Skagit River History

Floods, River Migration, Projects, Fish, Farms, The Future

Presentation to: AWARE
Presentation by: Larry Kunzler, 11/16/2006
www.skagitriverhistory.com
HISTORICAL NEWSPAPER PROJECT

“The farther backward you can look, the farther forward you are likely to see.” – Winston Churchill

The purpose is to preserve the past for the future for use in the present.

Our written past was being lost.

Skagit Valley Herald, Skagit Argus, Concrete Herald and the Courier Times all have lost the 1909 flood event articles.
ISSUES

- All flood events
- Flood Control Meetings
- Fish Related Articles
- Dam Building In Skagit County
- History of Agriculture
- History of Logging
- Erosion Control Projects
- Community History
- Diking and Drainage Issues
HISTORICAL NEWSPAPER PROJECT

Books Available At All Local Libraries

On line at:

- [www.skagiriverhistory.com](http://www.skagiriverhistory.com)
- [www.skagitcounty.net](http://www.skagitcounty.net)
BIGGEST FLOOD IN SKAGIT HISTORY SAY OLD-TIMERS
The flood of 1921 is the biggest flood in the history of the Skagit, according to old timers, who recall the floods of 1879, 1888, 1897 and on up to the big flood of 1909 and the 1917 freshet. Mrs. Dreyer, who lives west of town, tells of the big flood of 1888, when in some places the river backed up higher than this year. She says that not so much damage was done then because there were practically no dikes and the water spread over the lowlands more gradually. Measurements at the Dalles, near Concrete, show that the flood water this year reached a point two feet higher than at any previous time in the memory of the oldest settler. Charley Moses says that it was the biggest flood, with the biggest volume of water ever carried in the Skagit. At Van Horn the water was 14½ inches higher than it had ever been. In 1909 the river in the upper valley was only about two-thirds as wide as it is now. Hundreds of acres of land are being washed away every year, by both Skagit and Sauk rivers. W. A. Ellison says he has been on the upper river for 21 years and this is the biggest flood he has seen or heard old timers tell about.

BIGGEST FLOOD IN HISTORY
DALLES TWO FEET HIGHER THAN 1909.
Charley Moses lived in valley through 1906, 1911, 1917 and 1921 events. He observed the height of the river in The Dalles in 1921.
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FLOOD HISTORY

NEWS FLASH!!!! THE SKAGIT RIVER FLOODS AND CHANGES ITS CHANNEL FROM TIME TO TIME.

WHY??

BECAUSE THAT’S WHAT RIVERS DO!!

RIVERS ARE NOTHING MORE THAN MOTHER NATURES DRAIN FIELDS
DAM HISTORY


➢ **Diablo**: Began construction 1927. Completed 1930. (Source: 8/28/30 C.H.)


# DAM’s IMPACT ON FLOODS

## REGULATED VS. UNREGULATED FLOWS ON THE SKAGIT RIVER

<table>
<thead>
<tr>
<th>Flood Event</th>
<th>The Dalles Regulated</th>
<th>The Dalles Unregulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>146,000</td>
<td>195,000</td>
</tr>
<tr>
<td>1995</td>
<td>160,000</td>
<td>182,000</td>
</tr>
<tr>
<td>2003</td>
<td>166,000</td>
<td>209,000</td>
</tr>
</tbody>
</table>

(Source: 7/10/2006 e-mail from Corps of Engineers)
During the 20th century, the Skagit River reached flood stage 66 times since 1900 for an average of once every 1.5 years.
THINGS TO BE DONE

After all, it might have been far worse. No irretrievable damage has been done. The thing to be done now is to clean up, begin the work of repair, and proceed as though nothing had happened. Skagit county has a glorious future and not even extraordinary misfortune can set it back for any length of time. The weak-kneed brothers will move out; those made of sterner stuff will stay and reap the rewards of grit and energy. It is no time for calamity howlers, and they should not be tolerated. Let them go their way; their places will be filled by better men.

No expense should be spared to put the work ahead.

TOWN OF HAMILTON
2003 FLOOD EVENT

The Rewards of Grit & Energy

No Calamity Howlers Allowed!
SKAGIT RIVER MIGRATION

Original Section Map Prepared by GLO
1866-1885
### GEOLOGIC HISTORY OF SKAGIT VALLEY

<table>
<thead>
<tr>
<th>Years Ago</th>
<th>Volcano</th>
<th>Event</th>
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<tbody>
<tr>
<td>11,500</td>
<td>GP</td>
<td>White Chuck assemblage Lahar travels 100 km (62 miles) down Stillaguamish River Valley to Arlington. Changed the flow of the Sauk River near Darrington from the Stillaguamish River to the Skagit River. Lahar can be observed 1.8 miles west of Arlington.¹ Volcano remains dormant for approximately 5,700 years.</td>
</tr>
<tr>
<td>9,000-5,000</td>
<td></td>
<td>Sea level lowers 30 to 60 feet. The Skagit Delta builds out first into Samish Bay.³ This area is referred to as the Northern Lobe and has been inactive for 5,000 years.⁶</td>
</tr>
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### SOURCES:

11. Fire Mountains Of The West, Stephen L. Harris
### GEOLOGIC HISTORY OF SKAGIT VALLEY

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<td>5,500-5,100 GP</td>
<td>Lahar from Kennedy Creek assemblage travels 100 km (62 miles) down the Skagit. Lake created on the Suiattle was at least 45' deep. Lower Valley channel changed from the Samish to Padilla Bay.</td>
<td></td>
</tr>
<tr>
<td>1,750 GP</td>
<td>&quot;Red&quot; Lahar travels down White Chuck River near Crystal Creek carrying dacite-rich alluvium which underlies the town of Burlington which contains charcoal about 1,800 years old. The depth of volcanic material is between 3-30 feet thick. Several small towns in the lower Skagit River valley are built on volcanogenic sedimentary deposits of this age. The channel of the Skagit changed to its current location.</td>
<td></td>
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11. Fire Mountains Of The West, Stephen L. Harris
Red diamonds depict points in the current DNR cadastre theme, which are themselves resultant of this original GLO survey. As a result, the location of the 1878 river channel is known with a great degree where it crosses section lines. Between section lines, accuracy may be more speculative.
Why Rivers Change Course

- It’s what rivers do and they do it for a variety of reasons:
  - Volcanic eruptions
  - Landslides
  - Earthquakes
  - Major Flood Events
  - Flood Control Projects

- “I realize that for every change man makes to a rivers levee system, a change in the river may result.”  
  (Source: Colonel Donald T. Wynn, Corps of Engineers, letter to Leonard Halverson, 10/15/96)
High Water Hits Lyman

TEN FAMILIES ARE MAROONED

As an aftermath of the high water of the last few days, the upper Lyman people are experiencing much anxiety from possible danger of landslides.

This is particularly true of a small group of ten families who are marooned on a small island across the river from Lyman, caused by the washing out of three bridges across the Skagit near Lyman, or their approaches.

Practically all communication with the outer world has been removed, except by cable. Through this means of transportation, provisions are carried across the swollen river each day while the families on the island need milk and eggs by return cable.

With the Skagit river in its present turbulent condition, it is considered little less than folly to attempt to cross it by any boat or launch procurable by the islanders. Their condition is rendered more perilous through the small landslides which are occurring along the banks of the river in the vicinity of Lyman.

For a time the bridge between Lyman and Hamilton was impassable but was repaired today so that light rear may pass over it.

Since last night, portions of land are carrying away on the Lyman side of the Skagit and grave fears are entertained by the residents whose homes or stores are close to the river bank.

Tuesday night, while the two bridges across Alder creek are rendered useless for the present, owing to their approaches having been swept away.
Plan New $200,000 Skagit Flood Work

County Board Confers With U.S. Engineer; Agrees To Sponsor Project; John Mason Heads New Flood Control Group

According to tentative plans for the new Skagit flood control project to be sponsored by the county, all parts of the river will be included, with a couple of projects for the Day Creek district, the big project at Conway, one at Sterling, at Hamilton, Utopia and other danger spots on the river, which the crew of men under the present appropriation, were unable to complete.
MORE FISH TO BE PLANTED IN UPPER SKagit DISTRICT

More fish plantings for the upper Skagit district were in prospect as State Game Protector M. Spline began a plant of rainbow and cutthroat fry from the Lake Whatcom hatchery. The first are between three and four inches in length.

Plantings will be made as follows: Day Creek, 15,000; Upper Skagit between Gorge Creek and Diablo, 20,000; 25,000 in creeks along the Baker River; 10,000 in Swift Creek.
Baker Lake Fish Hatchery

Fish hatchery on Baker Lake.


Carried out the sockeye and steelhead fry by horseback to the hatchery at Birdview.

In 1920 2.5 million eggs were transported to Birdview.
Baker Lake Fish Hatchery

- Only spawning grounds of Sockeye salmon in US Waters.
- Sockeye runs in Lake Union are direct descendants of Baker River salmon.
- Lower Baker Dam in 1925 began to devastate fish runs on Skagit River.
- 1924, 14,500 sockeye were harvested. Producing 22,000,000 eggs.
- In 1925 only 40 sockeye were harvested, 51,000 eggs.
First constructed 1900.

By 1947 the water quality in Grandy Creek had so deteriorated due to logging activities that the water in the creek was no longer suitable for hatchery use and in 1947 the hatchery closed.
Construction began 1947.

Purpose was to bring fish runs back to normal.

3,000,000 Chinook, silver and steelhead were supposed to be put into Skagit each year.

Seattle City Light helped pay for hatchery due to damage done to fish upstream of Marblemount.
The United States government has just admitted that Skagit county is the finest farming community in the nation, bar none! SKagit county soil won nine out of 12 points. An assay of soil taken from the Gunderson estate, south of Clear Lake, was found to be 100 per cent perfect for general agricultural purposes. It was the only soil given a perfect rating. The tests were conducted by the United States department of agriculture.

(Source: Mt. Vernon Argus, 9/2/25)
FUTURE OF FLOOD CONTROL

- **More storage** behind dams or change in operational procedures before, during & after flood events
  - No-brainer approach, everybody wins, currently 180 million for fish and recreation and **ZERO** for flood control unacceptable

- **Nookachamps storage**
  - Doable if includes buyout of property owners
  - Could create 1,000’s of acres of wetlands, fish mitigation projects, wetland banking areas, recreational opportunities for both fisherman bird watchers and hunters

- **100-250 year protection for urban areas**
  - No problem so long as cities stay within current UGA’s
  - No development of land currently zoned agricultural
FUTURE OF FLOOD CONTROL
ISSUES

FOR

- Safety
- Promote Economic Development
- Prevent damages to infrastructure
- Good for fish, farms & families

AGAINST

- Loss of farmland due to increased development pressure
- Cost, would increase local taxes
- F/C should not be a reward for bad land use planning
- Voters should decide this issue not government