE PLANNING

Planning is not an item on an agenda which can be dealt with by committee, and then its on to the next item. Planning is a process, not always the same, however, the general overall philosophy is the same. The basic principles can be simply described as:

1. determine the objectives and goals (decide where you want to go).
2. analyze what you have (inventory, assets, etc.)
3. decide how best to reach your goals (design programs to meet where you want to go with what you have).

Both the Federal and Territorial Governments have been addressing themselves to the need for land use planning. There is confusion as to which government takes the initiative and which branch within Government is responsible.

Many people think that "land" jurisdiction becomes the lead agency in any land use planning function. This concept is not accepted by the author, and is not the one put forth for consideration. Land becomes the control agency and the main function of the Land Administration falls in the area of management. The responsibility of lands then becomes control through:

- a. issuing land use permits
- b. issuing disposition agreements for sale and lease
- c. accepting and registering right-of-way and easements
- d. maintaining accurate records of all land use allocation and land dispositions.

The "lead" agency recommended to carry out Land Use Planning would be an organization of multi-discipline, professional and technicians utilizing the "planning process".

In order to determine land use objectives and goals, one must first determine the overall development framework. Land use and management can be a powerful force, and is certainly a primary tool in development. However, in order to know where you are going with land use, one must know the total development scheme. Land use then becomes integrated with social and economic development. That is, the goals for land and land use are usually stated as objectives under economic and social goals. There seems to exist a certain amount of confusion regarding land use planning and what is expected from this process. This confusion stems from the fact that so many people have broadened the term "land use planning" to mean so many things that everything done relating to land and resources reflects this process.

In recommending procedures on how to apply planning techniques to land and its resources, one first should qualify what the various types of land use planning mean. There are three types of land use planning which affect the way in which land resources are used.

The first type is what one would call "true land use planning". This is a process which seeks to identify public goals and objectives in the use of land and continues to refine these goals as they are subjected to current development proposals, changes in technology and changing public needs and opportunities. This process involves a high degree of public policies and the resulting plans are used as guides for the use of land resources. Most land use decisions are made by the public policymakers of the day.

A second type of planning can be referred to as "Land Management Planning". This planning is usually carried out under fairly stable goals and objectives. A great deal of planning goes into this process and is usually confined to professionals and technicians as managers of the overall "Land Use Plan". Most resource programs are designed to achieve the goals of the Land Management Plan."

The third type of land planning can be referred to as "Project Planning". Most project planning deals with capital improvements and is guided by knowledge of the identifiable end product. Such examples as a water control dam or highway would fit into the project planning process.

The "land use planning" process recommended for the Yukon can be referred to as the "Dynamic Approach". That is, you maintain updated inventories and data banks which enables Government to develop policies which guide and steer resource development. This approach is in contrast to the traditional method of developing a well defined land use plan. In order to facilitate either approach, there must be adequate resource inventories. This resource data has not been gathered for the Yukon. During the 1960's the Federal Government participated with the Provinces in gathering resource data through the "Canada Land Inventory Program". Unfortunately, the Federal Government did not feel it appropriate to extend this program to the land over which they had administrative jurisdiction. Further discussions in 1973-74 were held between the Provinces and Ottawa with regard to the development of an approach to gather base data inventories for Canada's Northlands.

Again, nothing has developed from those discussions which would benefit the Yukon. It is necessary that inventories be gathered, if one is to make intelligent decisions regarding land use policy. Thus, the first step required is to design a resource inventory program, and initiate this program in areas where major development may take place in the next five years. The minimum type of inventory program required would be a biophysical classification of resources. This system of information relates to elements in the environment - landforms, climate, soils, permafrost, vegetation, water bodies, - that form homogenous or ecologically significant land units which can be recognized and mapped. This data is required prior to making decisions on resource development. Too often the collection of base information begins after resource development decisions have been made. Several prime examples can be sited across Canada concerning hydro power developments, and the Yukon is no exception with the Aishihik Power Project. Some other major economic activities applicable to the Yukon which influence land are:

- A. Highways
- B. Railways
- C. Pipelines
- D. New communities for new mine sites.

A positive position would be that every major development require an environmental impact statement as part of the major activity proposal. A major activity would be defined as, "any permanent or semi-permanent development which affects human activity". This impact statement would be the responsibility of the developer. The assessment of the statement would be the responsibility of Government. This assessment would only be possible if adequate resource data were available to Government.

It has been demonstrated throughout this report the fragmentation of the various resource responsibilities. The application of land use planning process would be impossible under existing split jurisdictions. One can only conclude that to deal with land and related resource in the Yukon, there is a need to bring management responsibilities under one administration organization. Resources could then be managed by responsible Government for the most important resource we have: "People".

RENEWABLE RESOURCE ADMINISTRATION AND MANAGEMENT

The present system of resource planning and management is fragmented between a poorly co-ordinated Federal Government administration and immature partially organized Territorial Government administration. The resource goals and objectives under the Federal authority are of a national scope. These are then mixed with Territorial goals which are much more regional in nature. A more rational approach would be to have Territorial goals and objectives with national guidelines to protect Canada's interest in the Yukon. In order to accomodate this system, the planning and management of renewable resources should become the responsibility of the Government of the Yukon Territory. This would facilitate the re-organization of various Federal and Territorial branches into a single Renewable Resource Department. The organizational structure described in this section envisions total renewable resource responsibility. The speed by which such an organization can become effective is dependent upon transfer of authority by the Federal Government. If the total concept as proposed is unacceptable, there are several intermediate alternatives which could be adopted until full authority is transferred.

One of the first steps in setting up a Renewable Resource Department would be to determine the goals and objectives. Following are suggestions which could be used by such an organization.

Goal -

The wise use and management of Yukon's renewable resources for the maximum benefit to Yukoners for present and future generations.

Objectives -

1. To manage Yukon's wildlife resources in such a way to supply jobs, and recreational opportunities, and other benefits while maintaining the resources for future generations.
2. To maintain, develop and utilize Yukon's forest resource to satisfy present and future demands.
3. To develop Parks and provide recreational opportunities throughout the Yukon.

4. To preserve and protect Yukon's historic and cultural heritage.
5. To promote public awareness and understanding of environmental issues and concerns in the Yukon.
6. To maintain clean air and pure water throughout the Yukon.
7. To protect Yukon's scenic beauty and environmental excellence.
8. To provide maximum economic and recreational opportunities to Yukon's commercial and sport fisherman while managing the resource on a sustained yield basis.
9. To promote and maintain the highest and best use of Yukon's land resource.

In recommending a Renewable Resource organization, it is necessary to relate and define land use planning, its process and function along with resource management in terms of organizational structure. It would seem appropriate to have at least two functional groups within a resource organization in order to effectively carry out planning and management. These two divisions and their respective responsibilities are discussed under the following headings:

A. Planning Division

This group would consist of senior experienced resource personnel representing the various resource discipline fields of Land, Forestry, Fisheries, Wildlife, Recreation and Water. The overall responsibility would be to provide the true "Land Use Planning" function as described earlier in this report.

Within this overall planning function other objectives would be:

1. to direct resource inventories
2. to advise on policy development
3. to advise on program direction
4. to undertake economic analysis of the implications of new policy
5. to ensure public participation opportunities in the planning process
6. to recommend land use allocation

7. to assess environmental impact statements provided by major development proposals
8. to evaluate departmental programs
9. to co-ordinate interdepartmental programs relating to resource development
10. to co-ordinate and develop any inter-territorial and inter-governmental programs involving renewable resources.

The overall philosophy of this Planning Division would be to apply the principles of "dynamic" planning. They would maintain inventories, analyze Yukoners' needs, and advise on policies which would direct the utilization of Yukon's renewable resource base.

B. Operational Policy & Program Divisions

This group would consist of program implementation and program delivery to the general public. The overall function and responsibility of this Division would consist of "Land Management Planning" and "Project Planning", as well as actual resource development and management. This unit would accommodate the administration, support services, and field staff required to carry out resource programs. It is envisioned that each resource discipline would be represented by an administrator and necessary support staff, administering the various resource programs under legislative authority regarding Crown Lands, Forestry, Fisheries, Wildlife, Parks and Water. The field management of these various disciplines would be the responsibility of a combined support staff. This staff would ensure delivery of the resource programs as developed, approved and funded. More definitive objectives of this division would be:

1. To provide administration of resources according to the legislative authority of Acts and Ordinances.
2. To provide support services for the administration of resource programs.
3. To ensure delivery of various resource programs as approved and funded.

4. To develop public awareness of resource potentials and environmental concerns.
5. To ensure compliance with relevant resource Acts, Ordinances and Regulations.

These are only suggested goals and objectives for these resource management units. One of the first responsibilities upon re-organization into a Renewable Resource Department would be the establishment of definite acceptable objectives which would assist in directing program development. The total concept provides for an integrated resource management system which evaluates policy ramifications and minimizes conflicting uses of land. Single resource management in isolation would be eliminated and multi-resource utilization would be emphasized. The organizational structure of such a Government Department might look like the following chart:

# DEPARTMENT OF RENEWABLE RESOURCES

YUKON RESOURCE  
COMMISSION

MINISTER

DEPUTY MINISTER

RESOURCES  
PLANNING  
DIVISION

ADMINISTRATIVE ASSISTANT

OPERATIONAL POLICY  
&  
PROGRAM DIVISION

FINANCE

PERSONNEL

INFORMATION

PLANNING  
&  
POLICY

WILDLIFE  
FISHERIES  
FORESTRY  
SOILS  
RECREATION  
RESOURCE  
ECONOMICS  
WATER

INVENTORIES  
&  
STATISTICS

MAPS & SURVEYS  
WILDLIFE  
FISHERIES  
FORESTRY  
SOILS  
RECREATION  
FUR  
HISTORIC SITES  
WATER

ORDINANCE  
ADMINISTRATION  
&  
PROGRAMS

FIELD  
OPERATIONS

NORTHERN  
REGION

SOUTHERN  
REGION

OPERATION & MAINTENANCE

WILDLIFE  
&  
FISHERIES

BIG GAME  
BIRDS  
FISHERIES  
FUR  
ENFORCEMENT

WATER

FORESTRY

FIRE PROTECT'N  
REFORESTATION  
HARVEST  
ENFORCEMENT

PARKS

CAMP -  
GROUNDS  
HISTORICAL  
SITES  
PARKS  
COTTAGE  
SUB-  
DIVISIONS

LANDS

DISPOSIT'N  
RECORDS  
& FILES  
LAND  
INSPECT'N

FIELD  
OFFICES

WHITEHORSE  
WATSON LAKE  
TESLIN  
DAYSON CITY  
MAYO  
FARO  
ROSS RIVER  
OLD CROW  
HAINES JCT.  
BEAVER CRK.  
CARMACKS  
PELLY CROSSING

CONSTRUCTION REPAIRS  
&  
MAINTENANCE STORES

NURSERY  
RESEARCH  
REFORESTATION

YUKON RESOURCE COMMISSION

The present organization within Federal and Territorial Governments provides for two multi-discipline advisory groups. One group, the Federal-Territorial Lands Advisory Committee, reviews and recommends on land disposition. There is limited representation on this Committee and no formal approach to application investigation and review. As mentioned in a previous chapter, the guiding factor of "public interest" is whether or not a land disposition will cause additional expenditures on behalf of either Government. There is no requirement for land inspection or filing of a land inspection report with the Advisory Committee. One of the major concerns should be land use implications and possible conflicts which could occur due to the land disposition. The committee will advise on disposition which in essence is making a land use allocation decision without the benefit of resource inventories or land use plans. The fallacy of this activity should be apparent. Land Use Planning in the Yukon takes place once a month, lasts two to three hours, does not involve the public, does not involve all concerned resource disciplines, and is handled on a piece meal basis without the benefit of resource inventories.

The second group, The Land Use Advisory Committee, reviews and recommends on short term land use for a specific purpose. This group has a much broader representation of resource disciplines, and recommendations relate to environmental concerns and precautions necessary under the Territorial Land Use Regulations. This advisory group is not concerned with an overall land use plan, but are more dedicated to the environmental implications of any particular land use. The complications of decisions made by the land disposition group (F.T.L.A.C.) often appear as land use applications before the Land Use Advisory Committee. Several examples can be cited where applications for agriculture leases and recreation/residential leases, where no access existed, were approved by the Federal-Territorial Lands Advisory Committee, and many by the Federal Department prior to formation of the advisory group. Subsequent land use permit applications then appear before the Land Use Advisory Committee requesting permission to build roads to the existing leases. Again, it is apparent that ramifications of decisions should be of vital concern to the Federal-Territorial Lands Advisory Committee.

A third group, unrelated to either of these two committees, makes decisions which also have a direct bearing on land use. This group deals with the "Tote Trail" assistance program. The decisions made by this group are directed at financial assistance to individual and company exploration activities. The decision of granting permission for the "Tote Trail" land use rests with the Land Use Advisory Committee. These two activities are not necessarily co-ordinated, nor are they in proper sequence. A person may receive approval for financial assistance before receiving a Land Use Permit for the tote trail development. When this occurs, the Government is put in a position of going through an academic exercise in regards to approving a land use permit. The "Tote Trail" program is not necessarily recorded with the Federal Lands Administration. There are no updated plotted maps regarding this type of land disposition. The permitted land use of trail development may only be for a temporary use, but the effects of this type of development may be quite permanent. Conflicts often occur between mining exploration activities and renewable resource management. The two greatest contributing factors for these conflicts are:

1. Neither the Yukon Quartz Mining Act, nor the Yukon Placer Mining Act are subject to the Territorial Lands Act.
2. The area of most exploration and mining activity, south central Yukon, does not come under the jurisdiction of the Territorial Land Use Regulations as a Management Zone.

Proper resource management would advocate that exploitation of the non-renewable resource should not be at the detriment of the renewable resources. Conflicts will exist, but with wise management and sound decisions regarding land use, compromises to minimize detrimental effects are possible.

The responsibility of land disposition becomes relatively straight forward when land use allocation is known. The land use allocation process becomes easier when resource data is adequate and management guidelines are defined. It becomes apparent that neither the Federal-Territorial Lands Advisory Committee, nor the Land Use Advisory Committee have sufficient authority necessary to bring about proper renewable resource management system.

A more rational integrated management system than the existing system is necessary if Yukoners are to have some say in the Territory's future.

The present system of advising on land disposition and land use through Committee structure is only paying lip service and tokenism to management. Yukoners should have direct authority for regulating resource management in the Yukon. The system proposed is to create a single authoritative body called the "Yukon Resource Commission". It is envisioned that this group would be charged with the responsibility of land use allocation and resource allocation. The members of the Commission would be appointed from:

1. Elected Council Members.
2. Department of Indian Affairs and Northern Development.
3. General public - resource interest group representation as well as native organizations.

The Commission would require a full time Chairman, and some support staff to carry out the business, correspondence and decisions as directed by the members.

It is recommended that upon formation of the Yukon Resource Commission the present Federal-Territorial Lands Advisory Committee, Land Use Advisory Committee, and Tote Trail Assistance Committee could all be dissolved. It would also be necessary to declare the total Yukon subject to the Commission's authority. This would eliminate the existing land management zones under the Territorial Land Use Regulations. Any user of land would be required to hold a permit issued by the Lands Administration. This control agency would require the proper land use allocation authorization before issuing a permit or lease.

The re-organization of Renewable Resources into one Department under the Territorial Government would assist in facilitating the Yukon Resource Commission to fulfill its function. This Resource Department could supply the technical support required by the Commission.

The important aspect of this proposal is that it is not dependent upon land being transferred from the Federal Government. The management responsibility for other renewable resources do have to be transferred. Lands Administration becomes a control agency which is subject to decisions of a Board which is representative of the people of the Yukon.

Thus, resource use and management becomes Regional responsibility of Yukoners and Federal goals and objectives are protected as majority of the land remains as Crown Land. This management system would still be functional if lands were transferred to the Yukon Territory. The Land Administration would be located within the Renewable Resource Department along with the other related resources.

#### SUMMARY OF RECOMMENDATIONS

It is recommended that:

1. Subdivisions with various levels of services be developed in Yukon communities. More public involvement be encouraged in the design and location of these subdivisions. There appears to be a need for at least three types, acreage lots, rural residential and small farm acreage, in addition to the present urban stereotype lot.
2. A definite set of standards be adopted for each of the various subdivision alternatives. Regulations against further subdividing of acreage lots is necessary.
3. Immediate steps be taken to stop new squatter developments, and positive steps be taken towards legalizing the existing squatters.
4. One uniform land identification system be decided upon for the Yukon. The "Universal Traverse Mercator" system appears to be the most appropriate for the Yukon.
5. Once an identification system has been decided, all Yukon Communities be surveyed and demarcation of the control network take place.
6. The Territorial Lands Administration be organized into functional management sections of:
  - A. files, records and land registry
  - B. Land disposition
  - C. Land Development

7. Soil capability studies be carried forward to identify land capability for agriculture and the kind of agriculture possible.
8. A positive position be made public that commercial agriculture is not a viable industry.
9. Upon completion of soil capability studies, the most suitable agriculture soils be protected from irreversible uses.
10. Yukoners now in farming be provided with long term leases on any new land requirements. These leases would allow improvements which become the property of the leasee.
11. Only knowledgeable producers with financial capability be considered for future agricultural expansion.
12. The present grazing lease be terminated and replaced with annual grazing permits with a range fee per head.
13. Existing agricultural/residential leases be reviewed and new agreements drawn up which meet the leasee requirements.
14. A qualified horticulturist knowledgeable in garden and greenhouse production be employed.
15. A government assistance policy be formulated for greenhouse construction and community garden plot development.
16. Game Management Zones which are easily accessible to Yukon residents be closed to non-resident hunting.
17. Legislation to change the Game Ordinance to the "Wildlife Ordinance" be made. The Ordinance allow for the establishment of Wildlife Management Areas which are classified as occupied Crown Land.
18. A biologist knowledgeable in fur production be employed to establish extension programs to assist the industry.
19. A biologist knowledgeable in fisheries biology be employed to manage the Yukon Fishery.
20. Legislative changes be made to allow the Yukon Terri-

torial Government to manage the fresh water fishery.

21. A fish hatchery be investigated as a means of overcoming fish propagation problems.
22. Responsibility for the Forestry resource be transferred to the Territorial Government. The existing equipment and facilities to be part of the forestry transfer.
23. The Forestry nursery be managed to produce ornamental and reforestation stock for the Yukon general public.
24. Recreational planning be considered part of the total resource planning requirements. Community recreational planning to be part of the total community development requirements.
25. A Parks Branch be established with management responsibilities, for:
  - a. Territorial Parks
  - b. Campground development
  - c. Recreational cottage lot subdivisions
26. Highways be considered a major development, and any new highway proposals require:
  - a. Land use allocation approval
  - b. An environmental impact statement
  - c. Input from all renewable resources in regards to location and design
27. Service center requirements be studied along all major highways and such be designated at the conclusion of the study.
28. An acquisition program be initiated to acquire the present abandoned highway lodges.
29. A set of standards be developed for highway service facilities.
30. The entire Yukon be subject to land use allocation and land use regulations.

31. The Territorial Government give serious consideration to establishing staging areas for exploration activity.
32. Exploration companies be required to post a performance bond - the amount being dependent upon the size of operation.
33. The government adopt a set of environmental standards within which mining and exploration companies would operate.
34. The responsibility for the water resource be transferred to the Territorial Government.
35. Legislation be established which would necessitate the licensing of well-drillers.
36. Groundwater studies be initiated in the vicinity of all Yukon Communities.
37. The Yukon Territory Water Board responsibilities become part of a total resource regulatory body.
38. Land Use Planning outside of Communities become the responsibility of a multi-resource discipline organization.
39. A resource inventory program be initiated for the Yukon.
40. Every major development which affects human activity require an environmental impact statement prior to the decision to proceed with the development.
41. A Department of Renewable Resources be created within the Yukon Territorial Government. This Department would be responsible for resource planning, resource management, protection and enforcement. Management responsibilities would consist of Land, Forestry, Fisheries, Wildlife, Parks and Recreation and Water.
42. A Public Board be established to deal with land use allocation and renewable resource allocation for the Yukon. Such a Board to be known as the "Yukon Resource Commission".

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43. A full time Chairman and secretarial staff be employed to handle the business affairs of the Yukon Resource Commission.
44. Upon establishment of the Yukon Resource Commission all existing resource advisory boards be terminated.
45. The Department of Renewable Resources act as a technical support group to the Yukon Resource Commission.