

Guest Editorial

An "informed cry" from the heart of wilderness might describe the guest editorial in this issue. It was written by Dr. Jack A. Stanford, director of the University of Montana's Yellow Bay Biological Station on the east shore of Flathead Lake, Bigfork, Montana.

The mining operation to which

Dr. Stanford alludes is the Cabin Creek project by Sage Creek Coal Ltd., located in British Columbia. Glacier National Park, just 12 miles to the south, was listed in the 1980 National Park Service Report to the Congress as the most threatened of the national parks.

GLACIER NATIONAL PARK

An Island in a Sea of Development

Jack A. Stanford

National park, biosphere reserve, international peace park, a pristine piece of America...these labels all supposedly describe Montana's Glacier National Park. On this day, I have skied some 15 km to the patrol cabin at the head of Kintla Lake in the north-west corner of the Park. I am very much alone, except for the deer, elk, goats and other wildlife I observed on my way to the cabin.

The labels all seem to apply to this natural and peaceful place. Never mind that only hours ago I left my vehicle on the North Fork (of the Flathead River) Road, a dirt artery into Canada over which flows an army of loggers, petroleum geologists, four-wheelers, snowmobilers, skiers, fishermen, foresters, hunters, land developers, backpackers and, occasionally, a disoriented moose.

Never mind that the forests along this road have been more than 40 percent clear-cut, even right to the Park boundary on the Canadian side, as US and Canadian foresters scramble to salvage lodgepole killed by a beetle epidemic (probably caused by 50 years of fire suppression in the Flathead Basin).

Never mind that a Canadian coal company (a subsidiary of an American steel corporation) plans to strip mine more than two miles wide and more than 2000 feet deep only six miles from the Park boundary (only 15 miles from where I now sit). On this day this scientist finds the Park a truly beautiful place, indeed pristine.

I am here to take water and plankton samples from Upper Kintla Lake and other subalpine lakes in this part of the Park in support of my study on the effects of volcanic ash (Mt. St. Helens) on the oligotrophic waters. As Director of the University of Montana Biological Station at Flathead Lake, I am involved in many limnological studies in the Flathead River basin. Much of this work is designed to quantify baseline conditions, so that impending and perhaps already chronic degradation of the Flathead River-Lake Ecosystem (which includes the Glacier National Park and the Bob Marshall Wilderness complex) may hopefully be ameliorated by redirection of land management policies.

Because much of Northwest Montana is federally or Native-American owned, a myriad of federal and state managers are struggling with the problem of maintaining natural resource values in the face of a whole scale development onslaught (of everything from micro-hydro to golf balls).

As a scientist, I (and others doing basic research) am supposed to provide understanding of how the ecosystem works. A citizens steering committee receives my data and the results of other studies (e.g., fisheries, wildlife, air quality, etc.) under the auspices of the US Environmental Protection Agency in an attempt to protect and conserve the valuable, natural attributes of the Flathead River-Lake Ecosystem.

And truly a remarkable and unique system it is: the Flathead harbors the last of the US grizzly bears (outside of a very few in Yellowstone and, of course, Alaska); one-quarter of all bald eagles in the US migrate through Glacier National Park; the west-slope cutthroat trout and bull trout are found nowhere else; one or two grey wolves reportedly roam the North Fork; and the majestic, glacier-sculptured peaks rival any scenery in the world. Streams from the mountain areas in Glacier National Park and adjacent national forests contain an assemblage of insects and other aquatic fauna and flow clear and clean into Flathead Lake, the largest natural lake west of the Mississippi River.

I like doing this work in winter, because many of the sampling sites are fairly inaccessible and one is alone to reflect on science, or human nature or whatever. But winters of heavy snows, like this one, are hard on the big game. The herds are forced out of the higher country and must depend on riparian habitats along the valley rivers. Unfortunately, these are the same areas intensely affected by development activities. Most of Glacier National Park's 1.5 million visitors (annually) are on hand June through September. The conflict between wildlife (and other Park attributes) and development would undoubtedly be more visual during the starkness of winter.

On the other hand, it is nice here today with no one around... not that I mind explaining what I am doing with a backpack full of weird nets and meters to hiker after hiker in summer. As I leave this warm fire in the cabin to cut holes in two feet of lake ice in order to sample, I brace myself, not against the cold winter wind, but against the sound of chain saws echoing over Boundary Mountain.

—Kintla Patrol Cabin, Glacier National Park, 6 February 1982—

Thurman Trosper, chairman of the Flathead River Basin Environmental Impact Study group, funded by EPA, said the proposed mine operation "could be extremely disruptive to the

area," and called for a joint Canadian-US management plan for the entire Flathead drainage.

The EPA-funded impact study will enter its fifth year on May

1, 1982. In all, EPA has spent \$2.8 million through the Montana State Department of Natural Resources and the Trosper-chaired study group to establish a baseline of data on how the region now functions.

"We have studies underway in every area," Trosper said. "We're using scientists from the state colleges and university, the state Fish and Game Department, other appropriate agencies, wherever the expertise exists. We're monitoring all the river food chains, the fishery resource, the soil, the air, the grizzly bears, the Rocky Mountain wolves, the bald eagles. We're establishing values for such factors as the lake fishery resource and clean air. We're developing air models and lake models. And perhaps as important as anything we're doing, we're producing baseline economic studies that show what the economic trade-offs are if we elect one course of action over another."

According to Trosper, Montana Governor Ted Schwinden has agreed to contact the Secretaries of Agriculture and Interior and ask for a voluntary move on their part to establish, through the US Forest Service and the National Park Service, a North Fork management unit to be administered as a unit. Currently the state of Montana, the Forest and Park services are conducting separate and independent management programs on large areas within the region. Another one third of the overall package lies in British Columbia.

"We've put out feelers toward the B. C. Government," Trosper said, "and although we cannot negotiate directly with them, we have found a certain recep-

tivity to the idea." Any international management plan would have to be handled through the US State Department.

Both water and air quality are primary concerns of the Flathead River Basin Environmental Impact Study group. The air in the subject area is often involved in protracted inversions, to which industrial pollution would be added. But the most serious damage, according to Trosper, could come in the area of water quality.

The mine site would engulf Cabin Creek, a tributary of the North Fork of the Flathead River, which originates in B.C. and flows south to Flathead Lake—the largest natural fresh water lake in the West. On its southward way, the North Fork forms the west boundary of Glacier National Park. Glacier and Waterton Lakes together are called an International Peace Park. They also are part of a World Biosphere Reserve—an entity designated by the United Nations Educational, Scientific and Cultural Organization as part of its Man and the Biosphere Program. (These pristine areas, of which there are 28 in the US, are set aside as part of an international agreement as standards against which man's actions in the environment can be measured.)

Dr. Stanford said that heavy metals from the coal seep into ground water, and if disrupted by mining, they could contaminate the North Fork and Flathead Lake. It takes very little of such heavy metals as molybdenum, iron, copper, cobalt, manganese and zink—usually associated with similar coal deposits—to contaminate a river as clean as the North Fork.

If the level of molybdenum

comes as high as one-tenth of one part per million in the Flathead," Stanford said, "it could be transferred up the food chain and become toxic to humans and wildlife."

A New York Times story on October 25, 1981, quoted Bill Burge, a spokesman for Sage Creek, as saying that his company would not pollute the North Fork. "Protecting the water quality in the North Fork is a priority," Burge said. Another official called Sage Creek the "best possible corporate citizen."

Clifford Martinka, Glacier National Park Supervisory Biologist, is conducting grizzly bear studies throughout the region, and he calls the North Fork area extremely important as a sanctuary for wildlife in a heavily used park. The area has little access and few camp grounds and serves as habitat for two endangered species—the grizzly bear and the Rocky Mountain wolf—and is used by a third—the bald eagle.

Martinka expressed hope for new understanding and progress as a result of the June 22-24 conference slated for Kalispell,

"Toward the Biosphere Reserves: Exploring Relationships Between Parks and Adjacent Lands." There will be, according to Martinka, a scientific cast to the meeting, but it will also consist heavily of county commissioners, industry representatives, Chamber of Commerce members and others whose lives and interests are embedded in the area, together with the park, the lake, the river, and the proposed mine. Mexico, Southeast Asia, and Europe will also be represented at the meeting.

The conference is part of the 50th anniversary celebration of the International Peace Park, and is being sponsored jointly by the US's National Park Service and its Canadian counterpart, Parks Canada.

Trosper's group has a tentative agreement from John Seiberling's Subcommittee on Parks and Recreation (of the US House Committee on Interior and Insular Affairs) to hold public hearings on the proposed mining operation at the same time the Biosphere Reserve conference is meeting.

