



DRAFT TIMELINE OF HISTORICAL EVENTS ON THE SKAGIT RIVER

1950--1959

Prepared by: Larry J. Kunzler, 9/14/97

DATE	EVENT, ISSUE/ Source	COMMENTS
1/11/50	FLOOD CONTROL/Cost Benefit Ratio Letter to Skagit River Control Association from Corps.	Corps studying methods of flood control for Skagit. Methods include storage, deepening the present channel, raising & strengthening of present diking system and construction of flood water diversion channels. The annual cost of the project must be less than the annual benefits expected. Annual cost includes operation and maintenance, interest on the first cost, and amortization of the first cost over a 50-year period. Annual benefits would consist of the estimated average annual cost of flood damage which could be prevented by the project.
1/23/50	STORAGE ON BAKER RIVER Letter to Puget Power from Corps	Letter was "technical inquiry" re the possibility of providing flood storage at Lake Shannon. Corps wanted to know what the "attitude" of Puget Power would be to either lowering the level of the lake behind the dam or raising the level of the dam.
1/26/50	STORAGE ON BAKER RIVER Letter to Corps from Puget Power	"...it would be impractical for us to consider the operation of the Baker River Plant at a reduced lake level in order to provide storage for possible flood control. . . .I am sure you can understand that it would be impossible for the Company to comply with such a request." "With regard to the suggestion that the height of the Baker River Dam be increased 20 to 30 feet. . . we will be glad to authorize the Stone & Webster Corporation to make such a study, provided the Company is reimbursed for the expenses thus incurred."
1/26/50	STORAGE BEHIND ROSS DAM Letter to Seattle City Light from Corps	Requested meeting with power company "...in order to assemble factual data and to formulate opinions on the Ross flood control storage plan..." "The value of flood storage at Ross was recently demonstrated during the November 1949 flood when river stages at Mt. Vernon were reduced by an estimated 3 feet through the fortunate availability of sufficient storage above Ross Dam."



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2/1/50	REPORT / STANDARD PROJECT FLOOD / ROSS RESERVOIR Derivation of Hydrograph of Inflow into Ross Reservoir During Standard Project Flood at Sedro Woolley	"Volume of run-off at Ross Reservoir is estimated to be 18% of that at Sedro Woolley." SPF was designed after 1909 flood. Maximum possible rain fall for area above Sedro Woolley is 21.5 inches in 5 days. SPF used 10.8 inches in 5 days. Snow depth was assumed to be equal throughout basin.
2/8/50	FLOOD FIGHTING Letter to Skagit County from Corps	Corps requested County to appoint a "Flood Coordinator" during times of flooding emergencies in order to have someone to delegate authority to Corps for fighting floods. Original request was made in 1948.
2/15/50	FLOOD GAGES Letter to F.M. Veatch, USGS from F.S. Brown ,Corps	Sedro Woolley Gage located left bank 100 ft upstream railroad bridge. Mt. Vernon gage located on Old Hwy 99 bridge. Avon gage on right bank at Anacortes Water Treatment Plant.
2/23/50	STANDARD PROJECT FLOOD/ROSS DAM Letter to Chief of Engineers Wash. D.C. from Seattle District Corps	SPF: Rainfall used in obtaining this flood is one-half the maximum possible, and the snow cover equal to or greater than the amount that would be melted in 5 days with the optimum temperature sequence of record. This flood would be one of rare occurrence. "SPF of 440,000 cfs at Sedro Woolley and 97,000 cfs at Ross Reservoir are approved." ROSS DAM: "...it is calculated that the peak inflow of 97,000 cfs could be reduced to a constant outflow of about 25,000 cfs" given 200,000 acre feet available for storage.
2/24/50	SNAG BOAT Letter to Corps from Carl Sahlin, Manager, Puget Sound Pulp & Timber Company	Operated log dump at Tom Moore Slough. Expected to tow 20,000 million board feet of timber to Bellingham from Skagit. Requested Corps to use "snag boat" to "dredge" river "to keep the river navigable".



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2/28/50	FLOOD CONTROL / FLOOD STUDIES Letter to Bonneville Power from P.H. Symbol, Lt. Col. Corps	"Flood control studies are under way." Studying dam sites at Faber, Upper Baker, Upper /Lower Sauk and Cascade River. Development did not appear economically justified at this time. State & Federal fisheries opposed to further dam construction. Also looking at possible channel improvement and diking and by-pass plans. Expected report to be finished by end of year.
3/29/50	FLOOD CONTROL / FLOOD STUDIES Letter to Lucille Axelson, Skagit River Flood Control Association from Col. E.C. Itschner, Corps	Have investigated dams, levees, channel dredging, and flood by-pass plans. "Best solution appears to be a flood by-pass combined with some degree of improvement to the existing levee system."
4/3/50	FLOOD CONTROL / DREDGING Letter to H.O. Walberg, County Engineer from Col. Itschner, Corps Seattle District	"No appreciable change in the elevation of the <u>average</u> river bottom has taken place from Mt. Vernon to mouth of river since 1932." "In other words, the river channel has reached a state of equilibrium with all the forces acting upon it insofar as its flood carrying capacity is concerned. Local changes have occurred but throughout most sections of the river shoaling roughly equals channel erosion."
5/24/50	FLOOD CONTROL / DREDGING Letter to R.W. Kaess, Secretary, Skagit County Farm Bureau from Col. E.C. Itschner, Corps	"Dredging a cut-off at the mouth of the North Fork or dredging an outlet along the present path of the river from the south to deep water cannot lower flood stages at that point below the stage which would be experienced at high tide with normal flows. . . . A North Fork cut-off having the same cross-section as the existing river channel would lower flood stages at the mouth about 1 foot. " Would require removal of 1,300,000 cubic yards. "Difficult to obtain satisfactory dike material from the river bed because saturated silt must be dried out before it can be compacted sufficiently to make good dikes."



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7/1/50	FLOOD CONTROL ECONOMIC JUSTIFICATION STUDY Study performed by Corps of Engineers	This is a very large study of damages to be expected comparing the 1949 flood to 1921, 1856 and 1815 floods. Contains 13 volumes. Appraisers went house to house in lower valley. Clearly shows that increased water means increased damages to not only building but land as well. Also, "The shorter flood duration causes much less damage to the winter crops." Average price of dairy cow was \$225.00.
7/17/50	FLOOD CONTROL / ROSS RESERVOIR Letter to Col. Itschner from Seattle City Light	200,000 acre feet of storage. Available by 12/1 of each year. Would start drawdown by 11/1 each year. Would hold storage until 2/15 each year. Would release stored water at rate of 25,000 cfs . Annual cost of providing flood storage would be \$91,462.
10/3/50	SNAG BOAT PRESTON Letter to Corps of Engineers from Allen Tingley, Tingley Towing Company	Advised Corps that Norman Hamburg, first mate on Preston was trying to blast out stump in Sterling Bend. Mrs. Halverson refused to move herself out of dangers way as she believes the removal of the stump would allow river to wash away some property. Wanted advice on what to do.
10/13/50	BANK PROTECTION; SNAG BOAT OPERATIONS Letter to Congressman Jackson from Harold Halverson	Alleged snag boats were pushing current into his farm. Needed immediate help.
10/14/50	BANK PROTECTION; SNAG BOAT OPERATIONS Letter to Corps of Engineers from Harold Halverson	Alleged snag boats were doing a lot of damage to his farm by redirecting current into his side of river.
12/5/50	BANK PROTECTION; SNAG BOAT OPERATIONS Letter to Congressman Jackson from Lt. Col Buehler	States recent dredging work in this vicinity has had no affect on the rate of erosion on Halverson" property in so far as the Corps can determine. Any future dredging will be done in such a way as o reduce possibility of developing a condition that would increase rate of erosion.



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12/26/50	FLOOD CONTROL / TRAINING LEVEE Letter to Congressman Jackson from R.W. Kaess, Exec. Sec. Skagit County Farm Bureau	Supported a general program of raising and strengthening the existing levees to prevent 1949 style floods. Also wanted enlarging of the opening in the training dike at the mouth of the South fork.
1951		
1/24/51	FLOOD CONTROL / TRAINING LEVEE Letter to Congressman Jackson from Lt. Col. Buehler	States training levee has height of 3ft. and intended to increase depths in channel at low water only and does not impact flood issue. "Because of the very large measure of flood control afforded by the existing levees and to be afforded by storage in Ross Reservoir, additional works can be justified only by the small incremental benefits derived from elimination of damages from the rare higher floods.
2/11/51	FLOOD	
1958	Anacortes water treatment plant at Riverbend completed. Testimony of Archie French, Record of Public Hearing, COE, 2/8/61, pg. 10	Before this plant source of water was directly from the Skagit River. Plant capacity was 20 million gallons per day. 2 mil used by City, rest went to industries, LaConner and Naval Air Station at Whidbey Island