A HISTORY OF FLOODING IN KITTITAS COUNTY

Kittitas County Public Works
2009
“Washington is among the nation’s leaders in Presidentially declared weather-related disasters.”

Included in “Washington’s Top 10 Weather Events of the 1900’s” from the National Weather Service are the following Kittitas County flood events:

- #10: November 1990 - Statewide damage estimate $250 million. 2 dead in Washington State.

- #8: February 1996 - Region-wide damage estimated at $800 million. 3 dead in Washington State.

- #2: May/June 1948 - Greatest ever spring snowmelt flooding. Lasted 20 days. Over $100 million in damages. 32 dead and 7 missing. Kittitas County road damage around $50,000. according to the Daily Record dated August 26, 1948.

From the National Weather Service Forecast Office in Portland, Oregon
HISTORICAL YAKIMA RIVER FLOW DATA

USGS 12484500
YAKIMA RIVER GAUGE AT UMTANUM, WA
Flood Stage: 35.5 feet

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FLOW (cfs)</th>
<th>HEIGHT</th>
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<tbody>
<tr>
<td>1906</td>
<td>41,100</td>
<td>41.20</td>
</tr>
<tr>
<td>1916</td>
<td>14,000</td>
<td>Not recorded</td>
</tr>
<tr>
<td>1933</td>
<td>32,200</td>
<td>Not recorded</td>
</tr>
<tr>
<td>1948</td>
<td>27,200</td>
<td>38.98</td>
</tr>
<tr>
<td>1960</td>
<td>19,100</td>
<td>37.08</td>
</tr>
<tr>
<td>1975</td>
<td>16,600</td>
<td>36.50</td>
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<tr>
<td>1980</td>
<td>16,800</td>
<td>36.54</td>
</tr>
<tr>
<td>1977</td>
<td>21,500</td>
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<tr>
<td>1990</td>
<td>22,800</td>
<td>37.93</td>
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<tr>
<td>1996</td>
<td>27,200</td>
<td>38.77</td>
</tr>
<tr>
<td>2009</td>
<td>22,500</td>
<td>37.82</td>
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January 2009 Flood
AERIAL VIEW AT THRALL LOOKING SOUTH INTO THE YAKIMA RIVER CANYON ON 12/4/1975

Historical Crests at Umtanum Gage:
(1) 41.10 ft on 11/15/1906
(2) 38.98 ft on 05/29/1948
(3) 38.77 ft on 02/09/1996
(4) 37.93 ft on 11/25/1991
(5) 37.82 ft on 01/09/2009
(6) 37.63 ft on 12/03/1977
(7) 34.44 ft on 12/30/1999
RIVER ICEBERG IN THE YAKIMA RIVER CANYON AFTER JANUARY 9TH, 2009 FLOODING
RINGER LOOP ROAD FLOOD DAMAGE COMPARISON

1995 PHOTO - UMTANUM GAGE AT 34.57 FT.

2009 PHOTO - UMTANUM GAGE AT 37.82 FT.
YAKIMA RIVER FLOODING - LOOKING SOUTHWEST
STONE ROAD AND CANYON ROAD
JANUARY, 2009 DAMAGE TO RIVERBOTTOM ROAD
PHOTO TAKEN BY THE ACHESON FAMILY
1965 & 2009 FLOODING -
WENAS ST & 5TH AVE - ELENSBURG

UMTANUM FLOOD GAGE AT 35.2 FT
STREAMFLOW AT 11,700 - 1965 VIEW

UMTANUM FLOOD GAGE AT 37.82 FT
STREAMFLOW AT 22,500 - 2009 VIEW
MAY 1948 ON ANDERSON ROAD, BEHIND THE RAILROAD STATION IN ELLENSBURG.

MERCER CREEK MERGES INTO WILSON CREEK JUST NORTH OF THIS POINT. THE UMTANUM GAGE IS AT A HEIGHT OF 38.98 FEET. FLOOD STAGE IS 35.5 FEET.
BOAT AT THE INTERSECTION OF ANDERSON & UMPTANUM ROAD – MAY, 1948
WILSON CREEK IS FLOODING
AT THE HEIGHT OF THE FLOODING IN 1996, THE UMPTANUM GAGE STREAM FLOW ON THE YAKIMA RIVER WAS AT 38.77 FEET.
ELLENSBURG RODEO GROUNDS- 1996 FLOOD
WEST ELLENSBURG – 1996 & 2009 FLOODING

1996 FLOOD
Umtanum Gage level is 38.77 feet.

2009 FLOOD
Umtanum Gage level is 37.82 feet.
THE LIBERTY THEATER AT FIFTH AND PEARL IN
ELLENSBURG- MAY, 1948

THE FILM WAS THE TREASURE OF THE SIERRA MADRE WITH HUMPHREY
BOGART AND WALTER HUSTON

. THE UMTANUM GAGE WAS AT A HEIGHT OF 38.98 FEET. STREAMFLOW AT
THAT GAGE WAS 27.80.
1977 FLOODING IN KLOCKE ROAD AREA

ON DECEMBER 3RD, 1977 THE YAKIMA RIVER GAGE HEIGHT AT THE UMTANUM GAUGE WAS AT 37.63 FEET. FLOOD STAGE IS 35.5 FEET. After the 1977 flooding, County Engineer Gordon Blossom stated that it cost $30,000.00 to repair County Roads.

Source: Ellensburg Daily Record, 1977
JANUARY 9, 2009 FLOODING ON KLOCKE ROAD
RECURRING AND REPEATED FLOOD DAMAGE

THE CLARKE ROAD BRIDGE IN 1950

THE CLARK ROAD BRIDGE ON 1/9/2009
JANUARY 1982 FLOODING ON SR 97
NEAR HUNGRY JUNCTION ROAD
DRY CREEK
HUNGRY JUNCTION ROAD AND SR 97 INTERSECTION,
JANUARY 9, 2009
DRY CREEK FLOODING
LOWER GREEN CANYON ROAD DAMAGE, JANUARY, 2009
JANUARY, 2009 FLOOD DAMAGE TO BETTAS ROAD
JANUARY, 2009 FLOOD DAMAGE ON US 97
ABOVE THE LAUDERDALE JUNCTION OF US 97 AND SR 970
BURKE ROAD BRIDGE - DESTROYED BY SWAUK CREEK, NOVEMBER, 1996
TOTAL EXPENDITURES TO REPLACE BURKE ROAD BRIDGE: $ 367,292.50.
JANUARY, 1995- NORTH FORK TEANAWAY ROAD
TRYING TO PULL THE CULVERT OUT
In 1917 the Bureau finished two dams in the Upper County- Keechelus and Kachess. In 1929 the Easton Diversion Dam was completed, and in 1933 the Cle Elum Dam was complete. These 4 dams store a combined 837,792 acre feet of water diverted from the Yakima, Cle Elum and Kachess Rivers. (Source: US Bureau of Reclamation website)
1916 FLOODING IN Cle Elum wiped out the Northern Pacific Railroad Bridge over the Yakima River – From CWU Historical Photo Collection

THIS PHOTO SHOWS WHAT OCCURRED PRIOR TO THE CONSTRUCTION OF THE BUREAU OF RECLAMATION DAMS
A DAMAGED BRIDGE OVER THE YAKIMA RIVER NEAR CLE ELUM - 1916
FROM CWU HISTORICAL PHOTO COLLECTIONS
1916 FLOODING IN CLE ELUM – CLE ELUM TRAIN DEPOT

FROM CWU HISTORICAL PHOTO COLLECTIONS
1916 FLOODING IN CLE ELUM
FROM CWU HISTORICAL PHOTO COLLECTIONS
AFTER FLOOD WATERS RECEDE - CLE ELUM, 1916
FROM CWU HISTORICAL PHOTO COLLECTIONS
TEANAWAY ACRES & SR 970 – 1975 AERIAL VIEW OF FLOODING
“Frank Schobers, around Red Bridge is under water. All of the Roy Thomas fields next to the river are under water. Water covered the highway in front of the Bruno Bonetto farm.”

From the NKC Tribune, November 26, 1959

Bonetto Farm in photo below in 1980 Flood. Notice the barn hanging out over the river.
TEANAWAY RIVER OVER ITS BANKS, ALONG SR 970 IN 1995 AT TEANAWAY ACRES
TEANAWAY RIVER AT SR 970, JANUARY 9, 2009
HOME ALONG US 97-JANUARY, 2009
SWAUK CREEK FLOODING
AIRPORT ROAD, CLE ELUM, 1995 FLOODING
LAMBERT ROAD FLOODING, JANUARY 9, 2009
TEANAWAY RIVER FLOODING AT LAMBERT & TAYLOR ROAD INTERSECTION
AFTER THE JANUARY, 2009 FLOOD IN ROSLYN
IDAHO AVENUE LOOKING TOWARDS THE SOUTHEAST
STAMPEDE PASS RAIL LINE DAMAGE

BNSF REPORTED THE STAMPEDE PASS SECTION RE-OPENED IN LATE APRIL, 2009 AFTER MORE THAN 3 MONTHS CLOSURE. THE MAIN LINE AND SIDING TRACK WERE WIPED OUT; MULTIPLE AVALANCHES CAUSED A CATASTROPHIC GRADE FAILURE; AND A 48” CULVERT AND A CONCRETE BRIDGE HAD TO BE REPLACED. 1200 FEET OF MAINLINE TRACK HAD TO BE RE-LOCATED.
REPEATED DAMAGE TO THE RAILWAYS:

“There will probably be no N.P. trains to Cle Elum for a week or two. The Cabin Creek Bridge was weakened by water washing out on both sides for 80-100 feet. Five miles west of Lester from 800-1000 feet of track bed toward Auburn has been undermined by water and small slides. Nine carloads of pigs halted at the N.P. depot in Cle Elum were fed and watered and returned to Yakima for rerouting through Pasco.”

From the NKC Tribune, November 26, 1959
AERIAL VIEW OF ELK MEADOWS IN DECEMBER, 1974
FLOODING
AERIAL VIEW OF ELK MEADOWS ON JANUARY 9, 2009

WDFW PHOTO
AERIAL VIEW OF ELK MEADOWS ON JANUARY 9,2009
WDFW PHOTO