USDA COOPERATIVE RIVER BASIN STUDY ON
WATER AND RELATED LAND RESOURCES

Green River Basin
Wyoming
March 1977

Special Report
History of Flooding
Green River Basin

Prepared by:
USDA Cooperative River Basin Planning Staff
and
Wyoming Water Planning Program
The material assembled in this report was compiled as a portion of the water and related land resource investigations comprising the Green River Basin Cooperative River Basin Study. The Green River Basin includes all of the drainage systems of the Green River in Wyoming plus the Great Divide Basin.

The study has been underway since 1973 and is being conducted by the USDA Cooperative River Basin Planning Staff in cooperation with the State of Wyoming.

A basinwide report, to be prepared at the completion of the study, is scheduled for release at the end of the 1978 fiscal year.

This special report, as requested by the State, is prepared to document the chronological history of flood events in the Green River Basin. The material was collected from old newspaper files, interviews, as well as other sources by USDA personnel. Much of it is presented as it was actually written in the newspaper accounts and other documents. It should be pointed out that this data represents only a beginning of the full story of flood events in the Green River Basin. As more material is uncovered or developed, it should be incorporated with this effort to present the full picture.

A generalization of the flood problems is presented in the final report, along with an estimate of the average annual flood damages, where available.
Flood Damages

Watershed investigations have yielded information that flood damages to agricultural lands in the Green River Basin have been minimal. Through the years, there have been flood events resulting in overland flow from high waters on most of the cropland, but historical records show little evidence of agricultural land damage. High water in the Green River above Fontenelle Dam has mainly resulted in overland flow, with the irrigated pasture and haylands sustaining little or no damage. Preliminary investigations as to possible flood damages on Laramie Creek, the Piney Creeks, Cottonwood, Horse, and Beaver Creeks, as well as the Green River, and the many streams east and southeast of Pinedale have been made through the years by SCS personnel and others. These investigations did not reveal any substantial flood damages to irrigated land on any tributary. Occasionally, irrigation structures and ditches have been damaged as well as bridges and roads; but nowhere have the average annual flood damages been of the magnitude to warrant the need for any type of USDA project action.

Floods along the lower reach of Green River, from Fontenelle Dam to Flaming Gorge Reservoir, have been nearly eliminated by Fontenelle Dam. Flooding on Hams Fork occurs infrequently, and when it does occur, there has been no significant damage to agricultural lands, and only minor damage to irrigation diversion structures and ditches. A recent example of flooding on Hams Fork was in the spring of 1971, when 9,600 acres were inundated. Viva Naughton reservoir usually has sufficient storage to control runoff, and when its proposed enlargement is complete, better flood control will be achieved.

Flooding in the Little Snake River drainage is similar to that of the upper Green River. Out-of-bank flood waters do negligible damage to agricultural land and minor damage to irrigation diversion structures and headgates. The town of Paggs has suffered only very minor damage from flood waters.

The Lyman-Mountain View agricultural area has no historical record of flood damages. The Meeks Cabin Dam has reduced the potential for flooding here, and with the construction of the State Line Dam by the Bureau of Reclamation, the hazard of flooding will be further reduced.

Bitter Creek is the only watershed where significant flood damages have occurred, and where there still remains a potential for damages, particularly for portions of the urban area in Rock Springs. This watershed consists of about 2,207 square miles. It has a long history of flooding the town of Rock Springs. Considerable property damage has occurred in many flood events. Six lives were lost in the July 1925 flood.
In recent years the Corps of Engineers, in cooperation with the City, have worked on the segment of Bitter Creek channel that passes through Rock Springs. This work consisted of realignment, deepening, and widening. The City Engineer presently estimates the capacity of the channel, now partially filled with silt, from 5,000 to 9,000 cfs. A Flood Insurance Study completed by the Corps of Engineers in 1974 estimated the 1 percent chance flood event in Rock Springs to be nearly 15,000 cfs. Therefore, past efforts in flood prevention have not alleviated the flood hazard to Rock Springs. Damage can occur to segments of state and federal highways, the Union Pacific Railroad, and to portions of the city.

The average annual flood damages for the main streams in the basin are given in table 1.

Table 1 — Average annual flood damages, Green River Basin

<table>
<thead>
<tr>
<th>Stream</th>
<th>Average annual flood damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Green River (above Fontenelle Dam)</td>
<td>NA 1/</td>
</tr>
<tr>
<td>Lower Green River (Fontenelle Dam to Flaming Gorge Res.)</td>
<td>Minimal</td>
</tr>
<tr>
<td>Hams Fork</td>
<td>1,000 2/</td>
</tr>
<tr>
<td>Black and Smiths Fork</td>
<td>4,500 3/</td>
</tr>
<tr>
<td>Big Sandy River</td>
<td>Minimal</td>
</tr>
<tr>
<td>Little Snake River</td>
<td>51,600 4/</td>
</tr>
<tr>
<td>Henrys Fork</td>
<td>NA 1/</td>
</tr>
<tr>
<td>Bitter Creek</td>
<td>37,000 5/</td>
</tr>
</tbody>
</table>

1/ Not available.
3/ Bureau of Reclamation, Report for the Construction of Stateline Dam.
4/ Corps of Engineers, Projected Average Annual Future Flood Damages without BR Savery-Pot Hook Project.
FLOOD DAMAGES

Big Piney Examiner, Thursday, April 17, 1913 issue:

Bridge Goes Out - The Ice King was Too Much for the Structure of Man - Ice Shears Heavy Piers Like They Were Paper

The immense flow of ice, in an area covering about an acre of water and weighing several hundred tons, majestically moved against the piers and pilings of the bridge, and cut, slashed, and tore them away as if there were no more than pipe stems, and the bridge leaned and fell. Busy workers at once tied a cable to the bridge so as to save all that was possible, but the cable was snapped like a string and the bridge floated off down the stream. It lodged a little further down, and about $300 worth of timber will be saved.

The span that was lost is the middle span; it was the important one, and cost the most. The other spans are still standing and will in all probability remain so. It remains now for us to build us a bridge that will stand. We must all get together and subscribe enough to put a bridge over the stream that will be a suspension, and will be above such enemies as this ice, which is the strongest foe we have to contend with.

Big Piney Examiner, Thursday. August 15, 1963 issue:

Last Friday afternoon during the heavy rains which were more or less prevalent in this part of the country, cloudbursts in the Dry Piney Creek caused a veritable flood which carried debris for several miles, and much of it lodged against the highway which was covered with several feet of water. Car drivers reported that the floodwater ran over the floorboards of cars and trucks which ventured to come through from the south.

Pinedale Roundup, June 15, 1972 issue:

Highwater is still evident. This photo, along with others in this issue, clearly shows high water in various areas throughout the county.

The photo mentioned in the beginning of the article shows the washing out of the Green River bridge. The caption reads: "North abutment of Green River bridge on Big Piney cutoff showing washout caused by high water during the past week. Dude Clemensten observing damage."
Flood Waters Visit Our City:

For the Second Time This Season Heavy Rainfall South of Town Does Damage to Property in Rock Springs, But Not So Serious As Previous One

Floodwaters from 6 miles south of town came down about 3 o'clock yesterday. It did less damage than the high water 3 weeks ago. The warnings reached the city in time for the contractor to make a trench at the headwater of the sewer to carry the water down the street when the sewer filled. The water came down the gully just east of the hospital and flooded the streets and washed considerable of the roadbed of the UP tracks extending down on the west flats. Number 10 was flagged that it might be warned of the softness of the roadbed and moved slowly over this point.

New County Bridge at Sixth:

The County Commissioners met in special session on Monday to open bids to advertise for a new bridge over the creek No. 6 to replace the wooden bridge which was washed out by the recent rains. The Northwest Bridge Company was the lowest bidder and was awarded the contract.

Worst Flood Ever Known in This District Leaves Ruin in its Wake:

About 2:20 on Thursday afternoon a mammoth volume of water coming down from the south following a heavy rain swept through the town. Property aggregating thousands of dollars damaged or destroyed. Cellars of homes and business houses filled with mud and water, and after 24 hours forces of men are still working pumps. Stocks of goods stored in basements, completely destroyed, houses moved from their foundations and broken to pieces by force of the water. Damage impossible to estimate accurately at the present time.

The water rushed down the street across the tracks and was over the hub of wagons. It filled the Lyric Picture Show Building and the basements and cellars all along the north side to and including the Grant Theatre.
The cellar of the Elk Hotel was flooded, and the house which is just below the walk and occupied by Mr. Williams, is entirely submerged. On the water rushed, filling the Johnson house, the entire basement of Jack Kemp's house, and down to the new foundation which was built by John Clark for the Phoenix Hotel building which he has moved. Other houses in the locality were in water several feet over the floor, and the little houses in the creek bottom known as Vickburg are under water. Ruin was caused in many of the houses along C Street as well.

Simpkin's Meat Market and the basements were flooded and into the back basement of the Rock Springs National Bank.

F. M. Mills lost about $5,000 of grain he had in the warehouse.

It washed down back of the Coal Company offices and filled the water office several feet with water. No. 2 mine is in a very bad way, and it will take days and days to clean up the debris.

Some of the houses in Watts Court were washed onto adjoining lots.

The damage is almost inestimable, and the places damaged almost too many to enumerate.

Rock Springs Rocket, July 30, 1915:

Cloudburst in canyon south of town causes high flood waters:

After one year ago, in two days, Rock Springs was again flooded by heavy rain and hailstorms south of town. A greater volume of water than last year rushed down C Street, preceded by men on horseback who attempted to warn everybody. The fire whistle blew to warn the people the floodwater was coming and then ran to the head of the sewer and kept the brush away until the water came with such force that they were compelled to run for safety.

The water came with a rush down C Street and as far north as the Ola No. 1 mine with destruction in its wake. Houses along this street had the cellars filled, and in some instances, the water went through the houses. Mrs. Jennie Riddle's house was swept through, and it was necessary for Mrs. Riddle and her roomers who were home to be carried out of the house. Mrs. Chas. Seddon and family had to be carried to safety, also. The basement at the home of Mrs. J. P. Anderson was completely filled, and considerable loss was experienced, as the place had bedding, trunks of clothes, etc., stored away.
The water came with such a force to break the lock on the door of the Elks home; the basement was flooded, the first floor was covered with water as high as the window sills, and the carrels in the Ladies' Parlor and the furniture on this floor were ruined.

Simkins' Meat Market has a cellar full of mud and water just as they had last year; and the same condition exists in all the store basements as far as Croder's Jewelry Store, with the exception of the stockroomers, who had fixed their basement before the flood last year, had a pump installed which was immediately put into action, and the damage was slight.

Kellogg and Holmes were able to get out all of their supplies from the cellar, but the bulk of the surplus stock having been stored in the warehouse in anticipation of this occurrence.

D. F. Horris Hardware Store had only a slight amount of damage from the water. They had worked to block up the door in the rear, and the heavy canvas added a great deal blocking the volume of water. Several men at work had brushed the water and mud toward the cellar which was almost entirely filled within a few minutes.

Crocker's Jewelry Store was flooded, the cellar filled, and the back yard five feet deep in hailstones.

The basement at the pharmacy was filled, the force of the flood being so strong that the door was broken from its hinges, and James Whisenand, who was in the cellar, had a narrow escape from drowning.

The railroad park is an island of mud, and the tracks were submerged. The Rock Springs National Bank and the Miner Office got some water, but no material damage was done.

The water washed across the tracks, filled the foundation of the proposed new Elk Hotel, with hailstones and mud; the windows of the basement of the new hotel were all broken, the boiler room and laundry being flooded. The building formerly used was a school, which is just back of the hotel, was filled and the floors sprung up. The houses of Carl Hafner and Charles Williams escaped the flood this year, while last year they were in a terrible condition. The water spread across the walks to Watts Court, and these houses were flooded, some of them being moved several feet away. The Johnson property was badly damaged; the home of Jack Kemp had only about 6 inches of water in the basement, as the taps to the sewer were hurriedly opened and the mud and water swept away. The cement home of Mr. Doan just adjoining was flooded, the water reaching to the top of the sidewalk. All their chickens were washed away and horses taken for safety. The houses below had foundations entirely washed away, and the little houses at the back of the Phoenix were carried away.
The houses in the bottoms did not suffer as much as last year, as the water spread more and consequently was not so deep.

All store buildings and saloons along north Front Street to the corner of the Palace Bar had their share of the flood, and the cellars were flooded and the floors covered. The Grant Theatre got a lot of water and the show was closed, some of the people being carried out to the saloon on the corner.

People seem to expect the storm and were prepared the next day. The western spirit seemed paramount, and no matter what the loss, they philosophically set about cleaning away the mud and debris and business continued as usual with the exception of additional tasks a possible breaking of the routine. Damage was estimated at $30,000.

Bitter Creek was full to overflowing, and debris and filth was carried away from the town.

Rock Springs Rocket, Friday. July 27, 1923 issue:

Floods Cause Great Damage:

Cloudbursts All Over the State, This City Not Excepted:

In common with many Wyoming towns, Rock Springs suffered from the heavy rains of Tuesday. The heavy downpour started about 4 o’clock, and 1 hour later, the drain ditch bordering the eastern part of town was filled almost to its banks. When the flood in its mad rush reached the railroad tracks near the coal chutes, water overflowed the track, and flooded numerous cellars on east flat. The water, in its onward rush, carried away piling, supporting side tracks bordering Bitter Creek, at the same time carrying down riprapping on either side of the channel which runs into the creek at that point. It is estimated that about $5,000 in damage was done to the intake of Bitter Creek.

The main railroad track a few miles east of town was flooded and covered with debris, but no damage was done and trains were not delayed.

About 7 years ago, Rock Springs suffered a cloudburst that did damage to its business district. Later, the City and Union Pacific opened a drain ditch at the expense of $30,000, and the waters are now diverted to the eastern borders of the town. The stream Tuesday drained into town from the southeast, caused by a cloudburst in the hills some 5 or 6 miles away, and occasioned a miniature moving flood. Some of the water found its way to the residence district on east flat and flooded cellars, but luckily most of it was carried through the drainage ditch.
Many Homeless Result of Flood:

Bitter Creek Highest It Has Been In The Last Twenty Years:

Indications now are that the Bitter Creek flood has reached its crest, and is now receding, after rendering several hundred people homeless during the past week, when its murky waters reached the highest point recorded in the past 20 years. So sudden was its rise that it caught scores of abodes, mostly shacks built on its banks, and carried several away. Others were completely covered, and more were filled with water from the doorstep, in some instances to the ceiling.

The most damage was at No. 4 and East Flat where all of the dwellers near the creek were driven from their places of abode. The flood became serious last Friday night, and the water continued to rise until Tuesday night, but Wednesday it receded.

The flood is unusual in Rock Springs as Bitter Creek, although in most places a deep, waterless arroyo most of the year became a raging river of yellow, murky water in places 15 feet or more in depth, carrying away its banks, and everything that came within its torrents. This stream drains a wide area east of Rock Springs, and every spring carries considerable water, but by midsummer it is entirely dry, remaining so until the following spring thaw. This spring the thaw has been uninterrupted by cold, freezing spells, and the melting snows drained rapidly into the creek, the capacity of which was inadequate to carry the water.

Many made homeless by the flood sought shelter with friends or relatives residing out of the flooded area while others were content to occupy improvised shacks or tents on higher ground and many brought their household belongings to the flat roofs of the shacks where they made themselves as comfortable as possible. Several cases of widows with children and others helpless were cared for by those charitably inclined, so there has been no intense suffering.

Bridge Damaged:

Considerable damage was caused at the West Flat Bridge, a new structure, which was roped off Tuesday night owing to the center pier being undermined. The roof of a shack was caught at this pier and the swirling waters forced below it which served to undermine its center support, caused the center to sag to a dangerous degree. At the Elias Street bridge the bank caved for 20 feet, and menaced the safety of the abutments of the bridge.
According to old-time residents of the city, Bitter Creek has been higher during the past week than at any other time in the history of the city, there being no ice that accompanied the flood as of 20 years ago, which did so much damage.

**Rock Springs Rocket, July 10, 1925 issue:**

Six Lives Lost in Cloudburst:

Mepeath people drowned when car is submerged. The lives of six persons were snuffed out in one of the queerest accidents that ever occurred here last Friday evening when a car containing a party of Mepeath people while traveling along the main highway between here and Mepeath was trapped beneath a wall of flood water and the occupants of the car were drowned.

The strange and tragic accident occurred near A Junction, a short distance north of the city, and occurred shortly after heavy rains in this section. The party consisting of Mr. and Mrs. Terking and three children, Robert, 4, Lee, 2, and Louise, 5, and Misera Casagrande, 17, and Ben Andreata, 27, all of Mepeath, were enroute to a visit to Rock Springs to their homes in Mepeath.

On approaching the scene of the tragedy, it was discovered that the water had washed over a section of road nearly 1,000 feet in length. Finding the water to be comparatively shallow, the journey was continued, but suddenly the car was submerged, and the volume of water coming in a small wash sufficient to wash the car down for several yards, dumping the occupants out into the stream.

**Rock Springs Rocket, Thursday, August 14, 1930 issue:**

Cloudbursts Block All Traffic:

Floods Block Rail and Highway Traffic; Travelers by the Hundreds Stranded:

Rock Springs today is host to hundreds of travelers stranded here because of cloudbursts which have obstructed both rail and highway traffic east and west. Slight property damage resulted in the west flat district of the city with the Bitter Creek channel overflowed and yards inundated. Twelve passenger trains, six eastbound and six west, were stranded at the scene and in Rock Springs.

Water in the Bitter Creek channel which drains the city peaked about 8 o’clock this morning and since has receded below the danger level.
Dry Lake Washout:

Dry Lake, a large lake bed, located 12 miles east of this city, part of which is traversed by the main line for the Union Pacific and Lincoln Highway, gives belie to its appellation today. It is filled to the brim with waters drained from a large area in a series of rainstorms said to be the most violent in years. Both rail and automobile traffic was crippled at this point late last night and has not since been opened up.

Although the 4 mile highway bridge was not washed completely out, highway officials pronounced it unsafe and would permit no more traffic over it after noon today. Traffic is thus shut off both east and west of Rock Springs so far as main arteries are concerned. A number of parties coming from the west reached the city by traveling indistinct trails from 4 miles around the creek channel at the north coming into Rock Springs by way of the airport.

Tied up:

Railway officials will make no predictions as to when the traffic will be opened. M. A. Williams, General Manager of Union Pacific, rushed to the scene by airplane this morning to personally direct relief work. He is assisted by a large crew which is attempting to stem the tide of waters with riprap work and gravel.

City Damage:

Chicken coops, outhouses, and a few dwellings built on the slopes on Bitter Creek channel in the West Flat District were washed out by floods last night and this morning, although the total damage is thought to be small. A number of residents deserted their homes as their premises became inundated and water poured into cellars. By noon today, most of them were returning as the water was rapidly receding, the danger obviously passed. In the East Flat district the deep channel was brim full.

Greatest Ever:

Many old residents of the city state that more water is being carried by the Bitter Creek channel than they ever have seen before, although there have been in the past more serious floods. When the old channel, which came through the heart of the city, was moved 4 years ago, the diversion channel was made deep to provide for just such an emergency as occurred today.
Torrents Wreck Roads and Rails and Wash Out Bridges Here:

Torrential rains swept the entire Rock Springs region late Wednesday afternoon and tied up trains, washed out highways and bridges, and impaired telephone service.

The downpours east of Rock Springs sent Bitter Creek to high levels for this year, the flood stage reaching Rock Springs late last night.

Green River streets were inundated by waters draining from Castle Rock. The highway east of the oasis, 12 miles east of Rock Springs, was under water for almost an hour. A Superior man was slightly injured when his car plunged into a hole in the Superior highway.

Train No. 27, due into Rock Springs shortly after 6:30 o'clock, did not reach this city almost 11:00, being held at Point of Rocks, when floodwaters from Horse Thief Canyon ripped out the main line bridge at Thayer Junction.

On the flat just east of the oasis, water 2 feet deep flooded across the Lincoln Highway, tying up traffic for almost a half hour, it was stated at the oasis. The water hit this trench of road shortly before 6 o'clock, it was said.

At Green River, more cloudbursts struck the town, and on the slopes of Castle Rock, north of Green River, during midafternoon, and the streets ran deep in water.

At the east end of town, North First Street, which is the route of the Lincoln Highway, carried 15 inches of water. The Cabin Camp and the Kemp Motor Company, in that end of town were threatened with being flooded. Employees and employers joined hands in fighting waters and keeping the buildings from being flooded.

The flood ditch constructed along the hillside north of Green River by Government funds during the early years of Work Relief Program is credited with having saved the city from serious water damage suffered from cloudbursts before the ditch was built.

Late Wednesday evening, Roy Cameron, Manager of the Mountain States Telephone & Telegraph Company, at Green River, had not returned from west of that city where the heavy rains had damaged the long distance telephone lines. It was also reported that the rains had damaged a
section of the Lincoln Highway between Green River and Cranmer, but that by late last evening traffic was being resumed.

At the Rock Springs Weather Bureau, a total fall of .11 inch was reported, this city catching the lightest rainfall of this area.

Daily Rocket, Rock Springs, Tuesday, July 13, 1937 issue:

Two Thousand Made Homeless Here:

Bitter Creek on Rampage Floods the West Flat:

East Flat Evacuated; Mines Closed so Men May Repair New Channel Dikes to Hold Back Waters After Cloudbursts Hit:

Almost 2,000 Rock Springs residents were homeless temporarily last night as they fled before the fury of rampaging Bitter Creek.

The creek, sent on a 2-day spree by its tributaries, routed West Flat residents from their home Sunday night and threatened East Flats so seriously last night that the city ordered the section evacuated.

The Union Pacific Coal Company closed down its mines in Rock Springs Monday afternoon to send the miners in to fight against the waters.

Cloudbursts in Reliance, Winton, Dynes area Sunday night sent down the waters that drove West Flat residences from their homes, battered garages and shacks to pieces, and withdrew Monday to leave main floors of the homes covered with a thick layer of mud.

Boiling down Killpecker Creek, tributary to Bitter Creek, the flood tore out stretches of highway, railroad tracks, and bridges.

No. 6 railroad bridge was washed away. The wooden bridge over Killpecker Creek was battered into the creek channel.

Monday floods came from floods at the head of Bitter Creek in the Wamsutter area.

These waters poured over the Union Pacific Railroad tracks at Hallville, a short distance east of Point of Rocks, so that it was felt unsafe to allow trains to proceed.

The streamliner city of San Francisco, No. 5 mail train, and the first and second sections of No. 21, all west bound, were held at Bitter Creek station. The new streamliner (steam), east bound, was held at Point of Rocks while east bound No. 14, Pacific Limited, was held at Green River.
Tracks were washed badly, and the bridges at Canda, between Rock Springs and Green River, were threatened. Feverish work by local railroad yardmen, balasting of tracks and bridge with rocks, supported it enough so that the west bound freight train was allowed to go over the section. It was not felt safe to allow passenger trains to attempt the passage.

The railroad telegraph wire was torn down at Canda so that the railroad last night was using telephone facilities.

Sunday night's floods tore out 2,000 feet of shoulder on the Reliance Road doing an estimated damage of $2,000. Much of the oil on the Winton Road and two bridges were washed out with damage estimated at $5,000.

The Pilot Butte Avenue bridge at Bitter Creek was in a precarious situation last night. To widen the banks of the creek and relieve pressure on the opposite bank, the banks were being dynamited. Automobile traffic over the bridge was forbidden yesterday afternoon except in cases of emergency.

Daily Rocket, October 14, 1937 issue:

$75,000 flood control bond issue is taken to voters. The question of issuing $75,000 in bonds to pay for flood control work on Bitter Creek which city officials contemplated as separate project from government work on the creek will be submitted to the citizens of Rock Springs, the city council decided at its meeting on Wednesday night.

An ordinance calling for the submission of the bond issue question to voters at the city election November 2 was passed by the council. In general it is contemplated by the city administration to improve the channel of Bitter Creek at both ends of the city, to improve the storm ditch wherever necessary to insure the city's safety from any future floods.

This action would be exclusively by the city and would be distinct from the flood control work contemplated by the government. A government flood control meeting to be held at the Union Pacific Coal Company Oldtimers Association building today will be attended by delegates from the council.

Daily Rocket, November 6, 1937 issue:

Gives mention of the passage of the $75,000 bond issue by the citizens of Rock Springs for the flood prevention and flood control project work.
Bitter Creek Floods Rage Over Rock Springs Flats:

Rock Springs and Sweetwater County authorities were hopeful Monday night that lower temperatures would prevent continued flooding of Bitter Creek in the city.

Meanwhile, several residents of homes near the rampaging creek took furniture and possessions to higher ground for the duration of the high water.

The cold air mass moving into the southwest Wyoming sent the temperatures recorded at the airport below the freezing mark Monday between 1 and 2 p.m., giving hope that the rapid runoff of snowmelt waters in Bitter Creek's vast drainage area would slacken.

The snow in the watershed which lies east and north of the city melted rapidly in the unseasonably warm temperatures over the weekend.

Robert Larsen, official weather observer in Rock Springs, reported a high temperature of 60⁰ Sunday, Saturday's high was 54, and Monday's 51. The thaw was not broken up by nighttime freeze. The low Sunday was only 36, while Monday morning's low was 41.

Monday, after Bitter Creek had receded about two feet from Sunday night's high water mark, the water crept upward all day until about 5 p.m. when busy workmen noted that the rise had stopped and continued to hold steady.

Earlier, Mayor Paul J. Wataha had appealed to Lieut. General R. L. Evany, to call out the Wyoming National Guard for emergency flood duty.

Late Sunday night and again Monday afternoon and night, levees were strengthened by extra dirt hauled in by city, county, and volunteer trucks and crews. Late Monday afternoon a large amount of volunteer equipment was being used in the West Flat area, where Bitter Creek was lapping at many houses facing McCardy Street.

All Rock Springs Construction Companies, including Cyril Rahont, Layos and Layos, Woodard, Hockley, De Bernardi, as well as Sweetwater County, Jack Homan, and the Union Pacific Railroad, sent trucks loaded and other equipment to help fight the water.

In early morning effort Monday to save its tracks west of Rock Springs, Union Pacific sent crews with bulldozers to heap up dirt along the south bank of Bitter Creek, the old McCarthy Avenue.

Heavy, wet snow that began falling Monday afternoon posed another threat to the safety of low-lying homes near Bitter Creek, although the cooler weather that was expected to move into the area could hold the melt runoff down.
The high water was the first of major proportions since 1927 when ice, coupled with fast melting snow, played havoc with West Flat early in March of that year.

Several persons stated Monday that the present high water is more than that which filled the creek bed in 1937, but the retaining wall, which was constructed on the east side of Bitter Creek 25 years ago, is said to contain the water formerly rampaging along the lower side of the stream and inundated homes and basements.

Before 1937, no flooding had been experienced, after the Bitter Creek channel was changed in 1926 under the administration of the late Mayor P. B. Bunning.

Early Monday afternoon, as the water began to rise rapidly, authorities planned to send a light aircraft east and south to see how much water could be expected to hit Rock Springs. The cold front that moved in with low visibility and wet snow, however, thwarted any flight attempt and only ground observations could be made. The snow continued off and on most of Monday night. By early evening .20 inch of moisture had fallen.

There are also a series of photographs along with the high water in Bitter Creek in the February 13, 1962, issue. They show the high water. One shows a plugged storm sewer. Another shows men shoveling. No specific amount of damage at all. Another shows a homemade levee protecting one home. There appears to be no damage in any of the pictures except for possible high water damage.

Casper Star Tribune, Monday. August 2, 1976 issue:

Rock Spring Creek Swells (by Paul Krza)

Rock Springs - The usually nearly dry Bitter Creek channel through Rock Springs was swollen to about three-quarters of its capacity by a heavy thundershower east of the city.

A spokesman for the FFA flight service station at the City-County Airport, located about 10 miles east of Rock Springs, said 1.60 inches of rain was recorded there between 8:30 and 9:10 p.m. Saturday.

Rain also fell in Rock Springs, but considerably less, although an exact measurement was not available.

Rain continued to fall throughout the night and early morning hours at and near the airport, with the flight service station recording an additional .30 inches by 6 a.m. Sunday.

City Engineer Wayne Johnson estimated the flow in Bitter Creek, which drains a large area east of Rock Springs, at 4,000 to 6,000 cubic feet per second Sunday afternoon, with the water level "going down." He said the channel, which is now partially filled with silt, ranges in capacity
from about 5,000 to 9,000 cfs. A recent study by the Army Corps of Engineers placed the 100-year flood, or the level to which the water could be expected to rise, once every 100 years based on previous flow figures, at 15,000 cfs.

The largest recorded flow in the channel was 10,000 cfs, from a cloudburst in 1937.

The muddy water was only a few feet below the bottom of a bridge over U.S. Highway 187, which Johnson said was a bottleneck to the creek flow, with a capacity of about 7,000 cfs under it.

Saturday’s rainfall apparently was largely confined to east of Rock Springs. A 12-15 foot deep gulley near the airport showed evidence Sunday of an 8 to 9 foot high water mark on it, although only pools remained.

By contrast, a storm ditch carrying water from the area south of the city was completely dry, while Killpecker Creek, flowing from the north, showed no evidence of flooding.

By Sunday evening the flow in Bitter Creek was at nearly the same level as earlier, and apparently not rising.

Green River Star, Friday, July 9, 1937 issue:

Trains Back In and Out of Here After Cloudburst - Washout Near Thayer Forces Use of Y, Reversing Trains:

The unusual sight has been occasioned by a washout of the bridge at Thayer Junction, about 40 miles east of Green River, following a terrific cloudburst that struck this section Wednesday afternoon. The washout occurred between the banks of the Union Pacific’s Y at Thayer, a lucky break that this did not entirely tie up traffic. Trains were switched around the Y to continue into Green River from the east, but it did force the train to run backwards for the 40-mile trip. Trains enroute east were made up here in a reverse order so that when they were switched at Thayer they could continue in correct order.

Another washout on the main line was experienced both east and west of Bitter Creek and it was this condition that was mainly responsible for the extended delays of trains. Water was running over the tracks in huge torrents that required constant dumping of gravel to save the track bed, officials here stated.

The washout site is the same that has caused the Union Pacific difficulties in years past. Evidently, there is a huge watershed above Thayer that unloads millions of gallons of floodwaters during heavy cloudbursts.
No west traffic was halted due to flooded tracks or washout, it was said by officials, although there was a small washout in the Grass Creek branch near Cokeville, Utah, and water had been washing over the tracks near Marshton, 20 miles west of Green River.

The Green River Star, June 9, 1959 issue:

Heavy Rains Wash Out Dam at Beaver Meadows:

Heavy rains that brought sufficient pressure to tear out the spillway of Beaver Meadows Dam located about 65 miles south of Green River in the Hickerson Park area, was reported here in the forepart of the week by visiting ranchers from Burnt Fork and McKinnon section. The damage was done late last week, it was said, and may result in serious water shortage this summer to the acres served by the dam.

According to reports, no damage was made to lands below when the spillway ran out, the biggest loss being in the summer shortage of water that was being held by the dirt structure. It was said that a serious condition may result because that district has been suffering from water shortage for several years. The dam -- which was completed only 3 years ago -- relieving this distress considerably and enabling ranchers to carry on required summer irrigation.

Green River Star, March 2, 1950 issue:

Granper Area Flooded from Black Fork Ice Jam:

Danger to the Union Pacific Railroad Bridge over Black Fork, west of Green River, has passed, it was announced this morning after crews of men had blasted an ice pack which threatened serious damage to railroad property, highways, and grazing land around Bryan and Granper.

The biggest threat has been near Bryan, about 15 miles west of Green River. In this area, ice and water covered the road to Westvaco, and school buses and other vehicles have been compelled to detour to reach the main highway. Several charges of dynamite were set off Sunday, Monday, and Tuesday in an attempt to break up the jam and release the dammed water of the river.

A large lake has formed adjacent to the town of Granper, and a number of basements there were reported to have been filled with water.

Linemen for the Union Pacific and Mountain States Telephone and Telegraph Company worked all night Sunday to restore wire service. Ralph C. Abbott of the Telephone Company said a number of poles had been broken off, and wire service disrupted. Linemen were compelled to use a boat to repair some of the damage. The jams are reported to be the worst in recent history.
Drop in Roadway on Dam Discloses Leak Coming From Rock Strata in Abutment:

Monday, a drop first from the top of Fontenelle Dam to the cavern-like hole that had been washed out by the leak in the west end of the lower side of the dam disclosed a stream of water coming through a rock in the right abutment, and not through the dam itself. This gave assurance that the dam was structurally safe, although the influx of water was regarded as serious because of the damage to the face of the dam.

The leak which Friday afternoon first appeared to have serious proportions, cut a large hole 40 feet wide, 60 feet deep into the lower face of the dam, as fill dirt continued to fall into the channel being cut by the leak, which finally leveled off at about 20 cubic feet of water per second. The roadway of the dam at this point then caved down and disclosed a stream of water coming out of the strata in the abutment rock, USBR officials stated.

About 60 feet of dam structure remained between the waters of the reservoir and the washout in the lower face of the dam, with no leaks showing indicating the dam unharmed structurally.

Although leakage continued to be regarded as serious, it was not regarded as critical so far as the dam was concerned after the source was discovered. USBR officials stated, however, that close inspection is being maintained.

During construction of the dam, areas which might seep and cause damage were grouted (filled under pressure), with concrete, but it was regarded as possible that the leak which caused the trouble may have originated outside the grout area.

River Threatening Town Now Subsiding Slightly Each Day;
Governor Hansen Commends Citizens, Officials for Emergency Action:

The Governor said that the evacuation plans worked out when it was feared that the dam would give way, and the flood prevention work planned Sunday and Monday showed careful and thorough planning on the part of the town and county officials involved.

The Governor's parting words were to assure the town and county officials that he would cooperate however desired in furthering flood protection plans of a permanent nature for Green River.
In the airplane flight from Green River to Fontenelle, Governor Hansen was shown the inundated river bottom and ranch lands. While at the dam, a Government helicopter took him for a complete aerial survey, including a look inside the hole in the lower face of the dam. He also inspected by air damage from other sources developing in U. S. Highway 189 south of Laramie, where a hillside was developing slide tendencies above the highway at the reservoir edge.

Although USBR officials at Fontenelle Dam continued to regard the situation as serious and Regional Director David Crandall told town and county officials meeting with Governor Hansen Wednesday night that this position would be maintained until the flow from the leak at the dam had entirely ceased, there appeared to be improvement in the entire situation.

The USBR reported Wednesday at 4:40 p.m. that the surface of the reservoir had lowered by 14.82 since the withdrawal of water on emergency conditions began last Saturday. A total of 111,500 acre-feet, almost one-third of the impounded total of 356,700 acre-feet, had been released down the Green River. Discharge of water through the outlet works had decreased to about 17,000 second feet, and at Green River found water beginning slowly to recede to some low lying area.

The subject of discussion was the plan of town and county officials to ask the Army Corps of Engineers for feasibility study toward a flood control project on the banks of the Green River through the town of Green River. On his flight to Fontenelle this morning, the Governor was accompanied by Sheriff Mirmo and publisher Reynolds. He planned to leave the area about 11:30, flying from the Stauffer Air Chemical Air Strip to an appointment at Lander.

Kemmerer Republican, Friday, July 12, 1918 issue:

Relief for the Traveler: Cokeville - Kemmerer road to be put into good condition immediately.

The photos show the dangerous washouts that occurred about a month ago, and into which a car that is shown recently ran, endangering the lives of five persons.

Many motorists narrowly escaped running into this dangerous washout. A wide detour through the sagebrush is necessary to get around this point. The car was stopped in the position shown at 1:00 at night, and the escape of the travelers from death or serious injury is nothing short of miraculous.
Torrential Rain Flooded Fontenelle:

Much damage is reported from the Fontenelle district, which stream was a raging torrent following a cloudburst above the Jamieson ranch last Saturday afternoon. Both South and North Fork of the Fontenelle were affected, and a stream of water followed the cloudburst that swept everything before it. Not one bridge remains, and meadows were flooded with many feet of water.

Sam Gibson and Dan Merrick, who were at William George's ranch last Saturday evening, gave a graphic description of the flood. They were in a cabin eating their evening meal after a half hour rain at the George ranch. Suddenly, they heard a roaring of water, and observed the stream rising. It raised 10 feet in 30 minutes, and carried away the bridge by the ranch cabin as if it had been a straw.

Dutch George Creek, which flows into Fontenelle, at the George Ranch, normally a stream that can be jumped over at any point, was as large as Hams Fork, and swept down over the ranch, obliterating the private fish pond of Mr. George, and carried away several hundred large trout that have grazed this pond. Mr. George was in Kemmerer Tuesday and estimated the loss to his ranch at $15,000.

Kemmerer Gazette, Friday, July 3, 1931 issue:

Cloudburst and a General Rain: Bridge Washed out near Cumberland and Lake Formed. Stopping Motor Travel:

Rainfall was general over this part of the intermountain region this week. cloudbursts being reported from various districts, worst in close proximity to Kemmerer being just south of Cumberland Tuesday, where a lake over a mile in width formed after the bridge on the Lincoln-Uinta County line had been washed out. It is reported many cars were marooned by this cloudburst, those on the south side detouring via Granrey. One car was caught in the flood, and Wednesday, only the top of it was seen in the lake.

Kemmerer Gazette, Friday, August 7, 1936 issue:

Flood at a Fall - Damages Property and Washed out part of the railroad track. Water Measured up to Four Feet Beside Buildings - Torrent Came Off the Hill East of Town - Drowned horse in its path - Barn at Fox Farm Hit by Lightning - Highway flooded and cars stalled.

At last something happened that nobody ever saw before. None can recollect seeing such an abundance of water in the streets here at one time. A few forgetting they were to be burned, rather than drowned, headed for higher ground. The deluge started at about 3 o'clock Saturday
afternoon and poured down steadily for 40 minutes. Some say it was a rain, some a cloudburst; there is enough to satisfy everybody. It formed itself into a torrent and roared down Opal, past the hotel, and around the Opal Mercury Store, taking everything loose with it -- galvanized tubs, ice cream freezers, two coyotes, and a toilet were among some of the souvenirs.

The water crept up 4 feet on the buildings here before subsiding. All cars bound east and west were stalled, the torrents rushing across the highway. Louis Jones, enroute to Kemmerer, drove right into it, forgetting about the battery in his car. He and his battery both got weak and spent the afternoon in the middle of the street. A slight amount of water found its way into the basement of the store, but water-tight windows and fast work by H. Danielson, To Cope, and F. Tanner in shoveling dirt into cellar windows prevented any loss, as what little water crept down the hall was quickly mopped up.

The real losers of the flood were Mr. and Mrs. Droyledt, whose home was situated directly in its path; having no foundation, water rushed in from front and back until the family found the entire house deep in water and mud. Their entire brood of young chickens were drowned, and their loss is heavy. Nothing could be done to save anything, as the rush of water was too quick.

The Payne Brothers' farm was also damaged; lightning struck their large barn, tearing a hole in the end of the structure. They can't understand yet why it didn't catch on fire. It was filled with hay and inside was a charred black, the lightning passing through the hay, but no fire resulted.

A washout on the railroad necessitated eight cars of gravel; six section cars to repair it. The spot was the same that washed out several days ago. A little drought will be appreciated, and should you plan a trip to see the Pacific Coast, to see the water, save your money and visit Opal where it rained.

Kemmerer Gazette, Friday, April 16, 1937, issue:

Washout Nugget Disrupts Traffic:

All northwest trains being routed via Ordén: Ice broken up by torrents of water from hillsides; formed dams and flats become inundated -- traffic may be resumed today -- dynamite ice in Hans Fork and Willow Creek -- latter creek rose 3 feet in hour. Nugget Canyon, nemesis of the Union Pacific Railroad, with its precipitous slides and narrow forye, again disrupted traffic when torrents of water poured down the originally dry washes and hillsides to break up ice and carry debris down Twin Creek, choking up this end of the canyon, the water spreading over
Fossil Flats and washing out hundreds of feet of roadbed in the routh of the canyon.

Superintendent Paulson stated this morning that excellent progress was made during the night, but with Rock Creek still running high in water, which interfered with repair work, it was probable train service might not be resumed until some time during the night. Heavy snow was falling at 7 a.m., which, if it continues, will provide another delaying factor.

Contributing to the deluge was the warm night Wednesday and warm rains in the hills which cut down the piled up snow with rapidity, turning it into dirty, yellow water which roared down the small canyons and washes to deposit itself in the narrow confines of Twin Creek Channel.

Trains Rerouted:

It was necessary Wednesday night to turn back passenger trains at Montpelier and Green River and route them via Ogden and McCammon. Kemmerer had a little service from the east yesterday when a local was made up with a gravel train. Hundreds of cars of gravel are being thrown into the breach, as well as other material. All available crews in this district were put on the job.

The Susie Branch:

The same condition as existed in Murret existed on the Susie Branch at the same time when overworked section crews labored all night to save the roadbed and bridges. Here, too, Willow Creek is narrow with the creek bed, the railroad, and the highway practically filling the canyon. When the deluge of water from tributary washes struck the canyon at the gap, raising the creek 3 feet in an hour, it had to stay to the one channel, which is much too small to carry that amount of water, although in the summer, but a little trickle comes down that stream.

Kemmerer Gazette, Friday, Aug 4, 1939 issue:

Drought in western Wyoming broken by heavy rains:

Veritable Cloudburst Washed Out Highway North of Kemmerer. The extremely dry period of the past two months, which brought with it the threat of a water shortage even for human consumption, was decidedly broken in western Wyoming over the week-end when continued rains brought relief. The storms centered north of Kemmerer and reached their peak Saturday night in the LaParre district when rampaging waters were strong enough to take out two sections of highway holding up traffic for a number of hours. The worst washout occurred just south of the town of LaParre. The road was quickly made passable by highway department maintenance crews.
The temporary dam recently completed about Frontier with CCC cooperation was threatened when the waters of the Hams Fork drainage reached there, but a close watch was kept on the structure by the Lincoln Service Corporation and all water possible conserved for future use. The water is backed up behind this dam almost to the Puritan Dairy.

*Kemmerer Gazette*, Friday, April 28, 1944 issue:

Hams Fork roaring along at flood stage, but cold weather has postponed peak now expected to come in middle of May:

Some basements and lowlands in Frontier and Diamondville are flooded - highest crest so far was Sunday - additional snow and rain brings threat as heavy snows remain in upper reaches.

High water has come this section of Wyoming about 2 weeks earlier than usual, and the runoff of Hams Fork and its tributaries said to be greater than anyone around here can remember. This creek is roaring along way over its banks, inundating all of the lowlands, flooding basements at Frontier in the Kemmerer flats, and at Diamondville.

The city reservoir about 14 miles up the river, is full to the brim, and the water is roaring over the spillway. However, the ice is still on it.

Peak Comes in May:

Edward Jarreb, in charge of the Geological Survey Water Resources Division, said the crest Sunday has been the highest so far. He also said we may expect to see the peak of the flood water the middle of May.

*Kemmerer Gazette*, Thursday, June 18, 1959 issue:

Downpour Monday, flooded several basements here:

Some damage done to merchandise and local business establishments:

Although Monday's rainfall here was a precious gift to thirsty rangeland in this area, land whose soil moisture was below normal this spring, it dealt quite a bit of misery to several Kemmerer and business houses.

The official measurement of rain was .68 of an inch; it started around noon and poured steadily for several minutes. Soon the water was running rampant down the streets, and the city storm sewers could not handle the load. As a result the water backed up through the drains into numerous basements. Other business houses and homes were flooded by numerous streamlets running through doors and windows.
Rain damages homes:

The concentrated rainfall totaling 1.52 inches of rain caused considerable damage in Kemmerer last Friday when storm sewers were unable to cope with the near flash flood.

Official measurements set the rainfall at .63 inches Thursday which includes the early Friday morning thunderstorm and .89 inches Friday. It rained twice on Friday, once in the morning and once in the afternoon. Both were fast downpours.

Six inches in street:

Dee J. Burnett, 1325 Central Avenue, who operates a service station-motel and apartment, said there was 6 inches of water pouring down the street. They built a dam to control the flow of water, finally tore out a sidewalk to divert the flow into a gully. Meanwhile the water flowed into the basement of the apartment filling up over 5 feet deep. At one time the water missed by only about 2 inches of running in the main floor. Motors on the furnace and sump pump were damaged.

Preparations continue to combat flooding. Swollen water of Hams Fork River fortified by a record snowpack in the drainage system continued to pose flood threat for ranchers in the Hams Fork valley and residents of Frontier, Diamondville, and the Willow addition of Kemmerer.

Following an emergency meeting Wednesday called by concerned officials of the community, wheels were set in motion to take flood prevention steps by building up dikes along the river banks and sandbagging of the river banks.

The U.S. Corps of Army Engineers were contacted and had a representative at the meeting. Robert L. Comin, Chief, Flood Control Section, U.S. Army Engineer District, Sacramento, California, has been in the area for a full week advising municipal, county, and state crews in their work on the flood prevention measures.