



HISTORICAL FACTS

WHAT WE HAVE LEARNED FROM HISTORY

By: Larry Kunzler, 1/26/2006

- ◆ In the summer of 2004 we embarked on a historical flood research project involving historical newspaper articles and historical documents. What that research has showed us is that information we have traditionally relied on the federal government providing us is actually in direct conflict with what our own local history has documented. Such as:
- ◆ We have always been told that downtown Mt. Vernon only went underwater during the 1897 flood event. Based on an article published in The Skagit News (the forerunner of the Skagit Valley Herald) in 1895, Mt. Vernon also went underwater in 1894. This was also confirmed by a handwritten note in a field notebook by a USGS employee named Mr. James E. Stewart in 1923, although amazingly Mr. Stewart never mentions this in his 1923 report.
- ◆ The 1896 flood was the largest flood any of the early settlers had experienced to that date. According to one newspaper account “The whole valley east of Sedro was a floating wilderness.” Of course at that time you have to realize that for the most part the levees were certainly lower than they are today and in some instances non-existent. Burlington at that time was not protected by levees and the water must have flowed down Gages Slough on out to Padilla Bay. However, given the description of the flood in the newspaper articles and the existing conditions, it might not be considered a very big flood under today’s conditions with dam storage and a very much improved levee system.
- ◆ One year later an even greater flood struck the valley. As previously stated downtown Mt. Vernon went underwater. Water poured over the top of the levees and broke many of the others. The 1897 flood then became the “highest flood” any of the settlers had ever seen.
- ◆ Other serious flood events took place in 1906, 1909, 1917 and 1921. We have learned that in the “early days” the levees used to break or be overtopped at approximately a 31 foot elevation or 90,000 cfs. Up until our research we had believed the federal government that the most serious flood was that of 1897 with the 1909, 1921 and 1917 floods following in severity respectively. Based on research we now no longer believe that documentation is accurate.
- ◆ The County has hired the consulting firm of Pacific International Engineering (“PIE”) to analyze that data and they have performed their own independent hydraulic research and



concur that at best the data presented by the federal government is highly questionable and worst it cannot be supported by technical analysis.

- Two of the articles obtained from the Courier Times and the Concrete Herald state unequivocally that the 1921 flood at Concrete was two feet higher than any of the settlers who had lived in the upper valley and observed all the flood events since 1896.
 - Further, when comparing the descriptions of the flood waters in the 1909 flood event with the 1921 event in Burlington, it is clear that the 1921 event put more floodwaters in Burlington.
 - The government wants us to believe that this is just “anecdotal evidence” however when you read the 1923 report and handwritten field notes from the individual who wrote the 1923 report that the government is relying on, you quickly find that he used nothing but “anecdotal evidence”.
 - In fact, the 1923 report was dismissed by our own County Engineer and the Corps of Engineers at a public meeting held in Mt. Vernon in 1924 for exactly that reason. (See **Notice and Minutes of Public Hearing In Connection With Preliminary Examination of "Skagit River, Washington, With A View To The Control Of Its Floods" Directed By Flood Control Act of May 31, 1924, and Robert E.L. Knapp, Skagit County Engineer, Testimony for 11/26/1924 Hearing**)
 - Amazingly all of the subsequent government studies conducted on the Skagit River blindly accepted the 1923 report 35 years before it was even published as it is accepted today without doing any independent research.
- ◆ During the 20th Century the Skagit River reached flood stage 66 times for an average of one flood every 1.5 years. (See **Historic Flood Flows**)
 - ◆ Our research has discovered some amazing facts about the early fish hatcheries on the Skagit River.
 - Such as the Federal government operated a fish hatchery on Baker Lake in 1898 and use to transport the salmon fry by horseback down to the Birdsvew fish hatchery, also a federal ran facility.
 - Literally millions of fish were being artificially planted into the Skagit system meaning that there is virtually nothing “natural” about the historic fish runs on the Skagit for the past 100 years. Our research has documented that the hatcheries planted Sockeye, King, Steelhead and Humpy salmon into the river.
 - The Baker Lake hatchery closed in 1934.
 - The fish hatchery at Birdsvew was closed in 1947 due to the logging activity above Grandy Creek.



- Construction of the Marblemount fish hatchery began in July 1946 and was completed in 1947.
- ◆ Dams were first talked about on the Baker River in 1917. By 1920 Seattle City Light was making plans to construct the Gorge Dam and was also making plans for the Diablo and Ross dams. By 1921 Newhalem had electricity from the Gorge plant.
 - In January 1924 the Stone & Webster Company, the forerunner of PSE, applied for a permit to build the Lower Baker Dam. Actual construction of the Lower Baker Dam began on April 1, 1924 and was completed 18 months later in November 1925.
 - Almost immediately it was determined that the Lower Baker Dam had the potential to completely “exterminate” the salmon runs on the Baker River. To their credit the power company put in a “fish ladder” which carried the fish over the dam, however later studies showed it was not enough to preserve the salmon runs. (See [The Influence Of A Power Dam In Modifying Conditions Affecting The Migration Of The Salmon,](#))
 - In May 1927 the Lower Baker Dam was raised another 33 feet, which almost doubled water storage capacity from 70,000 to 130,000 acre feet.
 - In 1955 Puget Sound Power & Light applied for a permit for building the Upper Baker Dam. Construction began in 1956 and was completed in 1959.
- ◆ Seattle City Light began serious plans to construct Diablo Dam in February 1927. The base of the dam was completed in 1928 and the dam was finally completed in August 1930.
 - In 1932 the people of Skagit County were promised that when Ross Dam was completed that it would render impossible even such floods as the Indian Legend flood of 1815. As we all know that simply is not the case.
 - In 1935 Seattle City Light received a federal grant and loan which paved the way for the construction of Ross Dam. However, as late as 1943 the people of the valley were still being told that the “Dams have unquestionably alleviated flood conditions in the lower valley and the greater storage planned for Ruby Lake (Ross Lake) will remove the menace, as long as the dams hold.”
 - In 1946 the final go-ahead was given to raise Ross Dam to its present day height and in August of 1949 Ross Dam was officially completed and dedicated.
 - However, power from Ross Dam was not generated until December 1952.
- ◆ One other thing that the research has determined is that the dams were not always managed in the manner that they currently are.



- As early as 1927 the waters behind Lower Baker Dam were lowered in anticipation of flooding events. PSE used to be a good neighbor.
- In the 1932 flood for instance our research has shown that the level of the lake was 36 feet below the spill gates. During the crest of the flood event water flowed 9 feet over the top of the dam.
- In 1935 Lake Shannon was lowered 6 feet one week before the flood event.
- During the 1948 flood it was reported that “Ross dam was used to hold back water for ten days,” Walberg told the Argus Wednesday. “It helped keep the river level down by possibly several feet.”
- In the 1949 flood Diablo Dam was utilized for flood control and impounded 78% of the total run-off. More likely than not the levels behind Ross Dam were kept low because they were not generating power until 1952.
- During the 1949 flood event Ross Lake came up ten feet and was forty feet higher than anticipated for that time of year and yet it was reported that they still had another 200,000 acre foot still available. “The fact that water was low behind Ross Dam kept the flood from being much worse. The valves of the dam were closed Wednesday and the dam was able to hold back all water here until the flood crest had passed.”
- In May of 1956 Ross Dam was lowered 100 feet in anticipation of heavy runoff due to a very high snowpack.
- During the flood event of 1959 no water was released from the Seattle City Light dams into the Skagit River. This is partially due to the fact that Ross was at elevation 1584.36. That is 8 feet below where it is during flood events now. The Baker dams held 5.5 feet in Upper Baker and 1 foot in Lower Baker this despite the absence of any federal mandate to do so.
- In the 1961 flood event Lower Baker provided a minimum of 3 feet of storage.

