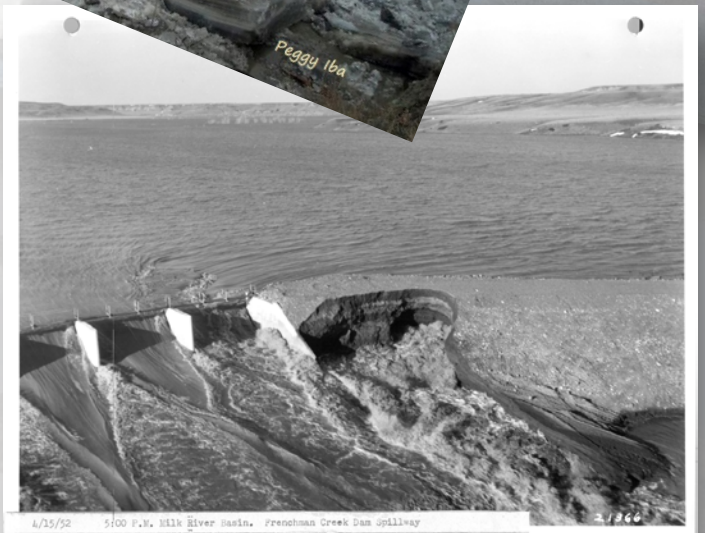
Eastern Montana Water and Drought:

Overview and how NWS can Help you!

NOAA/NWS Glasgow, MT

Types of Issues

- Ice Jams
- River
- Small Stream
- Flash Flood
- Areal Flooding
- Snowmelt
- Dam Break
- Prolonged Heavy Rain
- Urban (underpasses!)
- Mountain Snowmelt
- Drought



Dam Failure

4/15/52 5:45 P.M. Milk River Basin. Frenchman Creek Dam Spillway
21370

Malkuch Dam
March 2013 Failure

Ice Jams

- Curves, Oxbows and Sandbars/Islands, and bridges are the worst areas for jamming
- ***<u>No two events are alike, the river changes with each event</u>***
- Water can rise very high in a VERY short time
- Can't predict how it will take for ice to finally move through or rot in place

June 19, 1938
Terry Train Derailment

O. F. Goddard Is Appointed Chief Justice

THE BILLINGS GAZETTE

EVENING EDITION

FEAR 40 DIED IN WRECK

CAMERA SHOTS OF OLYMPIAN RAIL DISASTER

Bodies of 27 Are Recovered By Searchers

Train Wreck Casualty Toll

LOCAL PERSONS DIE IN WRECK

Two Billings Workers and Three Children Are Among Victims

START CHURCH MEET TUESDAY

MAINE AND MINNESOTA HOLD PRIMARY ELECTIONS TODAY

MAJOR LEAGUE RESULTS

NATIONAL LEAGUE

AMERICAN LEAGUE

THE WEATHER

LIFE

A SURVIVOR PHOTOGRAPHS THE WORST AMERICAN TRAIN WRECK SINCE 1887

March 1939 Flood in Glasgow

Dam Which Failed and Sent Water Down Porcupine

Here is an aerial view taken by Gene Etchart, Glasgow flier, of the Midway dam on Big Porcupine after its failure which sent a wall of water down the creek valley, inundating ranch homes and flooding Nashua's north side 30 miles below. Built by the Indian reclamation service, it was used to store water for irrigation which extended to the Wiota flat. Of earth fill, covered by concrete slabs, residents of the territory said it had shown some damage before the spring breakup which sent huge chunks of ice against the spillway, in the washed out section, and finally caused its collapse. The gap in the dam is about 300 feet wide. The Etchart ranch is located about a mile below it, where there was a heavy loss in buildings, corrals and equipment. Other ranchers also suffered.

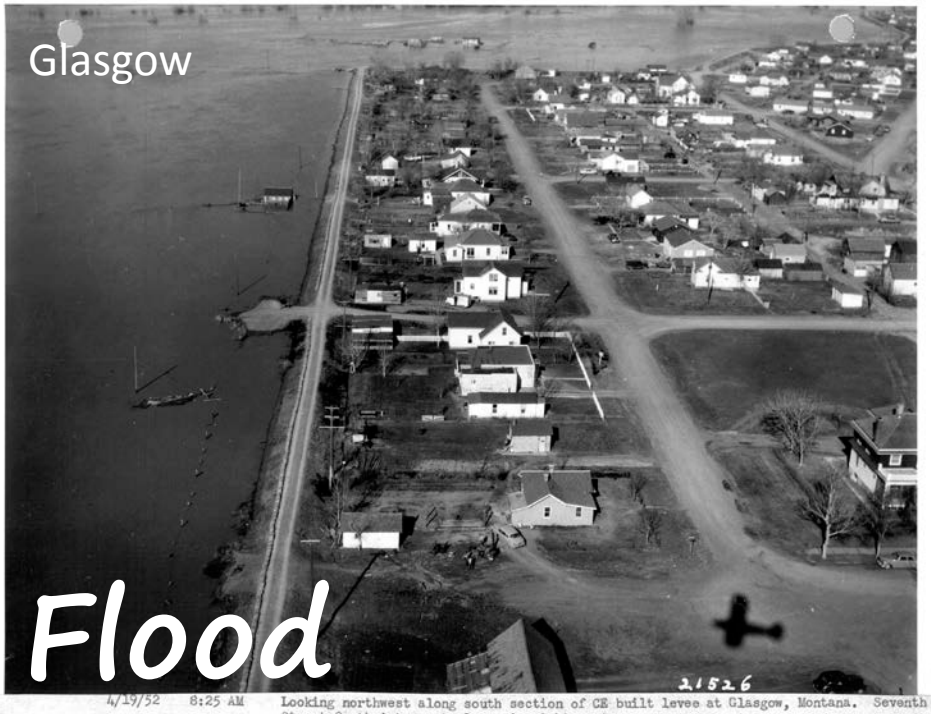
March 1939 Midway Dam Failure

1952 Flood Frenchman Dam Failure

4/15/52 5:00 P.M. Milk River Basin. Frenchman Creek Dam Spillway

4/16/52 8:15 A.M. Frenchman River Dam, Milk River Basin

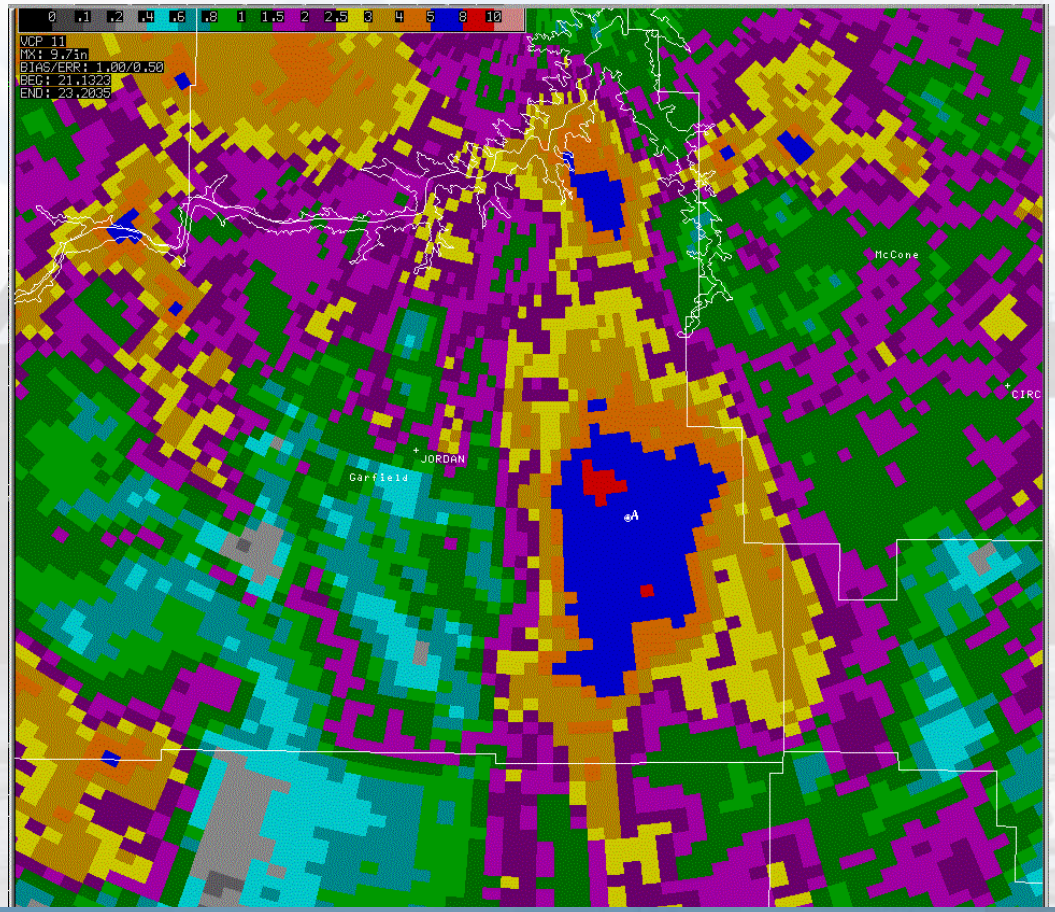
1952 Flood



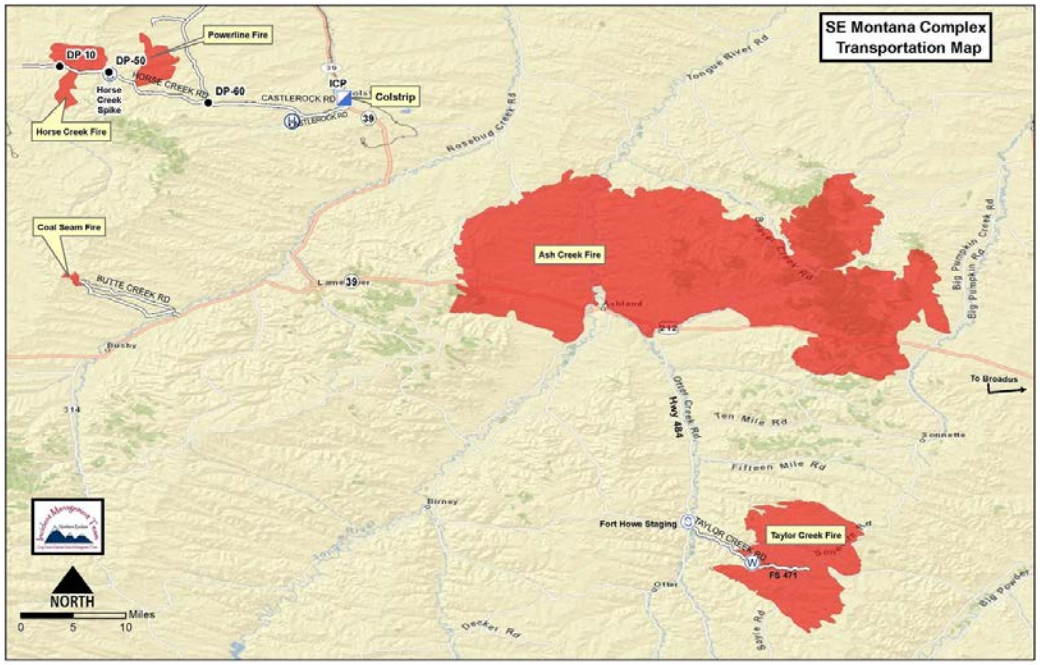
4/19/52 8:25 AM Looking northwest along south section of CE built levee at Glasgow, Montana. Seventh Street South intersects levee in right center.

4/18/52 11:10 AM MILK RIVER at Nashua, Montana.

June 23, 2002: Garfield County Dam Failure



2003/2006/2012: Drought Caused Wildfires



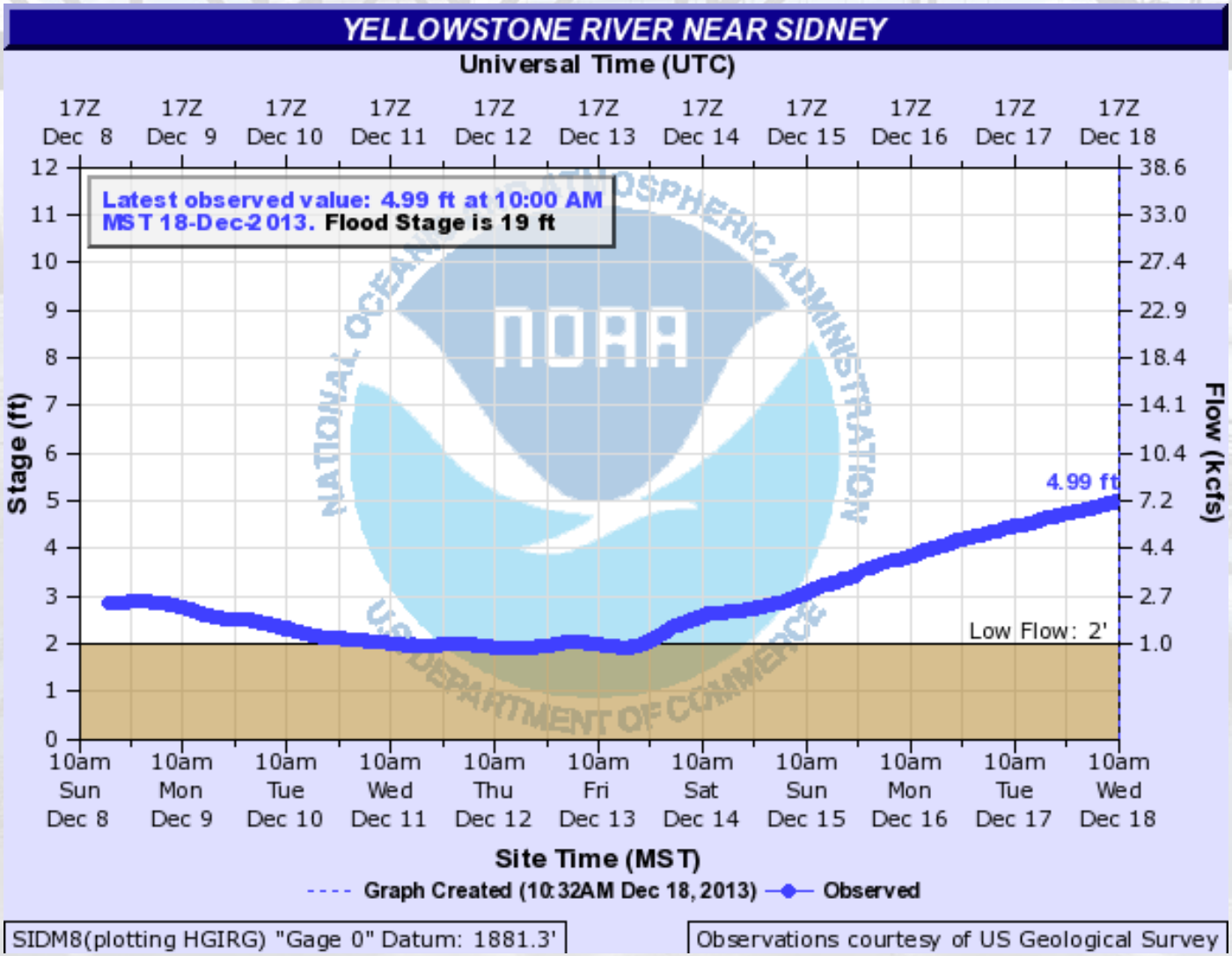
2011 Flood

2011 Flash Flood

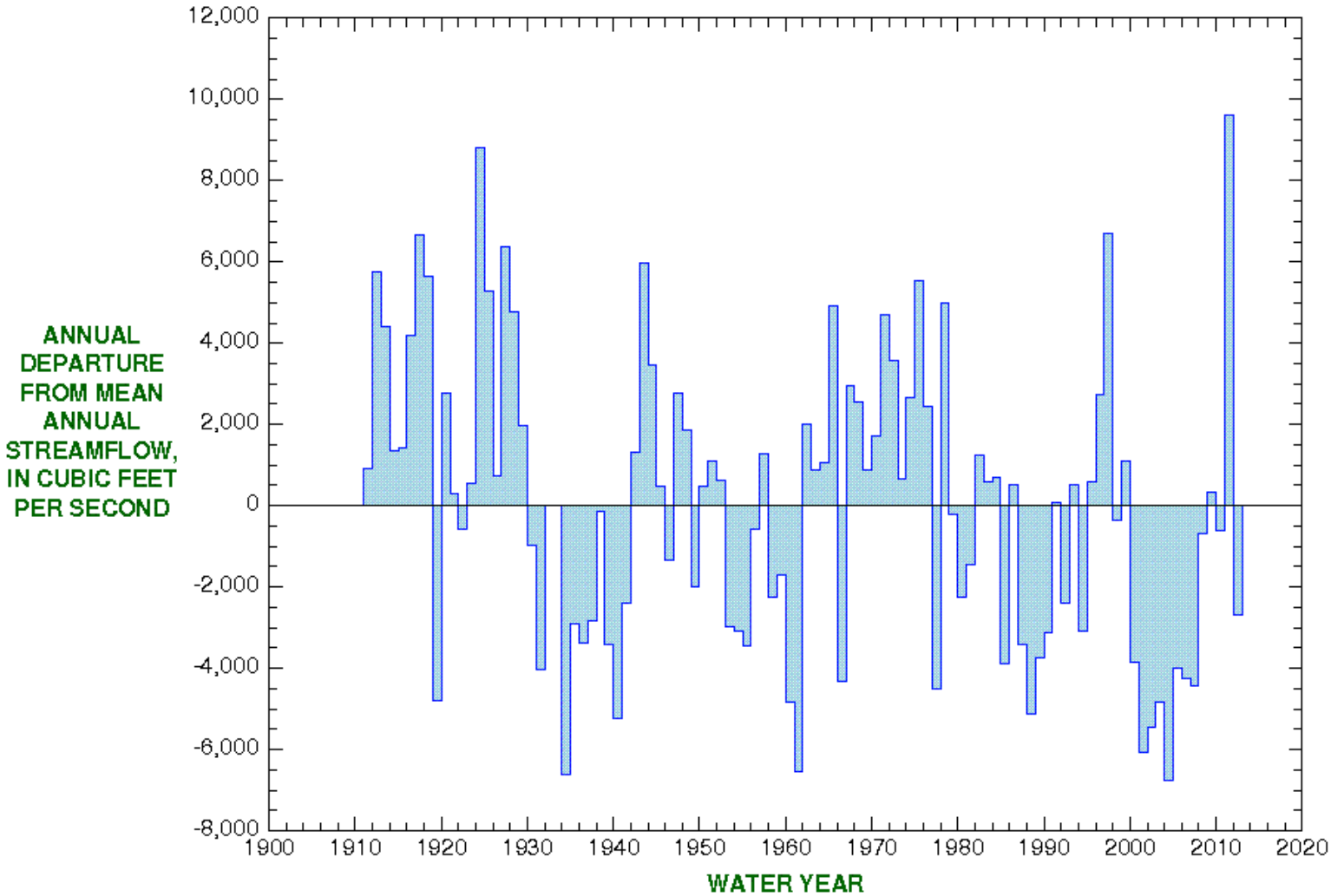
2nd Lowest Flow on the Yellowstone River at Sidney:

1.86 feet on Dec 12, 2013

Record lowest is 1.5' on Aug 12, 1961



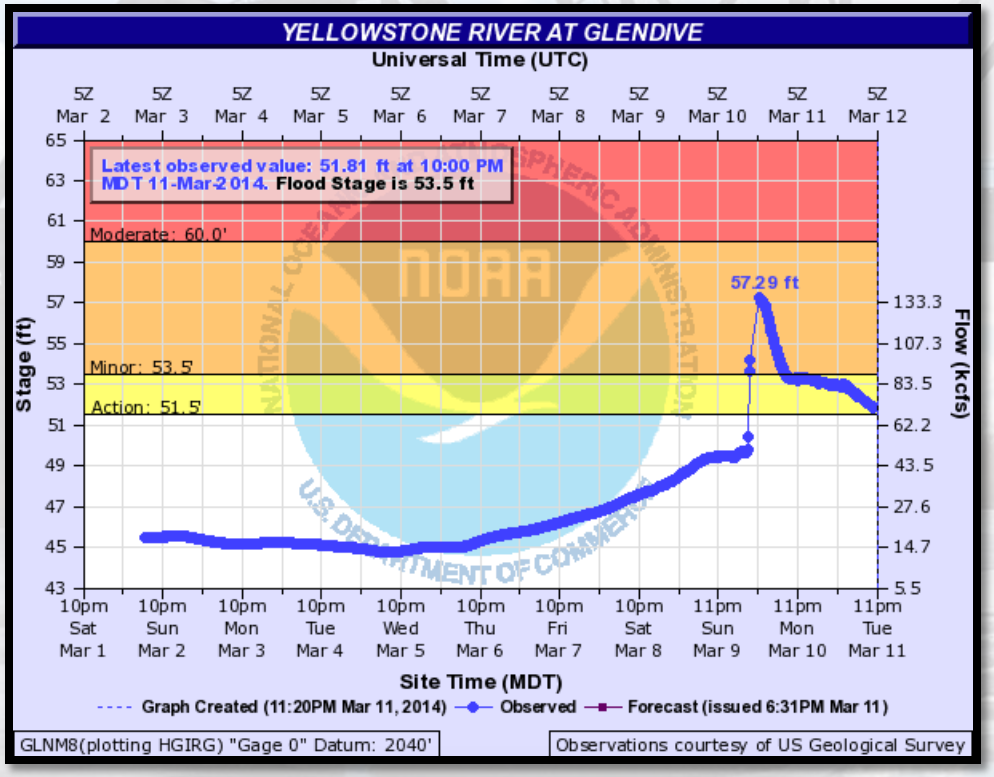
Mean Annual Streamflow: Sidney



06329500

Yellowstone River near Sidney MT

Mar 10, 2014 Ice Jam: Glendive



Mar 11, 2014: Ice Jam Savage

Sidney Herald

39°
Few Clouds

11:49 AM Tuesday March 18th

News Opinion Sports Community Obituaries Features Legal Notices Restaurant Menus Real Estate Classifieds

E-Edition Newspaper Ads Photos Videos E-Newsletter Web Directory Bakken Living Herald Careers Search

Breaking News

Two Savage men rescued from flood by helicopter

Story Comments Image (1) YouTube (1) Print Font Size:

Recommend 537 Tweet 1 +1 0 Pin it 0 Share 33

Bill Vander Weele | Sidney Herald

Flood conditions

Flood conditions hit Savage late Monday.

Related YouTube Video

Ice jams and floods

Posted: Tuesday, March 11, 2014 10:03 am | *Updated: 6:57 pm, Tue Mar 11, 2014.*

By Bill Vander Weele Sidney Herald

Two Savage men, Jason Nelson and Dennis Schmierer, were rescued by helicopter due to flood conditions in Savage during the late Monday evening, early Tuesday morning hours.

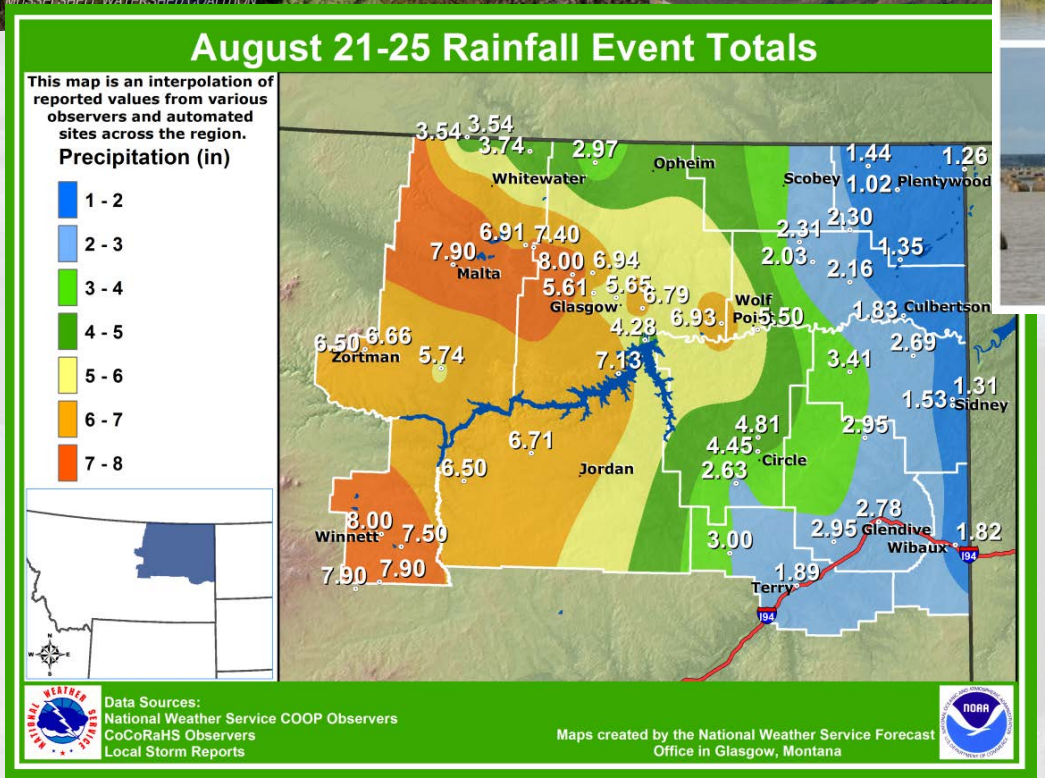
Nelson explained he and Schmierer were checking the river's levels about two miles south of Savage at about 8:50 p.m. Monday. "We just watched it for 10-15 minutes," Nelson said. "You could hear noise from upstream."

The men were then alerted to danger when a vehicle on higher ground honked to them. Nelson's pickup made it through one slough but not the second. "The river was there," Nelson explained.

The Richland County Sheriff's Office received a call at 9:45 p.m. about the situation. Sheriff Brad Baisch said the vehicle was more than 500 yards from dry land with water and ice chunks going by. First responders from the Savage Fire Department determined that a boat rescue was not an option because of the huge ice chunks.

2014 Flood

MUSSELSHELL WATERSHED COALITION


August 21-25 Rainfall Event Totals
This map is an interpolation of reported values from various observers and automated sites across the region.
Precipitation (in)
1 - 2
2 - 3
3 - 4
4 - 5
5 - 6
6 - 7
7 - 8
Whitewater
Opheim
Scobey
Plentywood
Malta
Glasgow
Wolf Point
Culbertson
Zortman
Sidney
Jordan
Circle
Winnett
Glendive
Wibaux
Terry
Data Sources:
National Weather Service COOP Observers
CoCoRaHS Observers
Local Storm Reports
Maps created by the National Weather Service Forecast Office in Glasgow, Montana

2015: Poplar Oil Pipeline Break on Yellowstone River

- Ice covered
- Weather impacted recovery
- 83 days of NWS support to incident
- Consulted with CREEL

NWS Offices in the State

Great Falls:
Don Britton-MIC
Megan Syner-WCM

Glasgow:
Tanja Fransen-MIC
Patrick Gilchrist-WCM

Missoula
Bruce Bauck-MIC
Marty Whitmore-WCM

NWS Hydrologists:
East of the Divide: Filled Soon!
West of the Divide: Ray Nickless

Billings:
Keith Meier-MIC
Tom Frieders-WCM

What will you experience next?