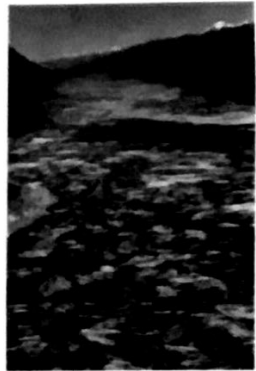
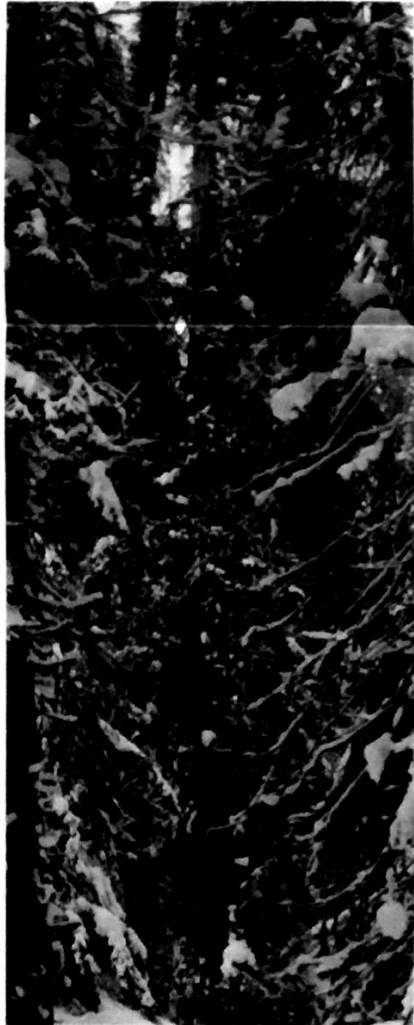


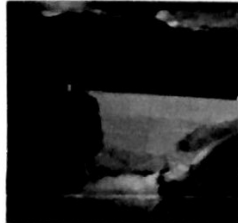
THIS IS YOUR LAND CARE FOR IT NOW TOMORROW MAY BE TOO LATE.



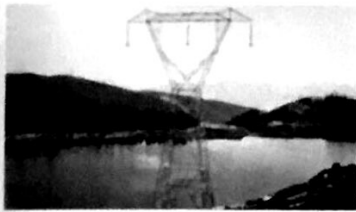
Thousands of acres of floating wood-debris clog Mica Reservoir's Canoe Arm. The responsibility for prompt and complete clearing of the entire McNaughton Lake runs with B.C. Hydro and Power Authority.



Like pillars in a vast cathedral the trees of the Big Bend are living examples of a pre-meval world less and less within the experience of modern man.



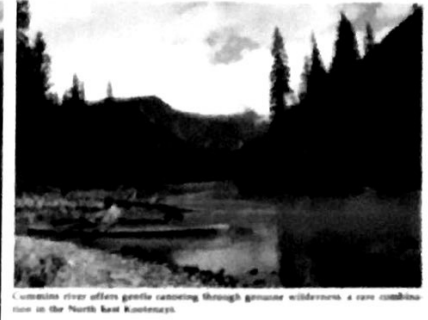
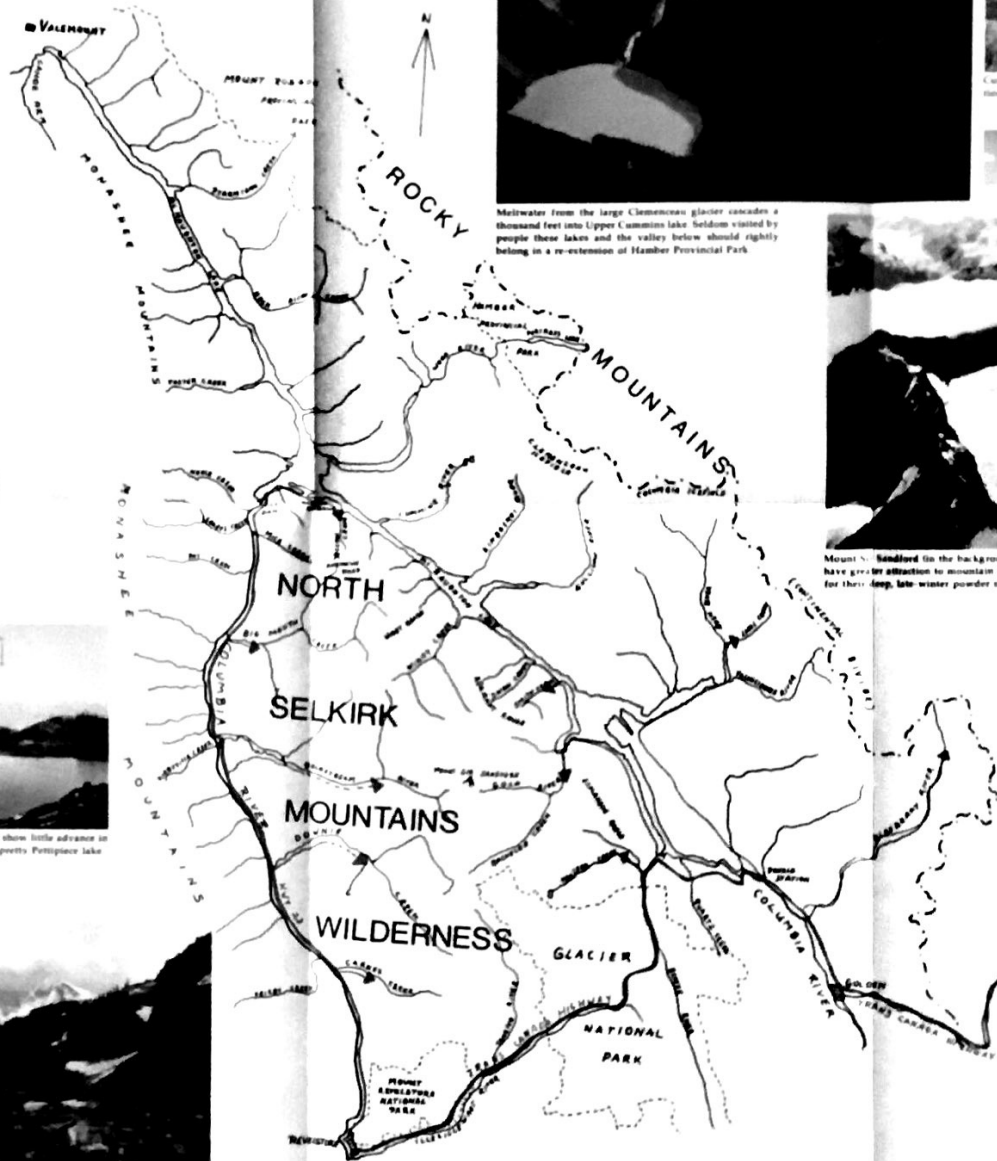
Mica Dam is one of the world's largest earthfill dams. Some of the heavy environmental losses it has caused may yet be mitigated by a sound, long-term resource policy.



Power transmission lines from Mica to Vancouver show little advance in environmental engineering, even they deface the pretty Pottyssee lake.



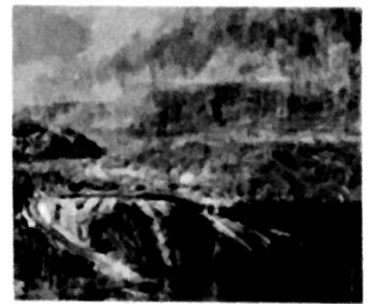
Assomption Pass at the head of Yellow creek is one of many lovely alpine regions in the North Selkirk mountains.



Columbia river offers gentle canoeing through grouse wilderness, a rare combine seen in the North East Kootenays.



Mount St. Helens (in the background) is highest of the North Selkirk, but the Adamson reserves have great attraction to mountain climbers for their variety and steepness and to helicopter skiers for their deep, late winter powder snow.



The mouth of Gold River is a sad illustration of the combined effects of industrial forestry and construction of huge water reservoirs. The salmon damaged for other resource values apparent here is typical of resource extraction operations in the Big Bend.

Photographs by J. Thomson and G.M. Thomson

RESOURCE MANAGEMENT ISSUES

IN THE

COLUMBIA RIVER

BIG BEND REGION

BRITISH

★ FORESTRY PRACTICE — TREE MINING

— OR ENVIRONMENTAL PROTECTION FORESTS AND TRUE SUSTAINED YIELD

COLUMBIA

★ MICA RESERVOIR — DEBRIS FILLED SWAMP

— OR LAKE GATEWAY TO THE MOUNTAINS

★ NORTH SELKIRKS — STRIPPED MOUNTAINS

— OR CARIBOU AND WILDERNESS
FOR THE CROWDED FUTURE

VALEMOUNT

REVELSTOKE

GOLDEN

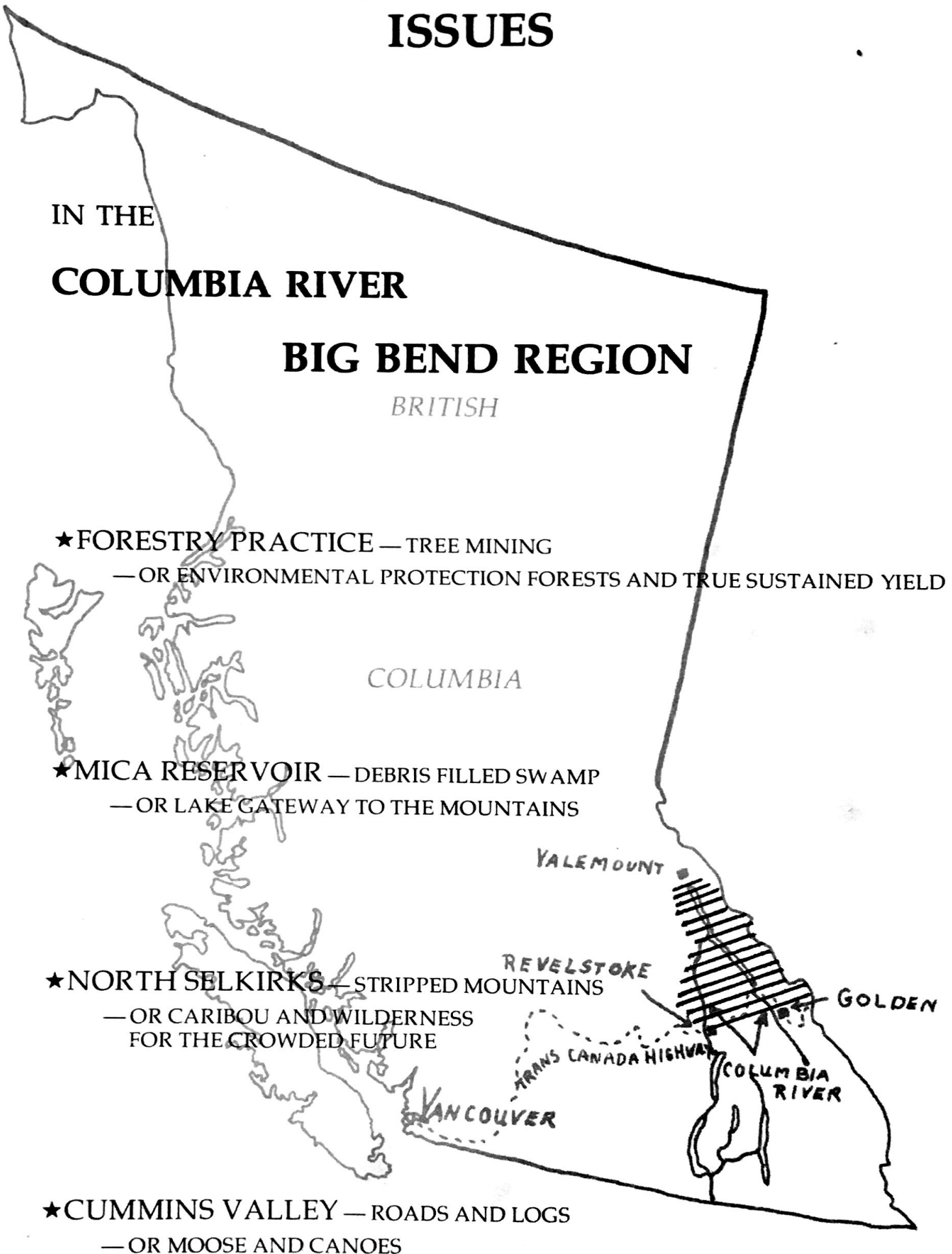
TRANS CANADA HIGHWAY

VANCOUVER

COLUMBIA
RIVER

★ CUMMINS VALLEY — ROADS AND LOGS

— OR MOOSE AND CANOES



The Big Bend Resource Council

The Big Bend Resource Council was created at the local United Nations "Habitat" conference at Edgewater in British Columbia on June 30, 1976. It is an independent body for the purpose of assuring integrated resource management in the public interest of the Big Bend Region of the Columbia River.

The council hopes to stimulate both government and industry to adopt environmentally acceptable practices as well as long term economic and environmental planning. It also serves as a source of information to the public.

The chairman of the council is L-N Patterson, Ph.D.

For further copies of this brochure write:

Big Bend Resource Council
P.O. Box 1521
Golden, British Columbia V0A 1H0

You may show your concern by writing to:

The Honorable Minister of Recreation and Conservation
Parliament Buildings, Victoria, B.C.

or

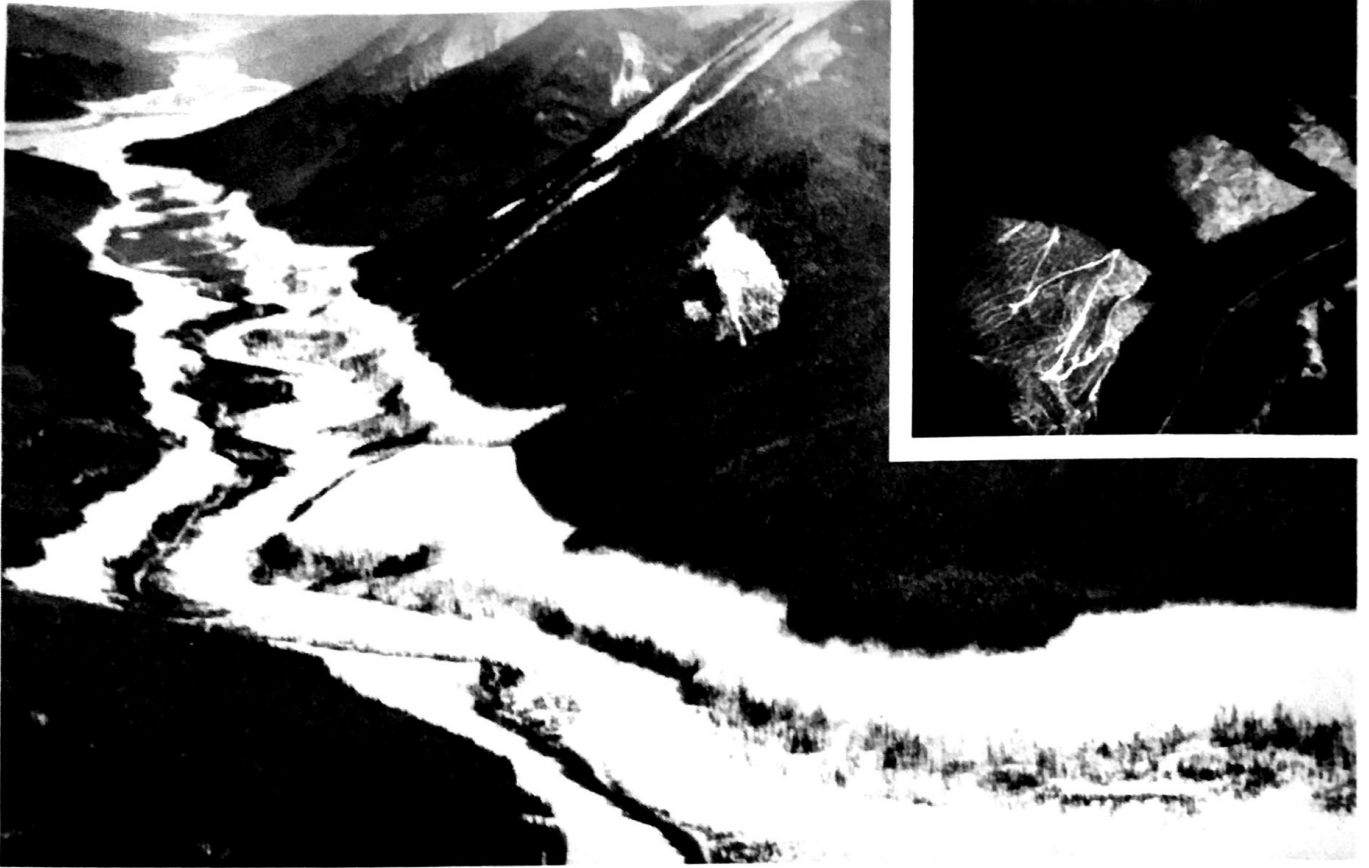
The Premier of British Columbia
Victoria, B.C.



Upper Gold River in the North Selkirks.

**THIS IS YOUR LAND
CARE FOR IT NOW
TOMORROW MAY BE TOO LATE.**

Big Bend Region Resource Policy



This is an aerial view of the narrow Mica basin stretching south toward Kinbasket lake during the winter 1974 before flooding. Lots of trees below the 2400 foot level await drowning. The virgin forests of the Redrock area (right foreground) cover the northeast tip of the North Selkirk Mountains. Only two years later large clearcuts have substantially altered this landscape. The insert shows how the Redrock forest operations are now rapidly advancing toward Yellow creek.

The huge triangle of land, approximately 4,600 square miles, cornered by the towns of Golden, Revelstoke and Valemount was not explored significantly until the construction of the Canadian Pacific and later the Canadian National railroads. For many years a major (3,800 square miles) portion of it comprised Hamber Provincial Park, by far British Columbia's largest until reduced to 95 square miles in 1961. Since then industrial activity has increased enormously with rapid expansion of logging and the building of Mica dam. In the very short span of twenty years the character of large portions of the Big Bend has been totally changed by flooding, burning and wholesale removal of forest. Almost complete lack of human habitation has favored uninhibited exploitation of water and forest resources with little regard for other values. This pattern continues. Another big dam is about to be built above Revelstoke. The forest industry is accelerating its penetration of all road-less areas, and mining will soon be very significant. The spectre of an environmental ruin is rising in the Big Bend. Will this beautiful land become a monument to greed and short term economic gain?

Hopefully this will not happen. It is still possible to mitigate some of the past mistakes, and to coordinate resource management in the best long-term public interest. But *time is growing short*. This vast, forgotten and bypassed land — empty of human voices — cannot speak for itself. It needs interested people and protective planning to do that.

Background inventory documents that could form the basis for a coherent policy in the public interest already exist, such as K. Farquharson's report* of 1974 and the Parks Branch study* of 1975. Such a policy must be formulated in terms of integrated resource management and be sensitive to the changing values of our times and the increased appreciation by the public of long term, non-monetary benefits. It should not be based on simple discounting of the future. The value of a resource in times to come extends beyond simple accounting to our hopes, our children and the continuity of human existence.

*British Columbia Environment and Land Use Committee: *Mica Reservoir Region Resource Study, Vol. 1 and 2, June 1974.*

Mica Region Outdoor Recreation Study prepared for B.C. Parks Branch, December 1975 by J. Thorsell.

Revelstoke Project Outdoor Recreation Study prepared for B.C. Hydro, April 1976 by J. Thorsell.

Forestry

The management of the forest resource is the single most decisive factor in the immediate future of the Big Bend Region. It will, in turn, determine largely what happens to the fisheries, wildlife, recreation and tourism resources.

In parts of the East Kootenays resource management is improving. A new folio system calls for integrated management by the several government agencies concerned with the land. This system represents progress despite lack of proper channels for public input. But this improved administration has not reached the Big Bend where the need is most pressing.

Forestry still operates uniformly on the pattern of large clearcuts and burning. Utilization rates are often low. Thus in "decadent, overmature" stands — precisely those of greatest aesthetic value — large volumes of cedar and hemlock commonly suffer from core rot. Many such trees are ground to shreds by the bulldozers and burnt.

The true costs of such wasteful practices, of reforestation and subsidized roads in extremely rugged terrain and of environmental impairment are not revealed to the public.

The Forest Service is understaffed. Inadequate field studies generally precede cutting operations in the Big Bend. The practice has simply been to allow operators to select cutting blocks for their own economic advantages — leading to a depletion of sites easily accessible in winter and corresponding unstable employment. No true sustained yield policy has been in effect. Present industrial removal of natural forest cover to provide wood fibers is a mining, not a harvesting operation. In terms of human life spans *the virgin forest of centuries or millenniums is irreplaceable*, effectively a non-renewable resource. This resource is rapidly vanishing around the globe. Its value is therefore becoming significant and cannot be ignored in any comprehensive forest policy.

A great step forward would be taken if the Forest Service decided to implement even one single new concept, that of "environmental protection forest". This would eliminate cutting in forests on unstable slopes, on slopes over 30% when skidding is used, along the alpine fringe, beside avalanche tracks, in areas critical to wildlife and in areas with a rotation period of more than 150 years.



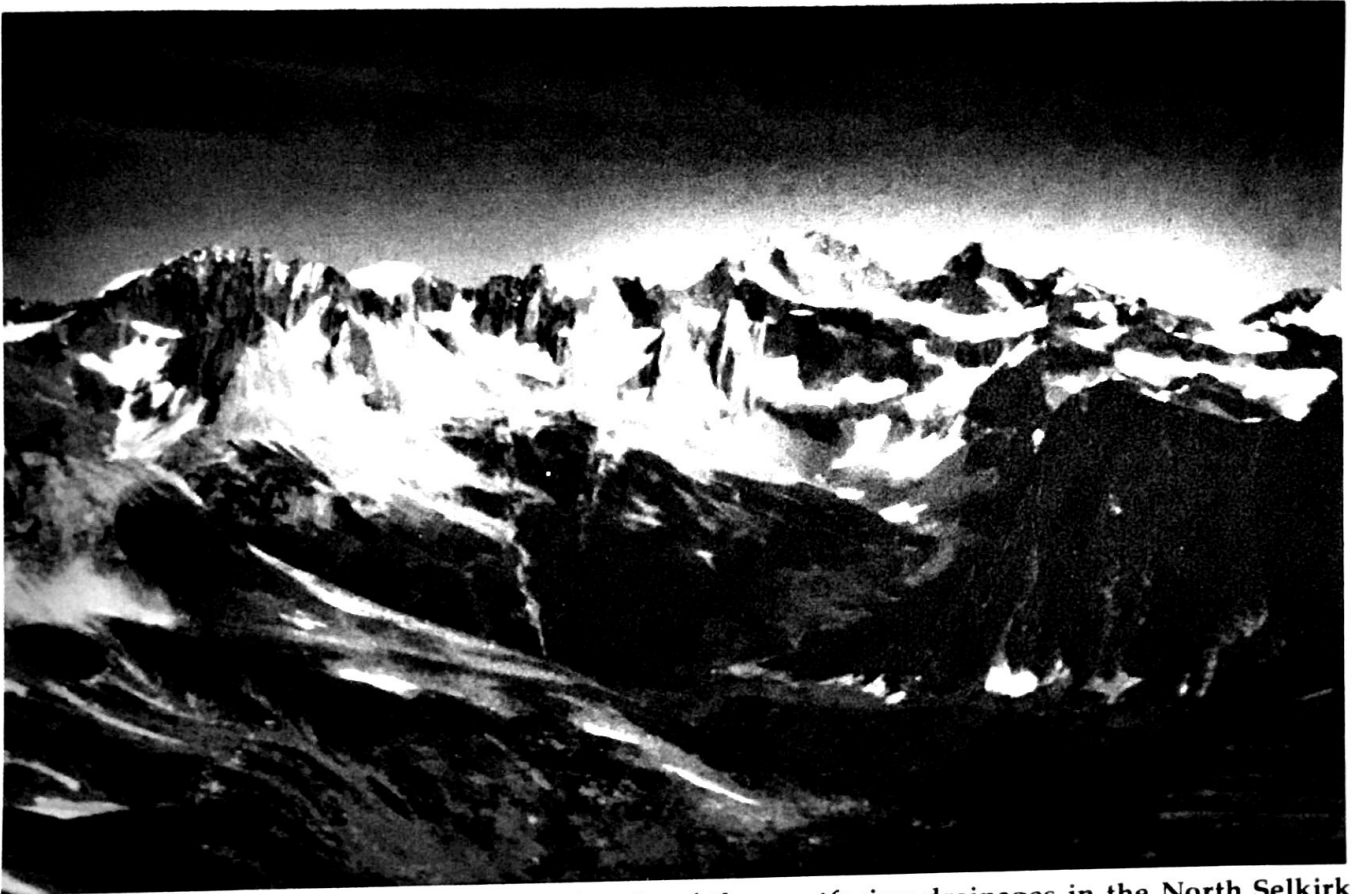
Lichen and moss may mean overmature forest to producers of lumber and pulp, but are vital browse for the vanishing mountain caribou.

The old climax forests which march up narrow valleys and cling to precipitous mountain slopes are of exceptional beauty. Clumps of grey cedars up to eight feet in diameter mingle with bony, lichen-dripping hemlock. Solid trunks of spruce or fir rise a hundred feet or more in absolute perfection. It is ancient forest, shady and yet open, best comparable to coastal forest and therefore singular to the interior of British Columbia. But the North Selkirks have a reputation for difficult foot travel. A profuse vegetation, including devils club and alder, covers old burns and the many, many avalanche slopes. At higher elevations solidly anchored alpine firs of giant size stabilize steep slopes between snow slides and enrich the air with their fragrance. Above the valleys, in some areas such as the Esplanade range and at the head of Downie and Yellow creeks, stretch extensive and lovely alpine lands studded with small lakes.

This habitat favors two kinds of mammals which are generally retreating at the hands of man: the grizzly bear and the mountain caribou. It is not clearly known to what extent the caribou utilize the North Selkirks. A herd has been wintering in Goldstream valley and animals have been seen near Bachelor and Windy creeks. But the caribou population in and near Glacier National Park has been dropping steadily. A thorough study to determine the cause of this decrease should be made. Until such a study indicates otherwise the North Selkirks must be administered in favor of the caribou to help avoid its extinction in this part of North America.

As logging roads are about to be pushed into every major valley of the North Selkirks the integrity of this whole wilderness is at stake. The traditional Swan creek trail, for instance, may soon cease to exist. Neighboring Smith creek, and Yellow creek further north, are immediately threatened with forest road development. Before these natural lands are stripped to their bare bone of ice and rock a proper decision as to their future must be made, based on objective environmental and economic facts and in full view of an informed public. No longer can any extractive industry expect to satisfy its short term demands at the expense of environmental and recreational resources simply because the public does not know what is happening. And public funds which today help build roads for some rather marginal extractive operations could as well or better be applied to help tap this recreational resource. Such an application would be the construction of an integrated but limited trail system compatible with the wilderness quality of the North Selkirks. It would provide significant

The concept of the North Selkirks Wilderness Conservancy contains the preservation of a non-renewable, increasingly scarce and valuable resource in a world dominated by population growth. This resource cannot be allowed to simply disappear by default. It deserves rational and careful consideration.



Upper Big Mouth basin shows the grand scale of the westfacing drainages in the North Selkirk Mountains.



The deep, old forest is open and spacious because its canopy reduces the available light to underbrush. It allows good ski touring when the terrain is not too steep.



Cummins river flows leisurely through pristine wilderness. With a large moose population, open sloughs and friendly forest this valley forms a peaceful contrast to the formidable Rocky Mountain barrier at its head. Is it compatible with logging?

The Mica Basin

At full pool the 172 square mile reservoir (McNaughton Lake*) behind the Mica dam is outstandingly beautiful. Flooding the Rocky Mountain Trench for 125 miles it separates the extensive western drainages of the Rockies from the rugged shorter ones of the Caribous and the Selkirks. It forms a narrow, deep green boundary between two different climatic and geologic zones. Much of the region is still natural and timeless.

The primary function of the reservoir is to store and deliver on demand 7 million acre-feet of water annually to the United States. Secondly, it produces electric power for British Columbia. The Mica dam was completed in 1973, the reservoir filled in 1976 and power generation will begin in 1977. The environmental losses due to the dam have been extremely heavy, including for example, 70,000 acres of highly productive forest lands and 1,400 moose (i.e., 70% of the former population). The fluctuation of water levels in the reservoir will reach an extreme 75 feet and will lead to the appearance of large mudflats, erosion of shoreline and extended areas of exposed snags and stumps during long periods each year.

Despite all the damage, public pressure to utilize the lake for recreational purposes is already building. And it is clear that the Mica basin with its many tributaries still holds potential for development of spawning rivers and stream fishing, of recreation and tourism including not only boating on the lake but cottage development, hiking, skiing and mountaineering.

An absolute prerequisite for sound utilization of the reservoir is complete clearing of all floating debris, which in 1976 covered some four thousand acres. Private firms are fishing out what wood they can utilize, but it is the responsibility of British Columbia Hydro and Power Authority to provide funds for prompt and complete clearing. Unfortunately such funds were suspended after the 1975 season. Not only is it unreasonable to expect the public to wait endlessly to enjoy an inviting water resource but the risk of accidents is high. Already one helicopter rescue has been mounted for a boat trapped by floating debris in the narrow channel of the former Surprise Rapids.

*Local opinion would prefer the name Kinbasket Lake.

Cummins Valley

Most lakes in the Rocky Mountains lie east of the Continental Divide. The two Cummins lakes form a spectacular exception. A thousand foot waterfall tumbles into the upper of these glacial lakes which in turn cascades 800 feet into the lower. From then on a snakelike river meanders leisurely through fifteen miles of open, spruce clad valley until it squeezes through a canyon into the Mica reservoir. The Cummins river is almost the only wild, yet easily canoeable river in the whole of the North East Kootenays. Its broad valley supports a large moose population with a habitat which has become scarce after the Mica flooding. Logging of this valley is scheduled to take place within the next five years. Yet the reasons for conserving the Cummins in its present state are very strong. The Cummins valley, together with upper Wood River for instance, forms a natural extension of Hamber Provincial Park from its present confinement around Fortress Lake.