# 2012 Floodplain Resource Seminar

*by*

*Ray Nickless (Service Hydrologist)*

*National Weather Service - Missoula, MT*

*ray.nickless@noaa.gov*

Lolo Pass Visitor Center - Winter 2011

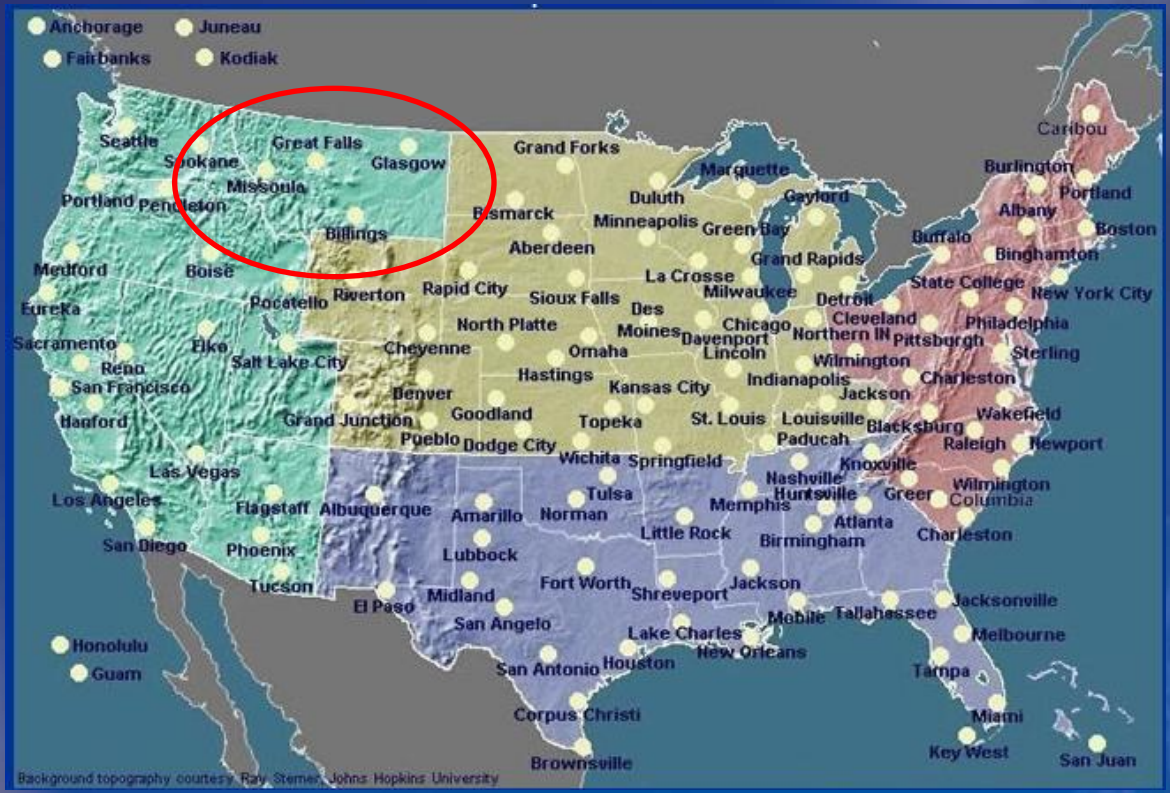
Clark Fork River in Missoula - June 2011

# Overview

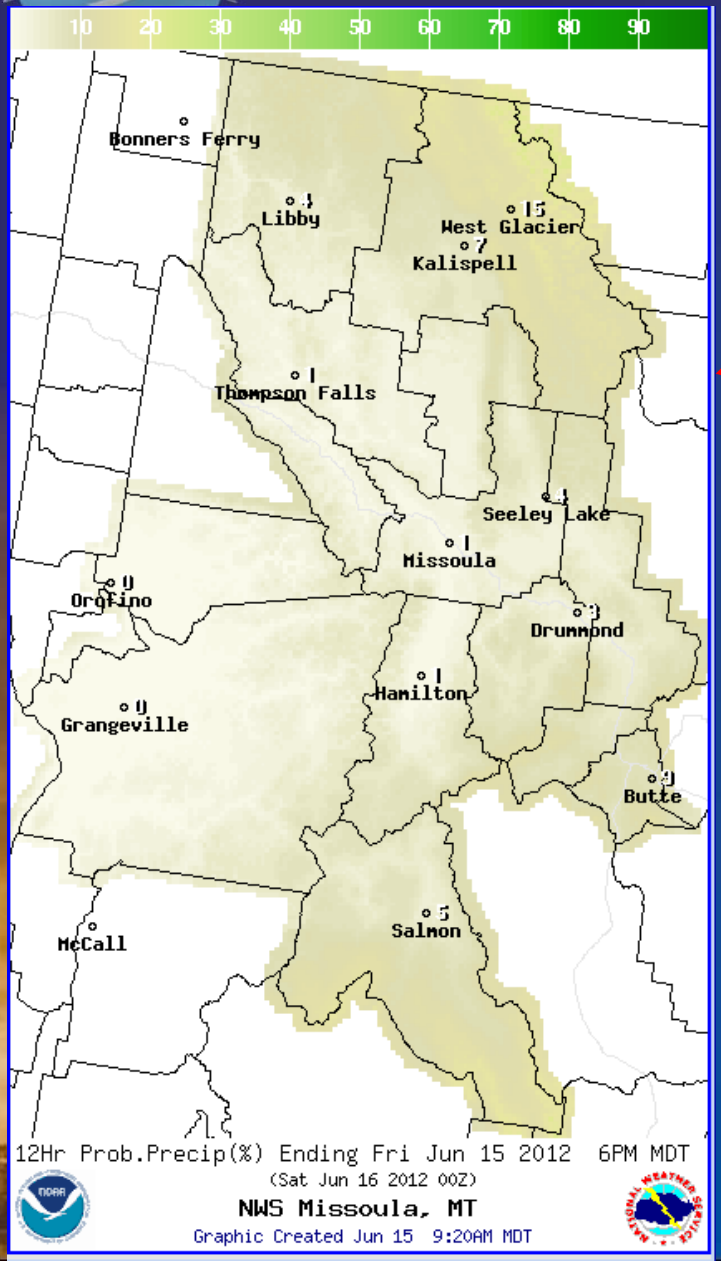
- Montana NWS Locations
- Decision Support Services(DSS)
  - *Impending flooding*
    - Gotowebinars & Conference Calls
  - *People Resources Available*
    - Public Meetings, Emergency Operations Centers

# NWS Offices in Montana

**4 offices in Montana**



# Montana NWS Locations



## Office Contacts

- Bruce Bauck (Meteorologist in Charge)
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- Marty Whitmore (Warning & Coordination Meteorologist)
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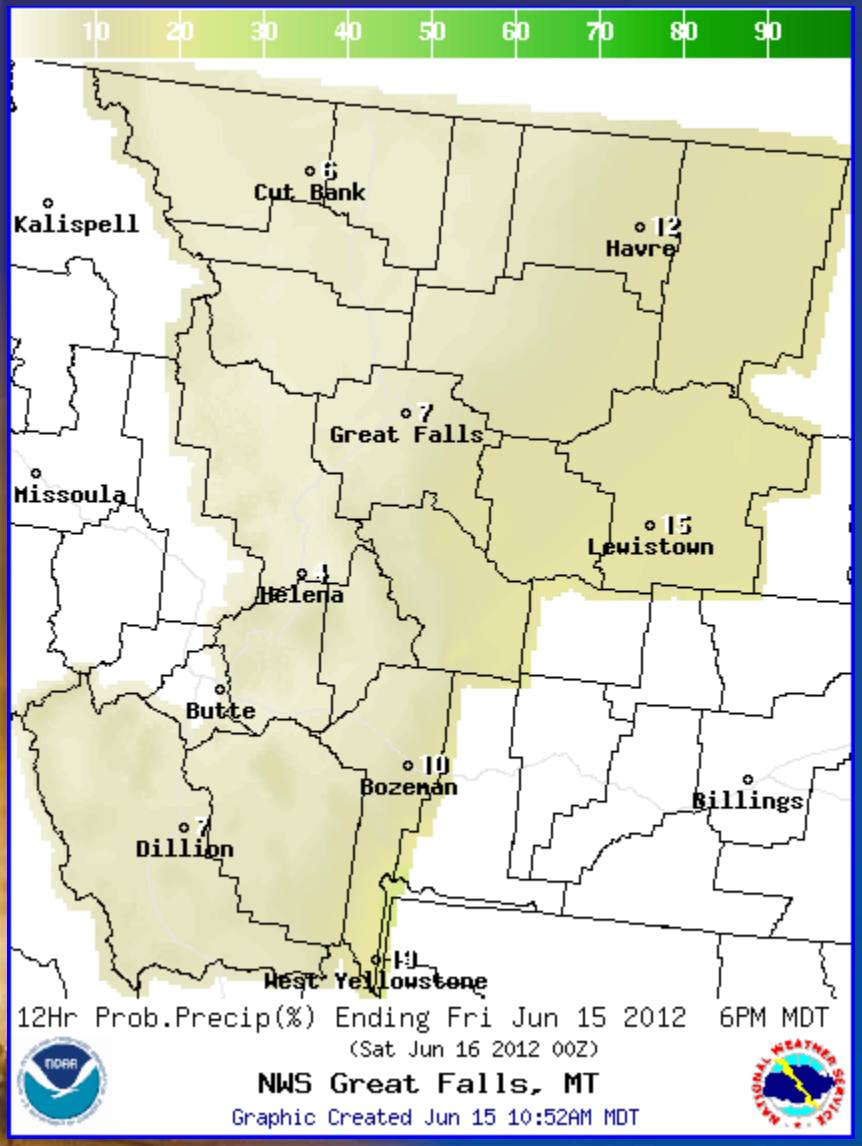
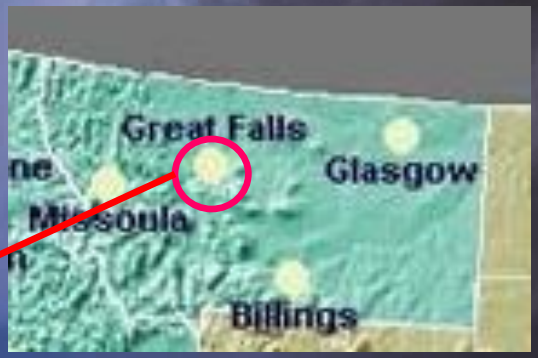
- Ray Nickless (Service Hydrologist)
  - Ph# 406-329-4712 ray.nickless@noaa.gov

# Montana NWS Locations




## Office Contacts

- Michael Mercer (Meteorologist in Charge)
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- Christopher Foltz (Warning & Coordination Meteorologist)
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- Gina Loss (Service Hydrologist)
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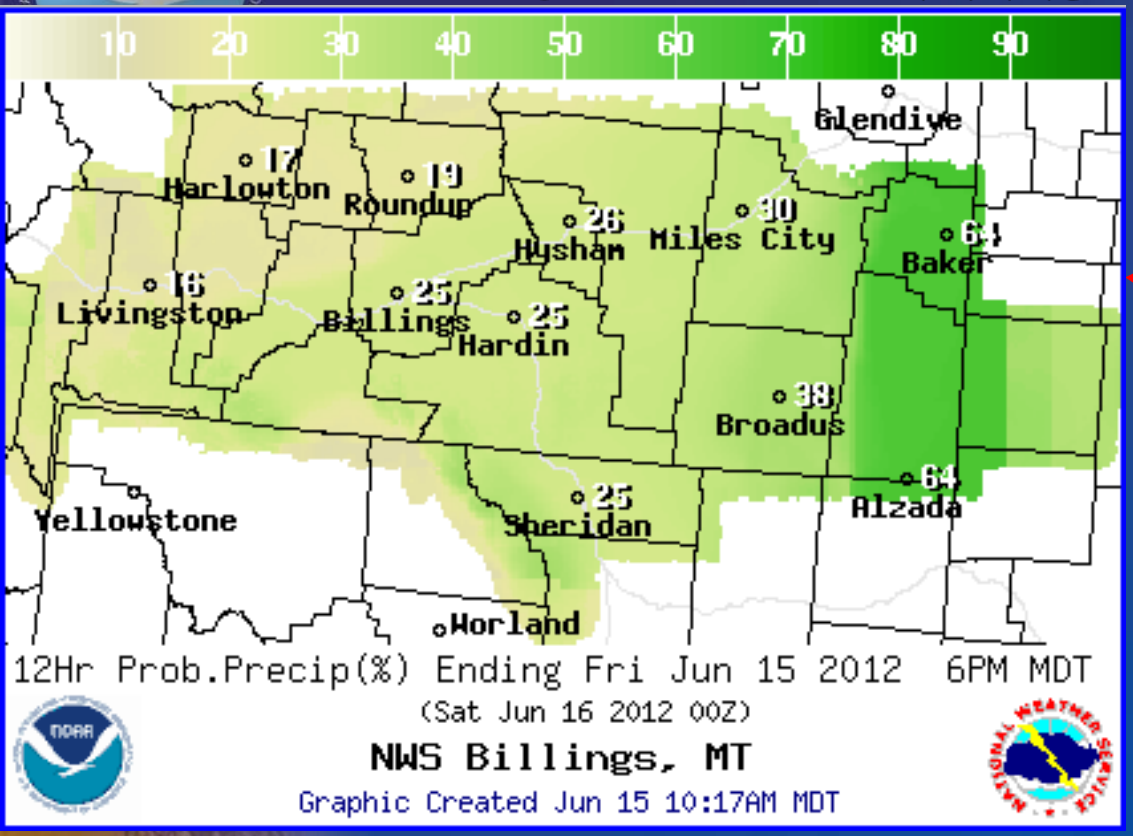
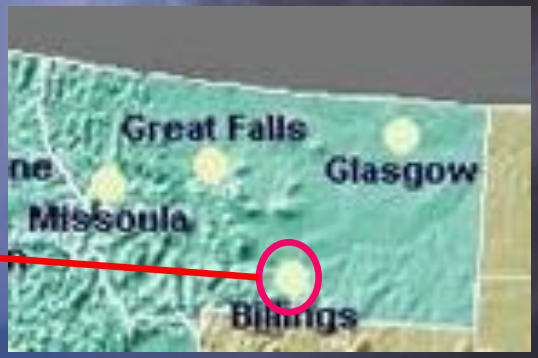
# Montana NWS Locations




## Office Contacts

- Keith Meier (Meteorologist in Charge)
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- Tom Frieders (Warning & Coordination Meteorologist)
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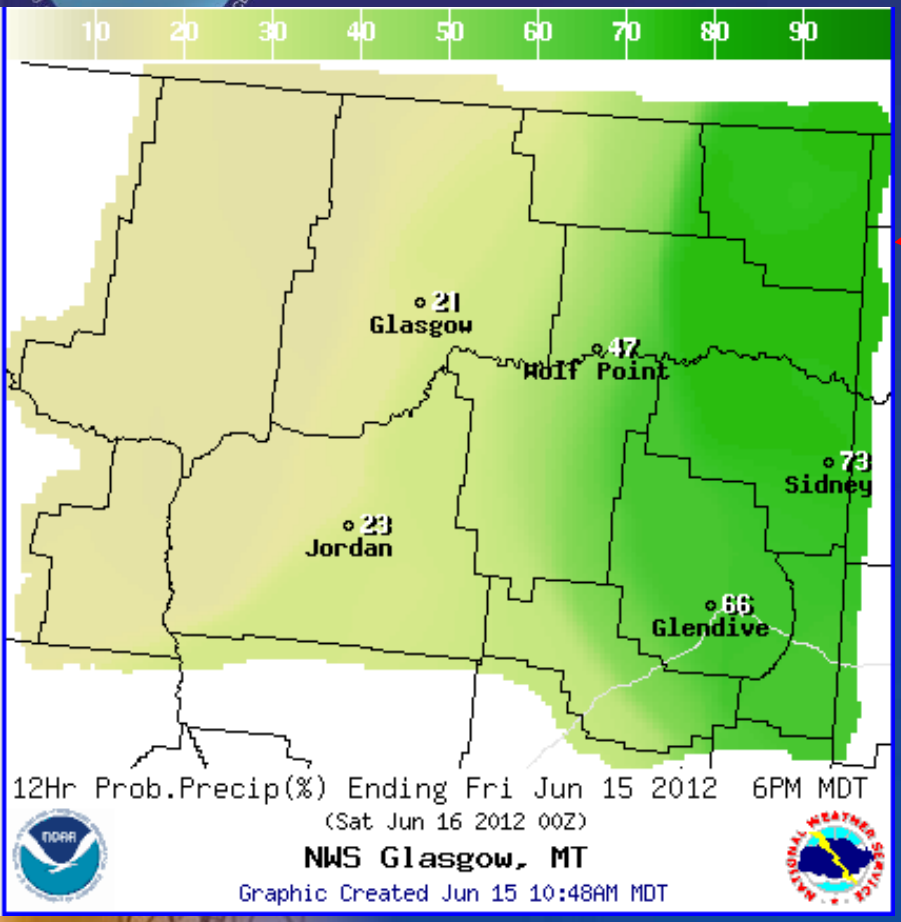
# Montana NWS Locations



## Office Contacts

- Benjamin Moyer (Meteorologist in Charge)
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- Tanja Fransen (Warning & Coordination Meteorologist)
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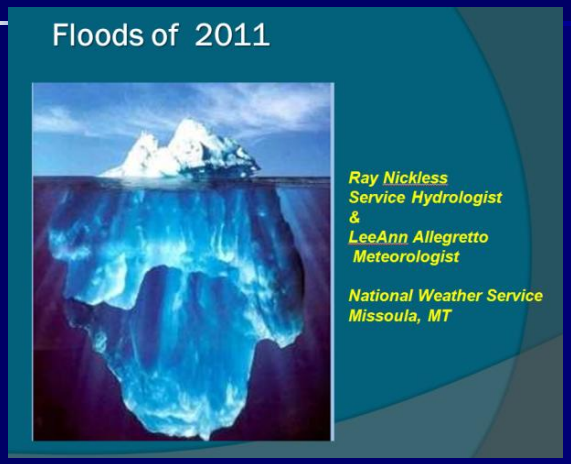
# Decision Support Services (DSS) NWS

Gotomeetings & conf. calls




Public meetings (FEMA, DES, Media)

## Officials: Signs point to flooding in western Montana

The last 100-year flood to hit Missoula was more than 100 years ago - in 1908.

"If you believe in statistics, we're due for (a big flood event) sometime soon," said Todd Klietz, flood plain administrator for the Missoula County Office of Planning and Grants.

Klietz, who offered up his warning Thursday at a meeting about flood risk this year, admitted he's been called everything from Chicken Little to Noah. And while it may not be the big one this year, Ray Nickless, with the NOAA National Weather Service, evaluated some 40 years of snowpack and shared his conclusion that high water is on its way.

"This year, we're at 115 percent of average," Nickless said of snowpack in the upper Clark Fork River basin. "So what does that mean? Flooding."

County or State (Emergency Operations Centers)

# Example of NWS Gotomeeting

- Email on gotowebinar
  - Typically 1 to 4 days in advance with short description of impending weather event.

Example: gotowebinar

# Flood Potential for Spring 2011

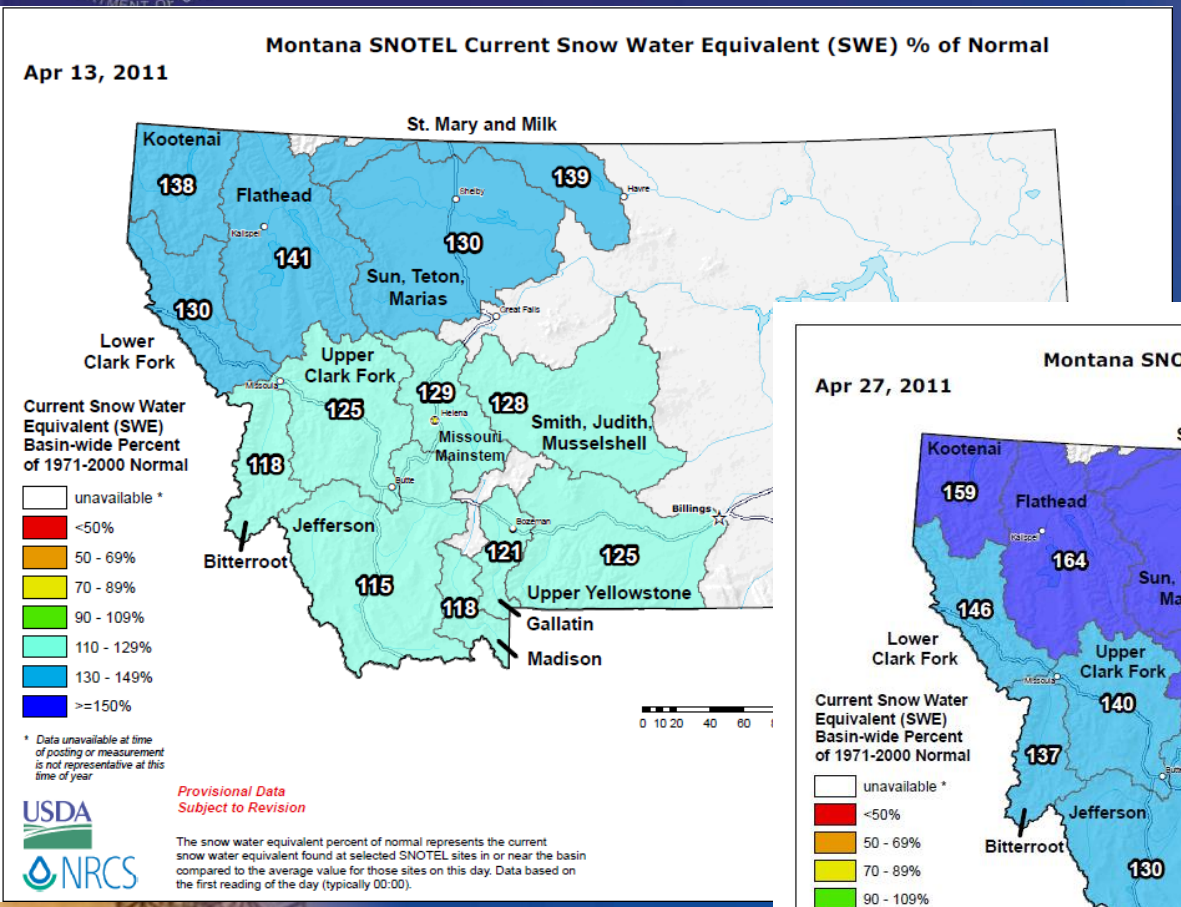
*by*
*Ray Nickless*
*(Service Hydrologist –NWS Missoula, MT)*

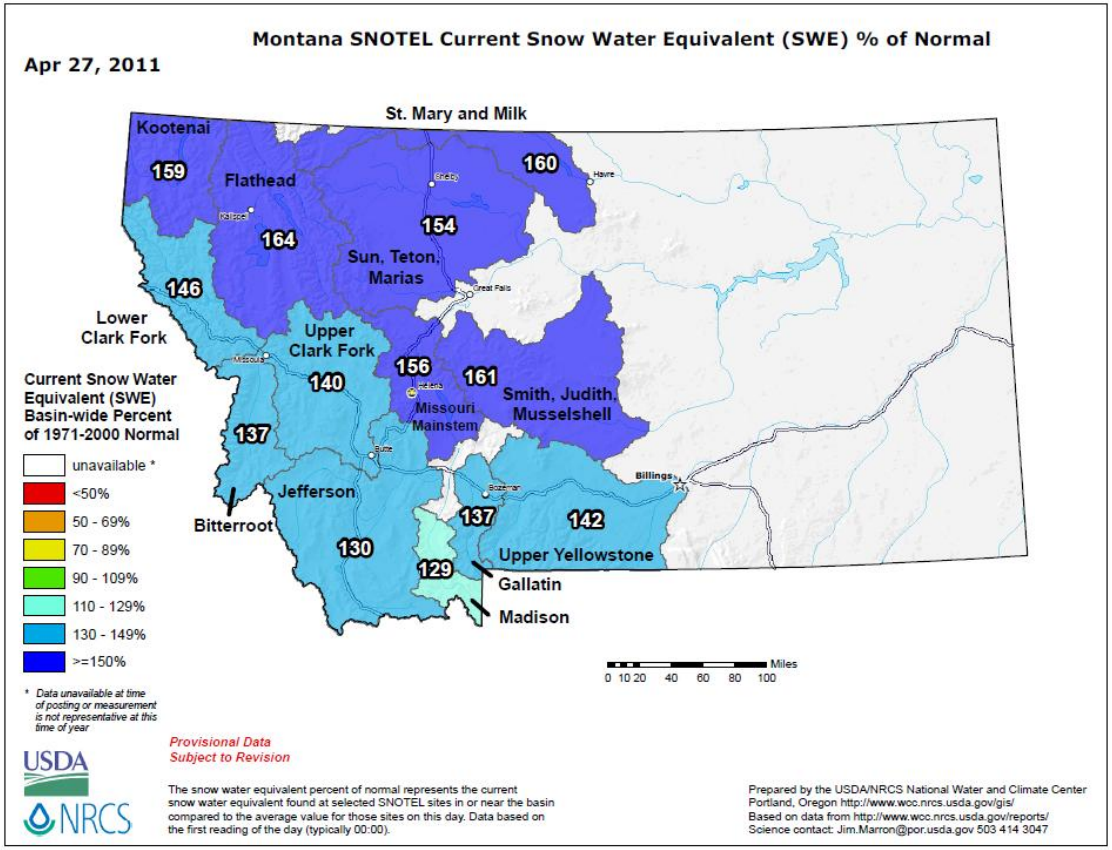
# Example: gotowebinar

## 2 weeks ago

## Snowpack

## Current



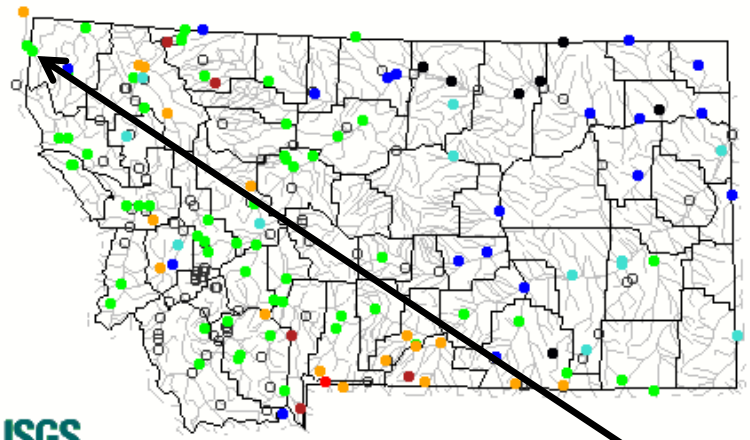



# Example: gotowebinar

## Daily Streamflow Conditions

**Select a site to retrieve data and station information.**

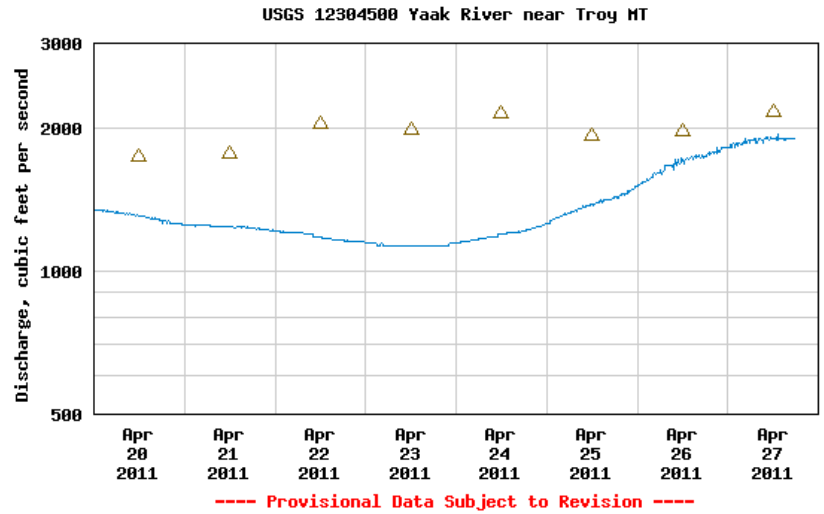
Wed., Apr. 27, 2011 20:30ET



USGS

**Discharge, cubic feet per second**

Most recent instantaneous value: 1,890 04-27-2011 17:45 MDT




Create presentation-quality / stand-alone graph. Subscribe to WaterAlert

**Daily discharge statistics, in cfs, for Apr 27 based on 54 years of record** more

| Min (2008) | 25th percen-tile | Most Recent Instantaneous Value Apr 27 | Median | Mean | 75th percen-tile | Max (1974) |
|---|---|---|---|---|---|---|
| 618 | 1500 | 1890 | 2160 | 2420 | 3000 | 6840 |

Example: gotowebinar

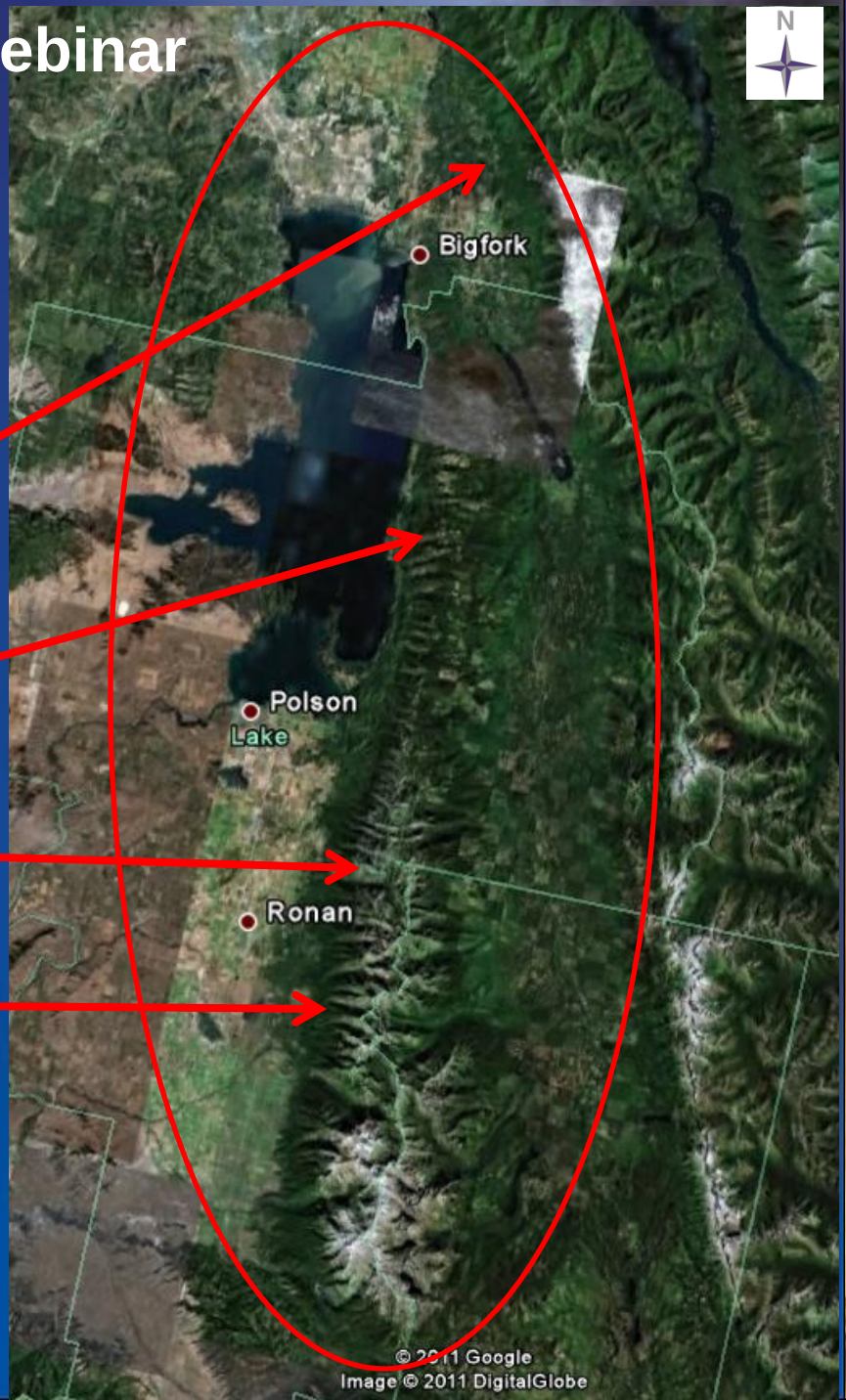
# Lake & Flathead County Flood Potential

*(Spring 2011)*

# Example: gotowebinar

# Mission mountains and Northern Swan Range:

Small creek flooding from numerous creeks along Mission Mountains, along east side of Flathead Lake, and in an area north of Bigfork.




weather.gov

# Flathead Rivers

Example: gotowebinar

**Flood Stage = 12 ft**

**Forecast = 12.0 to 12.5 ft**

**Historical Crests**
(1) 16.90 ft on 06/07/1995
(2) 12.50 ft on 06/02/1997
(3) 12.08 ft on 06/09/1996
(4) 11.17 ft on 05/29/1986
(5) 10.76 ft on 05/11/1976

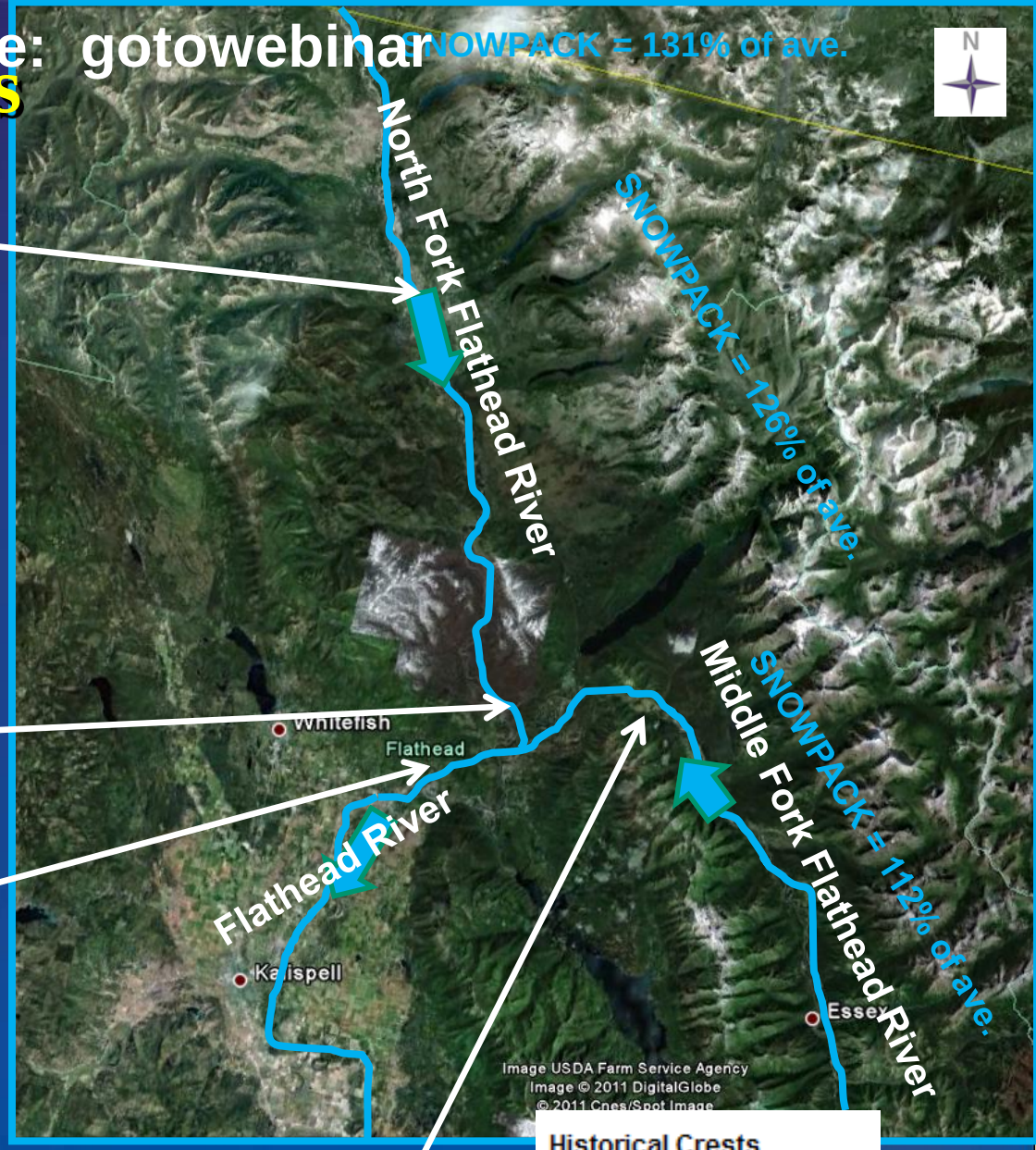
**Flood Stage = 13 ft**

**Forecast = 12 to 13 ft**

**Flood Stage = 14 ft**

**Forecast = 14.0 to 16.0 ft**

**Historical Crests**
(1) 25.58 ft on 06/09/1964
(2) 22.70 ft on 06/01/1894
(3) 19.08 ft on 05/23/1948
(4) 18.71 ft on 05/27/1928
(5) 17.63 ft on 06/16/1933




**Flood Stage = 10 ft**

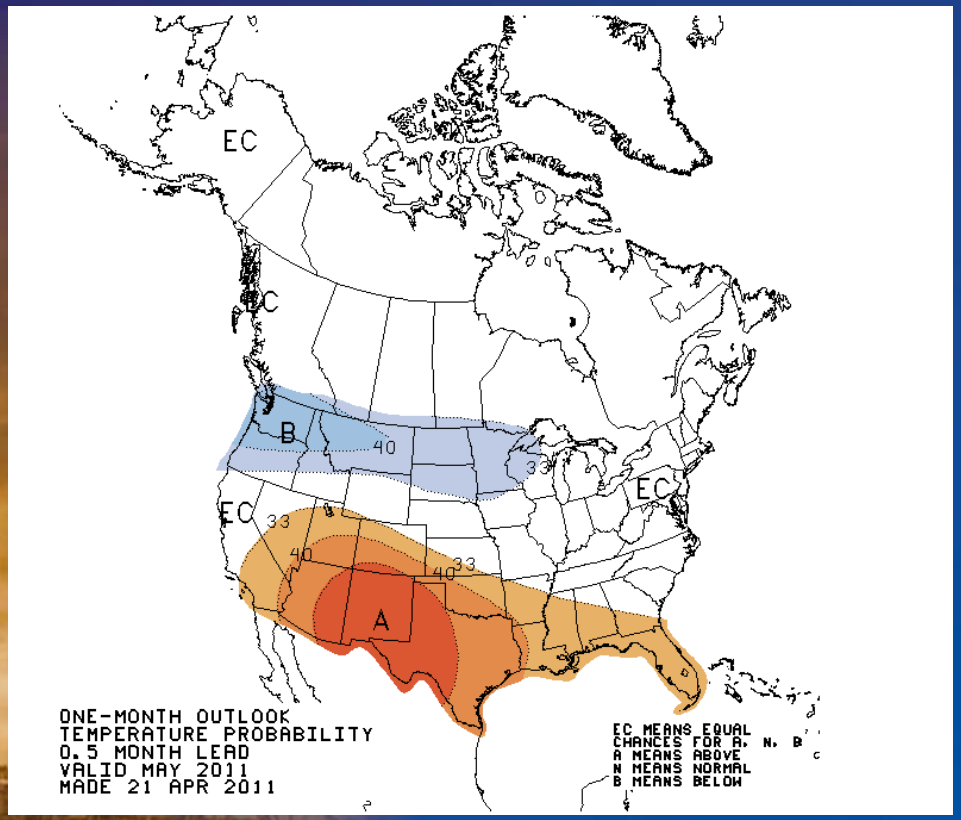
**Forecast = 10.1 to 11.3 ft**

**Historical Crests**
(1) 36.46 ft on 06/09/1964
(2) 19.42 ft on 06/20/1975
(3) 13.01 ft on 05/20/1954
(4) 12.40 ft on 05/19/1991
(5) 12.40 ft on 05/23/1948

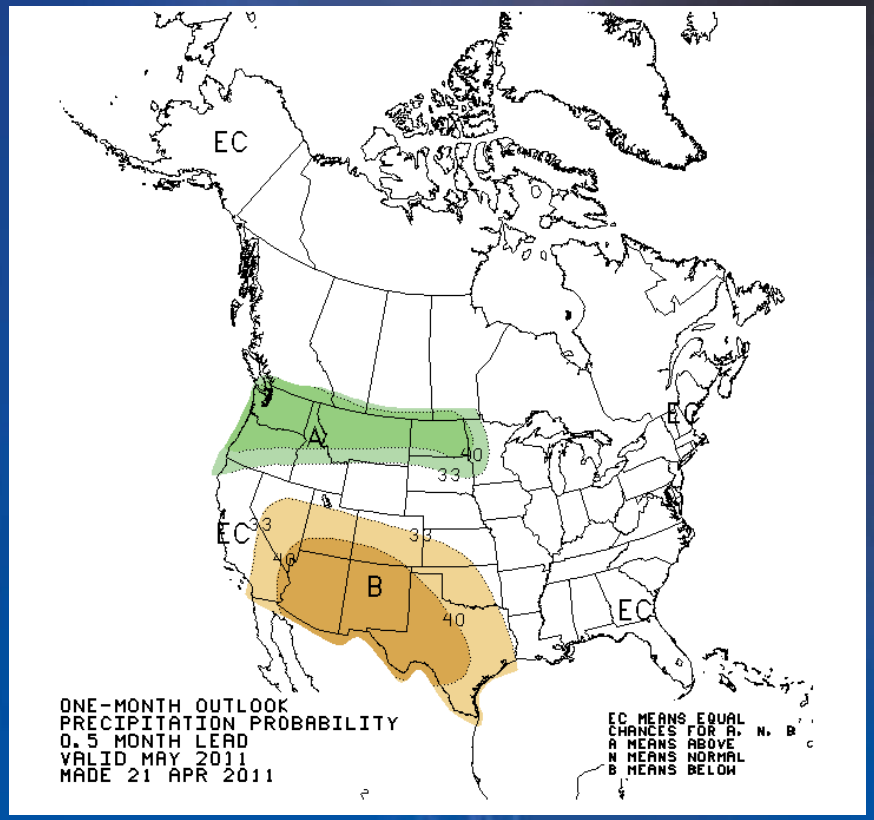
Example: gotowebinar

# May Weather Outlook

## Temperature




## Precipitation



# Example: gotowebinar

# May & June - 2011

**Kalispell**

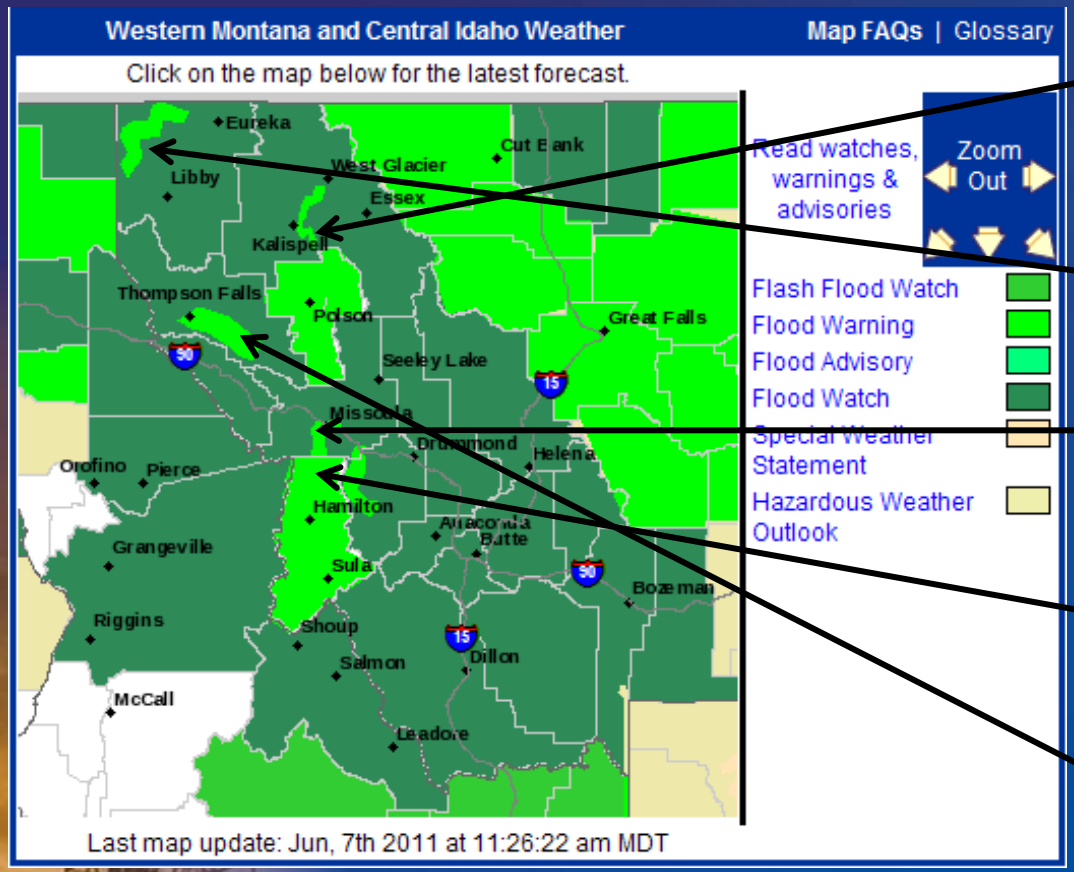
**Deer Lodge**

**Clark Fork River near Missoula**

**Arlee**

# Example: gotowebinar

# May & June - 2011




**National Weather Service Missoula Website on June 7, 2011**

- Stillwater River
- Whitefish River
- Trumbull Creek
- Yaak River
- Clark Fork River in Missoula
- Bitterroot River
- Clark Fork River near Plains
- Thompson River

# Questions?