

<p><u>12/20/17</u> <u>MVH</u></p>	<p>HEAVY RAINS CAUSE A RAGING SKAGIT The heavy rains of the past two weeks have caused considerable inconvenience to people living along the Skagit river. It seemed that the high point of the raging Skagit had been reached Sunday morning when the debris dam and the Mount Vernon bridge went out, carrying a portion of the temporary trestles away. Part of the trestle went out on Saturday, thus putting the bridge out of commission and causing those who wished to get to Mount Vernon to go around by the Avon road and come in from the north. . . . The river dropped Sunday and Monday, but the heavy rains of Monday night brought the river up again. Heavy rains in the hills kept the stream up to a dangerous point and in many places the water covered the low lands. . . . The heavy rains of Tuesday brought raging torrents of water down the old Skagit and for the first time in nine years the danger line was reached on Wednesday morning when a little over twenty-one feet of water was registered. The dike broke south of town and considerable land was flooded. However, the standstill came about noon and by Thursday morning the water had fallen to the seventeen foot mark.</p>	<p style="text-align: center;">UNDOCUMENTED 1917 FLOOD</p> <p>This flood does not show up in USGS or Corps records probably because it was only 1 ft. over flood stage at the current gage. HOWEVER, it is the first time that we have documented that the infamous December 30, 1917 flood was a "double pump" flood event. Just like the 1990, 1995 and 2003 flood events. As we all know, the 2nd flood is always larger, and it was. Overbank storage would have been minimal at best.</p> <p>Dike broke "south of town" on this minor event. Although subsequent articles do not mention this levee break it is highly probable that the levee was not repaired in just 10 days.</p>
<p><u>1/3/18</u> <u>MVH</u></p>	<p>SKAGIT RIVER THROWS MANTLE OF FLOOD WATERS OVER RANCHES AND HOMES The dear old Skagit Valley, the one green spot in the northwest, has been given a drenching which wrought much damage and caused considerable inconvenience to all persons, ranchers and townspeople alike. An almost unprecedented rainfall and a Chinook wind starting last Friday in the upper part of the county caused the old timers to open their weather eyes and soon the alarm was given that a "big river" was expected. The river began raising last Saturday morning and continued to raise all day.</p>	<p style="text-align: center;">DECEMBER 30, 1917 FLOOD</p> <p>USGS (Stewart) reports that flood carried 220,000 cfs at Concrete and 195,000 cfs at Sedro-Woolley. This is the most comprehensive article describing the impacts of a large flood on Skagit Valley.</p> <p>LaConner floods, Mt. Vernon stays dry.</p>

Saturday night the stream was nearing the danger point. Dikes in all parts of the valley were being taxed to their capacity and in many places efforts were being made to strengthen them. . . . LaConner received a full blow of the rushing waters, but aside from the loss of the bridge, some bad washouts, the little town stood up under the blow very strongly. Mount Vernon's business section and residence section was spared. . . . The Great Northern and the Interurban roads are badly hit. For miles and miles, both north and south, the Great Northern tracks are hanging here and there like a great trestle. In some places the road bed is washed out to a depth of six and seven feet. The interurban tracks are badly damaged and it is not believed that traffic will be resumed between Mount Vernon and Bellingham for a least a month. . . .

The first intimation of danger was when advices up river were received to the effect that the water was higher on Saturday morning than it had been during the flood of 1909 and people began to prepare for a wet season. By midnight it had reached the high point at the hospital and was still rising. A small dike was thrown across the street with the hope of holding it, but under the strenuous protest of the property owners who would be submerged at the expense of the north end of the town the idea of keeping it back was abandoned and it was allowed to run down the main street to the Great Northern railway tracks where a breach was made and the waters allowed to spill out over the Olympia Marsh. . . . The loss in stock also promises to be comparatively light for the reason that the valley is so flat that a sudden rise sufficient to endanger life is almost impossible. . . . The Howard Fredman place has suffered the most severely of any in the immediate neighborhood of the big break. Here the river ran mad, undermining the house and barns and plowing deep channels through the fields. Deep holes are to be seen everywhere and

Railroads badly damaged.

If the water was higher upriver then in 1909 it means 1917 was larger flood.

Water diverted to Olympia Marsh would explain why flood water did not reach downtown Burlington business district. See BJ 1/4/18 article describing this flood.

"a sudden rise sufficient to endanger life is almost impossible." This statement, given the tremendous development in South Burlington since 1917, would undoubtedly be false today.

Varney is what they used to call Gages Slough. The train station used to be across the street from the Cascade Mall.

Sedro-Woolley little damage. Sterling hard hit.

	<p>across the Varney road where once were stumps there are now excavations that look like cellars. The little station at Varney has been undermined and leans over on its sides in a decidedly disreputable manner. The damage in the Interurban lines at this point will take weeks in repair. . . .</p> <p>Sedro-Woolley has not suffered very severely except in the vicinity of the water plant. At Sterling the damage will be considerable from the cutting up of the farms and the J.H. Hutchins place is said to be pretty badly wrecked. Dr. Cleveland's new home on which he has spent so much time and money is also much the worse for its experience as well as those of many others.</p>	
<p><u>1/3/18</u> <u>MVH</u></p>	<p>CLEAR LAKE At 1:30 the water started to come in the west part of town, and the people living in that part received the greater part of the water. The water entered the mill and also the engine room where the electric dynamo is and rose so high that the mills and town was put out of order and the town was submerged in darkness until Wednesday evening. The greatest damage done by the water in town was the washing away of sidewalks and fences. The flood was rather mild here compared to what it would have been had not the Sterling Bend dike broke. Although the citizens of Clear Lake sympathize with those of Burlington and vicinity they are thankful that it was not worse here.</p>	<p>This article unequivocally shows the impacts the levees have had on the Clear Lake area. 1917 was one of if not the most damaging flood in the 20th century, yet Clear Lake suffered only "mild" damage unlike what they suffered in the 1990 and 1995 flood events.</p>
<p><u>1/3/18</u> <u>MVH</u></p>	<p>BOAT UPSETS BOY DROWNS Little John Gruber of Clear Lake, lost his life in the flood waters of the Skagit Wednesday evening when, in company with his brother, Joe Gruber, they attempted to make their way over the waters to the ranch. The accident happened about 6 o'clock in the evening. Little John had come down from Clear Lake and had waited near the Clear Lake yards, close to the broken dike for his brother, who was coming in a boat from the Loveless place, where he lives with his family.</p>	<p>Death in 1917 Flood Not counting the Mt. Vernon bridge tender who died from internal injuries after hitting a portion of the bridge, this makes 3 people who have been identified that died in Skagit River flood events.</p>

1/4/18
Argus

RIVER BECOMES UNMANAGEABLE

**Dikes Break in a Number of Places and Let Water in Over a Large Area of Low Lands – Some Stock Is Lost;
Damage Much Less Than Anticipated;
Water Reaches High Mark at Mount Vernon Wharf Saturday Night at Twenty-three and One-half Feet – No Rail Communication With Outside World for Several Days – Boat Does Big Business**

Four weeks of rains and Chinooks finally resulted in a freshet Saturday night that for a time threatened to inundate the entire valley. The warm winds from the south melted the snows, it is said, up to the 6000-foot level and brought the combined waters of the Upper Skagit, the Sauk, Baker and numerous tributary streams down to the lower valley in greater and more continuous volume than has ever been recorded in the history of the country.

...
Loss Not Great As Expected

The heaviest individual losers are those individuals that were in the path of the dike breaks. The break at Sterling Bend and that at Stevens slough immediately north of the Great Northern bridge wrought the greatest damage. At Stevens slough a home belonging to M. Freeman was tilted over into a hole. Dikes, county roads and railroads probably suffered the most from the recent freshet.

...
At Avon there was a sudden dramatic moment Sunday morning when a portion of the dike went out carrying into the swirl six men who were at work with dozens of others reinforcing the dike at this point. Hadn't been for an old secondary dike the Skagit would have gone through here and every foot of the flats would have been under water. . . . A break at Magnus Anderson's farm let the water in over a

DECEMBER 1917 FLOOD

This article describes the December 28/29, 1917 flood event.

Four weeks of rains. No wonder flood was flood of "long duration". Overbank storage must have been non-existent. Snow level only went up to 6,000-feet??? Flood definitely would have been caused by rain alone.

Dike Breaks

Sterling, Stevens Slough, Avon, Conway. Burlington, LaConner, and Edison underwater. Mt. Vernon stayed dry.

Was water in Edison from Samish or Skagit??

	<p>section of country about Conway. . . . Burlington and La Conner and Edison reported water in the streets; Sedro-Woolley reported water in the neighborhood of Jamison avenue, which is some distance from the business section. The Nookachamps low lands also were visited by the water. Mount Vernon, on both sides of the river, was dry throughout the freshet. The water from Sterling bend went over the Olympia marsh and the Samish. Edison also reported a couple of feet of water.</p>	
<p><u>1/4/18</u> <u>Argus</u></p>	<p>STR. SWINOMISH SINKS IN RIVERSIDE BEND</p> <p>The snag boat Swinomish sank in the Skagit river in the bend below the Interurban bridge Friday after grazing the bridge pier. Captain Fred Siegel said that in passing through the draw the boat touched the pier slightly. The men on the main deck reported no damage; but in a few minutes it was noticed that the boat was taking water. The pumps were immediately put to work but to no avail and the boat hit bottom with the upper works well out of water.</p>	<p>Friday would have been December 28, 1917 the day before the river crest. "The upper works well out of water." How big was this boat? Could be used to determine how deep river was. Doesn't sound like river was any deeper then than now.</p>
<p><u>1/4/18</u> <u>B.J.</u></p>	<p>MID-WINTER FLOOD GREATEST IN MEMORY OF OLDEST INHABITANT</p> <p>Valley Dikes Break in Dozen Places – Skagit Inundates lowlands – No Lives Lost – Only Few Head of Stock Drowned – Considerable Property Damaged – River Channel and Dikes Inadequate to Carry Away Surplus Water – Spillways Needed to Relieve River Channel During Flood Periods – Railroad and Interurban Communications Restored from North – Delayed Mails Received Today</p> <p>One of the worst and doubtless most destructive floods known in the Skagit delta occurred last Saturday night (December 29, 1917), the river dikes giving way in eight or more places, the overflowing</p>	<p>December 29, 1917 Flood Event</p> <p>Fir Island didn't flood in the 1917 flood?</p>

water covering the entire delta from Mt. Vernon to LaConner, and south from Mt. Vernon to Conway. The island delta west of Fir escaping flood waters (Fir Island). The McLean highway district west of Mt. Vernon was not flooded.

Diking system not uniform.

The tragical results were caused by the failure of a crude, imperfect, ununiform diking system that never has nor never will retain the torrents of water when a Chinook zephyr loosens the flood gates of the Cascades. From five o'clock Saturday night, when the river was bank full, it steadily rose a foot an hour until midnight. The water then had reached the top practically of all the dikes, and a break was inevitable somewhere or the mighty volume of water was certain to pour over the dikes, causing doubtless even greater damage in loss of property and loss of life than resulted through breaks in the dikes. At about midnight the expected break in the dike came. In fact there were at least ten serious washouts. Four occurred in the Riverside bend, three across the river in the Avon district, at North Riverside, one at Freeman's old place on the Baker River logging railway right-of-way, southeast of Burlington, one south of Mt. Vernon, and another at the Clear Lake wood yards, north of Mt. Vernon. These artificial spillways naturally afforded an immediate outlet for the surplus water to pour through, and the river immediately began to fall, and all danger from further flood damages was past.

Ten dike breaks after midnight.

Dikes should be uniform and have spillways built into them. (Overtopping Levees)

Building a series of ununiform dikes to protect districts here and there through the lowlands utterly fails as a solution, meaning only future disaster when the river runs riot during flood periods. During flood periods when the river reaches the point that dikes are not adequate to control it, it overflows its banks unless other artificial means are provided to carry off the surplus water. Government engineers, who have

Burlington doesn't need dikes? Probably because at that time Burlington city limits was at least 1 mile north of Gages Slough. Did Mt. Vernon raise its dikes after 1909 flood?

studied Skagit river flood problems with the view of affording relief to districts subject to overflow, declare that concrete spillways should be built to take care of the surplus water. Improvements of this character should be maintained by the government, state and county.

Because Mt. Vernon's big dikes kept it dry, or Burlington is so fortunately situated that it does not require a system of dikes to protect it from floods is mighty poor consolation to the people of the delta districts threatened with overflow and devastation every recurring flood, . . .

1/4/18
B.J.

FLOOD NOTES

The Howard Freeman farm at Varney station was quite seriously damaged by the overflow caused by the break in the river dike on the old Freeman farm east of Varney. Mr. Freeman's fine new home and barn were damaged in some-extent. The break in the river at the old Freeman farm, which was probably 800 feet in width, caused serious damage to the farms in the path of the overflow. The break occurred when the river was at the highest point, the water stretched over a territory of about 2500 feet in width, carrying away the Great Northern and interurban highways, undermining the dwelling and carrying away the barn on the old Freeman farm, and covering the land with piles of drift wood. The water found an outlet in the bay near Whitney.

During the height of the flood Sunday morning a foot of water from the overflow of the river from the east covered a small portion of the residence and business districts of Burlington, the water flowing out that night when the river fell. On account of poor drainage and inadequate sewerage, there is still some water in the low places in some of the districts, which will soon all pass into the drains.

The loss of property on the Higginbottom farm

Varney Station was located next to Gages Slough on Old 99 (Burlington Blvd.)

Eastern Fairhaven covered with one foot of water. Water gone that night.

Must locate where Higginbottom farm was.

south of Burlington (the old Freman place) was serious. When the dike broke the house was undermined, the barn and sheds carried away, and the land covered with large-quantities of logs. The owner had only one cow which was saved.

The Mussor, Wakley and Lamphier farms were all in the path of the Higginbottom break and the owners were serious losers.

The Mt. Vernon Herald says the breaking of the dike at Higginbottom's saved Burlington. What an idiotic untruth. Why not Mt. Vernon? Burlington is protected by no diking system. It is so fortunately situated that it does not need dikes to protect it from river overflow. The truth is, and why not be honest, that the diking system maintained on the Skagit river was inadequate to control the Skagit river, a break somewhere was inevitable, and shortly after midnight it came down at a dozen different places. Undoubtedly these breaks saved the dikes from giving away at other places. The water had reached the top of practically every dike in Skagit county when the breaks occurred. Flood damages were generally distributed throughout the lowlands. Unfortunately neither the districts directly to Mt. Vernon, Burlington nor any other Skagit County town escaped inconvenience or losses. Burlington had mail, daily newspapers, telegraph and telephone communications from the north and telephone communications from the south at all times. The editor of the Mt. Vernon Herald should confine himself to fact and truth. Why not give his readers the interesting story of the need of a gasoline engine to pump water out of the basement of the county courthouse. At least this is better than lying about a neighboring town.

Burlington has no diking system! They must mean Burlington proper. Dike on Fairhaven must have been outside city limits.

Water reached the top of the dikes.

Burlington "is so fortunately situated that it does not need dikes to protect it from river overflow." Really? While this statement is clearly not appropriate today it is strongly suggestive that flood waters from the 1909 and 1917 floods did not reach downtown Burlington west of the BNSF railroad tracks.

Doesn't look like Burlington Journal editor and Mt. Vernon Herald liked each other.

1/10/18
MVH

FLOOD WATERS ARE RECEDING

The flood waters of the Skagit valley are gradually receding and in a short time, the rancher will be able to walk upon that which he calls ground and view the

	<p>results of a vicious Skagit river.</p> <p>Individuals are now counting up their losses. Estimates of the aggregate loss to farmers, householders, the county and state in roads and bridges, and to the public service corporations are largely guesswork. The real loss will never be computed. It is large, probably larger than that caused by the freshet of eight years ago. . . . Reports from all points of the valley show that more or less water and damage was the result of the freshet. Roads everywhere are in bad shape and will require a good deal of money to put them all back in a passable condition. The county is badly hit and the commissioners in session this week decided to review the county roads and put them in shape at the earliest possible date.</p>	<p>Flood damages more than 1909 flood. Again, this strongly suggest that the 1917 flood was the larger then the flood of 1909.</p>
<p><u>1/10/18</u> <u>MVH</u></p>	<p>ARE THE DIKES A FAILURE? Are the dikes a failure? If so, what is the remedy? These two questions have agitated the minds of hundreds of ranchers in the Skagit Valley during the past week since the old Skagit river ran amuck again. In the end, when the enormous flood waters of the river come down upon the community, dikes are found to be weak, and the result is as shown by the flood of last week. What is the remedy? Much money has been spent in making dikes and in the end, practically nothing has been gained. . . . The remedy is believed to be found in the construction of spillways. Several plans and suggestions have been made during the week, but this matter, being of such enormous proportions, will require more than talk to get something started. . . . It has been nine years since a flood came. It may be nine years again and it may be next year. Don't wait until it comes again. There is too much valuable land in this valley to wait until a disastrous flood has overtaken it again and again. Now is the time to plan the remedy.</p>	<p>Recommended "spillways" or over-topping levees.</p> <p>"Now is the time to plan the remedy."</p>

6/13/18
CT

**RIVER FLOODS ROADS AND FARMS; LATEST REPORTS
RECEDING**

The warm wind last Sunday filled the river with melted snow from the mountains and caused it to overflow its banks in several places. The road between Sedro-Woolley and Hamilton was under water in several places, many autos getting stuck when trying to ford. The river was so high that the Lyman and Skiyou ferries have not been running for several days. A number of farms near Hamilton were flooded, and the creek along the road is bank-high and washing away its banks. It is thought that the main channel has been somewhat filled, and that unless something is done the creek will continue to carry more water. The water was not high enough to damage crops.

UNDOCUMENTED FLOOD

First documentation of a summer flood. Based on the damage reported it appears to be in the neighborhood of the January 12, 1928 flood.