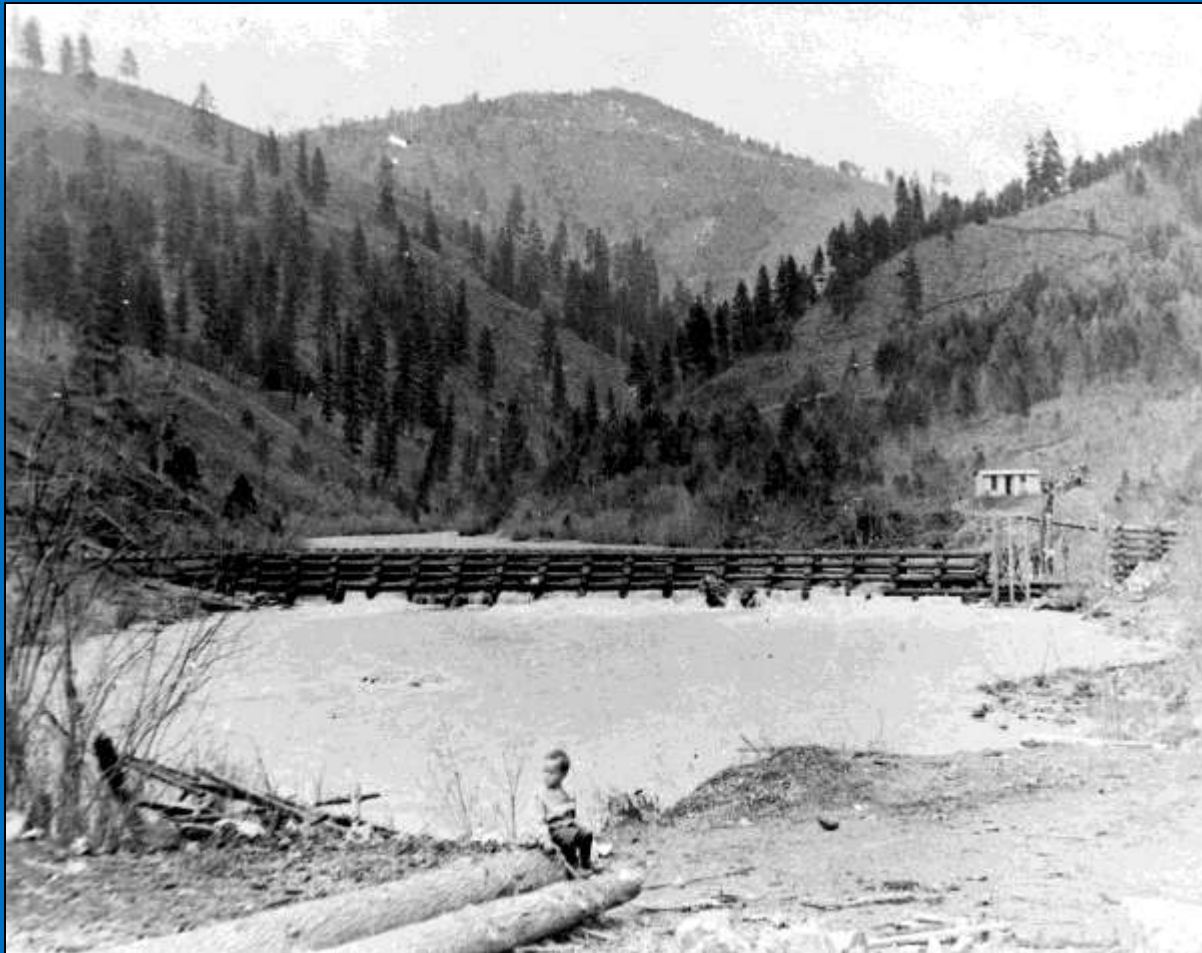


A History of Dams in the Clearwater River Basin



Nick Gerhardt
Idaho County Historical Society – August 28, 2019

Acknowledgements

- Dena Puderbaugh – Kooskia Community Library
- Cindy Schacher, Steve Lucas – Nez Perce-Clearwater NFs
- Clyde Hanson, Pam Northcutt – Grangeville Bicentennial Museum
- Pete Parsell (deceased) – Kooskia historian and mentor

Presentation Approach

- Includes past, proposed and existing dams
- Discuss dams on major rivers and streams
- Specifications and implications of selected dams
- Will not cover small headwater dams: e.g. mill ponds, irrigation storage dams, small recreation reservoirs, stock ponds, etc.

Specific Dams in the Presentation



#1 – Lewiston

#2 – Dworshak

#2a – Lenore Reregulating

#3 – Lolo

#4 – Kooskia

#5 – Kooskia Flour Mill

#6 – Dewey Mine

#7 – Grangeville

#8 – Penny Cliffs

1927 – Construction of Lewiston Dam



(Source: Unknown)

1940s - Lewiston Dam



(Source: CRITFC and Nez Perce Country Historical Society)

Potlatch Mill and Lewiston Dam - Undated



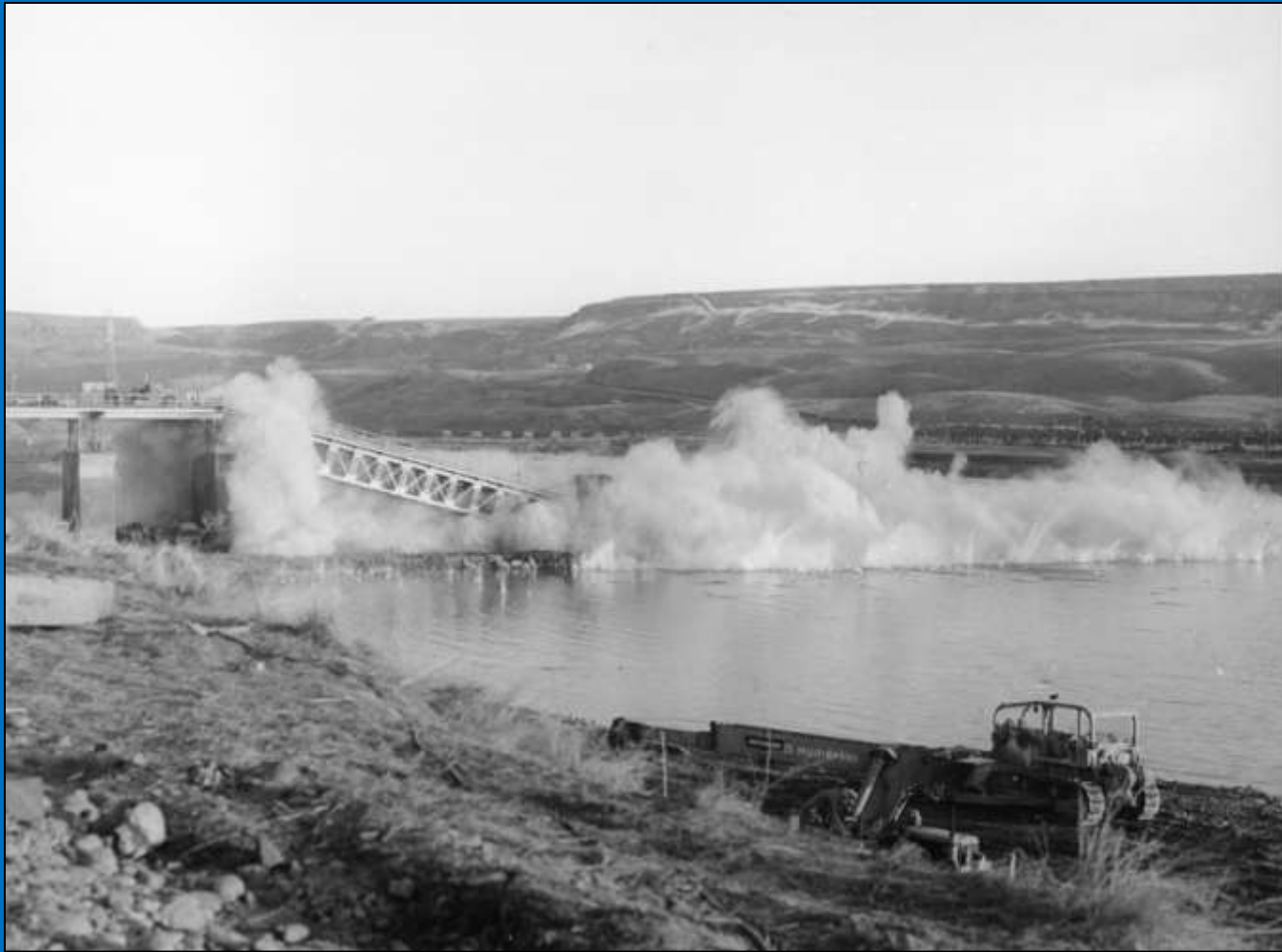
(Source: Ross Hall photo – camasprairierails.com)

Fish Passage was an issue – especially for spring Chinook salmon



*(Source for both photos:
Lewiston Tribune)*

February 22, 1973 – Dam Removal



(Source: Nez Perce County Historical Society)

Lenore Reregulating Dam

- Located just upstream of Lenore
- Pool length of 11 miles
- Flow reregulation dam linked to Dworshak Dam
- Would have allowed power peaking at Dworshak
- Provided for increase from 3 to 6 generators
- Additional generators de-authorized in 1990 and 1995

(Sources: Lewiston Tribune, August 31, 1994 and Wikipedia)

Dworshak Dam



(Source: Tri City Herald)

May 1948 Columbia River Flood at Vanport, Oregon Justification for Dworshak Dam and Reservoir



(Source, both photos: The Oregonian)

Pre-dam North Fork Clearwater River



1954 – Looking downstream from Bruce's Eddy

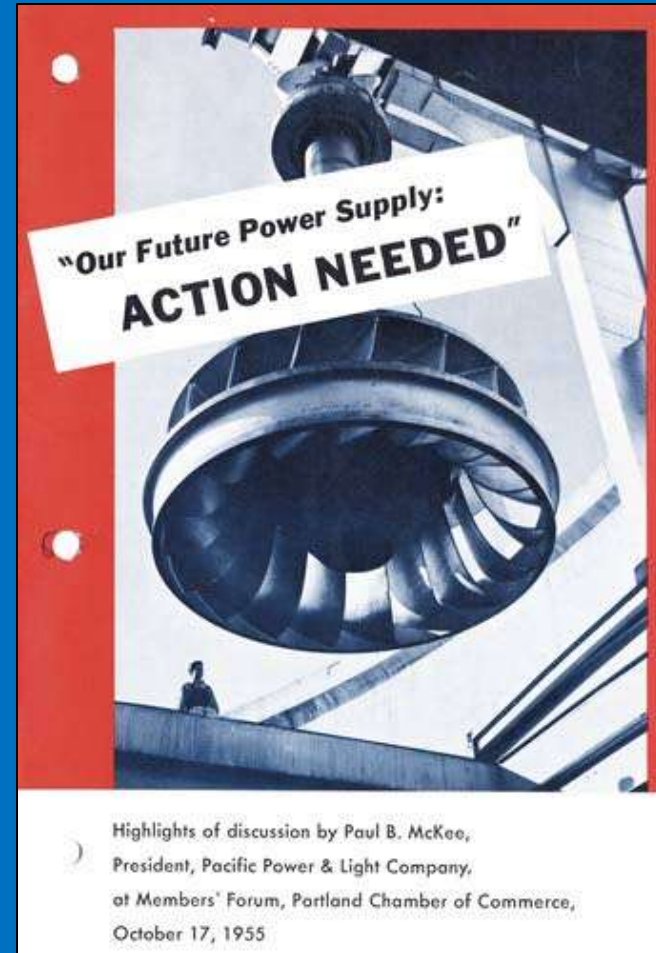
(Source: AB Curtis Photo, Univ of Idaho Special Collections, Lewiston Tribune)

Undated – Looking upstream at Ahsaka

(Source: Potlatch Forest Industries Digital Image Archive)

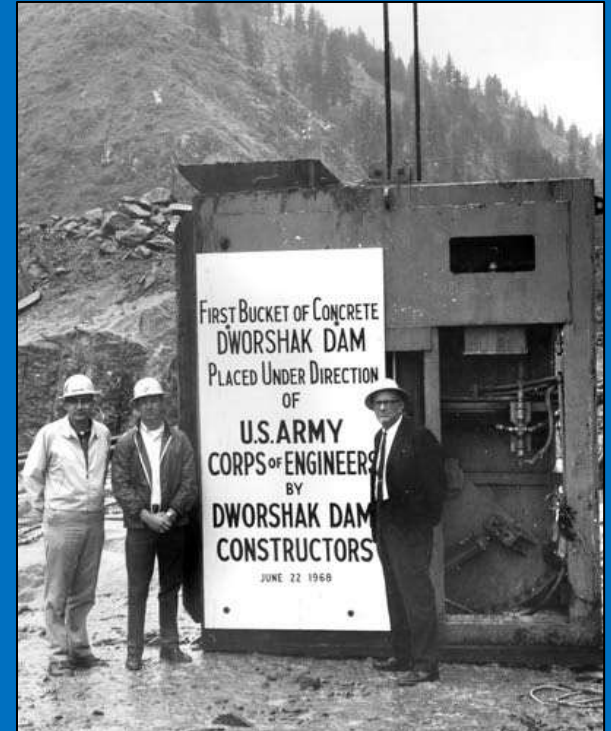


Dam construction was controversial at the time



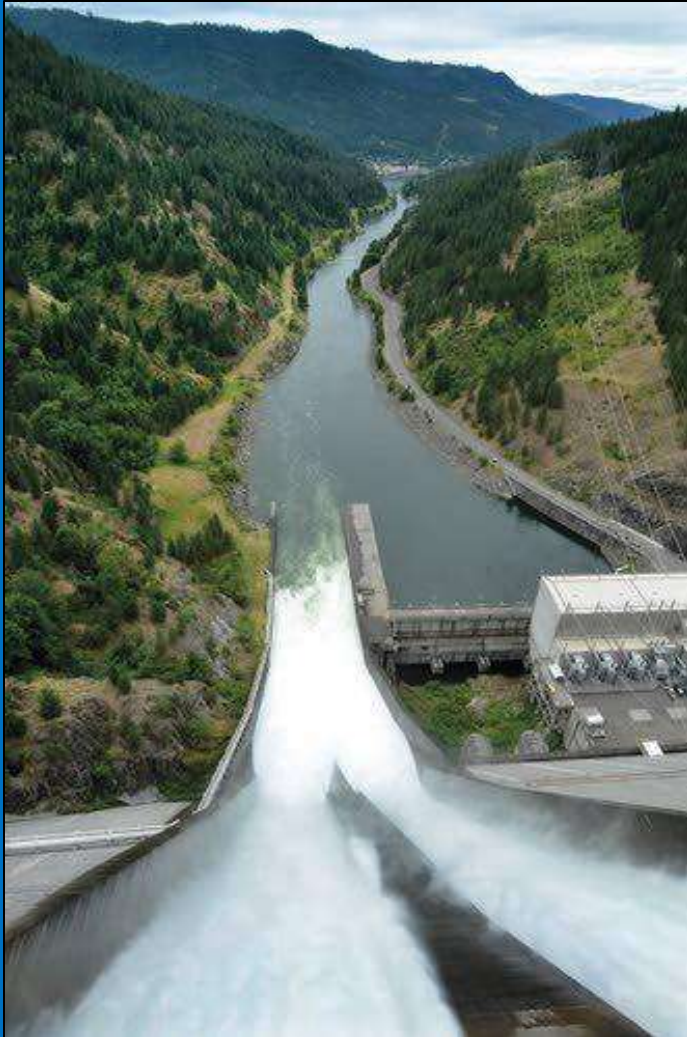
(Source: University of Idaho Special Collections, Lewiston Tribune)

1968 – Dworshak Dam Construction



(Source, both photos: AB Curtis photos, University of Idaho Special Collections, Lewiston Tribune)

Dworshak Dam Specifications



Authorized October 23, 1962

Construction started 1966

Reservoir first filled July 3, 1973

Height - 717 feet (3rd highest in USA, tallest straight axis concrete dam in the western hemisphere)

Length – 3,287 feet

Reservoir capacity – 3.5 million acre-feet

Reservoir length – 56 miles

Reservoir area – 17,090 acres at max pool

Installed power capacity – 400 MW

(Photo: Lewiston Tribune, Data: Wikipedia & USACE)

Dworshak Reservoir



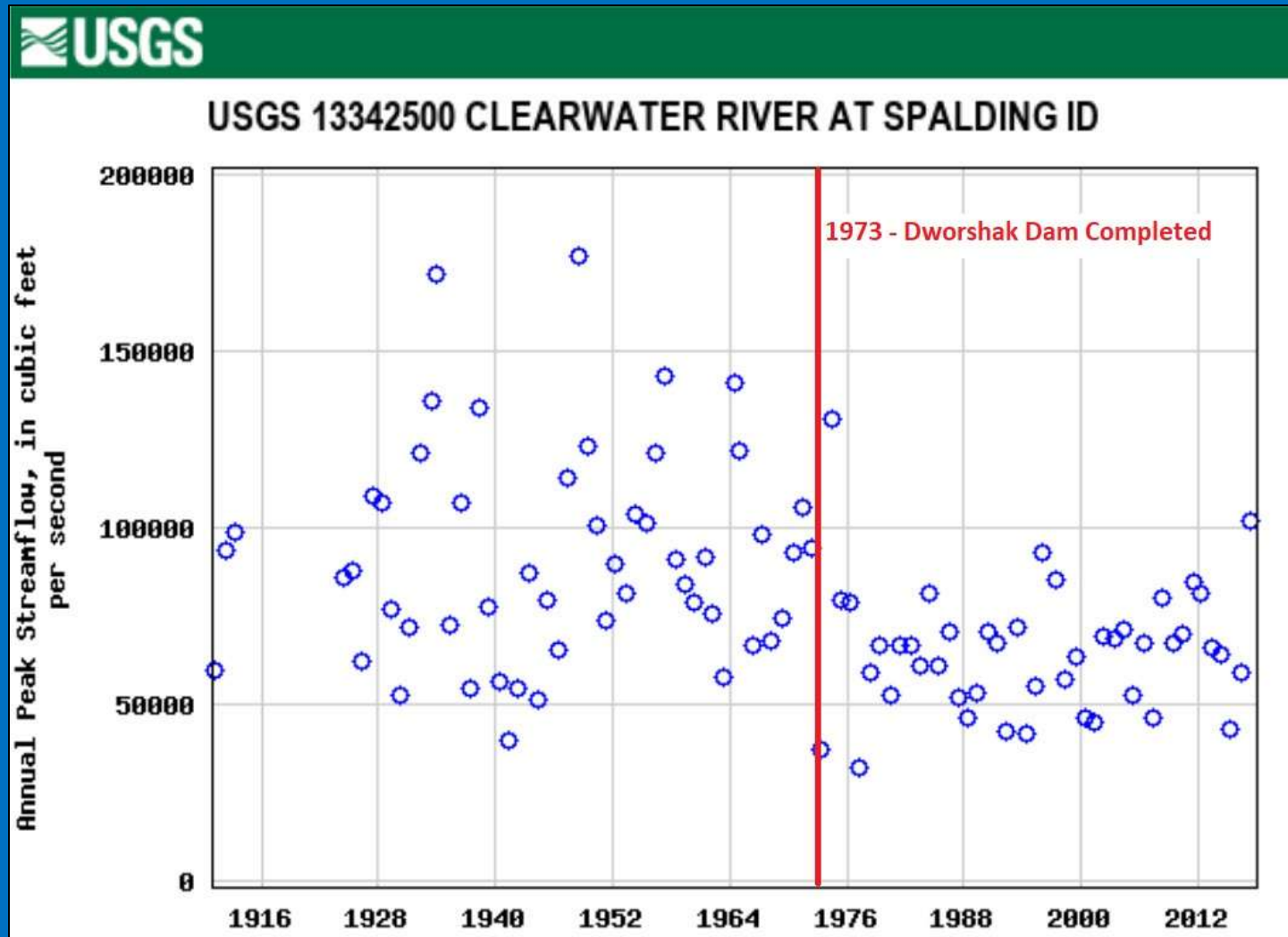
(Source: US Army Corps of Engineers)

Dworshak Reservoir at Granddad Bridge



(Photo by Nick Gerhardt – September 21, 2010)

Dworshak Dam – Effect on downstream peak flows



About 1900-1910 – Lolo Creek Dam



(Photo source: Idaho County Courthouse collection)

Lolo Creek Dam



(Photo Source: Clearwater Country Idaho – Facebook Page)

Kooskia-Greer Damsite – Visualization



Kooskia-Greer Damsite - 514 feet - Estimated Height and Location

Kooskia-Greer Dam - Specifications

- Proposed in 1948 US Army Corps of Engineers report
- Located in the Clearwater Canyon, upstream of Lolo Creek
- Would have flooded Kamiah, Kooskia, Stites, Harpster and Lowell
- Straight gravity dam - 514 feet tall, 1,400 feet wide
- Reservoir storage capacity – 3.1 million acre-feet
- Reservoir area at maximum storage – 19,500 acres

(Information source: Tabitha Ellen Erdey, 2013. PhD Thesis entitled “Wildly Contentious: The Battle for North Central Idaho’s Roads, Rivers, and Wilderness”)

Price
**SEVEN
CENTS**

Opponents Hit At Greer Dam

**Army Engineers Find Many
Objectors In Hearing
Held at Kamiah**

Clearwater Tribune

August 26, 1948

Kooskia-Greer Dam - Opposition and Support

- Public meeting was held in Kamiah on August 19, 1948
- Opposition from local residents and the Nez Perce Tribe
- “peculiarly conspicuous though explainable” per Clearwater Tribune
- “largely sentimental attack on the project” per Army Corps of Engineers
- Support from Orofino residents and Chamber of Commerce
- Project was dropped from further consideration due to opposition

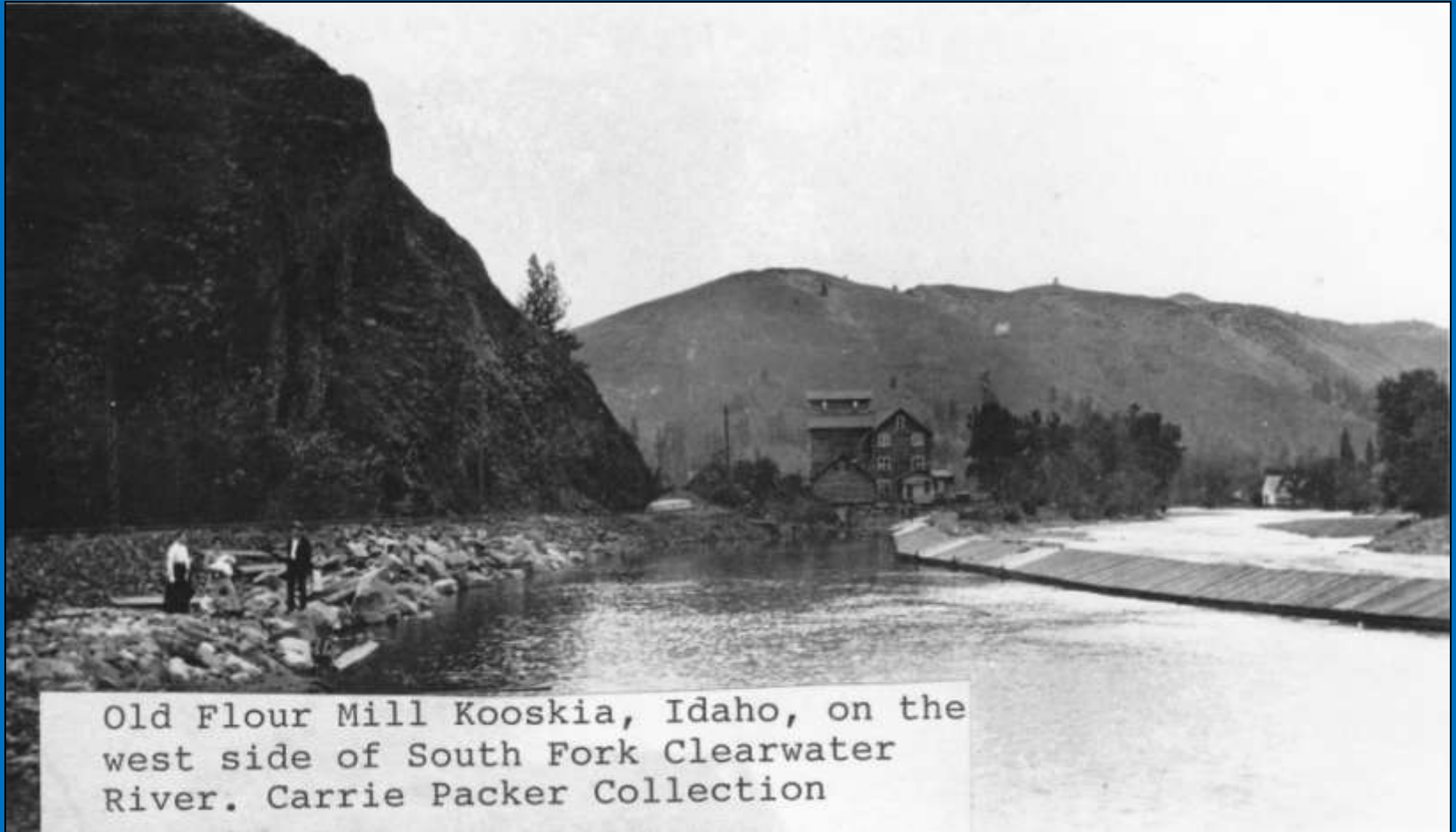
(Information sources: Erdey, 2013 & Clearwater Tribune, August 26, 1948)

Period 1908 to 1930s - Kooskia Flour Mill Dam



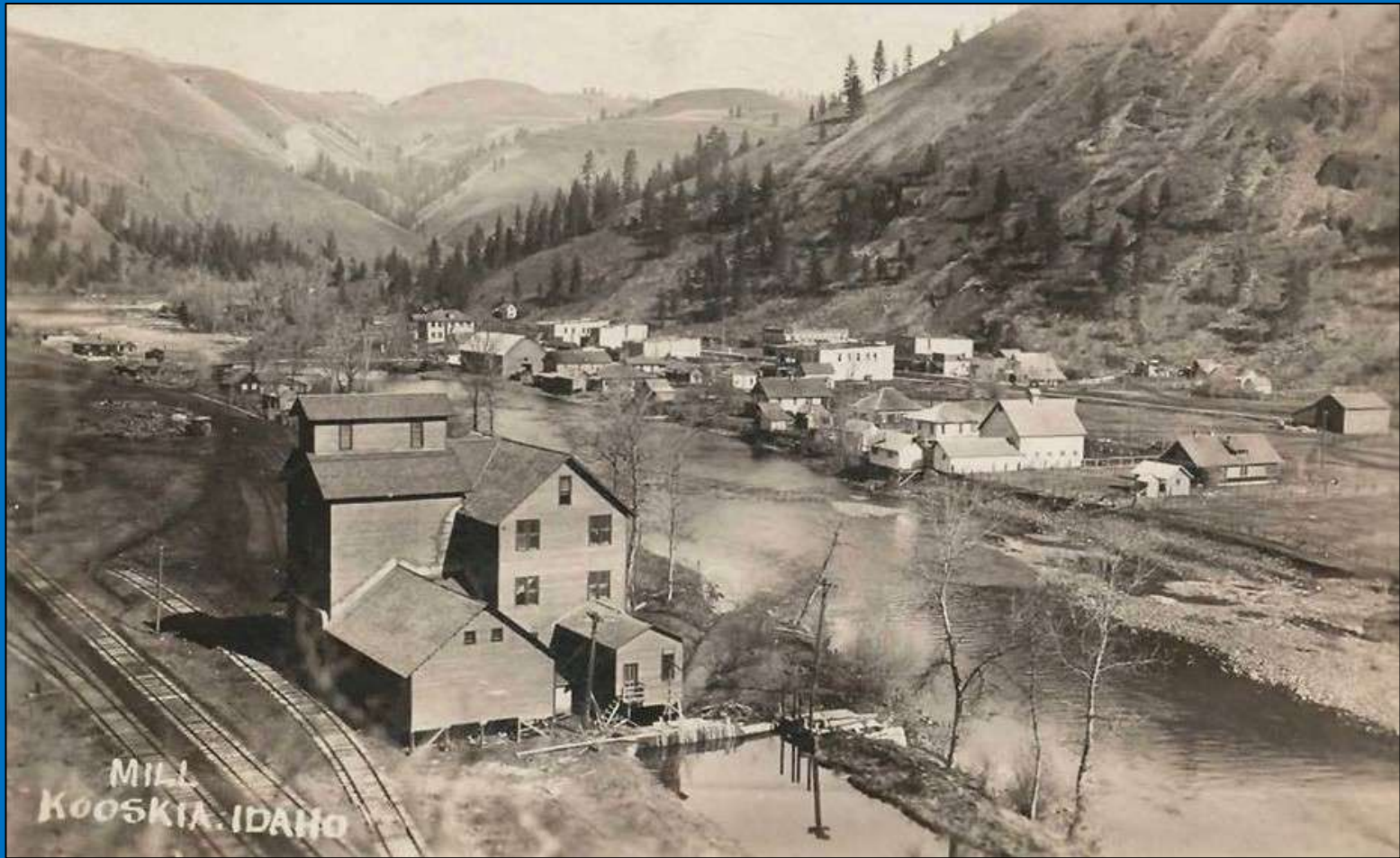
(Source: Dana Lohrey, 2014. "Kooskia, Idaho – The Early History")

Kooskia Flour Mill Diversion Channel



(Source: Kooskia Chamber of Commerce)

Kooskia Flour Mill and Town



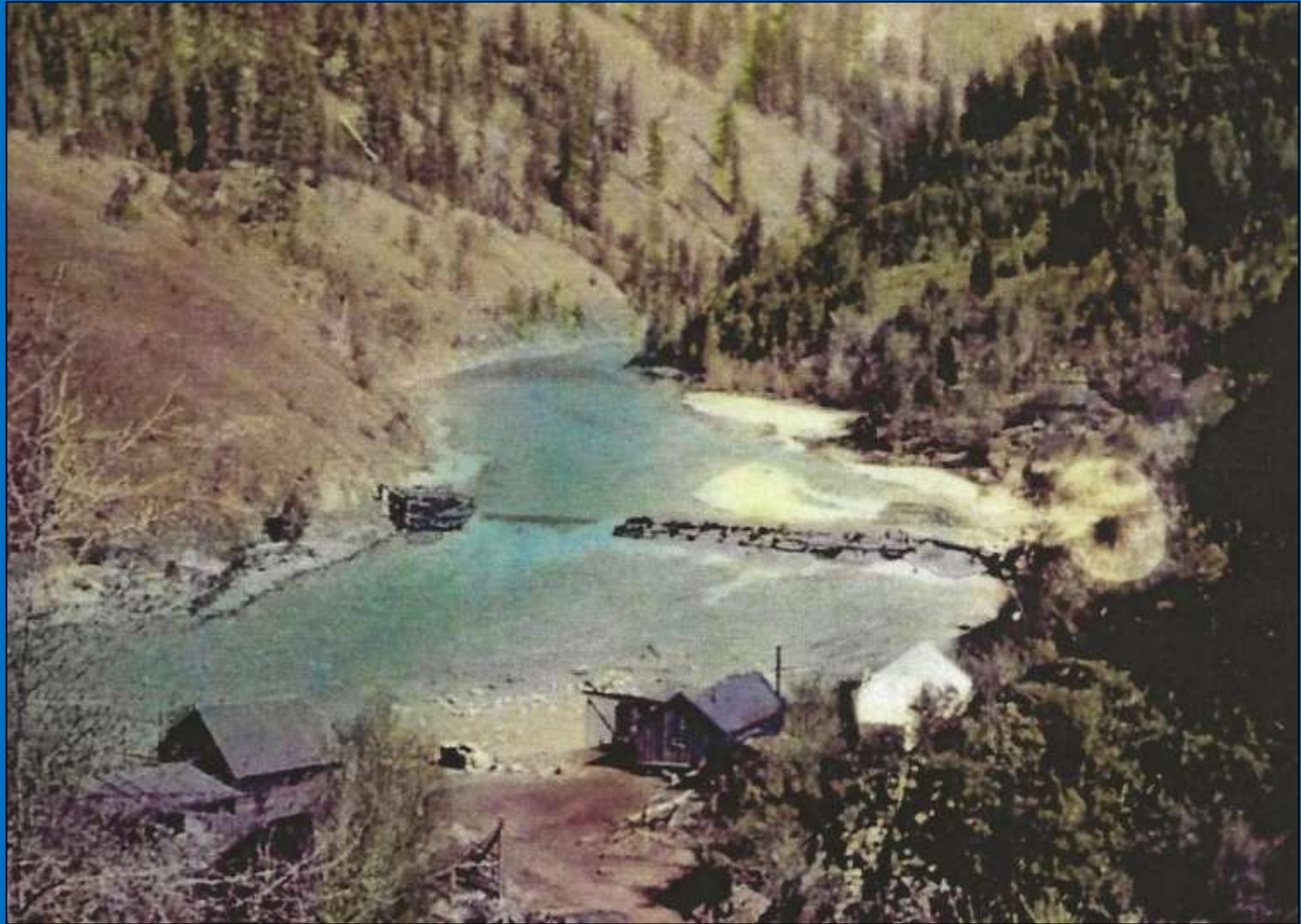
(Source: [Clearwater Country Idaho – Robert Campbell Facebook Page](#))

About 1895 to 1900 - Dewey Mine Dam



(Source: Nez Perce-Clearwater National Forest – Wasem Collection)

Dewey Mine Dam – Unknown Date



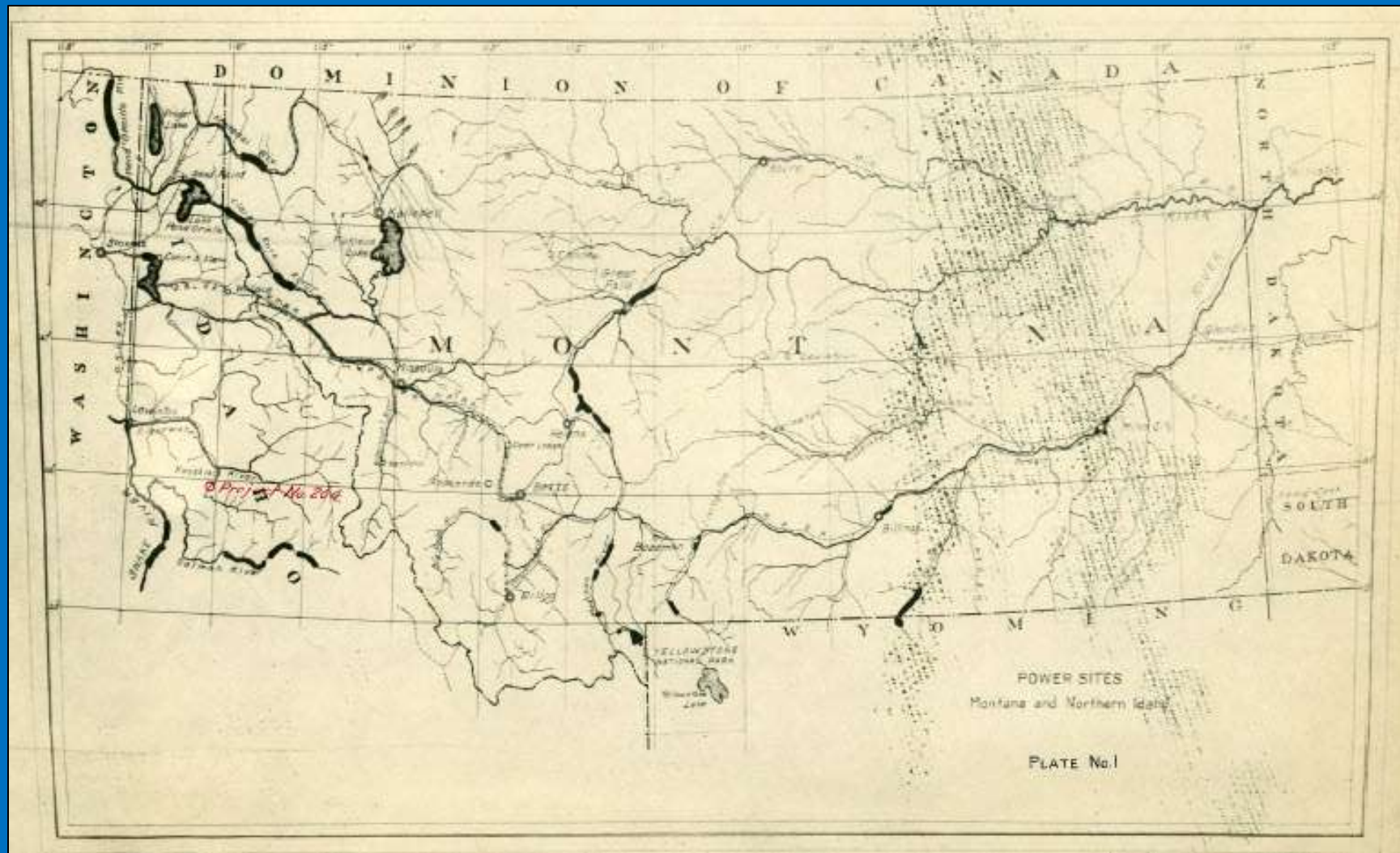
(Photo courtesy of Grangeville Bicentennial Museum)

Washington Water Power Grangeville Dam

- Original owner – Grangeville Electric and Power Company
- Wooden dam built in 1908, masonry powerhouse in 1911
- Concrete dam completed in 1919
- Static head was 66 feet, reservoir covered 10 acres
- Fish ladder was ineffective
- Dam was removed on August 3, 1963

(Source: 1922 Federal Power Commission Application and Spokesman-Review)

Location Map from 1922 FPC License Application

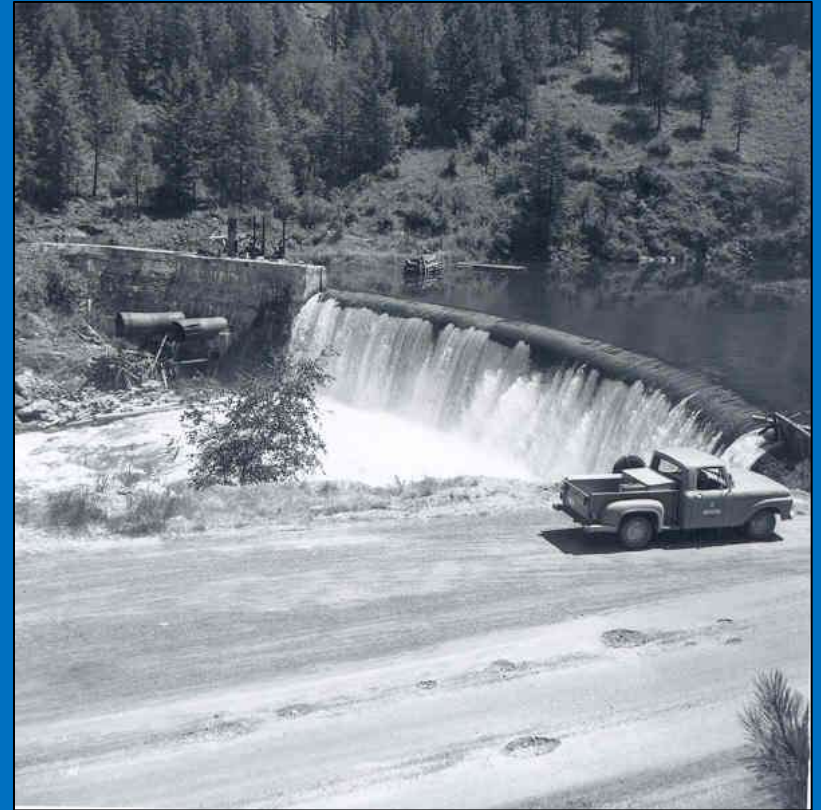


May 23, 1956 – WWP Grangeville Dam



(Source: US Army Corps of Engineers – Walla Walla District)

1963 – WWP Grangeville Dam



(Source: Nez Perce-Clearwater National Forest)

Grangeville Dam Powerhouse Site – Then and Now



(Source: Nez Perce-Clearwater NF)

April 1, 2019 – (Nick Gerhardt photo)



August 3, 1963 – Removal of Grangeville Dam



(Source: Nez Perce-Clearwater National Forest)

The Spokesman-Review – August 8, 1963

THE SPOKESMAN-REVIEW

AND THERE SHE BLOWS!



The blast of three dynamite blasts demolishing the Washington Water Power Co. dam in active work at Grangeville, Idaho on the South Fork of the Clearwater River. The old structure was in



When the powder exploded at about 10:30 a.m. today, the smoke and water and debris were scattered behind the structure. WWP officials said

Westerners Map Talks With Russ

Treaty Signing Stage Ready

WESTERNERS — With the stage set for the signing on Aug. 12 of a nuclear test ban treaty, it is not before long that the West will be negotiating with the East for a comprehensive test ban treaty.

The treaty, the first significant one that has been negotiated since the signing of the Partial Test Ban Treaty in 1963, is expected to be signed in Moscow, U.S.S.R., on Aug. 12.

The treaty will be signed by the United States, the United Kingdom, France, the Soviet Union, and the People's Republic of China.



Seawater and, suspects in assault from left, Tolson, Tamm, Brennan, Parsons.

Russ Blast at Chinese Is Violent

BERKOV (AP)—The Soviet press charged that China is using atomic tests to threaten the West.

The Soviet press said that the Chinese are using atomic tests to threaten the West and that the Chinese are using atomic tests to threaten the West.

500 Search for Lost 4-Year-Old Spokane Lad Lost in Woods

SEARCHERS — A 4-year-old Spokane boy was missing in the woods near Grangeville, Idaho, today.

The boy was last seen on Aug. 6 and his parents are worried about his safety.

Woman Kidnaped by Negro Youths

GARY, Ind. (AP)—A 25-year-old Christian Scientist woman was kidnaped from a parked car and raped at Grangeville, Idaho, today.

The woman was kidnaped by two Negro youths and taken to a nearby house.

S. Viet Nam Monk Kills Self in Fire

HO CHI MINH CITY (AP)—A Buddhist monk in South Vietnam killed himself today by setting himself on fire.

The monk was a member of the Thien Hien sect and was known for his peaceful activities.

Forest Fires Number 200 in N. Idaho

BOISE (AP)—Forest fires in northern Idaho today numbered 200, the highest number since 1958.

The fires are caused by lightning strikes and are burning in the mountains.

Bomb-Scare Man Back

SPokane (AP)—A man who was arrested on a bomb scare charge today was released.

The man was arrested on Aug. 6 and was held in custody.

Dynamite Blasts Level Old Dam Near Grangeville



Demolition of the Washington Water Power Co. dam in active work at Grangeville, Idaho on the South Fork of the Clearwater River. The old structure was in



Demolition of the Washington Water Power Co. dam in active work at Grangeville, Idaho on the South Fork of the Clearwater River. The old structure was in



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Demolition of the Washington Water Power Co. dam in active work at Grangeville, Idaho on the South Fork of the Clearwater River. The old structure was in

August 23, 2005 - Grangeville Dam Sill Today



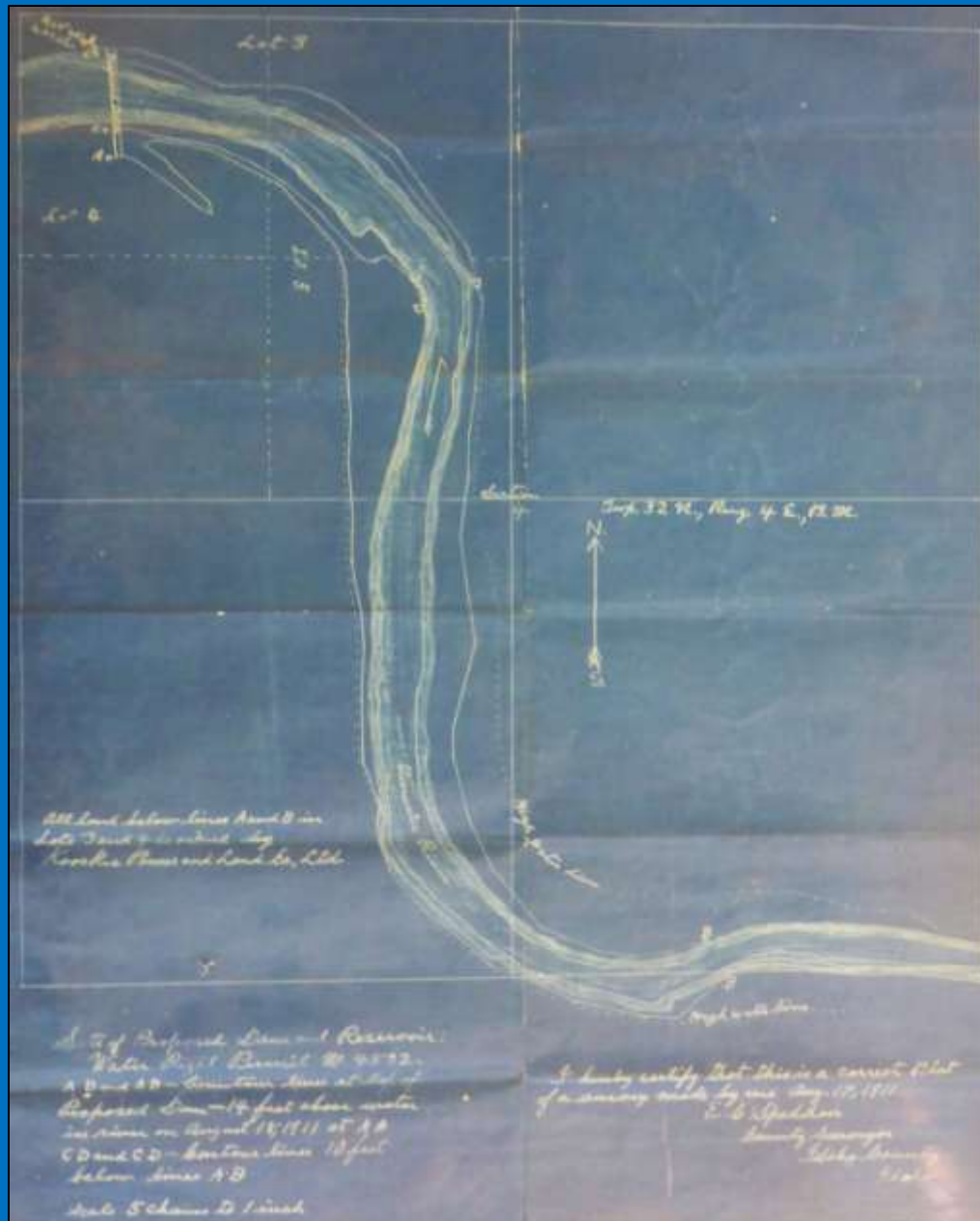
(Nick Gerhardt photo)

Kooskia Power and Land Company, Ltd

Location – Middle Fork Clearwater River, near present day rock pit north of Kooskia

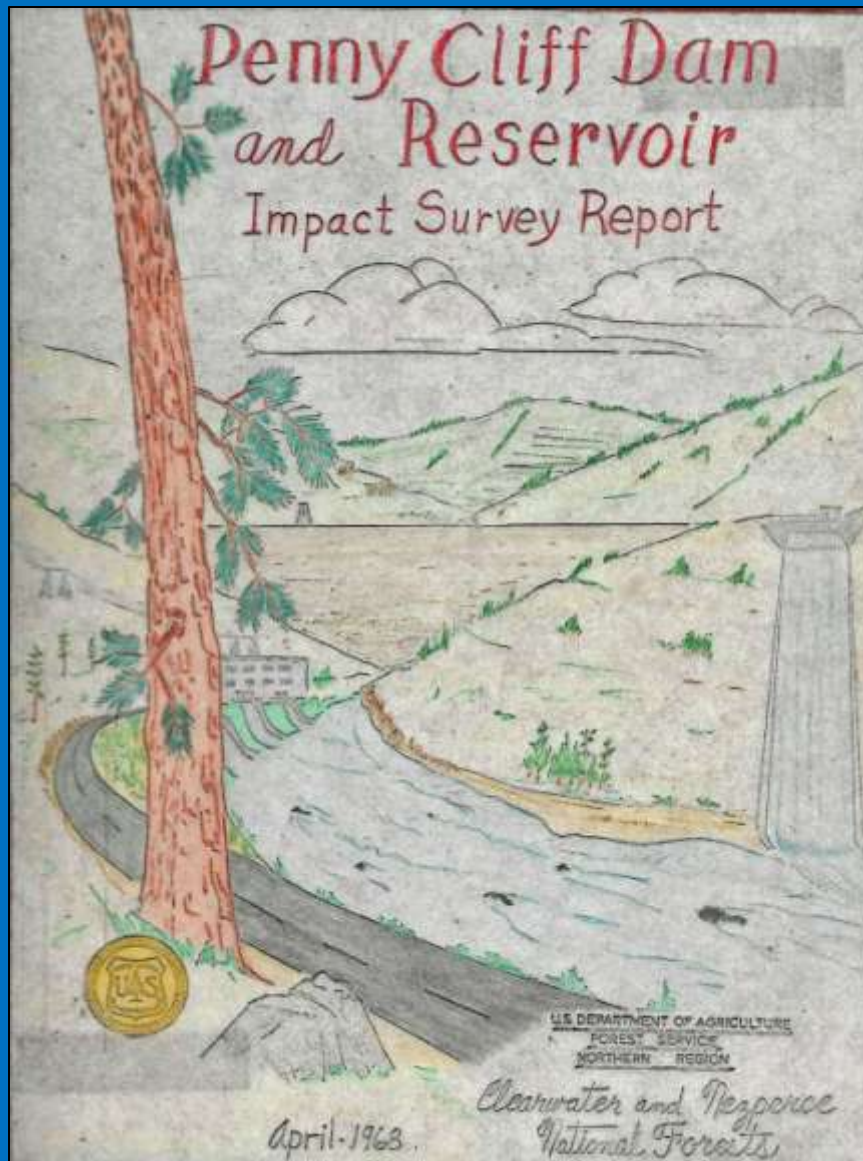
Blueprint date – August 18, 1911

Proposed dam height – 14 feet



(Source: Jurries Collection, now at Kooskia Community Library)

Penny Cliffs Dam Specifications



Height – 620 feet

Length – 4,300 feet

Reservoir capacity – 3.4 million acre-feet

Reservoir area – 15,500 acres at max pool

Reservoir length:

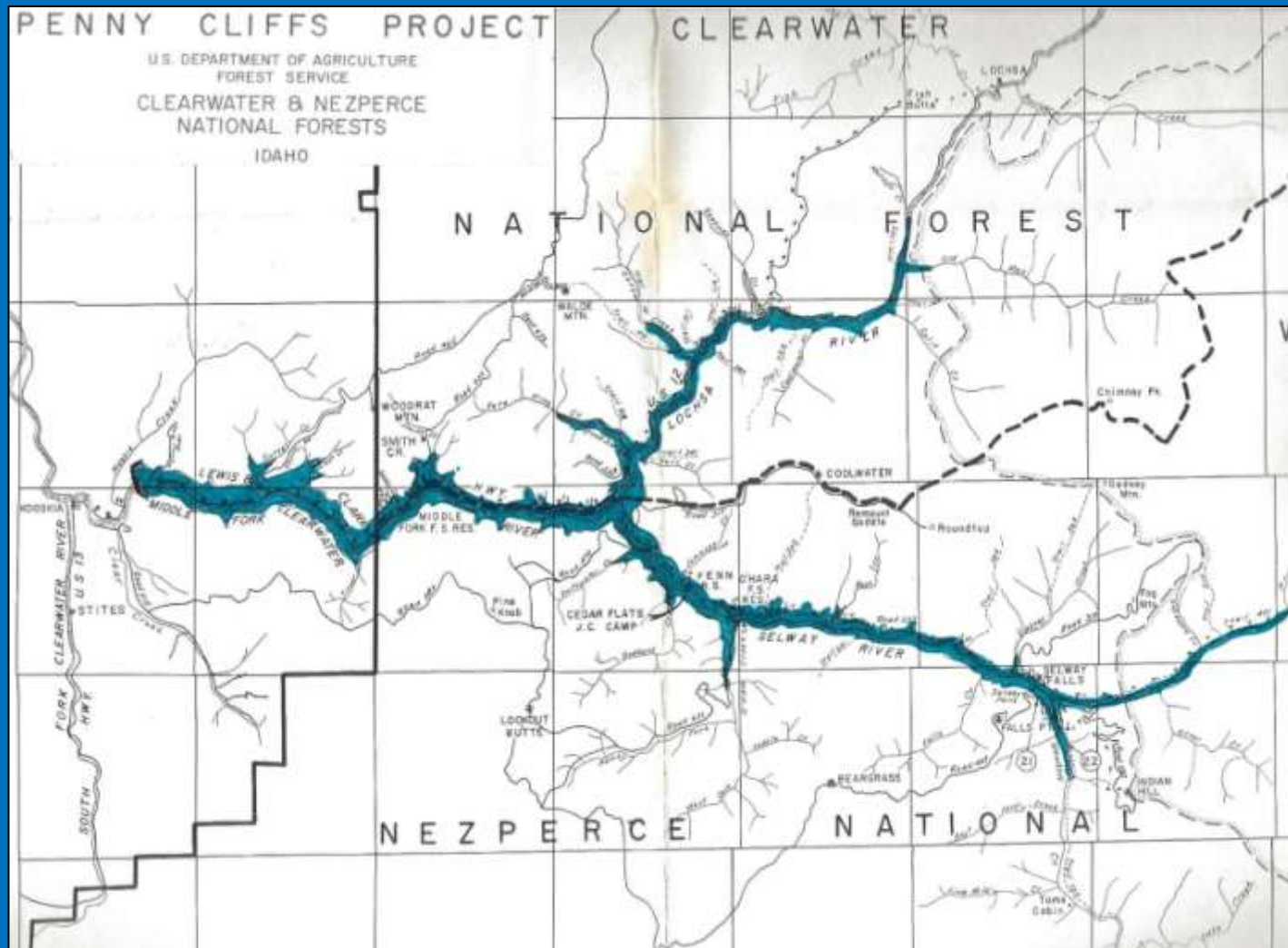
Middle Fork – 19 miles

Lochsa – 20 miles

Selway – 29 miles

*(Data source: USDA Forest Service
Impact Survey Report)*

Penny Cliffs Dam and Reservoir



(Source: USDA Forest Service, 1968 - Impact Survey Report)

Penny Cliffs Damsite



(Source: USDA Forest Service, 1968 – Penny Cliff Dam Impact Survey Report)

Penny Cliffs Dam Depiction – looking downstream



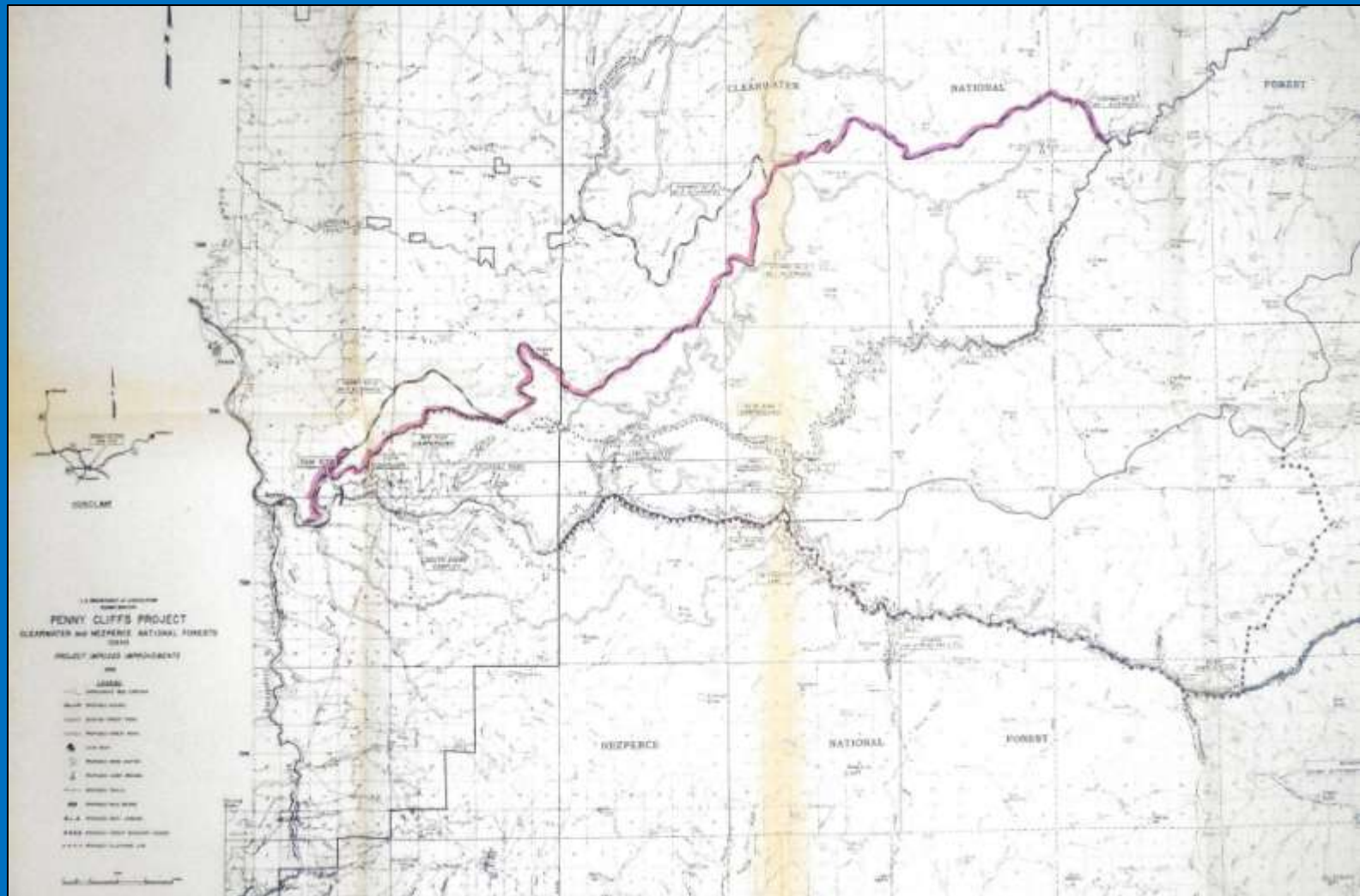
(Source: USDA Forest Service, Undated- Multiple Use Survey and Report)

Penny Cliffs Reservoir at Lowell



(Source: USDA Forest Service, undated - Multiple Use Survey and Report)

Penny Cliffs - Proposed US Highway 12 Relocation



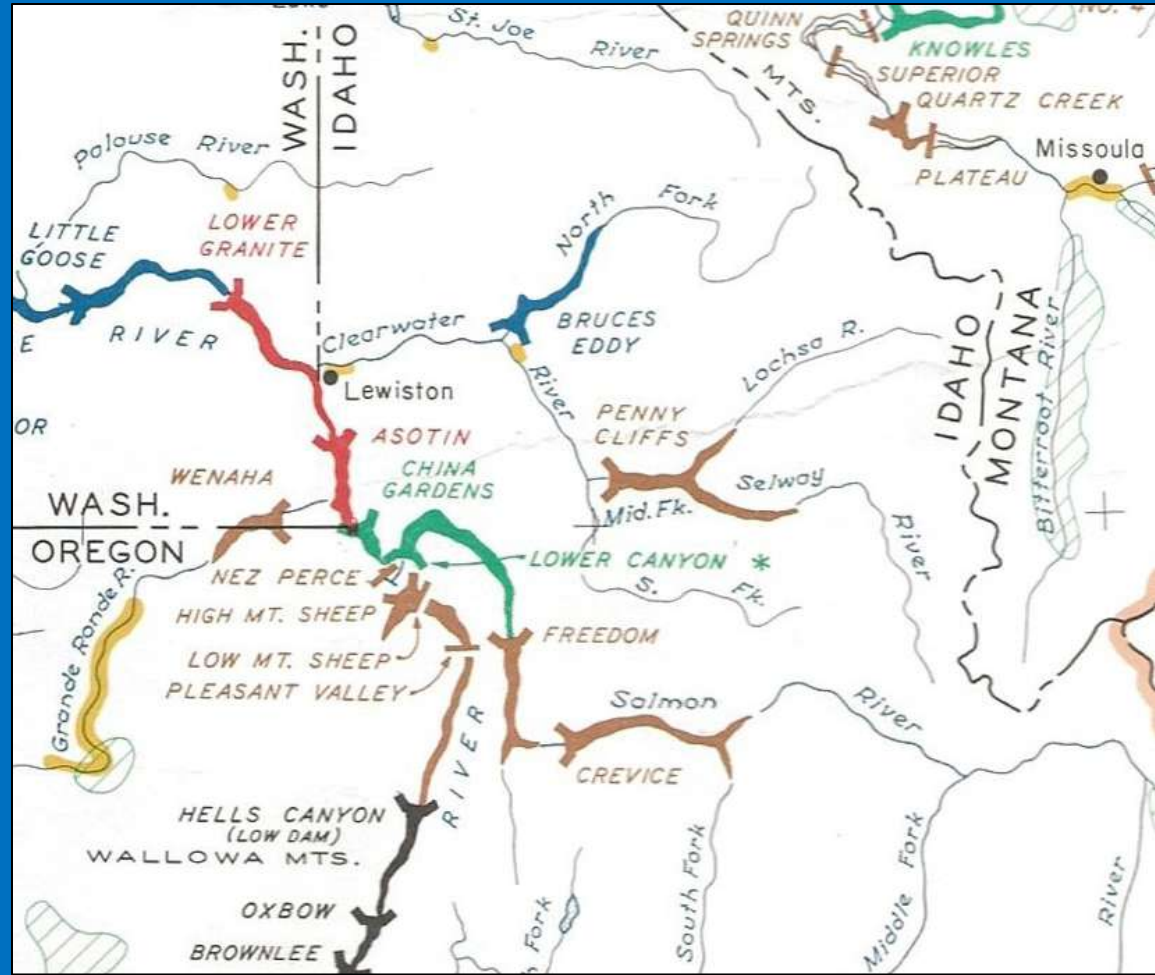
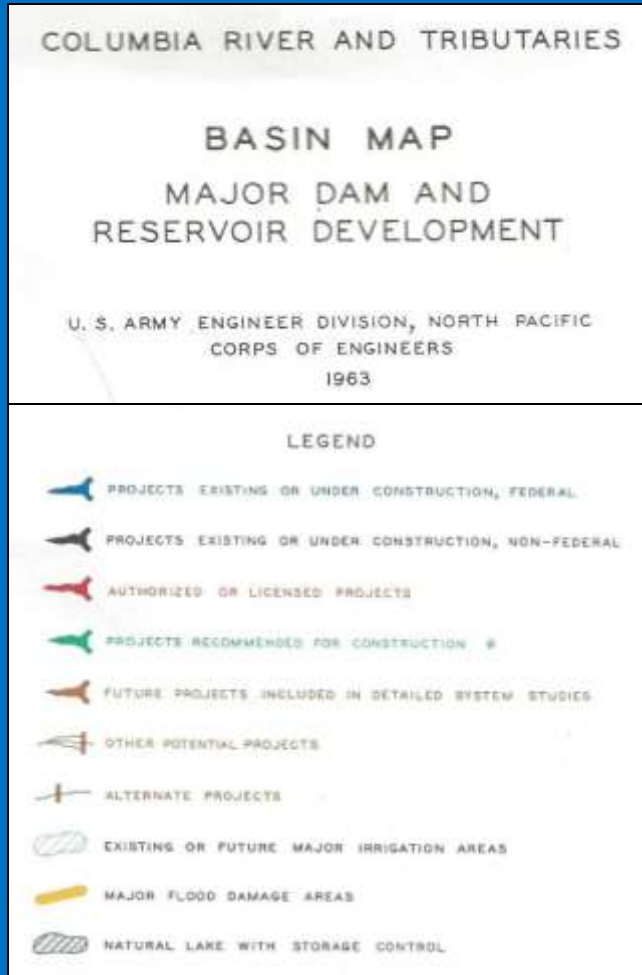
(Source: USDA Forest Service, 1968 – Penny Cliff Dam Impact Survey Report)

Other Proposed Clearwater Basin Dams

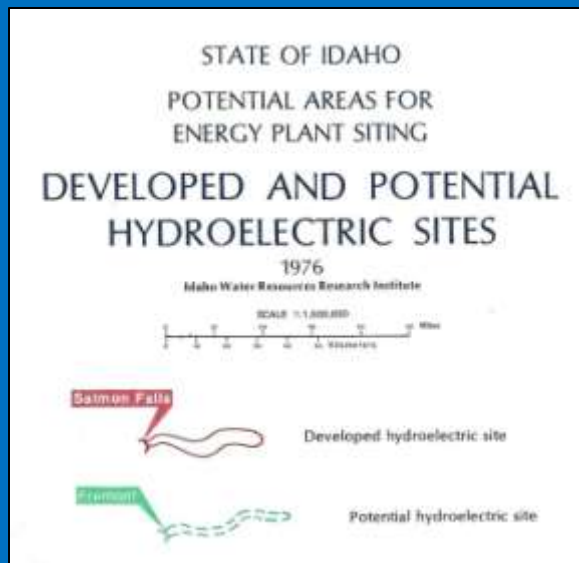
- Bruce's Eddy – 365 feet, pool to Elkberry Creek
- White Pine – below Little North Fork
- New White Pine – >500 feet, Elkberry Creek to Bungalow RS
- Selway Falls – in tandem with Penny Cliffs
- Three Devils – in lieu of Penny Cliffs
- Moose Creek – in lieu of Selway Falls


(Source: A.L. Alford, Lewiston Tribune, August 31, 1994)

1963 – US Army Corps of Engineers



1976 – Idaho Hydropower Sites





Questions? Comments?