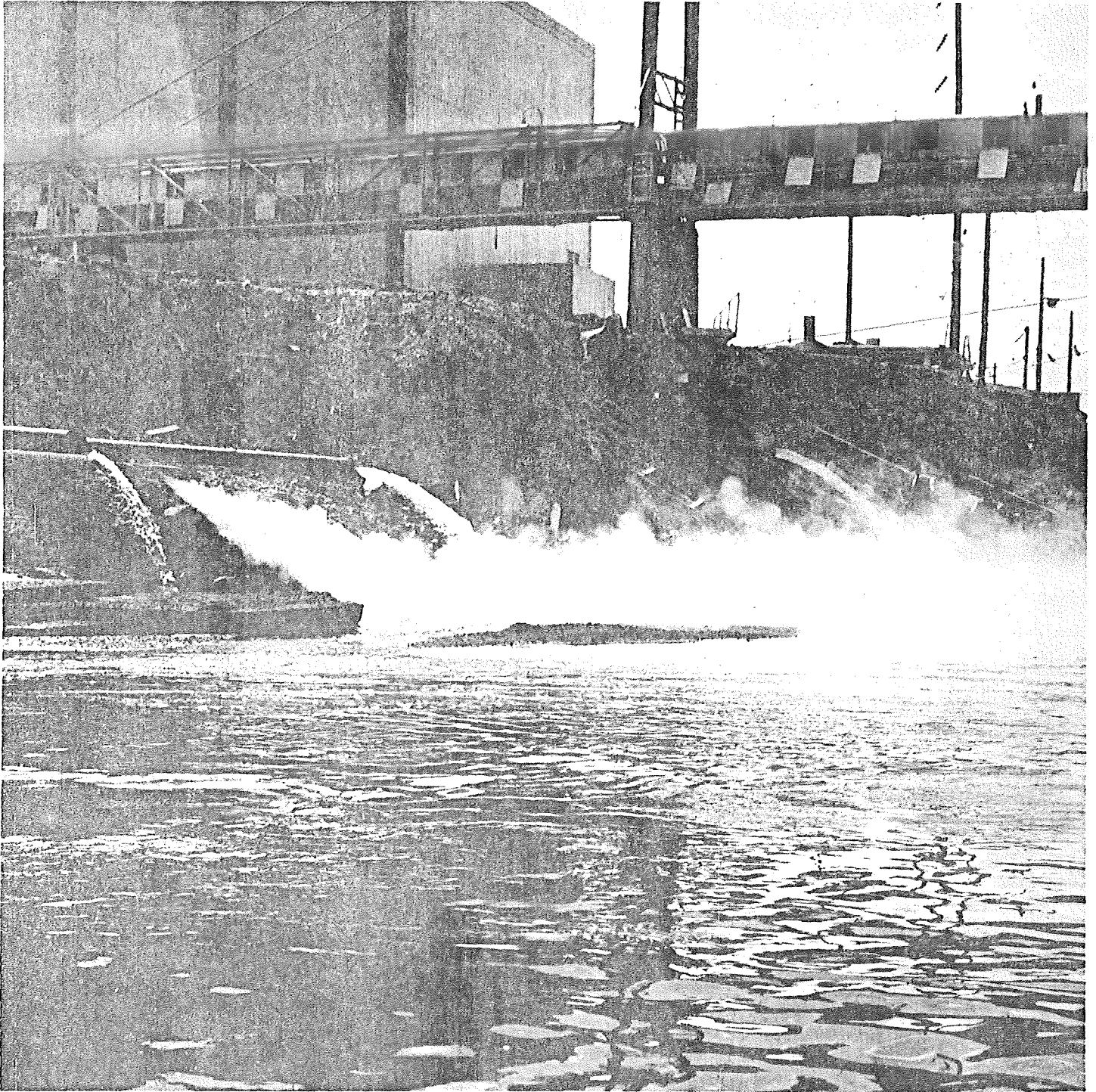


NORTHERN ENGINEER

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NORTHERN ALASKA FAIRBANKS PROJECT



Before converting to underground discharge system. Fairbanks, Alaska.

(Ernst Mueller)

(See photo on back cover)

Winter 1971

Man and the Land: Multiple Use, No Abuse

Guest Editorial

Arlon Tussing

Land use planning is not a new concept, but it has become a very fashionable slogan in the last three years. Almost every bill recently introduced in Congress dealing with land or resources provides for some kind of land use planning. The notion has been pushed hardest by conservationists and by certain industries with very specific land use needs — for example, the electric power industry, which is running into increasing difficulty obtaining land for power plants and transmission lines. But the demand for planning arises from almost every quarter. It was used by the representatives of 12 national conservation organizations in opposing a large land grant to Alaska Natives and the lifting of the Alaska land freeze. Earlier this month in an Anchorage hearing, the same concept was used by spokesmen for commercial development to oppose wilderness classifications in Glacier Bay and Katmai national monuments.

Even Leo Mark Anthony, representing the Alaska Miners Association, asked, "Why are there no multi-agency studies followed up by a Department of the Interior master plan with some total-view scientific credentials to support it?"

IN ALASKA, AND TO SOME EXTENT IN OTHER WESTERN STATES, the big land issues involve the disposition of public lands, mainly federal lands. More than 95 per cent of Alaska is still in federal title, and Alaska accounts for almost two-thirds of the remaining unreserved public domain in the United States. Most of the talk about land use planning for Alaska concerns what happens to the public domain.

Obviously, the conservation organizations and the Alaska Miners Association want different things, often conflicting things, from a land use plan. But their seeming agreement on the principle reflects a tacit recognition that frontier days are over in Alaska as well as in the lower 48. The same land can no

longer be available without restriction both to the miner and to the wilderness recreationist. In earlier, less crowded generations, miners could have free access to the public domain without creating a shortage of unspoiled land for those who loved the wilderness. On the other hand, parks and other reserves could be set aside without substantial loss of commercial resource potentials. The demand for all uses of land, except perhaps for agriculture and grazing, is increasing rapidly in the United States. There is growing demand for homesites, for minerals, for pulpwood, and for wilderness and recreational land. Not all those demands can be totally satisfied.

There have always been conflicts over the treatment of specific parcels of land; local interests have opposed almost every existing reserve established for national purposes or for future generations. Today for the first time the question is seriously posed of the total acreage that ought to be reserved from some or all commercial resource development, in the United States and in Alaska. How much of the old growth rain forest of Southeast Alaska ought to be excluded forever from logging? How much of Alaska should be closed to mineral location? Members of the various land use lobbies like the miners, the loggers and the Sierra Club, each seem to want everything their own way. The miners are in principle opposed to the exclusion of any land from mineral exploration. The timber industry, and in many instances the Forest Service, set as a goal the early liquidation of all old growth timber stands and their replacement by commercially more efficient second growth. And conservation organizations tend to oppose any new timber sale and any new mining venture. Yet, to the extent that they all speak of land use planning, they recognize ultimately that a line must be drawn, and that the line will be drawn somewhere less than 100 per cent in their own favor. In the long run, the uses of land, and particularly of public land, will be determined by some combination of federal, state and local political authority. These agencies will make their decisions on the basis of comprehensive plans and guidelines set down in law.

Alaska's own land laws, which are more recent than those dealing with the federal public lands, depart even farther from the 19th century tradition of first-come first-served. Although the state still has the claims system for metallic mining, it does in many cases require permits to operate tracked vehicles, to build roads or otherwise to disturb the surface of the land in the course of mining. The state does not give the miner title to either the mineral deposit or to the surface of the claim. In contrast to the federal Homestead Act, state law allows land to be disposed of for agricultural purposes only if it has been classified as suitable for agriculture. The mineral leasing laws and regulations of Alaska require competitive leasing for oil and gas wherever there is a competitive interest, and thus maintain control over development and assure the public fair value for its resources.

This is clearly the direction future land law and land use planning will move as the demands upon public lands intensify. I am confident that the next 10 years will see a public lands management regime with the following features:

* The Homestead Act and the other settlement laws will be repealed or inactivated, and the mining laws will be changed so that private individuals may no longer unilaterally decide the fate of the public lands. Lands will be classified for the use or uses for which they are most suitable, and other activities will be regulated subject to protection of the dominant use.

* The disposal or use of public lands or their resources at no charge or at a nominal charge will be ended. In general, commercial resource users will pay fair market value for minerals of all kinds, for timber, and for grazing rights. Competitive leasing will become universal or nearly so for oil and gas. In congested areas, even the recreational use of the public lands will be rationed in some way, and will increasingly be subject to fees. Some form of claims system may continue in the case of metallic minerals, but miners will pay a royalty and they

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will not receive title either to the mineral deposit or to the surface. I expect eventually that metallic minerals, like the fossil fuels and building materials, will be disposed of by lease or sale, but this will require a different system of discovery incentives than we have used so far.

* Each permit, lease or sale will be subject to environmental stipulations. These stipulations will generally require the appearance and productivity of land and waters to be maintained in, or restored to, approximately their original condition. Activities that present a serious risk of environmental damage, especially where the enterprises are small and may go out of business, will have to be bonded to assure restoration or compensation.

* The main responsibility for land use planning, both in Alaska and elsewhere, will be at the state level. However, the authority and incentive for the states to take an active planning role, will be established in federal legislation. This authority will apply both to public and private land use, and will in some instances override local zoning powers and federal agency decisions.

There is not space here to detail the recent or pending legislation, and court decisions, that point in the direction of the foregoing developments. However, they are all "in the works" and have growing public support. The timing of some of the changes is still uncertain because certain user groups, like the miners, who get favored treatment under the old land laws, still have sufficient political influence to delay the inevitable changes.

Important issues of land administration in Alaska will be decided before the new planning and management regimes are established. The most important development is, of course, the Native claims settlement. Forty million acres is almost 50 times the present extent of private land in Alaska! Little wonder that the timing of this grant in relation to state land selection, and the establishment of new national parks, is so controversial. The turmoil over the land withdrawal and land use planning provisions of the House and Senate bills is really about who gets first crack at the public domain after the legislation is passed and before the new planning machinery starts working — the Native groups, the state of Alaska, the federal



conservation agencies, or the prospectors, noncompetitive oil lease applicants and others who want to take advantage of the of the traditional first-come-first-served land laws while they are still in effect.

I believe each side overestimates the seriousness of the conflicts over land among them. The miners in particular should have little to fear from the claims legislation itself. "Valid existing rights" (e.g. mining claims) are preserved in both versions. Neither the House nor Senate bill "freezes" state-selected land, so that the Alaska Miners Association's lobbying effort would be more productive if it were directed not against the withdrawal of federal lands, but toward the state, to select the areas of most promising mineralization. Conservationists ought to favor this move too, because the state has far stronger authority to control the environmental effects of mining activities than the federal government has on the unreserved public domain.

Federal-state cooperative land use planning is necessary, and it is coming, but in the meantime the slogan of planning will be used by each interest for its own purposes. Conservation organizations are using the prospect of future land use planning as an argument for postponing resource development and preserving de facto wilderness until the planning machinery is established and a plan is formulated. Would-be commercial users like the miners are beginning to use the possibility of land use planning in the future to oppose withdrawals now for park, wildlife or wilderness purposes, because they hope to take advantage of

free or liberal access to public lands under the existing laws. As in most cases of this sort, neither side will be 100 per cent successful.

This paper is reprinted with Dr. Tussing's permission from *The Anchorage Daily News*, December 1, 1971.

Second International Symposium IAHR

ICE AND ITS ACTION ON HYDRAULIC STRUCTURES

The 2nd International Symposium formed by the International Association for Hydraulic Research (IAHR) entitled, "Ice and Its Action on Hydraulic Structures," will be held in Leningrad, U.S.S.R., September 26-29, 1972.

The purpose of this symposium is to promote international cooperation between engineers and scientists engaged in the field of ice engineering and united at the 1st Symposium which was held in Reykjavik, Iceland, 1970. The Organizing Committee has set the following as the standards of subject orientation:

1. Structure, physical and mechanical properties of ice, including procedures and apparatus for their measurement both in the laboratory and in the field.
2. Freezing and break-up on natural rivers and reservoirs with ice obstructions and jams taken into account.
3. Ice regime and control in the vicinity of hydraulic structures including preventive measures against harmful effects of ice on the structures and the ways of prolonging the navigation period.

For those persons interested in further information, please contact Mr. B.P. Lebedev, Committee for the U.S.S.R. Participation in International Power Conferences, Sovmek, 11 Gorky Street, Moscow K-9, U.S.S.R.