QUETICO-SUPERIOR COUNTRY

Wilderness News

FROM THE QUETICO-SUPERIOR FOUNDATION • SUMMER 1972

POLLUTION

Giant Step

Rare feature of the Boundary Waters Canoe Area has long been the exceptionally high quality of its 2,000 lakes and interconnecting streams. But now even these pristine waters are threatened with pollution.

Much of the blame can be pinned on the ever-increasing hordes of visitors, but the outstanding culprit is undoubtedly Shagawa Lake at Ely's BWCA gateway. Since 1901 the city (1970 pop. 4,904) has been dumping its sewage in this handy 2,000-acre catch basin — presently at the rate of a million gallons a day. Since Shagawa is located in the Rainy Lake-Hudson Bay watershed these unattractive, unwanted waters flow north through the BWCA to Canada. Though Ely now filters its effluent through two treatment stages, this obviously is not enough to stem the tainted tide. Shagawa must surely be one of northeastern Minnesota's more eutrophied (over-enriched) lakes: some summers it turns green with algae.

World First. The lake's condition has become so bad that the U.S. Environmental Protection Agency (EPA) is wading into it with both feet. Pilot studies in 1969-70 indicated that the best way to clean up Shagawa would be to turn off the nutrients pouring in from the municipal sewage plant. Spurred by encouraging results, EPA and Ely hope to do what has never been done before anywhere in the world: transform a big polluted lake into a big pure lake. What Ely's sewage seems to need is a third, or tertiary, step to remove algae-stimulating phosphorus.*

Last October work began on a three-story high tertiary treatment plant costing over $2 million. After it starts churning in September it is expected to reduce the lake's phosphorus diet from 15,000 lbs. a year to a mere 150 lbs.

Robert M. Brice, director of the project, says the wastewater itself will come out 99.9% pure and "can be discharged harmlessly into natural receiving waters. Tertiary treatment will mean significant protection of downstream waters which include those in the BWCA." Results of the research may also benefit other U.S. waters. The timetable? "I think we'll be able to document improvement fairly early, and within a few years the improvement should be visibly apparent."

Local hydrologists point out that even if the Shagawa clean-up is successful it could not be called a complete cure since nutrients will continue to invade the BWCA from other sources (the phosphorus-rich Kawishiwi River for example). But at the moment EPA's third step looks like a giant step in the right direction.

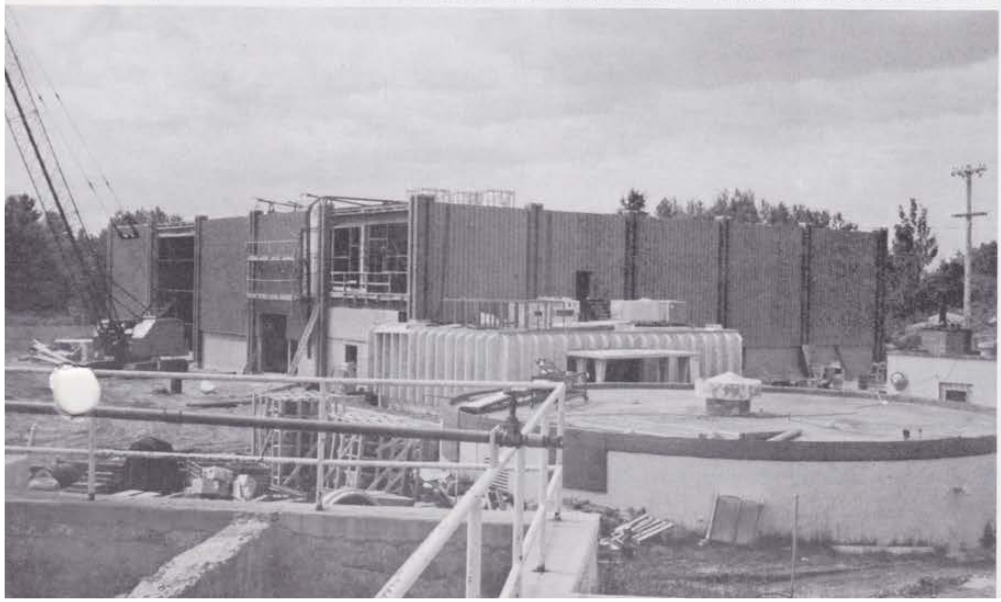
* While tertiary plants have prevented pollution in already-pure lakes, such as California's Tahoe, Shagawa signals the first big-scale effort to *reverse* eutrophication.

EXPLANATION

Here, in the scientific words of its director, is what the Shagawa Lake Eutrophication Research Project is all about:

"Objective is to demonstrate the possibility of improving the quality of a lake which is well advanced eutrophically through man-caused pollution by removing a critical limiting nutrient from what is essentially a point source of nutrients to that lake. Phosphorus is a limiting nutrient relative to algal productivity in Shagawa Lake. This means it is a nutrient present in least amount relative to need. Therefore, control of input of this nutrient to the lake seems to be an effective and expedient means for controlling algal growth."

$2 MILLION BEAUTY TREATMENT: EPA'S NEW TERTIARY PLANT WILL SOON GO TO WORK ON ELY'S AGING SHAGAWA LAKE



New Director

Edward M. (Ted) Hall, recently named Midwest correspondent in Time's Chicago bureau, has been elected to the board of the Quetico-Superior Foundation. A native of Frontenac, he plans to make a home base at Rainy Lake where he spent his boyhood summers as canoe companion of Ernest C. Oberholtzer. When last heard from Hall and his 15-year old son were heading west from New York via the old Erie Canal and the Great Lakes in their 34-ft. Maine lobster boat.

New Chief

John R. McGuire, a native of Milwaukee and 1939 graduate of U of M's Forestry School, was installed April 30 as the tenth chief of the U.S. Forest Service in Washington, succeeding Edward P. Cliff. McGuire has stated that when conflicts in the Boundary Waters Canoe Area

JOHN McGUIRE '39

become more intense "nonwilderness use will have to give way." He agrees with Superior Forest Supervisor Andersen that visitors to the nation's most heavily patronized wilderness area may have to be rationed, but defers comment on specific issues until an overall BWCA management study is completed next April.

New Advisor

Isabel F. Ahlgren, botanist with the Q-S Wilderness Research Center and wife of its director, has been appointed to the 12-member Multiple Use Advisory Committee of Superior National Forest. She possesses a rare Ph.D. in micology (the study of fungi).

Wilderness News

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CUTTINGS

Forest Murmurs

√ In listing approaches to the problems created by "too many people" in the Superior National Forest (WILDERNESS NEWS, Winter 1972) you neglected the single most important solution. That is to turn off the tourist faucet. Common sense dictates that we treat the root of the problem. I enjoy your newsletter. Keep it coming.

PAUL W. LUKENS, JR.
Professor of Biology
Wisconsin State University
Superior, Wisc.

√ To save the BWCA we must put our main emphasis on control of population and resource use. Our battles to save bits and pieces of wilderness here and there are necessary, but do not solve the overall problems. The main activities of those interested in conservation can be compared to putting bandaids on a cancer. We had better begin operating on the disease before we run out of bandaids.

BOB CAREY
Secretary
Outfitters' Association
Ely

√ Your front page story on the Forest was well done and timely. You also did a good job on the adaptation of the talk I gave to the Forestry Club.

HAROLD E. ANDERSEN
Supervisor
Superior National Forest
Duluth

√ We enjoyed Mr. Harold Andersen's look at the BWCA in 1980. Informative publications such as WILDERNESS NEWS aid our staff in keeping abreast of current events in the Quetico-Superior region.

J. FERGUSON WILSON
Supervisor
Parks and Recreation
Fort Frances, Ont., Canada

Park Progress

√ It pleased me to see your excellent progress summary of Voyageurs National Park. Sound planning and zoning by St. Louis and Koochiching counties will be of great value in managing the peripheral area of the park so that it will not be downgraded by abuse and overuse. Cooperation between Park Service professionals and local authorities in these early stages will perhaps provide the longest lasting benefits.

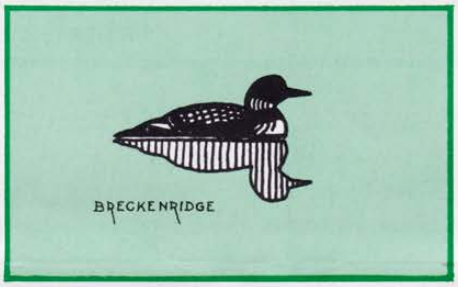
EDWIN P. CHAPMAN
Judge
Hennepin Co. Municipal Court
Minneapolis

Shortly after writing us Judge Chapman suffered a heart attack while vacationing in Florida. We are happy to report that he will soon be back on his bench.

ENVIRONMENT

Closing the Gap

With a helping hand from the legislature, the Minneapolis Athenaeum and a solid group of nature-minded citizens and organizations, Minnesota's Environmental Conservation Library (ECOL) firmly planted itself on the ground floor of the Minneapolis Public Library last April 16. This unique library within a library brings together in one accessible place much of the published information needed



to close what Commissioner Robert Herbst (Natural Resources) called "a very large environmental communications gap." At the opening ceremony in Heritage Hall author Sigurd F. Olson predicted that ECOL would become world famous *(see opposite page).*

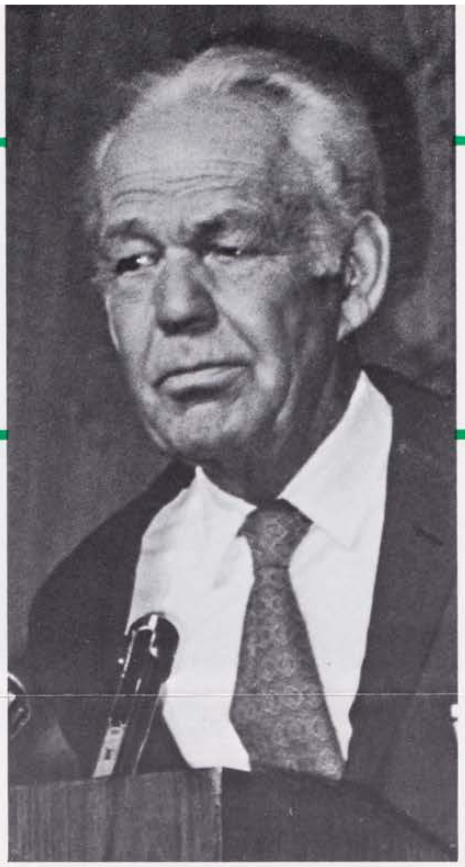
A fund of $50,000 was raised privately to establish ECOL, and just before adjournment the 1971 legislature voted another $50,000 for biennial operating expenses.

ECOL's guardians, Julia Copeland and Wendy Adamson who serve under Director Ervin J. Gaines, have already collected some 1,500 books (e.g., Olson's *The Hidden Forest*) and stacks of documents and periodicals (including a complete set of WILDERNESS NEWS). These cover the whole environmental spectrum with emphasis on the Upper Midwest, and deal with such subjects as resource management, environmental education, policy and law, solid wastes, conservation, forestry, wildlife, fisheries and ecology. The library offers free circulating material and research assistance to any Minnesota adult.

For the Younger Set. Mrs. Copeland is also involved in another gap-closer: environmental education in Minnesota schools. As described by Herbst: "Here is a program designed to reach children during their formative years with environmental lessons spanning all disciplines and grade levels. If we would have adult citizens who will guard this nation, we must have informed citizens who have mastered environmental principles at an early age."

(When former Q-S Foundation president Henry T. McKnight was in the state senate several years ago he proposed bill to make conservation education available. The bill was passed but funding needed to put it into effect at that time was delayed.)

SIG OLSON SPEAKS OUT ON THE RAPE OF OUR COUNTRY



Main speaker at the opening of the Environmental Conservation Library was Minnesota's Sigurd F. Olson, noted naturalist and author. Here, somewhat condensed, is his talk.

I WANT to go back to the time of Pliny the Elder of Rome, in the first century, because the library idea began with this man's vision. He had a burning ambition to bring together all that had ever been written about the environment since the beginnings of time. So he spent his years in compiling some 2,000 scrolls into 37 books. The abiding spur for his ambition was what he saw the Romans doing to the land. He thought the only way to reverse the trend of Rome's despoliation would be to gather all the information he could about nature itself.

PLINYISMS

"Pliny," says Olson, "had some very amusing beliefs." Samples:

Umbrella People lie on their backs when it rains, and use their huge feet to protect their bodies.

Albanians are born bald, and stay bald all their lifetime.

Whales in some parts of the world grow to three acres in extent.

Elephants in India are as tall as 30 feet.

Lions hesitate to attack women, and will eat children only when very hungry.

Pliny made many impassioned pleas. "Nature," he said, "is flung into the sea or dug away to allow us to let in channels of water. Iron, wood, fire, stone and crops are employed to torture her at all hours to make her administer to our luxuries rather than our sustenance. Yet in order to make the sufferings inflicted on her surface endurable for us we probe her entrails, digging into her veins of gold and silver and copper and lead; driving shafts down into the depths to search for gems and tiny stones; dragging out her entrails seeking jewels to wear on our fingers. And when at length our madness has been finally discharged, Nature draws herself as behind a veil and hides even the crimes of us mortals. The crime of our ingratitude is our total ignorance of Nature."

That was 2,000 years ago. Since then the rape of our country has gone on unabated. This great interest in conservation is not going to pass away. It is going to stay because this is a worldwide phenomenon. The air we breathe may have been polluted by someone across the earth's surface. We have poisoned our waters; we have poisoned our lands. And reputable scientists the world over are not talking lightly when they say man is faced with the possibility of extinction unless he reverses the trend. This library is an attempt to reverse that trend.

We cannot ignore, except at our peril, the fact that we are born on the earth, that we return to the earth and that we must cooperate with all other forms of life. That is one of the great principles which must govern our work in conservation, which must turn back the tide of the crisis that's engulfing us now. Our goal must be to build a world in which man is not the conqueror, not the exploiter, but the cooperator living in harmony with other forms of life.

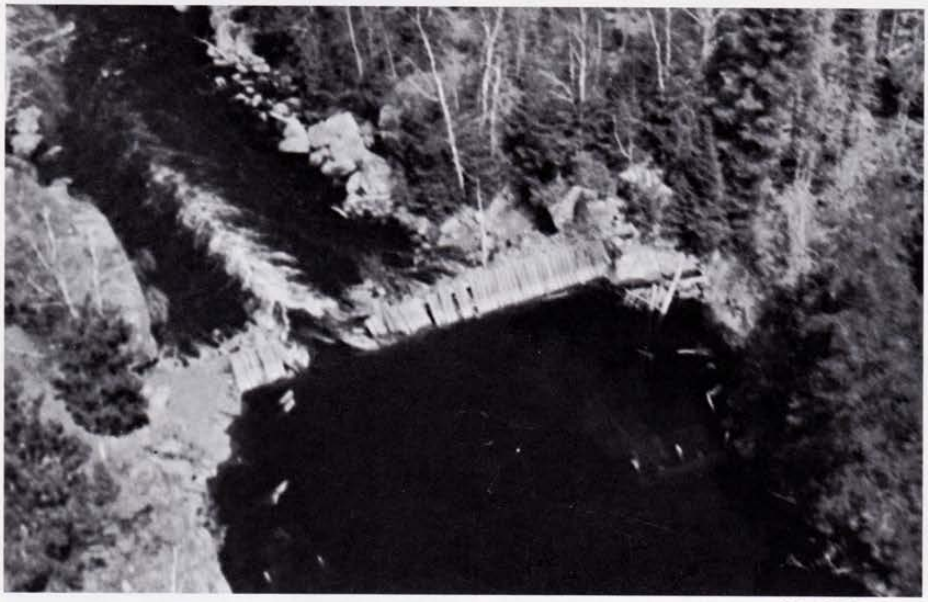
How do we meet this tremendous challenge? First of all, by learning all there is to know about nature. And that is where a library such as this is so valuable. This Environmental Conservation Library located in the beautiful city of Minneapolis can become a nerve center for the whole conservation program. I venture to predict that it is going to become world famous.

Ecological information is more than just picking up bottles and cans and junk. It is knowing the reasons why our earth, due to our mismanagement, has arrived at the state of crisis it is in now. We cannot understand what has gone on until we probe exactly what our social processes and our industrial developments have meant to the land that we have ravished. This library can have all that available. When we think of what Pliny was up against when he was the first great "librarian" our knowledge is almost beyond comprehension. What we are able to do in this world of ours depends now on our technological expertise. Without our ability to marshal vast complexes of information the battle for the preservation of this earth would be lost.

But there is more than even accurate information involved, and that is a change in public attitudes. We are children of the earth, emerged from a primitive background not too many thousands of years ago. We still listen to the song of wilderness within us. We are happiest when we are at one with the stars and wind and rain, mountains and plains. We all know that good feeling of being at home with the earth. We all look with horror at the idea of growing ugliness and divorcement from the earth. Unless we stay close to the earth we are besieged by annoying nostalgia and frustration that does not mean contentment.

What must we do about our attitudes? We must change our values. We must no longer consider a mounting gross national product as the Holy Grail. We must recognize that there are other values more important.

Before the time of Pliny a Greek said: "Life is a gift of nature, but a beautiful life is a gift of wisdom." Wisdom is what this environmental library is all about — the dissemination of wisdom so that we can meet these battles intelligently and with a possible chance of winning. Let us not forget that the battle for this earth is a battle not only for the physical earth, but for the spiritual side of mankind. If we save the earth and its beauties man's spirit will survive.



U.S. FOREST SERVICE

BROKEN DAM ON SOUTH KAWISHIWI RIVER

Repair, rebuild, replace, remove or rot?

DAMS

Going Out of Business

Like the beaver, man seems to have a compulsive urge to dam up waters. He has been doing it throughout Minnesota's Superior National Forest since the start of the century. In the '20s Edward W. Backus, Minneapolis paper tycoon, sought to string a series of huge hydroelectric dams along the boundary waters, but after a 10-year battle he was finally restrained by an international tribunal. Lesser fry were more successful. Timbermen slapped together rickety wooden barriers to raise water levels so they could float their logs more easily. Later, power and mining outfits put up more substantial structures, such as the Winton power dam near Ely.

BACKFIELD HUDDLE*

Their job: get damming evidence.

At last count about 140 dams, in varying states of repair, were spotted in the Forest, but nobody knows for sure how many more there may be or who is responsible for them. Most are located north of the Laurentian Divide, which determines whether water flows up to Hudson Bay, down to the Gulf of Mexico or out to the Atlantic Ocean. (In Minnesota the Divide meanders SW from Height of Land on the Canadian border, passing just above Virginia and through Chisholm.) Many of the older dams have gone out of business, serving no useful purpose today. Some may actually be causing environmental harm *(see box)*. All in all it's a dam mess.

DAMAGES

Ecological effects of damming can be serious. Writes Claire Sterling in The Atlantic:

"Everything changes: the water's chemistry, the habitat of river fish, the kinds and numbers of aquatic plants, the life expectancy of disease-carrying insects, the weather, the wind, the flights of birds, the pressures on the earth's crust."

Team Play. Now at last something is being done about it. Thanks to a recent appropriation of $30,000 from St. Paul and matching funds from Washington, the U.S. Forest Service has fielded a four-man team which is spending the summer counting and appraising all dams in the Forest. Members consist of a civil engineer, a hydrologist, a fisheries biologist and a forester. Their findings, due in September, are expected to take into account the effects of damming on wildlife, fish, vegetation and human beings, and will determine whether a dam should be repaired, rebuilt, replaced, removed or merely allowed to rot away. The team is covering the 3-million-acre forest by aircraft, car and canoe.

*John Adams, George LeDuc (quarterback), Robert May, DeWayne Campbell.

SNOWMOBILES

Immobilized?

When Orville Freeman was Agriculture's secretary back in 1965 he issued a whole new set of rules and regulations for the Boundary Waters Canoe Area (Wilderness News, Spring 1966). These included the limiting of snowmobiles to 315 miles over 19 specified routes within the million-acre wilderness.

Now comes President Nixon with an executive order banning all "off-road" vehicles on federal lands in officially designated wilderness or primitive areas. He points out that altogether there are some 5 million such machines running rampant over the countryside. In addition to snowmobiles he counts motorcycles, minibikes, trail bikes, dune buggies and all-terrains (but not motorboats).

Does this order, effective in August, mean that come winter the snowmobile will be immobilized in the BWCA? That seems to depend on whether the area is legally a true wilderness. And nobody — not even the Forest Service — is sure of the answer. In the meantime Supervisor Andersen has conducted a series of lively "listening sessions" in St. Paul, Lutsen, Ely, Virginia and Duluth to hear the people speak. What they said was predictable: snowmobilists are against the ban; conservationists for it.

HONORS

Humane Doctors

Two champions of Quetico-Superior country were made Doctors of Humane Letters (L.H.D.) by Carleton College at Northfield on June 9:

Elmer Lee Andersen, former Minnesota governor and president of the Voyageurs National Park Association. *You are a man who has never hesitated to put the public good above private interest and convenience, and who has repeatedly provided leadership in a wide range of public services.*

Frank Brookes Hubachek, Chicago lawyer and founder of the Quetico-Superior Wilderness Research Center. *With conviction and persistence you have fought for conservation, and have encouraged our faculty and students to learn at first hand the mysteries of nature so that man and his environment may live in better harmony.*

DR. ANDERSEN

DR. HUBACHEK