

Skagit River History

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

Presentation to: AWARE

Presentation by: Larry Kunzler, 11/16/2006

www.skagitriverhistory.com

08/20/2005 7:36 am

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

An aerial photograph of a wide river with a large steel truss bridge crossing it. The water is a muddy brown color. In the background, a dam structure is visible. The surrounding area includes green grass, some trees, and a road with a few vehicles. The text 'HISTORICAL NEWSPAPER PROJECT' is overlaid in large white letters at the top.

- Books Available At All Local Libraries
- On line at:
 - www.skagitriverhistory.com
 - www.skagitcounty.net

Historical Index

12/22/21
CT

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.

THE COURIER-TIMES

DECEMBER 22, 1921

VIEWS OF THE HIGH WATER



Top—This photograph shows the main street in Burlington. While the water was well up on the stores, very little damage was done to the stocks of goods.

Middle—This shows the Walker residence on the east end of Fairhaven avenue in Burlington. The current undermined the house, and cut it in two. The picture shows half of the house lying on its side. Mr. Walker, an aged man, was sleeping in the upper story when the house collapsed.

Bottom—Looking up the Skagit river from the N. P. railroad bridge south of Sedro-Wadley. The bridge in the picture is the Thompson bridge and the immense amount of water pouring down the Skagit is clearly shown.

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 Salk 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.

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 NATURE'S DRAIN FIELDS**

DAM HISTORY

- **Gorge**: First produced power in 1921. (Source: 8/20/21 C.H.) New dam completed 1961. (Source: 1/12/61 C.H.)
- **Diablo**: Began construction 1927. Completed 1930. (Source: 8/28/30 C.H.)
- **Ross**: Began construction 1937. Completed in 1949. (Source: 8/25/49 C.H.) However, did not generate electricity until 1952. (Source: 12/25/52 C.H.)
- **Lower Baker**: Began construction April 1, 1924. Completed November 1925. (Source: 11/26/25 C.H.) Raised 33 ft in 1927. (Source: 1/5/28 CT)
- **Upper Baker**: Began construction 1956. (Source: 6/7/56 C.H.) Completed 1959. (Source: 7/23/59 C.H.) Did not provide current level of flood control until 1979.

DAM'S IMPACT ON FLOODS

REGULATED VS. UNREGULATED FLOWS ON THE SKAGIT RIVER

| Flood Event | The Dalles Regulated | The Dalles Unregulated |
|-------------|----------------------|------------------------|
| 1990 | 146,000 | 195,000 |
| 1995 | 160,000 | 182,000 |
| 2003 | 166,000 | 209,000 |

(Source: 7/10/2006 e-mail from Corps of Engineers)

| DATE | C.F.S. CONCRETE | RIVER LEVEL | C.F.S. S-W | C.F.S. M.V. | RIVER LEVEL M.V. ¹ | DATE | C.F.S. CONCRETE | RIVER LEVEL | C.F.S. S-W | C.F.S. M.V. | RIVER LEVEL M.V. ¹ |
|------------|-----------------|-------------|------------|-----------------------------------|-------------------------------|----------|-----------------|-------------|----------------------|-------------|-------------------------------|
| 1815 | 500,000 | 69.3 | 400,000 | 54.56 (Sedro Woolley ("S-W")Gage) | | 11/24/59 | 89,300 | 32.17 | 91,000 | 91,600 | 31.58 |
| 1856 | 350,000 | 57.3 | 300,000 | 51.06 (S-W Gage) | | 11/21/60 | | | N/A | 70,200 | 28.51 |
| 11/16/1896 | | | 185,000 | 45.86 (S-W Gage) | | 12/16/60 | | | N/A | 70,200 | 28.51 |
| 11/18/1897 | 275,000 | 51.1 | 190,000 | 45.96 (S-W Gage) | | 01/16/61 | 79,000 | 30.61 | N/A | 76,000 | 29.40 |
| 11/16/06 | | | 180,000 | | 37.00 | 11/20/62 | 114,000 | 35.73 | N/A | 83,200 | 30.44 |
| 11/18/08 | | | 97,000 | N/A | N/A | 10/22/63 | 73,800 | 29.80 | N/A | N/A | N/A |
| 11/30/09 | 260,000 | 49.1 | 220,000 | 47.56 (S-W Gage) | | 11/27/63 | 84,200 | 31.41 | N/A | 72,100 | 28.80 |
| 11/21/10 | | | 114,000 | N/A ² | N/A | 06/22/67 | 72,300 | 29.59 | N/A | 72,000 | 28.78 |
| 12/30/17 | 220,000 | 45.7 | 195,000 | N/A | N/A | 10/28/67 | | | N/A | 72,700 | 28.89 |
| 12/12/21 | 240,000 | 47.6 | 210,000 | 140,000 ³ | N/A | 01/21/68 | | | N/A | 70,900 | 28.43 |
| 12/12/24 | 92,500 | 32.44 | N/A | N/A | N/A | 06/03/68 | | | N/A | 68,800 | 28.09 |
| 10/16/26 | 88,900 | 32.03 | | | | 01/31/71 | | | N/A | 70,300 | 28.52 |
| 1/12/28 | 95,500 | 32.90 | | | | 07/13/72 | 91,900 | 32.54 | N/A | 80,600 | 30.07 |
| 10/9/28 | 74,300 | 29.94 | | | | 01/16/74 | 79,900 | 30.75 | N/A | 77,600 | 29.64 |
| 02/27/32 | 147,000 | 39.99 | 157,000 | N/A | N/A | 12/4/75 | 122,000 | 36.88 | N/A | 130,000 | 35.66 |
| 11/13/32 | 116,000 | | 125,000 | N/A | N/A | 12/2/77 | 70,300 | 29.27 | | 65,600 | 27.59 |
| 12/22/33 | 101,000 | 33.60 | 110,000 | N/A | N/A | 12/19/79 | 135,000 | 38.57 | N/A | 112,000 | 33.99 |
| 01/25/35 | 131,000 | 37.90 | | N/A | N/A | 12/27/80 | 148,700 | 40.19 | N/A | 114,000 | 34.16 |
| 06/19/37 | 68,300 | 28.97 | | | | 12/04/82 | 100,000 | 33.82 | N/A | 71,600 | 28.65 |
| 10/28/37 | 89,600 | 32.16 | | | | 01/05/84 | 109,000 | 34.94 | N/A | 88,200 | 31.14 |
| 5/29/39 | 79,600 | 30.70 | | | | 01/19/86 | 93,400 | 32.75 | N/A | 72,800 | 28.84 |
| 12/2/41 | 76,300 | 30.17 | | 65,300 | 25.99 | 11/24/86 | 83,500 | 31.30 | N/A | 70,700 | 28.49 |
| 12/3/43 | 65,200 | 28.49 | | | | 10/16/88 | 74,100 | 29.86 | N/A | 56,700 | 25.77 |
| 02/8/45 | 70,800 | | | 59,800 | 25.77 | 11/11/89 | 119,000 | 36.39 | N/A | 88,220 | 31.14 |
| 10/25/46 | 82,200 | 31.14 | | 64,900 | 27.80 | 12/05/89 | | | N/A | 95,480 | 32.39 |
| 10/26/45 | 102,000 | 34.00 | N/A | 94,300 | 30.25 | 11/11/90 | 142,000 | 40.20 | N/A | 142,000 | 36.60 |
| 10/19/47 | 95,200 | 32.99 | N/A | 69,400 | 28.68 | 11/24/90 | | | 196,000 ⁴ | 152,000 | 37.37 |
| 11/28/49 | 154,000 | 40.8 | 149,000 | 114,000 | 34.21 | 11/08/95 | 143,000 | 39.45 | N/A | 89,900 | 31.62 ⁵ |
| 11/26/50 | | | N/A | 68,400 | 28.19 | 11/11/95 | 72,900 | 29.67 | N/A | 59,200 | 26.60 |
| 12/25/50 | | | N/A | 74,000 | 29.08 | 11/14/95 | 67,700 | 28.86 | N/A | 57,100 | 26.18 |
| 02/11/51 | 139,000 | 38.99 | 150,000 | 144,000 | 36.85 | 11/25/95 | 63,200 | 28.11 | N/A | 61,500 | 27.03 |
| 02/1/53 | 66,000 | 28.61 | | 65,700 | 27.76 | 11/29/95 | 160,000 | 41.57 | N/A | 133,000 | 37.32 |
| 10/26/55 | | | N/A | 84,900 | 30.69 | 02/09/96 | 88,900 | 32.11 | N/A | 81,800 | 29.27 |
| 11/04/55 | 106,000 | 34.48 | 113,000 | 107,000 | 33.52 | 03/20/97 | 74,740 | 29.96 | N/A | 74,980 | 29.52 ⁶ |
| 04/30/59 | 90,700 | 32.36 | 92,000 | 92,300 | 31.68 | 11/13/99 | 101,000 | 33.80 | 39.20 | 78,600 | 29.88 ⁷ |

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 county back to its

Source: Dec. 4, 1909 issue of "The Herald-Recorder," Skagit county's official paper published at Hamilton . Republished in the Courier Times 12/1/49)



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

Years Ago Volcano Event

11,500

GP

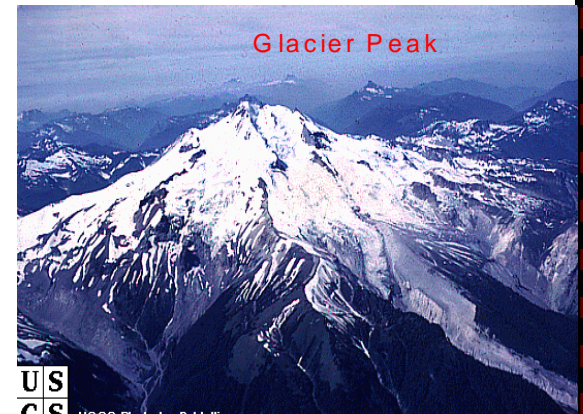
White Chuck assemblage Lahar travels 100 km (62 miles) down Stillaguamish River Valley to Arlington. Changed the flow of the Sauk River near Darrington from the Stillaguamish River to the Skagit River. Lahar can be observed 1.8 miles west of Arlington.¹ Volcano remains dormant for approximately 5,700 years.

9,000-5,000

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

SOURCES:

1. Postglacial Volcanic Deposits at Glacier Peak, Washington, and Potential Hazards from Future Eruptions, by James E. Beget, (1982, Open File Report 82-830)
2. Soil survey TransMountain pipeline (1989).
3. Prehistoric Settlement Changes in the Southern Northwest Coast: A Functional Approach, by Gail Thompson, Ph.D., (1978), Geological Survey Professional Paper 1022C
4. Postglacial Volcanic Deposits at Mt. Baker, Washington, and Potential Hazards from Future Eruptions, by Jack Hyde & Dwight Crandell, (1978), Geological Survey Professional Paper 1022C
5. Increased Heat Emission From Mount Baker, WA., by Stephen Malone & David Frank (Post 1975)
6. From the Mountains to the Sea, by Saul Weisberg & John Riedel, (1991)
7. Fire and Ice, The Cascade Volcanoes, Stephen L. Harris, (1976)
8. Northwest Volcanoes, A Roadside Geologic Guide, Lanny Ream, (1983)
9. Sleeping Beauty, by Charles Siderius, Skagit Valley Herald (1991)
10. Recent Volcanic Activity at Glacier Peak, James E. Beget, (1982), Science Vol.. 215
11. Fire Mountains Of The West, Stephen L. Harris

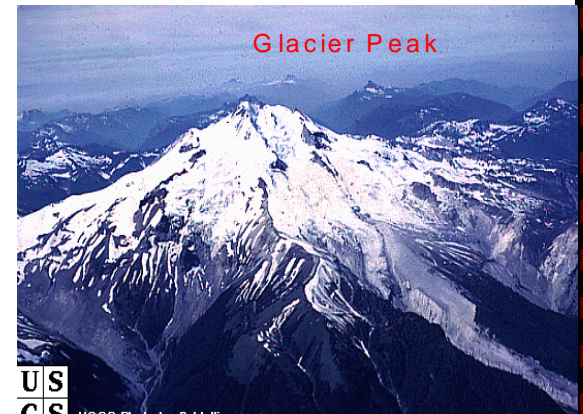


GEOLOGIC HISTORY OF SKAGIT VALLEY

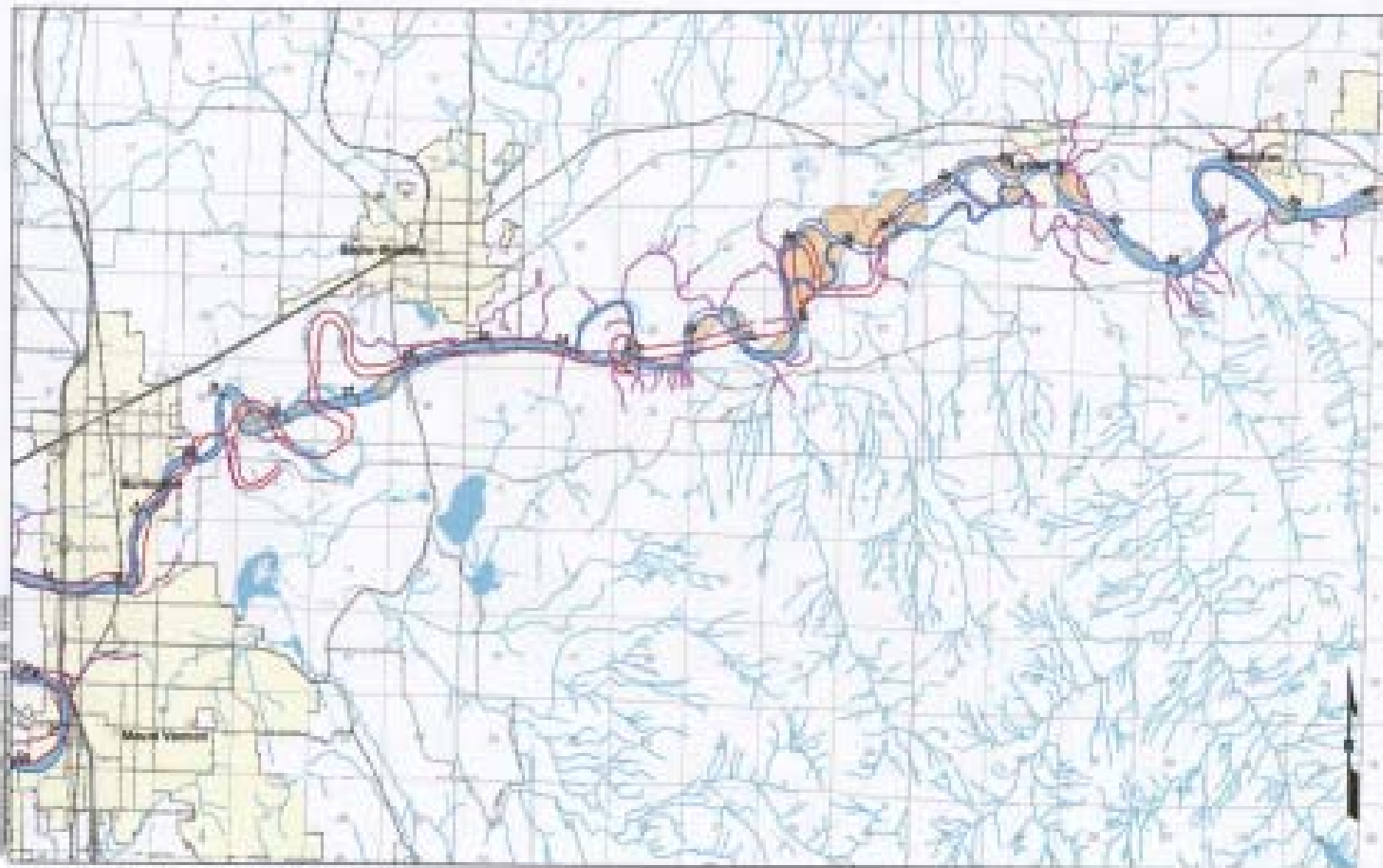
| Years Ago | Volcano | Event |
|--------------|---------|---|
| 5,500-5,100 | GP | Lahar from Kennedy Creek assemblage travels 100 km (62 miles) down the Skagit. Lake created on the Suiattle was at least 45' deep. ¹ Lower Valley channel changed from the Samish to Padilla Bay. |
| <u>1,750</u> | GP | "Red" 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. ² Several small towns in the lower Skagit River valley are built on volcanogenic sedimentary deposits of this age. ¹⁰ The channel of the Skagit changed to its current location. |

SOURCES:

1. Postglacial Volcanic Deposits at Glacier Peak, Washington, and Potential Hazards from Future Eruptions, by James E. Beget, (1982, Open File Report 82-830
2. Soil survey TransMountain pipeline (1989).
3. Prehistoric Settlement Changes in the Southern Northwest Coast: A Functional Approach, by Gail Thompson, Ph.D., (1978), Geological Survey Professional Paper 1022C
4. Postglacial Volcanic Deposits at Mt. Baker, Washington, and Potential Hazards from Future Eruptions, by Jack Hyde & Dwight Crandell, (1978), Geological Survey Professional Paper 1022C
5. Increased Heat Emission From Mount Baker, WA., by Stephen Malone & David Frank (Post 1975)
6. From the Mountains to the Sea, by Saul Weisberg & John Riedel, (1991)
7. Fire and Ice, The Cascade Volcanoes, Stephen L. Harris, (1976)
8. Northwest Volcanoes, A Roadside Geologic Guide, Lanny Ream, (1983)
9. Sleeping Beauty, by Charles Siderius, Skagit Valley Herald (1991)
10. Recent Volcanic Activity at Glacier Peak, James E. Beget, (1982), Science Vol.. 215
11. Fire Mountains Of The West, Stephen L. Harris

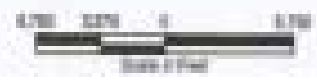


Recent and Historic (1894) Channel Boundaries



Note: Several proposed levees between New Orleans and Lake St. Charles are shown in light gray, although they have not been constructed, and they do not

- Main Channel
- Main Channel (1894)
- Main Channel (1894) (shaded)
- Tributaries (1894) (shaded)
- Tributaries (1894) (unshaded)
- Tributaries (1894) (unshaded)

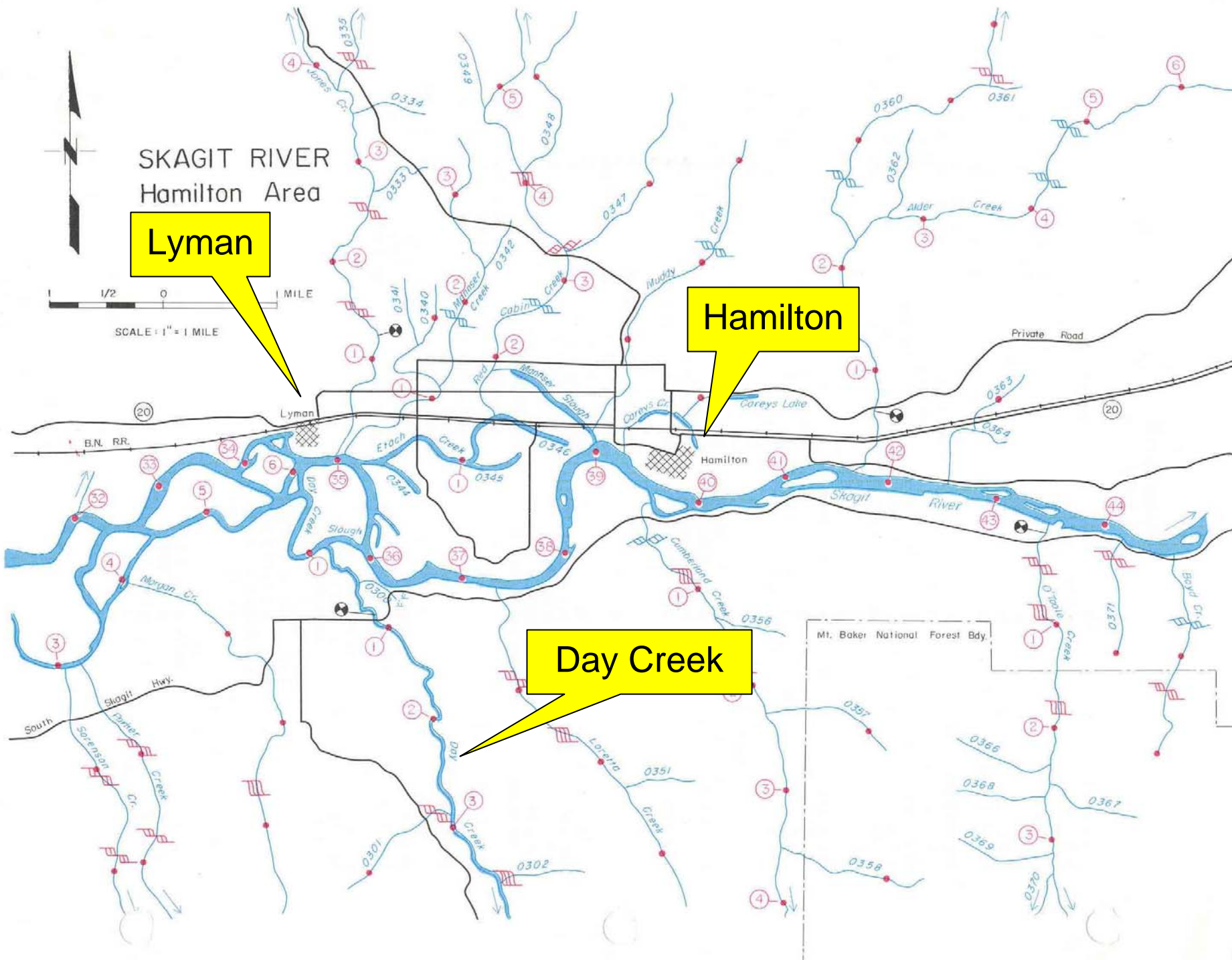
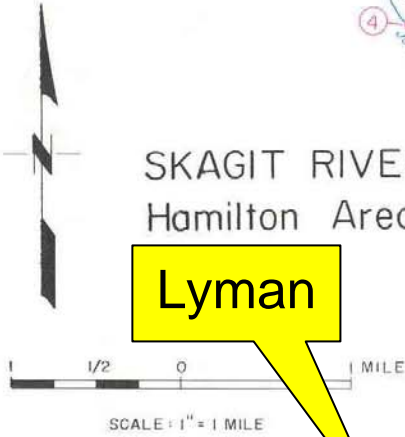


SKAGIT RIVER
Hamilton Area

Lyman

Hamilton

Day Creek





Highway 20

Old School House

Smith House

CAP: Western WA Flooding

Skagit Fisheries Enhancement Group

Prepared by: Middle Fork GIS

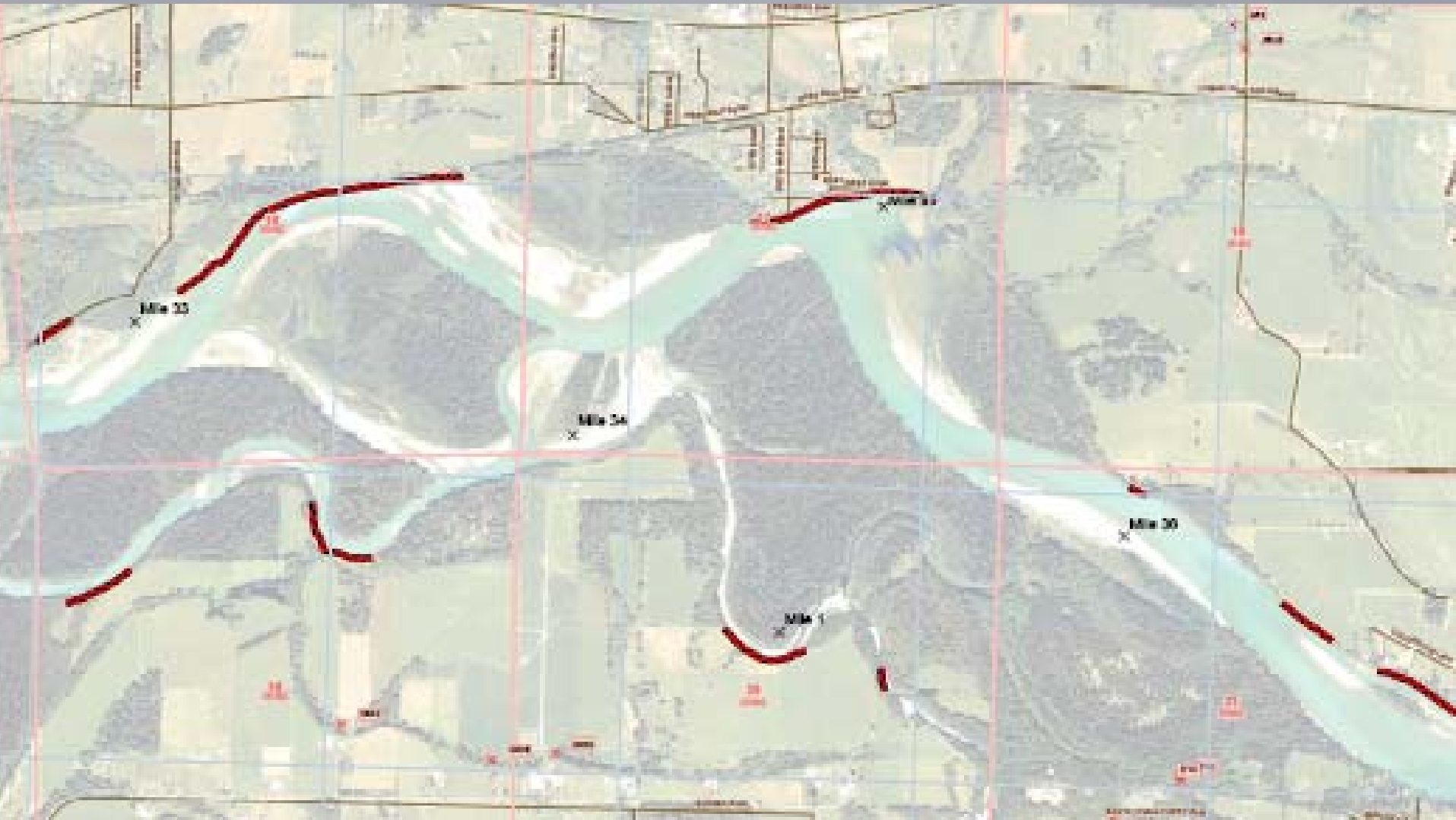
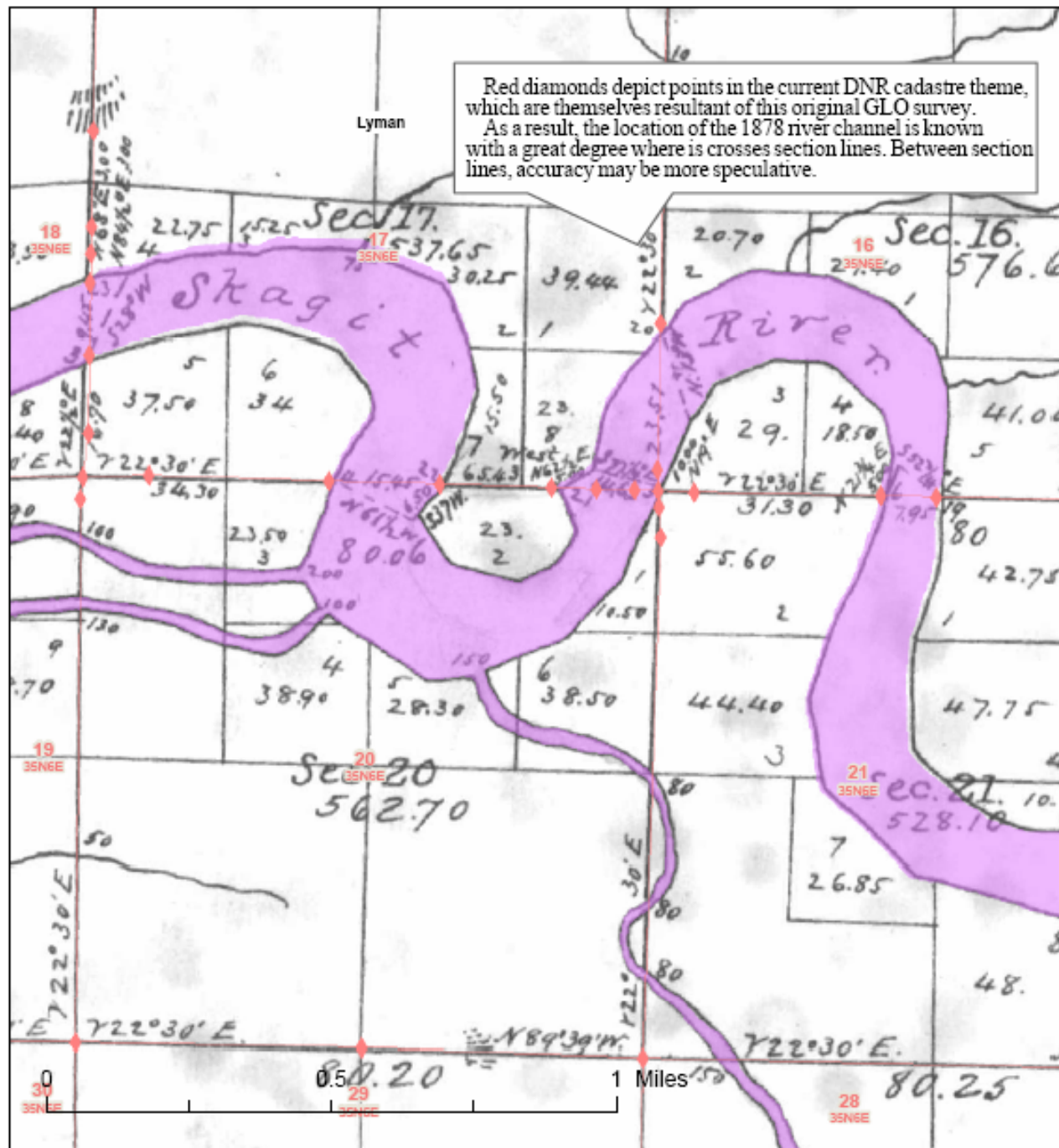
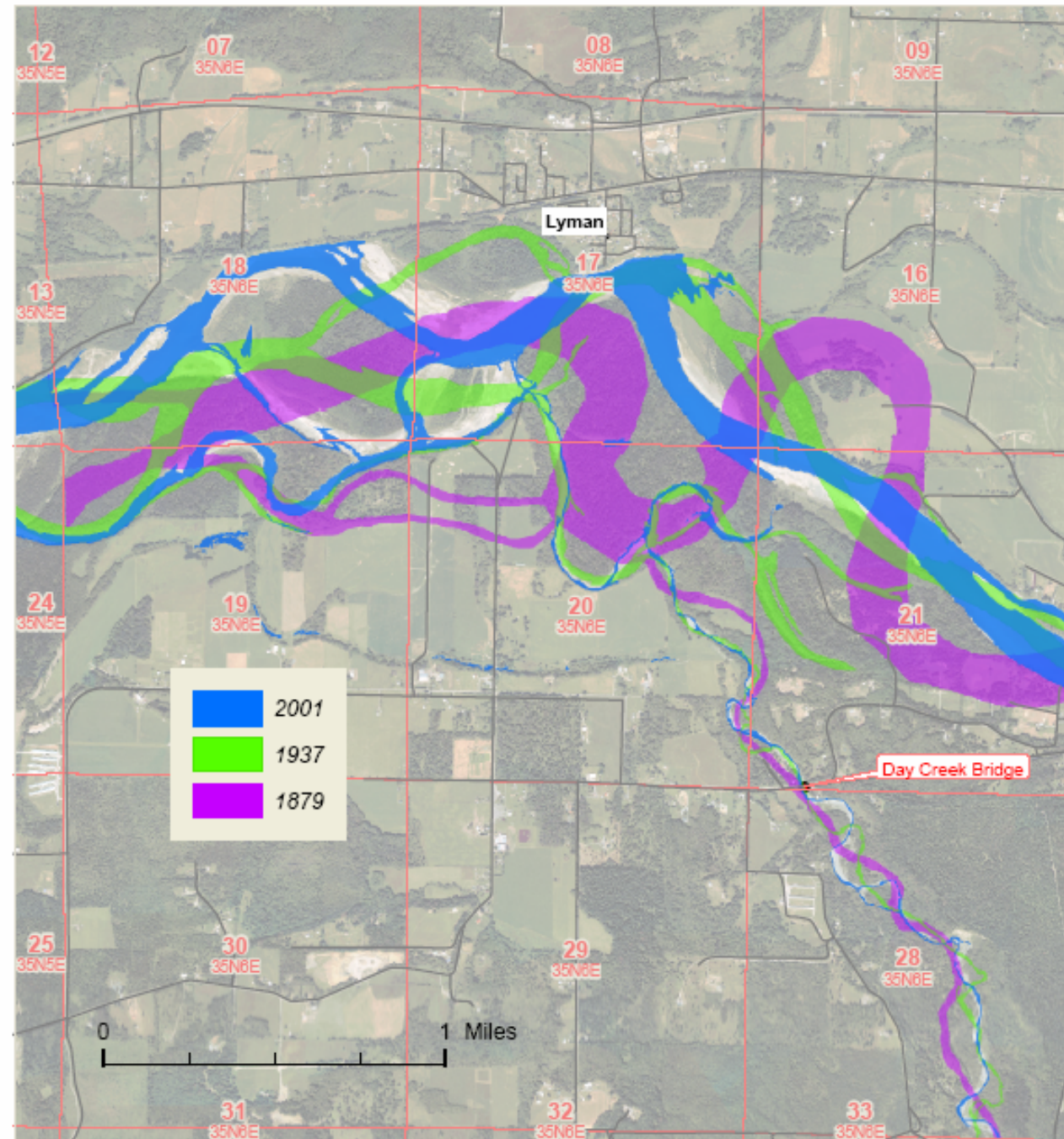


Plate 24: 1879 Survey Map



Source: Skagit Fisheries Enhancement Group, Plate 24
Prepared by: Middle Fork GIS

Plate 29: Channel Positions, 1879, 1937, and 2001



Source: Skagit Fisheries
Enhancement Group, Plate 29

Prepared by: Middle Fork GIS



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)*

Bridge Btwn Lyman & Day Creek

MOUNT VERNON DAILY HERALD

FEBRUARY 14, 1924

High Water Hits Lyman

TEN FAMILIES ARE MAROONED

As an aftermath of the high water of the last few days, the upper Skagit 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 send back 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 cars may pass over it.

Since last night, portions of land are caving 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.

The five-room house of Mr. and Mrs. Henry Stiles is now occupying a position in the center of the main street of the city. Landslides close to this building seemed to make it unsafe and it had just been moved away from near the brink today when a slide occurred which would have been disastrous had the building remained on its proper site.

Several of the smaller homes within ten to twelve feet of the river have been moved. Men are hauling spruce trees and laying them along the river to prevent caving in of the land near the school building, and steps to prevent loss are being taken by residents of Lyman.

The Lyman bridge, extending from Hamilton to Day Creek, was carried away Tuesday night, while the two bridges across Alder creek are rendered useless for the present, owing to their approaches having been swept away.

Day Creek Flood Project

THE COURIER-TIMES

MARCH 24, 1938

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

Promise of a new \$200,000 Skagit flood control program to supplement the river bank revetment work, for which funds are now exhausted, was given by the Skagit county commissioners this week after a conference with Captain Trudeau, U. S. army engineer in charge of flood control work in this district. Details of the new program will be worked out through the new Skagit Flood Control Association of which Chairman John Mason of the county commissioners is president.

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. One big project is a dam at Sterling, at Hamilton, Utopia and other danger spots on the river, which the crews of men under the present appropriation, were unable to complete.

Commissioner Ed Carlson of this district, who is an enthusiastic supporter of the new program, stated today that about one hundred and fifty of the present crew would be transferred at once to the Samish river, for which a project of some \$110,000 is already set up; and that about fifty men would be kept on the Skagit river to handle the snag clearing work, for which a big sum has already been appropriated. The Samish river bank from the mouth to Friday creek and a long stretch of Friday creek is to be straightened to prevent future flood erosion.

Chairman John Mason plans to call a meeting of the new Flood Control Association in the near future, to present his tentative plans for flood control in the county, which, besides the promised river bank protection, includes an extensive dredging program at the lower part of the river. Congressman Mon Wallgren some time ago gave his approval to such a program. The office of the crew at work on the project will be kept in Sedro-Woolley.

The Sedro-Woolley Chamber of Commerce, which has been working on the flood control project, has joined the new County Flood Control Association to work for dredging on the Skagit, where needed. In a complete program of flood prevention, as suggested by Clyde Shrauger and John Mason of Mt. Vernon.

At the recent organization meeting in Burlington all parts of the county were represented, and agreed to work together for a county-wide program. President John Mason urged the towns and rural districts to cooperate and asked all to list all danger spots on the river, so the plans to be adopted in asking for more government financing, will not favor any section of the county.

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.

Day Creek Fish Project

THE CONCRETE HERALD

Formerly the Hamilton Herald Established Nov. 28, 1901. Oldest Paper in the Upper Skagit.

August 14, 1947

MANY FISH TO BE PLANTED IN UPPER SKAGIT DISTRICT

More fish plantings for the upper Skagit district were in prospect as State Game Protector M. Splane 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.

Big Watson lake will be planted with 20,000 cutthroat by plane and another 50,000 rainbow will be flown to Diablo Lake. Grandy Lake is slated for 30,000 cutthroats by truck.

More fish plantings for the upper Skagit district were in prospect as State Game Protector M. Splane 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

THE CONCRETE HERALD

Formerly the Hamilton Herald Established Nov. 23, 1901. Oldest Paper in the Upper Skagit.

January 17, 1920

FISH HATCHERY AT BAKER LAKE STOPS WORK FOR WINTER

COLD WEATHER STOPS WORK ON NEW CONSTRUCTION—WORK STOPPED UNTIL SPRING AND CREW LAID OFF

Foreman Joe Kemmerick of the Baker Lake fish hatchery came into town Thursday with the news that work at the hatchery had been stopped for the winter and all extra men laid off. Only enough men will be retained at the fisheries station to look after the eggs in the hatchery building and care for to property at the lake. Those who will remain at the lake through the winter are Foreman Kemmerick, Cook Sparks, Fish Culturist Noyes and Ernest Mays. These men will keep things moving until the weather moderates in the spring, when the full crew will again be put to work running the station and rebuilding the plant destroyed by fire last summer.

During the severe cold last month Baker Lake was frozen over and work at the sawmill stopped because logs could not be towed across the lake to operate the mill. When the cold snap broke the ice in the lake thawed out, and work was again resumed. Things moved smoothly until the first of the year, when the lake again froze over, and since then the crew has been kept busy trying to find something to do. As the construction work cannot proceed without the mill in steady operation, and as it was uncertain whether the mill could be operated again during the winter, Foreman Kemmerick decided that the best plan would be to stop all work until spring.

The men now at the hatchery will have a considerable job on their hands in about a month, when about two and a half million eggs now being eyed at the lake will have to be

carried out and shipped to the Birdsvie hatchery, where they will be hatched. These will have to be packed out on horses, with the trail at its worst. However, it is a job that has to be done every year, and the men are already making arrangements for it. It will require about eight trips with the pack train to carry out all the eggs to be sent to Birdsvie.

- Fish hatchery on Baker Lake.
- Operated by State in 1896. Was operated by the federal government in 1898. Closed in 1934.
- Carried out the sockeye and steelhead fry by horseback to the hatchery at Birdsvie.
- In 1920 2.5 million eggs were transported to Birdsvie.

Baker Lake Fish Hatchery

THE CONCRETE HERALD

Formerly the Hamilton Herald Established Nov. 23, 1901. Oldest Paper in the Upper Skagit.

June 21, 1951

CONCRETE HERALD ANNIVERSARY EDITION

The Story of the Baker Lake Fish Hatchery is Historic Lore

Artificial propagation of sockeye salmon began in 1896 when in that year the State of Washington originally established the hatchery at Baker Lake where existed the only natural spawning grounds of sockeye salmon in United States waters on Puget Sound. By that time there were already pack horse trails on both the east and west sides of the Baker River and a number of pioneers had located homesteads on both sides of the Baker River and on the shore of Baker Lake. Mrs. Richard Thompson (Emma Ruth) I believe is the only one of such pioneers now remaining in this locality. At that time and for several years after there was considerable prospecting for gold several miles up Noisy Creek. A cylinder containing about 200 pounds of mercury was left by one of the miners at his claim when he was starved out and in 1916 he returned and packed the mercury out since by that time such metal had greatly increased in value.

The original buildings constructed by the state consisted of a residence for the superintendent, a hatchery building, a small barn for saddle and pack horses and a combination mess and dormitory building for the crew. These buildings were all made of split cedar boards except that the door and window casings were ripped out with a whipsaw. For the first few years of operation of the hatchery the eggs were obtained by seizing the fish on the spawning grounds in the upper Baker River. In 1899 by Executive

Order Baker Lake and the land within one half mile of the lake shore line, except lands already patented, were withdrawn from the Washington Forest Reserve (Now Mount Baker National Forest) for fish cultural purposes. In July of that year the United States Government purchased the Baker Lake Hatchery project from the State of Washington for \$6,400 and the United States Fish Commission (later becoming the Bureau of Fisheries) conducted operations from then on. The first superintendent for the United States was a Mr. Buck from Bucksport Maine and Henry O'Malley was the first fish culturist. In about 1901 Mr. Buck resigned and Mr. O'Malley became the superintendent and from this position he continued to advance to the higher grades until in May 1922 he was appointed Commissioner of Fisheries by President Harding.

The first work of importance carried out after the federal government took over operation was the installation of a trap at the mouth of the lake in 70 feet of water for catching the salmon upon their arrival and the construction of holding pens at the upper end of the lake in a small stream which turned out to be the best holding water for salmon to remain and ripen in of any since found in the state. Such traps and holding pens were constructed about 1900 and 1901. The salmon when caught in the trap were transferred to live crates and towed across the lake to the

- 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.

Birdsview Fish Hatchery

THE CONCRETE HERALD

Formerly the Hamilton Herald Established Nov. 23, 1901. Oldest Paper in the Upper Skagit.

June 21, 1951

CONCRETE HERALD ANNIVERSARY EDITION

Birdsview Hatchery Started In 1900

About the year 1900 a small hatchery was established on Grandy Creek at Birdsview as an auxiliary to the Baker Lake hatchery. Salmon eggs for the hatchery were obtained from both Grandy Creek and Phinney Creek. In 1911 extensive improvements and construction of buildings were made, including a new hatchery building, barn, and several residences, and the old hatchery building was made into a workshop. The office of the Baker Lake hatchery superintendent was then moved to the Birdsview hatchery since the field operations became enlarged and Birdsview was more accessible for mail and transportation, as well as being more centrally located since the hatcheries on Hood's Canal were also added to the field. After 1911 from time to time further improvements and construction of buildings were carried out as became necessary. However, by 1947 the run of salmon into Grandy Creek had declined greatly and the water of the creek during winter and early spring was muddy for such long periods that fish cultural work could not be carried out with maximum efficiency. Logging off of the creek watershed caused the changed condition in the creek. The long periods of muddy water in the creek during the winter months especially, appeared to be a factor in the decline in the numbers of salmon entering. The creek and at times fingerling fish in the ponds could not be properly fed for several weeks at a time. Therefore further

operation of the hatchery was not considered justifiable. Accordingly on July 1, 1947 the hatchery was closed and eventually was transferred to the State Game Department.

At the present time there remains only one federal fish hatchery still in operation in the Puget Sound area, that being at Quilcene on Hood's Canal. At present the Fish & Wildlife Service is concerned chiefly with the Columbia River and tributaries and with the Sacramento River in California in so far as fish cultural work is concerned.

- 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.

Marblemount Fish Hatchery

THE CONCRETE HERALD

Formerly the Hamilton Herald Established Nov. 28, 1901. Oldest Paper in the Upper Skagit.

July 18, 1946

WORK BEGINS ON STATE FISH HATCHERY

BELLINGHAM CONTRACTOR NOW ON JOB AT MARBLEMOUNT BUILDING PROJECT

Work on the new state fish hatchery at Marblemount was under way Tuesday of this week as Roy N. Gaasland of Bellingham, contractor who built the Marblemount school, began construction of the large project on the Cascade river.

No announcement had been made of the amount of the bid or who had been awarded the contract until the contractor began preparations for the job.

Construction plans call for a main fish hatchery building 46 feet by 172 feet of rustic stone and timber construction, 20 cement rearing ponds, a large home for the caretaker and other small buildings.

Also to be constructed are a low dam, a complete water system and pumping plant, a sewage system and other utility items.

Four small bridges are to be built over the streams to be used in the hatchery's water supply.

Complete in Six Months

The contract calls for all work to be completed and ready for use within six months, so that the new hatchery should be in operation shortly after the first of the year.

The hatchery will be used to raise trout and salmon for a program of restocking the hundreds of lakes and streams in the upper valley in addition to trying to bring the fish population of the Skagit River back to normal.

- 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.

Skagit Best Farmland in Nation

SKAGIT COUNTY LEADS NATION IN SOIL TEST

Seven - Year Government
Probe Brings District
Handsome Tribute.

FROM GUNDERSON FARM

First Seven and Last Two Out of
Twelve Won Locally; Gunder-
son Farm 100 Per Cent.

The United States government has just admitted that Skagit county is the finest farming community in the nation, bar none! In a series of soil tests extending over the past seven years, which has just been completed, 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.

Analysis of soil in this district took first seven places in the nation, the Cumberland valley, in Maryland, took the next three, and this county took the next two.

The tests were conducted by the United States department of agriculture.

Announcement of the result of the test was made to the Rotary club, Tuesday, by Robert Lord, of the Northwest Implement Co., during a classification talk on farm implements. It was greeted with enthusiasm by the Rotarians, all of whom already knew that this was the finest country in the United States, but who didn't realize how fine it was. Mr. Lord said he got his information from C. I. Hall, who in turn got it from a federal land bank official. The results of the test have not yet been officially announced as yet by the department of agriculture.

The county will receive some invaluable advertising from the test, the results of which will be broadcasted throughout the country.

Mr. Lord gave an extremely interesting talk, tracing the evolution of farm implements, from their crude beginnings to the present.

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