

# THE WILD CASCADES

Fall, 1985 - Spring, 1987



# PRESIDENT'S MESSAGE

DAVE FLUHARTY

National parks are managed to protect wildlife and their habits so that natural ecosystemic processes permit reproduction, growth and eventual death. Right? Wrong! At least for fish in high lakes in North Cascades National Park. North Cascades Conservation Council strongly supports the efforts of the superintendent and his staff in development of a revised high lake fish management policy that favors natural management over artificial stocking of fish.

What's the story? When Congress designated North Cascades National Park and the National Recreation Area Complex, it included a standard provision with regard to management of wildlife. No hunting would be allowed except in the NRA and fisheries would be managed in cooperation with the relevant state agencies with respect to limits and licensing. All this seems fairly normal. However, the Washington State Department of Game had been interested in a stocking program for high mountain lakes in the area covered by the Park and had made some efforts to stock some lakes in cooperation with the U.S. Forest Service. While stocking of lakes had been allowed in National parks in the early years, the trend in recent years is to phase out stocking and return to natural management. As a result, there are very few areas in the National Park system that continue stocking of lakes. One of them is North Cascades National Park.

How did North Cascades National Park fall behind the times in fish management? As best as I have been able to determine, the Department of Game approached the Park in 1970 with a request to stock two lakes that had been stocked prior to the establishment of the Park. This was apparently agreed upon. In the mid-1970s the Department of Game again approached the Park with a proposal to establish a stocking program for high mountain lakes under a memorandum of understanding (MOU). This MOU called for cooperation between the two agencies to examine which lakes should be stocked to provide additional high lakes fishing opportunities. It should also be said that the department of Game was acting, at least in part, on the behalf of several organizations who voluntarily provide the legs and lungs to lug lots of little fish to high mountain lakes as a public service. Let it also be said that this little public service should not be publicized by Game or the Park Service for fear that the public might interfere with these projects by catching the fish. Such a private arrangement for the public good only recently came to the attention of N3C. In search of our files, I find no evidence that N3C was asked to comment on the propriety of a fish stocking program for high lakes. Accordingly, N3C did not provide any comment.

How did this issue surface? As part of the preparations for the General Management Plan revision for NCNP, fish management was brought up. Supt. John Reynolds advised N3C of his decision to phase out stocking and to return fisheries to natural management -- still in cooperation with Washington State Department of Game. Since 1977 the number of lakes in the stocking category has risen to twenty and the Department of Game is pushing for more. The NPS argues that it is required by statute to manage the wildlife and their habitat for natural processes. The Department of Game and its lake stocking constituency argue that stocking programs should be allowed to continue.

COVER: MT. BAKER by Susan Marsh

N3C is entering the fray on the side of the Park Service. The NPS has the responsibility and the authority to manage wildlife resources consistent with its protection mandate. N3C recognizes that consistency for the sake of consistency is not a very compelling argument, although in the case of the NPS mandate, we are all for consistency. There are many good reasons for supporting NCNP in its position. First, with threats like acid rain, it is imperative that high mountain lakes, which are generally most threatened by acid rain, and that represent high lake ecosystems remain unaltered so that they can be used as baselines for research. When fish are introduced to these fragile ecosystems, the populations of insects and other small critters is vastly altered and some species (perhaps endemic?) are eliminated. Second, the shore environment of lakes with fish in them is frequently devastated by fishing trails "ringing" them. Lakes with no fish seldom show these high levels of use supplied by the attractive nuisance of stocked fish. Scenically and ecosystemically, the NPS needs to regain control over the high lake environments.

N3C might justifiably be accused of being "purist" in its orientation to protection of the high lake environment. I for one, am proud to be so labeled in this case. In the state of Washington there are 7,868 lakes and several thousand of those are above 2,500' in elevation. In Whatcom County there are 245 lakes of which 149 are above 2,500' and in Chelan County there are 326 lakes of which 288 are above that level. In NCNP and NRA there are 114 major lakes of which 25 are currently subjected to stocking. It would appear that there a sufficient number of high lakes available for stocking efforts outside the Park.

It may be hard for a high lakes stocker to see the rationale for this change in policy. Perhaps Joe and Margaret Miller could provide suggestions for excess energy to be spent in rehabilitation of vegetation around high mountain lakes.

## JOHN MUIR IS EXONERATED!!

The Savonarolas and Bunyans of a certain National Park (which shall remain Nameless) still giggle over their pink lemonade when they tell the tale of how their hero, the most Savage Saint of the Amm, issued a \$25 ticket for illegal camping to the Irate Birdwatcher and his three accomplices, who shall remain nameless here, though the gauleiters know who they are. The main subject of the S.S. Sermon was the building of a wood fire in a valley where nobody even smoked cigarettes anymore.

-- Well, Irate and his henchmen have pretty well accepted the crush of onerous law, and when they light up illegal substances (wood or other) do so in darkest secrecy.

However, every lane has its turning. How many of you recall what happened to Savonarola? The grand old party held in Olde England when the Stuarts were restored, notwithstanding their French habits? The following is reprinted from the September 1985 issue of American Alpine Club News.

Remember when John Muir torched off a forest, for the sheer hell of it? I wouldn't do that, though it is said to be on my advice that a group of Harvard graduates (burning their toilet paper, as who doesn't?) burned up a million dollars worth (State and Federal estimates) of Lake Chelan grass and brush, for which there is a huge demand overseas. Nevertheless, in the future I'll feel less guilt when in a fit of exuberance I ignite a "John Muir fire" that has the Smokey Bears kneeling on prayer rugs and issuing pastoral letters.

These patented products don't appeal to me. I don't build fire to cook. (Eat sandwiches -- though the food is cold, the inner man is hot.) I only burn wood to provide work for indigents among my excellent friends eking out existences as loggers and TV reporters.

# THE ELEPHANTS ARE COMING, THE ELEPHANTS ARE COMING

(The morning after the October 26 meeting of the N3C Board at their home, the Fluhartys were rudely awakened by earth-shaking thudding on the street, ear-splitting trumpeting, and a "bonk" on the front door, which turned out to be a hollow coconut, within which was the following message from the Irate Birdwatcher.

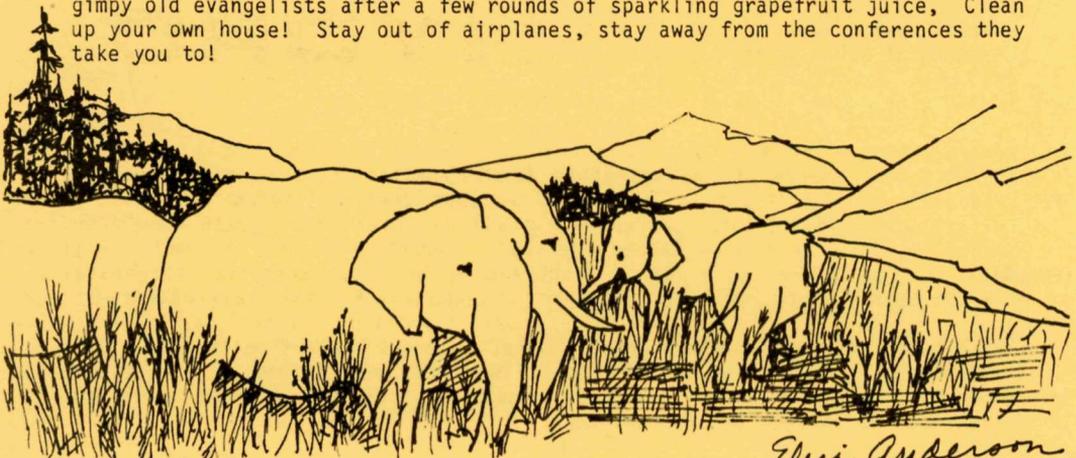
I came by last night with my friends, but you Board members were making so much noise gobbling your Chinese dinners and swilling your California wine you didn't hear. Well, that's all right, so long as you don't spend too much time at meetings and conferences and seminars, passing resolutions and thinking you've thereby done something. The streets -- that's where the action is! The trails!

The thing I wanted to bring up, if you hadn't been fighting over the fortune cookies, was helicopters.

How many of you have seen that splendid movie, done from an early Ed Abbey novel, in which the hero ultimately died when his horse collided with a truck on a freeway, but before that struck a blow for freedom by shooting down the Sheriff's helicopter? It was from this that "monkeywrenching" sprang.

How many of you have ever spent time lying in the flowers of a high ridge, watching the parade of U.S. Navy jets, over-the-pole jets, and miner-goatshooter-skier helicopters, and dreamt of selling out to a Foreign Power which, by occupying our nation, would have no need for its military to harass us, as ours does; and of placing a miles-traveled tax on every American which would encourage us all to stay home, where God put us, and -- finally -- of obtaining a cheap and lightweight ack-ack gun which would drop those plastic suckers out of the sky like so many snow geese shotgunned stone-cold dead in "sanctuary" on Skagit Bay?

Well, don't expect me to feed your fantasies. I went to a couple of your conferences recently (disguised as a bartender, the one who kept saying, "one for you, one for me") and in my opinion there's nothing so noisy as a hundred gimpy old evangelists after a few rounds of sparkling grapefruit juice. Clean up your own house! Stay out of airplanes, stay away from the conferences they take you to!



*Elija Anderson*

A common assumption is that Les Braynes and me are on the outs, because for many years I groused about Tote-Gotes and Yamahas and Banzais, and he went for it all, ATV, ORV, RV, snowmobiles and gunship. The truth is, Les and me find ourselves closer every year, and what we're up to now is a compromise between hikers (who, you've got to admit, tend to purse up their lips like they have just sucked a persimmon) and machiners (who may be rude boys, but you've got to admit, salute the flag). The serendipity is that we help save an Endangered Species.

Let me, now, inform you of the formation of the Elephant Stampeders Association. What we do is take our great, intelligent, friendly pets out in the mountains, the American Earth, which belongs to all of us, and as the motorcyclists love to whine, we've got our rights too. We contribute to the local economy, what with hiring mahouts, most of them from Twisp and Darrington, and importing coconuts, which elephants love to hurl at monkeys -- which also have to be imported. Economists call this the "multiplier effect" -- every dollar spent in one place generates 20 or 100 dollars elsewhere, what with all the bananas the monkeys eat, and the laundry that has to be sent out, because candidly, they (the monkeys) are filthy beasts.

You may think the U.S. Forest Service will forbid our elephant stampedes in the North Cascades. But the Forest Service has been swallowing motorcycles and snowmobiles for decades, with a smile on its face and never more than a polite burp, and now it has approved a helicopter hut at 7200 feet on the ridge of Silver Star Mountain between Early Winters Creek and Cedar Creek. If the Forest Service will permit helicopters there, it will permit them anywhere.

And if it will permit helicopters carrying yuppies and their pots of quiche into wildlands, they cannot deny our much more organic sport. Actually, once this sport catches on, we expect Liberty Bell to start a rent-an-elephant service.

As for you hikers, you got used to motorcycles on your trails, and to helicopters in your skies; now you must move over to make room for elephants. Really, you'll love them! Loyal, smart, sociable. They've got a memory you couldn't believe. I would only warn that we do come along at a fair clip when several families of us are stampeding, so if you hear the trumpeting, pick up your skirts and kids and dogs and move off the trail -- about 300 feet off the trail, because our steeds tend to stray (but helicopters fly right over you, anywhere, anytime they please and you don't complain about that.

A final caution: Please keep your mice on leash.

# SMALL HYDRO

STEVE RALPH

In 1978, with the memory of the sobering OPEC oil embargo of five years earlier still fresh in the mind, Congress passed the Public Utilities Regulatory Policy Act (PURPA). At the time it was applauded by both public interest groups and the private development interests. The environmental groups expected it to encourage revitalization of existing but defunct small hydro dams (plentiful in the East), and pave the way for "soft path"

public utilities. Originally, the act mandated that utilities buy power from small producers at a rate equal to the price they would have to pay for power from their most expensive source, termed alternatives to the burgeoning nuclear power industry such as solar and conservation technologies. It also promised (some say threatened) to weaken the traditional centralized control of power enjoyed by the large private and

"avoided cost". The Energy Security Act of 1980 provided further incentives by giving a substantial 21% tax credit on investments for small hydro projects, as well as grants or loans of seed money to help in project development.

For the development of small hydro power, PURPA was the catalyst that triggered a virtual rush for suitable sites that promised to create instant wealth for some, while threatening to further erode environmental values in some of Washington's more remote wild places.

Washington's Cascade range is one of the areas receiving much of this attention because of the abundance of small steep streams charged by abundant rain, snow and ice melt. Large corporate and public utilities, aspiring entrepreneurs and local mountain town "municipalities" all have joined the field of hopefuls vying for a federal license (and more rarely, the elusive exemption) to construct and operate these hydropower dynamos. Nearly every reach of free flowing water has been looked at for its development potential, often with seemingly little regard for site specific constraints such as closeness to roadless areas and existing transmission lines, and existing instream resources such as fish and wildlife habitat.

#### A Hydropower Primer -

Small scale hydropower has a lot going for it --- traditionally heading the list for producing relatively inexpensive, efficient power from renewable and nonpolluting sources. All of this sounds good at first glance, almost too good. The big dams with fiord-like reservoirs inundating thousands of acres gave hydropower a bad connotation among some circles. They are, with a few notable proposed exceptions, a thing of the past. The scale of physical facilities associated with small hydro, in comparison, tends to initially lessen our concerns for serious environmental impacts associated with their development. If it were only so easy.

Small scale hydroelectric projects come in two general configurations, the first, the "low-headed", high volume kind is well suited to low gradient situations such as irrigation canals and water supply conduits. The "high head" version more common on the west side of the Cascades, rely more on the fall of water than on its volume. The general layout of such a

project and the associated facilities would include a diversion dam, usually less than 15 feet in height, placed across the stream channel to shunt a volume of water into the intake. The intake leads into the pipeline which conveys the water to its junction with the high-pressure penstock. It's in the penstock that the water gains the energy from gravitational acceleration that provides the "head" needed to turn the turbine located in the powerhouse. The water is then returned to the stream from the powerhouse via the outfall structure. the next big hurdle is to transmit the power to the marketplace. This usually requires some length of transmission line and switchyard to facilitate interconnection with an existing power distribution system.

The thing that really baffles many prospective hydro developers is why there is so much resistance and opposition to their projects. They simply can't fathom that their projects could have any serious environmental consequences. There is however, the very real potential for significant, unavoidable impacts to other natural resources values associated with construction and operation of some of these projects. Among the more blatant impacts are the intrusion of powerline and pipeline corridors and associated access roads into undisturbed watersheds; the impacts of reducing water flows within the bypass reach of stream upon the existing salmon and trout populations and their habitats. Even in some watersheds where logging has already been established, the instability of the adjacent slopes may be such that to entrench a pipeline into the slope paralleling the creek would court disaster. Mass soil movements or seismic rumblings could unhinge the pipeline unleashing its flow with consequent downslope impacts. The list of examples goes on.

And what of the consequences of developing a large number of projects in close quarters, say within the same basin? There are some 80 such proposed projects with the Snohomish River basin alone. True, it would save on costs to the developer in that projects could share transmission facilities and other benefits. But the potential additive or cumulative effects of multiple developments could seriously reduce other resource values. These resource losses would in effect subsidize costs more rightly the burden of the hydro development.

One might ask why worry about all of this --- if a federal license is required before such a project can be built? It's no mystery that the Federal Energy Regulatory Commission (FERC), the agency saddled with the statutory responsibility to weigh all resource considerations before pronouncing whether a hydroproject can be built, has been the main advocate of development with little regard for the implication of project development on these other resources. Only recently, and after several years of major court battles, has FERC required verifiable evidence from developers as to the extent of project related impacts or losses to other resources. FERC does now require the project sponsor to provide mitigation for these losses from new projects, but not retribution for past losses from existing facilities where the damage has been done.

FERC has even recently accepted the legitimacy of the cumulative effects issue, but has dragged its heels for nearly three years on developing a strategy to address it. The state, federal, and tribal resource management agencies have offered well conceived proposals, but FERC has failed to even

acknowledge these. Instead, FERC has offered what they call their Cluster Impact Analysis Procedure (CIAP), but the unanimous reaction to the resource management agencies is that it fails miserably to address the real potential for cumulative impacts. FERC acts as though it is divinely inspired. They have even suggested that they may decline entirely to participate. The ball is in FERC's court, as the CIAP would have little legitimacy without full consensus.

The hydro developers, I mean the ones seriously competent to follow through in a responsible fashion, feel shafted by the whole institutional failure to clearly spell out the rules. Indeed they should. Recently, Congress and the Government Accounting Office (GAO) have been investigating and holding hearings into how FERC goes about it's business and interprets the intent of Congress when they were given their statutory authorities and responsibilities. They seem seriously committed to jerk FERC back into line with their proper mission, including an agency shakeup that could change its traditional "cover thy rear" guiding philosophy. We can only hope.



Susan Marsh

GLACIER PEAK, IMAGE LAKE

# CONSERVATION AND THE USE OF CAMPFIRES

ANDREW JOHN KAUFFMAN, II

Most of us who love the outdoors and are conservation oriented have not lived long enough to observe it, but in the Northeastern United States and, indeed, a number of other areas, the great forests of the past, which were cut down by settlers long ago, have now returned. In New York, Pennsylvania and New England, for instance, there is today more forest land, much of it high quality, than at any time since the United States became an independent nation. The phenomenon proves not only that timberlands are self-renewing, but that hikers, campers and climbers should seriously consider the use of wood in preference to non-renewable, explosive and malodorous fossil fuels in order to keep warm and cook their food in the outdoors.

What we've done in recent years has been to replace the campfire with gas or gasoline stoves. We were afraid to burn wood partly because of the risk of forest fire - in some ways a justifiable consideration, - partly because of the unsightliness of ashes and campfire rings in every section of widely used campgrounds. But to replace wood with fossil fuel is as much an environmental sacrilege to the conservationist as is litter and other forms of pollution. Fossil fuels can never be renewed in a century, as can forest, they are highly volatile, and, frankly, in surroundings where there is a plentiful wood supply they are as objectionable as is a ladder of fixed pitons for direct aid on a route that can, and should, be climbed free. The problem, however, has been how to burn wood at maximum efficiency, how to get a fire started properly, and how to cook and keep warm without creating a mess and without importing fossil fuels into the forest.

A couple of new products may ease the problem. A company called Igloo, which has been on the outdoor scene for some years, has now acquired a subsidiary, Pyromid, which manufactures a folding wood stove (which can also use charcoal). There's nothing new with folding stoves: horse campers have used them for years. What is new is that some of the new models are ideal for backpacking. they are constructed to save energy by burning wood efficiently, they weigh far less than modern gas or propane stoves, or even their horse-camper predecessors, they require no fuel that may leak into a pack, and they fold into a small canvas sack less than a foot square and an inch thick.

Meantime, a Yankee firm has brought out a patented product labelled **That Stuff**, a nontoxic, nonexplosive firestarter which is made of waste products of lumber shaving mills and is coated with **edible** paraffin, a petroleum distillate **waste** product. This product imparts no oily flavor to food, lights even when wet, and a handful weighing only one ounce will fire up all but the most stubborn of soggy wood. The makers of That Stuff do not promote its edible characteristics (it is hardly a tasty morsel), but if the toddlers get into it, there's no harm. Pricewise, That Stuff is vastly cheaper than any of the fossil fuel alternatives, and requires only that the user bring a saw to cut up a few, small dead branches for each meal.



# GRIZZLIES

MST strode into my office and flipped the book and some sheets of crumpled brown paper on my desk. He was clearly in one of his moods.

"Here, let's see if that lily-livered environmental organization of yours has enough guts to print this," he said, heading for the refrigerator.

I looked at the book and groaned. It was about the National Park Service. MST detests rangers. ("Bureaucrats," he says. "They're just a bunch of goddamn bureaucrats and darned stupid ones to boot.") A few years ago, as part of his PhD thesis on artificial intelligence, MST studied rangers. He concluded that they ranked somewhere between IRS agents and sheep, a fact that he maintained explained both their love of paperwork and their dating preferences. MST has radical views.

MST came back into the room, drinking a six pack of Coors. MST drinks. A lot. In the city he's not particular about his brand of beer, but in the wilds he drinks only Grizzly. He doesn't pack out the bottles; he scatters them by anthills, berry patches and old rotting logs. Grizzlies belong in the wilds, he says and he leaves the bottles in memory of what should be there.

"Look at that book. It's what I've been telling you all along. What do you have to say for the Park Service now?" For years MST has maintained that the National Park Service had adopted a policy of exterminating the Grizzly. The Grizzly had been the source of bitter debate ever since the rangers kicked the Craigheads out of Yellowstone.

"Look, Mort, we all know the Grizzly is in trouble, and the Park rangers are really concerned about it." I pulled out an old Life magazine with a photo of a Grizzly on the cover and showed MST a picture of an obviously concerned group of rangers tranquilizing a bear.

MST snorted, "Yeah, you know what tranquilizer they use. Phencyclidine." He pulled a medical text from the bookshelf. "'Phencyclidine'," he read, "'Angel dust, hog, super grass. Alternating agitation and depression. Drug effect lasts 2-4 days. Respiratory failure is common.'"

He closed the text. "What intelligent being would give that kind of drug to a Grizzly? Those morons don't have a clue when it comes to pharmacology. Show me their damn degrees. They overdose bears and kill them with the drug. They underdose bears and shoot them when they wake up too soon. Look at what they did to the two bears in that article. They dropped them from a helicopter. Killed one and the other limped off into the woods and was never seen again. They're even stupider than I thought. Not even a sheep would give angel dust to a Grizzly." MST made a note to himself to publish a followup article to his thesis.

"Mort, you're just too radical. Look at this Life article again. All the Park rangers are trying to do is wean the bears from the garbage back to natural foods and it's only a minority of the Yellowstone Bears that are addicted to garbage."

"Look, Pollyanna, what kind of armchair environmentalist are you? Over 75% of Yellowstones Grizzlies ate at the dumps. The Park Service closed the dumps, the bears wandered into campgrounds and the rangers shot them. We may never know how many bears the rangers



4/3 Eliza Anderson

killed because the original log books are apparently missing, but in the 1960's there were between two and three hundred Grizzlies in the Yellowstone population. In 1980, after five years of searching the Interagency Grizzly Bear Team could find only 46 bears!"

"Mort, what you say just doesn't make sense. The rangers love the wilderness. Yellowstone is the crown jewel in our National Park System. They wouldn't deliberately exterminate a species as magnificent as the Grizzly."

"Why not? They did their best to exterminate the wolf and the cougar in Yellowstone. Those were fairly magnificent species. They're bureaucrats, dummy. All they want is to not be sued. No bears, no bear maulings. Get it?"

"Mort, some of the things in this book are just too fantastic to be believed. It says that while the rangers were attempting to exterminate the wolves, coyotes and cougars in Yellowstone, they denied it. They even had a coyote specially trained to parade in public on command."

"You're right, that is pretty fantastic. Most rangers don't have the intelligence to train a coyote. Probably was done by a team of Walt Disney photographers."

"And look at this. According to the book, some rangers at Rocky Mountain National Park once had a woman run naked through the backcountry to promote visitation to the Park."

"That's really fantastic! Must have been the photographers again. The rangers would have hired a sheep. Come on. We all know the rangers are stupid, but the Yellowstone Park policy goes beyond stupid. It's criminal. They've exterminated an entire generation of bears, both black and Grizzly. The elk are as common there as slugs are here and more destructive. What kind of policy lets over half of the bighorn sheep go blind, starve and wander off cliffs?"

MST left the book review on my desk. He was off for a month of backpacking in Yellowstone. The back seat of his car was piled to the ceiling with cases of Grizzly Bear Beer.

As he open the car door I shouted, "Mort, you're always against everything, but it's impossible to figure out what you're for. What should we do to save the Yellowstone Grizzly?"

"Throw the rangers out. Bring the Craigheads back. Send in the Army with a mandate to save the Grizzly. Look what they did for the bison in Yellowstone."

As he drove away a green missile sailed out of the window onto my lawn. MST has always thought that my backyard was a great place for a Grizzly.

# ENVIRONMENTAL BOOKSHELF

M. S. T. BERNARD

Playing God in Yellowstone. By Alston Chase. 446 pages. Atlantic Monthly Press. \$24.95.

In his delightful book Men for the Mountains, Sid Marty describes a veteran warden's summary of the debate between those who favored an evolutionary management of Canada's National Parks and those who wanted more active manipulation of the ecosystem. "In other words," the warden said, "if you looked out the window of the Athabasca Hotel and saw a fire coming for town at about thirty miles per hour down the side of Tekarra Mountain, would you go throw a bucket of water at it, or order another round?" If Alston Chase is correct, the Yellowstone Park Service not only ordered another round, they threw a bucket of napalm.

Author Chase asks disturbing questions and reaches disturbing conclusions. What has led the Yellowstone Grizzly to the point at which some wildlife biologists predict its extinction? In the late 1960's, the Craigheads estimated the Yellowstone Grizzly population to be between two and three hundred bears and increasing. Yet a decade later, after five years of searching, Dr. Richard Knight could find only 46 bears. What happened?

Chase presents evidence that something terrible and bloody happened; the National Park Service denies it. But even the National Park Service admits that they have killed at least 261 Grizzlies since the disastrous decision to close the backcountry dumps in 1968. Independent observers suspect that some deaths have not been reported or included in Park statistics. No matter whom one believes in the raging debate that Chase's book has created, one horrible fact is emerging: A generation of Yellowstone bears has been exterminated and the single biggest cause of death appears to be the Park Service. Even more horrible is the continuation of the policies that led to the present disaster. Why are these policies continuing?

Chase portrays the Yellowstone Park Service as a bureaucracy out of control. Opposition has been ruthlessly crushed. Scientists who questioned Park policy or whose data did not support Park Service contentions were forced out of the Park. Their motives were impuned and their research careers damaged or destroyed. When Knight reported his data, one Yellowstone Park Service biologist wrote "Dick is obviously committed to one objective, a paycheck...When it comes to research design, he simply goes the path of least resistance." There is a vaguely disturbing echo in these words. The accusation is identical to the one directed at Adolph Murie by a Yellowstone Superintendent during the bloody 1930's when the Park Service was exterminating Yellowstone predators and denying it to the public.

In 1967, the Craighead bothers, the men who know the Yellowstone Grizzly best, predicted every major consequence of the Park Service's decision to precipitously close the backcountry dumps. They foresaw that the bears, deprived of the food source on

which they were dependent, would wander into campgrounds. Bear-man encounters would increase and bears would die. Subsequent events have proven the wisdom of the Craighead recommendations and the foolishness of the National Park Service decision to ignore them. Professor Charles Jonkel of the University of Montana recently called the Park Service decision to shut off the Craighead Grizzly research project "the biological crime of the century". Although events have vindicated the Craigheads, the bureaucratic juggernaut that threatens the Grizzly continues to roll. Men who know the Grizzly well, who could help it recoup are still denied access to the corridors of power in Yellowstone. The guns of Yellowstone have not yet been silenced.

Perhaps the most discouraging aspect of Playing God in Yellowstone is Chase's assessment of the rangers themselves. They apparently do not have the training or expertise necessary to intelligently administer the complex ecological systems they govern. They study law enforcement more than ecology, crowd control more than biology. Their biological ignorance has led to conflicts with scientists who are not seen as valued advisors, but as threats to the Park Bureaucracy; since the National Park Service controls research in the parks, the threat is easily dealt with as it was with the Craigheads. One of Chase's interviewees summed up the situation when he said, "Imagine the government lining up all the security guards of the Smithsonian and saying, 'Listen up you guys, one of youse is going to be the Curator!' Yet that is just what has happened in the Park Service. Our national parks are outdoor museums, yet they are run by policemen...Now you see why they are in trouble."

This is more than a book about Grizzlies. Chase studies the burgeoning population of elk, the decline of beaver, the mystery of the wolves and the chlamydia infection that killed 60% of Yellowstone's bighorn sheep. He dissects the politics of tourism including the disturbing events that led to the development of Grant Village. He exposes the perfidious planning that could lead to geothermal exploration in Yellowstone National Park. He asks the troubling question "Where is the conservation opposition that could change the Park policies?" Always contrasted against these disturbing questions are the natural wonders that were entrusted to the National Park Service for preservation. Playing God in Yellowstone is so rich with lore, so filled with the history, biology and geology of the region that it could easily be the best available guide to our first national park.

Although Chase's book is about Yellowstone, there is evidence that the architects of the Yellowstone disaster have begun to metastasize to other national parks. There is unfortunately no evidence that their ideas have changed.

Conservationists may be uncomfortable with Chase's book, but the questions that he asks are too important to be ignored even if we may not always agree with his answers. We have fought hard for land in wilderness and national parks. Chase challenges us to look carefully at the management of those lands. As Aldo Leopold wrote, "Youth yet unborn will pole up the Missouri with Lewis and Clark, or climb the Sierras with James Capen Adams, and each generation in turn will ask: Where is the big white bear? It will be a sorry answer to say he went under while conservationists weren't looking."

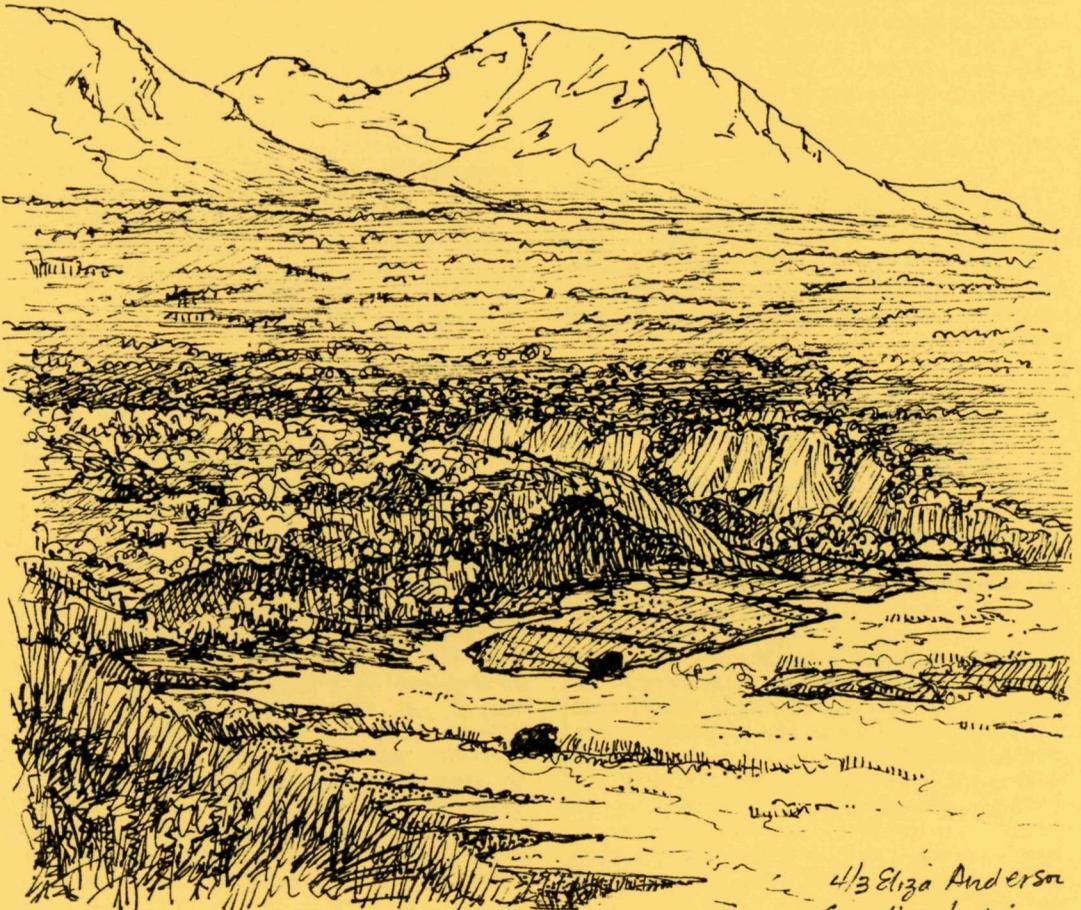
Hundreds of Grizzlies who have died at the hands of the Park Service and its policies might argue that we haven't been looking.

Montana Grizzly Tales: An Outrageous Collection of Original Cartoons. By Dick DonTigny. Griggs Printing & Publishing, Havre, Montana. \$6.95.

If you are looking for an unusual form of humor, you might consider Dick DonTigny's Montana Grizzly Tales, an original collection of cartoons lampooning just about everybody connected with Grizzlies including hikers (called "shriekers" by the bears), rangers, sheep and the bears themselves. In one cartoon, two Grizzlies gaze out over the chaos of a ski resort and ask "Why can't they sleep all winter like God intended?" In another cartoon, after talking to a scout from the Chicago Bears, one Grizzly turns to another and says "He'll give me all the rams I can eat if I play next to a refrigerator."

Make no mistake about it: DonTigny's bears are Grizzlies not Teddies; they are hilarious, hungry and often threatening. Nothing is sacrosanct, not even the constant barrage of advice we get from outdoor magazines about how to behave when confronted by a bear. As one Grizzly says to another, "If it runs--it's good to eat. If it stands still--it's good to eat. If it lies still--it's good to eat."

Montana Grizzly Tales is available through the Great Bear Foundation, P.O. Box 2699, Missoula, MT. 59806.



4/3 Eliza Anderson  
Grizzlies fishing

# WILLIAM O. DOUGLAS WILDERNESS

KAY KERSHAW and ISABELLE LYNN

We knew that an impossible dream had materialized when we read the P.S. Congressman Sid Morrison had put on a letter to us of June 12, 1984: "Just passed the House! On to the Prez---" Mr. Reagan apparently studied a long time before he signed the Washington Wilderness Bill, with no fanfare and no free pens, on July 3, 1985. That was enough, and for the William O. Douglas Wilderness at least, a very large portion of what could have been protected has at last been protected. It fell short of the conservationists' proposal; it makes our original 1961 proposal of 125,000 acres for the Cougar Lakes Wilderness seem downright obsequious. As a matter of fact it was -- we were just kind of messing around in a field new to us, and hoping.

People who worked so hard for the Cougar Lakes Wilderness (Did one ever come easy?) can be proud of their achievement. From the depths of a flat zero acreage recommended by the North Cascades Study Team in 1965 to 167,000 acres is A Great Leap Forward.

One of the places we were able to save, in spite of all kinds of opposition from the timber industry, was the North fork of the Rattlesnake. The area was "saved" earlier, in the sixties, by Bill Douglas and Scoop Jackson, after it had been scheduled and marked for a timber sale. You can still see the blue paint slashes designating trees, ponderosa primarily, to be cut.

We can't quarrel with the 167,000 acres the bill set aside for Wilderness. But that largesse is already threatened, first, by the Bureau of Reclamation which would despoil the integrity of the whole with their proposed "enlargement" of Bumping Lake reservoir, and second, by the Forest Service itself. We have worked for many years to defeat the bumping anachronism -- in the last years with the citizens for Responsible Water Projects -- to help this project die the death it so

richly deserves. And we have talked of the Bureau's returning to the Forest Service the land withdrawn for the enlargement so that it could be incorporated into the Wilderness insofar as possible. And, at the last moment, if all efforts to defeat the dam were to fail, that the Forest Service would gallantly confess that it had connived to pad the recreation cost/benefit ratio with oodles of campgrounds and ten times more people in this narrow valley -- with far less space, thereby providing a favorable cost/benefit ratio for the Bureau's case. The marvelous "boat-in" campgrounds could be reached only if the lake contained 458,000 acre feet of water; otherwise there would be hundreds of yards of portaging over mud flats to set up camp. Recreation benefits from this Bureaudoggle are nil. The Bureau's alleged cost for this new, not enlarged, dam is ridiculously low. Not to put too fine a point on it, it is a deliberate phoney. But surely everyone knows that the bureau can give lessons to the Pentagon in cost overruns.

It is not illegal -- just unfortunate -- to put a dam in a wilderness, but that does not pertain here in any case since the "withdrawn" acres were never included in the wilderness proposal. The point is that the proposed dam is a disaster; it demonstrably will not fill, and it will destroy habitat for game and people. Old growth forest will be mowed down. It will also provide hundreds of acres of mudflats on view from American and Nelson's Ridges and the Pacific Crest Trail where you now look down into a lovely river valley. An enlargement it's not; it's a new dam, a couple of miles downstream from the present one, designed to rear its dirt face 280 feet into the sky. This creates an opportunity for the Forest Service to sell more timber in the "corridor" composed of private holdings at Goose Prairie and the area that encompasses three Forest Service dirt roads that are used by visitors to get to Copper City and Deep Creek campground, trailheads much too

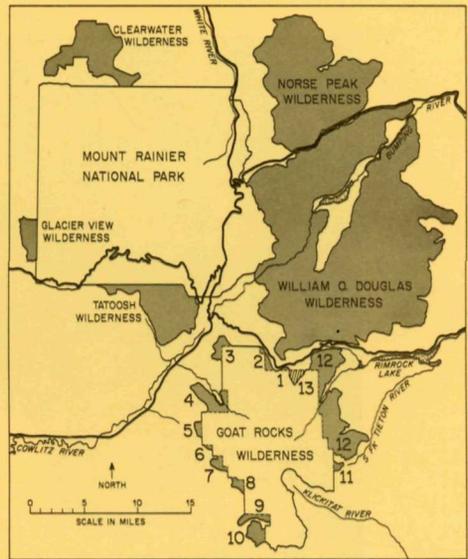
close to the crest, courtesy of an unfortunate timber sale that served no known purpose. Another road goes to the Upper Bumping, and trailheads for Fish, Swamp, and Cougar Lakes -- and also the lovely tiered falls of the Upper Bumping River which would be drowned by the new lake. A branch of that road goes to Miner's Ridge, where there was once a lookout, and to the campground at Granite Lake. At 6400 feet, Miner's Ridge commands a stupendous view of the snowcaps - Rainier, Adams, and that ruined beauty, St. Helens - and the waves and waves of untouched forest. The face of the ridge, which always supported a superb flower display, is now a sad and eroded site, not really appropriate for a motorcycle climb, which is the way it's used, courtesy of the Forest Service.

While miners first beat out the road to Copper City, there is no forgiveness for the Forest Service in the thirties for having punched through the other two, via the CCC, and lengthening and improving the miners' handiwork on the other. One could take a more charitable view and feel that the Forest Service provided useful employment for those city boys who could not find work anywhere. Alas, the Forest Service is continuing to put in roads suspected to have no object other than to preclude wilderness designation in future. It probably gets to be a habit.

The Forest Service continues to envision itself as the big logging camp in the sky, and appears not to want to claim any part of its responsibility to care for and preserve our national forests. This is why, one supposes, the Forest Service seems to feel it is necessary and desirable to begin timber operations now, when the Douglas Wilderness boundaries are just finally being nailed down.

The Forest Service could expiate some of its sins of careless management: they could leave the available timber in place to enhance the area for those who are in the Douglas Wilderness to enjoy the country without a timber-cutting festival for a sideshow. They could insist, and make it stick with unpleasant fines as opposed to the light tap on the wrist now meted out, that any vehicle -- 2-wheel, 3-wheel, 4-wheel that uses these roads stay on them. No more cross-countrying and defacement, under penalty of heavy fines and vehicle impoundment. Until they learn some manners.

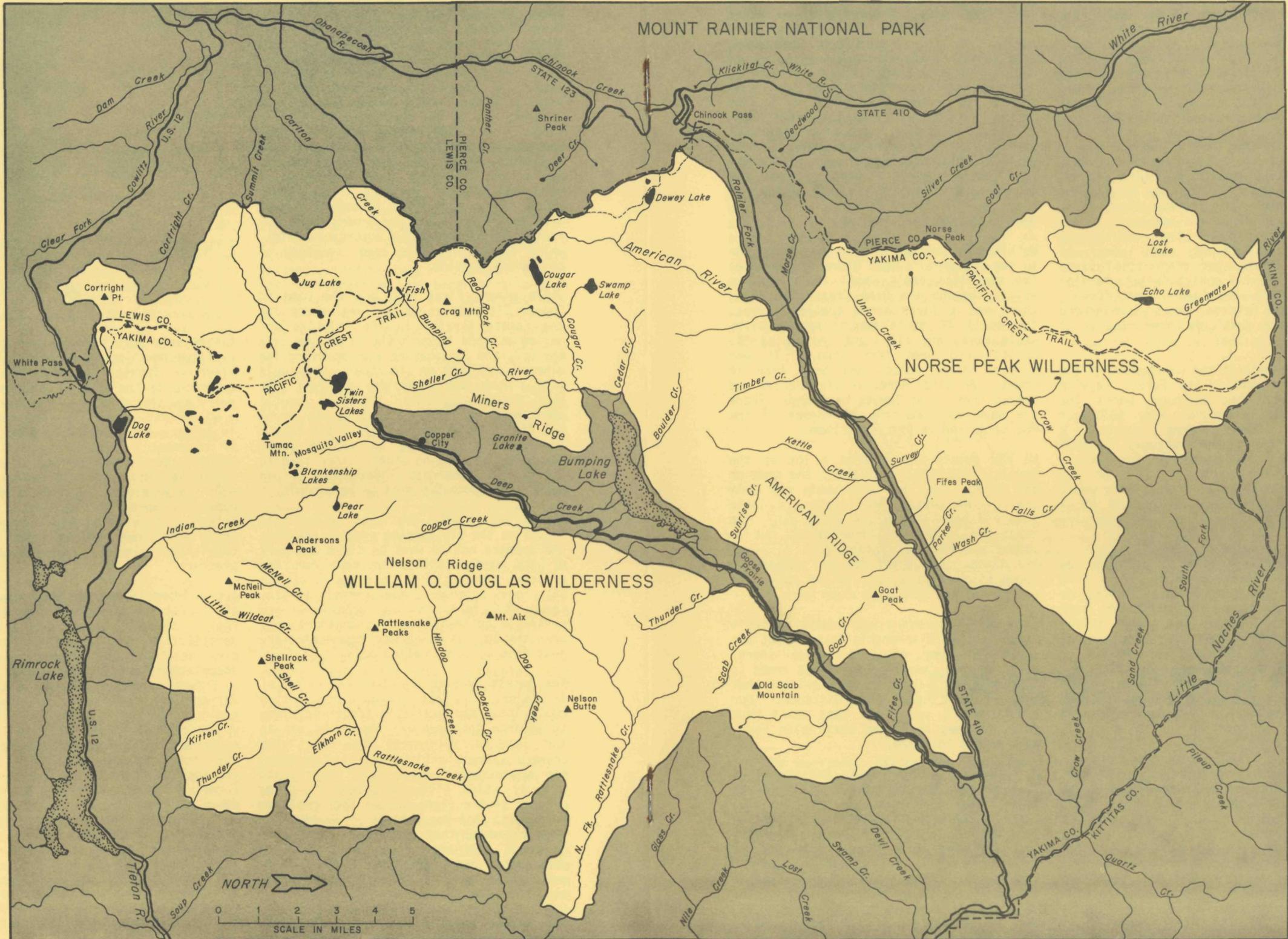
The Forest Service has made its first



timber sale here - right next door to the putative north-south boundary on American Ridge. Ironically, this sale is an extension of the sale on American Ridge 29 years ago that set in motion the fight for a wilderness here. The logging was done in January and February, including 8 acres of clearcut. Two others are presently planned for the corridor, sales with offensive names like "Bumpy". We have felt that misleading and simple-minded names to accompany unreadable maps are attached to sales so anyone reading about them will not relate the sales to cherished places lowers the blood pressure.

The Wilderness Society has charged that the forest Service is selling timber below cost, thereby contributing to the deficit. This is apparently not true on the Wenatchee. However, there is speculation that it costs more to lay out a timber sale than the sale brings in. Perhaps if we were to cut down on the engineering staffs, the Forest Service would have sufficient funds to manage wilderness and the national forests for the benefit of the people, not to mention the forests themselves. For example, the Forest Service says it hasn't the funds to do a real job of patrolling wilderness. We suggest that patrol begin at trailheads, which can be done by a member of the Green Fleet.

One of the most outlandishly stupid things the Forest Service has done within our memory was to open the national forests to the local (or not so local) wood



gatherers. This was like turning carpenter ants loose on some lovely old house. This "freedom of the woods" has led to smogging up low-lying valleys until people are afe over it, to unconscionable wood theft, to shoving new roads into the forest. All this with no supervision and very little interference from the Forest Service. These new roads and logging activities preclude any future chance of placing the withdrawn acres in wilderness. The Forest Service is a laughingstock -- in a very bitter sense. The Green Fleet drives in circles with no discernable goal. This is hardly the first occasion to remind the Forest Service that "Look before you leap: is not a bad principle. One thinks of campgrounds on rivers and lakes, of horeseracks that beg for total land destruction, of the mulish failure to sign trails that are open to vehicles, "Open", instead of the reverse, or of allowing the original "tote goat" on forest trails at all.

Let's take a look at the management of the Douglas Wilderness. The Forest Service has the idea that Congress wants the wilderness to begin at the 3600-foot contour. Does anyone suppose a congressman knows one contour interval from another -- any more than your average hiker? Congress seems unaware of its 3600-foot responsibility. What this would create - has created - is one of those tiresome buffer zones the Forest Service deplores.

The Wilderness Bill, which as been the law since 1964, has, obviously, firm restrictions on behavior: no wheels, no structures, no mechanical equipment, such as chain saws. It was the intent of the Bill to provide areas as untouched as possible by the human presence, places that provide the ambience in which one feels himself to be in solitude, quiet places where noise is created by wind and storm, by singing birds, a duck splashing down, a bull elk running the scale on his clarinet.

Has the Wenatchee Forest tried to work out a program with the Whidbey Island Naval Air Station that will exclude their radar evasion flights at treetop level over the Douglas Wilderness? Not that we can notice. A many times daily and often terrifying experience for hikers and riders. As we noted earlier, the Deep Creek campground at the edge of the Wilderness, puts the lovely Twin sisters Lakes only 2 1/2 miles away. As

campgrounds go, this one is rather pleasant with lots of space around individual sites. And certainly no horses in the campground. (If you are using horses, there is another campground handy.) Since the unfortunate marriage of the Naches and Tieton Ranger Districts, the new Palais du Foret in Naches, well beyond the scene of activities in the forest, is "too far" for the Green Fleet to check -- except for once a year when they install fresh toilet paper in the doolies. Ditto the campgrounds at Granite Lake and the Upper Bumping. Indeed, it crosses one's mind that simply getting to where outdoor staff must go to do their jobs is a 2-hour round trip.

We hiked to Twin Sisters in July last year to see the world's best flower show. Even the mosquitos can't spoil it. When we walked through the Deep Creek campground there was a large horse trailer parked, the smell of horse manure pervaded the whole area, and all signs indicating "No Horses" had been torn down. It was evident where horses had been tied to trees. An aside here: we like horses and regret that we no longer have any. There are ways to take care of horses in the mountains and we practiced them.

We had guests who covered a lot of the Douglas Wilderness last year, and some of the things they ran into made our skin crawl. At Little Twin Sister, a large camp had been set up. A great many, too many; men, women, children decked out in camouflage clothes, firing guns all over the place. One great oaf was whipping a horse hitched to a raft in the lake. An unpleasant and upsetting experience.

Even more unpleasant was another group's experience at Blankenship Lake. That was another big camp, right on the lake shore, with the same camouflaged crazies armed to the teeth and making it very evident that people should keep their distance. Our guests aren't pushy and they don't pack guns, so they abandoned their plan for a walk around the lake.

We talked with the Forest Service about this and got the response that it is not illegal to have guns in the National Forest. We know that, obviously, and we know there's probably no law on the books that says you can't have a horse pull a raft on a lake. Is that the point? Surely not. What it says to us is that the Wenatchee Forest is not giving a lot of priority to managing wilderness. Too bad; it has a great deal to manage. Even

the U.S. Army isn't allowed to conduct maneuvers in a National Forest without a permit. So it's OK for the crazies to do whatever they want?

Since the Forest Service can't afford employees to patrol, they are depending on volunteers, and as nearly as we can tell, their training, since they have power to arrest, consists of teaching them to be "Good Hosts". Somehow the Forest Service developed the notion that they were Elsa Maxwell or the Hostess with the Mostest on the Ball. They don't want to be rude - nor should they be -- if they have to face the fact some lout has cut a green tamarack or ripped down a "No Horses" sign, or is making life unpleasant for others camped near him. Instead of "interpreting" to these sorts of lawbreakers, let the volunteers be politely forthright about law and suitable conduct. They have to face the unhappy fact that they are not hosts; they are public servants, either paid or volunteer, with a job to do. For laughs, read the

Forest Service publication. "Let's Be Good Hosts". It may be a peachy approach for well-brought up ladies and gentlemen. We guarantee it will not work on marijuana growers, wood thieves, motorcyclists who rip down signs, people who put up pieplate signs all over the forest, loud mouths or any of a number of other people one runs into constantly. Whatever happened to plain old common sense? It's not too common.

We have just seen the new Wenatchee National Forest map. It's marvelous to see all that magnificent wilderness that must have appropriate management. We think the ranger districts involved should avail themselves of knowledgeable local people who could serve as a volunteer committee with the Forest Service to assist in the development of management plans. Certainly the Forest Service at our level of communication is made up of good and dedicated people. It behooves us to remember that they have a whole lot of folks, including us, leaning on them.

## I.M.A.C. AWARD

Inter-Mountain Alpine Club (IMAC) has selected the North Cascades Conservation Council to receive an award of a \$55.00 donation for our campaign in opposition to the heliskiing and hut proposal in the Cedar Creek and Kangaroo Ridge (Wild Cascades, ) watershed of Okanogan National Forest. The N3C thanks IMAC for this recognition and the contribution. We appreciate your support in this and many other ways.

## MAPS FOR SALE

The Northwest Center for the Future, located in Portland, has prepared a glossy, multicolored map showing all legally protected and unprotected Wilderness lands of Washington State. The most recent similar publication is the eight year old USFS RARE II set of maps. Many changes have been made since that time. "High Places in God's Country: Wilderness in Washington" charts the gains made in Wilderness protection and identifies those areas we are still fighting to protect. A wide-ranging essay on the reverse side of the map examines the spiritual values of Wilderness. (Size 22"x34"; Price \$5.00 plus \$1.50 postage and handling). Available from recreational equipment outlets and some bookstores as well as from Northwest Center for A Future, P.O. Box 13042, Portland, Oregon 97312.

# THE EVOLUTION OF THE HIGH ROSS DAM SETTLEMENT

JOHN GIBSON

## INTRODUCTION

In December of 1983, the City of Seattle and the Province of British Columbia signed the Skagit River Agreement, resolving a four-decade-long dispute over Seattle's right to extend its Ross Lake reservoir on the upper Skagit River into British Columbia to allow for further hydroelectric power production. At the heart of the dispute was Seattle's proposed raising of its existing Ross Dam, a proposal known as "High Ross". High Ross Dam would have increased the power supply of the city by roughly 10 percent, and at a cost that made it an attractive option for the city's utility (1). While producing a sizable increment of power, however, a higher reservoir would have flooded well into the British Columbian reaches of the Skagit River Valley, covering over 5,000 acres with water for much of the year, and leaving part of that acreage as unsightly mudflats during annual drawdown periods (also flooded would have been 10 miles of the Big Beaver Wilderness Valley within the North Cascades National Parks Complex).

The project created considerable controversy, although the controversy was somewhat slow in building. Once opposition to the project did begin to grow, several of its features drew special attention from one or more of the groups that formed for a long political, legal, and economic showdown. The dispute over High Ross pitted Seattle against both domestic and foreign opponents. Domestically, environmental activists chose High Ross as a major battleground for some of the environmental issues that have since become standard for many power plant proposals. Internationally, successive governments of British Columbia availed themselves of time-consuming legal avenues, political deference to growing provincial public opposition to the project, and very slow participation in negotiating forums, all to delay any definite resolution of the dispute and thus counter a shaky legal foundation for

British Columbia attempts to stall the project.

Recent attention to the High Ross Agreement (and subsequent U.S.-Canadian Treaty), hailed as a "win-win" solution for British Columbia and Seattle, has focused on the final few steps in the long road to a settlement. These steps were crucial, and they brought national and international players more directly into the negotiations in a new and constructive way. From a broader historical perspective, however, they were part of the logical evolution of issues and partial solutions that successively narrowed the debate from an almost-bewildering array of factions and disputes to the solution embodied in the agreement between Seattle and British Columbia.

Beginning with the International Joint Commission Order of Approval of the High Ross project in 1942, Seattle and British Columbia several times drew close to a resolution of the fate of High Ross. But each time they stopped short of ratifying and implementing their informal or partial agreements (2). Despite these repeated failures, negotiations continued to progress. In fact, the experience gained from false steps and the specific terms contained in near-agreements both contributed significantly to the 1983 agreement.

Necessary for a settlement was an environment in which both parties could recognize the possibility of realizing a clear gain from settling the dispute, rather than playing it out to a final adjudicated settlement. This environment was created gradually, one issue at a time. As each dimension of the dispute was partially resolved, it became a more manageable issue, so that by the time the parties gathered for the final round of negotiations, the environmental and economic issues involved had been examined and narrowed, leaving questions of risk and political perception as the major unknowns. Eventually, these too were

dealt with through imaginative extensions of the economic and environmental terms of the agreement.

Focusing on the last decade of negotiations, this article traces the accretion of the critical elements of the Skagit Agreement, and the gradual attrition of the major stumbling blocks to any resolution, which made the final agreement possible.

#### HISTORY OF THE HIGH ROSS PROJECT

Ross Dam is the largest of three Seattle City Light hydroelectric dams on the Skagit River in northern Washington State, about thirty miles south of the U.S.-Canadian border. Conceived during the visionary tenure of J.D. Ross as superintendent of Seattle City Light, it was originally designed as an upstream storage facility, intended to exploit the Skagit River Valley's geography to provide a mixture of 1) predictable flows of water for the operation of Seattle's two downstream dams on the Skagit (known as Diablo and Gorge), and 2) flood control benefits further downstream. High Ross Dam was planned by Seattle City Light as the centerpiece of the Skagit system. The greatly increased storage potential it would provide would give Seattle greater flexibility in the operation of the entire Skagit system, both increasing the total Skagit power production and allowing the schedule of the three dams' output to more closely match the schedule of Seattle's demands for power. Its large increment of peak generating capacity would allow the city to avoid either buying expensive combustion turbines or relying on the Bonneville Power Administration to provide the power supply shaping necessary to meet the city's winter peak loads (3).

When High Ross was initially proposed, it was in a City Light environment characterized by pride in the bold resource-building programs that had given Seattle a self-sufficient municipal supply of electricity, long before liberalized public utility district formation legislation had popularized public power in Washington. Electric power was seen as an engine of growth, and the hydroelectric potential of Western Cascade rivers such as the Skagit seemed to offer almost boundless opportunities for development. Environmental concerns were virtually absent from the dialogue of the day.

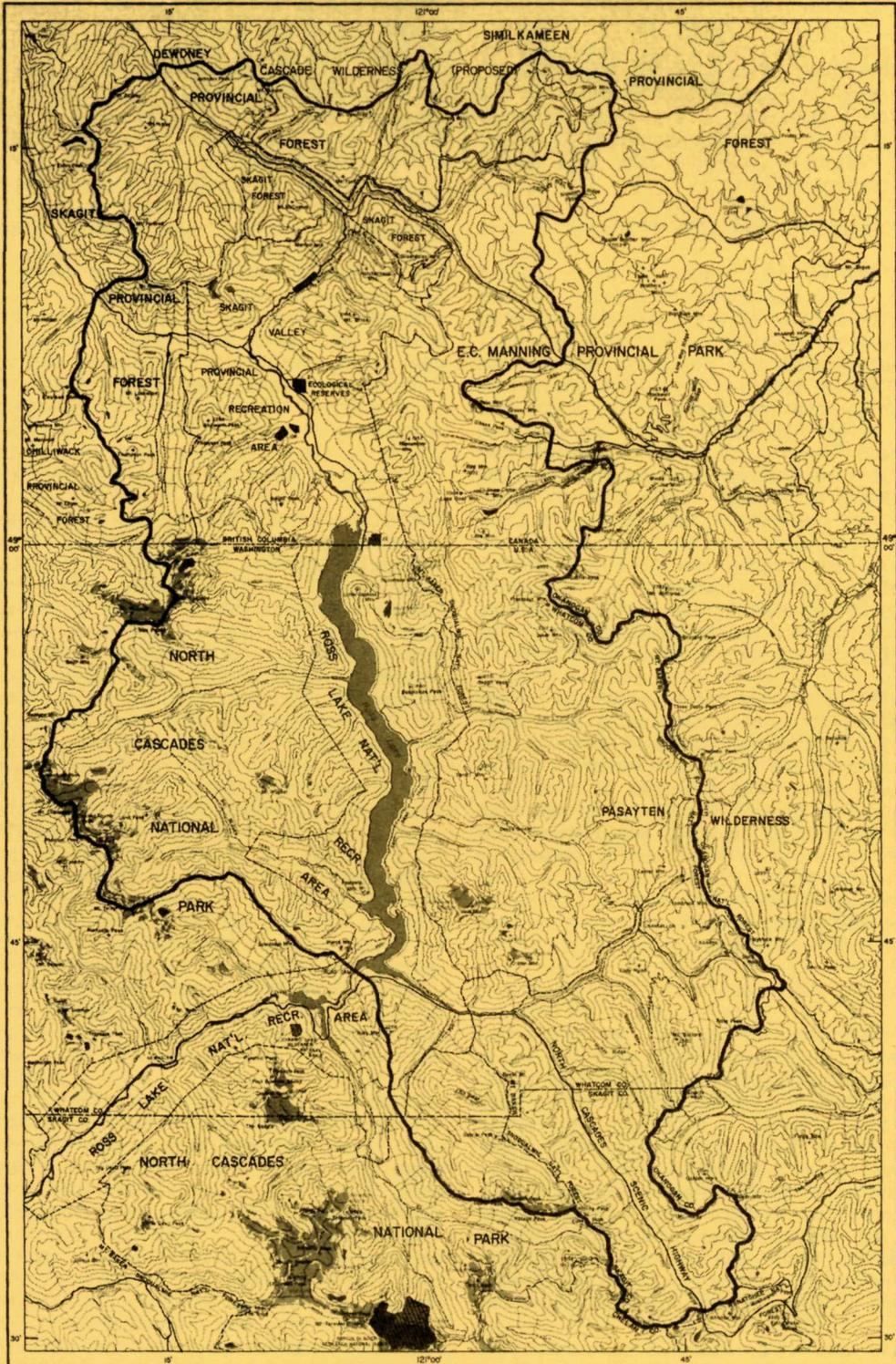
Initial plans for the full development of the Skagit River's hydroelectric potential

were drawn up by Seattle City Light in the late twenties, and over the period 1929-36, Seattle quietly acquired the land that would eventually become part of the development and its reservoirs (4). The timing of the construction of Ross Dam (then known as Ruby Dam) was, however, largely a result of outside events. The Skagit was known for its occasional floods, and in 1932 the Skagit Flats far downstream of the projects experienced a major flood which highlighted the recognized need for flood control on the river. Flood control had been a part of the rationale for the Ruby Dam project, but before the 1932 flood, City Light had favored staging the Skagit projects so that the Gorge project, farthest downstream, would be completed first. Concern over the flood swayed the Seattle city council, however, and Ruby Dam began to receive premature political attention, making its construction somewhat controversial from the beginning.

The second outside impetus was provided by the economic reconstruction efforts of the Roosevelt Administration. With the establishment of the National Industrial Recovery Administration (NIRA) and its subdivision the Public Works Administration, hydroelectric projects became a major focus for substantial federal funding. In 1933, J.D. Ross filed an application for NIRA assistance in financing Ruby Dam construction. This application lost out to the massive federal commitment to Grand Coulee, which exhausted Washington's share of the original funds. Despite this setback, Seattle filed a second application two years later, and in late 1936 it was granted \$3 million to cover the costs of clearing timber from the project area and building a new transmission line to Seattle. Armed with this financial support, Seattle was able to sell bonds for an additional \$4 million, and construction began on the project before the end of the year ( ).

Seattle City Light engineers studied the site extensively, and adopted a staged plan for Ruby Project development. Successive stages of development would raise the dam to elevations of approximately 1380, 1585, 1600 and 1725 feet above sea level. Only the last stage was expected to extend the project's reservoir into British Columbia. The first step was completed in January of 1940, and with a wooden crib dam atop it, Ruby Dam reached an elevation of 1385 feet, with its reservoir reach still well

UPPER SKAGIT RIVER WATERSHED UNITED STATES AND CANADA  
PREPARED BY SKAGIT ENVIRONMENTAL ENDOWMENT COMMISSION 1987



within Washington State.

Following the death of J.D. Ross, the project and dam were renamed for him. Although construction efforts were slowed by the Second World War, Seattle pursued the necessary arrangements with British Columbia to allow for eventual flooding across the international border. Pursuit of these arrangements began the forty-year-long process of High Ross negotiations between Seattle and British Columbia.

#### THE IJC ORDER OF APPROVAL, 1942

The first official step in the negotiations was the Seattle application for, and receipt of, an Order of Approval from the International Joint Commission, in 1942, authorizing Seattle to complete the fourth stage of the dam and flood into British Columbia, provided it first reached a satisfactory compensation agreement with the province. The International Joint Commission, which was created by the 1909 Boundary Waters Treaty between the U.S. and Great Britain, has authority to approve or disapprove various kinds of proposals affecting waters crossing the international border between the U.S. and Canada. Once authorization was given, parties tried without success to reach a long-term agreement on compensation.

The second and third stages of dam construction, which brought the dam to its present 1600 foot elevation, were completed in 1949 and 1953. In 1953, when the dam reached 1600 feet, some water did cross the international border. Seattle made a payment of \$250,000 to B.C. at this time. In 1954, the parties agreed on several terms: that the reservoir would not at that time surpass an elevation of 1600 feet, that Seattle would pay the province \$5,000 annually for flooding rights to that elevation, and that the agreement would be renegotiated annually. After that Seattle City Light continued to operate its Ross project with seasonal incursions into British Columbia, flooding about 500 acres.

Due to the continuing Seattle intention to complete the fourth stage of the project, the two parties continued to discuss possible reparations for an anticipated increased inundation. These sporadic talks concluded in 1967 with the second Seattle-British Columbia agreement on compensation. Under this agreement, reached with the government of W.A.C.

Bennett, High Ross would be built and Seattle would pay British Columbia \$35,000 annually, with British Columbia retaining the option to take payment instead in the form of power, at an exchange rate of 3.75 mills per kilowatt-hour. While the \$35,000 payment became a symbol of Yankee resource expropriation for token compensation, the translation would have allowed British Columbia to receive 1.05 megawatts of average energy, a quantity which by 1980 had a replacement value of approximately \$500,000 (5). Shortly after the agreement was made, however, it was seen as a sellout.

The agreement reached by one British Columbia government was soon repudiated by the next, the New Democratic Party regime of Dave Barrett. While Seattle continued to send British Columbia annual payments under the agreement (which ran from 1967 through 2066), British Columbia ceased to cash the checks, and began its campaign to overturn the 1942 International Joint Commission Order authorizing the fourth stage of Ross Dam construction.

Simultaneously, Seattle resumed its engineering studies and general planning for construction of High Ross, and U.S. environmental interest in High Ross began to mount, leading eventually to the instigation of legal challenges to block construction. With all of these potential complications afoot, British Columbia and Seattle both sought to hedge their bets against the resulting uncertainty by opening serious negotiations on a possible power purchase settlement that would eliminate the need for construction of High Ross.

#### THE STAGES OF NEGOTIATIONS

There were three qualitatively different periods of negotiations. The first stage began with a long list of differences, and a high emotional level of interest from concerned citizens. As issues were resolved or subsumed in the increasingly economically oriented negotiations, the attention of the negotiators turned to others that remained unresolved. All the while, there were reasons for both sides not to conclude the negotiations. Eventually these were all overcome.

The three key stages of recent negotiations were these:

1. The controversy in both Seattle's and British Columbia's councils in the sixties and seventies

reflected the increased environmental concerns of the citizens of both jurisdictions. Environmental court challenges to the project in the United States, finally resolved in 1980, cleared all of the domestic procedural obstacles to the project.

2. The focus of attention during the negotiation era of the late seventies and eighties was on potential reciprocal economic interests, largely as a result of the flagging growth of energy demand in both countries and the perceived importance of minimizing the costs of overbuilding.
3. The political impetus for the final stage of negotiations emerged from the source of the original authorization for the project, the International Joint Commission.

Each of these stages featured significant progress in the overall negotiations. They are described below, with the key outcomes of each stage highlighted.

#### ENVIRONMENTAL OPPOSITION

An intermittent force, crucial at times and almost absent at others, was environmental activism. Environmental opposition to High Ross had existed prior to 1967, but in 1967, as already noted, Seattle and British Columbia reached agreement on a compensation package that would have enabled Seattle to proceed with the construction. Environmental activists on both sides of the border were spurred into action. Two environmentally-motivated organizations gained large followings in this period as they set out to combat the High Ross project. In British Columbia, a group of citizens formed Run Out Skagit Spoilers (ROSS), while in Washington the North Cascades Conservation Council (NCCC) made High Ross a priority issue. Each of these groups fought the project throughout the seventies, through a variety of tactics. Some of these tactics were legal and confrontational. Others were more educational. In the case of the NCCC, the fight had the effect of spawning an internal debate in Seattle over the environmental costs of raising Ross, at a time when the entire City Light ethic of aggressive development was beginning to be challenged.

Issues raised by the environmental opponents to the project were varied and compelling. They ranged from the preservation of unique ecological features found in the proposed reservoir area to such technical questions as the statistical basis for Seattle City Light's projections of need for the project's energy. The primary environmental issues raised included the following:

- o The unique characteristics of Big Beaver Valley (6-mile wilderness). Significant red cedar stands and plant and animal hybrids inhabit the unusually situated valley. Big Beaver Valley, located within Ross Lake National Recreation Area of North Cascades National Park Complex established in 1968, enclosed a tributary of the Skagit, and was part of the acreage on the U.S. side of the border that would be flooded by High Ross.
- o Visual damage from drawdowns, mudflats, and stump farms. This issue loomed particularly large because of the already-existing mudflats, undeniably unattractive and also a symbol of international exporting of external costs of power development. More flooding meant a larger area of visual pollution. The High Ross reservoir would flood about 5,500 acres (5,000 in Canada).
- o The Upper Skagit fly fishery. This is a recreational resource highly valued by many in British Columbia's Lower Mainland.
- o Flat water versus moving water recreation. This was a growing issue over time, as the number of available wild and scenic rivers dwindled, and support for preserving a mix led to the U.S. Federal Wild and Scenic Rivers Act of 1968. A larger reservoir would absorb about ten more miles of the Skagit River (and 6 miles of Big Beaver River).
- o Power benefits versus environmental costs. Controversy over the value of High Ross output and the significance of the environmental costs grew as the alternatives to High Ross changed and the public's environmental awareness increased.



LIBERTY BELL

Susan Marsh

- o The need for the project. Increasing sophistication in forecasting techniques and challenges to old, high projections gradually became a standard environmental issue, and applied to High Ross as well as many other projects. The growth rate of Seattle's electricity consumption dropped significantly over the 1965-80 period, adding substance to the environmentalist claims that the High Ross project would not be needed.

These arguments were presented in several forums. The first, for the NCCC, was a direct appeal to the Seattle City Council. In the late sixties, the Council held several hearings on the project, which were heavily attended by opponents of High Ross. While the 1967 agreement with the British Columbia was unaffected by this showing of public opposition, the interest of the City Council and Mayor Wes Uhlman was shifted for the next decade from simply proceeding methodically with the project to also investigating the possibility of a negotiated settlement.

While the city began to consider both construction and negotiation paths for High Ross, environmental opponents began to challenge the project through suits and appeals to successive levels of the United States court system. Fully exploiting the appeals process for maximum delays, the environmental opponents' legal strategy stalled progress on High Ross until 1980, when the deadline for United States Supreme Court acceptance of a final legal appeal expired, and Seattle's Federal

Energy Regulatory Commission (FERC) permit to construct the project became effective.

British Columbia environmental opponents, meanwhile, tried the case against High Ross in the "court of public opinion". Contrasting the meagre compensation payments of the 1967 agreement to the more even sharing of downstream benefits contained in the Columbia River Treaty of 1964, the ROSS group characterized the agreement as a one-sided appropriation of British Columbia natural resources to serve United States energy needs. This approach rubbed a British Columbia nerve, one attuned to perceived Yankee exploitation and incursions into areas of Canadian sovereignty. The High Ross issue became a litmus test of British Columbian loyalty in political campaigns, and even at the Canadian federal level, votes of Parliament officially opposed the project.

Finally, the growing attention paid to High Ross affected the composition of Seattle's internal councils. What had once been almost exclusively an engineering issue, with even the negotiations carried on by Seattle City Light, became more clearly an economic and policy issue. Seattle began to broaden the range of opinion and analysis brought to bear, involving economic negotiators and outside legal counsel in the search for a negotiated solution.

This stage of events accomplished two things of lasting value to the subsequent negotiations. First, it expanded the agenda of High Ross discussions between Seattle and British Columbia. The debate

had previously focused on the extent of Seattle's right to proceed, and the form and size of compensation to British Columbia for an assumed project. By the mid-seventies, the discussions focused increasingly on potential negotiated alternatives to the construction of High Ross. Second, environmental values gained a lasting place on the agenda of future discussions. In some instances, environmental considerations militated against specific proposed alternatives, and in all cases environmental value became a currency of settlement evaluation.

#### 1975-79: SEARCH FOR AN EQUIVALENT REPLACEMENT PACKAGE

During the late seventies, negotiating meetings and correspondence between Seattle and British Columbia were oriented primarily toward devising a mutually acceptable package of British Columbia supply resources that could be offered in exchange for the rights to High Ross construction. British Columbia had a variety of resources that it could develop for that purpose, but most of them were unacceptable to British Columbia because they would simply move the environmental impacts from the Upper Skagit (and Big Beaver) valleys to some other valley.

Projects at two hydroelectric facilities that were free of this stigma became the main subject of discussions over this period. These were the raising of the reservoir behind Seven Mile dam, on the Pend Oreille river, and installation of a fifth generating unit at Mica Dam, on the Canadian Columbia River. The initial offer of British Columbia, transmitted in May, 1977, included the power from Seven Mile alone. This increment of power was considerably less than that available from High Ross, but the cost was also less (6). Economic analysis by British Columbia supporting its proposal seemed to justify the exchange. Seattle's evaluation concluded differently. The disparity was very large, and traceable to a number of significantly different assumptions on key variables (7).

The debate over appropriate values for economic assumptions moved the negotiations into a new phase. With a quantitative set of issues before them, the two sides exchanged detailed justifications of their assumptions, and on some points narrowed the range of their differences. On other important points,

the two sides' positions hardened, and discussions were discontinued.

The partial reconciliation of the two sides' positions indicated that the increment of power from Seven Mile dam alone would not be of sufficient value to replace High Ross. British Columbia then offered to advance the installation of the fifth Mica Dam generating unit, and assign Seattle the capacity so gained for a period of twelve years (8).

Environmentally, this was a relatively benign alternative, since it involved no new flooding, and construction of a unit that was planned for installation in any case. Economically, it highlighted an economic assumption that had not been nearly as critical to the evaluation of the Seven Mile output. This was the discount rate. Since the peak capacity of the Mica unit far surpassed that anticipated from High Ross, the combined Seven Mile/Mica replacement package seemed more desirable than High Ross for twelve years, and less desirable thereafter. On balance, the replacement package appeared to be preferable economically when a high discount rate was assumed; the High Ross output was more valuable when a lower discount rate was assumed. Not surprisingly, British Columbia made a case for use of a high discount rate, Seattle for a low one (9).

Again, progress was stalled over the remaining differences, and the parties searched for a new alternative. The one that appeared to offer both environmental acceptability and economic promise was assignment of British Columbia's Kootenai River Diversion rights. ( ) Under the Columbia River Treaty, Canada, and by assignment British Columbia, had certain rights to divert a portion of the flow of the Kootenai River into the Columbia, with a net gain in Canadian power production and a net loss in United States power production. Since the diversion would create certain environmental problems in British Columbia, its assignment to Seattle would reduce environmental impacts in British Columbia. Furthermore, the shape and size of the power increment accompanying the transfer would allow a composite package also including the Seven Mile and Mica alternatives to more closely replicate the power production profile of High Ross.

Unfortunately, the value of the Kootenai Diversion assignment hinged on the credibility of its construction. If the



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project had little probability of ever being built, the United States would realize little from the transfer of diversion rights (11). Even if it were likely to be completed, the party directly affected would be the Bonneville Power Administration (BPA), the distributor of power from the downstream facilities on the Kootenai. Hope of using the Kootenai Diversion to complete a package evaporated when BPA informed the city that it saw virtually no probability of the Kootenai Diversion being completed.

At this stage, as alternative replacement packages predicated on specific resources' transfer to Seattle were found wanting, the direction of the negotiations shifted again. The cost of High Ross was both a major impetus for its construction and a major impediment to selection by British Columbia of any equally attractive package. Furthermore, Seattle's supply strategy depended upon a new addition to its resource mix having power output shaped somewhat like the output of High Ross. This undermined the economic and resource planning appeal of any dissimilarly shaped replacement packages.

The solution devised by the parties to contend with this problem was the abandonment of specific resource transfers in favor of an attempt to replicate High Ross in the form of a power sale from British Columbia Hydro to Seattle City Light. An informal agreement on this approach was reached in Seattle in April of 1979, and embodied in the "Conceptual Elements of a Compromise British Columbia-Seattle Settlement on the High Ross Dam Issue" (12).

The effect of this switch in the approach to designing a High Ross replacement was dramatic. In one stroke, it eliminated the controversy over economic assumptions that had plagued the various replacement

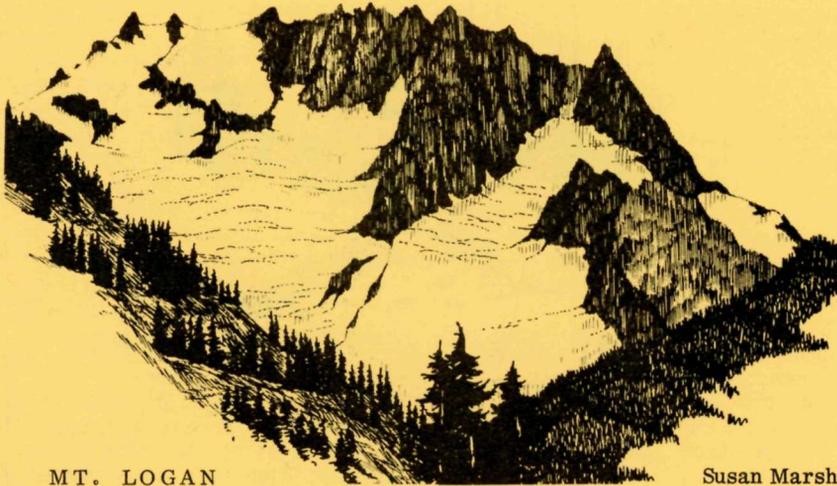
packages that differed in size, composition, or schedule from High Ross. By stipulating a replication of the specific High Ross power output features, the economic assumptions used by each side were removed from the negotiations agenda. This approach was fundamental to the ultimate Skagit Agreement.

#### 1979-81 NEGOTIATIONS IN LIMBO

The "Conceptual Elements" of an agreement were presented and received as a successful environmental coup in the British Columbia election that immediately followed, and the Bennett government was retained (13). However, with a conceptual agreement in hand, British Columbia pulled back from the negotiating table. The preceding stage of negotiations had produced considerable progress, but while pursuing the course of High Ross replacement negotiation, British Columbia had retained other possible means of resolving the dispute over High Ross.

The High Ross replacement strategy implicitly assumed that Seattle would be able to proceed with construction of High Ross, absent an agreement. That assumption had not been verified, since legal challenges were still pending. With the Conceptual Elements of an agreement in hand, British Columbia was covered against the worst legal outcome. Since a more favorable outcome limiting Seattle's construction rights was still possible, British Columbia adopted a strategy of delay.

Finally, in late 1980, as noted earlier, the last legal stumbling block set up by United States opponents of the project was removed, giving Seattle clear legal authorization to proceed (14). That left only one recourse for British Columbia other than implementing the conceptual settlement with Seattle. That recourse,



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which the Province took in August of 1980, was an appeal to the International Joint Commission (IJC), under whose 1942 Order of Approval Seattle had been authorized to extend its Ross Reservoir across the international border (15).

The IJC response to the British Columbia appeal shaped the final stage of the negotiations. With both sides hopeful of a favorable ruling, the atmosphere was not conducive to a negotiated settlement. The protracted economic negotiations had produced some imaginative means of producing a non-building solution that would leave both parties well off, but with hopes of a complete victory, neither side was pursuing negotiations very actively. The IJC took the tack of shaking both parties' hopes for a victory from an IJC ruling. In separate visits to British Columbia and Seattle, IJC representatives bluntly outlined the risks facing each party.

Then, in an extraordinary ruling in April of 1982, the IJC rejected the British Columbia appeal, but also set a one-year moratorium on Seattle construction of High Ross. It also announced the establishment of a special consultative group on the Skagit, and vowed to review the negotiating progress and good faith of the parties in one year's time. The special group, called the Joint Consultative Group, which included Seattle and British Columbia, was charged with quarterly reporting requirements, and was given one year to reach a final settlement. This set of IJC maneuvers produced ample incentives for both sides to negotiate in good faith. It elevated the comparative promise associated with each replacement

package considered, simply by posing a less optimistic alternative than had been assumed previously by the parties.

This stage of negotiations involved the fewest face-to-face discussions between Seattle and British Columbia. It did, however, narrow the field of possibilities, a crucial precondition to a negotiated settlement of the dispute. Legal avenues for challenging and delaying the project were exhausted. As importantly, it was at this stage that mutually incompatible, overly optimistic views of the probable outcome were most effectively challenged. A negotiated settlement depended on the possibility of creating mutual benefit. With several economic variables, power operating considerations, and environmental refinements available, a mutually beneficial solution was available, but only if the baseline expectations of the parties were either consistent or overly pessimistic. The final stage of negotiations began when this last condition was met.

#### 1982-83: THE IJC-SPONSORED NEGOTIATIONS

The evolution of the Skagit Agreement from the initiation of the IJC process in April of 1982 was remarkably orderly, although it did have periods of drama and uncertainty. A negotiating pattern was quickly established, consisting of Seattle offers and British Columbia criticisms and rejections of those offers. Essentially, the parties were returned to the point of negotiations that had produced the Conceptual Elements of an Agreement, but with powerful observers of, and potential judges of, their negotiations.

While the IJC did not participate in the negotiations, it created two mechanisms for ensuring "good faith: negotiations by both Seattle and British Columbia. One was its understood threat to decide any stalemated outcome in favor of the party that had most sincerely sought a settlement. The other was the IJC insistence that the parties to the dispute, and their respective federal governments, combine to retain the recently retired chief executive officers of the Power Authority of the State of New York and Ontario Hydro, George Berry and Douglas Gordon, as technical liaisons. These two men became the arbiters of factual disputes among the technical representatives of Seattle City Light and British Columbia Hydro. Because of the volume of detailed technical information pertaining to the High Ross, Seven Mile, and Mica projects, and the importance to a settlement of agreement on that technical information, Berry and Gordon kicked off the year of IJC-sponsored negotiations by producing a report to the IJC that ended much of the debate over such questions as the probable output of each project, and the schedule of that output (16).

This environment of impartial arbitration hastened the eventual settlement. Two of Seattle's proposals, including the form ultimately chosen, drew heavily on the work of Berry and Gordon. The resulting credibility of these Seattle proposals eventually elicited counterproposals from British Columbia. From that point on, the negotiations consisted of a gradually clearer and more detailed definition of the Skagit Agreement.

This last year of resolution retraced some of the earlier steps of the negotiations, but with final detailed touches added to proposals. The first key step was to embrace the High Ross replication concept of the 1979 Conceptual Elements. Several alternatives were considered, but the final version of the agreement includes power deliveries from British Columbia to Seattle amounting to 37.3 MW of firm average energy annually from 1986 to 2066, a quantity that covers Seattle's expected firm power from High Ross, plus an allowance for the value of the secondary energy Seattle would have received from the high dam. ("Secondary energy" is power available on average, but not under the "critical" water conditions of unusually dry years.) The peaking capacity formula is more complicated, but designed to approximate the High Ross schedule of peak capability, with allowances for operational convenience.

Next, economic terms were struck that reflected the replication concept again, while reiterating the "Trust Account" theme of another 1979 Seattle proposal. Seattle payments to British Columbia are timed and sized as if Seattle were repaying a series of 35-year bonds sold to build the project at its 1983 cost and Seattle City Light's 1983 interest rate. This design also allows British Columbia to take advantage of higher interest rates expected to prevail in British Columbia, augmenting the value of the agreement to it, at no additional cost to Seattle.

Such a radical purchase power schedule involves considerable risks, particularly to Seattle. These risks, which had been undercurrents to all preceding discussions, required a complex set of reciprocal guarantees and contingency rights. Among these are a retained right for Seattle to proceed with High Ross in the event of default by British Columbia, and guarantees by the two federal governments for all financial agreements made under the Skagit Treaty. This combination of measures virtually eliminates risk to Seattle and British Columbia, and also adds great stability to the agreement by preserving risks only for parties that depart from its terms.

Finally, the parties translated the long-standing environmental battleground of High Ross into a unique environmental preserve, through creation of an Environmental Endowment Fund (17). With an initial endowment provided by the parties, and a joint commission to oversee it, this fund will be used to purchase sensitive lands or development rights in the portion of the Skagit Valley corresponding to the High Ross watershed, to preserve the area in an environmentally sensitive condition against possible timber, mineral, or other development threats. This feature of the agreement provides a continuing positive atmosphere to accompany the power delivery portion of the agreement over its anticipated 80-year life.

#### SUMMARY

The Skagit Agreement reached by Seattle and British Columbia in 1983 represents the culmination of gradual negotiation of important environmental, power resource planning, economic, and political issues over a period of nearly ten years, with some of the issues having been joined decades before that. The successive stages of the negotiation slowly eliminated the uncertainty and instability

that hampered the earliest discussions, and identified useful elements for a final settlement. Reduction in uncertainty, together with identification of mutual benefits and their gradual accretion have been the hallmarks of the negotiation. As finally crafted, each of the key features of the Skagit Agreement adds stability to the agreement, and most of these features embody or echo important elements of agreements reached earlier by Seattle and British Columbia over the long and intense history of High Ross negotiations.

NOTES:

1. The increment of power produced by raising Ross Dam would have amounted to approximately 35 megawatts (MW) of "firm" (average daily) energy and 254-292 MW of peak capacity energy (depending on the convention used for the calculation), compared to 1984 Seattle City Light loads of about 1000 MW of firm energy and 1700 MW of peak capacity.

2. To anticipate and summarize: the 1942 IJC Order of Approval, issued during the second World War, came at a time of war-effort cooperation between Canada and the United States, but during a lull in construction activity for Seattle; a 1954 agreement on compensation, for the modest flooding of British Columbia land caused by the present Ross Dam elevation, consisted of annual contract agreements, without the status that would permanently confirm the 1942 IJC Order; a 1967 compensation agreement between Seattle and British Columbia was never ratified by a British Columbia "Order in Council", and was repudiated by later British Columbia governments, which refused to cash annual payment checks from Seattle; finally, a 1979 agreement on general terms for a non-building settlement of the controversy was not translated into a formal agreement until 1983.

3. Seasonal and daily variations in a utility's load increase the cost of supplying a given total amount of energy over the course of a year. As a "partial requirements customer" of BPA, Seattle has traditionally sought to own the resources to meet its load shape, saving money by purchasing BPA power in flat blocks. High Ross was integral to this strategy.

4. See Paul Pitzer, *Building the Skagit: A Century of Upper Skagit Valley History, 1870-1970* (Portland: The Gallery Press, 1978), 57, 79. This account provides considerable historical detail on

the early maneuvering by Seattle to establish its control over the Skagit's hydroelectric potential.

5. The annual \$35,000 at a rate of 3.75 mills per kilowatt-hour (kwh), equates to roughly 1.05 average MW. At the time of the 1976 agreement, 3.75 mills per kwh was near the prevailing price of power generated in the Northwest. By 1980, new resources planned in the Northwest included thermal resources with costs of 50-60 mills per kwh. Thus, the avoidance of 1.05 MW of new requirements was the economically more attractive alternative for British Columbia, with the value of \$500,000 based on an alternative cost of 50-60 mills for that power.

6. The British Columbia description of this offer included about 10 MW of firm energy, an additional 12.2 MW of "secondary energy" (available on the average, but not in the critical water conditions used for resource planning), and 61 MW of peak capacity, at a proposed cost to Seattle of \$10 million. This offer and the ensuing exchange of analyses and counteroffers by Seattle and British Columbia are described in J. Gibson, "History of Negotiations for a High Ross Replacement" (memorandum to SCL Superintendent Joe Recchi and Deputy Mayor Bob Royer, February, 1982). Available from the author.

7. Most notable of these were two: Seattle calculated that raising the Seven Mile capacity by 61 MW would require very costly modifications to its Boundary Dam project farther upstream, and that without these the capacity gain would be just 40 MW; in addition, the British Columbia analysis included a much higher discount rate for economic evaluations than used by Seattle.

8. British Columbia Deputy Minister of Environment Ben Marr to Seattle special retained counsel Ed Wood, June 30, 1977. The Seven Mile component of the package was as described above, without the Boundary Dam improvements, while the Mica power component would have been 410 MW of capacity deliverable from 1981-93 at a cost to Seattle of \$35 million.

9. See Gibson, *op. cit.*, 3. British Columbia assumed a real discount rate of 8.75 percent, while Seattle assumed a rate equal to its estimated actual cost of borrowing minus inflation, which was below 1 percent real initially and later rose to 3 percent. This and other lesser

differences led to wide disparities in the parties' economic evaluations. Seattle valued High Ross at \$288 million and the Replacement Package at \$143 million, while British Columbia valued High Ross at \$10 million and the Replacement Package at \$55 million.

10. Brought up informally in discussions and correspondence, this resource would have included one level of Kootenai-to-Columbia water diversion beginning in 1984, with additional diversion possible in 2024 and 2044. The power loss to Pacific Northwest hydroelectric facilities from the diversions could be as large as 46 average MW, according to BPA estimates in the late 1970s.

11. The Diversion would have altered the water flows and levels in tourist recreational areas just downstream from the Canal Flats site of the proposed Diversion. Opposition within the area has stalled it despite its low cost for producing up to 100 MW of energy in Canadian facilities downstream.

12. Seattle and British Columbia, "Conceptual Elements of a Compromise British Columbia-Seattle Settlement on the High Ross Dam Issue", initialed by Rafe Mair for British Columbia and Charles Royer for Seattle, April 3, 1979.

13. The agreement on "Conceptual Elements" was initialed on April 3, 1979; the British Columbia government called elections the following week.

14. The deadline for the United States granting cert for an appeal on High Ross passed October 20, 1980, without any action.

15. British Columbia, "Request in the Application of the Province of British Columbia Regarding the Raising of the Water Level of the skagit River at the International Boundary", August 14, 1980.

16. George Berry and Douglas Gordon, "Report of the Special Advisors to the International Joint Commission on the Skagit", April, 1982.

17. British Columbia and City of Seattle, "Skagit Negotiations Framework Agreement between British Columbia and Seattle, appendix D," initialed February, 1983. Ottawa, Ontario. The fund established by this appendix to the agreement included initial endowments of \$4 million by the City of Seattle and \$1 million by the Province of British Columbia, augmented by annual levies on the power increments gained by the parties under the terms of the agreement. For Seattle, that is the 37.3 average MW of energy from High Ross replacement purchases from British Columbia; for British Columbia, it is the variable energy output from the operation of the Seven Mile Dam with a higher maximum reservoir elevation, averaging roughly 22 MW per year. The range of uses for this fund is also spelled out in the appendix; the fund is generally intended to preserve the present quality of the Skagit River watershed on both sides of the border.

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