

As I have stated many times at public presentations, “Mother Nature has left Her footprints in the sand. Walk in Her moccasins and She will show you your past and in so doing will tell you your future.” The past is wasted if we do not learn from our mistakes so as to not make them again in the future.

In order to prepare for a look back at the last decade we assembled all the documents published on this web site from 1/1/2000 until 12/31/2009 and put them in chronological order, regardless of their author, into one document. As always, when you put documents into chronological order they tell you a story.



The Angry Citizen

The Decade of “Paralysis of Analysis” in Documents		
Date	Title	Summary
6/5/2000	Skagit River Flood Control Committee Meeting Minutes	Skagit River Risk Management Working Group (“WG”) purpose and members identified. First mtg of Working Group to be in July 2000.
6/7/2000	Jackie VanderVeen e-mail to Sky Miller re mtg with DOE.	E-mail explains “The intent of the meeting, I thought, was to start a dialogue with the Padilla Bay folks to 1) ease their fears of flood waters ruining the eel grass beds, and 2) to request the scientific information that indicates that this would indeed happen if flood waters entered Padilla Bay.”
6/7/2000	Corps e-mail to VanderVeen urging mtg with DOE	“I also talked to Valerie about this working group and she filled me in on the meeting with Ecology. I can't make that meeting but I think you should still go forward with it.”
6/11/2000	Corps e-mail re 6/5/2000 FCC meeting	“The information that I took away from this meeting: the whole flood plane is underlain with ten of more feet of this volcanic goop that liquefies in any seismic situation. If Larry is correct, large levee sections would fail in an earthquake situation, especially if under any hydrostatic loading.”
6/11/2000	Corps MFR re 6/5/2000 FCC	The Work Group, that Valerie is heading, will select the alternatives for the feasibility study. This panel is made up of various citizens, local association representatives and numerous government officials. The first scheduled meeting is 26 July. Mike Scuderi and I were asked to be on the committee, but we need Counsels input regarding the Federal Advisory Committee Act (FACA) before we proceed. Department of Ecology and Skagit County are having a meeting 26 June to increase awareness and communication. DoE has voiced opposition to an alternative already, to preserve eelgrass in Padilla Bay.

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Date	Title	Summary
7/14/2000	Environment International (“EI”) consultant e-mail to WG	Thank you once again for agreeing to participate in the Skagit Flood Risk Management Working Group. As you all know, our first meeting is taking place next Tuesday, July 18th, at the Farmhouse Inn.
7/18/2000	Agenda for WG mtg	Mtg lasted 7 hours. Discussed ground rules and goals.
7/18/2000	Attendance List	
7/18/2000	<u>Design for building consensus</u>	“Building on the two observations above, it is clear that a key impediment to building consensus and achieving a flood management plan is the lack of understanding of the realities surrounding a 100-year flood. Few people would be willing to vote for funding options that could affect them or even be proponents for risk plans that would involve some compromises without an understanding of the "benefits" to them, their neighborhoods, the region, and the businesses that employ them (and would be inundated in a 100-year flood event). Thus, a key element in the design must be the development of approaches to communicate risk effectively to key target audiences. With a "real world" understanding of 100-year flood -- who and what would be inundated --- we can begin to build a common appreciation in the community, among agencies, and with politicians and stakeholders of the need for a flood management plan. In short, we need to put a face on the 100-year event and convey the consequences of it in powerful, personal terms to key individuals, agencies, and stakeholder groups.”
7/18/2000	WG Minutes	The first meeting of the Skagit Flood Risk Management Working Group was held on Tuesday, July 18, 2000 from 9:00 AM to 4:00PM at the Farmhouse Inn. . . . Sky indicated that he had spent a lot of time pondering the situations on a number of rivers and, as of late, the Skagit River. He posed a question to the group as to how the valley had gotten itself into the current situation. He speculated that it started with the agricultural community building dikes to protect their crops. As more people moved into the area, the transportation systems in the form of highways and railroads were developed. This encouraged more people to move here. Bridges and cities sprang up and development continued. Dike building continued to the point that we are very reliant on them. Unfortunately, the dikes have a capacity that we know can be exceeded. The dikes of Skagit County can hold the water from a 25 or 35 year flood. Elsewhere, other cities have 500 year flood protection. Sky referred to this phenomenon as “flood hazard creep.”
8/26/2000	LJK E-mail Re: Review of 7/18/2000 Working Group Minutes	“The next meeting should focus on what cannot be done in order the committee doesn't waste any time. The Sauk Dam is out, dredging is out, raising the levees higher is out. That leaves only a "bypass" concept or lowering the levees to provide for overtopping or moving the levees back.”
9/14/2000	Agenda for WG mtg	

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Date	Title	Summary
9/14/2000	WG Minutes	Ron Malmgren replied that even if the capacity of the river was doubled by dredging 40 to 50 feet deep with an 800-foot channel width, one would still see a tidal effect at Mount Vernon. Because the tide holds the water back, dredging simply won't be that helpful. Additionally, the dredged area will be filled in about 5 years and all of the fish habitat will have been destroyed. . . . Questions turned to how much dredging can be done before the integrity of the levees is compromised. Sky replied that one cannot dig below 40 feet. Curt Wylie mentioned that for every foot over flood stage, the river scours a foot deeper into the riverbed. Sky confirmed this statement and added that the river moves around and dredges a hole in the riverbed. When the river slows down it drops its sediment load, which will fill in any holes that were created through dredging. Additionally, clean water flows faster and will pick up more soil increasing the level of erosion. . . . Bob Boudinot asked what distance the levees would have to be setback to accommodate flooding. Ron answered that they would have to be moved 500 to 1,000 feet depending on the capacity. The Burlington Northern railroad is the biggest constriction of the river. Bob noted that it was the shore side spans of the railroad bridge that caused the constrictions and not the piers. Therefore, they should only have to add short spans between the piers close to the shore. . . . Stephen Pierce asked what the benefits of overtopping are. Ron responded that the rural areas get wet and not the urban areas. Chuck Bennett asked if they could develop a plan in which the set backs hold 190,000 to 200,000 c.f.s. and overtopping areas take the rest of the floodwaters. He noted that the set backs are more of a controlled system as opposed to the overtopping. Ron Malmgren informed him that it was possible.
9/14/2000	Corps PowerPoint Presentation re answers to various questions presented by the WG	Addresses' issues like the Mt. Vernon revetment, storage in the Nookachamps, levee setbacks, Gages Slough and dredging.
10/10/2000	US Fish & Wildlife Planning Aid Letter: Skagit River Flood Feasibility Study	“We have other general concerns about the bypass option, including: 1) a bypass would leave little incentive to breach dikes or do levee setbacks, actions which would benefit fish and wildlife by restoring flood plain processes; 2) a bypass could result in further development and encroachment of the flood plain, since the flooding problem "would be solved." If a bypass alternative made further development of the flood plain more feasible, it would be contrary to the intent of Executive Order 11988, which prohibits federal agencies from participating in projects that encourage development in the flood plain; 3) the bypass would increase conveyance, but do nothing to increase flood plain storage, thus doing little to help restore natural processes; and 4) some kind of structural mechanism would need to be installed at the inlet of the bypass to ensure year around flows and stability of the inlet.”

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Date	Title	Summary
12/8/2000	EI e-mail to WG	“The alternatives for flood control in Skagit County that have been identified thus far by the Working Group are listed below. These alternatives were identified during a brainstorming session of the September 14th Working Group meeting. During this brainstorming session, Working Group members studied a Mylar map of the Skagit floodplain to help them generate ideas about potential alternatives for further consideration. The purpose of the brainstorming session was to produce a range of flood control alternatives for further analysis by the County and Corps of Engineers.”
12/11/2000	GI Study Alternatives received from WG	See 12/8/2000 EI e-mail to WG above.
12/12/2000	Agenda for WG mtg	
12/12/2000	WG Minutes	Presentation by USFWS re their concerns about fish vs flood control. Lou Ellyn explained that fish have adapted to a system with a variety of natural processes. The Skagit River system previously had large floodplain storage and a large amount of vegetation along the riverbanks. In this system, the water would spread out laterally from the river during a flood causing the water to have a gentler rise. Currently, the river is channelized by the levees, causing the water to rise quickly and destructively. Any efforts that the County and the Working Group take to regain the original flood plain function will help the fish population levels because it restores their natural habitat. Setbacks and ring dikes are alternatives that would benefit fish. Non-structural alternatives, such as relocation and early warnings, are also good. Lou Ellyn noted these value statements are made in regards to fish and river function. . . . the levee system can flush these anadromous fish out of the river system . . . Dick noted that the salmon problem is so severe that if nothing is done immediately all of the fish will be lost. Corps Update: Stephen Pierce provided the group with an overview of the Corps activities to date. In 1993 the Corps finished its reconnaissance study, which provided the basis for the current funding. The current schedule shows that the Corps will be finished with the EIS and FS in 2003. The project will go for authorization and appropriation under the Water Resources Development Act in 2004. The design of the plan will occur in 2004 and 2005. Construction is slated to begin in 2006.
12/12/2000	Corps PowerPoint Presentation re Hydraulic Modeling for Alternatives	Presentation showed areas that would flood with different alternative projects.
2001	Random Skagit Notes	“ 1995 flood. One fourth of all claims were in Skagit. They also had 30-35% of all P A, emergency housing, IFG and SBA loans.”
2/6/2001	Skagit Feasibility Alternatives for Analysis	5 Alternatives considered. All included “In 3 bridge corridor, between Burlington and Mount Vernon, set back levee 500 feet including 20 foot deep bank excavation. Lengthen the 3 bridges.”

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2/6/2001	Corps e-mail re County new alternative	“The item for Francis Road is from the brain storming session (September). The idea is that Sterling and Nookachamps could be given something like 25 year protection, consistent with the rest of the dike systems. There would be some road access during the floods, etc. If we went with an overtopping alternative, this piece would give us some more options to study.”
2/16/2001	Alternatives for Analysis	Good description of different alternatives along with positive and negative impacts of each.
2/23/2001	County e-mail to Corps	“I would also like you to inform the group of the plan to involve Ron Thom and a little about his background.” (NOTE: Dr. Ronald Thom, who leads the Coastal Assessment and Restoration technical group at the Battelle Marine Sciences Laboratory in Sequim, Washington, has over 35 years of experience as an estuarine and coastal ecologist, and fisheries biologist. It was eventually Battelle’s estimate for the ell grass study that sunk the By-Pass proposal. See 12/20/2002 e-mail
2/23/2001	Corps “Alternative Analysis” Draft Matrix	Very preliminary document.
3/1/2001	Agenda for WG mtg	
3/1/2001	WG Minutes	Ed Capasso noted that with the exception of the overtopping alternative, all of the alternatives had been examined in the past for their environmental impacts. Ed noted that the group was not starting at ground zero because of the previous studies. . . . Stephen Pierce stated that all of the potential alternatives, except for Alternative 6 (Samish Diversion), require the three-bridge corridor to be lengthened. . . . Larry Kunzler brought up the topic of compensating landowners for their property. He warned that if this did not happened the community would develop a “not in my backyard” attitude. The facilitator agreed that compensation was a key issue of interest to many. . . . There was a brief discussion regarding how the project would be funded. The federal government would pay for 65% of the project and the local share would be 35%. Funds for land acquisition would come entirely from the local share but would count towards the local 35% share. The group also touched on the amount of the total project price that would be used for mitigation purposes.
3/8/2001	Corps MFR re Cultural Resources Assumptions	Very good discussion of how cultural resources are looked at during flood risk reduction measures evaluation although at least one of the assumptions is clearly wrong.. “3-bridge corridor to Avon has recorded sites but has not seen systematic survey so new sites are anticipated in area of overbank excavation, same for West Mount Vernon setback, direct construction impacts in dike alignments.”
3/14/2001	Memo to file from Chuck Steele re Skagit River CFHMP, Phase 3	“The revised SOW is keyed to the Corps of Engineers newly-prepared Project Management Plan, and to an accelerated effort to prepare environmental studies as part of the EIS, and in response to the Department of Ecology’s needs relative to Padilla Bay.”

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3/19/2001	County e-mail re consulting services	With the addition of this supplement, the County will have contracted with Environment International, Inc. for about \$175,000. That is significantly more than I had originally planned for this effort so I have to be careful about this most recent request.
4/9/2001	County e-mail to Corps re April meeting	My intent is to have Valerie really hammer home the point that we are in decision mode and must reach a consensus no later than the end of June. That means that we really only have two more meetings besides this one to get an agreement.
4/12/2001	County e-mail re citizen participation	I don't really want to be at Larry's beckon call. Do I need to change my attitude?
4/19/2001	County e-mail re WDFW appointee	WDFW has assigned Brendan Brokes to act on the behalf of Rich Johnson in his absence from the Working Group. Please add Brendan to your list of
4/20/2001	County e-mail re agency participation	We have had four working group meetings total. NMFS came once . USF&WS came three times, and SSC came twice. WDFW hasn't missed any. Scuderi missed once. I am guessing that the next meeting only WDFW will be in attendance. I can't help it if they are feeling left out. We give plenty of advanced notice. I am also concerned that no one in the environmental arena has any incentive to be economically responsible
4/20/2001	County e-mail re overtopping levees	I understood that you needed some form of documentation from the County on their position with overtopping levees. The reason that overtopping was the alternative of choice for the Recon Study in 1993 was because the economic evaluation at that time was based on very old data - (I know, - thats okay). Overtopping was the only project that would meet the B/C ratio criterion using the old economic data from the 1970s. . . . I think that the County is not the only one that would be against overtopping. I think, given the information we now have, that the environmentalists would never allow this project either. Now we have new data that indicates that we can qualify for a much more comprehensive project that will benefit MORE people than overtopping would, not to mention salmon. . . . I don't want it to be a "product" of the working group either - I agree
4/24/2001	Corps e-mail re bull trout	While we potentially are improving Chinook habitat we still have to deal with bull trout. The Skagit has the healthiest population of bull trout in Puget Sound and FWS is quite concerned with any disruptions to that population. . . . This issue must be addressed.
4/26/2001	Agenda for WG	

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Date	Title	Summary
4/26/2001	WG Minutes	<p>The federal government is trying to implement a tax cut, and the state is having a hard time passing a budget; neither government seems to have much money available for flood risk management projects. . . . If the bypass is combined with the Highway 20 project, it could be a win-win situation for many parties. . . . The facilitator led the group into a discussion of the timeline and immediate goals. . . . She reminded the group that the County wanted their opinion by the end of June. . . . The facilitator clarified the challenge at hand: how to balance a linear process of selection, studies and approval with a non-linear world. She diagramed the process. . . . This is an enormously important decision for the counties, agencies and tribes, and one cannot rush into a \$300 million project. The diversion has failed twice because of lack of planning, and he does not want it to happen again. He also wanted more information about the Highway 20 project that was shut down in the 1980s for environmental reasons. . . . that it was the same process that the DOT has struggled with many times. In his experience the more stakeholders, agencies and others are involved early in the process, the more successful the project is down the road. He also added that Highway 20 project was slowed because of serious concerns about filling and building in the floodplain but it is now going forward. . . . Given \$300 million project whose costs are spread over 50 years, and the current estimate of \$66.7 million annual flood damages, Jim saw no problem justifying a project with a benefit:cost ratio. In other words, the economics of the project does not eliminate any alternatives. Jim commented that the County had done a good job building in the flood plain, making many alternatives viable.</p>
4/30/2001	Corps e-mail re WG meeting	<p>The farmers down by Larry didn't vote cause it was secret. I told him we need to reduce the list with the information from the 10% design. We plan on spending \$2,000,000 on the remaining alternatives and we can't study all of them. . . . I should have told him that we were <u>going to let economics determine the options</u>. Maybe some of the solutions will be horse-trade. I further told Larry that the Economic report had not been provided the county yet.</p>
5/1/2001	Draft Flood damage reduction project purpose	<p>The flood damage reduction project purpose is to assist in developing a Comprehensive Flood Hazard Management Plan for the Skagit River by developing alternatives to reduce flood hazards in the project area. and to incorporate appropriate fish and wildlife habitat improvements.</p>
5/1/2001	County e-mail re project purpose	<p>Will you look at it from a legal perspective and how we might word smith it so that something like overtopping might be eliminated but a diversion channel wouldn't necessarily be eliminated?</p>
5/2/2001	Corps e-mail to County re rip-rap cost estimates	<p>Estimated cost for “rock” for each of the 7 alternatives.</p>
5/2/2001	Corps preliminary alternative descriptions	<p>In all alternatives, a floodwall will be built in Mount Vernon to prevent the continued flood fight that is required with even a small frequency event. A levee will also be built near Sterling to preclude the necessary flood fighting along Highway 20.</p>
5/2/2001	Corps Environmental Consideration Matrix	<p>Includes mitigation measures</p>

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5/2/2001	Corps e-mail re alternatives and environmental matrix for project EIS	Meeting took place Friday May 4 th .
5/2/2001	Valarie Lee ltr to WG re WG request for more information	“Many in the group believed that they needed additional information before they could express preferences among alternatives. It was made clear by a number of Working Group members that they would very much appreciate the resource agencies bringing their expertise to bear so that the Corps, the County and the Working Group will have a better understanding of the environmental benefits and possible impacts of various alternatives.”
5/4/2001	Skagit Feasibility Scoping Meeting Minutes	Stephen Pierce explained that there are currently seven action alternatives. Those studies have been planned to a ten percent detail level. Two million dollars are available to take one option to the 35% stage. Replying to the facilitator’s question about what the different design stages would look like, Stephen stated that the 10% stage has some details, but only enough to formulate a rough estimate of what building costs would be. The 35% stage includes more specifics such as how bridges will be designed and exactly what property will need to be acquired. . . . He cannot eliminate anything for capricious or political reasons. . . . Lou Ellyn pointed out that if the toe rock were left in, most of the environmental benefits of a natural river system would not be realized. Without the environmental benefits, the additional funding may not be available. Brendan Brokes concurred, and added that juvenile fish might get stranded outside of the river channel after a flood. . . . She stated that numerous questions existed about leaving the toe rock in versus removing it, and that sedimentation studies should be done to answer those questions.
5/7/2001	US Fish and Wildlife Service Planning Aid Letter, Skagit River Flood Feasibility Study	This letter is in response to the last Skagit Flood Risk Management Workgroup, dated April 26, 2001. At that meeting, we learned that the local sponsor, Skagit County, is considering removal of the language that incorporates appropriate fish and wildlife habitat improvements as part of the project purpose.

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Date	Title	Summary
5/11/2001	Second Skagit Feasibility Scoping Meeting Minutes	<p>Although overtopping had once been a popular concept, Mike believed that it was less popular now. He passed around copies of documents from 1996 and 1998 that recorded meetings during which the overtopping flood control option was scoped. He pointed out one key assumption in the documents was that all fish going over the top would be lost. Although some fish would probably return to the main stem, the participants in the 1996 meeting would have needed a ten year study to determine how many fish might return. Since no return mechanism was planned, and it was difficult to determine natural returns, the group decided to assume no returns. . . . if a levee breach happened similar to Fir Island in 1990, he could see potentially serious environmental difficulties in rebuilding it. Rod asked if more opportunities for restoration would exist because of the new work. Mike answered that in the short term there would be more opportunities, but once the project was built, the Corps would not be involved, and the County would take over the maintenance of the project. . . . Overall, the group agreed that many of the benefits of setbacks would be related to the amount of riprap removed. At a bare minimum there should be no increase in the amount of riprap in the river. Mitigation measures could include additional removal. However, the cost of removing the riprap would also be a concern for the County. . . . the Corps could not eliminate any alternatives based on cost. All of the alternatives had already been subjected to a cost-benefit analysis by the Corps and all the alternatives were determined to be financially feasible.</p>
5/14/2001	Corps e-mail re Sterling/Nookachamp Levees	<p>Sterling levee; two locations, 1st option is a levee along rail road tracks (per 1979 GDM), where they flood fight all the time. The 2nd, the drawn line shown in the design drawings, to protect as many houses as we can. Kunzler says that a Sterling levee would induce flooding in Nookachamps. I don't have any other feed back. Dave and I talked about the flood fight necessary in Sterling during a flood. Per his comments, we need a permanent fix that is part of the complete solution. I'm working with Economics to justify the larger of the two options. . . . Nookachamps levee; two locations, 1st option is a levee along the Swan road (per 1979 GDM). The 2nd along the Francis road. The resource agencies do not like any flood control structures in this area. Kunzler is not happy with me changing things. I think both of these Nookachamps options are dead. I'm working with real estate and legal to see if we have other options with the Nookachamps homes and improvements. Such as easments, house raising or something else.</p>
5/17/2001	Valarie Lee e-mail to WG	<p>Since the April meeting of the Working Group, the agencies have held two very productive meetings and reviewed the four main elements incorporated in the suite of alternatives: the Swinomish diversion, levee setbacks, overtopping and the Samish diversion. For each element, the agency representatives formulated a list of questions regarding design clarification and potential resource impacts. Additionally, they made suggestions about the project design. . . . Also enclosed is a letter from the Fish and Wildlife Service to the Corps. It was sent to several members of the Working Group, and the County thought it might be of interest to the entire Working Group. (See 5/7/2001 ltr above) (See also 6/27/01 COE response ltr)</p>

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Date	Title	Summary
5/20/2001	LJK Historical Memorandum to WG	Memorandum was presented to the WG as a historical perspective on the “Diversion Channel” efforts in the past. The info contained in this memorandum was used as the basis for the paper published in 2005 titled Historical Record of the Avon By-Pass Proposal (1921-2004).
5/22/2001	WG Agenda	
5/22/2001	WG Minutes	Dave Brookings offered that he believed the letter was in response to his comment to agencies in the April 26 th meeting reminding them that the primary reason for this project is flood control and mitigating the impacts of floods. He had stated that, although partnerships with agencies and others who care about fish and wildlife habitat were important, lower Skagit River restoration was not the primary purpose of the project. . . . The new protection including toe rock for the new levee would be placed at its base and the hole would be filled. Stephen did not know if the backfill would be clay. He also was not sure the depth of the new protection and toe rock. Ed Capasso asked how many miles of levees would be set back. Stephen responded that for Alternatives 2 and 5, it would be on the north and the south fork, downstream from Mt. Vernon. The cost would be approximately 30 million dollars. . . . Chuck Bennett asked why the riprap would need to be removed. Mike responded that the potential benefits for fish would be much greater with riprap removed. Studies have shown that Chinook prefer a channel that is not lined with rock. If the rock is removed and replaced with natural cover such as trees and shrubs, the river becomes more mobile and habitat diversity increases. Cut banks are very good for fish, for example. Ed asked whether the riprap-lined banks currently provide habitat for the fish. Mike agreed that the riprap provides some habitat, but the quality is very low. Data from a Skagit Systems Coop study demonstrated that even banks with riprap that is silted over are not used nearly as much by fish as natural banks. Larry Wasserman concurred, pointing out that between 5 and 8 times as many fish can be found by natural banks as found in areas with riprap. Larry stated that the total fish production of the river is directly related to the amount of riprap in the river. . . . Dave Brookings commented that this was a federal project, but once the project would be completed, the County would be responsible for the upkeep. He believed that the county would be glad to partner with the dike districts for the project’s operations and maintenance (O & M).
5/22/2001	Skagit River Feasibility Report Alternative Analysis	Corps of Engineers evaluation of possible flood control risk reduction measures. “Amount of storage at Upper Baker and Ross Reservoirs has already been optimized.”
6/5/2001	County e-mail to EI re signing document	One of the things that I would like you to be thinking about is crafting a strategy to get this group to sign some kind of a document that we can forward to the County Commissioners. The language needs to be such that we have no wary participants. The document doesn't need to state (nor should it - probably) that THIS is the preferred alternative. I'm thinking that we will probably be marching forward with two alternatives anyway. You are clever and I bet you can come up with something.

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Date	Title	Summary
6/6/2001	Alternative Ranking Chart	Important to note about this chart is that not everyone in the room participated in the ranking because of the “secret” votes.
6/11/2001	Technical Concerns Table	Table shows that a lot of questions remained about any proposed project.
6/15/2001	Skagit River Feasibility Report Alternative Analysis	Appears to be later version of 5/22/2001 analysis.
6/19/2001	DRAFT TABLE OF ENVIRONMENTAL COMPLIANCE REQUIREMENTS FOR SKAGIT FLOOD DAMAGE REDUCTION STUDY	List of regulations that flood control projects must comply with.
6/19/2001	Draft Table of Applicable Regulations	Lot of hoops to jump through for any project to achieve agency approval.
6/20/2001	COE e-mail to County and consultant	We're also trying to kill the overtopping alternative with a legal issue or cost issue.
6/25/2001	WG Agenda	
6/25/2001	WG Minutes	<p>The new riprap will be placed as deep as the old. In response to a question, he agreed that the riprap could not be shallower than the depth of the river to ensure that the levee would not be undercut. . . . Several people were emphatic that they believed dikes should be protected with riprap. Mike replied that he and the agencies recognized the need to protect the dikes. He believed that a riparian area would be possible in conjunction with well-protected dikes. . . . Ed Capasso noted that the Mayor of Anacortes wrote a letter to Ecology expressing concerns about water quality and quantity surrounding the potential diversions. As a result there were still major issues about diverting water to a bypass. . . . Mike pointed out that the numerous high priority concerns on the resource agencies’ list of questions for the Swinomish diversion indicate serious potential problems with that alternative. These potential difficulties include water rights, saltwater intrusion, tidegates and maintenance of the channel. Continuing to review the list of resource agency concerns, Mike noted that the setbacks option only had one urgent question: riprap. It had become clear that the new levees would need to be protected with riprap, but that riprap in the existing river channel would be detrimental to the fish. The Samish diversion also had one major question on the list of concerns. Because of the potential for mixing of fish stocks, there might be a jeopardy call from the National Marine Fisheries Service. . . . The Swinomish diversion was defined to be between SR 20 and about a mile south of SR 20. Todd asked how the location for Alternative 1 was chosen. The Corps responded that it had been chosen to follow the low land and to avoid structures wherever possible. . . . Dave Brookings mentioned that he had heard from Larry Wasserman, who concurred with moving the two alternatives identified by the group and the do nothing alternative forward.</p>

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Date	Title	Summary
6/27/2001	COE draft response to 5/7/2001 FWS ltr	The primary purpose of this project is Flood Damage Reduction. Whether or not the project purpose contains “fish and wildlife habitat improvements,” environmental features will still be part of any constructed project. We assure you that the Corps will implement a project that adequately mitigates for any potential impacts to fish and wildlife resources.
6/27/2001	County e-mail to EI	I have to tell you that the Corps is evaluating one more alternative. I told Stephen that we needed to be careful about that. He is sometimes kind of insensitive to the process. I think the working group would have a fit if they knew. I plan on letting them know when I find out more. The other alternative is one that Terry Stevens thought up. Its a bypass from the River Bend area to the North Fork. I think its not a good idea cuz you cut through prime farm land and put too much water into the North Fork rather than splitting the flow.
7/3/2001	Valarie Lee e-mail to WG re “Consensus”	In our June 25 meeting, the working group participants present reached consensus from the perspective of the Working Group regarding identification of the two “preferred alternatives” for analysis as a part of the environmental impact statement. Participants requested that we prepare a short report of proceedings. As a first step, attached find a statement of agreement memorializing the consensus of those present at the last meeting. (See 6/5/2001 email above)
7/3/2001	WG Statement of Agreement	In July of 2000, over 20 people came together at the first meeting of the Skagit County Flood Risk Management Working Group (Working Group). . . . During the first phase, we brainstormed 22 flood risk management techniques to learn about. The topics that we focused on were: overtopping levees, storage, levee setbacks, dredging, dams, bypasses, and the effects of these approaches on the environment including potential effects on federally listed species and their habitat. We learned about the history, biology and hydrology of the river from local experts. We examined flood events and discussed the potential pros and cons of various flood risk management options. . . . From the perspective of those in the Working Group, the two most interesting Alternatives are: Levee Setbacks. By setting back the levees along the Skagit 1,000 feet, the river channel could hold a 100-year flood. Old riprap would be removed and the new levees would be protected by riprap and toe rock. Swinomish Diversion. This Alternative consists of a diversion channel that is 2,000 feet wide and can hold 80,000 cfs. The diversion will be either along Highway 20 or within a mile south of the Highway. The best location for a Swinomish diversion will be determined through additional studies, modeling and discussions with the Washington State Department of Transportation.
7/16/2001	County e-mail re signatures on Statement of Agreement	At this point I'm willing to abort our attempt to get signatures on a document to forward onto the BCC. Lets focus our efforts on closing the process and forwarding it to the Commissioners.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
7/24/2001	Draft Executive Summary of WG Efforts	The Working Group, together with the County and the Corps, identified further alternatives for which the Working Group requested more information. These seven alternatives included: a large Swinomish diversion; a smaller Swinomish diversion combined with levee setbacks; overtopping; selected overtopping with ring dikes; levee setbacks; a Samish diversion; and a northern Swinomish diversion along Highway 20. From the perspective of those in the Working Group, the two most interesting flood risk management alternatives for further study and design are levee setbacks to accommodate a 100-year flood and a diversion to take the floodwater into the Swinomish Channel.
7/24/2001	WG Minutes	The eighth meeting of the Skagit County Flood Risk Management Working Group (Working Group) was held Tuesday, July 24, 2001 at the Cottontree Inn in Mount Vernon at 10:30 AM and followed by a lunch at noon. Lou Ellyn Jones had several comments. First, she felt uncomfortable with the statement that the Working Group had come to agreement on the two identified alternatives mentioned in the document. She did not believe that there had been full agreement. In particular, she believed that the implications of the alternatives for floodplain development and Executive Order 11988 had not been thoroughly discussed. . . . The facilitator recalled that the group had made tremendous progress. Bob Boudinot agreed and stressed that the Executive Summary was very important because it will shape public opinion and be used to garner public support. Lou Ellyn agreed that the Executive Summary should be a statement to the public memorializing the efforts of the Working Group. She stressed therefore, the importance of accuracy in the record. She liked the idea of more emphasis on the EIS process in the Executive Summary.
7/24/2001	Flood Damage Reduction Project Schedule	Shows construction was to be started in 2006.
8/14/2001	Informational Briefing	Document provided talking points and concerns re informational briefing on Skagit River project. Corps main concern on FERC Relicensing process was that they had limited funds \$300,000 to devote to studying Upper Baker storage and FERC process. Corps felt risk was that BPA could pull out of funding flood storage and that FERC could delete current storage requirement. 20 yr compensation agreement with PSE expired in 2000.

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Date	Title	Summary
9/10/2001	NMFS draft ltr to Skagit County	This very controversial letter included the following list: <u>FEATURES OF BASIC SKAGIT FLOOD DAMAGE REDUCTION ALTERNATIVES (NO MITIGATION, and POSSIBLE MINIMUM MITIGATION FEATURES NECESSARY FOR EACH OF THE PROJECTS.</u> Riparian Buffer: .500-foot native riparian buffer will be adjacent to the low flow channel. Riprap Removal: In setback areas, riprap including toe rock must be removed from the areas where on river levees are being removed. It is understood that 100 percent efficiency in riprap recovery will not be obtained. Maintenance: Maintenance in the setback areas should be kept to a minimum and clearly defined before implementation of the project. After flood events, reestablishment of mitigation features should be clearly defined.
10/9/2001	Final NMFS letter to Corps of Engineers	There are some startling things about this letter. The verbiage contained herein is almost identical to the 9/10/2001 draft referenced above, however it was sent to the Corps and copied to the County Commissioners, and it was not signed by the Tribes. Considering that the draft came out of Corps of Engineers files one has to wonder how much influence the Corps had on the final NMFS letter. The letter serves us well in 2008 as it shows us how difficult it will be to get flood risk reduction measures approved.
10/22/2001	Letter fm Governor to BCC re Skagit Process for flood issues	“. . . this river poses one of the greatest threats of flood damage in the western United States, and I am pleased that you have invited the Department of Ecology to participate in your efforts. . . . any flood bypass proposal must address decisions concerning future land use of the existing floodplain, as well as design features critical for fish habitat. In addition, it must consider transportation corridors and impacts upon stream flow, existing water rights, and the Padilla Bay National Estuarine Research Reserve.”
10/30/2001	NMFS Planning Aid letter to Corps	The purpose of this letter is to provide comments on needed studies and important issues in the evaluation of alternatives for the above-referenced project. . . . On October 9, 2001, with the National Marine Fisheries Service, we sent a joint letter to you clarifying 1) our assumptions about the basic project design (Attachment A) and, 2) listing the mitigation measures we would expect to see as part of basic project design to minimize impacts to salmonoid (Attachment B). As part of a technical workgroup with expertise in estuarine and freshwater ecology, we have also begun to scope studies needed to evaluate alternatives (Attachments C and D). The attachments were developed by the Corps as working documents, as part of the technical workgroup. This letter builds upon our joint effort and recommends studies for and criteria important in evaluating alternatives. . . . For the reasons stated above, we believe there is a strong need to retain the overtopping alternative unless and until this issue is resolved. The overtopping alternative is the only one that would tend to discourage development in the flood plain by its very nature, thereby making it consistent with EO 11988.

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Date	Title	Summary
12/10/2001	BCC letter to Corps in response to NMFS letters	“The Bypass Alternative favored by the County is estimated by the Corps to cost approximately \$221 million and would displace less than 150 families with a local cost share of approximately \$79 million. The Levee Setback Alternative preferred by the federal agencies has a price tag of \$290 million and would displace more than 450 families with a local cost share of approximately \$98 million. The increased real estate costs are a 100/o obligation of the local sponsor. This is a significant increase in both the number of local families displaced and the amount of local cost share for a rural county of our size. The Levee Setback Alternative will be analyzed during the Environmental Impact Statement; however, unless other financial partners present themselves, this option is not affordable to Skagit County.” . . . “The long list of mitigation and restoration suggested by the Agencies at this early stage indicates their unwillingness to look at this as a realistic project with budget and schedule constraints- 'We view the list as a mild form of extortion required to get agency endorsement of the project.’”
1/22/2002	LaConner Resolution	Resolutions by local cities endorsing efforts by County Commissioners with respect to flood damage reduction projects, specifically the Swinomish By-Pass diversion channel.
1/24/2002	Memo to Jeannie Summerhays from Chuck Steele	“ Comments on Emergency Plan. Several in the audience were unhappy with the County's tentative proposal to breach levees in the more rural area. A few commented that if the County intentionally breached levees, FEMA would not pay flood insurance claims or disaster aid. At that point I told the audience that FEMA would definitely pay insurance claims. Claims are paid whenever there is surface water from any source in a general condition of flooding. In this situation, it does not matter if the County chooses to flood one area vs. another; FEMA would pay claims wherever the flooding occurs. Indeed, "training" water to the more rural areas would save FEMA much money by avoiding claims and damages in the urban areas. I agreed to provide County staff with a letter from FEMA stating this, since they had gotten information to the contrary from local sources (probably insurance agents).”
1/25/2002	Burlington Resolution	
1/30/2002	Sedro-Woolley Resolution	
2/6/2002	Scope of Work: Geomorphology and Sediment Transport Study of Skagit River Flood Hazard Mitigation Project	“Physical modifications to the channel and floodplain may interrupt or change ongoing geomorphic processes. Similarly, geomorphic processes may affect the function and effectiveness of the proposed flood hazard mitigation project. The geomorphic assessment and sediment transport analysis will provide a basis for evaluating the potential interactions between ongoing geomorphic processes and each alternative for flood hazard mitigation.”
2/15/2002	Revised Scope of Work for Geomorphology and Sediment Transport Study	Corps only evaluating 5 alternatives.

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Date	Title	Summary
3/25/2002	<u>County Resolution re continuing SRFS</u>	WHEREAS, total expenditures to date are approximately \$1.02 million for Skagit County, \$850,000 for the Department of Ecology through FCAAP, and \$1.22 million for the Seattle District of the U.S. Army Corps of Engineers. . . . WHEREAS, because of additional expenses related to environmental studies needed due to changes in environmental law and endangered and threatened species status since the original agreement was signed in July of 1997, the total cost of the Feasibility Study is now anticipated to be \$7.22 million, with the additional cost of habitat restoration studies estimated to be \$1.165 million, for a total study cost of \$8.385 million, and . . . WHEREAS, additionally, over this time frame due to the value of development within the flood plain, the benefit to cost ratio of a proposed flood diversion channel project is now more than 4 to 1, much higher than the previously calculated benefit/cost ratio of just over 1 to 1 BE IT RESOLVED that the Board of Skagit County Commissioners . . . intends to move the project forward by: . . . 2. Putting the issue to a vote of the Citizens of Skagit County.
4/5/2002	<u>Letter and Resolution fm Mt. Vernon</u>	Mt. Vernon formally endorsed BCC efforts with respect to SRFS.
4/17/2002	<u>Features of Basic Skagit River Damage Flood Reduction Alternatives (No Mitigation)</u>	“The existing levees will be removed and setback. Existing levee maintenance standards will be followed with regular mowing of the levees.”
5/8/2002	<u>Biological Assessment of Proposed Interim Conservation Measures for Puget Sound Chinook Salmon Pending Relicensing</u>	“Construction of an extensive system of levees and revetments, in combination with flood control by the Skagit and Baker Projects has allowed continued development of the former floodplain. Land uses such as agriculture, urban and residential development, and construction of infrastructure (roads, bridges, drainage systems) have permanently altered the valley landscape. The operation and maintenance of existing flood control facilities by Skagit County is dependent on flood control operations by the upstream hydroelectric projects.”
5/17/2002	<u>Letter to Lorna Ellestad fm Don Dixon</u>	Invited Lorna to WG meeting to be held no 5/31/02. “The meeting will be held on Friday, May 31 from 10:30 to 12:00 noon in Hearing Room 'C' at the County Courthouse, (2nd and Kincaide). Please join us and introduce yourself to the Corps of Engineers' new Project Manager, Steve Babcock.”
5/31/2002	<u>WG Agenda</u>	
5/31/2002	<u>Sign in Sheet for WG</u>	Very few committee members in attendance for what was billed as an update on Corps activities.
5/31/2002	<u>WG Minutes</u>	None located
7/1/2002	<u>Public Involvement Report for FCAAP Grant Agreement between the State of Washington Department of Ecology and Skagit County</u>	Summary of activities of Skagit County Government educating about the Skagit River Flood Risk.

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Date	Title	Summary
8/11/2002	History of Flood Control Projects Studied	Document lists the flood control studies and the main theme looked at in each study.
10/11/2002	Memorandum - Subject: Meeting to Discuss Skagit Hydraulic Modeling	The meeting was requested by the Corps to discuss in detail the methodology, assumptions, average conditions, risk and uncertainty that have gone into development and calibration of the hydraulic models for the Skagit River Flood Damage Reduction Feasibility Study.
12/12/2002	County “Re-focus” memo	- provide 100 year flow through the 3-bridge corridor
12/20/2002	County e-mail killing diversion channel efforts	<p>Say, could you look at the attached memo, and let me know what you think? By way of background: after our last "executive" meeting with the Seattle District COE staff, it was apparent to Public Works staff that the emphasis on the flood bypass part of the proposed flood project was sinking this thing like an anchor on the Titanic. Federal resource agencies are dead set against it, Tribes are killing it with faint praise, and our local cities are ambivalent at best. In short, we are continually trying to carry the baggage on this project, attempting to sell it, and those who will be most negatively affected by the floods are mostly sitting back and watching. In addition, we are at a good transition point in the project, because we now know the makeup of our own County Commission. Also, the Corps is working (very slowly) in crafting a new Project Management Plan which will call for studying the effect of the bypass on the eelgrass of Padilla Bay. The study will be done by the smart (and sheltered) people of Battelle Labs, and cost \$2 million. Or so. What the heck, cost is no object. We think that study will say: armagedden is at hand if the bypass goes forward. Further, the Corps in their brilliance had one of their under informed attorneys write a legal decision that basically said we're toast if we don't handle the whole Padilla Bay issue with kid gloves (i.e., poor money into studies). Given all this, we in Public Works want to change the focus of the discussion. That focus would be getting the 100-year flood through the "3 bridge" corridor, which is the constriction that exists now which will force water to jump the river east of Burlington. As you can see from the outline, I believe if we focused on this as "Phase I" of the flood project, then we might be able to actually get something done. And at a much reduced federal construction cost.</p>

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Date	Title	Summary
2/28/2003	[GI Study/Skagit River Feasibility Study] Project Update E-mail from Seattle District	E-mail chain explaining Corps process. “Mitigation might also be required under the Endangered Species Act or the Clean Water Act. If the mitigation features are necessary to get the permit or concurrence they might be shifted into the basic project features account. The reason is that the project cannot legally be built without these features.” See also: 12/20/2002 County e-mail killing diversion channel efforts
3/7/2003	Tribal Concerns about the Reanalysis of Storage in Upper Baker	“Larry Wasserman ... expressed concern that the Corps would only look at the economic/flood benefits in making our recommendation and not at the potential environmental impacts.”
4/1/2003	Appendix H to Guidelines and Specifications for Flood Hazard Mapping Partners	FEMA specifications to consultants regarding new National Flood Insurance Program map procedures.
4/8/2003	County Agenda for Work session on CFHMP	Agenda for April 8, 2003 CFHMP meeting of Skagit County Government.
4/9/2003	PIE Assessment of Additional Flood Control Storage at Baker River Project	PIE recommends in a preliminary report additional flood control in the Baker system.
4/30/2003	Skagit River Feasibility Study: FCAAP #G0200110 Progress Report for July 1, 2002 - December 31, 2002	“Land Use Study. "Slow progress" is reported in this study, which could be a key determinant in evaluating and selecting a project alternative. A report for this element was due in July 2002, but was not submitted with your Progress Report.”
5/2/2003	May 2, 2003 Skagit River Feasibility Study Status Report	“Two weeks of computer run time, together with verification, will be required to then produce the new flood inundation maps for 10-, 25-, 50-, 75-, 100-, 250-, and 500-year events. With the lead hydraulic engineer scheduled for a conference in Portland next week, we anticipate having the existing condition model outputs available during the last week in May.” That's May of 2003. It's now November of 2009. Where are the flood inundation maps?
5/15/2003	Pentac Environmental Memo, Re: Draft Scope of Work for the Phase II of the Geomorphology and Sediment Transport Study of Skagit River Flood Hazard Mitigation Project Skagit County, Washington	Update on geomorphology study.

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Date	Title	Summary
5/21/2003	Responses to Questions Posed by Mr. Mike Sato on May 2, 2003 Regarding the Status of the Skagit River Flood Damage Reduction and Ecosystem Feasibility Study	“A very preliminary assessment was completed in April and has demonstrated that there could be additional flood control benefit that could be provided with additional storage at the Baker River reservoirs. However, the assumptions of the analysis need to be refined, and the proposed modifications better defined before the study proceeds to a full hydraulic and economic benefit analysis as well as undertaking NEPA scoping and environmental evaluation, as well as preparing engineering design modifications and cost estimates.”
5/30/2003	Corps of Engineers Responses To Questions Relating to Implementation of Additional Flood Control Storage at Baker River Hydroelectric Project, FERC No. 2150	“In any event, a decision document submitted by the Corps’ Seattle District office would be required to support the recommendation for authorization for the Corps to operate Upper Baker for additional flood control storage. This decision document would have to demonstrate a Federal interest in additional flood control storage at Upper Baker ... [and thus would] have to demonstrate that the recommended plan is economically justified (i.e., flood damage reduction monetary benefits exceed project costs). The recommended plan would have to be demonstrated to be consistent with protecting the Nation’s environment, pursuant to national environmental statutes, applicable Executive Orders and other Federal planning requirements.”
6/6/2003	June 6, 2003 Skagit River Feasibility Study Executive Committee Status Report	“The existing condition hydraulic models (UNET and FLO-2D) have undergone independent technical review (West Consultants, Inc). Levees throughout the system were recently field inspected and reanalyzed based on new survey data, resulting in significant changes in probable levee failure and non-failure elevations. This revised information has been inputted to the hydraulic models. Accordingly, new inundation maps for the 10-, 25-, 50-, 75-, 100-, 250-, and 500-year events are now being formatted and are scheduled to be completed this week.”
6/9/2003	Scope of Work for Skagit River Flood Damage Reduction Feasibility Study’s Baker River Dams Storage Evaluation	Research into finding maximum utilization of Baker River Dams’ flood storage capabilities.
9/10/2003	1990 Flood Analysis -- The Big Picture	The documents were created from USGS flow records and Corps of Engineers log records kept during flood events. 1995 was done first in real time and then with 12 hours deleted from the Mt. Vernon column to show the impacts of decisions made by PSE and the Corps.
9/10/2003	1995 Flood Analysis -- The Big Picture Real Time	
9/10/2003	1995 Flood Analysis -- The Big Picture 12 hrs deleted in MV column	
11/1/2003	2003 Flood Analysis -- The Big Picture	

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
1/5/2004	Hydrology Presentation re: Skagit River	While this presentation would be a lot more accurate if they were using the 80 years of gage records at The Dalles in Concrete instead of the Stewart “estimates” it is a very good presentation on the seriousness of the Skagit River flood issue.
1/24/2004	James E. Stewart Field Notes	The documents were created from the field notebook used by Mr. Stewart in 1922-1923 and from documents obtained from USGS files that were used to write the Whitepaper which follows.
1/30/2004	Index To Stewart Documents	
2/14/2004	James E. Stewart Skagit River Flood Reports And Assorted Documents: A Citizen Critical Review Whitepaper Whitepaper Appendix E	This 52 page research paper was written to analyze just exactly what Mr. Stewart did in his 1923 report. The overall conclusion reached is that we should abandon his work product as Skagit County and the Corps recommended in 1924, and utilize the 80 years of gage records we have at The Dalles.
2/29/2004	Draft Assessment of Potential Habitat Restoration Pathways for Fir Island, WA	“Through a partnership with Seattle City Light, the Skagit System Cooperative, and the Washington Department of Fish and Wildlife, the SWC commissioned this study to evaluate the feasibility and potential of alternative pathways for salmon habitat restoration that focus on the Fir Island portion of the Skagit Delta.”
3/10/2004	DRAFT Upper and Lower Baker Dams Probable Maximum Flood Study Report	Pacific International Engineering draft of a report projecting a probable maximum flood on the Baker River.
5/3/2004	USGS Investigations of Floods on the Skagit River	USGS explains their methodology and research into Skagit River Basin historical flood flows.
5/13/2004	Region X Flood Damage Prevention Ordinance	The template of what a good local flood damage prevention ordinance should look like at least through FEMA eyes.
5/16/2004	Presentation to LaConner High School (Volcanic History, Flood History, Stewart Report)	
5/17/2004	City of Anacortes Water Treatment Plant Brochure: Flood on the Skagit	Pamphlet explaining recent Skagit River flood history plus how the Anacortes Water Treatment Plant prepares for floods.

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Date	Title	Summary
5/28/2004	Draft Biological Opinion for Endangered Species Act Section 7 Consultation for the Baker River Hydroelectric Project (FERC No. 2150). NOAA Fisheries Consultation No. 2002/01040.	Dam storage “is not likely to jeopardize the continued existence of the Puget Sound chinook salmon.”
6/7/2004	USGS Response To Whitepaper	In a feeble attempt to make the Stewart issue go away USGS Tacoma Office responded with this very poor letter responding to the original Stewart Whitepaper. The comments made in this letter will be incorporated and answered in the Whitepaper update to be republished in July 2006.
8/9/2004	Seattle District Corps of Engineers Letter to FERC, Re: Baker River Project, Project Number P-2150-033	Corps requests "to be a cooperating agency in the preparation of the environmental documentation" of the Baker River Project, Project Number P-2150-033.
8/11/2004	Environmental Effects of Additional Flood Control on the Baker River	“This report compares the current operations to the alternative flood control proposal, and analyzes and summarizes the potential environmental effects of implementing the latter. Our analysis shows that the County’s flood control proposal, if implemented, would provide tangible ecological benefits, notably for several species of salmonids that utilize the Skagit River downstream of the Baker River confluence.”
8/27/2004	PIE Technical Memorandum: Analysis of Flood Control Storage at Baker River Project	PIE makes, among other findings, that almost \$11 million dollars in "annual flood reduction benefits" as well as about 10,000 cfs reduction is possible by maximizing flood control with the Baker River reservoirs.
11/16/2004	Draft Evaluation of Flood Peaks Est. by USGS (without Appendices, See Jarrett Review under USGS; See also "Whitepaper" under LJK Documents)	This document was prepared by Skagit County Public Works consultant Pacific International Engineering and evaluates the accuracy or lack thereof of the James E. Stewart “estimated” flood flows of the 1897, 1909, 1917 and 1921 flood events. (See also LJK Stewart Whitepaper, and USGS Jarrett Report)
11/24/2004	Baker River Hydroelectric Project, FERC No. 2150 -Baker River Hydroelectric Project Comprehensive Settlement Agreement	“The Settlement Agreement is a negotiated compromise worked out among the parties concerning extensive protection, mitigation and enhancement measures for the Project that address aquatic, terrestrial, recreational, cultural, and other resources. The Settlement Agreement reflects a consensus of all active participants in the relicensing, in regard to a wide variety of issues identified through the alternative licensing process.”
12/1/2004	Skagit County Public Works Director Letter to Corps of Engineers Seattle District, Re: Skagit River Flood Reduction Project	Request to Corps "to work within the framework of the FERC NEPA process to meet its NEPA responsibilities regarding the flood control elements of the settlement agreement" and independent review of the Pacific International Engineering (PIE) hydrology & hydraulics (H&H) model of the Skagit River.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
12/1/2004	Skagit County Public Works Director Letter to Corps of Engineers Seattle District, Re: Skagit River Flood Reduction Project	Request to Corps "to work within the framework of the FERC NEPA process to meet its NEPA responsibilities regarding the flood control elements of the settlement agreement" and independent review of the Pacific International Engineering (PIE) hydrology & hydraulics (H&H) model of the Skagit River.
12/21/2004	Army Corps of Engineers reply to FERC Comprehensive Settlement Agreement	"Without the completion and Congressional approval of the GI study, the Corps does not have the authority to regulate any additional storage at Upper or Lower Baker Dam." "...The Corps considers this section of Article 107 as a place holder for possible future action."
12/22/2004	Puget Sound Energy reply to FERC Comprehensive Settlement Agreement	"PSE acknowledges the dispute between the County and other Parties regarding the NEPA process for Proposed License Article 107(b). It acknowledges that the Settlement does not determine such process. However, that omission is customary for flood control provisions under the control of the ACOE, which generally does not participate as a party in any relicensing proceeding, including settlement. The Parties did not purport to determine the ACOE's process on its behalf. Notwithstanding this process dispute, PSE fully supports the Settlement as drafted, signed by the Parties, and filed with the Commission as being a truly comprehensive settlement agreement."

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Date	Title	Summary
12/22/2004	Sauk-Suiattle Indian Tribe reply to FERC Comprehensive Settlement Agreement	<p>"Our intent in drafting this article matches that expressed during the meeting by PSE, that Article 107 is a placeholder to show the intent of the relicense group to strive to achieve 29,000 acre-feet of flood storage at lower Baker Reservoir through the process established by the US Army Corps of Engineers (ACOE)."</p> <p>"Throughout the relicense process the ACOE staff has been consistent in stating that additional flood storage at lower Baker Reservoir would only be considered as part of the Skagit Basin Flood Study." . . . "Given the disparity of the two processes, the language of Article 107 that addresses changes to the flood control regime must be read as a placeholder that shows the intent of the relicense participants to strive to achieve 29,000 acre-feet of additional storage at Lower Baker Reservoir, but only through the established ACOE process. Agreement to Article 107 by the Sauk-Suiattle Indian Tribe was conditioned on the understanding that Skagit County recognized that additional flood control would have to follow the ACOE process and that Skagit County was committed to the ACOE process." . . .</p> <p>"...the Settlement does not include any environmental Protection, Mitigation and Enhancement measures for additional flood control. This is because the environmental effects have not been identified. It is our expectation that these measures would be part of the ACOE process. While additional flood control was not scoped or studied, relicense participants were willing to include a place holder license article solely to address the concerns of Skagit County and provide them certainty that there would be support for striving to achieve additional flood control through the ACOE process."</p>

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Date	Title	Summary
12/22/2004	Swinomish Tribal Community reply to FERC Comprehensive Settlement Agreement	<p>"Our intent in drafting this article matches that expressed during the meeting by PSE, that Article 107 is a placeholder to show the intent of the relicense group to strive to achieve 29,000 acre-feet of flood storage at lower Baker Reservoir through the process established by the US Army Corps of Engineers (ACOE)."</p> <p>"Throughout the relicense process the ACOE staff has been consistent in stating that additional flood storage at lower Baker Reservoir would only be considered as part of the Skagit Basin Flood Study." . . . "Given the disparity of the two processes, the language of Article 107 that addresses changes to the flood control regime must be read as a placeholder that shows the intent of the relicense participants to strive to achieve 29,000 acre-feet of additional storage at Lower Baker Reservoir, but only through the established ACOE process. Agreement to Article 107 by the Sauk-Suiattle Indian Tribe was conditioned on the understanding that Skagit County recognized that additional flood control would have to follow the ACOE process and that Skagit County was committed to the ACOE process."</p> <p>"...the Settlement does not include any environmental Protection, Mitigation and Enhancement measures for additional flood control. This is because the environmental effects have not been identified. It is our expectation that these measures would be part of the ACOE process. While additional flood control was not scoped or studied, relicense participants were willing to include a placeholder license article solely to address the concerns of Skagit County and provide them certainty that there would be support for striving to achieve additional flood control through the ACOE process."</p>
12/22/2004	Washington State Department of Fish & Wildlife reply to FERC Comprehensive Settlement Agreement	<p>"We have participated in numerous meetings since 1999 regarding the relicensing of this hydroelectric facility. In the past year alone, we have attended more than 105 Baker River Project relicensing meetings to address issues associated with wildlife, fish, recreation, and the language of the settlement agreement." . . .</p> <p>Because the additional flood storage requires several significant approvals outside of the authority of the Federal Power Act before it will become a reality, it is WDFW's view that the proposed license language for additional flood storage is a placeholder that allows for a future possibility of an action by the Corps."</p>

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Date	Title	Summary
12/23/2004	Skagit County Government reply to FERC Comprehensive Settlement Agreement	The plain text of the proposed flood control license article and related provisions included in the Settlement make it clear that it is the intention of the Settlement signatories that Proposed License Article 107 ("Article 107") and Article 106(L) govern flood control operations at the Baker River Project for the entire term of the new license. Therefore, Article 107 is not a "placeholder," "interim," or "temporary" flood control license article, and there is no language anywhere in the Settlement that supports such a characterization. The Commission should give no credence to unsupported after-the-fact claims that the flood control provisions of the Settlement are a "placeholder."
12/28/2004	Upper Skagit Indian Tribe reply to FERC Comprehensive Settlement Agreement	"In regards to the issues raised by FERC staff during the technical conference of December 8, 2004 the Tribe believes that license Article 107 represents the intent of the parties as it relates to the proposed additional 29,000 acre feet of storage for flood control. It was the Tribe's understanding that all of the parties to the Agreement would work together in order to achieve the additional 29,000 acre feet of extra flood storage. The main concern as it related to this goal from the Tribe's perspective was the effect that such storage would have on the down stream flow regime. After reviewing the proposal it was determined by all parties that the additional flood control would not have a negative impact on the proposed down stream flow regime and as such the Tribe's concerns were satisfied. "
1/3/2005	Corps of Engineers Seattle District Response to Comment Letters to the Comprehensive Settlement Agreement	"If FERC includes the addition of 29,000 acre-feet of storage at Lower Baker Dam as part of the license review for the Baker River Project, this would significantly complicate and delay the National Environmental Protection Act (NEPA) and Endangered Species Act (ESA) review for the license."
1/18/2005	R20050014 - Declaration of Emergency	Resolution used to justify emergency fill on Cockreham Island training levee. See R20080250.
2/10/2005	Surface-Water Specialist Mark Mastin Letter to Skagit County Public Works Director Chal Martin	USGS attempts to justify its interference with the "independent review" by Dr. Jarrett.
2/14/2005	Presentation to Skagit County Commissioners on Historical Newspaper Articles 1895-1969	

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
2/14/2005	Letters to local elected officials and Congressional Delegation by Skagit County Public Works Director	"As the letter states, we are deeply concerned about the letters the Corps of Engineers has submitted to the Federal Energy Regulatory Commission (FERC), suggesting that the additional flood control storage at the Lower Baker Reservoir is a mere "place holder" in the new license to be issued to Puget Sound Energy for the Baker River Hydro-Electric Project. . . . The new license, once issued by FERC, will be in place for up to 45 years and we need to ensure that adequate provisions for flood control are included and not delayed by the Corps process for many years, or even decades"
2/14/2005	Review & Comments of "Draft Evaluation of Flood Peaks Estimated by USGS" by Robert D. Jarrett, Ph.D., USGS, National Research Program	This document was prepared in response to the County consultant PIE Draft Evaluation of USGS Flood Peaks. Dr. Jarrett makes many observations which could be used to support the argument that Stewart’s work product should be abandoned in favor of using the 87 years worth of gage records at The Dalles gage. Among them the following: “Stewart’s study of historical floods in the Skagit River basin had, by today’s standards short-comings, simplifications, incomplete documentation, no known photographic documentation, and took decades to review and complete the evaluation of flood hydrology for the Skagit River near Concrete.” Not exactly a glowing endorsement of Stewart’s work product. Further, at page 3 he states, "I believe much of the uncertainty in the historical flood estimates that can be evaluated now resides in factors that likely may remain unknown (unless someone can find newspaper records, diaries, or other historical documents) and need to be evaluated." Historical newspaper records have been located and were either not reviewed by Dr. Jarrett or were ignored by him. See also Declaration of Fred W. Slipper.
3/11/2005	PSE Comments on Report of Steward and Associates re: Environmental Effects of Additional Flood Control on the Baker River and Comments on Report of Pacific International Engineering (PIE) and Alexander Aaron, Inc. (Aaron), both submitted by Skagit County	PSE comments from their consultants on both environmental effects and flood control operations with respect to additional flood control storage at the Baker Dams.
3/15/2005	Memorandum from Public Works Dept.	Requested opinion from Prosecuting Attorneys Office re proper expenditures for Drainage Utility
3/26/2005	Quips & Quotes	Originally published as Chapter 2 of my book however over the years a few more quotes were added along the way. It will be added to from time to time as meaningful quotes concerning the flood issue are located. Many are expected to be used from the historical newspaper articles.
4/8/2005	FEMA -- The Total Failure Package	This paper deals with the failure of FEMA to enforce its regulations and promoting growth in the floodplain.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
4/12/2005	Annual Expenditures on Flood Study (how much we have spent -- \$6,459,000)	This document was produced at the 4/12/2005 public hearing on the status of the Skagit River Flood Control Study. It shows the amount of money that the County has expended on the flood control study from 2000 thru 2004.
4/18/2005	County Commissioner Memo re Future of Flood Control	On April 12, 2005 I attended a public meeting where staff presented where the County is with respect to their flood control project. At the end of the meeting I was asked by the Chairman to submit a written memo on what I had observed and what direction I thought the County should go.
5/1/2005	History of Countywide Flood Control Districts (see also County Documents)	Using the Historical Newspaper Article Index I pulled out just the articles that dealt with the historical formation of countywide flood control zone districts.
5/15/2005	Historical Floods Of The Skagit River (1892 through 1951)	This is perhaps the most comprehensive collection of historical information on individual flood events of the Skagit River ever assembled. 98% of this document comes from direct quotes obtained from local newspapers.
5/17/2005	Recognition from the American Public Works Association	Helped Skagit County Government win "Project of the Year" award.
6/12/2005	Historical Rainfall & Its Impact on Floods (1896-1969)	The purpose of this document is to look at historical articles and try and determine how much rain it takes to create a flood on the Skagit River. The best answer to the question of how much rain it takes is “It depends.”
6/13/2005	Recognition from the Skagit County Commissioners	Skagit County Commissioners issued plaque awards for our involvement with the Historical Skagit River Flood Research.
7/17/2005	Historical Record of the Avon By-Pass Proposal (1921-2004)	This document was first created in July 2002. It has now been supplemented with the historical newspaper articles concerning this issue. The bottom-line is that Skagit County has never been able to afford this project.
8/1/2005	USGS Scientific Investigations Report 2005-5029	USGS in August 2005 decided not to revise James E. Stewart’s 1921 flood figures of an n value of 0.033 and a peak discharge of 240,000 ft ³ /s., even though finding a spread of “an n value of 0.024 and a peak discharge of 266,000 ft ³ /s” on the high side versus a low side of “an n value of 0.032 and a peak discharge of 215,000 ft ³ /s.” Two years later, USGS reduces the peak discharge of 1921 to 228,000 cfs with an n value of 0.0315.
9/1/2005	NFIP Insurance Report as of September 2005	National Flood Insurance Program (NFIP) spreadsheet for Skagit County as of September 2005 for premiums, coverage amounts, total claims since 1978 and payouts for flood damages (Doll).

The Decade of “Paralysis of Analysis” in Documents		
Date	Title	Summary
9/13/2005	Northwest Regional Floodplain Managers Association (NORFMA) Presentation 2005 - PDF	
9/19/2005	Minutes	County agreed that Mt. Vernon should be the administrator of the new group.
9/29/2005	Dike and Drainage Representatives on the SRIP	Elected officials from Dike and Drainage Districts
10/2/2005	1800s-1919 Master Index Articles	In the summer of 2004 I was contacted by Dan Berentson and asked to assist him in reviewing all the historical Skagit Argus newspaper articles for flooding stories. That project quickly grew into reviewing the Burlington Journal , Courier Times , Concrete Herald and Skagit Valley Herald archives as well. Out of all the projects I have been involved in and all the papers I have authored none have given me more satisfaction and sense of accomplishment then putting together these decade-by-decade indexes of historical articles. The index includes over 1,000 articles from the 5 newspapers arranged in chronological order.
10/17/2005	Essential Activities List from the Public Works Department	To be funded by the Skagit Countywide Flood Control Zone District
11/24/2005	A Historical Tribute To Charles M. Dwelley (1929-1970)	A tribute to the former editor and publisher of the Concrete Herald. This paper is a collection of a few of the words of wisdom from Mr. Dwelley. You can obtain further historical family information on Mr. Dwelley at http://www.stumpranchonline.com/ and http://www.skagitriverjournal.com .
12/3/2005	Skagit River History	This paper is an attempt to document some of the history of the Skagit River according to mostly government documents obtained from the U. S. Army Corps of Engineers. On occasion it will also contain information obtained from local historical newspaper articles. It is a factual issue oriented paper addressing the log jams, boat traffic, commerce, logging, agriculture, dam building, flood events of the “early days” and much more.
12/4/2005	Letter to FEMA from Larry Kunzler re: Skagit Hydrology Study	This letter was prepared in response to the letter written by Colonel Debra M. Lewis to FEMA re: hydrology analysis.
12/15/2005	Steering Committee Minutes (Emphasis added)	It was at this meeting that it was stated by the chairman that the Steering Committee was the decision making body of the SRIP.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
12/26/2005	Observations of JES (James E. Stewart) Work Product	This paper was created primarily from transcripts of Mr. Stewart's field notebook and a set of handwritten notes found in his files. It is further documentation that supports the usage of the 80 years of gage records rather than the estimates submitted by Mr. Stewart of the 1897, 1909, 1917 and 1921 flood events in determining the 100 year flood flows on the Skagit River.
1/3/2006	Risk Analysis for Flood Damage Reduction Studies	"This regulation provides guidance on the evaluation framework to be used in Corps of Engineers flood damage reduction studies."
1/12/2006	Flood Reduction Measures Workshop PowerPoint by Pacific International Engineering	PowerPoint discussing hydrology and the Nookachamps storage proposed project.
1/12/2006	Executive Committee Minutes (Emphasis added)	<i>"Bennett discussed the amount of work that has gone into improving the dikes over the years, approximately \$14.5 million dollars worth of work at a cost of only \$450,000 due to the local efforts. . . . Under Col. Graves the staff at the COE accepted the technical analysis provided by PIE and admitted that their work was off by about 30% but since Col. Lewis the COE has maintained a hard-line position is that all their previous H & H analysis is accurate and they will not revisit it. "</i>
1/17/2006	Draft Interlocal Agreement for Flood Control Zone District	Draft Interlocal Agreement to activate FCZD, has neither environmental nor land use component.
1/22/2006	Historical Facts - What Have We Learned	Document highlights some of the facts we have uncovered due to historical research.
2/1/2006	Current FEMA Elevation Certificate and Instructions	Instructions and form for Letter of Map Amendment; Expires Feb. 28, 2009.
2/5/2006	Historical Dredging On The Skagit River (1920-1966)	This document looks at 46 years of Skagit County history, 20 of which actual dredging (sidecasting method) was being done. It explores all the reasons local people wanted it done and all the reasons the Corps of Engineers says it cannot be done for flood control purposes.
2/5/2006	Flowage Easements	This paper was originally authored in 1996. Skagit County may wish to consider this as a possible avenue to pursue for impacted property owners affected by any proposed flood control project.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
2/10/2006	An Evaluation of Flood Frequency Analyses for the Skagit River, Skagit County, Washington	The "evaluation of flood frequency analyses for the Skagit River" by Will Thomas, Jr. for the Michael Baker, Jr. firm.
2/16/2006	Executive Committee Minutes (Emphasis added)	<i>" . . . FEMA's perspective, the difference in hydrology is not significant in that it will not affect the downstream flood elevations much whether the 100-year event is 174,000 cubic feet per second (County hydrology), or 230,000 cubic feet per second (COE hydrology). . . . Harry Hosey indicated that we can manage a flood flow of 174,000 cfs but not the 235,000 cfs that the Corps and FEMA estimate. "</i>
2/18/2006	Seattle District Corps of Engineers Press Release	Once again, no money in Corps budget for Skagit County.
2/24/2006	Memorandum to BOC fm County Administrator re: Baker River Storage	PSE expressed it's willingness to continue to work with Skagit County to find a workable arrangement wherein the Baker Hydro Project could be managed to provide flood control benefits. At the present, PSE is operating the dams to provide flood protection and will continue to operate them while we work to develop a long term solution.
3/1/2006	Department of Ecology Flood News: New Flood Maps and Insurance Grandfathering	Document addresses Grandfathering policies for new BFE maps. FEMA and the State of Washington, as a FEMA Cooperating Technical Partner, are modernizing flood maps throughout the State, a process that is underway and is scheduled for completion in 2009.
3/7/2006	James E. Stewart Work Product Goes to D.C. - presentation given to legislative aides, U.S. Army Corps of Engineers and FEMA in Washington D.C. - PDF	
3/10/2006	Memo to LaConner Town Council from Dan O'Donnell	Gave three choices to town: 1) Do nothing; 2) Build a berm to protect LaConner; and 3) Work with Corps and build certified levee.
3/15/2006	Draft letter to be sent to dike districts/cities and towns	Document explains that County was going to form SCFCZD.
3/19/2006	Historical Dam Building And Their Impacts On Floods - PDF (1924-1969)	This document was also prepared using the historical information obtained from local newspaper articles. It documents the construction of the dams and their impacts on flood events.
3/31/2006	Letter to SRIP Partners fm Mayor of Mt. Vernon	Mayor calls for SRIP to have a "comprehensive strategy and plan" to present to the legislature by 2007.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
4/24/2006	DC Trip Experience	My reflections on my trip to Washington D.C. Wherein I got to watch my federal government do what they do best... which is absolutely nothing.
5/7/2006	Declaration of Fred W. Slipper	Mr. Slipper's declaration documents the fact that not all of the homes in Hamilton had water in them in 1921 (<i>See 12/24/21 C.H.</i>) and that the house he grew up in only had water in it in 1921 to the depth of a couple of inches until the 1990 flood when it had 16 inches.
5/26/2006	Carl Cook of FEMA Memo to Skagit County Council of Governments (SCOG)	Carl L. Cook, Jr., Mitigation Division Director of the Region X office explains the process of the flood elevation maps.
5/31/2006	Executive Committee Minutes (Emphasis added)	<i>"Chuck Bennett stated that DD #12 is continuing to acquire property for levee setback. . . . The COE 100-yr flow is 235,300 cfs without additional storage at Lower Baker and 225,400 cfs with 29,000 acre feet of storage. PIE's hydrology results in 100-yr peak flows of 196,600 cfs and 181,400 cfs respectively. . . . The existing protection measures on the lower Skagit system can contain about 145,000 cfs. The PIE estimated peak flows can be reduced to the 145,000 cfs system capacity with additional Baker storage and new off channel storage at Nookachamps (without Baker storage the Nookachamps dikes need to build to an elevation of 47)."</i>
6/18/2006	Stewart 1923 Report -- Retyped Version	This is a retyped version of Mr. Stewart's 1923 work product. The only changes that were made were the font was changed from Courier 10 to Times New Roman 12 and the spacing was changed from double space to 1.5 in order to save space. Footnotes were added to indicate handwritten notes that appeared on the original presumably from Corps of Engineers employees. NOTE: You can do word searches on this document.
6/18/2006	Narrow Canyons	This assemblage of pictures is to document how narrow the canyons are where the dams were built in order to emphasize the probability and likelihood of these areas being subject to serving as collection points for major flood blockages due to log jams, landslides, ice jams or debris flows all of which could have contributed to the Indian legend floods of 1820 and 1856 just like The Dalles contributed to either the 1897 or 1906 flood as documented in Mr. Stewart's field notes. (<i>See 11/19/1896 SCT, 3/5/1936 C.H. and James E. Stewart Field Notes.</i>)

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
6/18/2006	Letter to FERC in Response to DEIS	This document was filed with FERC in response to FERC's Relicensing efforts on the Baker River Dams and their Draft Environmental Impact Statement (DEIS). Through the use of graphics produced by this website it is hoped that FERC, the Corps and PSE can see the minimal environmental impacts and maximum flood control impacts additional storage can mean to the taxpayers of our country.
7/23/2006	James E. Stewart Skagit River Flood Reports And Assorted Documents: A Citizen Critical Review Whitepaper, Updated and Republished	Two years worth of additional research culminated in this now 90 page document. All of the "new" information gathered further supported the conclusions reached when the paper was originally published in 2004. Reasons the Stewart data should be rejected include but are not limited to: Doesn't conform to local history; Report is in conflict with Stewart's handwritten notes and field notebook; WSP 612 (1929) and WSP 1527 (1961) both use Stewart's 1918 and 1923 data. (You can't get to the 1923 figures by using 1918 data.); Reports (1923 and 1961) were never completed; Stewart paid directly by Skagit County not USGS (Skagit owns his work product); No measurements taken between Baker River and The Dalles; Stewart's work product rejected by Corps of Engineers in 1924 and 1951; Determination of “N-factor” at Sedro-Woolley inappropriate for The Dalles something Mr. Stewart himself was concerned about.
8/1/2006	Letter to Congress re: Storage behind Baker Dams	Letter tries to show Congress that the storage behind the Baker Dams is a reasonable, responsible, economical and much needed action for effective flood control in Skagit County.
8/17/2006	Executive Committee Minutes	<i>"There was additional discussion regarding the FEMA process and the importance of insuring that the correct data is used to create the maps. Cook indicated that FEMA would consider any data provided by the cities or SRIP."</i>
9/2006	Skagit County Proposed Flood Control Measures	This map shows the locations of "possible" flood control projects Skagit County and the Corps of Engineers are currently evaluating.
9/2006	Skagit County Proposed Flood Control Measures Briefing Document	This document more fully explains what is being evaluated for flood control projects.
9/11/2006	Seattle Daily Journal of Commerce: "Revised flood maps will put a damper on development"	Revision of flood elevation maps by FEMA in Green River and Skagit River valleys raises concerns of citizens as well as the ire of citizens affected.
9/22/2006	Stewart July 1918 Skagit River Flood Report - Retyped	This is a retyped version of Mr. Stewart's 1918 work product. Footnotes were added to explain terms and indicate handwritten notes that appeared on the original. NOTE: You can do word searches on this document.

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Date	Title	Summary
9/22/2006	1961 Stewart-Bodhaine Report - Retyped	This is a retyped version of Water Supply Paper 1527 (WSP 1527). The only changes were those of formatting and two footnotes were added to explain technical details. NOTE: You can do word searches on this document.
9/22/2006	(Attachment 5 to Handout 2) Stewart July 1918 Skagit River Flood Report - Retyped	This is a retyped version of Mr. Stewart's 1918 work product. Footnotes were added to explain terms and indicate handwritten notes that appeared on the original. NOTE: You can do word searches on this document.
9/29/2006	FEMA letter to Mt. Vernon Mayor Bud Norris	FEMA dismisses Mt. Vernon's concerns over the consultation process required by law.
10/2006	FERC FEIS responses to comments on DEIS	Bottom-line: Flood control still possible but not very probable.
10/1/2006	2006 Skagit County Government Flood Awareness Newsletter	Article regarding historical newspaper archive and web site by Skagit County Government.
10/4/2006	Flood Insurance Primer	Dan O'Donnell writes a great column about the flood insurance situation in LaConner and mentions this website in the 4 October 2006 Channel Town Press .
10/10/2006	Department of Transportation Meeting Minutes (Emphasis added)	<i>"Hosey discussed that containment of the 100-yr flood flows (with appropriate rehabilitation or elevation increases to several of the levees) was possible with the PI Hydrology but not with the Corps hydrology. Reduction of flood flows to approximately 145,000 cfs was only possible if the PI Engineering hydrology is used in a combination of Baker, Ross and Nookachamps storage. The Nookachamps storage measures were discussed. "</i>
10/10/2006	FEMA Process and Technical Workshop Minutes (Emphasis added)	<i>"Rogerson further explained the process, and repeated FEMA's claim that they had initiated the public process back in 2001, however there is little if any documentation to prove this assertion. Hosey updated the group on the focus of the flood control measures spending most of the time on two Nookachamps alternatives including the storage levees and an in channel flow restriction structure. Ric Boge stated that while the County Commissioners support the SRIP, the County is still committed to the GI process. Ric also expressed concern over the meetings held with county property owners on flood projects without county participation."</i>
10/12/2006	Skagit County Supplemental Comments to FERC FEIS	County endorses earlier flood control operations of Upper Baker dam and modifications to Lower Baker dam in order to provide additional flood control storage.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
10/16/2006	FEMA letter to Skagit River Impact Partnership	FEMA again reneges on its commitment to the people of Skagit County to review documentation concerning correct hydrology for the Skagit River.
10/25/2006	Executive Committee Minutes (Emphasis added)	<i>"Hosey stated that County should defer to the cities who have the most to lose under FEMA's remapping effort. . . . The other points are bad enough, but the 1897 point seems clearly and completely unsupported by any known reasonable metadata."</i>
10/26/2006	USGS Response to Updated Whitepaper	USGS makes it pretty clear that they are not going to change the Stewart figures no matter how incomplete or questionable Mr. Stewart's work product was.
10/27/2006	Kevin Rogerson Letter to Carl Cook and FOIA Request	This is actually a compendium of documents which clearly shows that FEMA was served with a Freedom of Information Act request on October 26, 2006 and for whatever reason has refused to comply with the request.
10/31/2006	Swinomish Tribe letter to PSE	Swinomish Tribe against flood control behind Baker Dams.
11/1/2006	City of Burlington Letter to Colonel Michael McCormick	City of Burlington Public Works Department raises issues with Corps of Engineers hydrology.
11/6/2006	County Commission Letters to Dam Operators	Skagit County Commissioners write to Seattle City Light for its operation of Ross Dam and Puget Sound Energy for their operation of the Baker River Dams during the 2003 flood events and in that context request 180,000 acre-feet behind Ross Dam as well as that, "Puget Sound Energy manage the reservoirs to provide at least 140,000 acre-feet of flood storage in advance of an impending flood event during this upcoming flood season and restrict release from Lower Baker Dam to the absolute minimum beginning at least six hours before a projected flood peak of 90,000 cfs at Concrete."
11/8/2006	Stephen P. Reynolds Letter to Swinomish Tribal Chairman Brian Cladoosby	PSE's response to Swinomish letter.
11/9/2006	Skagit River Impact Partnership ("SRIP") letter to FEMA Region X re: response to Wil Thomas Evaluation of Flood Frequency Analysis	SRIP forwards "Technical Memorandum" response to Wil Thomas evaluation and provides history of controversy surrounding Skagit hydrology.
11/12/2006	New York Times: After More Than a Century of Soaking, Washington Town Mulls Move to Higher Ground	Article profiles the Town of Hamilton's flood problem and evacuation efforts. Please check out the website referenced in this news article.

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Date	Title	Summary
11/16/2006	AWARE which addressed historical flooding, river migration, flood and fish projects, farming and the future of flood control in Skagit County	
11/16/2006	Baker River Interim Coordinating Committee DRAFT MEETING NOTES	Interesting Discussion re last flood event and the future of flood control behind Baker Dams.
11/16/2006	Executive Committee Minutes (Emphasis added.)	<i>"Bud Norris discussed the relationship between the SRIP and the BOC and indicated his hopes for a renewed relationship after the new year. Harry also stated that it is the cities that have the most to lose and the County should take a neutral position and defer to the cities within the SRIP."</i>
11/16/2006	SRIP letter to FEMA Region X	SRIP (local consortium of stakeholders) expresses their extreme displeasure at new FEMA maps that use "unreliable data".
11/17/2006	SRIP letter to FEMA Director	SRIP expresses concerns with FEMA Region X handling of the Skagit River Flood Insurance Study to the Wash. DC Director of FEMA.
11/20/2006	PIE response to Evaluation of Flood Frequency Analyses	"Technical Memorandum" points out discrepancies in the Wil Thomas Michael Baker evaluation for FEMA FIS analysis of PIE's work product.
12/11/2006	Corps of Engineers Levee Certification Requirements	Document addresses questions which have arisen as to the policy governing levee certification by USACE for the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP), particularly as regards the application of risk analysis.
12/27/2006	ISYS QUERY BPA	This document represents all references to the BPA contained in the 28,000 electronic documents in our database. It clearly shows that the BPA does not want to pay for flood control for Skagit County. Given the enormous impact the dams have on flood damages, this outrageous position of yet another federal agency involved with the flood control issue should be condemned by all.
1/7/2007	ISYS QUERY FLOODWAY	One of the most contentious issues in 2007-2008 will be the placement of a floodway in the lower valley in accordance with the NFIP regulations. This documents represents a small sampling of historic documents that address this issue. As the documents clearly show a floodway designation was in fact made in the 1980's however was never enforced.
1/18/2007	SRIP Executive Committee Minutes	<i>"Chal Martin informed members of the possibility the County may step aside from the SRIP. Ken Dahlstedt explained that the County is involved with many different interest groups, and anything the SRIP does to protect a certain group to the detriment of another creates conflict for them. He also indicated he felt that the SRIP should include the tribes and environmental groups."</i>

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Date	Title	Summary
1/22/2007	Skagit County Commission letter to SRIP	SRIP’s recent actions inconsistent with policy directions of Board of County Commissioners. County wants more participation from other interested parties. If this does not happen County will remove itself from SRIP membership.
1/22/2007	County Letter to Corps	Skagit County Commissioners respond to Nov. 1, 2006 City of Burlington Letter to Colonel Michael McCormick in defense of nhc and their work product.
1/24/2007	Skagit River Flood Damage Reduction Study Presentation	Presentation in Adobe Acrobat PDF by Linda Smith, Project Manager and Ted Perkins, Hydraulic Engineer regarding Skagit River Basin hydrology and options for further flood control.
1/24/2007	Skagit River Flood Damage Reduction Study Presentation by Seattle District of the Corps of Engineers	Presentation in Adobe Acrobat PDF by Linda Smith, Project Manager and Ted Perkins, Hydraulic Engineer regarding Skagit River Basin hydrology and options for further flood control.
1/27/2007	17B Analysis	This document analyzes the guidelines contained in the Interagency Advisory Committee on Water Data, commonly referred to as 17B as they apply to using the Stewart data in computing flood flow analysis on the Skagit River.
2/1/2007	Skagit River Hydrology Independent Technical Review Draft Report	nhc draft report presented to the Skagit County Commission on March 27, 2007 questioning James E. Stewart hydrology.
2/1/2007	Skagit Floodway Mitigation and Hamilton Relocation Program Fact Sheet	Fact sheet explaining the legal requirements and many economic benefits of relocating Hamilton out of the floodplain, "FEMA reports that losses to date for the 100 flood affected properties in Hamilton alone cost public programs and the NFIP close to \$20 million."
2/6/2007	FOIA request to FERC for Non-Public Documents	City of Burlington request meeting notes, telephone notes, and reports from FERC re: PSE Relicensing efforts.
2/8/2007	Preliminary Investigation into Historic Flood Marks in the “Smith” House	<i>“The objective of this initial investigation was to find direct evidence of the historic floods within the structure of the “Smith” House.”</i>
2/12/2007	FEMA response to Hamilton Smith House Report	FEMA applauds Burlington's efforts to "assist" in gathering information for the new FIS maps and promises (like those have never been broken before) to add it to the record (and if the past record is any indication they will completely ignore it).

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Date	Title	Summary
2/16/2007	Col. Michael McCormick Ltr to Chal Martin	Corps responds to City of Burlington concerns re: hydrology however still refuses to address local concerns. The Corps, however, remains open to the consideration of new technical information that may be developed on this matter. The problem with this statement is that they are still ignoring the importance of the historical data that does not support the technical data.
2/18/2007	Seattle Times: Awash In Trouble	In depth article by Bill Dietrich depicting flooding problems on the Skagit River.
2/18/2007	Skagit Valley Herald: Milt Priggee Editorial Cartoon	Milt Priggee draws an illustrative cartoon of the lack of cooperation between the Corps of Engineers and the SRIP.
2/22/2007	Skagit River Basin, Washington Revised Flood Insurance Study - Draft Hydraulics Summary	Latest Corps of Engineers Hydraulic Study for FEMA Flood Insurance Maps.
2/25/2007	1979 Levee Improvement Project Historical Index	This index is a compilation of 30 newspaper articles from the Skagit Valley Herald concerning the 1979 Levee Improvement Project. It should be considered must reading for all city, county, and Federal employees that were not part of the 1979 project and are currently working on the flood control issue on the Skagit River.
2/27/2007	Presentation by Col. Mike McCormick to Skagit County	On February 27, 2007 the new District Commander Colonel Mike McCormick came to town with his Corps staff and the staff pretty much gave the attached presentation. It was perhaps staffs most embarrassing performance to date. They didn't even know the name of the Skagit Project. (See page 5) (See also 4/16/96 entry above.) Staff totally rejected any more work on the hydrology issue stating flatly, "We're done with that." "We're using our hydrology." To date they have spent \$6,600,000 and have accomplished almost nothing and they want another 3-4 million dollars to complete their study over the next 7 years. (See pages 10-12)
2/28/2007	Policy Statistics and Loss Statistics	"In the last 29 years FEMA NFIP has paid out \$11,481,288."
2/28/2007	MFR: Lower Skagit River hydraulic modeling of levee systems	Memorandum describing methodology to be used for new flood insurance maps.
2/28/2007	MFR Attachment: Map of failure scenarios	Map showing how floodplain would be impacted by levee failures in FEMA model.
2/28/2007	Notice to PSE from FERC re: Burlington Request for Documents	PSE notified by FERC that Burlington had requested reports and other documents submitted to FERC.

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Date	Title	Summary
3/5/2007	Letter of Review & Comment on Draft Environmental Impact Statement of Mount Vernon Downtown Flood Protection Alternatives	“The DEIS makes several references to a “comprehensive strategy for reducing flood risks throughout the basin,” yet the City is already proceeding with an independent project proposal outside of the broader investigation. Additional information is needed as to how the proposed alternative will integrate with the concurrent basin-wide flood control evaluation process.” (See also 8/12/2008 City of Mount Vernon Ltr and 3/5/2007 Letter Re: Mount Vernon Downtown Flood Protection Project)
3/5/2007	Skagit County Flood Control Committee Minutes	Committee discussed Skagit Countywide Flood Control District, continuing Smith House investigation in Hamilton, and how to use WSDOT funding.
3/7/2007	PSE Response to FERC re: Burlington Request	PSE under the guise of "national security" and not wanting the "general public" to have access to their dam safety records request that FERC deny Burlington's request.
3/7/2007	FERC response to Burlington FOIA request	FERC, seemingly confused, seeks additional advice before they can respond to Burlington's FOIA request.
3/15/2007	SRIP Steering Committee Minutes	Meeting discussed FEMA flood maps, public disclosure request and that there was no agreement to support the Corps hydrology.
3/22/2007	<u>Draft cover letter</u> to Skagit County re: Concerns over Corps GI Study and <u>Draft Resolution</u> addressing flawed historic data being used by Corps hydraulic study	Burlington will request additional language be submitted in the Corps Project Management Plan to address the lack of consensus on the Corps hydrology issue.
3/22/2007	Resolution requesting additional language be added to SRPMP addressing flawed historic data being used by Corps hydraulic study.	Skagit County turned down this request. See County Letter Responding to Burlington Request dated 4/23/07.
3/27/2007	Skagit River Hydrology Independent Technical Review Presentation	PDF of PowerPoint given by nhc to March 27, 2007 re: Historic Hydraulic Analysis.
4/1/2007	Living Behind Levees	FEMA explains how they assess levees and integrate that assessment into their flood insurance maps.
4/1/2007	The NFIP and Levees: Frequently Asked Questions	Frequently Asked Questions (FAQ) put out by FEMA and the National Flood Insurance Program (NFIP) regarding levees and levee certification.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
4/1/2007	The NFIP and Levees: An Overview	FEMA explains how levees are assessed and says, "Levees are designed to provide a <i>specific</i> level of protection. They can be overtopped or fail in larger flood events. Levees also decay over time. ... When levees do fail, they fail catastrophically. The damage may be more significant than if the levee was not there. For all these reasons, FEMA urges people to understand their flood risk."
4/1/2007	nhc Skagit River Hydrology Independent Technical Review Final Report	nhc believes "estimates of the peak discharges for the historic flood events of water years 1898, 1910, 1918, and 1922 should continue to be incorporated in analyses of flood hazard and flood hazard management in the Skagit Valley" but also that "Exploratory frequency analyses of the instantaneous unregulated peak flows at Concrete have been conducted with the EMA (Expected Moment Algorithm) software package." Therefore, "an estimated 100-year peak unregulated discharge for the Skagit River near Concrete" at The Dalles should be "of between approximately 240,000 and 250,000 cfs, compared with the current estimate of 284,000 cfs"
4/2/2007	Skagit County Flood Control Committee Minutes	Committee discussed FEMA Flood Map Review & Schedule, the Baker Dam Shorelines Hearing with the Town of Concrete, Flood Control Assistance Account Program Grants, the Mount Vernon AquaFence and the draft report by NW Hydraulic Consultants.
4/3/2007	E-mail from Burlington Public Works Director to Skagit County re comments on nhc study.	Overall comments were very complimentary of the nhc study. According to Skagit County Public Works only Mr. Martin and myself commented on the nhc study.
4/9/2007	Town of Concrete Town Council Meeting Minutes	A councilmember who disclosed having a father-in-law as a Puget Sound Energy employee says "all requirements had been met" for PSE to make modifications to Lower Baker Dam and its accompanying powerhouse - in spite of inadequate flood control.
4/12/2007	SRIP Steering Committee Minutes	Meeting discussed Skagit County Government's nhc report as well as a general update from the jurisdictions on floodplain management activity.
4/15/2007	LJK Analysis of the NHC Skagit River Hydrology Draft Report	Overall, while the document could use some tweaking, it is the best analysis of the historical flood flows ever performed on the Skagit River.
4/18/2007	Wash. D.C. FEMA letter responding to Mount Vernon re SRIP letter to FEMA Director	Besides warmed over oatmeal and giving a whole new meaning to the federal definition of "expeditiously" the letter says basically nothing and is a tribute to FEMA's inability to address local concerns.
4/23/2007	County Letter Responding to Burlington Request for Additional Language in the Skagit River Project Management Plan	Skagit County Commissioners refused to add language to the PMP that would have stated that the Cities and Dike Districts are not endorsing the Corps Hydrology. See 3/22/07 Burlington Resolution.

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Date	Title	Summary
4/24/2007	Public Works Dept. Memo re Rough cost estimate for FCZD planning purposes.	"With the development of the flood control project, some areas may not receive 100-year protection and a variety of floodplain management techniques will need to be evaluated. This may include buy-outs, elevation of structures, flood proofing, and changes to the current zoning and regulations to prevent development in areas that have been identified as flood prone." "The proposed Flood damage reduction measures were designed so that the Corps hydraulic analysis can evaluate a range of flows with an attempt to optimize the benefit to cost ratio."
4/25/2007	E-mail to County expressing concerns over GI process using flawed hydraulic data.	Burlington Public Works Director expresses doubt that if Corps study is allowed to go forward using flawed hydraulic data that flood storage behind Lower Baker Dam could ever be achievable. Also has concerns over statements made in County Letter Responding to Burlington Request dated 4/23/07.
4/25/2007	Agenda for meeting between County Public Works Department and Consultant	Items to be discussed included doing away with Sub-Flood Control Zones and taxing cities and diking districts.
4/25/2007	Countywide Flood Control Zone District Data Requirements	Consultant request info for activation of SCFCZD.
5/1/2007	Skagit County Staff Summary: An Independent Technical Review of Skagit River Historical Hydrology and Hydraulic Analyses by Northwest Hydraulic Consultants	Handout from May 24, 2007 Burlington Chamber of Commerce Town Hall meeting summarizing the nhc report.
5/1/2007	Update to verbiage in planning memo	County updates proposed projects list.
5/1/2007	Letter to City of Mount Vernon	“FEMA defines "start of construction" as the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date." Thus, a permit could be issued up to the Effective Date of the new maps and, provided the 180-day criterion is met, be "vested" to use of the original map data. We remind you, however, of the FEMA requirement that permit applications be reviewed to assure that "proposed building sites will be reasonably safe from flooding" and this involves use of newer, more recent data per your Chapter 15.36.050. While we would not recommend using the old data for floodplain management purposes, a literal interpretation of the FEMA regulations and insurance practices allows it.”
5/3/2007	Update to verbiage in planning memo	Further clarification of what planning memo intended.

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Date	Title	Summary
5/8/2007	SRIP Steering Committee Minutes	Meeting discussed new reports on the Smith House, the Concrete Shoreline Substantial Development Permit for PSE and the upcoming FEMA map appeal process.
5/15/2007	FEMA 2007 Skagit County Outreach PowerPoint Presentation	Latest presentation from FEMA re new BFE figures
5/19/2007	Cockreham Island Buy-Out Feasibility Study Executive Summary	“A benefit cost analysis has established that a buy-out of the Cockreham Island properties is potentially cost -effective. ... Buy-out of the Cockreham Island parcels will not likely occur from one funding source or through one large scale action. It is more likely that a buy-out would occur using multiple funding sources over an undefined period of time.”
5/21/2007	Common Questions & Answers Pertaining to the Skagit River FIS	FEMA Q&A regarding the Skagit County Flood Insurance Study.
5/21/2007	Commissioners Letter to Jorge Carrasco, Superintendent of Seattle City Light, Re: Skagit River Hydrology Independent Technical Review - Final Report	Skagit County Commissioners write after receiving final nhc report that "Skagit County now intends to pursue several recommendations made in the report and seek the assistance and cooperation of the USACE, USGS, Puget Sound Energy (PSE) and Seattle City Light (SCL) in doing so (see pages 28-29 for Conclusions and Recommendations)."
5/21/2007	2007 Skagit River Bridge Modification & Interstate Highway Protection Project	"This project is the first element of a comprehensive plan to reduce the flood risk to these areas, including 1-5, SR 20, SR 536, and the Burlington Northern RR. These studies have shown that modifying the existing levees by raising and setting back levees in the project reach is a key component of every flood control measure being considered. This project will complete preliminary engineering studies, an environmental assessment and begin obtaining rights of way."
5/21/2007	Draft Outline for FCZD presentation to County Commissioners	"Need to fully address the sales tax option as suggested by LK".
5/21/2007	Gene Sampley comments on FCZD presentation	Did not want to discuss sales tax issue and did not want the people of Skagit County to vote on instituting a property tax.
5/24/2007	FEMA Presentation to Burlington Chamber of Commerce Town Hall by Ryan Ike	PowerPoint presentation given by Ryan Ike to the Town Hall put on by the Burlington Chamber of Commerce defending FEMA and explaining the flood insurance maps.
5/24/2007	Burlington Chamber of Commerce Town Hall Meeting FEMA 100 Year Flood Plain Map Study	Meeting scheduled for May 24 7:00-8:30 PM to discuss new FEMA flood elevation maps which are "in some cases, 8 feet higher then previously thought".

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Date	Title	Summary
5/24/2007	Burlington Chamber of Commerce Agenda and Handout for Town Hall Meeting	Agenda for "FEMA Flood Mapping: How Will It Affect You?" and handout Flood Hazard Mitigation - The Future of The Skagit Valley.
5/24/2007	City of Burlington Public Works and Don Gordon Presentations	Two of the three PowerPoint presentations given at the Burlington Chamber of Commerce Town Hall Meeting by Chal Martin and Don Gordon regarding the hydraulics and economics of the FEMA flood insurance maps.
5/24/2007	National Association of Home Builders Press Release for FEMA 100-Year Flood Plain Map Study Skagit River Basin, Washington Town Hall Meeting	NAHB press release issued several days before the town hall meeting beginning with, "The National Association of Home Builders continues to be concerned about the speculations and unscientific information employed in the U.S. Army Corps of Engineers (Corps) and the Federal Emergency Management Agency (FEMA) draft Flood Insurance Rate Maps (FIRMs) for the Skagit River basin. As a result, the plan lacks utility for the audience and use for which it is intended. It is inaccurate and unreliable."
5/24/2007	Examples of Deepest Flooding in Mount Vernon and Burlington	Examples by the City of Mount Vernon and City of Burlington Public Works Departments of FEMA-claimed flood elevations in their cities.
5/27/2007	1981-1984 FEMA-BFE Flood Research	Compilation of articles describing the FEMA flood insurance base flood elevation and floodway determination made by FEMA in 1984.
6/1/2007	Living with the River: A Guide to Understanding Western Washington Rivers and Protecting Yourself from Floods	In the wake of “the extreme flood hazard in Washington” where, “between 1956 and 2006, there were 32 floods in Washington that were declared Federal disasters by the President”; the Washington Department of Ecology and FEMA issue a 44-page pamphlet explaining rivers and “guidance on how to reduce your greatest flood hazards”.
6/3/2007	Skagit County Public Works: What Will Flood Control Cost?	County proposed measures and their costs.
6/4/2007	Flood Control Funding Options	Dave Brookings' of Skagit County Public Works presentation to the Skagit River Flood Control Committee.
6/4/2007	Pacific International Engineering Technical Memorandum Hydraulic Analysis – Smith House Flood Stages	"Pacific International Engineering (PIE) performed a hydraulic analysis to estimate the water surface elevations of the Skagit River at the Smith House, located in Hamilton, associated with the magnitude of the 1909, 1917, and 1921 floods as they were estimated by James E. Stewart."
6/7/2007	Hromadka & Associates: An Independent Technical Review – Comments on Flood Frequency Analyses for the Skagit River, Skagit County, Washington	Hromadka & Associates conducts its own statistical review of the Stewart figures using, among other things, observations at the Smith House in Hamilton.

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Date	Title	Summary
6/26/2007	Joint Exercise of Powers Agreement	Proposed agreement for Plan B involving power-sharing among governing bodies of Skagit County.
6/26/2007	Plan B Presentation - Presentation to Skagit County Commissioners urging formation of a flood agency and excise sales tax to be used specifically for flood project construction.	
6/27/2007	Ltr to Board of Commissioners RE: Skagit River Hydrology Independent Technical Review - Final Report	"We are currently working on a report that bears directly on the magnitude of the historic floods on the Skagit River near Concrete."
7/1/2007	2007-07 Public Works Dept Presentation RE: Planning Efforts with Corps of Engineers and FCZD Formation	See slide 3 for County/Corps cooperative efforts and comparison between 1997 & 2007 estimates.
7/5/2007	Public Works Draft Strategy for Skagit River Flood Control	Once again the P/W personnel show signs of not wanting voters to have say.
7/7/2007	Background Paper: Flawed Analysis is Producing Inaccurate Base Flood Elevation Maps in Skagit County	"The actual flood risk in the Skagit Valley is very serious, but manageable. A flawed analysis by the Corps of Engineers will cause the problem (on paper) to become catastrophic and unmanageable."
7/7/2007	Discussion Points, Tax Base Spreadsheets: Corps of Engineers' Incorrect Flood Analysis Will Create Unnecessary Long Term Burden for the Community and its School Districts	"Our school districts - which depend on property tax growth to provide reasonably adequate financial resources to educate our kids - will be burdened tremendously and unnecessarily by the results of the Corps' incorrect analysis."
7/12/2007	Draft Strategy for Skagit River Flood Control	Revised version including proposed committee members.
7/12/2007	Gene Sampley comments on draft strategy	Won't have salmon recovery program out of flood control process.
7/20/2007	Why Dredging Won't Work	Channel 300-800 ft. wide, 100 year floodplain 5,280-15,840 ft. (1-3 miles) wide, how deep do you think the ditch has to be? Updated to add slides showing how much cubic yards were taken out of the Skagit and about the ships dredging the Skagit and removing snags "for navigational purposes".

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Date	Title	Summary
7/27/2007	Draft Resolution Re: COMPREHENSIVE FLOOD HAZARD MANAGEMENT PLAN THAT IMPROVES FLOOD CONTROL AND BENEFITS SALMON RECOVERY	Would officially dissolve the Flood Control Committee
7/27/2007	Draft Executive for FCZD	66% of the people who do not live in floodplains are not adequately represented on this committee.
7/27/2007	Draft Structure of FCZD	Clearly shows BCC in charge.
7/27/2007	Draft Technical Committee makeup	Dike Districts overly represented.
7/30/2007	Gene Sampley changes to FCZD resolution	Wanted to separate Plan Development from FCZD organization.
8/1/2007	Skagit County Goals for the Skagit River Feasibility Study with the US Army Corps of Engineers	Wants Corps to focus on Baker revisions.
8/1/2007	Skagit River Basin Hydrology Draft Report Existing Conditions by Pacific International Engineering (PIE)	"This report presents an update of Skagit River hydrology conducted by Pacific International Engineering (PI Engineering) under an Agreement for Engineering Services authorized in June 2007 by the City of Burlington. The information and results of the analyses presented herein are intended for use in the Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS)."
8/7/2007	Sampley CFHMP Resolution	Gene Sampley Draft Skagit River Comprehensive Flood Hazard Management Plan That Improves Flood Control and Benefits Salmon Recovery Resolution which replaces the flood control committee with the FCZD governance structure plus have the FCZD Executive Committee "recommend long term funding options based on drafts developed by staff to fund construction of the recommended projects" plus emphasizes doing both flood control and salmon recovery and finally seek Corps of Engineers assistance.
8/7/2007	Sampley FCZD Organizational Resolution	DEFINING THE PURPOSE AND ESTABLISHING THE ORGANIZATION FOR THE COUNTYWIDE FLOOD CONTROL ZONE DISTRICT
8/9/2007	Skagit River Revised Flood Insurance Study Levee Scenario Discussion	PowerPoint presentation (converted to PDF) by Ted Perkins, Hydraulic Engineer for the Army Corps of Engineers, Seattle District
8/9/2007	Basis of Concern about FEMA's Underlying Technical Analysis of the new Base Flood Maps for Skagit County	City of Burlington prepares seven reasons why the new Flood Insurance Rate Maps should be of concern to Skagitonians, including concerns about accuracy, economic damages and lack of options for further flood control.
8/10/2007	Re-evaluation of the 1921 Peak Discharge at Skagit River near Concrete, Washington	USGS lowers 1921 flood at Concrete by 5% (12,000 cfs).

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Date	Title	Summary
8/13/2007	Memorandum for the Board of Skagit County Commissioners from Chal Martin Re: Comments on USGS 2007 Report	City of Burlington City Engineer makes seven points why the USGS 8/10/2007 report is non-conclusive and possibly incorrect.
8/15/2007	Hromadka & Associates An Independent Technical Review – Comments on Flood Frequency Analyses for the Skagit River, Skagit County, Washington (Final Report)	Awkward language corrected by Dr. Hromadka. This report clearly shows the statistical improbability of James E. Stewart's claims of CFS at Concrete.
8/17/2007	WJE Smith House Forensic Report	"At the Smith House, WJE did not observe any evidence to indicate that flood water elevations ever exceeded the finish floor elevation of the house."
8/20/2007	Ltr to Mark Carey, FEMA Region X Director of Mitigation Division, Re: USGS August 13, 2007 presentation on Stewart hydrology revision	Letter from Esco Bell, Mt. Vernon Public Works Director, requests "FEMA review the submittals made by the Cities of Mount Vernon and Burlington related to the Smith House and by-pass channel at The Dalles."
8/20/2007	Draft Organizational Structure for Flood Control Zone District	A work in progress.
8/21/2007	Draft Flood Control Zone Organization Resolution	Lots of changes from the original draft.
8/22/2007	Issue Summary and Request from the Flood Policy Advisory Conference To the Mount Vernon School Board August 22, 2007	Formerly the Flood Policy Advisory Conference (Flood PAC), the organization requests the Mount Vernon School District to join them. The request also explains the motives of Flood PAC/Skagit FACT: "We want to get the new flood elevations right. We want to move ahead and ensure we take every action needed to address the Skagit flood risk, and pay the price to do it right. But the current analysis is wrong and if the new flood elevations (based on this faulty analysis) are implemented, the result will be decades of additional financial burden to our community, increased competition for property taxes, reduced levels of service, reduced funding levels for schools, and decreased quality of life for our residents."
9/1/2007	United States Government Accountability Office (GAO) Audit: FEMA's Management and Oversight of Payments for Insurance Company Services Should Be Improved	Why GAO Did This Study: Extraordinary recent flood events raise serious questions about the solvency of the National Flood Insurance Program (NFIP), which is administered by the Federal Emergency Management Agency (FEMA).
9/5/2007	FEMA Ltrs to <u>City of Burlington</u> and <u>City of Mount Vernon</u> on independent flood insurance rate mapping for the two cities.	"...maps will contain the authoritative data that has been generated, reviewed, and approved by the U.S. Geological Survey, U.S. Army Corps of Engineers, and FEMA with input from other local entities."

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Date	Title	Summary
9/5/2007	Ltr to FEMA, Re: Independent Skagit Flood Research	Cover letters for Mount Vernon-Burlington joint submission of alternative data.
9/5/2007	Joint Resolution of the Cities of Burlington and Mount Vernon to use PIE hydrology for FEMA base flood elevation maps	"The Cities of Mount Vernon and Burlington direct the preparation of Flood Insurance Rate Maps to comply with all provisions of the FEMA Flood Insurance Program (Base Flood Elevation, Floodplain Boundary and Floodway Maps) using the best and most accurate science available, which in the Cities’ opinion is the science performed by Pacific International Engineering".
9/5/2007	Impacts of an Incorrect Hydrologic Analysis for the Skagit River	Latest presentation by Chal Martin, Burlington Public Works Director, re: federal agencies use of incorrect hydraulic analysis of the Skagit River.
9/5/2007	Joint Mount Vernon-Burlington letter to US Rep. Rick Larsen, Re: Support for alternative hydrology	Mayors of Burlington and Mount Vernon request Representative Rick Larsen to endorse their alternative hydrology and flood plain maps. Representative Larsen has made clear though in a recent op-ed that his position was, "I have no comment on the credibility of the studies, not only because my opinion on the science is irrelevant but also because I also have no opinion on that aspect of the debate. All levels of government have to make their own assessment about the studies they use and support."
9/5/2007	Draft Resolutions of the Burlington and Mount Vernon City Councils to join Skagit Flood Advisory Conference Team (Skagit FACT)	Cities of Burlington and Mount Vernon propose to join Don Gordon's Skagit FACT, formerly Skagit Policy Advisory Conference (Skagit PAC).
9/10/2007	Skagit River Flood Damage Reduction and Ecosystem Restoration Project Feasibility Study (a.k.a. "GI Study") Project Management Plan (PMP)	"The revised PMP identifies Federal and non-Federal funding requirements and assigned responsibility for performing identified studies and activities required to complete the feasibility study phase." Appears Skagit County is proceeding with countywide flood control zone district (property taxes).
10/2/2007	Resolution R20070486: County of Skagit Proclamation "Flood Awareness Week"	"The Board of Skagit County Commissioners feel that... it is prudent and timely for the general public to be made aware of the threat of the coming flood season, and that the threat of flooding be given the attention necessary that the general public may be protected in the event of a major flood."

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Date	Title	Summary
10/5/2007	Invitation to attend the Skagit River Flood Damage Reduction and Ecosystem Restoration Project Feasibility Study Executive Committee Meeting	"The purpose of the Executive Committee is to oversee the Feasibility Study and the project delivery team; therefore, your presence at this meeting is important to the success of the Skagit General Investigation process."
10/8/2007	nhc Presentation: Skagit River Flood Insurance Study	Delivery of the speaker aside, this was an excellent presentation of today's dilemma in Skagit County. Million dollar proposal for another study should be rejected by electeds.
10/8/2007	Resolution R20070500: A Resolution to Protect the Community's Interests With Respect to Flood Risk Mapping by the Federal Emergency Management Agency	Skagit County Commissioners decide to intervene in the FEMA Flood Insurance Rate Map process.
10/9/2007	Resolution R20070501: A Resolution to Safeguard the Public Welfare by Protecting Property, Life and the Environment in the Floodway	Skagit County Commissioners "hereby orders and direct that the public health, safety and general welfare be safeguarded, and that construction or development within the floodways of the Skagit River be prohibited or restricted to the maximum extent allowed by County".
10/9/2007	Cities of Burlington and Mount Vernon Notice of Public Meeting Revised Base Flood Elevations Skagit River Hydrology	Notice of public hearings on flood elevation maps on October 9th and 23rd in Burlington & Mt. Vernon.
10/11/2007	Skagit General Investigation Study Executive Committee Meeting Agenda	Corps of Engineers and Skagit County Government plan on explaining progress on the GI Study, and the \$14,465,180 dollar price tag.
10/11/2007	Skagit GI Study Executive Committee Meeting Packet	Document purports to establish timeline and cost of new and improved GI Study. County on hook for over 3 million dollars over next three years. Schedule admitted to as being "optimistic" as best.
10/11/2007	Attachment 1	#1. Document shows proposed level of authority for Skagit Countywide Flood Control Zone District ("SCFCZD")
10/11/2007	Attachment 1a	#1a. Shows everyone that the SCFCZD is controlled by the County Commissioners who have ultimate decision making power.
10/11/2007	Attachment 1b	#1b. Shows purpose and number of "Advisory Committee" members (15). Public limited to 3 minute presentations. "Advisory committee will be tasked with funding."

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Date	Title	Summary
10/11/2007	Attachment 1c	#1c. Public Works Dept. staff roles for the SCFCZD.
10/11/2007	Attachment 1d	#1d. Technical Committee Rules
10/11/2007	Chuck Steele MFR for Skagit River Feasibility Study Executive Committee Meeting, October 11, 2007	Excellent notes taken at the GI Study meeting referenced above. "Costs to complete the study have increased from \$6,852,180 to \$14,465,180, an increase of \$7,613,000. Just 8 months ago at the February 27 meeting, the Corps had stated that it would take \$3-4,000,000 to complete the study."
10/24/2007	Dan O'Donnell Memo for La Conner City Government, Re: FEMA flood maps	Comments of Dan O'Donnell re his observations at the Oct 23 meeting re the FEMA appeal.
11/1/2007	nhc Review of Skagit River Basin Hydrology Draft Report Existing Condition by PIE	“This document provides a review of Pacific International Engineering's "Skagit River Basin Hydrology Draft Report - Existing Conditions", August 2007, and its Appendices A through J. The review focuses on PIE's development of unregulated flood frequency curves for the Skagit River near Concrete. Limited review is also provided of regulated flood frequency curves and synthetic flood hydrographs for the regulated condition as developed by PIE.”
11/1/2007	nhc Review of Skagit River Basin Hydrology Draft Report Existing Condition by PIE	“This document provides a review of Pacific International Engineering's "Skagit River Basin Hydrology Draft Report - Existing Conditions", August 2007, and its Appendices A through J. The review focuses on PIE's development of unregulated flood frequency curves for the Skagit River near Concrete. Limited review is also provided of regulated flood frequency curves and synthetic flood hydrographs for the regulated condition as developed by PIE.”
11/5/2007	Skagit River Flood Control Committee Meeting Minutes	Committee discussed the Flood Control Zone District, the GI Study, widening the 3-bridge corridor, preparing for FEMA FIRM appeal, Skagit River gauge finances and emergency response to floods.
11/6/2007	Packet to Activate Skagit County Flood Control Zone District (SCFCZD)	Packet of information the Skagit County Commission used to approve the activation of the Skagit County Flood Control Zone District. Updated to have the final, signed resolution.
11/6/2007	Packet to Activate Skagit County Flood Control Zone District (SCFCZD)	Packet of information the Skagit County Commission used to approve the activation of the Skagit County Flood Control Zone District. Updated to have the final, signed resolution.

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Date	Title	Summary
11/16/2007	Skagit FACT Newsletter	"Much has transpired to date. Many of you played a part in the success we have seen recently as the County has joined with the Cities in the effort to address what we believe to be seriously flawed preliminary maps from FEMA. This unification of local governments is essential for any local appeal efforts to be successful. Now we are in a stronger position to tackle the tough process ahead of us. Your continued interest and involvement is important as events unfold."
11/17/2007	Preliminary Historical Investigation of East Concrete and Crofoot Addition Flood Levels	Submission to nhc of potential properties in Concrete and other locations for forensic investigation to find actual flood levels.
12/20/2007	Interim Review of US Army Corps of Engineers Lower Skagit River Flo-2d Model by nhc	“Skagit County has requested that nhc review the Flo-2D model used in the draft Skagit River Flood Insurance Study (FIS) as one part of its overall review of the study. Concerns with the hydrology portion of the study are being separately addressed and will not be reiterated here. Ultimately, it is the base flood elevations determined from the Flo-2D model that are at issue as these will be used to evaluate development potential and determine flood insurance premiums.”
12/20/2007	Interim Review of US Army Corps of Engineers Lower Skagit River Flo-2d Model by nhc	“Skagit County has requested that nhc review the Flo-2D model used in the draft Skagit River Flood Insurance Study (FIS) as one part of its overall review of the study. Concerns with the hydrology portion of the study are being separately addressed and will not be reiterated here. Ultimately, it is the base flood elevations determined from the Flo-2D model that are at issue as these will be used to evaluate development potential and determine flood insurance premiums.”
12/30/2007	SKAGIT COUNTYWIDE FLOOD CONTROL DISTRICT – AN EVOLUTION IN PROGRESS	An inside look at the history and the development of the countywide flood control district through the use of historical documents and e-mails by county officials.
1/1/2008	Update description of Skagit County Public Works involvement with Flood Control Zone District	Document describes the activities of the Public Works department with respect to the flood control issue.
1/7/2008	Congressman Larsen's letter to FEMA Region 10 re independent panel evaluation of Skagit hydrology	"As you know, my concern throughout this process is that the most accurate and fair data be used in determining Skagit County's flood map in order to best protect its residents."

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Date	Title	Summary
1/15/2008	Why Crofoot Matters	One-page explanation that explains why a forensic investigation of Crofoot Addition in Concrete is appropriate to resolving conflicting hydrology.
1/15/2008	Draft Recommendations for a National Levee Safety Program from the National Committee on Levee Safety	“The current levee safety reality for the United States is stark— uncertainty in location, performance and condition of levees and a lack of oversight, technical standards, and effective communication of risks. A look to the future offers two distinct possibilities: one where we continue the status quo and await the certainty of more catastrophes or one where we take reasonable actions and investments in a National Levee Safety Program that turns the tide on risk growth. We strongly recommend the latter.”
1/22/2008	Resolution Directing County Staff to Proceed With Contesting Federal Emergency Management Agency (FEMA) 100-Year Flood Maps	Skagit County Commissioners direct Public Works "to prepare and defend a scientifically accurate hydrology of the Skagit River system before an independent three-member panel" as well as "an interlocal agreement with the City of Mount Vernon and the City of Burlington" for sharing work and costs of such.
1/27/2008	Concerns about Pacific International Engineering (PIE)	Cited newspaper research concerning PIE's project history.
2/1/2008	Proposed Memorandum of Agreement (MOA) for Determining 100-year Flood Elevations	Proposed framework for 3 judge panel to address all evidence as to what a 100-year flood would be on the Skagit River.
2/1/2008	Background and Guiding Principles for Developing An Update To The Skagit River Comprehensive Flood Hazard Management Plan	Skagit County Commissioners as the Flood Control Zone District's Board of Supervisors outlay their strategy of inclusive input as "the best way to identify viable solutions to flood damage prevention and public safety in Skagit County" as well as manage the Skagit River Basin in a more comprehensive way
2/1/2008	Michael Baker Corporation Presentation: NO ADVERSE IMPACT: Preserving Our Watersheds; Protecting Our Property Rights	176-slide presentation on legal and ethical issues of floodplain development.
2/11/2008	Skagit River System Cooperative Letter to Ryan Ike, Re: FEMA mapping process for Skagit Valley	Skagit River System Cooperative (SRSC) opposes 3 judge panel and states, "We are confident that FEMA has used the best available science to this point in the process."
2/14/2008	Corps of Engineers Seattle District Flood Risk Assessment	5-page discussion of the flood risk for the Pacific Northwest and notes that, "Heavy, intense rainfall is the primary driver of flooding. Snow melt, from rain on snow, does not increase the risk of major flooding, but can affect the severity."

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Date	Title	Summary
2/23/2008	The Courier of Findlay, Ohio: Educator: No simple solution for flooding	"Robert McCall, an Ohio State University Extension educator who focuses on watershed management" explains why, in pithy generalities, the flood risk is increasing and what can be done to reduce the risk.
2/26/2008	FEMA Letter to Mayor Bud Norris of Mount Vernon, Re: 3 Judge Panel	"After evaluating the proposed scope, effect, panel selection (procedures), and anticipated outcome, FEMA finds several significant issues that preclude agreement to the MOA. In summary, we believe the submitted MOA violates public due process, presumes that FEMA will not provide an unbiased adjudication, and sets an unnecessary precedence for deviating from established federal regulations . . . We are also concerned that the list of parties signing this MOA is not inclusive, yet the expected outcome of the MOA would be applied to the entire geographic area."
2/28/2008	Cultural Resources Assessment for the Mount Vernon Downtown Flood Protection Project	Cultural Resource Consultants, Inc. takes a look at the history of downtown Mount Vernon in preparation for the city's flood protection project. Excellent research on the history of Skagit County.
2/29/2008	Flooding in the Chehalis River Basin: Synthesis	WSDOT eleven page summary of the continual problems with the Chehalis River basin.
3/1/2008	PSE Fish Enhancement Handout	PSE one-page handout describing their "fish enhancement" efforts.
3/6/2008	Daryl Hamburg Essay: Food For Thought, Skagit River System	Dike District 17 Commissioner essay begins with, "We can no longer look at flood control as a protection device. Levies do not protect communities. They REDUCE RISK. Thus we are not capable of protecting our public from the forces of the mighty Skagit River."
3/10/2008	Disaster News: FEMA Report Shows Mitigation Saves Money	"Mitigation work in the Centralia area after the 1996 floods saved a estimated \$1.9 million in residential home damage in the December 2007 floods, a new Federal Emergency Management Agency (FEMA) report concluded."
3/10/2008	March 10, 2008 Hamilton Public Development Authority Survey Results	Statistical summary of 47 surveys "to provide political decision makers with a snapshot of Hamilton floodway resident's flood experience, socio-economic situation, and impression regarding town relocation."
3/27/2008	FEMA Letter to Skagit County Commissioners	FEMA announces upgrade of FLO-2D software and that the Corps of Engineers "recently discovered the historic data necessary to convert the data for the Skagit River near Concrete for water years 1924-1944 to unregulated conditions."

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
4/1/2008	Washington University in St. Louis: Geologist decries floodplain development	<p>This article should be must reading for all residents of Skagit and Lewis County.</p> <p>"When people build commercial or residential real estate in flood plains, when they build on sink holes, when they build on fault lines, when they build on the hillsides in L.A. that are going to burn and burn, over and over again, they're ignoring geologic reality," Criss says. "They're asking for chronic problems."</p> <p>Everyone screams for more levees, which only encourage more development," he says. "These structures are not infallible, and when the levees fail — and they will, carefully though they are built — we just have more infrastructure in harm's way. It's not a very thoughtful approach. `</p>
4/7/2008	PSE Lower Baker Hydroelectric Project Handout	PSE handout giving basic facts about Lower Baker Dam and surrounding PSE facilities.
4/7/2008	PSE Upper Baker Hydroelectric Project Handout	PSE handout giving basic facts about Upper Baker Dam and surrounding PSE facilities.
4/21/2008	Skagit FACT Newsletter	Skagit FACT current assessment of flood control efforts in Skagit Valley.
4/23/2008	Partial Transcript of April 23, 2008 City of Burlington Public Works Presentation to City Council of Mt. Vernon	<p>“We’re not here tonight to talk about the long term ramifications of these higher base flood elevations, but I’m dismay ed by the effect that it is going to have on our tax base. You know, there’s no constituency for maintaining and growing the tax base. I don’t think you’ve run on that platform to get elected, but you know its one of those wonkish things that we all know is incredibly important to our kids and our grandkids to maintain the vitality of our economic basis.” [Chal Martin, City of Burlington Public Works Director] TV10 video also available.</p>
4/23/2008	Update Skagit River Flood Issues	Latest presentation showing how historical data does not support the USGS, FEMA, and Corps of Engineers hydraulic data.
4/30/2008	Ayn Rand Institute: How Government Makes Disasters More Disastrous	“The Katrina tragedy should have called into question the so-called safety net composed of government policies that actually encourage people to embrace risks they would otherwise shun--to build in defiance of historically obvious dangers, secure in the knowledge that innocent others will be forced to share the costs when the worst happens. ”

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
5/1/2008	Skagit River Basin, Washington Revised Flood Insurance Study Hydraulics Summary	“The simulations performed represent a fixed bed analysis so erosion and sedimentation in the floodplain are not modeled. Culverts under roads are also not modeled. The reason that culverts are not modeled for overland flow is that the capacities of the culverts are small compared with the overbank discharge. The FLO-2D model does not contain any sea dike failure scenarios and do not account for pump stations or any other flood fighting techniques to reduce the flood damage.”
5/5/2008	City of Mount Vernon Flood Management Efforts	11 slide PDF of Public Works Director Presentation to Skagit County Flood Control Zone District Technical Committee.
5/5/2008	Skagit Comprehensive Flood Hazard Management Plan 3rd Technical Committee Members Workshop	Skagit Comprehensive Flood Hazard Management Plan (CFHMP) group members brief one another and then dissolve into SC FCZD technical committees.
5/5/2008	SC FCZD Dike and Drainage Technical Committee Meeting Draft Meeting Summary	Committee designates chairs plus advisory committee members and then advanced an agenda of further flood control work, with an emphasis on dike & drainage district involvement.
5/5/2008	SC FCZD Environmental Technical Committee Meeting Draft Meeting Summary	Committee votes for a chair, a vice chair plus advisory committee members and then discusses when they'll meet.
5/5/2008	SC FCZD Land Use Technical Committee Meeting Draft Meeting Summary	Committee designates leaders and then allowed Liz McNett Crowl with the Active Community Task Force to join them to provide a recreational perspective.
5/9/2008	Commissioners Letter to Mt. Vernon & Burlington Mayors and City Councils, Re: FEMA Flood Review	“Skagit County seeks flood maps based on the best available science, something we have made clear from the outset of our participation in this effort. ... We believe this approach will appropriately balance the community's economic interests with the safety of its citizens. Moreover, as public officials, we have an obligation to ensure that the legal actions we undertake have some reasonable probability of success, something made all the more important given the budget constraints imposed by current economic conditions.”
5/13/2008	Proposed Memorandum of Understanding	“We believe that the best option for the urban areas is to work toward levee certification, so that credit is given for the levees in FEMA flood hazard mapping as it continues to evolve over time.”
5/14/2008	WJE Microscopical Studies of Samples from Crofoot's Addition	Technical analysis of soils found within homes of the Crofoot's Addition in Concrete.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
5/19/2008	Press Release: "PSE's new Baker River \$50 million fish passage system generating success in first few weeks of operation"	“With more than 200,000 juvenile sockeye already collected, the out-migration is peaking as the second highest total run on record and may be on pace to shatter the existing record” with new PSE fish gulper.
5/19/2008	R20080250 - A Resolution Relating to Removal of Temporary Emergency Training Levee Extension on Cockreham Island	Skagit County Commissioners decide to remove 600 linear feet from the Cockreham Island training levee.
5/19/2008	Skagit County Commissioners Resolution #R20080254	Skagit County Commissioners set membership in the SC FCZD Advisory Committee.
5/22/2008	First FCZD Advisory Committee Meeting Announcement	Announcement of first SC FCZD AC meeting.
5/28/2008	Skagit Delta Tidegates and Fish Initiative Implementation Agreement	“The Skagit Delta Tidegates and Fish Initiative is a collaborative, multi-stakeholder process convened by the Western Washington Agricultural Association in March 2006 for the purpose of identifying pathways and protocols for federal, state and local permitting of tidegate and floodgate repair and replacement activities within the Skagit and Samish River deltas. This Agreement will address actions at tidegate and floodgate sites that are under the ownership or control of Drainage, Diking, and/or Irrigation Districts that are Parties to this Agreement.”
5/28/2008	Wenatchee World Editorial: Good work for salmon at sea	“We have talked, argued, studied and invested billions in the last 30 years to help more salmon migrate from their birthplace to the Pacific. Much less has been said about how to get more mature salmon back from the sea, to perform the essential function of reproducing.” <i>Not eating them would help.</i>
5/30/2008	Agenda for 1st Advisory Committee Meeting on June 9	Agenda for kickoff of the SC FCZD AC, scheduled for 4 to 6 PM at the Skagit Room in the County Building at 1800 Continental Place, Mt. Vernon.
6/1/2008	Historical Record of Fish Related Issues (1897-1969)	“If the Salmon is to ever reach their historic levels in the Skagit River we must employ better logging and agricultural practices, curtail urban drainage and pollution, re-create the natural estuaries, increase spawning habitat areas, do a better job of regulating the flows from the dams and severely curtail the placing of nets in the river. I absolutely believe that unless these practices are instituted the Skagit Salmon's demise is not only apparent but guaranteed. We will have no one to blame but ourselves.”
6/2/2008	E-mail to Skagit FACT from Will W. Honea, Chief Civil Deputy, Prosecuting Attorney's Office	"I write to follow up on the issue of additional flood storage, raised during the May 29, 2008 Skagit FACT field trip to PSE's Baker River Hydroelectric Project."

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
6/9/2008	Map of Possible Projects for the Skagit County Flood Control Zone District	Map from June 9, 2008 Skagit County Flood Control Zone District Advisory Committee meeting showing possible floodplain management projects for the Skagit River Basin.
6/9/2008	DRAFT June 9, 2008 Meeting Summary	“Jim Voetberg, P.E., Director, Skagit County Department of Public Works, welcomed the new AC members and challenged them to “be heroes” by recognizing the devastating impact severe floods have on everyday activities, and to work collaboratively on flood management plans most likely to result in meaningful flood damage reduction measures benefiting all County stakeholders.”
6/11/2008	City of Mount Vernon Downtown and Waterfront Master Plan June 11, 2008 Presentation	City Government of Mount Vernon's plan to spend \$18 Million via various methods of self-taxation to take the historic downtown out of the FEMA 100-year floodplain.
6/13/2008	Scott Thomas E-mail RE: PSE, Additional Flood Storage and Corps GI Process	Burlington City Attorney Scott Thomas responds to Will Honea's e-mail by outlaying concerns about obtaining Lake Shannon storage behind Lower Baker Dam and the Corps GI process. The e-mail has been redacted to remove e-mail addressees and hyperlinks have been added to link to relevant documents.
6/16/2008	WASH DC COMPLAINT against new FEMA BFE figures	Complaint filed, FEMA backs down within 12 hours.
6/16/2008	Government of DC Exhibits	Seven pages of exhibits showing how the Government of the District of Columbia attempted to cooperate with FEMA.
6/16/2008	Commissioners' Letter to Burlington Mayor Ed Brunz	“Flood control projects within a river basin are necessarily interrelated Accordingly it is vitally important that the FCZD body furnish holistic flood control recommendations and plans that work for the entire community”
6/17/2008	FEMA: The elephant in the middle of the room	An excellent discussion of flood insurance versus flood control from Melissa L. Gaffney, a reporter for The Courier: Voice of the Bayshore of Middletown, New Jersey and the blogger behind SableMinded.
6/23/2008	Skagit River Reports (Past studies, reports, documents)	This document identifies the examinations, reports, studies, GDM, and other documents written about the Skagit River and was updated with 34 new reports spanning between 4/9/2003 and 2/28/2008. Most of these documents I have copies of and am willing to make available upon request. The original list of Jan. 24 1999 was compiled with Corps of Engineers assistance.
6/30/2008	Public Meeting Notice	Skagit County Public Works Department Public Announcement of upcoming 2nd meeting of the Advisory Committee.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
7/11/2008	PDF of Slides in Hearing re: Clear Valley Farm Wetland Banking Proposal - Testimony before Skagit County Hearing Examiner in opposition to Clear Valley Farm wetland banking proposal.	
7/11/2008	Rep. Rick Larsen Letter to Steve Barger, President of Associated General Contractors of Washington	“Knowing of the Associated General Contractors of Washington’s interest in Skagit River flood control efforts, I wanted to update you as to my efforts in Congress in regards to the Skagit River General Investigation study, flood control projects and FEMA’s current flood mapping of Skagit County.”
7/14/2008	Solution ideas worksheet	Document put together by consultant “Triangle”, titled <u>Initial Questions Needing Responses in CFHMP Process.</u>
7/14/2008	DRAFT Advisory Committee Agenda	Draft agenda for 2nd meeting - “Meeting Purpose—For the Advisory Committee members to: Draft agenda for 2nd meeting - “Meeting Purpose—For the Advisory Committee members to: 1. Consider certain operating and organizational items 2. Begin a initial consideration of and pros and cons for CFHMP solutions, alternatives, approaches 3. Consider initial assignments to the Technical Committees 4. Determine next steps and schedule”
7/14/2008	DRAFT SC FCZD AC Meeting Summary	Draft minutes from the July 2008 SC FCZD AC meeting.
7/14/2008	DRAFT Recorded Motion of the Advisory Committee	Proposed requirement of two meetings before a major decision can be made by the SC FCZD Ac.
7/14/2008	July 14, 2008 SC FCZD AC DRAFT Meeting Summary	Staff’s draft summary of the July 2008 SC FCZD AC meeting.
7/24/2008	Burlington Public Works Director Update on Skagit Hydrology Issues	Differences, although adjusted, still remain between Corps of Engineers (226,400 CFS) and locally supported data (178,700 CFS) at Concrete.
8/1/2008	Corps and County Flood Study Cost	Listing of where our money has been spent.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
8/1/2008	Corps of Engineers Response to Public Comments Made from August 2008 Meeting	“Anticipated total cost to complete the remaining work on the GI is anticipated to be over \$4,000,000 and the selection of a preferred plan is currently scheduled during Step 3 for completion in or about 2012. ... Several work items, including geotechnical investigations, H&H and Economics without project condition report and alternatives formulation are the next step items required prior to alternatives analysis and the selection of a preferred alternative plan. The estimated cost to complete each of these work items or deliverables range from \$200,000 to \$500,000. The development of these tasks are prioritized based on funding received and timing. Timing is important not only because of the need to complete this project but as it relates to when the data will be needed in order to maximize efficiency as some reports have a limited “shelf life”. ”
8/4/2008	Memo to SC FCZD AC, Re: Skagit Natural Hazards Mitigation Steering Committee	“The Skagit Natural Hazards Mitigation Plan was developed in 2003 in response to the Disaster Mitigation Act of 2000 that required jurisdictions to have a FEMA approved mitigation plan in place in order to receive federal mitigation grant funds. Simply put, the mitigation plan opens the federal mitigation checkbook for all incorporated municipalities within Skagit County as well as the unincorporated areas of the county thereby increasing the amount of federal grant funds available for flood mitigation projects within Skagit County.”
8/4/2008	Memo from Chuck Bennett to Committee, Re: Skagit Natural Hazards Mitigation Steering Committee	“The Skagit Natural Hazards Mitigation Plan was developed in 2003 in response to the Disaster Mitigation Act of 2000 that required jurisdictions to have a FEMA approved mitigation plan in place in order to receive federal mitigation grant funds. Simply put, the mitigation plan opens the federal mitigation checkbook for all incorporated municipalities within Skagit County as well as the unincorporated areas of the county thereby increasing the amount of federal grant funds available for flood mitigation projects within Skagit County.”
8/5/2008	Skagit County Public Works Memo to Flood Control Zone District Advisory Committee	Responses to questions on “video recording future AC meetings”, SC FCZD AC versus former Skagit River Flood Control Committee, a draft resolution to amend SC FCZD AC operating rules, a “cost breakdown” of the GI study and more information on the Natural Hazard Mitigation Plan.
8/5/2008	Skagit Flood Control Study Costs - 1997 through December 31, 2007	Payments by jurisdictions for the Corps GI Study.
8/5/2008	Skagit County Public Works Memo to Flood Control Zone District Advisory Committee	Responses to questions on “video recording future AC meetings”, SC FCZD AC versus former Skagit River Flood Control Committee, a draft resolution to amend SC FCZD AC operating rules, a “cost breakdown” of the GI study and more information on the Natural Hazard Mitigation Plan.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
8/12/2008	City of Burlington and Dike District #12 Determination of Significance and Request for Comments on Scope of EIS	“Goal” is “upgrading appropriate sections of the existing levees and constructing new levees, or providing other measures as necessary to result in Certified Levees where appropriate to protect the City of Burlington's Urban Area. “The purpose is to stabilize the base flood elevations for the long term future, ensuring predictable development standards, protect the public from the 100-year flood (which has a 1% probability of occurring in any year) initially, while planning for and implementing measures to provide incrementally greater protection as time goes by.”
8/12/2008	Letter Re: City of Burlington and Dike District #12 Determination of Significance	“The City of Mount Vernon is also impacted by Skagit River flooding and concerned with the future changes in base flood elevations resulting from the revised Flood Insurance Rate Maps. It is extremely important for the cities of Mount Vernon and Burlington and the dike districts to continue to work closely together on proposed flood protection measures and ensuring that the correct hydraulic modeling and data are utilized for the purpose of analyzing flood protection measures and for determining base flood elevations in a 100-year flood event.”
8/18/2008	Skagit River Flood Damage Reduction Study Preliminary Measures Presentation	PDF of 123-slide presentation to August 2008 Skagit County Flood Control Zone District Advisory Committee explaining potential options to reduce the Skagit River Flood Risk. Video is also available from Skagit21.
8/18/2008	Agenda for August 18, 2008 SC FCZD AC Meeting	Corps of Engineers will deliver a report to the SC FCZD AC on Skagit GI Preliminary Measures.
8/18/2008	Notice for August 18, 2008 SC FCZD AC Meeting	“WHO SHOULD ATTEND “All appointed members of the Skagit County Flood Control Zone District’s Advisory and Technical Committees and other interested persons. The public is welcome. Anyone interested in flood management and ecosystem protection and restoration on the Skagit River are encouraged to attend.”
8/18/2008	Proposed resolution to Skagit County Commissioners on rules of the SC FCZD AC with attachment	If supported by the SC FCZD AC, Commissioners will affirm the “major decision” rule and also that “rules and procedures” “amendments shall be by recorded motion, approved by a quorum of the Advisory Committee, and generally such amendments will not require ratification of the FCZD Board of Supervisors provided that all amendments shall comply with RCW Chapter 86.15. Exception: An amendment proposing to change the structure or membership of the Advisory Committee must be approved by the FCZD Board of Supervisors.”

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
8/18/2008	August 18, 2008 SC FCZD AC DRAFT Meeting Summary	Staff's draft summary of the August 2008 SC FCZD AC meeting.
8/27/2008	Skagit County Planning Comments on City of Burlington and Dike District #12 Determination of Significance and Request for Comments on Scope of EIS [for Ring Dike]	County Planning Department raises seven concerns.
8/28/2008	Skagit Comprehensive Flood Hazard Management Plan (CFHMP) Stakeholder Interview Takeaways	“As an important early step in the Skagit Comprehensive Flood Hazard Management Plan (CFHMP) update process, consultant team members Cynthia Carlstad and Bob Wheeler conducted interviews with participants and other stakeholders. . . . Interviews early in the process helped provide an understanding of perspectives, commonalities, differences, and individual knowledge.”
9/1/2008	Engineering Analysis of Levee Alternatives – Skagit River Bridge Modification and Interstate Highway Protection Project (a.k.a. Stansbury Report)	Skagit County Public Works study of widening the 3-bridge corridor.
9/5/2008	City of Mount Vernon Ltr of Support	“The City of Mount Vernon (Dike District 12, Dike District 17) supports Burlington's Freight Rail Assistance application to obtain funding for preliminary engineering work to replace the BNSF Skagit River Bridge. This bridge has been identified in several flood control studies as a significant concern during Skagit River flooding.”
9/5/2008	Dike District 12 Ltr of Support	“Replacement of this bridge will be a necessary measure in any regional flood control project; therefore, we believe forming a partnership now to replace the bridge will be beneficial to BNSF, our local community, the region, and the state.”
9/14/2008	LJK Comments on Aug. 18, 2008 Corps of Engineers Presentation	“Corps understatement at meeting, “Doing anything with us is kind of complicated.” ”
9/15/2008	Considerations regarding Partial Accreditation of Dike, Drainage, and Irrigation District 12 Levee System	A PowerPoint in PDF explaining hydrology research and also how Burlington may address the increased flood elevations. Supplemental material is also included.
9/15/2008	Notice of Meeting	What, when, where, who and why of the upcoming September 15, 2008 SC FCZD AC meeting.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
9/15/2008	Agenda for Sept. 15, 2008 SC FCZD AC Meeting	After regular business, presentation by the City Gov't of Burlington & Dike District 12 on their 100-year ring levee and more.
9/15/2008	City Gov't of Burlington/Dike District 12 Presentation	23-page PDF of presentation to SC FCZD AC, includes slides about Skagit River Flood Risk in reaches of the river, the floodway issue, Crofoot's Addition investigation led by City Gov't of Burlington, and discussion of proposed levee enhancements as well as consequences of incorrect hydrology.
9/15/2008	Skagit County Skagit River Comprehensive Flood Hazard Management Plan (CFHMP) Table of Contents	Overview of needs of a CFHMP.
9/15/2008	SC FCZD AC/Skagit CFHMP Advisory Committee Preliminary Meeting Topic Schedule through February, 2009	Staff-created draft of strategic plan for the SC FCZD AC's meetings.
9/15/2008	“Straw-man” Examples of short-term and long-term goals, and objectives for the Skagit River Comprehensive Flood Hazard Management Plan	“The following “straw-man” (examples of short term and long-term goals and objectives statements) were selected by staff for consideration by the Flood Control Zone District. These goal/objective statement examples are not intended to be exhaustive and were, in general, gleaned from existing comprehensive flood control management plans, the Skagit GI, interviews with participants, and statements from the Technical Committee and Advisory Committee meetings.”
9/15/2008	DRAFT Recorded Motion of the Advisory Committee	Proposed requirement of two meetings before a major decision can be made by the SC FCZD AC.
9/15/2008	Consideration and acceptance of Advisory Committee Meeting Summary from 9/15 AC meeting	Staff's draft summary of the September 2008 SC FCZD AC meeting.
9/22/2008	Endangered Species Act – Section 7 Consultation Final Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Implementation of the National Flood Insurance Program in the State of Washington Phase One Document – Puget Sound Region	“The primary element of FEMA’s minimum criteria that affects listed salmonids and their habitats is the requirement to elevate structures so that the lowest floor of construction is at or above the BFE (the discussion in this paper focuses on riverine examples, but there are similar standards for coastal areas). The placement of fill in the floodplain displaces salmonid habitat, and the associated development results in the placement of additional fill to support infrastructure and in increased pollution, stormwater runoff, vegetation removal, and other adverse effects..”

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
9/22/2008	SC FCZD AC Chair Letter to Skagit County Commissioners, Re: City of Burlington Flood Control Project	SC FCZD AC Chair requests for the AC "clarification as to the type of recommendation the BCC is expecting" from the committee.
9/29/2008	LJK Proposed Modifications to the Goals and Objectives of the Skagit River Comprehensive Flood Hazard Management Plan	Proposed modifications with all additions are in blue, all deletions in red strikeout .
10/1/2008	PIE Skagit River Basin Hydrology Report	"This report presents an update of Skagit River hydrology conducted by Pacific International Engineering (PI Engineering) under an Agreement for Engineering Services authorized in June 2007 by the City of Burlington."
6/4/2007	Appendix A - Hydraulic Analysis – Smith House Flood Stages	“Pacific International Engineering (PIE) performed a hydraulic analysis to estimate the water surface elevations of the Skagit River at the Smith House, located in Hamilton, associated with the magnitude of the 1909, 1917, and 1921 floods as they were estimated by James E. Stewart.”
10/1/2008	Appendix B - Output Of PeakFq For Unregulated Peak And One-Day Flows In The Skagit River Near Concrete	USGS Annual peak flow frequency analysis
4/1/2005	Appendix C - April 1, 2005 Pi Engineering Draft Technical Memorandum – Skagit River Basin Historical Flood Modeling - Hydrology	“This technical memorandum presents details and an analysis of the Skagit River watershed rainfall-runoff modeling for the two 1990, the 1995, and the 2003 flood events using HEC-HMS software Version 2.2.2 (U.S. Army Corps of Engineers, 2003a), HEC-RAS software Version 3.1 (U.S. Army Corps of Engineers 2004), and HEC-5 software Version 8.0 (U.S. Army Corps of Engineers 1998).”
11/29/2004	Appendix D - November 29, 2004 Pi Engineering Draft Technical Memorandum – Skagit River Basin Historical Flood Modeling - Hydraulics	“This technical memorandum presents information on and analysis of the Skagit River Basin flood routing from Newhalem to Skagit Bay, using HEC-RAS modeling software (U.S. Army Corps of Engineers, 2004a). A HEC-5 model was also developed and used to facilitate flood control storage operation of existing dams located at the headwaters of the Skagit and Baker Rivers, which are owned and operated by Seattle City Light (SCL) and Puget Sound Energy (PSE), respectively. The HEC-5 model also performs stream flood routing from these dams to the Concrete gage on the Skagit River.”
10/14/2005	Appendix E - Output Of The PeakFq Runs For Observed Regulated Peak And One-Day	USGS attempted simulation of Skagit River

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
	Flows In The Skagit River Near Concrete	
10/1/2008	Appendix F - Regulated And Unregulated Flood Hydrographs At Selected Locations In The Upper Skagit River Basin For Four Synthetic Flood Events Routed By HEC-5 and HEC-RAS	Hydrographs attempting to recreate 2003 flood in Upper Skagit Basin.
10/1/2008	Appendix G - Regulated Flood Hydrographs at Concrete, Sedro-Woolley, and Mount Vernon For Four Synthetic Flood Events Routed By HEC-RAS	Hydrographs attempting to recreate 2003 flood at Concrete, Sedro-Woolley and Mount Vernon
10/12/2005	Appendix H - Output of the PeakFq Runs for Observed Regulated Peak and One-Day Flows In the Skagit River Near Mount Vernon	Printout of maximum peak flows of Skagit River at Mount Vernon river gauge
10/1/2008	Appendix I - Review Of Selected Historical Literature Pre-Gaged Flood Events on the Skagit River	“With regard to research on the historic floods of 1921, 1917, 1909, and 1897 (and even further back to approximately 1856 and 1815), authors of numerous technical reports produced over the years have accessed available historical documentation to add context and perspective to the results obtained by various technical analyses. This appendix will list the documents often cited and provide some discussion of each. This is not a complete discussion but we believe it is important to include a synopsis of the historical documents as an appendix to the main report to provide a point of departure for the user to conduct additional review of the written historical record.”
10/17/2008	FERC License for Puget Sound Energy Baker River Dams	Official terms of Federal Energy Regulator Commission license to Puget Sound Energy to operate Baker River Dams.
10/19/2008	Tetra Tech Memorandum, Re: Skagit County Public Involvement Plan for the Skagit River Comprehensive Flood Hazard Management Plan	“While flood events most directly affect property owners in the floodplain, any significant event can impact the economic health and welfare of all of Skagit County, as well as regional and national interests. A key component of the CFHMP is to inform Skagit County citizens and businesses about the life-safety and health, welfare, property, and infrastructure components of flooding in Skagit County, and at the same time allow for citizens and businesses to become actively involved in providing input into how such events can be better controlled and risks reduced.”
10/20/2008	Sterling Dam Presentation - Short presentation on the Sterling Dam between Burlington and Sedro-Woolley.	

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Date	Title	Summary
10/20/2008	Notice of Meeting	“The meeting will start out as a joint work session with the Board of County Commissioners to hear a presentation from the U.S. Army Corps of Engineers on flood preparedness and flood response as part of the Flood Awareness Week.”
10/20/2008	Agenda for Oct. 20, 2008 SC FCZD AC Meeting	General summary of planned activities for Sept. 2008 SC FCZD AC meeting.
10/20/2008	Mission, Goals, Objectives, and Measurement Criteria for CFHMP	Black and white copy of LJK Proposed Modifications to the Goals and Objectives of the Skagit River Comprehensive Flood Hazard Management Plan
10/20/2008	Consideration and decision on recommended ground rule changes for SC FCZD AC	Formal implementation of SC FCZD AC proposals that "action" on major issues would require two SC FCZD AC meetings or a supermajority of SC FCZD AC members plus a procedure for amendments to the Operating Rules and Procedures
10/21/2008	Letter to Mount Vernon Mayor Bud Norris, re: National Marine Fisheries Service (NMFS) Biological Opinion (BO) of National Flood Insurance Program (NFIP)	“We all have a legal responsibility to ensure our actions do not cause a take (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) to threatened or endangered species. Under Section 9 of the ESA, actions or decisions enacted by you and your officials are subject to this prohibition regardless of federal involvement. Additionally, any person can be subject to criminal or civil penalties for causing a take. NMFS considers the issuance of floodplain development permits without addressing the impacts on listed species or their critical habitat as a take under the Endangered Species Act.”
10/24/2008	Skagit County Commissioners Letter to PSE	County Commissioners requests PSE live up to Settlement Agreement and help lobby for GI study funding to provide dam storage behind Upper Baker Dam and Lower Baker Dam.
10/29/2008	Mayor Brunz Letter to FEMA Region X, Re: Endangered Species Act Compliance Reasonable and Prudent Alternatives	“In summary, Burlington takes its location in an area that is home to endangered and threatened species very seriously and is directly engaged in a multi-pronged approach to mitigation.”

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Date	Title	Summary
10/30/2008	nhc Re-Evaluation of the Magnitude of Historic Floods on the Skagit River Near Concrete - Final Report	“There is no indication that Stewart was able to tie any high water marks in this reach into eye witness reports of flood levels. We know from experience that identification of high water marks from natural indicators one year after a flood can be quite uncertain. For example, for the same reach of the Skagit below The Dalles, the USGS had difficulty in identifying reliable high water marks from the October 2003 flood in field work conducted nine months after the event (Mastin and Kresch, 2005). In that case, the scatter in high water marks at any particular location was as much as 6 feet.”
10/31/2008	Letter to County from Corps re: financial info on GI Study	Shows what the Corps spent their time and money on during 4th quarter fiscal year 2008.
11/5/2008	Mark Mastin Letter, Re: 1921 Flood Datum	“It should be stated that at this time the USGS considers the peak-discharge estimate of 228,000 ft ³ /s for the 1921 flood on the Skagit River near Concrete as documented in the USGS Scientific Investigations Report 2007-5159 as the best estimate of the 1921 peak discharge. It utilizes modern indirect hydraulic analysis at a relatively uniform site selected to minimize complications in the flow hydraulics. Also, it utilizes HWMs and channel geometry data surveyed soon after the peak, and it does not require the data to be tied to an elevation datum.”
11/14/2008	PSE Obligation to Advance Additional Flood Storage	“...It is the County's expectation that PSE will proactively and energetically begin advocating for the 29,000 acre/feet of dedicated additional flood storage behind the Lower Baker Dam for the life of the new license.
11/17/2008	Agenda for Nov. 17, 2008 SC FCZD AC Meeting	General summary of planned activities for Nov. 2008 SC FCZD AC meeting. Document C, Criteria for Considering Projects, is still a work in progress.
11/17/2008	Consideration and acceptance of Advisory Committee Meeting Summary from 10/20 AC meeting	Staff's draft summary of the October 2008 SC FCZD AC meeting.
11/17/2008	Mission, Goals, Objectives, and Measurement Criteria for CFHMP	Current progress of the SC FCZD AC on Potential mission, short-term and long-term goals, objectives, and measurement criteria for the Skagit River Comprehensive Flood Hazard Management Plan (CFHMP).
11/17/2008	Draft Criteria for Screening and Selecting Projects/Measures Recommendations from Technical Committees	“The Skagit County Flood Control Zone District Advisory Committee requested that each Technical Committee (Environmental, Dike and Drainage, Land Use) develop recommendations regarding flood project screening/selection criteria. This document provides a compilation of criteria developed by the three Technical Committees.

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
11/17/2008	Finalize Operating Procedures/Ground Rule Changes for SC FCZD AC	Formal implementation of SC FCZD AC proposals that "action" on major issues would require two SC FCZD AC meetings or a supermajority of SC FCZD AC members plus a procedure for amendments to the Operating Rules and Procedures.
11/17/2008	Nov. 17, 2008 SC FCZD AC Meeting Audio of GI Study Discussion	Discussion on the Corps of Engineers General Investigation (GI) Process using these documents.
11/17/2008	Nov. 17, 2008 SC FCZD AC Meeting Audio of Impact of the 100-year Flood Standard Discussion	Discussion on the definition of maximum flood risk reduction.
11/17/2008	Nov. 17, 2008 SC FCZD AC Meeting Audio of the FEMA Community Rating System (CRS) Discussion	Discussion of supporting continued county-wide participation in the federal Community Rating System (CRS) of the National Flood Insurance Program.
11/17/2008	Consideration and acceptance of Advisory Committee Meeting Summary from 11/17 AC meeting	Staff's draft summary of the October 2008 SC FCZD AC meeting.
11/21/2008	Col. Wright Letter to LJK, Re: Comments on Corps GI Process	“Thank you for taking the time to provide us with your comments on the Skagit River General Investigation Preliminary Measures. The team is evaluating all of the comments and responses will be posted. . . . The team intends to use the comments in refining the 37 preliminary measures and combining the best measures into alternatives and a recommended plan.”
11/23/2008	2008 Flood Analysis -- The Big Picture	
11/27/2008	November 2008 SC FCZD AC Discussion Documents - Arguments for/against staying in the Corps GI process.	
12/1/2008	Letter to Burlington, Re: Community Assistance Visit (CAV) for Participation in the NFIP	“In summary, there are a few questions regarding the implementation of the NFIP in the City of Burlington; however, the overall feeling is that the city is doing a good job implementing the provisions of the program.”

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Date	Title	Summary
12/3/2008	American Council Of Engineering Companies Position Paper on Levee Certification and Design	“Rising sea levels which increase flood severity, changing demographics, lack of hazard management considerations in controlling land use in flood hazard zones, and similar factors are escalating flood losses. For economic reasons the design standard is often set at a level that eventually will be exceeded. Catastrophic loss is near certain over time. Property owners in those areas protected by well-constructed levees capable of being certified are not required to (and often do not) purchase flood insurance.”
12/8/2008	Public Involvement Activities Budget for Skagit County Comprehensive Flood Hazard Management Plan	Itemized budget for education of Skagitonians about the Skagit River Flood Risk for SC FCZD AC review.
12/9/2008	Proposal for an Interlocal Agreement to Pursue Additional Flood Storage	“...One flood measure universally beneficial to every city, town and dike district is additional flood control from the dams.”
12/14/2008	1925 Metsker's Atlas - Annotated With James E. Stewart Locations	Metsker Maps of Skagit River basin from Burlington to Rockport annotated with known locations where, according to his field notebook, James E. Stewart surveyed for flood elevation marks in 1922.
12/15/2008	Agenda for Dec. 15, 2008 SC FCZD AC Meeting	General summary of planned activities for Dec. 2008 SC FCZD AC meeting.
12/15/2008	Mission, Goals, Objectives, and Measurement Criteria for CFHMP	Current progress of the SC FCZD AC on Potential mission, short-term and long-term goals, objectives, and measurement criteria for the Skagit River Comprehensive Flood Hazard Management Plan (CFHMP).
12/15/2008	Draft Criteria for Screening and Selecting Projects/Measures Recommendations from Technical Committees	“The Skagit County Flood Control Zone District Advisory Committee is developing screening criteria for determining flood risk reduction projects to be advanced for further analysis, design and review through as part of the development of a Comprehensive Flood Hazard Management Plan (CFHMP). The criteria could also be used to provide local screening of the measures proposed in the U.S. Army Corps of Engineers’ General Investigation Study (Skagit GI).”
12/15/2008	Consideration and acceptance of Advisory Committee Meeting Summary from 12/15 AC meeting	Staff's draft summary of the December 2008 SC FCZD AC meeting and table of attendees.
12/17/2008	Figure 4 of Report on Mount Vernon Flood Protection Project Geotechnical Assessment, Mount Vernon Washington	Most of West Mount Vernon is lahar deposits.

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Date	Title	Summary
12/18/2008	“Straw-man” Potential Mission, Goals, and Objectives for the Skagit River Comprehensive Flood Hazard Management Plan	Updated to reflect input from the Advisory Committee and Land Use Technical Committee (LUTC) input.
1/6/2009	Synopsis of Skagit River Hydrology Differences Unregulated	Updated for January 2009, this one-page table shows the statistics separating the Corps of Engineers from nbc and PIE.
1/6/2009	City of Burlington Presentation on Flood Issues and Impacts to Sedro-Woolley	A 22-slide overview of Burlington's attempts to reduce the Skagit River Flood Risk from correcting the hydrology, improving levees, replacing the BNSF railroad bridge and increasing dam storage.
1/11/2009	January 8, 2009 Flood Big Picture	
1/19/2009	Project Screening Criteria for Advisory Committee Consideration	The means to which a project or projects will be decided to be built and/or implemented to reduce the Skagit River Flood Risk.
1/20/2009	Skagit River Dredging: The Perception vs. The Truth - Short presentation for the Jan. 20, 2009 Skagit County Flood Control Zone District Advisory Committee on the history of dredging and why dredging won't work.	
1/20/2009	Agenda for Jan. 20, 2008 SC FCZD AC Meeting	Meeting will be held on Jan. 20, 2008 between 2:00 p.m. and 5:30 p.m. at the Training Room at 325 Metcalf Street, Sedro Woolley. Primary purpose will be focusing the Corps GI process onto specific flood risk reduction opportunities.
1/20/2009	Consideration and acceptance of Advisory Committee Meeting Summary from 1/20 AC meeting	Summary of activities of Jan. 20, 2009 SC FCZD AC meeting.
1/22/2009	Safeguarding Coasts and Floodplains for Fish, Wildlife and People	National Wildlife Federation (NWF) explains why they sued to reform FEMA in an era of climate change. NWF states their prime motivation as the existence of a “NFIP subsidy fueling harmful development of coastal and floodplain habitats”.
1/22/2009	NMFS BiOp on FEMA’s National Flood Insurance Program (NFIP)	The National Marine Fisheries Service claims among the effects of the NFIP are that it “Allows fill and levees (no insurance) and development”. The presentation also states what in their opinion FEMA must do going forward in its administration of the NFIP.

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Date	Title	Summary
1/22/2009	ESA and the National Flood Insurance Program	“FEMA recognizes and acknowledges the importance of preserving critical salmon habitat and believes that the NFIP’s core mission of reducing flood risks to life and property are not mutually exclusive.”
2/1/2009	Submission to FEMA of the City of Mount Vernon’s Request for a Conditional Letter of Map Revision	“The Applicant includes two requests: 1) submittal of a project design and engineering analysis to substantiate a request to change the Flood Insurance Rate Maps (FIRMs) in the historic downtown Mount Vernon area and 2) submittal of a Skagit River Basin hydrology analysis for review as an alternative to the hydrology that FEMA is currently using for the ongoing restudy.”
2/1/2009	Skagit County Flood Control Zone District (SC FCZD) Meeting Notices	Meeting notices for the SC FCZD Advisory Committee and Technical Committees.
2/11/2009	Announcement of Feb. 18, 2009 SC FCZD AC workshop	“The major assignment (see attachments) is to develop a 1st phase (“fatal flaw”) (“no-brainer”) (“common sense”) flood reduction project screening criteria list and then to apply it to the 37 preliminary flood reduction projects/measures in the Skagit GI (and a few other projects identified by the Technical Committees). It is intended that the criteria list and the information gathered from screening the projects/measures will be forwarded to the USACE for its use in justifying which projects to continue evaluating as part of the Skagit GI. The information will also be used as the AC moves forward to develop its own prioritized project list as part of the Comprehensive Flood Hazard Management Plan.”
2/11/2009	Public Comment submission from Chairman Boudinot, re: Cedar Rapids, Iowa flooding impacts	“Eight months after being hit by a flood expected to come along less than once every 500 years, this city of 120,000 is still struggling to get its head above water. About 10 square miles of flood-wrecked neighborhoods are largely abandoned, with thousands of boarded-up houses and businesses lining debris-dotted streets. A steam and electricity generating station that served some of the city’s biggest employers is still inoperable. More than 300 municipal buildings are in need of repair, along with roads and bridges.”
2/12/2009	Skagit County Commissioners Ltr of Support	“The Skagit County Board of County Commissioners requests your support for \$600,000 in Fiscal Year 2010 for funding the Burlington Northern Santa Fe (BNSF) Skagit River Bridge Replacement Preliminary Engineering. It is our understanding that the City of Burlington has submitted a formal request on this matter and Skagit County supports this request.”

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Date	Title	Summary
2/13/2009	<u>Draft Environmental Impact Statement to Adopt A Strategic Program for Comprehensive Flood Hazard Mitigation in the Burlington Urban Area and Adjacent Land With A Range Of Structural and Non-Structural Components</u>	“The proposed action is to construct 100-year certified levees in appropriate locations, and provide other flood measures as necessary and appropriate based on the Federal Emergency Management Agency’s (FEMA) final Flood Insurance Study, when this study is adopted following resolution of any appeals. Levee certification with FEMA accreditation is required so that FEMA will include the existence of the levees in their computer model that sets the Base Flood Elevations for Burlington. Without the levees being considered in the modeling, Base Flood Elevations will increase significantly and this is a serious problem in a city that has very small lots and anticipates a substantial redevelopment of much of the City over the next twenty years.”
2/16/2009	<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 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.
2/16/2009	<u>(Attachment 3 to Handout 2) Historic Flood Flows of the Skagit River</u>	Table of historic flood flows from 1815 to 2009.
2/18/2009	<u>Agenda for Feb. 18, 2009 SC FCZD AC Meeting</u>	Purpose is mainly to “Adopt screening and fatal flaw criteria for considering projects/measures” and “Begins the process of a local screening of the Skagit GI Measures and any local projects using screening and fatal flaw criteria in order to, from a local perspective, narrow measures to a smaller number”.
2/18/2009	<u>Document B: Mission, Goals, & Objectives for the Skagit River Comprehensive Flood Hazard Management Plan</u>	Final mission, goals and objectives document to be approved at Feb. 18, 2009 SC FCZD AC meeting.
2/18/2009	<u>Document C-2: Advisory Committee Input on Project Screening Criteria</u>	“The Advisory Committee agreed to provide input into the screening criteria considered at the January 20, 2009 meeting. Any input would be compiled, distributed and discussed at the February 18 Advisory Committee meeting, with the goal of agreeing on a list of screening criteria.”
2/18/2009	<u>Initial Skagit GI Measure/Local Project Narrowing</u>	List of proposed measures and their review by the SC FCZD technical committees.
2/18/2009	<u>Advisory Committee Meeting Summary from February 18, 2009</u>	General summary of the meeting's activities.

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Date	Title	Summary
2/24/2009	Sedro-Woolley Ltr of Support	“...Replacing the bridge will significantly improve the capability of the railroad to continue operations during a flood event, providing freight movement even when 1-5, SR-9, and Highway 99 are closed. We believe that a partnership between federal, state, and local governments and the Burlington Northern Santa Fe Railroad is the only viable mechanism to achieve these goals.”
2/26/2009	Arika Anderson Daniels	“Currently, this 2.5 acre property is under the jurisdiction of Skagit County and zoned as rural business. When my family purchased the property in 1969 it was zoned commercial/industrial and in 1997, the zoning changed after 50 years to rural business. We have been working ever since to change the zoning back to its original designation of commercial/industrial.”
2/26/2009	Dike District 1 Ltr of Support	“The concept underlying this request is to provide an economic incentive for BNSF to enter a federal - state - local - BNSF partnership to replace the bridge. This proposal recognizes the public benefit of replacing the bridge to reduce flood risk to the urban areas of Skagit County and keep transportation arterials open during and after a large flood event. It requires BNSF to provide a third of the funding, but also provides a significant incentive for the railroad to do so.”
2/26/2009	Dike, Drainage and Irrigation District 12 Ltr of Support	“On February 17th of this month, local elected officials and staff met with area legislators and a BNSF representative to discuss this proposal. BNSF was noncommittal but willing to give serious consideration to replacing the bridge, should the federal and state contingent authorizations become available.”
2/27/2009	City of Mount Vernon Ltr to Congressman Larsen	“My staff will continue to work with BNSF's technical engineering staff to refine the bridge replacement proposal. It may be possible to come up with a solution short of total bridge replacement, which would save money. ... We recognize getting the money together to replace this bridge is a very difficult prospect, and forming a public-private partnership to replace private infrastructure will not be easy. Nevertheless, we think it may be the best solution, and the timing for the reauthorization bill is now. ”
2/27/2009	Washington State Legislators Ltr of Support	“Analysis provided in conjunction with the Bridge Modification and Interstate Highway Protection Project ... has confirmed that the BNSF Skagit River Bridge, constructed in 1916, is a hazard during Skagit River floods. Hydraulic modeling shows that during a large Skagit flood event, water surface levels will be above the bottom chords of the bridge girders, making an already dangerous condition of debris blockage, even worse.”

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Date	Title	Summary
3/1/2009	Clippings from the March 2009 Community Report	“We appreciate the patience of all the participants. At times, it has been slow and laborious, but we are getting there. I sincerely believe that we are on the right track and the committee work being done today will pay huge dividends in the future. We have to stay at the table and get the job done.”
3/8/2009	Larry J. Kunzler	“If the City is successful in someday achieving 100-year certified levees what will the cities policy be with respect to requiring development to be built to what elevation? 100 year flood levels or flat on the ground? The Final EIS should also identify by what means the city perceives are available to "provide incrementally greater protection" and what if any environmental impacts those perceptions would entail.”
3/9/2009	Bob & Kathi Williams	“The School District made the ill advised decision to purchase the property in question in spite of advice not to do so. It is prime farmland and h s been (for decades), and continues to be, in active production. To include this proposal as a part of a plan to protect Burlington from flooding is unfathomable. The classification of the land has no impact causing or preventing flooding. It does however, have the frightening potential to make an irreversible negative change our rural/agricultural community.”
3/10/2009	Rick Major	“By including in your plan some animal access culverts at highway crossings, you would be providing a safe alternative for small animals to cross under the roadways and another way to control flood movement though the corridor.”
3/11/2009	United General Hospital	“If the dike plan being considered is the most effective answer to the flood dilemma of Burlington it would seem reasonable to co-ordinate that project with related planning and projects of the City of Sedro-Woolley, the Dike Districts, Skagit County as well as United and incorporate it into a more regional solution to the problem.”
3/11/2009	Public Comment submission from Bob Helton, re: rising sea levels	“Rapidly melting ice sheets in Greenland and Antarctica are likely to push up sea levels by a metre or more by 2100, swamping coastal cities and obliterating the living space of 600 million people who live in deltas, low-lying areas and small island states.”
3/12/2009	Jerry Burr	“I am impressed with the work involved and answers they have come up with. With the exception of an addition by Burlington Planner Margaret Fleek that she refers to as switching. Appendix D. Maps Exhibit 4, It concerns switching zoning between land on Peterson road and land on Peacock Lane. When President Obama does this it's called redistribution of wealth. In this case I call it taking, as I own 10 acres in the affected switching area.”

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Date	Title	Summary
3/12/2009	Meeting Sign-In Sheet	Attendees to the March 12, 2009 meeting on the DEIS.
3/13/2009	Gary T. Jones	“The cumulative impact of protecting Mount Vernon and Burlington Urban Growth Area as allowed by the common enemy doctrine will have impacts on other private and public entities which face a higher risk of levee failure if concurrent action is not taken to reduce the velocity and water surface elevation of a major flood. The Burlington DEIS does not identify a path to salt water for flood water avoided on the Burlington portion of the Skagit flood plain.”
3/13/2009	Haggen, Inc.	“Briar owns and Haggen operates a grocery store located at 757 Haggen Drive, and Briar also owns several undeveloped commercial parcels in the immediate vicinity of the store. As a result, both entities have a vested interest in the business climate of Burlington and keep abreast of local planning issues. Haggen and Briar both support and applaud the City's and Dike District #12's decision to construct 100-year certified levees and other flood measures as necessary and appropriate to protect Burlington's urban area from flood hazards and stabilize base flood elevations in the long-term.”
3/13/2009	Skagit County Government	“The only meaningful way to consider, analyze and balance these significant adverse impacts on the City's neighbors is to engage in a basin-wide planning process that involves and includes the jurisdictions and entities that are on the receiving end of these impacts, in a manner calculated to produce mutually agreeable, regionally applied mitigation measures and implementation solutions. For this reason, Skagit County is committed to the Corps' General Investigation process and our comprehensive flood planning efforts, which envision a holistic, basin-wide approach.”
3/13/2009	Skagitonians to Preserve Farmland	“Our comments at this time are narrowly focused on the proposed UGA expansion request to include approximately 30 acres of prime agricultural farmland within the corner of Pulver Road and Peterson Road for the Burlington Edison School District (B-ESD).”
3/13/2009	Washington State Department of Ecology	“Overall, the DEIS is lacking in detail and specificity regarding the impacts of enlarging existing levees and constructing new levees. Levees in Burlington and in the Lower Skagit Delta in general are major physical facilities that have major impacts. But it is unclear from the DEIS just what is being proposed.”

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Date	Title	Summary
3/13/2009	Skagit County Consolidated Comments to City of Burlington / Dike District 12 Draft Environmental Impact Statement Regarding Proposed Flood Control Measures	“The only meaningful way to consider, analyze and balance these significant adverse impacts on the City's neighbors is to engage in a basin-wide planning process that involves and includes the jurisdictions and entities that are on the receiving end of these impacts, in a manner calculated to produce mutually agreeable, regionally applied mitigation measures and implementation solutions. For this reason, Skagit County is committed to the Corps' General Investigation process and our comprehensive flood planning efforts, which envision a holistic, basin-wide approach.”
3/16/2009	Agenda for March 16, 2009 SC FCZD AC Meeting	Purpose is to screen flood risk reduction opportunities for the Corps of Engineers to review for a potential future project.
3/16/2009	Fatal Flaw and Project Screening Criteria	Two options for must-pass criteria for any Skagit River Flood Risk reduction project.
3/16/2009	Initial Advisory Committee Input on Corps Measures	“The purpose of this effort is for the AC to provide a local perspective on the Skagit GI measures for the Corps to consider as it begins the process of narrowing and lumping individual measures into a more focused and shorter list of alternatives. Additionally, the work of the AC will be used as one of the processes for determining which projects should be recommended in the CFHMP.”
3/16/2009	Advisory Committee Meeting Summary from March 16, 2009	“The AC worked from document E-1, “Initial Advisory Committee Input On Corps Measures, draft dated February 27, 2009” (see attachment #5). Document E-1 reflected the revisions made to Document E at the February 18, 2009 AC meeting and it also contained additional information submitted from the FCZD Technical Committees and the Cities of Burlington and Mount Vernon. The bulk of the meeting was taken up with this task. Revisions were approved live on the document as projected on a screen and are reflected in Document “E-1” (attachment #6). Work will continue to complete this task/document at the April 20, 2009 AC meeting.”
3/16/2009	Public Comment Submission from Dan O'Donnell, re: Environmental Technical Committee's findings regarding Measure #35 - La Conner	“Regardless of the Corps' label, this project has consistently been called: "Gap Filler". In a meeting with Col. Wright, it was made clear that the objective is to replace the approximately 1,700 lineal feet of levee that was removed in the early 1970's, and rebuild the spoils left from dredging an additional 1,100 ft. The Town Council does not envision building a new ring dike around La Conner.”

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Date	Title	Summary
3/16/2009	Document E-1: Initial Advisory Committee Input on Corps Measures with March 16, 2009 AC Meeting Edits	“Comments from each of the technical committees, along with additional AC comments are shown. Green highlighted projects could be eligible for early action implementation. Yellow highlighted projects need additional analysis, development, design, and alternative packaging. Red highlighted projects should be abandoned, considering any caveats listed under comments.”
3/18/2009	Draft Hamilton PDA Minutes	“Lauren Tracy responded that political decision-makers at every level of government want Hamilton relocation to succeed. The Governor and Congressman Larsen don’t want to find themselves on the evening news during the next flood without visible progress they can point to, such as construction underway.”
3/23/2009	Robert & Brenda Apter	“The best use of this property near Burlington Hill is for additional residential development. The Burlington School District had been interested in putting a new school in that area until it began to consider the Pulver Road area. In fact, the land near Burlington Hill is still a good site for a new school. While additional land would need to be acquired for such a school, discussions were previously held with developer John Ellis to make such an acquisition. John Ellis' property is now in foreclosure, which should allow the School District to acquire the land it needs at a bargain price. In addition, sharing the costs of utilities with a residential developer would benefit both the School District and our property.”
3/23/2009	SC FCZD Environmental Technical Committee Meeting Summary	“ <i>Assignment: For City of Burlington Levee Certification project, provide additional project concept information including map(s), project components, project benefits and concerns, and potential costs.</i> Response: The project is ill defined, but appears to include levee setbacks and extensions. All setbacks should meet ETC project selection/screening criteria including the removal of hardened bank, old levees and restoration components. There should be no new hardened levees along the river.”
3/31/2009	Mayor Ed Brunz Letter to Skagit County Commissioners	“A contingent representing the City of Burlington, Dike District 1, and Dike District 12 recently met with the Deputy Assistant Secretary of the Army for Civil Works (Project Planning and Review), Mr. Doug Lamont, along with members of the Headquarters U.S. Army Corps of Engineers staff regarding the possibility of engaging in an independent external review process for the hydrological analysis of the Skagit River General Investigation study. In this meeting, we expressed our concern that the hydrology was a basic foundational issue which must be resolved prior to further work on the General Investigation study. In particular, it is difficult to define existing conditions or determine appropriate flood measures if the underlying hydrologic basis is not correct.”

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Date	Title	Summary
4/4/2009	NASA Earth Observatory 10th Anniversary: The Red River Flood Plain	“The repetition of flooding in the Red River basin is mostly due to its topographic setting and geologic history.”
4/7/2009	SC FCZD Land Use Technical Committee Meeting Summary	“The City of Burlington and Dike District #12 has issued a draft environmental impact statement on this measure with some project details. The City and District are now considering how best to respond to comments received during the public comment period. Revised site plans ... showing levee location and flood inundation areas were provided to the LUTC by ... City of Burlington.”
4/7/2009	SC FCZD Dike District Technical Committee Meeting Agenda & Notes	“No project can reduce the existing level of flood risk protection for a given area.”
4/7/2009	April 7, 2009 Dike & Drainage Technical Committee Meeting Minutes	Updates to screening criteria for the DDTC.
4/7/2009	Fargo, Moorhead grapple with how best to protect region against future flooding	“Before a flood, developers and people looking for dream homes with woodsy river views may put irresistible pressure on local governments to go easy on restrictions. After a flood, areas targeted for clearing may defend their neighborhoods as economically vital, aesthetically valuable or historically important, and officials may fear chasing them away.”
4/9/2009	Presentation on Effects of a Certified Burlington Levee on Base Flood Elevations/BFEs	Eight slides of base flood elevation (BFE) maps on how certified levees for Burlington will lower the BFEs.
4/16/2009	Legislative Letter to Mayor Norris	“Regrettably, Mount Vernon's specific concerns were not brought forward while the bill was in the House. Further, your concerns did not lead to an amendment in the Senate. We have been working together since you raised concerns, but have ultimately been unable to come to agreement on language that will address your situation while maintaining the base intent of the bill to prohibit expansion into floodplains by cities which have other options available.”
4/20/2009	Measures 4 & 5 - Nookachamp and Hart Slough Storage Issue Paper Presented to Advisory Committee	“I take great issue with the following verbiage that I am assuming was handed out at the Dike and Drainage Sub-committee: “The Nookachamps floodplain historically has provided various levels of natural storage, depending on the magnitude of the flood peak and shape of the hydrograph, to significantly reduce flood peaks.” (Source: Skagit River Flood Reduction Feasibility Study, PIE April 2006) The truth of the matter is that there is very little that is “natural” about the storage in the Nookachamps.”

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Date	Title	Summary
4/20/2009	Public Comment to April 20, 2009 Flood Control Zone District Advisory Committee	“In theory, Skagit County Commissioners have had the authority to collect property taxes for the past 39 years for flood control projects and to serve as local match for, but have chosen not to do so.” (Lauren Tracey, Hamilton PDA)
4/20/2009	Agenda for April 20, 2009 SC FCZD AC Meeting	“Continue the process of a local screening of the Skagit GI Measures and any local projects using screening and fatal flaw criteria in order to provide input to the Army Corps for their consideration as they screen the measures, as well as using this work effort as input for the CFHMP.”
4/20/2009	AC Meeting Hand-Outs for April 20, 2009	A table explaining how all the handouts relate to one another.
4/20/2009	Screening and Fatal Flaw Criteria for Projects/Measures	Current iteration of criteria for the Corps of Engineers to consider floodplain management projects for the Skagit River Basin.
4/20/2009	Initial Advisory Committee Input on Corps Measures and Consideration of Locally Identified Projects	“The following table provides initial input from the Skagit Comprehensive Flood Hazard Management Plan (CFHMP) Advisory Committee (AC) on the Skagit GI measures. It additionally includes locally identified projects that the AC is considering for inclusion in the Comprehensive Flood Hazard Management Plan (CFHMP).”
4/20/2009	Possible Overtopping Levee Sites	Map of lower Skagit River Basin showing in bold lines along the Skagit possible overtopping levee sites.
4/20/2009	Map of I-5 and BNSF Levee Concept	Idea is to protect the railroad and interstate as well as connect to downtown Mount Vernon flood protection.
4/20/2009	One-pager on Nookachamps Storage	“Additional flood peak flow reduction could be achieved if the Nookachamps floodplain storage were designed to function like a temporary flood control reservoir by storing during the peak flow period and releasing the stored water after the peak had passed. Implementation of this measure requires construction of levees and gate-control flow release structures that are available to control flows into and out of the reservoir area.”
4/20/2009	Attachment A-1: Draft SC FCZD AC Meeting Summary of April 20, 2009	Summary of the meeting that discussed potential activation of the property tax levy powers of the Flood Control Zone District (FCZD), identifying feasible projects and working with other jurisdictions on hydrology & Baker River flood storage.

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Date	Title	Summary
4/20/2009	Public Comment to April 20, 2009 Flood Control Zone District Advisory Committee	“In theory, Skagit County Commissioners have had the authority to collect property taxes for the past 39 years for flood control projects and to serve as local match for, but have chosen not to do so.” (Lauren Tracey, Hamilton PDA)
4/21/2009	Advisory Committee Assignment to Technical Committees	Technical Committees assigned to review the potential of an emergency overflow spillway at Avon and also habitat restoration projects in the Upper Basin tributaries.
5/1/2009	Re-Evaluation of the Magnitude of Historic Floods on the Skagit River Near Concrete - Revised Final Report	“While the current published estimate of the 1921 peak discharge is inconsistent with reported flood levels in the Crofoot Addition, we have been unable to identify the reason for such inconsistency. The currently published discharge estimate was determined by slope-area measurement. The most likely source of error in that estimate is in high water data which were identified in the field about a year after the event. By contrast, the high water data relied on for the revisions proposed in this report are based on a newspaper account published within a few days of the flood.”
5/1/2009	Map of Observations of Irrigation in July & August 2008 Where Documentation of Authorized Use Could Not Be Located	Map shows with red dots places of questionable irrigation using Skagit River and/or Samish River water.
5/7/2009	Save the Date!	“Skagit County and the US Army Corps of Engineers are holding an Executive Committee meeting on Thursday, May 7, 2009 from 1:30 - 4:30 p.m. in the Commissioners' Hearing Room, 1800 Continental Place, Mount Vernon, WA. The purpose of the meeting is to provide an update on the Skagit River General Investigation study.”
5/7/2009	Land Use Technical Committee Meeting Notes	“Land impacted by flowage from any diversion of flood waters must be mapped and land so mapped must be protected with easements/purchase and zoning restrictions.”
5/18/2009	Document E-4, Attachment 2: Advisory Committee Input on Corps Measures and Consideration of Locally Identified Projects	Latest version of Document E-4, incorporates habitat restoration, emergency overflow spillway and Mount Vernon comments on potential projects.
5/18/2009	Document E-4: Advisory Committee Input on Corps Measures and Consideration of Locally Identified Projects	Document carried over from previous meetings. Last version incorporates habitat restoration, emergency overflow spillway and Mount Vernon comments on potential projects.

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Date	Title	Summary
5/20/2009	Local Revenue Generation for Flood Control	“Mr. Brookings recommended exercising the existing levy authority available to the Flood Control Zone District under RCW 86.15. In addition to this source, Mr. Brookings identified county commissioner authority, under RCW 86.12, to levy a separate property tax for a River Improvement Fund, within which is a dedicated Flood Control Maintenance Account. Both of these sources are available right now in Skagit County and do not require voter approval or state legislative action as some funding sources would require (e.g. sales tax).”
5/21/2009	Federal Emergency Management Agency (FEMA)	“FEMA did not define a floodway for Skagit River delta communities. The City of Burlington must therefore administer their floodplain ordinance in accordance with 44 CFR 60.3 (c) (10) which states: "no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 on the community's FIRM unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point within the community.”
5/29/2009	GAO-09-369 Highlights - FEMA Has Made Progress, but Needs to Complete and Integrate Planning, Exercise, and Assessment Efforts	“The lack of clarity in response roles and responsibilities among the diverse set of responders contributed to the disjointed response to Hurricane Katrina and highlighted the need for clear, integrated disaster preparedness and response policies and plans.”
6/2009	Skagit River H&H Technical Review Summary	An Army Corps of Engineers Seattle District summary of Skagit River Hydrology & Hydraulics.
6/1/2009	Proposal for BNSF Skagit River Bridge Replacement to Reduce Urban Area Flood Risk	“Built in 1916, this bridge is a hazard to itself and the adjacent levee system. Debris buildup upstream of the bridge in 1995 caused the bridge to fail and almost caused the adjacent left bank levee to fail.”
6/2/2009	Dike & Drainage Technical Committee Comments	“Dike and drainage districts are generally in the business of keeping or moving water out of their respective districts. Designing a measure that directs water onto private property through a “spillway” flies in the face of this general mandate and is contrary to the required nexus between district taxes benefiting the lands being assessed. This raises concern about “liabilities”.”

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Date	Title	Summary
6/2/2009	Attachment A-4: Dike & Drainage Technical Committee Formal Comments on Emergency Overflow Spillway	“Would overtopping levies with an element of flood risk management be easier for the public to support? People are still going to get wet during a major event but are getting risk reduction based on the percentage of likelihood the major event will happen in a given year.”
6/3/2009	Dike Districts 3 & 22	“Based on your confirmation that this is a programmatic EIS and that further environmental review will be done with notice to the Districts before permits and implementation of the plan, the Districts are not commenting further at this time.”
6/3/2009	jacksonfreepress.com story: Drowning Jackson	“For most of the past century, the answer to flooding was to straighten rivers or strategically dam them up. There was no problem human ingenuity couldn’t dredge or concrete its way out of. It was only after we developed a deeper understanding of our environment and began to see the long-term destruction imposed by such projects that we began to reverse our strategy.”
6/4/2009	Letter to Washington State Department of Ecology, Re: Using Skagit River for Irrigation w/o Water Rights	“The Swinomish Tribe is very concerned that illegal use of water for irrigation purposes in the Skagit and Samish River watersheds will continue to harm fisheries resources and impair senior water rights, including senior instream flow rights. ...The Tribe’s concern will only grow in light of increased water demand for out-of-stream purposes in the Skagit and Samish River watersheds and a predicted higher frequency and duration of drought conditions associated with global climate change.”
6/4/2009	Mud fight on the Skagit	“Washington state law directs local governments to preserve wetlands and farmlands. These twin directives have run splat up against each other in a soggy little creek drainage east of Mt. Vernon, in the Skagit Valley.”
6/8/2009	Skagit River System Cooperative	“The DEIS does not analyze the proposed action in the context of comprehensive basin wide flood damage reduction studies. The DEIS recognizes that flood control efforts by the City will likely need to be coupled with other actions under consideration to avoid impacts but provides no direct analysis.”
6/15/2009	Environmental Technical Committee Comments	“The ETC sees by-pass projects (depending on design) as one of the types of projects the group favors because there is the potential for environmental restoration and reconnection of the river with a portion of its flood plain. The spillway project as the group understands it does not have a defined channel or defined location flow would hit the bay or Swinomish channel. Given that lack of definition environmental restoration potential is limited.”

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Date	Title	Summary
6/15/2009	Agenda for June 15, 2009 SC FCZD AC Mtg	Mainly “To consider AC efforts to-date and consider any recommendations on the process/logistics to the Board of Supervisors” and “Continue the process of a local screening of Skagit GI Measures, and any local projects using screening and fatal flaw criteria, in order to provide input for the CFHMP and to the Army Corps for their consideration as they screen the measures. ”
6/15/2009	Attachment A-2: Support for Measures Identified as part of a Skagit River CFHMP and the Army Corps of Engineers Skagit GI Study Draft/Example from Daryl Hamburg	Nine proposed measures to reduce the Skagit River flood risk to be fast tracked.
6/15/2009	DRAFT Meeting Summary for 6/15/2009 Mtg	“The AC reviewed a short list of nine flood control measures being advocated by Daryl Hamburg. Daryl had preliminarily reviewed the list with the DDTC and received concurrence to ask the AC to acknowledge that these projects, at a minimum, are going to be required for any meaningful flood control effort on the Skagit River. ... Motion was amended to remove measure #1 (Additional Baker River Storage) from list at this time due to lack of information but to approve the remaining eight measures. There was no consensus, motion passed 9/0/3 [Walsh (2 votes), Kunzler abstaining]. Motion will be brought back to next AC meeting for second vote.”
6/15/2009	Skagit County Commissioners Letter to SC FCZD AC Membership	“An issue that is at hand is the United States Army Corps of Engineers' Water Control Manual in regard to the operation of the Lower Baker Dam during flood events. Skagit County has been pursuing this action for several months with Puget Sound Energy in relation to the Baker River Hydroelectric Project Settlement Agreement dated November 30, 2004, which allowed Puget Sound Energy to obtain a new license for the Baker River Hydroelectric Project from the Federal Energy Regulatory Commission. It is the position of Skagit County that this is an ongoing negotiation that needs to proceed. We would also like to have an open dialogue with the Advisory Committee on this issue as well.”
6/17/2009	Corps of Engineers Historic Discharge Position Summary	“The City of Burlington has stated that the accepted discharges of the historic floods are statistically extremely unlikely. Statistically, this would be all the more reason to include them, as we are defining the magnitude of the expected extreme events. However, we are not just dealing with statistics; we are dealing with a large river and the weather systems that drive its flood peaks. This means we have climate cycles, such as the Pacific Decadal Oscillation, El Nino, and climate change, which influence our flood events. Other rivers in the Pacific Northwest also experienced floods of record during the same time period as the historic Skagit River floods.”
6/17/2009	Skagit River Flood Damage Reduction Study Hydrology Background	Overview of Corps of Engineers Seattle District's attempts to address Skagit River hydrology.

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Date	Title	Summary
6/17/2009	Skagit River Historical Flood Elevations and Peak Flow Estimates	Presentation by City of Burlington & Pacific International Engineering to Wednesday, June 17, 2009 Corps of Engineers Skagit River GI H&H Technical Workshop.
6/17/2009	Crofoot's High Water Marks (HWMs)	10 slides about the analysis into what the flood elevations were in Crofoot's Addition, Concrete, WA.
6/17/2009	1.8-ft gage datum discrepancy	“1.8 ft is the difference between USGS published and Stewart’s surveyed 1921 HWM elevations.”
6/20/2009	Document C-3: Fatal Flaw and Project Screening Criteria	Incorporates changes from previous SC FCZD AC discussions about this document.
6/23/2009	Letter Re: Mount Vernon Downtown Flood Protection Project	“We encourage the City of Mount Vernon to work with other communities to submit one comprehensive Conditional Letter of Map Revision (CLOMR) that includes all existing and proposed flood protection projects for the Skagit River. In order to meet all the requirements of 44 CFR, communities along the Skagit River should not finalize their levee plans until they have collaborated on levee project designs and effects and incorporated the results of the USACE flood damage reduction feasibility study. The processing of this CLOMR is hereby suspended until these steps can be taken.”
6/26/2009	Center for Environmental Law & Policy Comments on WA Dept. of Ecology Skagit River Water Supply Plan	“Water is a state-owned and managed resource, and people outside the Skagit watershed and not connected to the Flow Management and/or Water Resources Advisory committees have interests in Skagit water management and its impacts on growth, salmon habitat and other related issues.”
6/30/2009	Letter Re: FEMA Review (CLOMR) of the Mount Vernon Downtown Flood Protection Project	“The City and its engineers have worked with FEMA for the past several years and more recently within the past 12 months, to insure that the City is following the appropriate steps and process in order to design a flood protection project that can remove downtown Mount Vernon from the 100-year flood plain. FEMA's refusal to take action places Mount Vernon in harm's way for the next flood. Considering the amount of time and effort that the City has put forth in concert with FEMA, FEMA's position is outrageous and insulting.” (See also 2/2009 Submission to FEMA of the City of Mount Vernon's Request for a Conditional Letter of Map Revision)

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Date	Title	Summary
6/30/2009	Western Washington Agricultural Association e-mail to Department of Ecology, RE: Skagit Agricultural Irrigation Water Use	“Mr. Wasserman expresses as his reason for the complaint, their concern for the adverse impact this may be causing to instream flows. I would refer to the Skagit CIDMP which identifies 273 agricultural surface and ground recorded water rights certificates, permits and claims in the Skagit and Samish deltas, not all of which are used or fully exercised in any given year due to crop rotation requirements, weather and other variables. The Skagit CIDMP concludes that the impact of delta agricultural surface water diversions is relatively minor when compared to streamflow in the lower Skagit River mainstem, representing 0.03 percent of the mean monthly flow in September, which is the lowest recorded mean monthly flow during the year.”
7/2/2009	MFR: Skagit Basin Hydrology Technical Discussion	“USGS notes that there is potential for inaccuracy for these floods. Data from USGS is accepted by the Corps without corps reproducing the same data.”
7/4/2009	A Flood Insurance Primer - Why Are So Few Homeowners Insured?	<p>“Flood insurance was a hot topic in the wake of Gulf Coast hurricanes Katrina and Rita. The lesson taken away from those disasters from a flood insurance perspective was generally the right one - The Congressionally-mandated flood insurance program does not work. Not nearly enough people buy flood insurance - ironically, far fewer buy mandatory flood insurance than would if the market were allowed to educate the public and convince them to buy it.”</p> <p>(Matt Barr is the former Communications Director with http://www.alamode.com a la mode, inc. a mortgage technology company based in Oklahoma City.)</p>
7/10/2009	Memo Re: NHC/PIE investigation Recommendations	“We find that the PIE and NHC investigations into High Water Marks (HWM’s), survey results, and HEC-RAS modeling provide less than compelling evidence that the USGS historic flood peaks should be adjusted downward. The following suggestions describe how the investigations could be strengthened. It should be noted that these suggestions, if adopted, may improve the quality of the results, however they may not result in compelling evidence that would justify revising the four historical flood peaks.”

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Date	Title	Summary
7/14/2009	Letter to FEMA Re: FEMA's suspension of the City of Mount Vernon, Washington's Conditional Letter of Map Revision ("CLOMR") Request - City's Reply	“Mount Vernon maintains that FEMA has ... adopted new rules without notice or opportunity to comment by instituting additional requirements or "steps" outside the rulemaking process. These "steps" include (i) requiring the City to wait for federal processes, one of which is beyond FEMA's control and authority (i.e. FEMA's own FIS and the USACE GI process), (ii) a requirement that the City consider in its CLOMR request all potential flood protection measures along the Skagit River no matter how remote or speculative so long as they are a part of the US ACE GI, and (iii) a requirement that the City obtain consensus with other communities beyond its jurisdiction to solve all matters related to flooding along the river in one comprehensive CLOMR in order to ensure that its own CLOMR is reviewed.”
7/14/2009	Public Meeting Notice	Notice of upcoming advisory & technical committee meetings.
7/15/2009	Presentation to Mt. Vernon City Council on CLOMR	40-slide presentation by Mt. Vernon City Attorney Kevin Rogerson as well as Pacific International Engineering (PIE) on why FEMA should approve the CLOMR request.
7/16/2009	Congressional Delegation Response to June 30 Letter	“As your federal representatives we remain committed to helping local communities in Skagit Valley find a comprehensive and system-wide approach to flood control. Continued communication between the communities and federal agencies responsible for elements of flood control studies and projects is vital for continued progress toward protecting life and property throughout the river system.”
7/19/2009	FCZD AC Draft Recommendations With Cost Estimates Provided by LJK	Proposed fast-track Advisory Committee measures could cost in excess of \$150 Million dollars.
7/19/2009	Potential Sales Tax Revenue for Flood Control Measures from 2005-2008	If Skagit County had instituted a half-cent sales tax (.005) in the year 2005, we could have raised in excess of 42 million dollars for flood control.

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Date	Title	Summary
7/20/2009	DRAFT Meeting Agenda for July 20, 2009 SC FCZD AC Meeting #13	<p>“Meeting Purpose—For the Flood Control Zone District (FCZD) Advisory Committee (AC) members to conduct normal business and:</p> <ol style="list-style-type: none"> 1. To convene for a joint meeting with the FCZD Board of Supervisors (Skagit County Commissioners) in order to discuss AC flood planning efforts to-date and future challenges. 2. To provide an opportunity for Puget Sound Energy to respond to an invitation to present an overview of the Baker dam(s) flood storage planning efforts. 3. For the AC to consider an approach and timeline for completing the Comprehensive Flood Hazard Management Plan. 4. To determine next steps and Technical Committee assignments (if any).”
7/20/2009	Attachment #A-2.1 (7/20/2009): Support for Measures Identified as part of a Skagit River CFHMP and the Army Corps of Engineers Skagit GI Study Draft	List of one rejected and eight accepted projects to fast-track to approval by the SC FCZD AC.
7/20/2009	July 20, 2009 Mtg. Draft Meeting Summary	<p>“Carlson appreciated Hamburg's list after expressing his frustration in a previous AC meeting. This is a good sign to congressional delegates. It's a place to start looking at projects that will be beneficial to fish, agriculture, and infrastructure. Norris expressed the measures should be most beneficial to human life and property.” The list “passed by 13 votes with Wasserman and Carey against.”</p>
7/23/2009	City of Mount Vernon Complaint Against Federal Emergency Management Agency	<p>“Mount Vernon has a right to have <i>its</i> CLOMR request addressed on its merits alone, and cannot be dependent upon the diligence, quality or level of technical expertise of other jurisdictions for a protracted and undefined period of time. Mount Vernon cannot be dependent upon the mere <i>possibility</i> of future flood projects that are remote and speculative. By way of example, one study cited by FEMA is not yet completed; has been ongoing for twelve years; has produced no recommended measures; and, is not currently funded for completion.”</p>
7/24/2009	Draft Executive Order of Obama Administration for Floodplain Management	<p>“Floods have caused a greater loss of life and property and have devastated more families and communities in the United States than all other natural hazards. Despite the expenditure of billions of tax dollars trying to manage floodwaters and guide wise use of floodplains, flood damages continue to increase and every year billions are spent in response to flood disasters. In addition, natural floodplains contain numerous inherent values that are of great importance to the Nation. The federal government must therefore strengthen its commitment to reducing the loss of life and property caused by floods and to protecting and restoring the natural resources and functions of floodplains.”</p>

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Date	Title	Summary
7/31/2009	Letter to Mount Vernon, re: Community Assistance Visit (CAV) for Participation in the NFIP	“Our meeting was very productive. Those in attendance have key responsibilities for the City in the permitting of floodplain development, and it was clear that they had a very good understanding of the NFIP and how floodplain cases need to be handled.”
8/1/2009	Skagit River Flood Risk Management and Ecosystem Restoration Project Feasibility Study (aka GI Study) Feasibility Scoping Meeting Read-Ahead Report	Documentation of “technical studies and findings of the Skagit River Flood Risk Management and Ecosystem Restoration Feasibility Study ... to study flood risks in the Skagit River Basin and to evaluate the feasibility and justification of alternative flood risk management alternatives.” The report also “evaluates opportunities to pursue ecosystem restoration.”
8/10/2009	El Nino, La Nina & Normal Flood Years -- 1900-2004	Document compares El Nino to La Nina and our normal flood years. The document shows us that almost all of our major flood events happened in so-called normal years.
8/17/2009	Press Release: City of Mount Vernon Withdraws Complaint Against FEMA	“Since the filing of the action, Mount Vernon has been in continuous communication with FEMA through the agency’s attorneys. Following dismissal of the City’s action, the City understands that FEMA will continue to work on the CLOMR application; review information submitted by the City to date as well as any new information submitted by the City in the future should further information be requested; and, provide technical assistance to the City regarding the CLOMR request.”
8/17/2009	Agenda for August 17, 2009 SC FCZD AC Meeting	Meeting will be focused on screening potential projects.
8/17/2009	Document C-3: Fatal Flaw & Project Screening Criteria	Updated by SC FCZD staff to reflect recent modifications by advisory committee & technical committees.
8/17/2009	Draft Minutes for August 17, 2009 Meeting	“Discussion focused on storage projects #4 Nookachamps and #5 Harts Slough, listed under motion item #3. The AC had previously discussed these measures and preliminarily recommended they not be considered further (red lighted) as part of the Skagit GI. ... An amendment to the motion was made by Larry Wasserman and seconded by Larry Kunzler to drop the Nookachamps and Hart Slough Storage projects from the original motion. Motion carried with Bud Norris opposed.”
8/17/2009	Attachment 1 to 8/17 Meeting Minutes - Press Release: City of Mount Vernon Withdraws Complaint Against FEMA	“Since the filing of the action, Mount Vernon has been in continuous communication with FEMA through the agency’s attorneys. Following dismissal of the City’s action, the City understands that FEMA will continue to work on the CLOMR application; review information submitted by the City to date as well as any new information submitted by the City in the future should further information be requested; and, provide technical assistance to the City regarding the CLOMR request.”

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Date	Title	Summary
8/18/2009	Environmental Technical Committee Request for Advisory Committee Motion	Recommends support for the measures of a 3-bridge corridor levee replacement plus wider corridor & a Fir Island Bypass.
8/18/2009	Land Use Technical Committee Request for Advisory Committee Motion	List of measures the Land Use Committee can support. Notes on dam storage, “Storage continues to have the potential to be the most cost effective method of flood risk reduction.”
8/18/2009	Attachment 4 to 8/17 Meeting Minutes - Environmental Technical Committee Request for Advisory Committee Motion	Recommends support for the measures of a 3-bridge corridor levee replacement plus wider corridor & a Fir Island Bypass.
8/18/2009	Attachment 5 to 8/17 Meeting Minutes - Land Use Technical Committee Request for Advisory Committee Motion	List of measures the Land Use Committee can support. Notes on dam storage, “Storage continues to have the potential to be the most cost effective method of flood risk reduction.”
9/1/2009	Skagit River Flood Risk Management and Ecosystem Restoration Project Feasibility Study Project Management Plan - DRAFT Revised September 2009	“The purpose of the evaluation and screening of measures is to methodically narrow down the range of individual project elements so that funding and analysis is focused on those measures that have the highest potential to qualify as a Federal interest. A Federal interest for flood risk management measures is determined by a positive benefit-to-cost ratio, environmental acceptability, engineering feasibility, acceptable risk, and acceptable socio-economic impacts.”
9/16/2009	Agreement for Flood Control and Replacement Power Between Corps of Engineers & Puget Sound Energy (Amendment at Amendment No.1 Agreement For Flood Control And Replacement Power)	“Puget shall operate the Upper Baker Development to provide (i) 16,000 acre feet of flood control storage space between October 15 and March 1 and (ii) an additional 58,000 acre feet of storage space between November 1 and March 1 of each operating year during the Tenn. Such flood control operations shall be at the direction of the Corps on terms and conditions to be mutually agreed upon by the Corps and Puget.”

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Date	Title	Summary
9/16/2009	(Attachment 1 to Handout 2) Agreement for Flood Control and Replacement Power Between Corps of Engineers & Puget Sound Energy (Amendment at Amendment No.1 Agreement For Flood Control And Replacement Power)	“Puget shall operate the Upper Baker Development to provide (i) 16,000 acre feet of flood control storage space between October 15 and March 1 and (ii) an additional 58,000 acre feet of storage space between November 1 and March 1 of each operating year during the Tenn. Such flood control operations shall be at the direction of the Corps on terms and conditions to be mutually agreed upon by the Corps and Puget.”
9/21/2009	Agenda for September 21, 2009 Meeting	Primary objective of meeting is to hold a, “Final discussion and vote on projects/measures that will be moved forward (“short list”) for further evaluation in the draft CFHMP.”
9/21/2009	Draft Minutes for September 21, 2009 (Handout 2)	“The AC turned to Handout #5, a list of projects/measures that the technical committees brought forward as motions. These are projects that the technical committees believe should be further evaluated in the CFHMP. ... It became apparent early on in the discussion that there were strongly held divergent opinions on the merits of some of the proposed projects. Due to meeting time constraints and the need for full discussion on this matter, the Chair asked members if they would care to postpone action on this item and carry it over to next month’s meeting.”
9/21/2009	(Attachment 4 to Handout 2) Table of news articles about 1917 flood	Listing of news articles in the Historical Newspaper Article database about the 1917 flood.
9/21/2009	Consolidating Motions for Identifying Measures to Move Forward in Draft CFHMP	List of measures the Skagit County Flood Control Zone District (SC FCZD) committees are considering for incorporation into the Skagit County Comprehensive Flood Hazard Management Plan (CFHMP).
9/21/2009	Draft Document C-4: Criteria for Screening Projects and Measures	“It is proposed by staff that the following project criteria be used to initially screen and evaluate preliminary projects and measures moving forward in the CFHMP. Generally all projects should have affirmative answers to the criteria listed below. It is understood that additional technical information on individual (and combined) measures will need to be developed to answer all the criteria questions.”
10/1/2009	Report from the Mayor	“The City's elected officials and staff feel an urgent sense of responsibility to our community to reduce flood risk using every means at our disposal. This Project should not be delayed. Without a viable permanent flood project, Downtown Mount Vernon continues to face severe flooding during every major flood event.”

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Date	Title	Summary
10/3/2009	New York Times: Scarcity of King Salmon Hurt Alaskan Fishermen	Report on how the loss of Pacific salmon is not restricted to Washington State, but spreading to southwest Alaska.
10/6/2009	American Society of Civil Engineers: So You Live Behind A Levee!	“All rivers, streams, and lakes will flood eventually. There are no exceptions. Given enough time, any levee will eventually be overtopped or damaged by a flood that exceeds the levee’s capacity.”
10/7/2009	Letter to Skagit County Government, re: Participation in the National Flood Insurance Program (NFIP)	“I appreciated the opportunity to meet with County Officials on September 30, 2009 to discuss Skagit County's participation in the National Flood Insurance Program (NFIP). ... Your staff very positively reflects the Class 4 rating Skagit County enjoys in the NFIP Community Rating System, a rating that places the County among the six highest ranking communities in the Country. ”
10/8/2009	Amendment No.1 Agreement For Flood Control And Replacement Power (An amendment to Agreement for Flood Control and Replacement Power Between Corps of Engineers & Puget Sound Energy)	“Puget shall operate the Upper Baker Development to provide (i) 16,000 acre feet of flood control storage space between October 15 and March 1 and (ii) an additional 58,000 acre feet of storage space between November 15 and March 1 of each operating year during the Term. Such flood control operations shall be at the direction of the Corps on terms and conditions to be mutually agreed upon by the Corps and Puget. It shall be the intent of this Agreement to comply with the flood control objectives specified in House Document No. 95-149, while minimizing spill at the Upper Baker Development to the extent that it is feasible. ”
10/8/2009	Letter to City of Mount Vernon, WA Requesting More Data for CLOMR	“On the basis of the information submitted to date, we have identified additional data needed to process this CLOMR. The data required to complete our review, which must be submitted within 90 days of the date of this letter, are listed in the enclosed summary.”
10/14/2009	Letter re: Request to Revise Water Control Manual	“A final EIS for the Baker River Hydroelectric Project was issued by the Federal Energy Regulatory Commission on September 8, 2006. As noted in the EIS, the Corps cannot take advantage of any earlier storage provisions in the license or additional storage beyond that contained in H. Doc 95-149 (as authorized by P.L. 89-298) until it completes a study and receives Congressional authorization for taking such additional action (see EIS at 3-52).”
10/14/2009	Attachment 1: Letter re: Request to Revise Water Control Manual	“A final EIS for the Baker River Hydroelectric Project was issued by the Federal Energy Regulatory Commission on September 8, 2006. As noted in the EIS, the Corps cannot take advantage of any earlier storage provisions in the license or additional storage beyond that contained in H. Doc 95-149 (as authorized by P.L. 89-298) until it completes a study and receives Congressional authorization for taking such additional action (see EIS at 3-52).”

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Date	Title	Summary
10/19/2009	Agenda for October 19, 2009 Meeting (Handout 1)	Primary objective of meeting is to hold a final vote on project screening criteria and a first vote on preliminary projects.
10/19/2009	Document C-4: Criteria for Screening Projects and Measures - 2009-10-19 Final Draft (Handout 3)	Final Draft of the criteria the SC FCZD AC will use to screen potential projects for inclusion to the Comprehensive Flood Hazard Management Plan (CFHMP).
10/19/2009	Consolidating Motions for Identifying Measures to Move Forward in Draft CFHMP (Handout 4)	“The AC approves the following short list of projects/measures to be included in a first draft, of a future CFHMP.”
10/19/2009	Draft Minutes for Oct. 19, 2009 (Handout 2)	“The U.S. Army Corps of Engineers (USACE) will receive about 30% of what they were expecting [for the GI study]. Amy Gibbons also told the County the USACE will not be participating at the AC meetings, and County expenses associated with the AC are not eligible as match for the Skagit GI. Also, the Project Management Plan was distributed for comments; due the end of October.”
10/25/2009	Trip Report, National Association of Flood and Stormwater Management Agencies, October 20 - 23, 2009	“Tuesday evening following the training session, Lorna, John and Chal met with Ed Thomas and Fernando Pasquel of the Michael Baker Corporation (FEMA's technical consultant) and Jennifer Molloy of the EPA. During the course of the day, we had discussed the problem we were having in getting an adequate technical review of our new reports on the Skagit hydrology. At the evening dinner meeting, Fernando (a Vice President of Michael Baker) indicated interest in the topic and said perhaps it would be possible to convene a meeting of technical experts to look at the new reports.”
10/30/2009	Skagit River Flood Risk Management and Ecosystem Restoration Feasibility Study: Comment on the Draft Project Management Plan Revisions dated September 2009	“The previous PMP included significant resources for studying additional flood storage in the Baker system. The new PMP (September 2009) is a departure from the September 2007 plan, in that the 2007 plan contained specific funding goals for evaluation of additional upstream storage in the Baker hydroelectric project. Page 20 of the 2007 plan indicated funding of \$1,505,000 for evaluation of the dams, with \$1,055,000 targeted specifically to the Baker · Hydroelectric Project. This focus on additional upstream storage has evaporated in the proposed September 2009 revision. We are concerned about this and would point out that the focus on the Baker storage was included in the September 2007 PMP due to overwhelming support for this concept from the downstream Cities, Towns, and Dike Districts.”
10/31/2009	Levee Failure and Tidal Analysis of the Mount Vernon Gage	Research into whether or not levee failures downstream or tides impact the Mount Vernon gage at the 3-bridge corridor.

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Date	Title	Summary
11/4/2009	<u>Congressional Budget Office (CBO) Paper: The National Flood Insurance Program: Factors Affecting Actuarial Soundness</u>	“Despite those factors, FEMA’s full-risk rates may be too low overall because the agency uses some outdated or incomplete information in its rate-setting—specifically, in its maps of areas at risk of flooding and its models of flood frequency and severity. Many flood maps are too old to reflect recent erosion of coastlines, decreases in permeable ground area because of wetland loss and economic development, or increases in sea level. FEMA’s policy of grandfathering properties in a previous zone or elevation class can also be seen as a case of basing rates on information that is out of date. Moreover, FEMA’s models of flood frequency and severity may understate actual risks because they do not reflect the effects of global climate change.”
11/13/2009	<u>National Mortgage Professional: FEMA seeks feedback on National Flood Insurance Program</u>	“The NFIP is currently running a deficit of more than \$19 billion. “Clearly this deficit is not sustainable,” said Mary Colvin, Acting Division Director for Mitigation, FEMA, Region II, which covers New York, New Jersey, Puerto Rico and the U.S. Virgin Islands. “We are looking for ways to revitalize the program, and want input from policy holders, local officials and flood plain managers, everyone.”
11/16/2009	<u>LJK Funding Options</u>	Six page handout for the November 16, 2009 SC FCZD AC meeting on funding options for flood control.
11/16/2009	<u>Agenda for November 16, 2009 Meeting (Handout 1)</u>	Primary objective of meeting is to discuss “Project Funding Options ..”
11/23/2009	<u>High Country News: After the Floods</u>	“About 15,000 years ago near the end of the last ice age, a lobe of the Cordilleran Ice Sheet, which covered much of Alaska and western Canada, stretched south to what is now Sandpoint, Idaho, blocking the Clark Fork River with an ice dam over 2,000 feet tall and 2,200 feet thick.”
12/15/2009	<u>Cover Letter to Preliminary Flood Insurance Study: Skagit County, Washington and Incorporated Areas</u>	“The Department of Homeland Security's Federal Emergency Management Agency (FEMA) has produced the DFIRM and FIS report in countywide format, which means that flood hazard information for the entire geographic area of the county, including both incorporated and unincorporated areas, is presented. The flood hazard information presented on the DPIRM includes Special Flood Hazard Areas (SFHA's), which are the areas that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood); Base Flood Elevations (BFEs); and regulatory floodways, which are the areas that must be kept free of encroachment so that the base flood can be carried without significant increases in flood levels.”
12/15/2009	<u>Preliminary Flood Insurance Study: Skagit County, Washington and Incorporated Areas</u>	“This study has developed flood-risk data for various areas of the community that will be used to establish actuarial flood insurance rates and to assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (NFIP) are set forth in the Code of Federal Regulations at 44 CFR, 60.3.” See also: 2009-12-16 KING 5 Clip

The Decade of “Paralysis of Analysis” in Documents

Date	Title	Summary
12/15/2009	<u>Press Release: Skagit County Receives Preliminary Flood Maps</u>	“After officials have had 30 days to study the preliminary maps, FEMA will assist with a comprehensive public awareness campaign and a series of open houses to explain the ramifications of the new maps. At the conclusion of the public outreach process, a series of legal notices will begin a 90-day appeal period through which residents and property owners who believe the proposed flood maps contain errors can submit additional scientific or technical information through their community officials to FEMA.”
12/15/2009	<u>Correction to the Skagit County, Washington and Incorporated Areas FIS Report dated December 15, 2009</u>	“On December 15, 2009, we sent you the Skagit County, Washington and Incorporated Areas Flood Insurance Report (FIS) . A recent review of the report has determined that Tables 4, 5 and 8 were incorrect.”
Seasonal Docs		
Summer 2005	<u>American Public Works Association - Washington State Chapter Newsletter</u>	Awards ceremony.
Fall/Winter 2006	<u>City of Burlington Bulletin</u>	Mayor Gus Tjeerdsma updates the community on the status of flood control.
Fall/Winter 2007	<u>Burlington Municipal Newsletter: FEMA Flood Mapping and Skagit River Hydrology – Could the Administrative “Cure” be Worse Than the Problem?</u>	City of Burlington Public Works states their case for Pacific International Engineering hydrology.
Fall/Winter 2007	<u>City of Burlington Flood & Natural Hazard Reduction Public Information Bulletin</u>	City of Burlington explains plans for flood protection and issues citizens flood preparedness information.
Jan-Feb 2008	<u>Weatherwise "California Washed Away: The Great Flood of 1862" by Jan Null and Joelle Hulbert</u>	"California's 30 days of rain in December 1861 and January 1862 was the equivalent of at least a 30,000-year [flood] event."

Undated Documents

<u>Final Executive Summary of WG efforts</u>	See 7/24/2001 <u>Draft Executive Summary of WG Efforts</u> for additions/deletions/and corrections to the document.
<u>Draft Flood Inundation Damage Assessment</u>	Outline of topics to be covered. Identified 10,600 single family structures within the 500 year floodplain. Preliminary Findings (<u>\$66.7 million in expected annual damages</u>) 4.1 Damages to structures: (48%) 4.2 Damages to contents: (34%) 4.3 Public Assistance Costs: (9%) 4.4 Temporary Relocation Costs: (2%)

	4.5 Cleanup Costs: (4%) 4.6 Agriculture: (3%)
<u>Impacts of Flood Control Projects on Salmon</u>	Table outlining positive and negative impacts of flood control on salmon.
<u>Corps Response letter to NMFS 10/10/01 letter</u>	Riprap was still going to be removed for any setback levee project.
<u>Design for building consensus</u>	“Building on the two observations above, it is clear that a key impediment to building consensus and achieving a flood management plan is the lack of understanding of the realities surrounding a 100-year flood. Few people would be willing to vote for funding options that could affect them or even be proponents for risk plans that would involve some compromises without an understanding of the "benefits" to them, their neighborhoods, the region, and the businesses that employ them (and would be inundated in a 100-year flood event). Thus, a key element in the design must be the development of approaches to communicate risk effectively to key target audiences. With a "real world" understanding of 100-year flood -- who and what would be inundated --- we can begin to build a common appreciation in the community, among agencies, and with politicians and stakeholders of the need for a flood management plan. In short, we need to put a face on the 100-year event and convey the consequences of it in powerful, personal terms to key individuals, agencies, and stakeholder groups.”
<u>Corps summary of EIS studies</u>	The above costs represent an estimate of the cost to prepare the Environmental Impact Statement for the Skagit River Flood Feasibility Study. The total cost to complete the Feasibility Study will include \$1,165,000 for Restoration which will bring the total to \$8,385,000. This is a 50 / 50 cost share between Skagit County and the Army Corps of Engineers and cost Skagit County \$4,192,500.