



BEAVER POND - BIG BEAVER CREEK

by Bob Gunning

# Trouble in the North Cascades. The Nation must **STOP THE DAMS.**

by Patrick Goldsworthy

**T**HE NATION'S CONSERVATIONISTS thought they had finally saved a chunk of Washington's wild scenic resource for all time, when Congress created the North Cascades National Park and its related Recreation Areas. They were wrong! They had only won round one against the loggers and would now have to start round two against the dam-builders.

THE CULPRIT IS SEATTLE CITY LIGHT (City of Seattle's Department of Lighting) which is proposing to raise Ross Dam by 125 feet and to build a Thunder Creek Dam. "City Light" lobbied successfully for three years to get existing and potential dam sites on the Skagit River removed from the North Cascades National Park and placed in a Ross Lake National Recreation Area. Conservationists nevertheless made it clear to "City Light" and the Congress that they were well aware of the weakening nature of this legislative compromise. Fair warning has been issued by Conservationists that any attempt to dam Thunder Creek or flood more of the Skagit Valley by raising the level of Ross Reservoir will be opposed as bitterly as Kennecott's plans for an open-pit copper mine in the Glacier Peak Wilderness.

ROSS DAM, located 90 miles northeast of Seattle, is 140 miles and 3 hours away by car. It is a concrete dam 540 feet high which impounds a reservoir 24 miles long, extending 1-1/2 miles into Canada. When full, this is a beautiful fjord-like lake whose surface is 1600 feet above sea level and whose forested shorelines are generally steep and virtually unscarred by roads. However, during its annual 100-foot drawdown the natural scene is marred by the exposed denuded shoreline, characteristic of fluctuating reservoirs.

The raising of Ross Dam will flood five miles up Big Beaver Creek and remove forever the great cathedral-like groves of old-growth giant cedars; certainly the finest remnant of cedar forests anywhere in the North Cascades. Before the City of Seattle flooded the Skagit Valley Big Beaver was a hanging valley whose waters cascaded hundreds of feet to meet the Skagit River. Thus, because of their inaccessibility these giant cedars were saved from the loggers who were clearing the way for Ross Lake.

Also in the Big Beaver valley are numerous beaver dams, ponds and marshes supporting an ecological paradise of flora and fauna. All of this would be flooded at the reservoir's maximum elevation of 1725 feet above sea level. When the elevation is less than maximum, due to drawdown or insufficient inflow to keep the reservoir full, Big Beaver valley will be a valley of mud and stumps: 3/4 of a mile of mud will be exposed by a drop of 55 feet below 1725 and similarly 1-1/4 miles by 75 feet and 2-1/4 by 100 feet.

The raising of Ross Dam will flood out numerous small boating camps secluded where tributaries enter the lake. The lakeshore trail connecting many of these camps will also be flooded. If the speed with which the flooded Skagit River trail was replaced repeats itself it will be many years again before hikers can travel along the shores of Ross Lake.

The raising of Ross Dam will greatly reduce the only level ground available for a large lakeshore campground. Plans for such a facility at Roland Point, adjacent to the North Cross-State Highway, have been under development for at least ten years. The need and demand for the Roland Point campground is obvious. At a time when more campsites are needed it is ridiculous to be considering the flooding of one of the state's best campground locations.

THE THUNDER CREEK DAM SITE is about 5 miles upstream from Diablo Reservoir and 7 miles from the North Cross-State Highway. This dam would capture virtually all of the water in Thunder Creek and divert it to Ross Reservoir through a tunnel, leaving a mere trickle to be viewed from the almost level wilderness river-side trail. Construction of the tunnel calls for dumping the excavated rock within the Thunder Creek valley and on the wilderness slopes of Ruby Mountain.

"City Light" successfully lobbied to have the dam site removed from the Administration's original Park proposal and placed within the Recreation Area. The Conservationists have never accepted this wilderness threatening amendment and will bitterly resist "City Light's" plans for construction of the Thunder Creek Dam. This dam must never be built.

THE SEATTLE CITY COUNCIL has scheduled a series of public hearings to evaluate "City Light's" operation before "City Light's" budget is approved by the Council. Conservationists have been assured that they shall be given the opportunity of stating why Ross Dam should not be raised and Thunder Creek Dam constructed at all. We shall have a chance to explain that we don't want our last great cedar forests drowned for the sake of a few kilowatts which are obtainable elsewhere.

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## NORTH CASCADES

Seattle City Light's total operation will be severely scrutinized by the City Council. Questions will be asked about underground wiring, rates, financing, efficiency, power distribution and, due to the insistence of Conservationists, plans for the future management of the entire Skagit River power and flood control complex.

TO EACH OF YOU who rose so valiantly to help us fight Kennecott (that fight is not yet over, by the way) we appeal once again. We have a fight on our hands and a big one. We can and shall win if you will help. Write a personal letter to

the President of the Seattle City Council, with a copy to Councilwoman Phyllis Lamphere (Seattle Municipal Building Seattle, Washington 98104). In your own words state what the North Cascades means to you, why you fought so hard to protect it, and why Seattle City Light must be stopped.

We must not forget that this is the nation's park. It was advocated in editorials from the Pacific, in the Seattle Times, to the Atlantic, in the New York Times. It was called for by the nation, it belongs to the nation, and now the nation must come to its defense. The nation-wide Sierra Club must accept the challenge of the dam-builders and be prepared to fight round two. ◆

## A SURVEY OF SEATTLE CITY LIGHT

by DICK BROOKS

The following information (accurate as of November 1, 1968) was graciously supplied by personal interviews and through correspondence by Mr. John Nelson, Superintendent of Seattle City Light:

The total hydro generating capacity of City Light is as follows:

Boundary Project	634,000kw
Cedar Falls	30,000kw
<u>Skagit</u>	
Ross	450,000 when full
Diablo	159,000
Gorge	<u>175,000</u>
Total Skagit	784,000
	<u>784,000kw</u>
Total	1,448,000kw

At the completion of the Boundary Dam, the City generation capacity was about equal to its demand. Its demand now exceeds its supply, so that it currently purchases about 30,000 kw continuously. Next year, its purchases will increase to 70,000 kw continuously, and additional capacity or purchases of about 320,000 kw steady capacity will be required in 10 years.

The steady capacity of Boundary is about 65% of the connected capacity, or 390,000 kw. The average annual energy generated by the Skagit complex is 2.4 billion kwh, which is an average generation of 275,000 kw. This average generation is 35% of the installed capacity.

The Thunder Creek diversion project (under construction) would add about 15% to the Ross water supply. The high Ross Dam is somewhat tied to the Thunder Creek diversion project, since the economics would look less attractive with it. The high Ross Dam would increase the annual output of Skagit to about 2.68 billion kwh per year, or 306,000 kw on a steady basis. The Thunder Creek diversion would increase this to about 325,000 kw. The present transmission system is adequate to handle the increased capacity. It appears that the increase in steady capacity from the high Ross Dam to the Skagit system is about 11.3% and the Thunder Creek diversion project would add an additional 6.9% to the present Skagit steady capacity if it is combined with the high Ross Dam. Over all, these two projects will add about 7.5% to the City's steady generating capacity.

The City purchases power from the Bonneville system at \$18.60 per kw year. It combines its purchases and its own generating capacity to average out its costs at about 3 miles per kwh. The cost of power from the Boundary project reduced the over-all cost somewhat. Presumably, the incremental cost of the new Skagit projects might be higher than their current costs, but the cost estimates for the two projects have not been completed, and will not be known until late in 1969. The availability of power from the Bonneville Power Administration is limited, and the City will soon have to develop additional sources. It appears that the most feasible type of plant in this area is a nuclear plant. The first cost for a nuclear or coal thermal plant might be as little as 2/3 of the cost of some of the Columbia River plants, but the operating cost is higher. Under present conditions, the cost of power from nuclear or coal thermal plants is about 5 mills.

It appears that the increase in height of Ross Dam and the Thunder Creek diversion would solve the City's increased demand for power for only 1-1/2 to 2 years. But, because of the higher cost of nuclear power and the problems of locating such a plant, the City would like to proceed with the Skagit projects as soon as it can complete the engineering. This is probably in the summer of 1970.

The high Ross Dam would be 125 feet higher than the present dam. This increase would back water about 2-1/2 miles farther up the Big Beaver valley. The City would intend to use water at such a rate as to allow filling of the higher reservoir every year. Currently, the reservoir is drawn down over 100 feet at low water, which occurs in the latter months of the winter. With the higher dam, the water usage would be approximately the same, and the reservoir drop would be somewhat less, because of the increased area of the reservoir.

Currently, the thinking is to locate the Thunder Creek diversion dam at about the county line. This would back water about to the National Park boundary. During most of the year, Thunder Creek would be dry, except for the water generated below the diversion dam. The surface area of the reservoir would be about 75 acres. ◆

CEDARS - BIG BEAVER

by Bob Gunning



## Chapter Meetings

**Executive Committee**

**VANCOUVER, CANADA**

**October, 4&5**

Contact:

Larry Williams

1465 27th Street #206

Milwaukie, Oregon 97222

(503) 659-4816

**ANNUAL BANQUET**

SEATTLE

**Saturday, November 22**

## OREGON ENVIRONMENTAL COUNCIL

ANNUAL MEETING - Oct. 31 & Nov. 1

Eugene, Oregon

will feature

**IAN McHARG**

further information from:

OREGON ENVIRONMENTAL COUNCIL

P. O. Box 3371

Eugene, Oregon 97403

## Wilderness Conference

Northwest

**April 3, 4 & 5, 1970**

Seattle, Washington

# SEATTLE CITY LIGHT SKAGIT RIVER DEVELOPMENTS

