Documents Posted in 2011 on www.SkagitRiverHistory.com

During 2011 we published 165 historical documents and 125 documents dated in 2011 for a total of 290 documents.

DOCUMENTS NOT CREATED IN 2011 POSTED IN 2011

Burlington Northern Sante Fe Document

		GNRR (BNSF) wanted to change the bridge from a swing
9/20/1965 Letter to Seattle District ACOE from GNRR re swing Bridge #36 across the Skagit River	bridge to a fixed bridge. Stated in part: "The Great Northern	
	Bridge, in closed position, has substantial clearance to the	
	Skagit River	water surface, the bottom of low steel is Elevation 43.1",
		"The Bridge has not been opened for commercial river traffic
		since September 9, 1959."

City of Burlington Documents

8/26/1963	Letter to Congressman from Mrs. Don Mapes re Avon By-Pass	Mrs. Mapes was opposed to bypass as it ran through her father-in-laws farm (dike dist 12 comm. for 20 yrs), people are in an economy mood and certainly against this government spending spree. "I surely want you to know there are many
		people back here who are violently opposed to this plan".

City of Mount Vernon Documents

		"We were informed that since the site is on a flood plain and 6 feet below the 50 year flood level all parts of the building, old
5/14/1968	<u>Mt. Vernon Public Library Ltr to</u> <u>Senator Magnuson Re: New Building</u> <u>Regulations</u>	and new, must be flood proofed in order that Federal funds by granted." See also: 6/7/1968 Corps Draft Response to 5/14/1968 ltr to Senator Magnuson Re: New Building Regulations for Mt. Vernon Library

Corps of Engineers Documents

Preliminary Examination of Nooksack.	"The Skagit River is the largest and most important stream in
12/04/1890 Skagit and Snohomish Rivers, Washington	the State The principal difficulties to navigation are snags, drift piles, and shoals caused by them, also the tide fiats at the mouth."

2/29/1912	<u>Corps of Engineers Preliminary</u> <u>Examination of Skagit River</u>	"In compliance with law, I have the honor to report, also, that it is not practicable to coordinate with any improvement of the river, either flood protection or the development and utilization of water power for commercial purposes so as to reduce the cost of improvement and render it advisable."
1/26/1914	<u>United States Engineer Office, Seattle,</u> <u>Wash. January 26, 1914 Survey of</u> <u>Skagit River, Wash.</u>	"Along both sides of the Skagit River below Mount Vernon dikes have been constructed to protect the adjacent lands from overflow, and as these dikes are generally close to the river banks, constant work is required to maintain them, all of which is now carried on by the diking districts. It is evident, therefore, that from the . standpoint of the United States there are certain practical objections to any change in the regimen of the river which may be considered as responsible for future difficulties with the dikes in this locality. In my opinion, no improvement of Skagit City bar should be undertaken by the United States unless local interests agree to cooperate to the extent of assuming all responsibility for the protection of the river banks above and below the works installed by the United States, so that no diversion of improvement funds can be urged by the diking districts for the protection of their dikes. Additional reasons for recommending such cooperation are the protection incidentally afforded the dikes at Skagit City bar by the proposed works, and the fact that the above estimate closely approximates the maximum expenditure which could be justified in the interests of navigation."
10/10/1919	<u>Reexamination of the Skagit River</u>	"The river is subject to sudden freshets at all seasons of the year. It has been known to rise 18 feet in 24 hours and a rise of 10 feet in 24 hours is not unusual. The maximum fluctuation is about 25 feet The dikes on both sides of the river are dangerously close to the edges of the banks, and the land back of them is highly improved and subject to overflow for miles in case of a break in the dike."

1/31/1925	Preliminary Examination of Skagit River With A View To Control Of The Floods	This report relied heavily on the unpublished 1923 Stewart Report (See <u>Stewart 1923 Report Retyped Version</u>) and the people of Skagit County have been paying for it ever since. " the levees, to protect as much land as possible, were placed too close to the river on both sides, thus unduly restricting the channel. A flood volume exceeding about 140,000 cfs below Sedro Woolley is likely to cause a breach in the levees. A volume in excess of this, if retained in the floodway by higher levees, would endanger the bridge of the Great Northern Railway" "Floods of from 210,000 to 220,000 cfs may be expected about once every 25 years." "Diversion of the river would be possible at some point below Sedro Woolley, the diversion channel to run generally west into Padilla Bay." Discharge and other data of value in connection with a study of plans for flood control are found in USGS WSP's and in an uncompleted report on Skagit River floods prepared by Mr. J.B. Stewart, of the USGS, jointly for that bureau and Skagit County, a copy of which has been furnished this office "No freight boats now go above Mount Vernon." "The Skagit River delta contains some of the richest farming land in the State." 100 year flood at Sedro- Woolley = 264,000 cfs. 500 year flood = 321,000 cfs. NOTE: See also Notice and Minutes of Public Hearing In Connection With Preliminary Examination of "Skagit River, Washington, With A View To The Control Of Its Floods" Directed By Flood Control Act of May 31, 1924; Robert E.L. Knapp, Skagit County Engineer, Testimony for 11/26/1924 Hearing; H.L. Willis, Skagit River Improvement Committee Chairman Testimony for 11/26/1924 Hearing.
2/8/1928	<u>Preliminary Examination of the Skagit</u> <u>River</u>	"Complete discharge data are not available The lower river is affected by the tide to the Great Northern Railway bridge, about 17 miles above its mouth In the early days what was known as the "Old Main River" was the principal channel In accordance with an agreement between Skagit County and the United States Geological Survey, that department has made an extensive study of the flood flow in the Skagit Valley. The report has not yet been completed, but copies of portions of it have been furnished this office The channel is also restricted by the bridges above Mount Vernon and particularly at the Great Northern Railway bridge, whichis located immediately below a right-angled bend. The dike above this bridge was broken and the railway track to Burlington was washed out during the floods of 1909,1917, and 1921, the water flowing across country to Padilla Bay along the general direction of what was apparently a former river channel.
5/18/1928	MFR Re: Potential Dam Locations	"Document identifies potential dam sites and gage locations on the Skagit and other rivers. "The Dalles on the Skagit River. A site for a low head dam, which would back the water up to the tailwater of Baker River plant."
3/17/1932	<u>Skagit River Flood Control River</u> <u>Enlargement and Dikes</u>	Proposal to provide for flood discharge of 220,000 cfs. Water surface elevation 42 feet. It was found to be impractical to confine the improvement to a system of dikes and channel enlargement. Channel at BNSF RR Bridge would have to be widened 900 ft. Near old highway 99 600 ft. Again the Corps recognizes the Stewart Report as unpublished.

5/18/1932	Report on the Skagit River, Corps of Engineers, Seattle District	One of the most detailed reports ever authored about the Skagit River. Relied upon "An unpublished and incomplete report on Skagit river floods by Mr. J.E. Stewart, of the USGS, prepared in cooperation with Skagit County", to determine flood flows.
5/29/1937	<u>Preliminary Examination of Skagit</u> <u>River & Tributaries</u>	The majority of this report uses the same verbiage as the 5/18/1932 Report including but not limited to population and rainfall figures. "Local interests do not desire the construction of the by-peas at this time because of the large contribution required of them by the terms of the flood Control Act". (pg 1) It is pointed out in paragraphs 60 and 117, however, that during flood periods Skagit River overflows its bank downstream from Sedro Woolley and inundates a large portion of the delta, the flood waters returning to Puget Sound through many sloughs and small channels discharging into Skagit, Padilla and Samish Bays. (pg 10) In 1923, Mr. J. E. Stewart, of the United States Geological Survey, collected data for, and partially completed, a report on Skagit River, jointly for his department and for Skagit County. (pg 17) Built without a comprehensive and coordinated plan, many of the dikes are poorly designed and improperly located. In an effort to enclose as much land as possible the dikes have been placed close to the river bank with little or no consideration given to alignment, river sections or other element entering into the proper design of such a system. As a result frequent breakws, due to overtopping and to undermining of river banks and dikes, have occurred. (pg 36)

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7/30/1940	Report on Survey For Flood Control of Skagit River and Tributaries	"local interests are now unable to provide the required cooperation and that no modification of the physical features of the project will so reduce the cost to local interests as to make it possible for them to supply the required cooperation at this time." (pg 1) "the February 1932 flood at The Dalles was measured as 147,000 second-feet, with a run-off during the 3 days of highest discharge of 602,000 acre-feet. It has been estimated that, if Shannon and Diablo reservoirs had not been in operation, the crest discharge at The Dalles would have been about 182,000 secondfeet, (¶50 pg 18) 1940 LAND VALUES as determined in 1930 ="an average of \$208 an acre." (¶56 pg 30) The spring flood of 1894, which destroyed crops valued at \$1,500,000, prompted the settlers to extend their system of dikes. The flood of 1897 washed out the roadbed of the Great Northern Railway between Burlington and Sedro-Woolley, flooded part of Mount Vernon, and caused a heavy loss of livestock and property above Concrete. The flood of 1906 caused a loss of \$250,000. The discharge at Sedro-Woolley, during the 1897 flood was slightly greater than for the flood of 1906, so the damages resulting from the 1897 flood were probably on the order of \$300,000. The flood of 1909 caused damages conservatively estimated at \$1,500,000. It ruined many farms, destroyed several hundred head of livestock and washed out many miles of dikes and drainage ditches The Great Northern Railway embankment between Burlington and Mount Vernon was washed away and serious damage done to the State highway, That part of Mount Vernon west of the river was entirely flooded. (¶59 pg 30.31) River Improvement Fund "The work done by Mr. Stewart was also paid for from this fund." On March 2, 1937 " county officials stated that the county's financial position was such that it would be impossible at that time for the construction of the Avon By-pass as authorized under the existing project." (¶77 pg 39) It is estimated that a channel from Sedro-Woolley to Skagit

12/1940	Flood Control Economic Justification Study Avon Bypass and Extension of Dikes to Sedro WoolleyAppraisal of Damages 1815 H.W. and 1921 H.W Skagit River West of and Including Sedro-Woolley Samish River Delta Portions of Volume I General Appraisal Data and Maps December 1940	The document preparation began in 9/1940 and Volume 1 was completed 12/1940. All 13 volumes were 7/1950. "This appraisal of the Skagit River and Samish River Deltas is an estimate of damages that would result from a flood of equal magnitude and duration as the one of December, 1921, under present conditions. It is based on a peak discharge of 210,000 cu. ft. per sec. of the Skagit River near Sedro Woolley. " "GNRR 1921 H.W. mark on third pier north of steel truse" 37.4(pg 102) 1921 Flood Levels in Burlington 1921 H.W. 33.2 Spruce and Greenleaf meaning water 2 feet deep 1921 HW 36.5 Holly & Fairhaven meaning water 2 feet deep 1921 H.W. 28.8 Garl (Burl Blvd) & Avon Water .2 in deep (pg 126)
6/15/1942	<u>Appendix B to 1940 Report on Survey</u> <u>for Flood Control of Skagit River &</u> <u>Tributaries</u>	Appendix documents work performed by the Works Progress Administration (W.P.A.) These projects consisted of brush revetment work in the Burlington Bend area, which began in November 1935. "A considerable amount of damage to the various revetment units has been inflicted by log raft operations on the river in connection with logging activities being carried on in this area." See also: 7/30/1940 <u>Report on Survey For Flood Control of Skagit River and Tributaries</u>
12/21/1949	<u>Report on Skagit River Flood 27-28</u> <u>November 1949</u>	"Skagit River near Concrete rose from a flow of 30,000 cfs to a peak of 158,000 cfs in approximately 24 hours." Interruption of secondary highway travel on some of the lower valley roads begins when Skagit River flows reach about 67,000 cfs near MV." " crest discharge of 158,000 cfs near Concrete is the maximum observed since 13 Dec 1921 ." \$51,000 damage in Hamilton. Levee breaks on Fir Island, Dodge Valley Road, Mill Town Levee broke. Diablo and Shannon reservoirs had no effect on the flood because they were full at the time. Ross had plenty of storage and held everything for five days. Reduction at MV was estimated at 25,000 cfs. which reached a peak of 112,000 cfs.
2/21/1952	<u>Report on Survey for Flood Control of</u> <u>Skagit River and Tributaries</u>	"The existing reservoirs are not effective in preventing major flooding in the Skagit Valley, Diablo Reservoir is ordinarily maintained at a high level by Ross storage and has no flood storage, Shannon Lake is likewise held at a high level if stream flow permits, but an incidental degree of minor flood protection might be available if the reservoir should be drawn down because of deficient run-off before a flood, Ross Reservoir above Diablo has a large amount of storage, primarily for power, but the Federal Power Commission has required a reservation of winter flood control storage space. Studies are under way to determine the amount of such storage, and it is believed that it will not exceed 200,000 acre-feet. Because of its far upstream location Ross Reservoir storage cannot greatly reduce major floods on the lower Skagit River, The effectiveness of Ross storage in reducing peak discharges depends upon location of the storm center and other variable storm characteristics, Estimates based on average conditions indicate that crest reductions varying between 15,000 and 25,000 second-feet may be expected at Sedro Woolley."

2/3/1961	<u>USACE Seattle District Plan of Survey</u> <u>Skagit River Flood Control Study</u>	With regulation at Ross and Upper Baker Dams, a 150,000 cfs flow at SW has a frequency of about 25 years Flows of 210,000 cfs at SW have frequencies of about 200 years under existing conditions. (NOTE: REMEMBER THIS IS BEFORE ADDITIONAL STORAGE BEHIND UPPER BAKER.) damages from flows of this magnitude would total about \$6,600,000 objective of this study is to find the most economically feasible solutions. See also: <u>Public Hearing on Flood Control for the Skagit River</u> <u>Basin, 8 February 1961</u>
4/1/1961	<u>MFR Re: Field Reconnaissance, Skagit</u> <u>River Flood Control Survey</u>	"Mr. Johnson of the County Engineer's Office stated that boils have occurred in at least the following locations: (1) Riverbend area, rivermile 16, on the left bank; (2) North of West side (Mount Vernon); (3) South of West side; (4) Rivermile 7.2 on the right bank of North Fork; (5) Rivermile 9 on the right bank of North Fork."
6/20/1961	Public Notice NO. P-61-73	"There are no longer any commercial vessels navigating on this waterway which cannot pass beneath the bridges while in the closed position. None of these bridges have been required to be opened for navigation since 1959, and in two instances the bridges have not been opened since 1947."
7/13/1962	<u>Estimate of Public Values Skagit River</u> <u>Flood Plain</u>	"50-Year Trend Assuming the completion of a flood control project, the cities will expand rapidly into the flood plain with residential sections and outlying shopping centers. Projecting a very slow, steady growth for the Puget Sound Region, the flats around Mt. Vernon and Burlington will be in great demand as all available coastal uplands will be utilized for residential use near dispersed industrial sites along the coast."
12/18/1962	<u>Memo to Division Engineer, Re: Levee</u> <u>Repair, Cockreham Island, Skagit</u> <u>River, Washington</u>	"The breached levee is about one mile long, has a 10-foot crest, 1 on 1.5 side slopes and is high enough to protect against a flood having a frequency of about 20 years. It was built by a group of farmers some 20 years ago, appears to be adequately maintained by Skagit County, and except for the breach is in excellent condition."
12/31/1962	<u>Memo to Division Engineer, Re:</u> <u>Protection of South Skagit Highway</u>	"The damage was caused by the deepening and widening of the old slough and was augmented by a temporary bridge recently constructed by a logging contractor. A debris jam collected on the upstream side of the temporary bridge causing eddies and diversion of the flow to the left bank. Prior to the flood, the roadway embankment was in good condition and had been riprapped at various locations, including the reaches just upstream and downstream from the damaged section. There is no previous Corps of Engineers work at or near the erosion area."

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1/18/1963	<u>Feasibility Report, Skagit River,</u> <u>Washington (Navigation)</u>	NOTE TO REVIEWER: This is a very poor copy of the original and very difficult to read. It helps to enlarge it to 125-150%. This document looked at the history of a navigation project between Mt. Vernon and Concrete originally authorized by Congress on May 13, 1947. The final results are in this report as well as a lot of statistical history on logging and local businesses. "Tug operators advised that a 100-ft channel width and a 6 foot depth would be sufficient for foreseeable navigation requirements." (¶13) Approx 1,520,000 CY of material would be dredged. (¶15 & 21) Estimated that annual maintenance dredging would consist of 380,000 CY. (¶22b) Two mills at SW sell annually, an average of 10,500,000 board-feet of lumber to the US Army. (¶27) Total annual benefits of barge canal would be \$592,000. (¶28) Annual cost \$474,000. (¶29) Amt needed to complete study \$45,000. (¶30) The Skagit River navigation study has been authorized and intermittently underway since 1947 In view of this fact an effort should be made to complete the study as soon as practicable \$15,000 needed to complete the study be allocated early in fiscal year 1964. (¶31) See also Dredging Issue page for related documents and 4/12/1949 Minutes on Public Hearing on Skagit River, Washington, Relating to Navigation
3/20/1963	Corps MFR re Grandy Creek	"Considerable opposition from State Fishery agencies to removal of log jams." "The creek has widened to several times its normal width in the lower reach."
5/10/1963	<u>Corps Inspection Report of County</u> <u>Flood Protection Works</u>	Document shows Skagit County was involved in flood control projects from Fir Island to above Concrete at Jackman Creek.
6/19/1963	Corps MFR re meeting in Burlington on Dredging of Skagit River (for navigation)	' navigation (project) extending downstream from Concrete to the Mt. Vernon area." " A depth of 6 feet would be provided for a river low of 9,000 cfs." "no united opposition from fishery interests on the proposed project.
7/17/1963	<u>MFR Corps Visit to Skagit County</u>	"Skagit County Engineer recommended that the 1921 flood be considered for inclusion in the report" "new developments encroaching on the flood plain." "Ben Martin, a MV real estate broker was not familiar with the flood plain zoning concept." Mr. A. S. Poison, Vice President of the First Federal Savings and Loan Association, the Valley's largest lender, was not familiar with flood plain zoning. Dike District Commissioners info on dike breaks, maintenance practices, levee costs and year of construction,did not keep records of these things and the accuracy of their memories was doubtful.
9/5/1963	Letter to Corps from Wash. Fly Fishing Club re Dredging	"An estimated 30% of the steelhead in the Skagit spawn below Concrete." The club is "concerned that a Skagit river barge channel will endanger important spawning beds for steelhead as well as salmon."
9/30/1963	<u>7th District Congressman ltr to Corps</u> <u>re Sauk River Dam</u>	"This proposed project would involve the building of a dam some four and a half miles above the mouth of the Sauk River. Construction of this dam would result in the destruction of a large portion of our King Salmon and Steelhead spawning grounds."

9/30/1963	<u>List of Corps Mtgs held re Avon By-</u> <u>Pass</u>	7/12/62 100% favorableBest flood control project ever proposed for Skagit County. 9/30/63 Lone Star Cement Co changed plans and GNRR would lose most of their traffic if navigation became a fact.
10/7/1963	Differences Between 1951 and 1963 Flood Damage Appraisals	200,000 cfs at SW = 1951 125 yr event; 1963 26.3 yr event 240,000 cfs at SW = 1951 500 yr event; 1963 52.6 yr event 278,000 cfs at SW = 1951 200 yr event; 1963 100 yr event
10/7/1963	DRAFT Corps ltr to Congressman re flood control planning for Skagit County	Page 2 contains a paragraph citing Stewart's flood flows at Sedro Woolley. In the final letter dated 10/21/63 those flood flows were deleted.
10/23/1963	<u>Ltr to Senator Jackson From G.A.</u> <u>Flanary re Avon By-Pass</u>	"This Avon By-Pass smacks of a typical pork-barrel, patronage, buy-vote deal that is becoming the trade mark of our times. Believe me, people are in rebellion against big- government do-goodism. Our neighbors of both political persuasions are of the same mind."
11/1963	<u>USACOE Avon Bypass Reactivation</u> <u>Report</u>	Unregulated 100yr fld 250,000 to 300,000 cfs (pg 2); The 35- year level of flood protection provided by the Avon Bypass with levee and channel improvements would protect against 79 percent of average annual flood damages under present conditions. These flood damages are 75 percent agricultural and only 25 percent urban. Therefore, the project is now required essentially for the protection of agricultural lands, and the 35-year level of protection is well suited to present development The semi-pervious foundation conditions preclude any general raising of levees without extensive broadening of the levee sections, construction of cutoffs to reduce seepage, and relocation of the road systems adjacent to the levee system. (pg 4) To achieve the same results as the Bypass and levee improvements, the channel would have to be widened from 300 to 600 feet from the downstream limits of Sedro Woolley to the mouth of the river, a distance of over 20 miles. (pg 6) At Mt. Vernon the 1932 flood of 140,000 c.f.s. has a 12-year frequency; the 1921 flood of 182,000 c.f.s. has a 30-year frequency; and a flood of 245,000 c.f.s, would have a 100-year frequency 278,000 at SW (Table 2)
11/08/1963	<u>Ltr to Senator Jackson in response to ltr</u> <u>fm C.A. Flanery</u>	"We have considered dredging and found it to be infeasible" "Our studies to date have confirmed that flood control measures are urgently needed in the Skagit River Valley." "Benefit to cost ratio estimated to be about 2 to 1." Avon Bypass would increase protection from a present average 5-yr flood to 30-year flood frequency. See also: 10/23/1963 Ltr to Senator Jackson From G.A. Flanary re Avon By-Pass
11/12/1963	MFR-Skagit River Navigation Project	MFR deals with off the record meetings with local officials re dredging for navigation project. 100 FT wide, 6 ft. deep channel from Concrete to Puget Sound, 9,000 cfs discharge.
11/19/1963	MFR Downstream levee inspection	Describes existing rip rap.
11/20/1963	Ltr to Corps fm Rainbow Anglers Club re dredging	Club was opposed to dredging and "any future proposals for dams."
11/22/1963	MFR re mtg with Skagit Officials	Corps discussed long range flood control "either by upstream storage or bypass". "A motion to support the Avon Bypass was passed."

12/3/1963	Ltr to Corp fm Wa. State Parks & Recreation endorsing the Avon Bypass concept.	"Please be advised that the Commission went on record saying that, "they believed that the Avon Bypass area has a great recreational potential, and Congress should be so informed."
12/6/1963	<u>MFR re moving intake for Avon By</u> <u>Pass.</u>	This MFR shows how things really get done in Skagit County. "Lloyd Johnson, Skagit County Engineer visited the office on 5 December. He requested that we relocate the entrance to the Bypass about 1,500 feet to the south. His reason was to take advantage of lower value right-of-way and to placate an influential property owner located at the present entrance."
12/20/1963	<u>Memo Routing Slip/MRS re storage in</u> <u>Nookachamps</u>	"The reduction in peak discharge btwn SW and MtV for peaks of 150,000 and 400,000 cfs is approximately 15,000 and 25,000 cfs respectively."
12/31/1963	<u>Ltr to Corps fm Wa State Hwy</u> <u>Commission re Avon Bypass</u>	Evidently WSDOT has the elevation of the 1909 flood event with respect to state highways. "In all but one instance, we find that these highways have either been reconstructed within the last six of seven years or will be reconstructed within the next three of four years. Plans for this reconstruction work provide for elevation of the highwys above the 1909 flood elevation."
1/3/1964	<u>Memo to Portland District fm Seattle</u> <u>District re Reactivation Report for</u> <u>Avon Bypass</u>	The lower Sauk River is the only location in the Skagit River basin at which major upstream storage is possible. At such time as other multiple purpose uses for storage require development of the Sauk site, sufficient flood control storage could be included to increase the 30-year protection that would be provided by the bypass and improved levee system to more than 100-year protection.
1/9/1964	<u>Daily Log Engineering Division Basin</u> <u>Planning Branch re Avon Bypass mtg</u> <u>with State Representatives</u>	"The State representatives appeared to have a mildly hostile attitude about the Bypass and were reluctant to indicate that State assistance might become available to the County in meeting the local cooperation requirements. They voiced a number of concerns such as, they had not been advised of the comprehensive nature of the planning, the information bulletins were too promotional, the work should not be undertaken piecemeal, etc."
1/10/1964	Exhibit #19 submitted to the Corps from the Bay ViewPadilla Civic Association re Avon Bypass	The Civic Association had many questions concerning the Bypass. "Summing up our point of view, we would state that the recreational and fishing aspects are not needed, that they would prove costly, and that the Avon Bypass itself is detrimental to the best recreational interests of the County."
1/22/1964	<u>Basin Description and Summary of</u> <u>Corps of Engineers Investigations,</u> <u>Skagit River, Washington</u>	Great documentation with respect to population, land valuation, employment, logging, and manufacturing in the 1960's plus past efforts by the Corp. , "Encroaching on the agricultural land are the urban communities of Burlington, LaConner, end part of Mount Vernon, occupying a total of 1,270 acres." 100 yr flood = 278,000 cfs at Sedro Woolley The raising of the levee system to increase the degree of flood protection is not feasible because of these adverse foundation conditions . Under average conditions Ross Dem storage will reduce flood crests by 15,000 to 25,000 c.f.s. at Sedro Woolley.

1/31/1964	<u>Corps Ltr to Senator Jackson re:</u> <u>Citizen Concerns</u>	The individual (Mrs. John Swisher), felt there was "mutual interest" between flood control advocates developers at Padilla Bay and Samish Island. Corps manipulates information to Senator. Left out any mention of the 725 signatures on a petition in opposition to the Bypass. However, Seattle District corrected this in a letter dated 3/30/1964. (See 3/30/1964
1/31/1964	<u>MFR RE: Public Water Supplies in</u> <u>Skagit County</u>	Corps letter to Senator Jackson re Avon Bypass) Great history of the PUD, Anacortes Water Treatment Plant and refineries. PUD - "As of 1960 the total capacity of their system was 10 mgd" "food processing plants in Mt. Vernon and Burlington use in excess of 4 mgd" Anacortes purchased their system in 1919was granted water rights to Skagit in 1902 pumping plant built at Avon in 1928. Naval Air Station used 2.5 mgd.
3/19/1964	<u>MFR re visit to Skagit County</u>	Corps officials take pictures of "buildings encroaching on the flood plain. " We traced the alignment of a future State highway between Interstate Highway 5 and Anacortes from drawings of the Skagit County Engineer. We also attempted to get a copy of a County flood fighting plan from the Civil Defense Director. Mr. Dahlstad was not in his office, but his assistant said they have no evacuation plan. Their only plan with regard to flooding is a siren alarm system intended to cover the entire flood plain. The County Engineer has complete control over flood fighting operations for the County.
5/13/1964	<u>Corps Seattle District MFR to Portland</u> <u>District re Reactivation Report, Avon</u> <u>Bypass</u>	It appears that funding was a major problem back in 1964 like it is today. "We are certain that in other interim report submissions now planned, no other basin will have a comprehensive plan more specific than that for the Skagit River at this time With respect to the Reactivation Report, we have modified our proposed funding schedule to reduce the initial year's requirements from \$400,000 to \$80,000. This change has been made to undertake alignment studies necessary to establish a firm basis for local participation costs as the first item of work. After this determination is made, local interests will hold an election to vote on a bond issue to underwrite their costs. Until a positive affirmation of local interest capability for participation is received, we do not plan to undertake further studies. This revision adds one year to the completion time shown in the Reactivation Report schedule.
5/26/1964	MFR re Revision to Water Surface Profiles, Flood Plain Information Study	200-year flood = 310,000 cfs at Concrete, 325,000 cfs at SW, 290,000 cfs at Mt. Vernon. 50-year flood 225,000 Concrete, 235,000 SW, 210,000 Mt. Vernon
7/7/1964	MFR re Gages Lake	Part of Gages Lake (a/k/a Goose Lake) was included within the Avon Bypass. Corps wanted to utilize as part of recreational component.
7/8/1964	<u>MFR re Frequency Curves</u>	The Flood Plain Information Report will be published at about the same time as the Interim Report, but will contain conflicting information. Mr. Gedney stated that he did not believe this situation would cause any problem as the two reports would have much different distribution.

9/8/1964	<u>Disposition Form re: Preliminary Sauk</u> <u>River storage determinations</u>	 a. Storage in the amount of 134,000 acre-feet is required in the Sauk River Reservoir to control a 100-year flood to 180,000 c.f.s. at Mt. Vernon. b. A 30-year flood, requiring 130,000 acre-feet of storage in Sauk River Reservoir, is the maximum flood that can be controlled to 120,000 c.f.s. at Mt. Vernon. c. A 10-year flood, requiring 77,000 acre-feet of storage in the Sauk River Reservoir, is the maximum flood that can be controlled to 91,000 c.f.s. at Mt. Vernon.
12/18/1964	<u>Disposition Form Re: Hydrologic</u> <u>Studies</u>	"The U.S.G.S. has maintained a discharge station on the Skagit River near Mount Vernon, Washington since October 1940. This gage is located on the downstream side of U.S. Highway 99 bridge. Between 1941 and 1962 the stages for flows below 30,000 cfs have raised about 2.0 feet. For flood stages the rating curves are not so well defined, but it is estimated that there has been an increase of about 1.5 feet."
2/1/1965	Ltr to Corps from George Dynes	Supported construction of Avon Bypass. Invited Corps to Burlington City Council meeting where his brother was a councilman.

3/1965	COE Skagit River Flood Control Report	100 yr flood at Sedro Woolley 239,000 cfs The existing levee system rests on a foundation of silts and sands common to the delta area. Differential heads of water in flood flow periods result in seepage through levee embankment and levee foundations, causing boils and blowouts that flood adjacent croplands The semi-pervious foundation conditions preclude any general raising of levees without extensive broadening of the levee sections, construction of cutoffs to reduce seepage and relocation of the road systems adjacent to the levee system Widening the Skagit River to carry flood flows is also infeasible. To achieve the same results as the Bypass and levee and channel improvements would produce, the channel would have to be widened from 300 to 600 feet from the downstream limits of Sedro Woolley to the mouth of the river, a distance of over 20 miles The possibility of substantially increasing existing levee heights was opposed by the City Engineer of Mount Vernon and representatives of diking districts because of the hazard of underseepage and blowouts through porous foundation materials Representatives of the Washington State Department of Game and the U. S. Fish and Wildlife Service stated that the proposed levee and channel improvements would not adversely affect the runs of anadromous fish in the Skagit River, The Avon Bypass project for flood control was endorsed by the Washington State Departments of Conservation, and Commerce and Economic Development, the Skagit County Board of Commissioners, the Skagit County Flood Control Council, the City Engineer of Mount Vernon, and local residents. The Chairman of the Skagit County Board of Commissioners stated that the people and taxpayers of Skagit County could be assured that the people and taxpayers of Skagit County could be assured that the people and taxpayers of Skagit County could be assured that the people and taxpayers of Skagit County could be assured that the people and taxpayers of Skagit County could be assure
4/2/1965	<u>Corps MFR Addressing Questions</u> <u>Raised at a Public Meeting on 3/29/65</u>	Only 45 Skagit County residents attended the meeting. List of those are attached to MFR. Appears to be mostly dike district commissioners. Example: Question: If you levee off the Nookachamp Creek Area, how can you be assured that it will be available when we require it in a flood emergency? Answer: The right to flood would be made a legal part of the agreement turning over the project to local interests to operate. The right to flood this type of project has been utilized many times in flood control projects of the Mississippi River. See Also: 5/5/2011 Southeast Missourian: Floodway long a source of legal contention, 5/6/2011 Time.com After Birds Point: The Army Corps' Missouri Floodway Boondoggle, 5/13/2011 WWLTV.com: People in bayou communities prepare for flooding from swollen river and 5/13/2011 WWLTV.com: 'What gives them the right to flood us?' asks Gibson woman,

6/24/1965	<u>Ltr to Corps fm State Dept of</u> <u>Conservation re Burlington Edison</u> <u>School District Elementary School</u> <u>Construction</u>	"On the basis of your information, we are recommending that the Burlington-Edison School District plan on building their proposed elementary school at an elevation of 25 feet above mean sea level, which will give them a 3-foot safety level above the 50-year flood level."
7/9/1965	<u>Series of MFRs & Letters Mostly</u> <u>Addressing 8 Possible Dam Sites and</u> <u>Impacts of Wild and Scenic River Act</u>	7/9/65 8 sites were Cascade River, Lower Suiattle River; Upper Suiattle River; Upper Sauk River; Lower Sauk River; Cooper Creek; Thunder Creek; and Faber site (on Skagit about 6 miles upstream from Baker River). 7/1/65 "A decision to commit a portion of the river basin to a Wild (and Scenic) River category appears premature at this time. 6/18/65 "One hundred year flood protection is vitally necessary for continued progress in Skagit county. 6/29/65 The purpose of this meeting was to inform Seattle Light representatives of our proposed upstream storage studies in the Skagit River basin, determine sites at which City Light has made studies, and obtain data on power studies made by the city. 4/7/65 Ltr fm private engineering company to Corps re Cape Horn. See also: 8/12/1965 <u>DF re Skagit River Upstream Storage</u> <u>Geologic Reconnaissance</u>
7/15/1965	Ltr from Corps to Skagit County Board of Commissioners re Flood Control & Other Improvements Report	"I am pleased to enclose two copies of this report for your use.""I believe completion of the report is an important first step in the development of a comprehensive flood control plan for the Skagit River basin. The improvements recommended, in combination with the authorized Avon Bypass, would provide more than 35-year protection for nearly all of the flood plain downstream from Sedro Woolley, Washington. As part of our continuing comprehensive studies for the Skagit River basin, we hope to develop a plan that will ultimately provide 100-year flood protection for the basin flood plain."
8/9/1965	<u>Ltr to Corps fm State Dept. of</u> <u>Commerce & Economic Development</u> <u>RE: Comprehensive Planning</u>	Evidently the BCC didn't communicate very well with the planning department in 1965. According to this letter the planning department still had not reviewed the Corps study referenced in the 7/15/1965 Corps letter. "The County Planner indicated to us that, as yet, he has not seen the Corps' report."
8/12/1965	<u>DF re Skagit River Upstream Storage</u> <u>Geologic Reconnaissance</u>	"This report covers certain geologic phases of upstream storage -sites as viewed on a 5-day reconnaissance by Messrs. A. S. Cary, F&M Branch and W. R. McKinley, Project Planning Branch, into the Skagit drainage area." The Skagit Valley far upstream has a depth of fill near 500 feet and if the rock floors of the Sauk and Skagit are concordant, the depth is well below sea level." See also: 7/9/1965 Series of MFRs & Letters Mostly Addressing 8 Possible Dam Sites and Impacts of Wild and Scenic River Act

8/31/1965	<u>Corps Ltr to Clear Lake Resident RE:</u> <u>Erosion Problems</u>	"We recognize the damage that bank erosion does to adjacent lands and improvements, but the Corps of Engineers under its authorities for assistance in flood emergencies and in small flood control projects cannot undertake bank protection except for protection of a public facility. We appreciate that the Avon Bypass and proposed levee and channel improvements set forth in our current survey report will not have much effect upstream of Sedro Woolley, but they are a most important first step in flood protection of the 68,000 acres of valuable land in the Skagit River delta."
9/1965	Ltr fm Seattle District to Portland District re GNRR Request to Make Bridge #36 A Fixed Bridge	Seattle wanted guidance on how to respond to GNRR request to make the bridge a fixed bridge. Elevations cited in the letter appear to be questionable.
1/15/1966	MFR re mtg in MV re Recreational Benefits of Avon Bypass	Corps and Bureau of Outdoor Recreation met with Skagit County Parks Board. Addressed dredging, Ross Dam Storage and support for recreational element of Bypass plan.
5/4/1966	<u>Ltr to Seattle District fm Bureau of</u> <u>Outdoor Recreation re Status of Wild &</u> <u>Scenic Rivers Designations</u>	" In this case, we must consider the value of the Skagit River and its tributaries nationally as a unit of a National Wild River System as compared to the benefits a single project which could adversely affect the overall values involved." " we must consider the benefits of the Skagit as a unit of a National Wild River System as superior to those of the Lower Sauk Project.
6/7/1966	<u>Corps DF re Avon By-Pass Skagit River</u> <u>Widening</u>	By widening the river in the 3 Bridge Corridor the 180,000 cfs profile was lowered to approx. 120,000 cfs.
6/8/1966	Corps DF re Estimate of Cost to Raise Railroad Tracks	Total cost of two plans was \$1,500,000.
7/1966	Flood Plain Information Study, Skagit River, Summary Report	Draft 17 page summary report of the Technical Report performed by Corps on behalf of Washington State Department of Conservation (forerunner of Dept of Ecology).
7/12/1966	<u>Corps MFR re Meeting With</u> <u>Washington State Legislative Interim</u> <u>Committee on Water Resources in Mt.</u> <u>Vernon</u>	"Purpose of the meeting was to acquaint the Committee with local flood control problems, plans and road blocks to flood control solutions. This information will be used to draw up State Legislation to remove State laws that block flood control district mergers and provide legislation that would permit an expanded State policy on flood control." However, the Interim Committee of the State Legislature, Flood Control Districts, and the representatives of the Department of Conservation all failed to indicate any specific developing theme for planning of State assistance.
11/22/1966	CORP MFR re mtgs with local interest- -Purpose of meetings were to answer questions re levee & channel improvements	Meetings took place in Conway & Mt. Vernon. 18 people attended in Conway. COE told locals that if money was appropriated in 1969 the project could be completed in 1972. Widening the channel would cause bars to build up until high flows took them out. Corps was informed about the "quicksand" in some areas. Corps said they would study it. Studies would begin as soon as Congress appropriates money. 16 people attended the MV mtg. Local cost was estimated at \$237,000.

1/4/1967	Daily Log re mtg with George Dynes	Dynes told Corps about basin-wide commission for consideration of flood control and other water resource developments. Dynes also wanted to use the Avon By-Pass for dumping water from the nuclear power plant so it could be used as irrigation water.
1/27/1967	CORPS ltr in response to 1/17/1967 ltr	Corps let BCC know that they were willing to work with the committee.
2/3/1967	<u>Corps Daily Log entry re telephone</u> <u>conversation with County Engineer</u>	Corps wanted new flood control committee to call itself the Water Resource Planning Committee rather than a Flood Control Committee so that it could start out with an objective of having a comprehensive look at all aspects of water resources planning rather than limit themselves to flood control.
2/15/1967	Ltr to Corps fm County re mtg with Water Resources Advisory Committee ("WRAC")	County offers to take Corps personnel to dinner at Max Dales.
2/20/1967	DF re Meeting With Local Interests on Skagit River Basin Planning	It was Corps idea to form Water Resources Committee. One purpose of the committee was to form countywide Flood Control District for project sponsorship.
2/24/1967	Ltr to County fm Corps in response to 2/15/67 re mtg with Water Resources Advisory Committee	Corps will attend mtg with Water Resources Advisory Committee and took County up on offer for dinner at Max Dales.
5/12/1967	MFR re County's Failure to Provide Public Notice re mtg with Advisory Committee	County Engineer agreed to "attend to the matter at once".
5/13/1967	Legal Notice Published in SVH re Public Meeting with Corps	"The levee and channel improvement project alone would increase the minimum level of flood protection on the Skagit River downstream from Burlington to once in only eight years. The present expected occurrence is once in three years."
6/21/1967	<u>MFR RE: ''Field Visit'' During High</u> <u>Flows Due To Snow Melt</u>	Concrete 70,000 cfs, Mt. Vernon 77,000 cfs. People in Sedro Woolley wanted dam on the Sauk. Nookachamp area was inundated by backwater from the main river. "residential homes that have been constructed in the flood plains from Sedro Woolley to Marblemount should have added consideration for flood control."
7/18/1967	MFR RE: Baker River storage	"if an exchange of power storage for flood control use is economically feasible now, it should be even more favorable in the future."
10/19/1967	MFR re Skagit County Commissioner Attempts to Form Countywide Flood Control District	Corps wanted local funds in hand by January 1, 1967. FCZD was not formed until 9/1/1970. See <u>Resolution re: Countywide</u> <u>Flood Control Zone District.</u>
11/01/1967	DF re Maximization Study of Avon Bypass	Bypass would have maximum benefits at 83,000 cfs Benefits were based on 1963 study.

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6/7/1968	<u>Corps Draft Response to 5/14/1968 ltr to</u> <u>Senator Magnuson Re: New Building</u> <u>Regulations for Mt. Vernon Library</u>	"Executive Order 11296 of 10 August 1966 requires the heads of executive agencies to prevent uneconomic development of the Nation's flood plains, particularly in connection with Federal lands and installations and Federally financed or supported improvements." "The architect has given the proposed finished floor elevation of the library as 22.18 feet above mean sea level. The elevation of the protecting levee in this area varies between elevations 28 and 30 feet above mean sea level. This levee is estimated to provide flood protection with adequate freeboard for a flood having a recurrence interval of once in 8 years. With a combination of flood fighting efforts and the use of minimum freeboard the probability exists that protection could be provided for a flood having a recurrence interval of once in 15 years." See also: 5/14/1968 <u>Mt. Vernon Public Library Ltr to Senator</u> <u>Magnuson Re: New Building Regulations</u>
7/3/1968	<u>Corps MFR re Skagit County Proposed</u> <u>Land Use Plan</u>	Land Use Plan was not adopted until 1973. (See 4/1973 Comprehensive Land Use Planning Alternatives for the Skagit River Floodplain and Related Uplands) Flood control projects did not require a zoning change.
8/25/1968	Ltr to County Commissioners fm Corps re Avon Bypass Project ("ABP") and Diversity of Opinions Amongst Local Individuals	One of the most important letters ever written on the flood issue. ABP reactivated in 2/1965. Study completed in July 1966. Channel would have been located at Avon to Telegraph Slough. Project included channel widening upstream of Avon and extension of levees upstream of Burlington. Same plan as 1965 except entrance was 3 miles downstream in order to accommodate Burlington area from future expansion. Cost increased from \$23,250,000 to \$28,200,000 with local cost being \$6,100,000 "Skagit County is facing a crisis in their planning"
10/9/1968	<u>Corps MFR re mtg with Skagit County</u> <u>Planning Dept. re Avon Bypass</u>	" both the Avon Bypass Project and the Levee and Channel Improvement Project are authorized for construction, but due to a lack of local sponsorship, are not being constructed.": "a change in operations at the upper Baker Power Dam could provide additional justified flood protection in addition to the two projects already authorized.
11/25/1970	DF re Avon By-pass and using trash for levee fill	Locals wanted to know if they could use "encased solid waste" for levee construction. We could change Mt. Vernons name to Mt. Trashmore. County also wanted to know if they could "bid" on the levee projects.
6/17/1971	Corps ltr to County Commissioners re additional requirements for Corps project other than the formation of Flood Control Zone District	Corps wanted to be assured of "continuing maintenance" of project and wanted county to be aware that they were responsible for additional right-of-way acquisition cost.
12/30/1971	<u>Corps ltr to Skagit County BCC re</u> flooding problems at Big Lake	"Corps looked at concrete gated structure to control flows up to 3,600 cfs. Such a project was not considered feasible. Corps encouraged Big Lake residents to purchase flood insurance."
7/24/1974	<u>Corps MFR re DOE regulation re</u> <u>building heights</u>	The Department of Ecology regulations required all building within 200 feet of the levees to be built at or above the top of existing levee. A meeting was scheduled with the DOE for $7/31/1974$.

3/1975 NEW	Public Brochure re Additional Flood Control at Upper Baker Project	A comprehensive plan, completed in 1971, called for increasing Skagit River flood control through use of reservoir capacity provided by Puget Sound Power and Light Company's Upper Baker hydroelectric power project in addition to the 16,000 acre-feet of storage space now available during the winter flood season. The detailed feasibility investigation being completed by the Corps of Engineers was in follow-up to the comprehensive study and undertaken under the same authority Land use zoning, development restrictions, flood proofing and early flood warning are flood plain management elements of this alternative which would be continued by Skagit County and the State of Washington Baker Lake would be lowered to provide a total of 74,000 acre-feet of flood control storage between 15 November and 1 March each year Although increased flood control capability has the potential of creating increased development pressure on flood plain management techniques and flood plain zoning by Skagit County, as called for in the recommended plan, should reduce the likelihood and severity of such losses The U.S. Fish and Wildlife Service and the National Marine Fisheries Service late in the study asked that flood control drawdown occur earlier than necessary for flood control in order to benefit Baker Lake salmon production. This earlier drawdown would increase power losses and, therefore, would have to be justified by fishery enhancement benefits. No current provision exists in the FPC license for such a project operation change. Because of this and the lack of data on fish production, the Corps study did not evaluate the early drawdown proposal Detailed engineering, economic and environmental impact studies were conducted over the past 2 years Land use. The increased flood protection provided by this alternative (additional 58,000 ac ft storage) would not be sufficient to allow relaxation of current restrictions on intensive developments in flood hazard areas. Therefore, no effect on land use i
		COMMENTS RE ADDITIONAL STORAGE
	Dept. Ecol. = State Department of Ecology EPA = Environmental Protection Agency PNWWA = Pacific Northwest Waterways Association SWCD = Soil & Water Conservation District Sierra = Sierra Club	False sense of security. Encourages development of flood plain for uses incompatible with flooding. (Sierra) Would create a false sense of security which could induce continued building in floodprone areas. (R. Hammond, SWCD) Not enough protection. Only corrects about 8 percent of the total flood damage of the basin. (Dept. Ecol.) Watershed above Upper Baker includes less than 7 percent of area of the Skagit at Mt. Vernon and about 10 percent of runoff volume. This degree of control would be small under severe conditions. (SWCD) Storage will increase. The additional flood storage could make the difference between the (a) disaster or high river stage. (PNWWA) Additional flood storage at Upper Baker will not adversely affect the environmental values of Skagit Valley. (EPA) It is only a start on the overall control program for Skagit, and its benefits will more than justify the costs. (SWCD)

5/1/1975	Corps ltr to Senator Magnuson re response to County ltr to Senator 4/1/1975	"the Pacific Northwest River Basins Commission did not recommend a plan for the Skagit basin" "The Corps of Engineers has not conducted feasibility studies of such a project" (i.e. Sauk River Dam).
5/7/1975	Congressman Meeds ltr to Corps re scenic river classification and feasibility study	Congressman wanted to know if such a study had been done and didn't feel Wild and Scenic classification would be done before 1978 or 1979.
5/19/1975	Corps ltr to Congressman Meeds ltr to Corps re Sauk River dam	"The studies that were undertaken as part of the comprehensive investigation were preliminary in nature and not intended to determine the feasibility of the Sauk project."
6/16/1975	Corps ltr to developer re building on an island near Marblemount	Corps did not charge for floodplain elevation certificate evaluations.
7/17/1975	<u>Series of letters re Congressman Meeds</u> <u>inquiry re changes in the deferred to</u> <u>active project list.</u>	Congressman used recycled paper for his stationary. BCC wanted to activate the 1966 Levee and Channel Improvement project; achieve additional storage behind Baker Dam; have a study done on the feasibility of the Sauk River Dam; agreed that if Sauk not feasible then would look at Avon Bypass. "We, as a Board, know that we are sitting on a "Time Bomb" in the Skagit Valley.
7/23/1975	Draft Corps ltr to Representative Meeds re response to BCC ltr re 4 potential flood control projects in the Skagit Valley	Corps was waiting on Congressional approval of 58,000 acre feet of storage behind Upper Baker dam; expected levee project to become "active" in the near future; waiting of Senator Magnuson to request feasibility study for Sauk Dam; Avon Bypass to be kept in "deferred" status pending a change in position by the county.
8/11/1975	<u>Corps ltr to SC Planning Dept re flood</u> <u>frequency elevations at mile post 59-60.</u>	100-yr flood 200 feet and 205.5 feet at mile post 59 and 60. 1951 flood was 15-year flood downstream of Sedro- Woolley, however only about 7 year flood at mile post 59 and 60 or 193 feet and 198.5 feet. See also: 6/16/1975 Corps ltr to developer re building on an island near Marblemount
8/14/1975	Ltr to Corps fm George Dynes of the <u>Pacific Northwest Waterways</u> <u>Association re recommendations for</u> <u>Skagit Flood Control</u>	Committee recommended Skagit River Levees, Upper Baker Dam project and; a study on the Sauk River dam.
9/10/1975	<u>Corps response ltr to 8/14/1975</u>	Seattle District Recommended Additional Flood Control Storage At Upper Baker. Also working on correspondence to reclassification of levee project from "deferred to active." Further action on the Sauk study lies with the congressional delegation.

10/16/1975	<u>Corps internal communication re</u> <u>"Reclassification of Authorized Skagit</u> <u>River, WA, Levee and Channel</u> <u>Improvement Project</u>	"The subject project (authorized in 1966) would provide flood protection to some 68,000 acres of delta flood plain at the mouth of the river. The improvements would increase the level of protection from once in 3 to 10 years, to a minimum of once in 8 years. The authorization report noted that if the levee improvements were constructed- with the Avon Bypass, protection would be accomplished for floods with an expected recurrence of once in 35 years. To avoid a false sense of flood security, the report concluded that the levee and channel improvements should be constructed as an integral part of a basin plan for flood control, which as a minimum should include provision for construction of Avon Bypass project or upstream storage."
10/29/1975	<u>Corps ''FACT SHEET'' on Skagit River</u> <u>Basin</u>	Document looked at Upper Baker Storage; Levee and Channel Improvement; Avon Bypass; and the Lower Sauk Project. Characterized the Avon Bypass as "authorized in 1936 as a "make work" project.
12/22/1975	<u>Skagit County letter to Seattle District</u> <u>USACOE re levee repair</u>	"The financial burden of repairing damage sustained by our County is prohibitive, and we are therefore asking the Corps of Engineers to further assist Skagit County in repairing Skagit County owned levees." With the exception of Cockreham Island Skagit County doesn't own any levees.
4/1/1976	Handwritten note by Corps Staff re one of the first strategy sessions for the 1979 project.	"New survey report but do under GDM outcome solution to problem Finish in 78 Can't rule out non-structural"
4/22/1976	<u>Corps DF re Environmental Assessment</u> of Levee Repairs After 1975 Flood <u>Event</u>	Repairs took place on Cockreham Island. Skagit floods "characterized by sharp rises of relatively short duration from October through March." "The Skagit River system produces more runoff than any other river basin in the Puget Sound area." 100 year flood 266,000 cfs. 50-year flood 224,000 cfs. Zero damage 60,000 cfs. Present levee system with 2ft of freeboard 84,000 to 130,000 cfs or 3 to 11 year protection Ross Dam controls about 30 percent of the basin's runoff with 120,000 acre-ft of storage space During the 1972-1973 collection period, nearly 14,400 salmon were captured, trucked, and released into Baker Lake and adjoining artificial spawning beaches . They consisted of 10,000 sockeye , 4, 000 coho, 250 chinook , and 30 chum. In addition, 50 steelhead trout were captured and released The damaged areas at the town of Hamilton, and the four damaged portions between Hamilton and Lyman occurred where the high water flow was either restricted or at a sharp change in direction without adequate floodway area to handle the resulting turbulence. The floodwater was most destructive where the levee was breached; in some of these cases the water velocity cut a channel from the river through the vegetated bench and beyond into the agricultural area The greatest loss to fish will be the loss of eggs placed in the gravels by spawning fish prior to the flood.
6/23/1976	<u>Corp MFR re Skagit County Flood</u> Insurance Study Corps Projects	"levee work was authorized via a 1965 report on the Skagit River, with the proviso that upstream storage is provided first. Now that the Baker Lake storage project is authorized, the levee project will be revived."

6/23/1976	Corp MFR re Skagit County Flood Insurance Study Delta Flooding	"Lloyd Johnson agreed, with the exception that he would like to see a more "realistic water surface profile, i.e., "a waterfall", where the floodwaters emerge through the dike area rather than a gradual drop as we had shown in our 1973 report."
9/29/1976	USACE Work Request for Wilderness Village (Concrete)	Dept of Ecology wanted Corps to re-evaluate water surface profiles based on highwater data recently recovered by the developer. Developer had written affidavits from residents in the area who witnessed high water in 1909.
10/15/1976	ACOE MFR RE Levee and Channel Improvements	"authorized in 1966" "includes the following elements: (a) raising low spots on riverbank levees to provide a minimum of 2 feet of freeboard, (b) -increasing top widths to a minimum of 10 feet, (c) flattening overly steep Side slopes to a maximum of 1 vertical to 2 horizontal, (d) - the-addition of riprap at critical locations, and (e) channel widening 'improvements at three locations to remove obstructions to flood flows." " Providing a minimum of 100-year protection for urban areas will be considered with a possibility of higher protection provided by Upper Baker storage or other measures ."
1/14/1977	<u>Draft letters to the President from Dept.</u> of Agriculture and the ACOE	The documents represent what happens when there are one too many agencies trying to comment on a flood project when one of the agencies doesn't know anything about the flood issue. The Dept. of Ag stated, "In addition, the Department of the Army, in their response to the study report, pointed out that designation of the Sauk River would preclude construction of, a flood control storage project on the river. However, alternatives to the Sauk River site exist which would provide the same degree of flood protection for downstream areas. The ACOE responded ORIGINALLY with, "We have never provided such information to them. From a practical standpoint, approx. 40% of the unregulated flow in the lower Skagit river basin comes from the Sauk River. Levee system's heights in the lower Skagit basin are limited by foundation conditions. Accordingly, it is considered that there is no alternative to flood control storage on the Sauk River. We would suggest that the above quoted sentence be deleted." Upper level management tuned it down a little, see Insert A.
1/27/1977	ACOE MFR RE telephonic conversation with Commissioner Jerry Mansfield re funding for the flood control project	Project Manager advised Commissioner Mansfield to have local interest write their Congressmen and Senators to show a "continued interest" in the project. He suggested writing separate letters to each representative.
1/27/1977	ACOE MFR re telephonic meeting with Commissioner Norris	One of Commissioner Norris's first official acts after having just been elected was to contact the ACOE and he noted, "that flood control for the Skagit River is one of his primary interests" Throughout the years and especially during his term as Mayor of Mt. Vernon Bud Norris remained true to his primary interests.

2/23/1977	ACOE DF ("Disposition form") re meeting to review the hydrology and hydraulics information available and the needs of flood plain and flood control studies	"During the discussion three things became clear. (1) Existing data is not sufficient. (2) Data needed for the flood plain study is different data than needed for the flood control study; (3) difference of opinions exist regarding the needs for the flood control study. "Lack of capability to perform timely hydrology studies should not place limits on extent of flood protection considered and study schedule should be established to agree with District priorities and capabilities. An early meeting should be scheduled with Chief, Engineering Division to consider any needed reordering of priorities or delays of study."
4/13/1977	ACOE MFR re: status of Skagit River Levee & Channel Improvement Study	Although the hydrology study had not started yet there was no need to seek additional funds "(beyond existing \$100,000)".
4/13/1977	Ltr to County Commissioner Howard Miller fm ACOE re Skagit County Flood Insurance Study be expedited	Results of Skagit River study scheduled to be completed July 1, 1978. The entire study of the basin scheduled for completion in September 1979.
5/6/1977	ACOE District Engineer ltr to Portland District Headquarters re: scope and design for the Levees and Channel Improvement Project reformulation	" primary concern of the Levees and Channel Improvement Project should be urban flood damage reduction for Mount Vernon, Burlington and Sedro Woolley areas " . During the last decade, conditions inthe area have changed considerably and the scope and level of flood damage reduction should be reevaluated " "In order to accommodate this need for considering a higher level of flood protection for the urban areas, more extensive surveys, foundation investigations, hydrology, hydraulic and economic studies will be required than were previously anticipated."
5/9/1977	<u>ACOE MFR re: Avon Bypass</u> <u>Deauthorization - Meeting with Skagit</u> <u>County Engineer</u>	We told Mr. Johnson that we would be sending out a letter alerting local officials to the deauthorization study. We told Mr. Johnson that the first element of work which we would be getting underway would be a survey contract to map the existing levees and provide topography for use in our hydrologic and hydraulic studies. NOTE: This strongly suggest that the entire \$4 million dollar GDM was done in two years.
5/19/1977	ACOE ltr to local resident of Skagit Valley re: information he requested	"We have completed most of our field surveys and foundation exploration and are currently developing the hydrologic model to determine the exact extent of the 100- and 10-year flood plain. As stated in the public brochure, the alternative cost estimates were not based on detailed studies, but were preliminary engineering estimates of the range of casts that could be involved for each of the alternatives."
5/19/1977	<u>ACOE MFR re: Skagit County Flood</u> <u>Insurance Study</u>	Work list for study. "They plan (GDM Study) to do the kind of analysis of delta flooding that we rejected for the Skagit County FIS because it would cost over \$100K. If their plans gel, we could ask FIA if they want us to include the analysis in the FIS. We hadn't planned to re-study the delta for the FIS. "

6/1977	<u>U. S. Army Corps of Engineers Report</u> <u>on Floods of December 1975 and</u> <u>January 1976</u>	Partial report containing sections pertinent to the Skagit River. Storm began on 29th of November and lasted to the 4th of December. "Baker River Basin amounts to 11 percent of the Skagit river drainage.""Outflow from Lake Shannon continued to increase24,800 c.f.s" "Without flood control regulation by Ross Dam and the Baker River Projects, the flood peak would have been about 39.9 feet (147,000 c.f.s.), 3 feet higher than the observed peak." Third highest peak since 1940. One of the more interesting things about this report is the areas they had to sandbag to keep the levees from failing.
6/8/1977	ACOE DF re: All Hands Meeting to agree on the "plan of study" for the 1979 Levee and Channel Improvements Study.	"no significant problems are known at this time." " during the last decade, urbanization has increased considerably and the scope and level of flood damage reduction should be reevaluated for the urban areas." NOTE: This is an amazing document that shows us that as of June 8, 1977 the GDM had not been started, yet it was published in 1979.
6/15/1977	ACOE MFR re: Meeting to agree on the "plan of study" for the 1979 Levee and Channel Improvements Study which took place on June 13, 1977	" of the \$28,000 listed for report preparation,\$6,000 would be used by Drafting Section to prepare the final plates " "Regional Planning Section in coordination with Civil Design Section will start work on design in April 1978 and complete in September 1978." "After the design is completed about: 3 months will be required to prepare the draft General Design Memorandum and another six months to complete the final GDM for submittal to NPD. The schedule for submittal of the Draft GDM would be December 1978 and for the final GDM May 1979."
6/24/1977	ACOE Headquarters in Portland ltr to Seattle District Engineer re: extending Levee project upstream through Mt. Vernon and Burlington	"Assuming the Avon Bypass is not deauthorized, your report must include a "last added" analysis of each element of the overall protection plan of the basin. Your proposal to extend the study scope upstream through the areas of Mount Vernon, Burlington and Sedro Woolley does create a separate set of problems "" extension of the. project that far via a phase 1 report would require a significant Post Authorization Change report requiring Congressional action."
12/11/2003	October 2003 Skagit River Flood Control Presentation	 "What If Only the authorized amount of flood control space had been available in the dams. This storm had been preceded by a normal summer/fall, rather than a drought. THEN The dams would have filled close to the top early in the storm. Flooding would have been nearly as bad as if the dams had not been there at all."

Corps of Engineers Public Hearing Transcripts

2/8/1961	<u>Missing Exhibits to Public Hearing</u> <u>Transcript</u>	This is a series of letters that were submitted during the 2/8/61 Public Hearing. Dike 12: "The dike has been raised an overall height of 2 feet for a distance of approx. 9 miles. As they continue to build restrictions into the river below us, narrowing the stream flow, it will be necessary to raise the height of the dike." La Conner: "In 1882, six feet of flood water inundated the land, damaged crops, and broke the dikes. In 1886 the Skagit River overflowed and froze and in 1887 a late spring freshet damaged crops." Dike 17: District formed in 1907. Letter identifies where the levee broke in 1917 & 1921. Raised their levee 18 inches above the 1951 level. Dike 20: (Nookachamps) Dike not high enough to keep out water over 24 feet. Dwelley: Supported dredging for commerce but very opposed to Faber Dam. WSDOF: Skagit "most valuable" tributary to Puget Sound in sustaining commercial sport fishing. 65% of the Chinook salmon spawning area is located on main stem of the Skagit and tributaries above proposed Faber dam site. Supported building of Avon Bypass. Dairy Farmers: "They know what has happened to them in past floods" Many dairy cows died in the 1951 flood. Mt. Vernon: Estimated over 4 million dollars of property in harm's way. Figure included 600 homes and 1,400,000 sq. ft. of commercial property and 10 miles of sewer lines in flood area. Total damages est. \$6,200,000. Burlington: No loss since 1950. Made no specific recommendation for a flood control project. Needed to educate voters on flooding issue. See also: <u>Public Hearing on Flood Control for the Skagit River Basin, 8 February 1961</u>
1/10/1964	Public Hearing Transcript; Corps mtg with Skagit County residents re Improvement Downstream Levees and adding Fisheries and Recreation to Avon ByPass.	This public hearing transcript covers everything from dredging to the Sauk River Dam, to levee improvements, the Avon Bypass. It is a wonderful snapshot in time on the issue of flood control. Unfortunately, many of the views expressed at the public meeting are the same views being expressed by the uniformed today. One of the better quotes from the document is from an old timer who passed away a few years ago. "Let's have protection now, rather than 'Aid to a Disaster Area' later." Zell A. Young, Welder, West Mt. Vernon, January 10, 1964 public hearing on Avon Bypass

1/10/1964	<u>Various Exhibits Submitted to</u> <u>USACOE at Public Hearing</u>	 "We the Commissioners of Dike District #20 have hopes that with these projects completed we can expand our Dike District #20 so that the entire Nookachamp Valley can be Diked to give our farms protection from Floods that cover our farms land on an average of every three years, but realize that as off now we act as a reservoir for flood waters from the Skagit River so the lower parts of the Valley will have additional protection. If our areas were diked at this time it would be impossible for the Skagit River to carry even a normal high water." George Dynes, Dike Dist 20 Let's have protection now, rather than 'Aid to a Disaster area later. Zell Young See also: Public Hearing Transcript; Corps mtg with Skagit County residents re Improvement Downstream Levees and adding Fisheries and Recreation to Avon ByPass.
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Puget Sound Energy Document

10/13/2009 R2 Resource Consultants Presentation: Environmental Effects of High Water Events Middle Skagit River, Washington	11-slide presentation reviewing the impacts of floods on Chinook salmon survival. May want to see slide 9 where years following recent major flood events have direct correlation to lack of young salmon survival in the Skagit.	
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Skagit County Documents

11/29/1962	Letter to District Engineer for Corps of Engineers Seattle District	"The Skagit River dike of Cockreham Island two miles southwest of Hamilton, Washington was broken in two places by the high water of November 20, 1962."
1/8/1963	<u>Skagit County Letter to Corps Re:</u> <u>Flood Control Expenses</u>	1961 through 1963 Skagit County spent over \$135,,000 on flood control projects. Dike Districts, County and State of Wa total \$693,912.
1/4/1964	Ltr to Col Perry fm Skagit County re recreational benefits of Avon Bypass	Response to 12/16/1963 U.S. Army Corps letter to BCC that requested local cooperation. Dike districts signed off on adding recreational benefits to Avon Bypass project.
1967	<u>Skagit County Water Resources</u> <u>Advisory Committee</u>	The make-up of this committee gives a whole new meaning to "Good Ole Boys".
8/25/1967	DRAFT Resolution from WRAC to County Commissioners	Purpose of FCZD was to raise taxes for flood control activities. Agreed to comp plan (attached) that would raise levees to 8 year protection to include "fuse plugs" to eliminate critical levee failures. In addition, a program of public information and control of the flood plain will be adopted to insure that developments are controlled and a false sense of security does not exist.

7/11/1972	Skagit Valley Herald article "Seepage causing great concern; hundreds of acres reported flooded" and articles addressing Grandy Creek landslide	Article addresses severe drainage problems in the "River bend area". River height not letting water drain "as long as the water is below the 13 foot level." River hadn't been that low for 6 weeks. "Above the 13 foot level, he said, seepage from the river is a constant menace to farmers in the area."
4/29/1974	<u>Skagit Conservation District ltr to</u> <u>Corps re Wild and Scenic River System</u> <u>designation for the Sauk River</u>	SCD didn't want designation because it would eliminate flood control structures on the Sauk River. SCD demanded that "a feasibility study be made of both the Sauk River flood control structure and the Avon Bypass by the COE before allowing any classification of the river.
5/29/1974	BCC ltr to Senator Jackson re La Conner Request for Assistance re Swinomish Channel	BCC wanted yearly dredging of Swinomish Channel, and recommended flood spillways for protection of the town and private dikes along the east side of the Channel in the' event of a Skagit River flood.
7/19/1974	<u>Skagit Conservation District ltr to</u> <u>Corps</u>	SCD wanted public meeting in Sept. so the Corps could discuss Sauk River dam and Avon Bypass concepts and the impacts of the Wild & Scenic River act because, "It has been a long time since either the Avon Bypass or the Sauk Dam have been discussed here."
7/26/1974	Corps ltr to Skagit Conservation District	Corps agreed to come to meeting with SCD on September 18th to discuss Avon Bypass and Sauk River Dam.
4/1/1975	<u>Ltr to Senator Magnuson fm BCC re</u> <u>flood control dam on Sauk</u>	BCC wanted Magnuson to request the public works committee to make a study of the Sauk River with regard to the feasibility of a flood control dam. "the Sauk can carry 40% of the water that empties into the Skagit River."
4/22/1975	Ltr to Representative Meeds fm BCC re Wild & Scenic River Study	"The immediate purpose of this letter is to request that you direct the U.S. Army Corps of Engineers to undertake feasibility studies of a flood control dam on the Sauk River and that you secure necessary funds to allow completion of these studies as soon as possible."
3/1976	Skagit River Flooding: An Overview by Skagit County Rural Development	Given what the committee had to work with in 1976 this was a pretty good attempt at documenting the flood issue in Skagit County. However, given what we know now it would not stand historical challenges. Such as: they rely heavily on the Steward Report. They did not know that Stewarts Report was unfinished, or that Mr. Stewart was dead at the time the report was published, nor the fact that Mr. Bodhaine had never been to Skagit County.
	Committee	Given the fact that the entire document was printed in the SVH in weekly installments one has to wonder why no one paid any attention to what the document had to say with respect to development in the floodplain that now burdens the taxpayer with multi-millions to protect that same development. The irony is that if the dike districts and the cities and towns get their way they will be promoting even more development that in the long run will cost the taxpayers even more money.
2/3/1977	Article in the Skagit Valley Herald re ''Skagit flood dispute halts permits''.	This article deals with permits in Wilderness Village, 3 miles downstream of Concrete. See (9/29/1976 <u>USACE Work</u> <u>Request for Wilderness Village (Concrete)</u>) County placed a moratorium on issuing permits from Sedro-Woolley upriver in the floodplain.

3/1/1977	<u>Ltr to ACOE fm Skagit County</u> <u>Commissioner Howard Miller re</u> <u>request for flood study to be expedited</u>	"Understanding that the final flood insurance study may indicate substantial changes with the information available today, it is our request that this study be expedited as much as possible so that the possible impact on those properties that may not eventually be affected by the floodway can be reduced."
		"Hydrologic analyses of existing condition regulated flows conducted to date have ignored the seasonal variation of flood control storage and have assumed that the required maximum amount of storage (74,000 ac-ft at Upper Baker and 120,000 ac-ft at Ross) is available for all floods, regardless of the date of occurrence. The full amount of flood storage is not required at Upper Baker until November 15 and at Ross until December 1. The purpose of the work described in this memo was to assess the impact of lower flood control storage requirements prior to December 1 on regulated peak flows on the Skagit River near Concrete (i .e. downstream from the Baker River confluence). "Operations at Upper Baker have also deviated from expected future operations since 2004. In accordance with the requirements of a relicensing agreement, an Interim Protection Plan (IPP) was introduced in 2004 to improve fish habitat in the Baker River by reducing rapid fluctuations in flow. Under IPP-related project operations, more storage than required
6/15/2010	<u>nhc Memorandum: Skagit River Gl</u> <u>Study- Seasonality Assessment of Flood</u> <u>Storage</u>	 would be available in the Baker River project early in the flood control season. "A further change affecting flood control performance has been the implementation by PSE since about 2006 of flood control pool buffers at both Upper Baker and Lower Baker. The buffers provide additional storage above that required for flood control operations per the operating license. At Upper Baker, this additional storage is 26,000 acre-ft, so that the bottom of the buffer is approximately 7ft below the maximum permissible
		pool elevation in the flood control season. At Lower Baker, the bottom of the buffer is approximately 5 ft below the spillway crest elevation, representing approximately 9,850 acre-ft of storage below the spillway crest. The purpose of the buffers is to provide PSE with operational flexibility while avoiding, to the extent possible, incursion into the formal flood control storage space at Upper Baker. PSE operates the reservoirs to try to maintain water levels toward the low end of these buffers (water levels are generally maintained 2 to 3 feet above the bottom of the buffer), however there is no formal operating policy for the buffers.
		 "The Baker Project WCM should be updated to show flood control storage requirements per the current FERC license. Future updates to the WCM should be anticipated and coordinated with PSE to reflect operational changes adopted as a result of future implementation of new FERC license conditions. "
		This document was submitted to <u>the 2011 Skagit River</u> <u>GI Scoping Efforts</u> by the City of Burlington.

Skagit County Flood Control Zone District Document

1/17/1967	Skagit County BCC ltr to Corps re: establishment of Citizens Advisory Committee on Flood Control	BCC let Corps know they planned on setting up a county-wide flood control district. Also would hire more qualified staff to handle flood control items in the future. Ltr was in response to Corps August 25, 1966 ltr.
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Swinomish Tribal Documents

7/2/1963	Tulalip Tribe Resolution #168-17 Opposition to Dredging Project	Tulalips along with Swinomish and Lummi Indians threatened to sue Corps if they went ahead with dredging project or Sauk Dam.
1/10/1964	<u>Objections to Avon Bypass Project</u> and Related Phases Thereof by <u>Swinomish Indian Tribal</u> <u>Community</u>	"It is the position of the Swinomish Indian Tribal Community and the members of the Swinomish Reservation, Skagit County, Washington, that the Avon Bypass Project and other projects related to dredging, widening or changing the natural channels and water flow of the Skagit River may well affect the salmon runs. If such occurs, then the Swinomish Indian Tribal Community and the members of the Swinomish Reservation will consider this as a violation and deprivation of the rights granted under the Treaty of Point Elliott of 1855."
5/17/1966	<u>Ltr to Corps fm State re Flood</u> <u>Control Developments in Skagit</u> <u>County</u>	Letter addressed a meeting in which "reorganization" of the dike districts was discussed. It was the first seed planted for the formation of the current Skagit County Flood Control Zone District. "In an effort to develop and present a united position on a flood control plan and program, which plan may be that of the Corps of Engineers now tentatively proposed, a flood control advisory committee was selected from the total number of diking districts on the valley floor to represent the full community interested in and likely to be affected by floods and their control." "Upon a general discussion of the proposed Corps' project (a. levees and channel improvement; b. Avon Bypass; and c. upstream storage), consolidation of the sixteen diking districts was quite thoroughly explored. Either a flood control district (86.09 RCW) or a flood control zone district (86.15 'RCW) appears to be a superior, legal vehicle over reorganization under their present diking district laws (Title 85 RCW)."
4/9/1976	Swinomish Tribal Community ltr to Seattle District USACE re Swinomish Channel Dredging DEIS	"Overall, however, it (Swinomish trap and drag seining catch) has exhibited more or less the same fluctuations in level of production as other local Indian fisheries (Tulalip, Samish, and Lummi) and there is no apparent relationship between catch and channel maintenance operations. " It is surprising to see a statement such as this which boldly contradicts graphed trends which you, as well as we, have on file (See Exhibits • la, lb, lc). There is an expressed decline in both Chinook and Chum catches immediately following the 1937 jetty construction. Furthermore, these declines are local in nature deviating from ether Indian fishery trends to the immediate north and south near the mouths of neighboring rivers The only other major environmental change at this time which could have so

	dramatically affected the fish catch was the jetty construction in 1937 It may be difficult to show statistically that dike construction diminished the number of fish because of all the variables. However, it would be even more difficult to draw the conclusion that "dike construction probably did not diminish the number of fish." Certainly, important fish habitat and access was diminished. Logically, the fact that the number of fish was diminished would be a more reasonable conclusion than that the number was not diminished by the dike construction It has always been this Tribal Community's policy to work cooperatively. To us, this means a two-way give-and-take relationship.
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US Fish & Wildlife Service Document

		"This letter reflects our current thinking on these proposed improvements. Our 1974 (sic 1964) report indicated the channel and levee improvements would have little effect on
	Planning Aid Letter to ACOE fm US	fish and fishing Effects on wildlife were also predicted to
3/11/1977	Fish and Wildlife Service re proposed	be minimal." "However,we believe several very positive
	channel and levee improvement project	features may be incorporated in the project including: Fencing
		to prevent cattle grazing on top and riverward levee slopes.
		Reseeding and cleanup of trash and debris along inner levee
		slopes to facilitate unrestricted passage of flood water "

Washington State Department of Ecology Document

8/26/1935	Report and Findings Skagit Flood Control District Boundary Commission	State Committee. Rpt recommended dredging of the several branches of the Skagit River through the delta; rip rap for the Sauk & Cascade Rivers; removal of snags and drift in Samish River btwn Allen and the Whatcom County line, among other recommendations.
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Guest Documents

6/1994	<u>Sharing the Challenge: Floodplain</u> <u>Management Into the 21st Century - the</u> <u>Report of the Interagency Floodplain</u> <u>Management Review Committee</u>	"All of those who support risky behavior, either directly or indirectly, must share in floodplain management and in the costs of reducing that risk. The federal government can lead by example; but state and local governments must manage their own floodplains. Individual citizens must adjust their actions to the risk they face and bear a greater share of the economic costs By controlling runoff, managing ecosystems for all their benefits, planning the use of the land and identifying those areas at risk; many hazards can be avoided. Where the risk cannot be avoided, damage minimization approaches, such as elevation and relocation of buildings or construction of reservoirs or flood protection structures, are used only when they can be integrated into a systems approach to flood damage reduction in the basin. When floods occur, impacts on individuals and communities can be mitigated with a flood insurance program that is funded by those who are protected. Full disaster support for those in the floodplain is contingent on their participation in these self-help mitigation programs. Measures that internalize risks reduce the moral hazard associated with full government support."
8/2008	<u>Natural Hazards Center Quick</u> <u>Response Report: Business Recovery</u> <u>Related to High-Frequency Natural</u> <u>Hazard Events</u>	"In December 2007, flooding in southwest Washington caused widespread damage to more than 200 businesses and farms. The Institute for Global and Community Resilience (IGCR) at Western Washington University's Huxley College of the Environment received a Quick Response Grant from the Natural Hazards Center at the University of Colorado to research the effects of this flood on businesses in Centralia and Chehalis, Washington. Working with local Offices of Economic Development, IGCR administered a 28-question survey to document risk perception and preparedness, impacts, and recovery strategies. Of the 63 businesses surveyed, 37 were flooded businesses and 26 were unflooded businesses. Analysis of the survey results showed that risk perception and preparedness were low prior to the flood."
2009	<u>ASCE Report Card on Infrastructure:</u> <u>Levees</u>	"There is no definitive record of how many levees there are in the U.S., nor is there an assessment of the current condition and performance of those levees. Recent surveys by the Association of State Dam Safety Officials and the Association of State Floodplain Managers found that only 10 states keep any listing of levees within their borders and only 23 states have an agency with some responsibility for levee safety. The Federal Emergency Management Agency (FEMA) estimates that levees are found in approximately 22% of the nation's 3,147 counties. Forty-three percent of the U.S. population lives in counties with levees. Many of those levees were designed decades ago to protect agricultural and rural areas, not the homes and businesses that are now located behind them."

10/01/2010	<u>Wulf Jr. vs. Bank of America</u> <u>Complaint</u>	The lawsuit alleges that Bank of America unfairly requires its customers to purchase and maintain unnecessary and excessive flood insurance for their property, in amounts greater than necessary to secure their outstanding principal balance or credit line, without any reasonable basis or justification and without clearly, conspicuously, or adequately disclosing such requirements in the relevant loan and mortgage documents. The lawsuit further alleges that Bank of America sent form letters to borrowers misrepresenting flood insurance requirements under federal law. The plaintiffs are seeking a judicial declaration that Bank of America violated the law, an injunction preventing Bank of America from engaging in future legal violations, and monetary relief for Bank of America's alleged prior violations. Among other things, Plaintiffs seek reimbursement of all unfair and excessive premiums, statutory penalties, punitive damages, interest, and costs and attorneys' fees.
11/2010	<u>US Forest Service: Suiattle Access and</u> <u>Travel Management Plan</u>	"The proposal is to determine what roads to retain, what roads are no longer needed, and which of a variety of road treatments will be implemented on roads in the Suiattle River watershed. The purpose of the proposal is to align the size of the Forest Service road system with projected road maintenance budgets. The Mt. Baker-Snoqualmie National Forest is conducting this review of roads in the Suiattle River drainage to balance access needs with resource protection and budget. "
12/21/2010	<u>Crosscut: Should the town of Hamilton</u> stay in the Skagit floodway?	"The town has flooded more than 17 times in the last century, and now, every three years or so, the river covers the entire town up to nine feet deep. Residents view the floods as part of their way of life. Even after the destruction wrought by Skagit waters in 1990, 1995, 1996, 2003, and 2007, many townspeople see no need for change. This is partly because Hamilton residents have been supported in rebuilding every time with FEMA money. FEMA estimates it has spent over \$10 million in the last 20 years on Hamilton." See also: Video - <u>Hamilton - Town at the Tipping Point</u>
12/30/2010	Eugene Weekly Analysis: Growth and Prosperity	"The "conventional wisdom" that growth generates economic and employment benefits was not supported by the data. The study found that those metro areas that have fared the best had the lowest growth rates. Even metro areas with stable or declining populations tended to fare better than fast-growing areas in terms of basic measures of economic well-being."
12/30/2010	<u>Insurance Journal: How to Fix Nation's</u> <u>Flood Insurance Program</u>	"Flood is a unique risk. Perhaps most importantly, it is a risk that is enormously difficult to underwrite due to adverse selection. Simply put, only those people that are at risk for flooding will purchase flood insurance, making it virtually impossible to pool risk among a large enough population for a viable and affordable insurance product. In order to underwrite a risk like this, an insurer would need to charge very high premiums and maintain significant capital reserves in case of massive flooding, when all of their policyholders would be making claims. In actuality, the only people who would be able to afford coverage would likely be those that did not need it."

2011 DATED DOCUMENTS

LJK Documents

1/27/2011	<u>Historic Flood Flows of the Skagit River</u>	This document list the flood events and the recorded flows. I first put this together in 1991 when I authored <u>Skagit River</u> <u>Valley The Disaster Waiting To Happen</u> . Most of the information came from the 1979 Corps of Engineers GDM used for the 1979 Levee Improvement project proposal. I have updated the document each time we had another flood event. It is sort of a running record of flood events on the Skagit River.
3/27/2011	<u>Skagit County FEMA's Hole in the</u> <u>Ground</u>	Publishing FEMA NFIP <u>Policy Statistics</u> as of Jan. 31, 2011 & <u>Loss Statistics</u> from Jan. 1, 1978 up to Jan. 31, 2011.
4/30/2011	<u>Interesting Quotes From 1/10/64 Corps</u> of Engineers Public Hearing on Avon <u>Bypass</u>	See what your neighbors and relatives had to say about the Avon Bypass in 1964. "During my life time I have observed flooding of all the towns of Skagit County, from Edison to Stanwood, and I feel sure that history will repeat this disaster if steps are not taken to prevent it New developments and the potential increased population in Skagit County certainly justifies the Bypass with its accompanying improvements." James Hulbert Sr., Fir Island Farmer, and Dike Commissoner of Several Dike Districts during the last Fifty Years, January 10, 1964 public hearing on Avon Bypass. See also: <u>Public Hearing Transcript; Corps mtg with Skagit County residents re Improvement Downstream Levees and adding Fisheries and Recreation to Avon ByPass, Various Exhibits Submitted to USACOE at Public Hearing</u>
5/3/2011	<u>Before-After Flooding in the Skagit</u> <u>River Basin</u>	A series of photographs showing how floods impact the Skagit River Basin. Note how development has crept into the Skagit River floodplain after each flood.
11/26/2011	www.SkagitRiverHistory.com Comments on October 2011 Corps Scoping Summary Report	Comments about various measures proposed in the 10/2011 Skagit River General Investigation Study Scoping Summary Report for the Draft Feasibility Study And Environmental Impact Statement.

City of Burlington Documents

4/14/2011	Letter to Puget Sound Energy (PSE), RE: Baker Hydroelectric Project: Temporary Reservoir Drawdown Prior to a Skagit River Flood	"At a recent briefing to update the Aquatics Working Group, Tetra Tech provided preliminary results indicating virtually no benefit to drawing down the Baker Project reservoirs in advance of a flood. This conclusion was arrived at due to an analytical approach constrained artificially by provisions of an outdated water control manual, the perceived necessity to continually generate electricity through the critical flood peak time period (Puget Sound Energy has already indicated its willingness to shut down generation during the Skagit river flood peak), and additional project outflow constraints contained within the license. "We are concerned with this approach. What is needed in this critically important matter of public safety is a collaborative, responsible and responsive set of protocols that provide a straight-forward way to temporarily maximize the Project's ability to reduce flood damage. "In summary, we are requesting the emphasis of the current study be redirected toward analyzing how to achieve the draw down as required under the settlement agreement, and zero project outflow during the critical few hours before and after a Skagit River flood peak, and developing specific protocols which contain provisions for an inclusive and collaborative decision-making process for imminent flood emergency reservoir draw down."
4/20/2011	<u>Letter to Skagit County Public Works</u> <u>Project Manager, re: Tetra Tech</u> <u>Briefing on the Article 107(c) Imminent</u> <u>Flood Drawdown Analysis</u>	"The current water control manual mandatory requirement to continuously release 5,000 cfs from Upper Baker, and recommendation to pass inflow from Lower Baker, is based on flood control operations assuming no more than 74,000 acre- feet of flood storage in Upper Baker will be available. The mandatory language in the water control manual is a tacit acknowledgement that 74,000 acre-feet of flood storage is inadequate to reduce project outflow to zero during a large Skagit basin flood event."
6/1/2011	Update on Flood Control Provisions, with Emphasis on License Article 107(c) From the Perspective of the Local Communities	 55-slide presentation submitted to FERC in D.C. Slides 39-45 explain how drawdown would work with the Baker River Dams in the event of an imminent flood. This document was submitted to <u>the 2011 Skagit River GI Scoping Efforts</u> by the City of Burlington.

7/28/2011	Letter with City of Burlington, City of Mt. Vernon, City of Sedro-Woolley & Town of La Conner to Skagit County Government, Re: Review Comments, Puget Sound Energy's Preliminary Draft Report, ''Reservoir Management Related to Imminent Flood Conditions''	"Flood control is a federally authorized purpose of the Baker Hydroelectric Project. However, hydrologic analyses performed by the Corps of Engineers and Skagit County indicate the existing authorized 74,000 acre-feet of flood storage is not adequate to capture the basin's own 100-year event. About 140,000 acre-feet of flood storage is necessary for that. Therefore, in a medium-tolarge flood event, the Project will be forced to discharge water into the Skagit River peak flow, thereby increasing flood damage. License article 107(c) provides a mechanism for providing the additional necessary flood storage only when it is needed - in the event that a large Skagit River basin flood is imminent- in a way that also can be expected to protect aquatic resources." This document was submitted to <u>the 2011 Skagit River</u> <u>GI Scoping Efforts</u> by the City of Burlington.
9/19/2011	Baker Hydroelectric Project Imminent Flood Reservoir Drawdown: Why Drawing Down the Reservoirs In Advance of a Skagit Basin Flood reduces Flood Risk, Improves Salmon Survival, and Increases Power Generation	15-slide presentation in PDF of the case to advance drawdown the Baker River Dams. Arguments include stopping outflow during the crest of flood events to protecting salmon eggs and less demands for storage in return for more hydropower.

City of Mount Vernon Documents

2/28/2011	2011-02-28 Mount Vernon, Burlington, Sedro-Woolley & LaConner Joint Meeting on FIRM Appeal	Complete video from TV10 of the "combined meeting with the City Council of the City of Burlington, City of Sedro-Woolley and Town of LaConner to engage in a general discussion on the subject of the FEMA flood insurance study and preliminary flood insurance rate maps" plus the City Council of Mount Vernon The municipalities have since filed their appeal - and on the FEMA FIRM Appeals Issues Page are all appeal documents.
2/28/2011	<u>Minutes from the Special Joint Meeting</u> on the FEMA FIRM Appeal	"There was a general discussion regarding the FEMA appeal process with outside Council Scott Shapiro, attorney from Downey Brand. The procedures for initiation of and follow through of the Administrative Appeals process were reviewed." See also: Video of 2011-02-28 Mount Vernon, Burlington, Sedro-Woolley & LaConner Joint Meeting on FIRM Appeal, 7/12/2011 State Auditor's Office Exit Item: OPMA: Special Meeting Minutes
3/28/2011	<u>01 - Cover Letter of FEMA FIRM</u> <u>Appeal Signed by Burlington & Mount</u> <u>Vernon Mayors</u>	"The Cities have brought this appeal as a result of a voluminous amount of compiled data and scientific study gathered over the years by the local communities. As set forth by the appeal, such work clearly demonstrates that FEMA's rFIS and rDFIRM are scientifically and technically incorrect as defined in FEMA regulations. As a result of the studies presented on appeal, new more accurate floodplain mapping has been included based on better quality and quantity of information, better and more accurate assumptions and more appropriate methods."

3/29/2011	02 - Summary Report: Appeal of the Revised Digital Flood Insurance Rate Map (rDFIRM) and Revised Flood Insurance Study (rFIS) For Skagit County, Washington, dated July 1, 2010 and Submittal to the Scientific Resolution Panel by the Cities of Burlington and Mt. Vernon, Washington	"It is critically important to note how statistically unlikely the USGS peak discharge estimates are. When the USGS' four historic peak discharges are applied to the systematic record, the statistical anomalies are obvious. As indicated in the attached documentation, there is only a one in 769 chance that four events, the size estimated by USGS for 1897, 1909, 1917, and 1921, could occur in a 25 year period in light of the 86 year systematic record In addition, FEMA and its contractor, the USACE, misapplied the hydraulic methodology; utilized insufficient and poor-quality data; and included measurement errors in its data and modeling, all of which resulted in BFE's that are technically incorrect."
3/2011	<u>03 - Technical Report -</u> <u>Supporting Data and Analysis</u> for Skagit River RFIS Appeal <u>Prepared For: City of</u> <u>Burlington, City of Mount</u> <u>Vernon, City of Sedro-Woolley</u> <u>and Town of La Conner</u>	 "PI Engineering believes that the revised BFEs are scientifically and technically incorrect due to the following reasons: 1. Historic flood data and one major flood in the systematic record included in the flood frequency determinations were incorrectly estimated and led to severe overestimation of flood peaks, and 2. Inconsistent levee methodology and poor-quality topographic data were used in the hydraulic analysis."
3/10/2011	04 - Probability Estimates for Historical Flood Events and Recorded Floods	"The USACE 100-year flood estimate (278,000 cfs) exceeds the largest recorded flood by 35%. Considering the record length is nearly 90 years, the 100-year estimate appears to be very high."
3/29/2011	05 - Pacific Survey & Engineering Professional Opinion of Methodology and Results of Upper Dalles Gauge Calibration Survey Performed by James E. Stewart (1922-1923)	"In conclusion, based on a full review of the information provided to me by the City of Burlington for this analysis, and without additional field notes or records from USGS regarding these early surveys, I find no reason to disagree with Stewart's 1923 HWM elevation at the Wolf Residence as 184.54' (1917 USGS datum). Without supporting documentation to the contrary, there is a strong likelihood that the disqualification of the basis for Stewart's 1923 work could cause discrepancy in the mathematics behind the flood analysis used to prepare the most recent FIRM map(s) in this region. The differences between the " Original" gauge elevation and the "New" gauge elevation alone provide enough uncertainty to warrant a new or modified analysis and certainly disclose apparent weaknesses and gaps in the processes, methodologies, and results of the flood predictions in the Skagit River basin."
3/29/2011	<u>06 - Cities of Burlington and</u> <u>Mount Vernon Reply to USGS</u> <u>May 6, 2010 Memo</u>	"Stating that "the only area of uncertainty" is the linkage of datum from this gage to its predecessor gage infers this critical and essential first step in establishing the new gage datum is somehow not important if all subsequent records refer to the current gage datum. This is simply not true. The transfer of the gage datum from Stewart's Upper Dalles gage to the existing gage location 330 feet downstream is the essential and single most important action that should have been carefully documented by the USGS when the new gage was established."

3/30/2011	07 - Cities of Burlington and Mount Vernon Reply to FEMA Evaluation of Flood Frequency Analyses for the Skagit River, Skagit County, Washington	HWMs being High Water Marks "The USGS has incorrectly applied all HWMs in all of its calculations, by incorrectly assuming these HWMs at the slope sections represented the mean water surface elevations. This assumption is incorrect. We have determined these HWMs are more representative of the energy grade line elevations, based on the USGS velocity measurements at the cableway located upstream of XS3. The USGS has made this incorrect assumption in all of its studies in the slope sections, including the 2005 and 2007 reevaluation studies, and the 1949 n-value verification study."
3/29/2011	<u>08 - Memorandum RE Legal and</u> <u>Procedural Issues by Cities of</u> <u>Burlington & Mt. Vernon</u>	 Legal arguments presented by the City Attorneys of Burlington & Mount Vernon are: "FEMA Has Failed to Comply With NEPA" "FEMA Has Engaged in Imperssible Rule Making" "FEMA Has Failed to Adequately Consult with Appellants." "Arbitrary and Capricious Action." "Violation of Due Process Rights" "Appellants Requests that FEMA Utilize Different Methodologies As Promised by FEMA Prior to A Final Determination As Required under FEMA Regulations Providing Adequate Consultation."
6/1/2011	City Government of Mount Vernon: Mount Vernon receives State funding of \$1,981,000 for the Downtown Mount Vernon Flood Protection and Revitalization Project, Phase 2	"The Washington Wildlife and Recreation Program grant of \$781,000 and the Aquatic Lands Enhancement Account grant of \$500,000 will help fund the Skagit Riverwalk Phase 2 project that includes a 24-foot wide pedestrian walkway adjacent to the Skagit River, between the Division Street Bridge and Kincaid Street."
7/12/2011	<u>State Auditor's Office Exit Item:</u> <u>OPMA: Special Meeting Minutes</u>	"The City held a Special Meeting on February 28, 2011 regarding the appeal for the FEMA flood elevation map. A quorum of City Council members was present during the meeting in which discussion took place addressing the business of the City. According to state law (RCW 42.30 and RCW 42.32), this meeting meets the definition of a meeting, requiring meeting minutes. At the time of audit, minutes were not prepared and made available for public inspection." See also: Video of 2011-02-28 Mount Vernon, Burlington, Sedro-Woolley & LaConner Joint Meeting on FIRM Appeal. 2/28/2011 Minutes from the Special Joint Meeting on the FEMA FIRM Appeal

Corps of Engineers Documents

2011	National Corps of Engineers Investigations Budget	Skagit GI Study is next from the bottom of page 4.	
	Investigations budget		
3/2011	<u>Skagit River Basin Skagit River Flood</u> <u>Risk Management Study Draft Report</u> <u>Hydraulic Technical Documentation</u>	"This report documents the work conducted for the Skagit River Flood Risk Management Feasibility Study to develop hydraulic computer models and to establish existing without project hydraulic conditions The emphasis in this report is on hydraulic modeling for the lower Skagit River downstream from Sedro-Woolley. The damage reaches that are evaluated start at Sedro-Woolley and extend down to the mouth at Skagit Bay Revisions to the hydraulic models used for the Flood Risk Management Study and preparation of the present 2011 update to the Hydraulic Technical Documentation were carried out by Northwest Hydraulic Consultants Inc. (NHC) under contract to the local sponsor, Skagit County (contract C20080424, Task Assignment 4, authorized 15 October 2009)." Report also discusses impacts of bridge debris, potential levee breaches and hydraulic model calibration & validation. Page 41 of the PDF, Table 12: HEC-RAS Hydraulic Model Results, is also worth a review.	
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4/11/2011	<u>Congressman Rick Larsen Letter to</u> <u>Commanding General US Army Corps</u> <u>of Engineers, Re: Cease Work Order on</u> <u>Skagit GI Study</u>	"I have serious concerns about reports that work on the Skagit River General Investigation Study (Skagit G.I.) has been stopped. To abruptly halt forward progress on the Skagit G.I. without exhausting every option available is irresponsible to the mission of protecting lives and property. The Skagit G.I. has taken over thirteen years and has endured numerous scheduled completion date revisions to get to the point where it is today. The Skagit community cannot afford another delay. For more than a decade the people of the Skagit Valley have looked to the Corps to provide the basis on which they can begin completing flood control projects that will increase safety for those living in the Skagit River valley."	
4/15/2011	<u>Flooding in Western Washington: The</u> <u>Connection to Atmospheric Rivers</u>	"This study utilizes multiple decades of daily streamflow data gathered in four major watersheds in western Washington to determine the meteorological conditions most likely to cause flooding in those watersheds The flooding on the four watersheds occurred during the landfall of ARs [Atmospheric Rivers] within the warm sectors of extratropical cyclones that were accompanied by warm advection, lower-tropospheric temperatures 4-6°C above normal, strong low-level water vapor fluxes from over the Pacific, and low-level moist-neutral stability. The enhanced onshore vapor fluxes and weak static stability provided a favorable environment for orographic precipitation enhancement across the region's steep terrain. More generally, all peak daily flows that exceeded a 5-year return period on non-consecutive days in each of the four basins of interest between WY1980-2009 were associated with landfalling ARs."	

4/26/2011	<u>Mississippi River Commission</u> Information Paper: Birds Point-New Madrid Floodway	"The call for floodways marked a necessary turnaround in the engineering policy practiced prior to the 1927 flood. The flood had forced that change, but even in the wake of its widespread devastation a controversy emerged over the reality of actually implementing the floodways. Residents within the floodways were ill-prepared for that reality, which assured that private land once protected by levees would now be subject to inundation to reduce flood stages elsewhere in the valley. Under the Jadwin plan, the Birds Point-New Madrid floodway was designed to do just that."
5/2011	<u>Seattle District Hydraulics &</u> <u>Hydrology MFR on Skagit River Levee</u> <u>Repairs</u>	Analysis of the Summer 2011 Skagit River levee repairs currently being <u>photographically documented</u> . Notes that fish habitat creation with LWD (large woody debris) must not interfere with the 25-year flood protection the levee system currently provides.
7/29/2011	<u>Federal Register: Notice of Intent To</u> <u>Prepare a Draft Environmental Impact</u> <u>Statement for the Skagit River General</u> <u>Investigation Study</u>	Notice begins on bottom right of 1st page of PDF. Great summary of the goal, alternatives and impacts of the Skagit River General Investigation/GI Study. "The goal of this project is to identify the National Economic Development (NED) plan, the flood-risk management alternative that provides the maximum net economic benefits. In accordance with USACE policy, minimization of ecosystem, cultural, and socio- economic impacts will be a significant project consideration (Reference: ER 1105–2– 100, Planning Guidance Notebook)."
8/4/2011	<u>Skagit River General Investigation -</u> <u>NEPA Scoping Meeting</u>	"The purpose of the GI is to better identify the problems and opportunities that exist to relieve flooding and reduce flood risks and to develop a flood-risk management plan. A DEIS is being prepared because of the potential for impacts on environmental resources, particularly salmonid habitat, and the intense public interest already demonstrated in addressing the flooding problems of the Skagit River. "Public involvement will be sought during scoping, plan formulation, and preparation of the DEIS in accordance with National Environmental Policy Act (NEPA) procedures. A public scoping process has been started: (1) To clarify which issues appear to be major public concerns, (2) to identify any information sources that might be available to analyze and evaluate impacts, and (3) to obtain public input and determine acceptability for the range of measures to be included within potential alternatives."

Corps of Engineers GI Study Scoping Documents

8/08/2011	National Environmental Protection Act (NEPA) Environmental Impact Statement (EIS) Steps	Flow chart of the environmental impact evaluation that must occur under NEPA alongside the GI Study process.
8/08/2011	Skagit River General Investigation (GI): Feasibility Phase Flow Chart	Flow chart of the current phase of the GI Study.

		"What is NEPA scoping?
8/09/2011	<u>Brochure: What is NEPA and the</u> <u>Public Scoping Process?</u>	"Scoping is part of the EIS process through which a federal agency describes a proposed action and possible alternatives. The agency then seeks input from other agencies, organizations, and the public on potentially affected resources, environmental issues to be considered, and the agency's planning approach to the analysis."
8/09/2011	<u>Poster: Skagit River General</u> Investigation Study Project Purpose	"Project Purpose:"The purpose of the Skagit River General Investigation (GI) Study is to identify the problems and opportunities that exist to reduce flood risks and to develop a flood risk management plan."
8/10/2011	Dike District 17 Submission to US Army Corps of Engineers 2011 Scoping Efforts	"Burlington Levy Certification program We must take as much of our critical infrastructure out of harms way with the least amount of impact to the environment. Water running through the city and then back to the river or the sound not good."
8/10/2011	National Environmental Policy Act Public Scoping Meeting Comment Form	Comment form handed out at August 10, 2011 Scoping Meeting. The comment form is optional in submitting comments.
8/10/2011	Skagit River General Investigation Study: NEPA Scoping Meeting	Agenda of the Skagit River GI Study Scoping Meeting.
8/15/2011	Information Sheet for Skagit River GI	"The primary intent of the flood risk management feasibility study is to evaluate flooding problems in the Skagit River basin from the Ross Dam reservoir (Ross Lake) to Skagit Bay; to formulate, evaluate, and screen potential solutions to these problems; and to recommend an alternative that has a federal interest and are supported by the local entities. The recommended plan must be technically viable, economically sound, and supported by the local jurisdictions and local sponsor. The study will result in an integrated Feasibility Study Report/Environmental Impact Statement (FR/EIS). "The U.S. Army Corps of Engineers published a Notice of Intent (NOI) to prepare a Draft Environmental Impact Statement (DEIS) for the Skagit River General Investigation in the July 29, 2011 Federal Register. A NOI was originally published in the Federal Register in November 1997 and a public meeting was held. Due to the amount of time that has lapsed since the issuance of the original NOI, the Corps has reissued the NOI and is soliciting comments. A DEIS is being prepared due to the potential for impacts on environmental resources and the intense public interest already demonstrated in addressing the Skagit River flooding problems."
8/15/2011	Skagit River GI Measures Map	Map of proposed flood fighting measures.
8/26/2011	<u>Skagit River GI NOI Comment Period</u> <u>Extension</u>	"During the comment period, requests to extend the comment period were received. In response to these requests, the comment period for the NOI has been extended through September 9, 2011."

10/2011	Skagit River General Investigation Study Scoping Summary Report for the Draft Feasibility Study And Environmental Impact Statement	"The U.S. Army Corps of Engineers, Seattle District (USACE), in cooperation with Skagit County, is preparing a Draft Environmental Impact Statement (DEIS) under the National Environmental Policy Act (NEPA) for a proposed flood-risk management General Investigation (GI) Study for the Skagit River Basin from Ross Lake to the river mouth at Skagit Bay. This study was requested by Skagit County because of the potential for significant flooding on the Skagit River. "An initial notice of intent (NOI) for this project was originally published in the Federal Register on November 20, 1997, for a Skagit River Flood Damage Reduction Study (62 FR 62019). Since the original NOI was issued in 1997, the study has evolved to meet new challenges and include ecosystem considerations associated with Puget Sound Chinook salmon and bull trout species listed as threatened under the Endangered Species Act (ESA). On July 29, 2011, an additional NOI was published, recommencing the scoping process (76 FR 45543) (see Appendix A). The purpose of this most recent NOI was to provide opportunity for additional public input and ensure that the study still accurately reflects stakeholder resource issues and <u>concerns.</u> " See also: 11/26/2011 <u>www.SkagitRiverHistory.com Comments</u> <u>on October 2011 Corps Scoping Summary Report</u>
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Corps of Engineers Public Hearing Transcript

8/10/2011	<u>Reporter's Transcript of Proceedings</u> <u>Skagit County Flood Study Meeting</u>	"NEPA really does encourage citizen participation via public hearings, scoping meetings, these comment periods where you can send in your written comments. Public involvement is a very important aspect of the NEPA process. It's an opportunity for the public to participate in a federal decision-making process and direct an agency's attention to the community's concerns."
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FEMA Documents

2/8/2011	FEMA Blog: Answers to Some Common Questions on Flood Insurance	Over the years, there has been a number of confusing and at times misleading news reports about FEMA flood-mapping efforts and flood insurance in general. We wanted to set the record straight and make sure that all homeowners in communities across the country have consistent and accurate information about this important topic.
3/11/2011	<u>GAO Testimony to Congress, Re:</u> FEMA National Flood Insurance Program (NFIP)	"In order to reduce expenses to taxpayers that can result when NFIP borrows from Treasury, NFIP needs to be able to generate enough in premiums to pay its claims, even in years with catastrophic losses—a goal that is closely tied to that of eliminating subsidies and other reduced rates. Since the program's inception, NFIP premiums have come close to covering claims in average loss years but not in years of catastrophic flooding, particularly 2005. Unlike private insurance companies, NFIP does not purchase reinsurance to cover catastrophic losses."

4/29/2011	FEMA Region X Announcement of FIRM Modeling Update for Noncertified Levees	"In a response to members of Congress, FEMA committed to develop alternative approaches to the current "without levee" mode ling technique employed for non-accredited levees when updating the FIRMs. The intent of the proposed policy change includes evaluating methodologies to assess the flooding risk landward of non-accredited levees more precisely. Please be advised that this change may result in increased and/or decreased base flood elevations in the vicinity of a non- accredited levee. While FEMA develops the new levee risk modeling guidelines and procedures, we will temporarily withhold the issuance of Letters of Final Determination (LFDs) for communities with levees not shown as providing protection from the I -percent annual chance flood event As part of Region X's response to the policy change, we have reviewed your community's mapping project(s) and have determined that there arc one or more non-accredited levees or Provisionally Accredited Levees (PALs) that are or could be affected by this levee policy change. Until the new levee risk modeling guidance is released, we will suspend the processing of the maps in areas with non-accredited levees."
7/13/2011	Army Corps of Engineers News Release: Corps Repairing 2.5 Miles of Damaged Levees Along Skagit River	"The Skagit River levee system is bustling with activity these days as the U.S. Army Corps of Engineers repairs two and a half miles worth of levees at 27 individual sites, within five diking districts, at a cost of approximately \$8 million."
8/22/2011	<u>2011 Local Official Survey Findings on</u> <u>Flood Risk</u>	A national survey of local officials about their perceptions of their local flood risk. Awareness is key to action, as is a flood event every 10 years or so. However, "While more than 20% of officials communicate several times each year about flood risk, nearly one-third (30%) have never communicated with citizens about flood risk."
8/25/2011	<u>2011 Public Survey Findings on Flood</u> <u>Risk</u>	 "**The number of people aware that their community is at risk of flooding increased this year. Those who said they believed their community was at risk from flooding increased from 31% in 2010 to 41% in 2011. More than half (57%) did not think their community was at risk. "*While the public doesn't know that they are at risk of flooding, their local officials do. Two-thirds (68%) of local public officials thought that their community was at risk for flooding. "Local news (87%), phone calls (25%), and mailings (24%) were the most mentioned preferred methods for hearing about a community's flood risk. Only 10% preferred hearing about flood risk on the community's website."
9/28/2011	<u>Letter to Burlington Mayor, Re: FEMA</u> <u>FIRM Appeal</u>	"As you may be aware, the Preliminary FIS and FIRM for Skagit County are on hold until FEMA reassesses and develops alternative analyses for identifying flood hazard risks associated with unaccredited levees. Consequently, Mr. Thomas' request for an SRP review is premature because the Preliminary FIS and FIRM for Skagit County may change as a result of FEMA's reassessment of its levee analysis approaches." See also: FEMA FIRM Appeals Issues Page

Puget Sound Energy Documents

5/5/2011	<u>Letter from PSE President, Re: Baker</u> <u>River Hydroelectric Project; Reservoir</u> <u>Operations</u>	"Your letter also expressed concern about the consistency of PSE's ongoing efforts to fulfill the requirements of Article 1 07(c) with our obligations arising under Section 4.1.1 and Section 4.1.2 of the 2004 Settlement Agreement We have and will continue to work diligently with Skagit County to encourage the Corps to adopt appropriate proposed amendments to the Water Control Manual. However, the Corps, to date, has declined to adopt the proposed amendments for reasons, to our understanding, that relate to scope of the Corps' authority to make these changes."
5/26/2011	License Articles applicable to Article 107 c or Flooding	All legal language and tables governing flood control storage management for Upper Baker Dam & Lower Baker Dam.
7/11/2011	<u>Preliminary Draft: Reservoir</u> <u>Management Related to Imminent</u> <u>Flood Conditions - Settlement</u> <u>Agreement Article 107C - Baker River</u> <u>Hydroelectric Project FERC No. 2150</u>	"The License requires PSE to consult with the ARG (Aquatics Resource Group), and specifically Skagit County and the Corps of Engineers (the Corps), to develop means and operational methods to operate the Project reservoirs in a manner addressing imminent flood events and consistent with the requirements of the License. "When a flood is imminent, the settlement agreement (section 4.1.1) requires PSE to employ reasonable best efforts to achieve target reservoir elevations (Upper Baker Reservoir is 704.92 [NAVD 88] and Lower Baker Reservoir is 423.66 [NAVD 88]). These drawdowns must be undertaken in a manner that is consistent with the License, other applicable laws, and PSE's contractual commitments to the Corps. To date, these efforts have provided additional storage As noted above, each high-water event presents its own set of conditions, and prior events are not necessarily predictive of what may occur — or can be achieved — in the future."
7/11/2011	<u>PSE Publication of FERC License to</u> <u>Operate Baker River Hydrologic</u> <u>Project Settlement Agreement Article</u> <u>107</u>	"Licensee shall consult with the ARG, and specifically Skagit County and the Corps of Engineers, to develop means and operational methods to operate the Project reservoirs in a manner addressing imminent flood events and consistent with the requirements of the license. Appropriate means and methods may include, without limitation, additional reservoir drawdown below the maximum established flood pool. Licensee shall submit a report to the Commission within three years following license issuance describing any operational changes developed as a result of this consultation." Red print Puget Sound Energy's. This document was submitted to the 2011 Skagit River GI Scoping Efforts by the City of Burlington.

Seattle City Light Document

			"Your NOI formally begins the scoping process under NEPA.
0/9	/2011	Seattle City Light Comments on Skagit	As part of the scoping process, Seattle City Light wishes to
9/8/	/2011	River General Investigation Study	comment on the scope of the DEIS. Our ongoing interest in the
			GI study stems from our ownership and operation of the Skagit

Hydroelectric Project located in the upper watershed As we
understand it, the primary intent of the flood risk management
feasibility study is to formulate, evaluate, and screen potential
solutions to flooding problems within the basin and to
recommend an alternative In May of 2009 the Skagit
County's Skagit Comprehensive Flood Hazard Management
Plan (CFHMP) Advisory Committee (AC) provided input on
the Skagit GI measures. This input also included locally
identified projects that will be considered for inclusion in the
Comprehensive Flood Hazard Management Plan (CFHMP)
We encourage the Army Corps to utilize the results of this
effort in its narrowing process
"One of the flood reduction measures being considered is to
create additional storage in Ross Reservoir. To accomplish this
outcome power generation operations would have to be
modified. This concept has been under discussion for more
than 20 years. There are many serious concerns about this
alternative including that the current operations and flows from
the project are set by the FERC License and Settlement
Agreement signed by all concerned federal and state agencies
and tribes. As proposed, this measure would have high impacts
to federally listed Chinook salmon and high financial cost to
SCL for which we would need to be compensated."

Skagit County Documents

1/14/2011	<u>Skagit County Commissioners Letter,</u> <u>Re: Skagit River General Investigation</u> <u>Study (Skagit GI)</u>	"In order to facilitate moving the Skagit GI forward in an efficient and fiscally prudent manner, the Board confirms that we support the Corps' technical and scientific work as the basis for the Skagit GI project analysis and design. We also agree that due to the extensive time, money, and effort required to repeatedly update the hydrology and hydraulics for the Skagit River, it is in the best interest of the project and the residents of Skagit County to use the current (January, 2010) data published by the USGS."
6/6/2011	<u>Skagit County Public Works Natural</u> Resources Director Trip Report Re: Skagit GI Washington DC Trip	"Use available Corps funding to complete the Feasibility Scoping Meeting Report and submit it to Corps Headquarters by October 1, 2011 Assure by the end of FY 2011 that our study is position to move out in a very disciplined process as funding becomes available. A couple of the keys to accomplishing this will be to develop clear methodology to: 1) integrate H&H and hydraulic effectiveness to determine economic benefits of the selected measures; 2) select and size measures to develop 2 or 3 alternatives; and determine the level of detail necessary to make good informed decisions our Community and the Corps will support."
6/23/2011	Skagit County Planning & Development Services Cover Memorandum, Re: Skagit County's draft proposal to address federally protected endangered species (Chinook salmon and Orca whales) in "special flood hazard areas"	"In 2008, a lawsuit was filed against the Federal Emergency Management Agency (FEMA) and its regulatory effort, or lack thereof, in protecting endangered species. Prior to the lawsuit, FEMA, who administers the federal government's flood insurance rate program, had been mostly concerned with protecting homes and business, and minimizing the flood risks to communities. Today, FEMA must now also protect salmon and whales."

6/23/2011	Part 1: Biological Opinion Proposed Skagit County Code Table of Code Amendments	List of changes noting what section of code will be changed, the effect of the Skagit County Code changed and what part of the BiOp Checklist is cited.
6/23/2011	<u>Part 2: Skagit County Code</u> <u>Chapter 14.34: Flood Damage</u> <u>Prevention with post-BiOp</u> <u>Changes</u>	Document notes changes to the code such as saying the purpose of the Flood Damage Prevention code is, "To retain the natural channel, shoreline, and floodplain creation processes and other natural floodplain functions that protect, create, and maintain habitat for threatened and endangered species" & "To prevent or minimize loss of hydraulic, geomorphic, and ecological functions of floodplains 24 and stream channels." Furthermore the code reforms require, "Any loss of floodplain storage shall be avoided, rectified or compensated 18 for within the SFHA", recreational vehicles be able to leave the floodway with haste if necessary, and a new code section for "Habitat Protection Standards."
6/23/2011	<u>Part 3: BiOp Imposed Changes in</u> <u>Chapter 14.24: Critical Areas</u>	"If the proposal is within the special 12 flood hazard area (SFHA), the applicant must demonstrate that the proposal is not likely to 13 adversely affect species protected under the Endangered Species Act, or their habitat."
6/23/2011	<u>Part 4: Biological Opinion</u> <u>Compliance Checklist: Skagit</u> <u>County Proposed Draft Submittal</u>	Review of changes versus Endangered Species Act/ESA, Model Ordinance Section & Community Regulations.
6/23/2011	<u>Part 5: Draft Elements of</u> <u>Administrative Official</u> <u>Interpretation 1 (AOI)</u>	"The AOI would be utilized to guide qualified professionals in the preparation of fish and wildlife site assessments, inform the public and assist reviewers under the authority of the County's Critical Areas Ordinance (CAO). The AOI would rely upon existing language contained in the CAO, and its proposed non- substantive amendments which provide cross reference to the Flood Damage Prevention Ordinance. All code provisions cited in this document are included for review under Attachment A. The AOI would be developed in order to ensure that Skagit County complies with the intent of Reasonable and Prudent Alternative Element 3 - Floodplain Management Criteria. The criteria are contained in the National Marine Fisheries Service Biological Opinion (BiOp) dated September 22, 2008. The Riparian Buffer Zone (RBZ) dimensions can be found in Appendix 4 of the BiOp and the May 14, 2009 errata letter. Appendix 4 and the errata letter are included for review as Attachment B."
6/23/2011	Part 6: Attachment A: Biological Opinion Draft Elements of the Administrative Official 3 Interpretation: Existing Code Provisions	Legal code for compliance w/ the FEMA NFIP BiOp.
6/23/2011	<u>Part 7: Attachment B: Biological</u> <u>Opinion Minimum Criteria for</u> <u>Compliance</u>	"It is the purpose of the following criteria to maintain streams and floodplains in their natural state to the maximum extent possible so they support healthy biological ecosystems, by: 1) assuring that flood loss reduction measures under the NFIP protect natural floodplain functions and riparian habitat, and the natural processes that create and maintain fish habitat, and 2) preventing or minimizing loss of hydraulic, geomorphic, and ecological functions of freshwater and estuarine floodplains and stream channels."

11/15/2011	<u>Letter to Governor Gregoire, Re: Skagit</u> <u>Instream Flow Rule</u>	"Swinomish Chairman Cladoosby recently told the three of us that he intends to control land use in the Skagit Basin by controlling the water supply, effectively bypassing Growth Management Act (GMA) process. From our standpoint, this sentiment explains the present conflict over water rights in the Skagit Basin Skagit County has prohibited most development on floodplain, farmland, and forestland, consistent with the GMA. The stream basins at issue are the same narrow swath of pre-foothill land in Skagit County identified under the GMA for limited rural growth."
11/21/2011	<u>County Commissioners Letter to</u> <u>Swinomish Indian Tribal Community,</u> <u>RE: Skagit Instream Flow Rule</u>	"We respect that your expression of tribal sovereignty involves vigorous advocacy for salmon, and there is little question Swinomish has become a force in the salmon habitat restoration industry. Yet Swinomish is a significant participant in Skagit County's economy and community in many other ways, which deserves due consideration when contemplating major environmental litigation involving the land and homes of thousands of Skagit County citizens. Nearly two decades of litigation over salmon habitat has accomplished very little for salmon, has wasted millions on legal fees that could have otherwise been used for on-the-ground habitat restoration and other constituent needs, and, perhaps most unfortunate, has perpetrated a cycle of animosity in our community." See also: 11/17/2001 Letter to Governor Chris Gregoire, Re: Skagit County Government Letter on Skagit Instream Flow Rule
11/28/2011	<u>County Commissioners Letter to</u> <u>Governor Gregoire, Re: Water Rights</u> <u>in the Skagit River Basin</u>	County responds to the Swinomish "Liar, Liar pants on fire" letter. "At this point, as nearly as we can ascertain, the reason for the continued controversy arises from the desire to create new judicial precedent limiting the scope of Ecology's power to establish exempt well reservations, something mostly relevant to other river basins besides Skagit Extensive litigation capability frequently drives its own employment in search of a justification for the expense involved. While we comprehend why Swinomish staff continues to vigorously advocate for more litigation over the Skagit Instream Flow Rule in close conjunction with CELP, we strongly believe that effort is against the interests of both Skagit Basin salmon stocks and our community, including the members of the Swinomish Indian Tribal Community." See also: 11/15/2011 Letter to Governor Gregoire, Re: Skagit Instream Flow Rule, 11/17/2011 Letter to Governor Chris Gregoire, Re: Skagit County Government Letter on Skagit Instream Flow Rule, 11/21/2011 County Commissioners Letter to Swinomish Indian Tribal Community, RE: Skagit Instream Flow Rule

12/7/2011	<u>Letter to State Department of Ecology</u> <u>Director, Re: Director Letter of Dec. 6,</u> <u>2011</u>	"Skagit County is more than willing to cooperate and fulfill our obligations under the law and our agreement with Ecology, and there is no evidence we have done otherwise. As we have repeatedly communicated to the Governor in recent days, Skagit County is not asking for a larger exempt well allocation. Moreover, Skagit County has and will continue to ascertain whether permit applicants possess a lawful water source, as required by the Kittitas decision. Since we already have the most restrictive scheme in place in the Skagit Basin and no other Skagit treaty tribe supports Swinomish on this issue, we view the threat of treaty rights adjudication as unnecessary. We fully support the list of solutions identified on page 3 of your letter, but these put the cart before the horse. Pervasive litigation by Swinomish attacking nearly every aspect of the basin reservation system - as opposed to any shortcoming on the County's part - explains the problems over which your December 6 letter expresses concern." See also: 11/15/2011 Letter to Governor Gregoire, Re: Skagit Instream Flow Rule, 11/21/2011 County Commissioners Letter to Governor Chris Gregoire, Re: Skagit County Government Letter on Skagit Instream Flow Rule, 11/21/2011 County Commissioners Letter to Governor Gregoire, Re: Skagit Instream Flow Rule, 11/21/2011 County Commissioners Letter to Governor Gregoire, Re: Skagit River Basin, 12.6/2011 Letter to County Commissioners, Re: Skagit River Basin 11.26/2011 Letter to County Commissioners Letter to Governor Gregoire, Re: Skagit Instream Flow Rule, 11/28/2011 County Commissioners Letter to Governor Chris Gregoire, Re: Skagit River Basin, 12.6/2011 Letter to County Commissioners, Re: Skagit River Basin 12.6/2011 Letter to County Commissioners, Re: Skagit River Basin Instream Flow Rule
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Skagit County Flood Control Zone District Advisory Committee Documents

04/07/2011	April 7, 2011 Announcement of SC FCZD AC Meeting Cancellation	"The next FCZD Advisory Committee (AC) meeting, scheduled for Monday, April 18, has been cancelled. The County would like to attend the Reset and NEPA meetings with the Corps before the AC meets again."
7/25/2011	Agenda for July 25, 2011 Meeting	Items to be discussed include a conversation with the County Commissioners, the GI Study and its finance, Flood Spreading Project/FSP, funding and FERC Relicensing Article 107 (c).
11/15/2010	<u>Handout 2: Draft Minutes of Nov.</u> <u>15, 2010</u>	"The AC heard a presentation from Bob Carey and Jenny Baker, Project Manager, on the Fisher Slough Freshwater Tidal Marsh Restoration. The project restores sixty acres of estuary and addresses many community issues, including flood protection for farmland, creating salmon habitat, and improving water quality. One of the major highlights of the project is that it has involved several diverse interest groups like farmers, major government departments, dike and drainage districts, conservation entities, and tribes."
9/6/2011	Upcoming FCZD Meeting Reminder	"The Advisory Committee generally meets the third Monday of every month. The next meeting is Monday, September 19 from 2:30 - 4:30 p.m. in the Commissioners' Hearing Room, Skagit County Administrative Building, 1800 Continental Place, Mount Vernon, WA."
9/19/2011	Agenda for September 19, 2011 Meeting	The meeting will elect a new chair, give an update on the Skagit GI study & Baker FERC Relicensing 107 (c)/Baker River Dam Storage.

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7/25/2011	<u>Handout 2: Draft Minutes of July</u> <u>25, 2011</u>	"Federal Energy Regulatory Committee (FERC) Relicensing Article 107 (c): Martin, City of Burlington, reported on Article 107 (c) as being an opportunity to provide additional flood storage, as needed. It is beneficial to drawdown more water than has been agreed upon, before a flood takes place, because it reduces the risk of flooding and severe damages to fish habitat. Currently, 74,000 acre feet of flood storage is authorized, but the county, towns and cities feel this is inadequate for a 100-year flood event. Instead, 140,000 acre feet should be authorized. Puget Sound Energy does not want to study this issue nor does it want to amend the articles or settlement agreement."
9/14/2011	Handout 3: 107 c Baker Storage Imminent Drawdown Important Dates	Timeline of efforts to get a plan for drawdown of the Baker River Dams before a major flood.
9/19/2011	<u>Handout 4: Memo from Skagit</u> <u>County Natural Resources</u> <u>Director, Re: Skagit GI</u> <u>Washington DC Trip</u>	"At the end of the meeting, the following actions were determined: "1. Use available Corps funding to complete the Feasibility Scoping Meeting Report and submit it to Corps Headquarters by October 1, 2011. Work tasks will need to stay "on schedule" in order to meet this due date and weekly Corp phone conferences will be established to track progress and any resource needs. "3. Clarify flood damage benefit opportunities in the Baker River system pertaining to FERC License articles 107c and 107b. The Corps immediately began to explore issues related to Baker Storage, even between meetings. HQ now has a better understanding of why the local community has demonstrated such keen interest in this measure."
9/9/2011	Handout 5: Skagit County Public Works Letter to USACE Seattle District Colonel, Re: Visit	Letter thanking the Colonel and recapping pledges from the June meeting in DC on the Skagit GI.
9/13/2011	<u>Handout 6: PSE Draft Meeting</u> <u>Notes Baker River Project License</u> <u>Implementation Aquatic Resources</u> <u>Group Meeting Minutes</u>	"The plan is now to submit the next version of the report along with comments by September 16 with final comments due October 3. PSE will submit the report to FERC by October 17. Lorna reiterated the County's desire to see analysis included in the report that demonstrates what targets can be hit for 107c within the constraints of 106 and without the Corps' Water Control Manual. They also want to see timing and discharge data for the 10% exceedance. Gary explained that the analysis performed by Tetra Tech will not be included in the report as it was off target for what 107c was supposed to accomplish. And, based on the results of the teleconference and the need for amendment to pursue operations Skagit County has proposed, PSE sees the focus of the report as the communication protocol."
10/5/2011	Advisory Committee Meeting Cancelled in October & Flood Awareness Week Schedule	"The October AC meeting has been cancelled due to Flood Awareness Week (Oct $18 - 21$). You are more than welcome to attend the activities scheduled during that week instead (agenda attached)."
11/21/2011	Agenda for November 21, 2001 Meeting	Meeting will discuss Skagit River GI & Baker FERC Relicensing 107 (c).

9/19/2011	<u>Handout 2: Meeting Summary for</u> <u>September 19, 2011</u>	"Baker FERC Relicensing 107 "Berentson explained that the settlement agreement requir report be filed three years from the date of license addresses imminent dam drawdown, including a means method for doing so. The County felt it was not b adequately consulted regarding the report. As a result, meet have been held between the County and Puget Sound En (PSE). The County's concern is that not enough storag being addressed in the analysis of storage, and has comments asking PSE to complete it without Water Con Manual constraints."	that and being tings tergy ge is filed
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Swinomish Tribal Documents

8/10/2011	<u>Swinomish ''Possible Environmental</u> Effects for Potential Measures'' of Any Flood Risk Reduction Projects	"improvements to levees will increase the amount of rock in the river, remove vegetation, and probably increase bed scour due to the transfer of energy from the rock faces." See also: <u>Corps of Engineers 2011 Scoping Efforts</u> , 9/7/2011 <u>Swinomish Tribal Community Ltr to Corps of Engineers Re:</u> <u>Skagit General Investigation Scoping Comments</u>
9/7/2011	<u>Swinomish Tribal Community Ltr to</u> <u>Corps of Engineers Re: Skagit General</u> <u>Investigation Scoping Comments</u>	"As we have stated from the onset, the Tribe cannot take a position regarding the acceptability of any the alternatives until adequate environmental studies are done to determine the extent, if any, to Tribal fisheries resources. Our position has been consistent in this regard, as can be observed in the letter (attached) sent to the Corps in 1963 detailing our concerns regarding the Avon Bypass. Therefore, a common concern that has not yet been adequately addressed is the lack of environmental analysis that has been undertaken to date as part of the GI study. Given the financial resources available to the Corps and time frame that you are striving to complete the study, we are concerned that the environmental analysis necessary to make informed decisions will be lacking."
11/17/2011	<u>Letter to Governor Chris Gregoire, Re:</u> <u>Skagit County Government Letter on</u> <u>Skagit Instream Flow Rule</u>	"It is a lie for the County to say that the Swinomish Tribe intends to control off-Reservation land use in the Skagit River basin by controlling water supply, and it is a lie to say that I told the County Commissioners any such thing. These repeated lies can only confuse and inflame the public. So let there be no doubt: the Swinomish Tribe does not want to control off- Reservation land use in Skagit County. But it does want the County and Ecology to follow the law and live up to their agreements." See also: 11/15/2011 Letter to Governor Gregoire, Re: Skagit Instream Flow Rule

USGS Document

		"This document summarizes the next major public project for
	U.S. Geological Survey Open-File	MHDP, a winter storm scenario called ARkStorm (for
1/13/2011	Report 2010-1312: Overview of the	Atmospheric River 1,000). Experts have designed a large,
	ARkStorm Scenario	scientifically realistic meteorological event followed by an
		examination of the secondary hazards (for example, landslides

and flooding), physical damages to the built environment, and social and economic consequences. The hypothetical storm depicted here would strike the U.S. West Coast and be similar to the intense California winter storms of 1861 and 1862 that left the central valley of California impassible. The storm is estimated to produce precipitation that in many places exceeds levels only experienced on average once every 500 to 1,000
years." See also: <u>Associated Press: Report projects impact of big</u> <u>storm to California, Weatherwise ''California Washed</u> <u>Away: The Great Flood of 1862'' by Jan Null and Joelle</u> Hulbert

Washington State Department of Ecology Document

		"Regarding our shared commitment to exercise our respective
		regulatory authorities in a coordinated and complimentary
		fashion, I am very concerned about recent public information
		materials from the County. These materials have asserted that
		the County does not have any role in water resources
		management. This is clearly not the case, as the Washington
		Supreme Court ruled recently in Kittitas County v. Eastern
		Washington Growth Management Hearings Board. In fact,
		according to the Supreme Court, counties have a very
		important role in water management. The court held that in
		making a land-use decision, it is the local government-and not
12/6/2011	Letter to County Commissioners, Re:	Ecology-that is responsible for making the decision on water
12/0/2011	Skagit River Basin Instream Flow Rule	adequacy as part of its land-use decision. However, the court
		recognizes that Ecology should endeavor to provide assistance
		to counties in making such land-use decisions, as needed, to
		ensure adequate protection of water resources. It is critically
		important that we find a way to move this conversation forward
		in a coordinated and complimentary fashion."
		See also: 11/15/2011 Letter to Governor Gregoire, Re:
		Skagit Instream Flow Rule, 11/28/2011 County
		Commissioners Letter to Governor Gregoire, Re: Water
		<u>Rights in the Skagit River Basin</u> , 12/7/2011 <u>Letter to State</u>
		Department of Ecology Director, Re: Director Letter of
		<u>Dec. 6, 2011</u>

Guest Documents

1/13/2011	<u>Associated Press: Report projects</u> impact of big storm to California	"Scientists dub it California's "other Big One," a series of storms capable of costing three times as much as a severe Southern California earthquake. The storms have happened before, lasting 45 days in the winter of 1861-62. They left nearly a third of taxable land under water and caused the state to go bankrupt Scientists believe a series of atmospheric rivers were behind the storms of 1861-62, the largest and longest storms in California's recorded history. Geologic evidence of past floods indicate even bigger storms struck the state long before European settlers arrived." See also: U.S. Geological Survey Open-File Report 2010- 1312: Overview of the ARkStorm Scenario, Weatherwise "California Washed Away: The Great Flood of 1862" by Jan Null and Joelle Hulbert
1/15/2011	<u>Congressman Rick Larsen: Larsen</u> Praises Progress in Skagit Valley Flood <u>Protection</u>	"The commitment by the Board of Commissioners to continue with the existing data for the Skagit River G.I. shows their dedication to protecting the lives and livelihoods of the citizens of Skagit Valley," said Rep. Larsen. "Their decision will ensure the study stays cost-effective and remains on schedule." "The Skagit River G.I. will enable the design and implementation of flood control measures that local communities and their partners can have the confidence to move forward with," said Larsen."
1/27/2011	<u>Shari Brewer Comment Letter on</u> <u>Suiattle Access and Travel Management</u> <u>Plan</u>	"Hydrology and Soils are discussed on pg. 35. The chocolate color of the Suiattle river occurs in the summer when the water flows on the roads is minimal to non existent. In the winter when the rain and rain on snow is significant on the roads the river is a nice green color. Go figure, the siltation is from the Glacier and not the roads."
2/2011	Levee Safety Connections February 2011 Newsletter	"This is the first edition of Levee Safety Connections, a quarterly newsletter with status updates on the recommendations for a proposed National Levee Safety Program, stakeholder feedback, and information about the state of levees in the nation More in-depth information can be found on the NCLS website at <u>www.leveesafety.org</u> ."
2/10/2011	Skagit Valley Herald-created Google Map of Preliminary FEMA Flood Insurance Rate Maps for Skagit County	"The Federal Emergency Management Agency released preliminary flood insurance rate maps on July 1, 2010 for communities along the Skagit River. The map panels originated with FEMA and are provided by the Skagit Valley Herald, http://www.goskagit.com."
3/1/2011	Demystifying National Flood Insurance Program Alignment with the Endangered Species Act	"The Conference will provide Puget Sound's NFIP participating communities with clear information on how NFIP implementation can meet Endangered Species Act obligations. NMFS and FEMA, together with the Puget Sound Partnership, will bring their various perspectives and provide a consistent voice on important methods and practices that can bring local land use implementation into alignment with both NFIP and ESA requirements."
3/6/2011	Inforum Column by Tammy Swift: Flood Fight Has Its Own Language	A column taking a satirical look at flood fights in general.
3/7/2011	FEMA Blog: The Disaster Declaration Process, Spring Flood Edition	"The bottom line is that – as with all disasters – FEMA is not the team, FEMA is only part of the team."

3/10/2011	<u>Skagit Valley Herald Letter to the</u> <u>Editor: Responsible Flood Control</u>	"What I learned in all of the floods I observed is that there is no substitute for personal responsibility to not build in the flood plain in a manner that invites damage. Rather than arguing about what constitutes a "100- year" flood, minimum elevation levels for new construction should be much higher than they now are and probably even higher than so-called new FEMA flood maps might try to require."
3/11/2011	Politico: Continental congress assembles U.S. Army Corps of Engineers, March 11, 1779	A history of the Army Corps of Engineers.
3/11/2011	<u>The American Surveyor:</u> <u>Vantage Point: Life Behind Levees: An</u> <u>Overview and Update by Wendy</u> <u>Lathrop, LS, CFM</u>	A three-page article about FEMA's technical updates for levee safety. "In many parts of the country, reliance on levees has been a way of life for centuries. Low-lying areas on the "dry" side of the levees sprouted agricultural fields, grew towns and cities, or even became industrial hubs. Only relatively recently has the protection of levee systems begun to come under scrutiny, questioning the adequacy of the walls to prevent waters from the "wet" side from overtopping or destroying the levees and inundating the "dry" side."
		The author's previous work served as <u>the December 2008</u> Quote of the Month.
3/17/2011	<u>GordenDerr Law Blog - Northwest</u> <u>Land Matters: FEMA Hits ''Pause'' on</u> <u>Updated Floodplain Maps</u>	"In February, 27 US Senators sent a letter to FEMA Administrator Craig Fugate asking FEMA to revisit its "without levees" analysis policy as part of creating new floodplain maps in jurisdictions around the country. Under the "without levees" approach, FEMA assumes that any levee that does not meet FEMA's levee accreditation standards (44 C.F.R. §65.10) (i.e., protection from a 100-year flood event) does not exist for purposes of preparing pending floodplain maps."
3/28/2011	<u>ThePineTree.Net: The FEMA Scheme</u>	"FEMA seems to have acted like a taxpayer who, in filling out his tax forms, pushes the envelope of deductions as far as he believes he can get away with - that is without sending up a red flag triggering an audit. In FEMA's case, it hasn't altogether worked. Some cities and counties across America are pushing back. But, if FEMA had applied its flood definition and used the same engineering that affected the Stantons' property across the board, many more properties would be included - properties whose new flood status would be known to be ridiculously false to even the casual observer. Red flags would have popped up all over America. The cooperation FEMA needs from county planning departments would have been endangered. Even the more liberal Congress of pre-2010 elections might have been compelled to "audit" FEMA The engineering and assumptions made regarding the Stantons' property are examples of the quality of information use by FEMA to encourage property owners to buy insurance; however, "encourage" isn't exactly accurate either. Homes and businesses with mortgages from federally regulated or insured lenders in high-risk flood areas are required to have flood insurance. While flood insurance is not federally required if you live in a moderate-to-low risk flood area, it is still available and strongly recommended."

4/1/2011	AL.com: Flood insurance program likely to stay in debt, says FEMA head	"In fact, FEMA Administrator Craig Fugate told lawmakers today, the troubled federal program will likely add to its massive debt to the U.S. Treasury Department once another major disaster hits. "Not only do I not see this debt being paid down, except over a very long time with no outstanding catastrophic flood events, I think the reality is we have a greater risk of that (debt) going up," Fugate said."
4/29/2011	<u>State of Missouri et al vs. US Army</u> <u>Corps of Engineers et al.</u>	"At the outset, this Court is doubtful that the waiver of sovereign immunity in § 1323(a) applies at all to the Corps of Engineers, regardless of the stated exception for maintaining navigation. If indeed plaintiffs are correct that § 1323(a) operates to waive sovereign immunity, then the Corps' statutorily mandated efforts to build and maintain levees for flood control on the nation's navigable waterways would be subject to the regulatory provisions of the clean water acts of each individual state. And if that is true, then § 1323(a) preempts and effectively eviscerates the core functions of the Corps under the federal Flood Control Act. "
5/3/2011	<u>Big Oak Farms Inc. et. al. vs. United</u> <u>States of America Class Action</u> <u>Complaint</u>	"This is a class action complaint brought against Defendants for, inter alia, inverse condemnation and wrongful taking of the Plaintiffs' property under the takings clause of the 5th Amendment to the United States Constitution. The taking here occurred when, at approximately 10 p.m. on May 2, 2011, the U.S. Army Corps of Engineers intentionally breached the Birds Point levee with a series of orchestrated explosions and inundated approximately 130,000 acres of Mississippi and New Madrid Counties, Missouri with flood waters from the Mississippi River."
5/4/2011	Sacramento River's Renegade Flood Control System and its Unique Water Right Settlement Agreements	The Sacramento River Water District explained. Last two pages of the PDF are the illustrations.
5/5/2011	<u>Southeast Missourian: Floodway long a</u> <u>source of legal contention</u>	"A prevailing argument is that the farmers in the floodway knew what they were getting into when they signed on the dotted line, that the U.S. Army Corps of Engineers years ago purchased the right to breach the levee and flood those 130,000-plus acres should the need arise as it did when the river gauge at Cairo, Ill., reached 61.72 feet. The notion is that the landowners were paid some say handsomely either outright or received compensation for easements in the floodway."
5/6/2011	Southeast Missourian: Corps shifts focus to East Prairie after final Birds Point breach	A post-floodway breech update. See also 5/5/2011: <u>Southeast</u> <u>Missourian: Floodway long a source of legal contention</u>

5/6/2011	<u>Time.com After Birds Point: The Army</u> <u>Corps' Missouri Floodway Boondoggle</u>	"The farmers who bought land in Missouri's waterlogged bootheel knew what they were buying; periodic floods and occasional wipeouts were priced into their purchases. But after their lobbying efforts and lawsuits failed to persuade the Corps to sacrifice the people of Cairo, Ill., instead of their high-priced dirt, they are now preparing another lawsuit, insisting that the Corps has trampled their constitutional property rights. (Are loan deficiency payments in the Constitution? How about federally subsidized crop insurance? Just asking.) It's a shame when anyone gets flooded, and I remember meeting some nice people in the bootheel when I visited 11 years ago. I also remember some of them saying that if they could have a real development boom there. If that happened, of course, the Corps would never be able to sacrifice the floodway again. Then the river would decide what would be sacrificed."
5/13/2011	<u>WWLTV.com: People in Bayou</u> <u>communities prepare for flooding from</u> <u>swollen river</u>	The flooding risk is something others there acknowledge and are willing to deal with, should the Morganza flood for the first time in nearly 40 years. "It's a flood risk. We've got the bayous that come up and down," Burke said. "But it's been since '73, since they opened up the Morganza. We just do what we got to do." "We understand to save the cities and the populated areas and industries, that's what the spillways were built for," Thibodaux said. "So, we chose to live in these areas and it's something we put up with."
5/13/2011	WWLTV.com: 'What gives them the right to flood us?' asks Gibson woman	Cindy Prejent, a Gibson resident, worries that her house will flood from water that is set to be let loose through the Morganza spillway Prejent is one of 25,000 Louisianans whose home could be flooded once the Morganza is opened – a move to relieve pressure on the swollen Mississippi River to protect major cities in the state like New Orleans and Baton Rouge. "What gives them the right to flood us?" said Prejent. "I understand it, but there are so many communities and so many farmers and so many businesses."
5/15/2011	<u>On Need for More Floodways in the Sacramento Basin</u>	"Our Bypasses allow no buildings. No obstacle over three feet may be built. Unfortunately, the "floodways" on the Mississippi, which began after the 1927 Mississippi flood, appear to have no such restriction."
5/16/2011	Dutch Room for the River Programme	"The goal of the Dutch Room for the River Programme is to give the river more room to be able to manage higher water levels. At more than 30 locations, measures will be taken that give the river space to flood safely. Moreover, the measures will be designed in such a way that they improve the quality of the immediate surroundings. The Room for the River programme will be completed by 2015." See also: <u>Factsheet Room for the River</u> , <u>Explanatory</u> <u>Memorandum Room for the River</u>

5/20/2011	<u>Homeland Security Newswire: Floods</u> <u>along the Mississippi raise questions</u> <u>about levee system</u>	According to Nicholas Pinter, a geology professor at Southern Illinois University, the current levee system, built and maintained by the Army Corps of Engineers, has made some channels of the Mississippi, Ohio, and Missouri Rivers as narrow as one third of their original width. "The Mississippi, Missouri and Ohio Rivers are largely man-made constructs," Pinter said. The narrower river channels means that water will flow faster and higher when it hits farmlands, communities, or spillways designed to handle the river's overflow. In addition, because the water flows faster it will cause more damage to land and structures.
6/2011	<u>GAO Highlights: FEMA - Action</u> <u>Needed to Improve Administration of</u> <u>the National Flood Insurance Program</u>	"FEMA faces significant management challenges in areas that affect NFIP, including strategic and human capital planning; collaboration among offices; and records, financial, and acquisition management. For example, because FEMA has not developed goals, objectives, or performance measures for NFIP, it needs a strategic focus for ensuring program effectiveness. FEMA also faces human capital challenges, including high turnover and weaknesses in overseeing its many contractors. Further, FEMA needs a plan that would ensure consistent day-to-day operations when it deploys staff to federal disasters. FEMA has also faced challenges in collaboration between program and support offices. Finally, FEMA lacks a comprehensive set of processes and systems to guide its operations, in particular a records management policy and an electronic document management system."
6/2011	GAO Full Report to Congressional Committees: FEMA - Action Needed to Improve Administration of the National Flood Insurance Program	"As a result of the program's importance, level of indebtedness, and potential for future losses, we placed NFIP on our high-risk list in March 2006. In earlier reports, we identified a number of operational challenges that hindered FEMA's ability to effectively administer NFIP and contributed to NFIP's placement on the list. For example, we found internal control weaknesses in FEMA's oversight of the write-your- own (WYO) insurers that are key to NFIP operations and that have received payments representing one-third to two-thirds of the premiums collected. We also found problems with the oversight of contractors responsible for performing key NFIP functions such as collecting NFIP data and marketing the program. Because of the risks and challenges facing NFIP and the financial and operational weaknesses we had identified, we undertook a review to look for potential underlying management weaknesses that, if addressed, might improve the operation and functioning of the program."
6/2011	National Committee on Levee Safety: Levee Safety Connections Volume 1, No. 2	"While it will take weeks for floodwaters to recede, and months beyond that to understand the damage of these historic floods, one thing is clear: without reliable levee systems and a public informed of their risks and empowered to protect themselves and their property, damages would have been much greater."

6/9/2011	<u>Property Casualty 360° - A National</u> <u>Underwriter Website: Senator: 'Every</u> <u>Aspect' Of NFIP Needs Revision</u>	"The comments by Sen. Richard Shelby, R-Ala., ranking minority member of the panel, raised fears within the industry that Congress may not be able to complete work on a long-term reauthorization of the program before the current authorization expires Sept. 30. "Every aspect of the program must undergo significant revision for it to survive and continue on a sustainable path," says Shelby during a June 9 hearing on the NFIP."
6/28/2011	<u>US Army Corps of Engineers Trinity</u> <u>River Project, Dallas TX- In-Progress</u> <u>Review Read-Ahead</u>	"Corps re-writing the EA [Environmental Assessment] to ensure that no language is in the document that validates design or efficacy of modification/measure being proposed. Additionally purpose and need of EA is so that the city might maintain eligibility in the National Flood Insurance Program, not provide flood risk benefits."
7/13/2011	Property Casualty 360° - A National Underwriter Website: Insurance Industry Urges Senate to Follow House on NFIP Reauthorization	"Leigh Ann Pusey, president and chief executive officer of the American Insurance Association (AIA), says, "The certainty and stability of this program is an essential component of protecting the homes and businesses that may incur losses as a result of flooding."
7/18/2011	Property Casualty 360° - A National Underwriter Website: House Passes <u>NFIP Bill With Potentially Historic</u> <u>Shift Toward Privatization</u>	"The House on July 12 passed legislation that would reauthorize the NFIP until Sept. 30, 2016. But whether Congress can act on a long-term reauthorization before the current program's extension expires Sept. 30 remains unclear. The final House bill contains one potential historic shift in the program: some movement toward privatization, at least through reinsurance The House also added a provision requiring the NFIP to create a reserve fund to handle catastrophic losses."
8/20/2011	Rapid City Journal: Forum: Flood compensation should be made by Corps	Federal aid could be withheld, even if the flood was at least partially the fault of FEMA & Corps' calculations
8/22/2011	<u>Bloomberg.com: U.S. Army Corps</u> <u>Flood Failures on Mississippi Demand</u> <u>New Vision</u>	The record-breaking spring floods "tested the limits of the system," said Paul Harrison, senior director for Mississippi River and East Coast at the Environmental Defense Fund. He said the Army Corps, which has managed the river's flow since 1824, "wants to continue to invest in the old system rather than look at these events as an opportunity to create a 21st-century system."
8/22/2011	<u>Levees.org releases previously unseen</u> <u>disturbing footage</u>	"While the New Orleans region was still drying out after the federal levees failed in 2005, the Corps of Engineers awarded an elite engineering group a large grant to conduct what was basically a PR show to repair the Corps' damaged reputation. "The grant steered money to the American Society of Civil Engineers (ASCE) to <u>present</u> dozens of powerpoints nationwide apparently designed to mislead the American public on what caused the flooding during Katrina."

9/2011	<u>National Committee on Levee Safety</u> <u>Levee Safety Connections September</u> 2011 Newsletter	"There is always some risk of flooding for those living or working behind a levee. Levees are designed to reduce the risks of flooding, but as we have seen this summer, larger flood events can cause them to be overtopped or fail. Levees also decay and deteriorate over time. When levees do fail, they can fail catastrophically - the cumulative damage to the area behind the levee may be more significant than if the levee wasn't present. If you live or work behind a levee, you should (1) be aware of your risk; (2) have a plan in case of flooding; and (3) stay informed with up-to-date information from local authorities and be ready to act."
11/15/2011	<u>Property Casualty 360° - Another CR</u> with Short-Term NFIP Extension on <u>Horizon</u>	"The House and Senate are expected to pass another continuing resolution by Friday that will keep both the federal government and the NFIP running until Dec. 16, 2011, according to officials of the Independent Insurance Agents and Brokers Association of America. That action will avoid any federal government or NFIP interruptions, says Charles Symington, IIABA senior vice president of government affairs According to State Farm, which is exiting the Write-Your-Program because of the uncertainty in the NFIP, this will be the 12th last-minute reauthorization of the NFIP since 2002. On four occasions, the program was allowed to lapse for extended periods of time, according to State Farm officials "
12/8/2011	<u>Property Casualty 360° - Senate Passes</u> <u>Another Short-Term NFIP Extension as</u> <u>Deadline Nears</u>	"The Senate last night unanimously passed legislation extending the National Flood Insurance Program until May 31, 2012 "Our priority is preventing another NFIP lapse," says Tom Litjen vice president of federal government relations for the Property Casualty Insurers Association of America. "More than 5.6 million home and business owners across the country rely on flood insurance, in every state. This is not just a coastal concern." Tom Santos, vice president for federal affairs at the American Insurance Association, says, "The six month extensionshould allow Congress enough time to consider and pass a long-term extension with meaningful reforms that aim to strengthen the program. Necessary reforms include movement toward risk-based premiums and reduced price subsidies."
12/9/2011	<u>Property Casualty 360° - Long-Term</u> <u>NFIP Extension Finds Its Way Into</u> <u>Budget/Tax Cut Bill</u>	"Legislation that packages the House version of a five-year National Flood Insurance Program extension into a deal that would extend expiring tax cuts is headed for House floor action and likely approval. The deal would essentially include an NFIP extension in House Republicans' demands for budget cuts in exchange for their support on extending expiring tax cuts However, one industry lobbyist questions the math involved in saying passing the NFIP reauthorization would save \$4.5 billion over 10 years when the program currently owes the Treasury almost \$18 billion due to losses created by paying claims from Hurricanes Katrina and Rita in 2005."

12/21/2011	<u>The Seattle Times: Battle escalates over</u> <u>building in flood plains</u>	"More than a decade after government biologists first warned the Federal Emergency Management Agency (FEMA) that allowing development in flood plains is helping kill salmon and orcas, environmental groups on Wednesday turned to their most potent — and controversial — weapon: They asked a federal judge in Seattle for an emergency injunction that would effectively halt a sizable chunk of the building in flood-prone areas until FEMA finds a way to make sure it won't harm endangered fish or whales. "While it's impossible to know how much construction might be curtailed, the National Wildlife Federation says its review of FEMA data suggests 700 to 800 new structures have been built in flood plains in the three years since the biologists said the practice must change. "Salmon are going over the edge, and we've waited years for it to change and it hasn't," said Jan Hasselman, an attorney with the environmental legal firm Earthjustice, which filed the motion in federal court. "As far as we can tell, not one project has been prevented, delayed, reconfigured or reconsidered" since 2008."
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