

# Listening to Water

A B.C. regional perspective on flood control, the Canadian Entitlement and ecological losses under the CRT

By Eileen Delehanty Pearkes

**“Numerous lakes....possess utility not only for navigation, but also for storage and regulation of flow to produce a more beneficial use of the water supply of the Columbia River Basin.”**

*-U.S. Department of the Interior, 1947*

Slocan Lake, B.C.



# Duncan Reservoir (1967)



# Arrow Reservoir (1968)



# Kinbasket Reservoir (1973)



# Revelstoke Reservoir (1984)



# Dual-Purpose Water Storage Under the CRT

- 1. Flood control
- 2. Enhancement of hydro-electricity





courtesy of Army Corps of Engineers



507 COLUMBIA RIVER FLOOD 5/30/48 5:30 P.M.

Flood control for agriculture:  
50,000 acres (Creston, B.C.)  
33,000 acres (Bonner's Ferry, ID)

photo courtesy of Chris Willett



# Man-made flood will drown way of life

Province reporter Tom Hazlitt is back from a 1,400-mile journey through the beautiful valley of the Arrow Lakes, a remote and controversial land which will be the scene of widespread flooding under the terms of the Columbia River treaty signed this year.

His articles, which begin today, deal for the first time with the human side of a vast national undertaking which will cost \$448 million. For a decade, Canadians have debated the best way to tame and develop one of the world's great rivers. The decision has now been made.

But this is a different story, which comes to grips with the lands itself, its miles of shimmering waters and the people of the valley, who today and tomorrow must meet their hour of triumph, tragedy and maddening uncertainty.

## BY TOM HAZLITT

This is our valley of indelision. It lies in southern B.C., running north from a point on the Columbia River near Astlegar, where the Arrow dam will back up water for 5 miles in a giant reservoir extending to the outskirts of Revelstoke. ↓

done and some will be rebuilt. Two stretches of railway must be moved and a third, the pioneer link between Revelstoke and Arrowhead, will be abandoned. Seven ferries will disappear. Power lines, telephone system, a major power development, wharves, a large industrial headquarters and several lumber mills must be moved. ↓

Bay, a logging camp, one family at Halcyon Hot Springs, one remote resort at St. Leon and the home of Bert Herridge, M.P., at Shoreholme, near Nakusp.

These places are connected by a road built by Celgar, the chief employer of the area. The road is largely unaffected, and is about to be taken over by the department of highways. The upper lake area is also the locale of the continent's smallest operating utility, the Nakusp Galena Bay Telephone Co. Ltd., which has

five subscribers and has been operating in some peculiar but efficient fashion for almost 40 years.

Near the south end of Upper Arrow is Nakusp which, with nearly 2,000 residents, is the largest unorganized village in B.C. Nakusp will lose six family homes, a large market garden, a dock, one whole street, a railway terminus and Celgar's logging headquarters. The chief hotel will be 16 feet from high water and is in some danger, and some main street merchants have been

advised they may be affected. For years the Nakusp Chamber of Commerce fought the whole idea of the dam. Now the fight is over, businessmen appear to be determined to make the best of the situation, and town leaders are turning their attention to fighting for a good beach and better transportation.

The Lower Arrow Lake is the hardest hit of all. The road to East Arrow Park will be partly flooded and relocated. East Arrow Park itself will be partly flooded, and the com-

munities of West Arrow Park and de Mars across the lake will disappear. Burton, sleeping blissfully in the sunshine, will go under water, and so will much of Fauquier, Needles and all Edgewood. Further south, near the actual damsite, the road serving Syringa Creek, Deer Park Broadwater and beautiful, old-world Renata, will be abandoned. Of the four little communities, only a small part of Syringa Creek will survive.

Although it will be four years before the water starts rising, B.C. Hydro crews are moving into the district, and bargaining for property in the immediate vicinity of the dam has started.

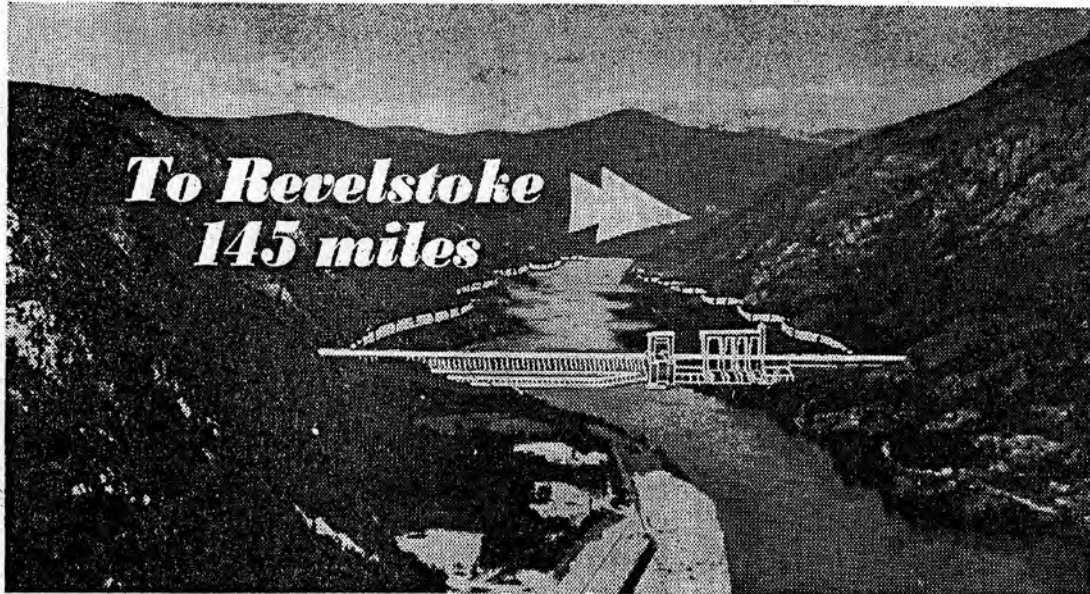
## Yellow stakes

Actual work on the dam begins next spring. B.C. Hydro land department has said it wants possession of 143 parcels of land in that area by February or March.

In the rest of the valley, yellow stakes are appearing, marking the 1,446 elevation point which will be high water. In most cases, land will be taken to the 1,460 level, to allow a 14-foot safety margin.

The announced intention of the Hydro Authority is to conduct its detailed surveys with dispatch, bargain with residents as soon as possible and get possession later. Only when this procedure is well under way will the people know where they stand and what to do.

Next: The people of the Arrow Lakes.



Aerial view of Arrow Dam

# Arrow Lakes Valley: 22 – 27,000 acres



# Kootenay River Valley

## 12,000 acres

photo courtesy of Stan Triggs and Touchstones Nelson



# Flooded out for Flood Control

(a tally of acres in the upper Columbia Watershed)

Kootenay River valley: 12,000

Arrow Lakes valley: 22,000-27,000

Duncan valley: 10,000

Big Bend valley: 86,000

Total acres flooded in B.C.: 135,000

Total farmland at risk: 83,000

**Total number of displaced residents: 2500**

**Total wildlife population impacted: ???**

# Canadian Entitlement

- Debate in the early 1950s over the U.S. interest in constructing Libby Dam resulted in an agreement between Canadian and American members of the International Joint Commission that:
  - **all benefits derived from *downstream* power enhancement as a result of *upstream* storage should be shared 50-50**

# 50-50 leverage





**\$274.8 million**

# The CRT Hangover: most positive effects felt OUTSIDE the region



Most negative effects felt INSIDE the region









In 1994, the Province of B.C. created the Columbia Basin Trust & Columbia Power Corporation, financed by a one-time \$295 million endowment



This endowment equals the value of ONE YEAR  
of the Canadian Entitlement





At a 1961 CRT hearing, B.C. Hydro Chairman Hugh Keenleyside spoke to potential fish & wildlife impact of the storage facilities:



- “The raising of the water levels, even when it is associated with an extensive drawdown, have generally been beneficial [to fish]. We don’t know that this is going to be true...but at least there is some evidence from past experience that it might be true....”

Dr. Keenleyside was wrong



As B.C. Hydro constructed dams from 1964 – 1980s, the ecological losses continued



- In 1994, B.C. Hydro set aside \$3.2 million (indexed for inflation) to be used annually to mitigate the staggering ecological losses in the upper Columbia Basin, administered by the Columbia Basin Fish & Wildlife Compensation Program (CBFWCP)
- This fund is split 50-50, terrestrial/aquatic

# White Sturgeon – red-listed

photo courtesy of [Uppercolumbiasturgeon.org](http://Uppercolumbiasturgeon.org)



# Great Blue Heron - threatened



# Bull Trout – species of concern



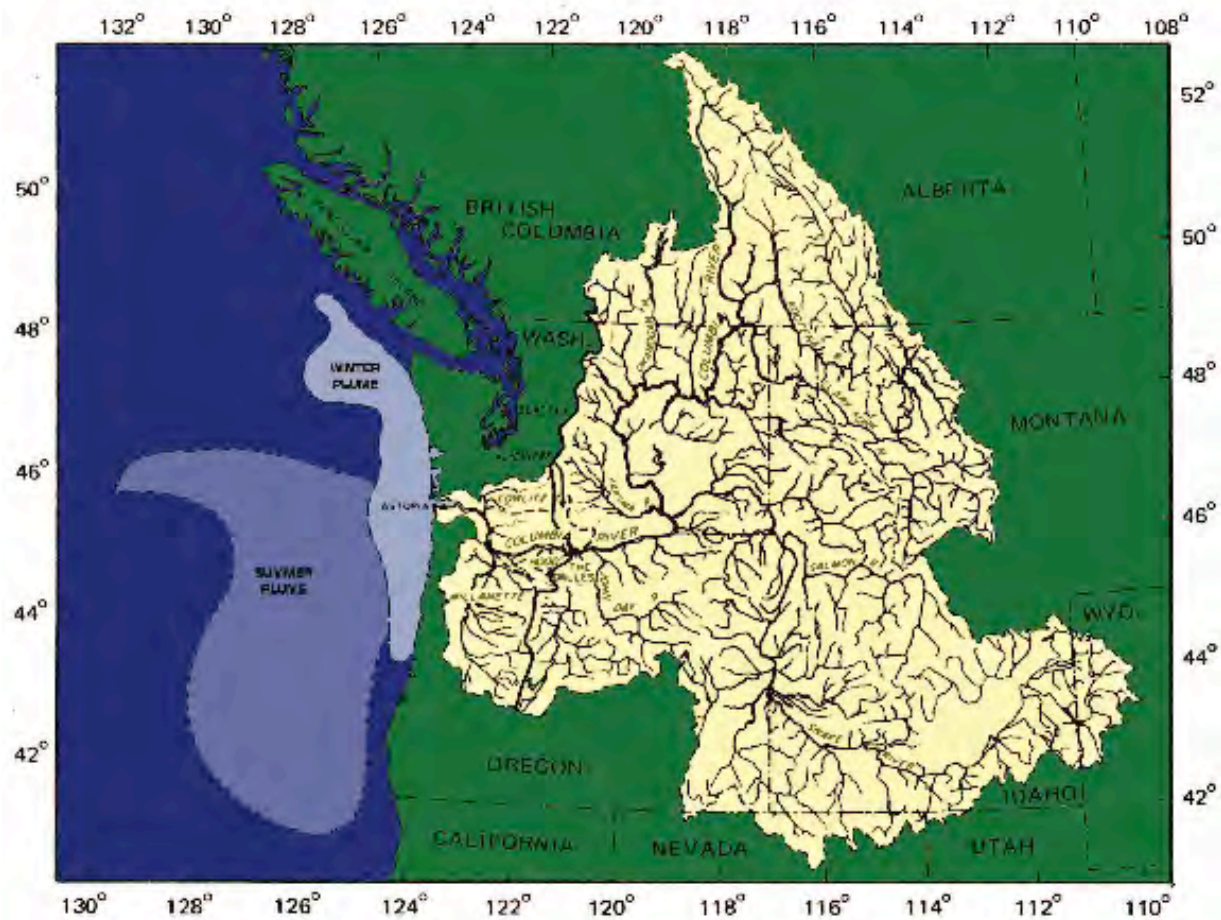


# Harlequin Duck – yellow-listed



- In late 2011, the B.C. government closed the Nelson office of the CBFWCP as part of staff cuts to B.C. Hydro -- reportedly to avoid provincial electricity rate increases
- How can ecosystem values be entrenched in the CRT? How much is electricity worth?

# The 15% Rule



Variations on a theme:

30% - 33% - 40% - 44%

# Nature's Reservoir

photo courtesy of Chris Rowat



# Acknowledgements

- B.C. Hydro
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