# Special Hydrology Briefing

Tuesday-May 22, 2018

National Weather Service

Spokane, WA

Jeremy Wolf

River & Weather Forecasts change. Please check our website for updates.

www.weather.gov/Spokane

water.weather.gov/ahps2/index.php?wfo=otx



## **Weather Outlook**

- Tuesday: Warm and Dry. Widespread 80s.
- Wednesday and Thursday: Continued warm.
   Chance of showers and thunderstorms.
- Friday/Saturday: Cooling trend into 70s and low 80s. Chance of showers and thunderstorms.
- Sunday/Memorial Day: Drying trend. Warming up?
- Outlook for next week: Warmer than normal but not as hot as recent warm spells, mainly mountain showers

## Field Hazards This Weekend

### **Tuesday:**

- Temperatures 10-15 degrees above normal.
- Heat and Sun Exposure

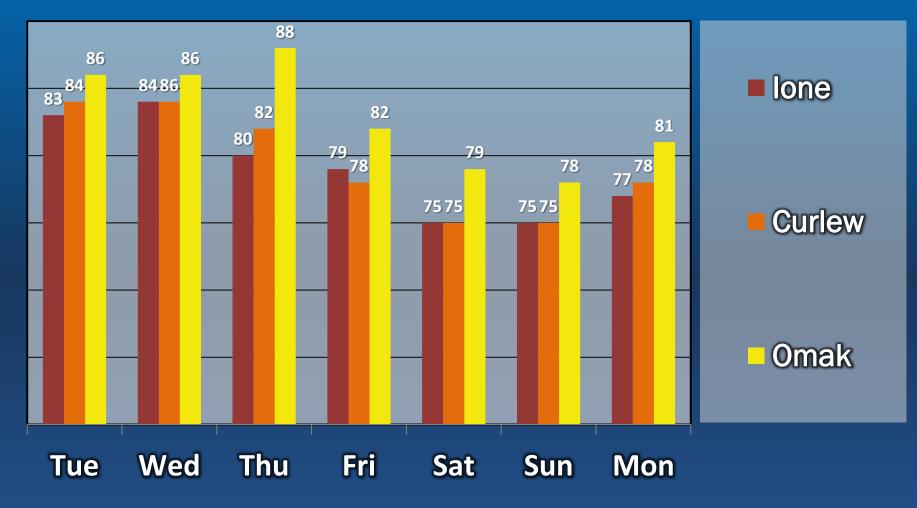


### **Wednesday through Saturday:**

- Temperatures remain well above normal through Thursday or Friday.
- Heat, sun exposure, and lightning



# **High Temperature Trend**



Steady warming through midweek.

# **Current & Forecast Flooding**



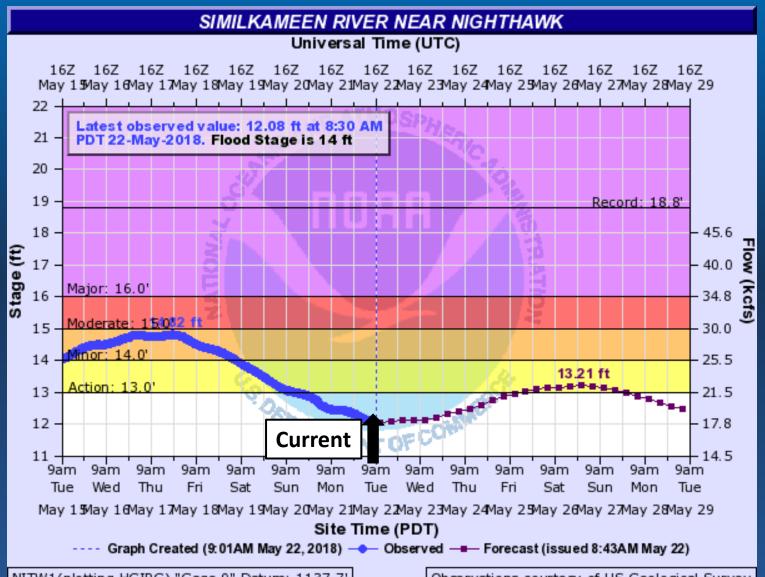
River	Current Flood State	Forecast Flood State
Okanogan	Moderate	Moderate
Pend Oreille	Minor	Moderate
Lake Pend Oreille	Minor	Minor
Kettle	Below Flood	Near Flood
Stehekin	Near Flood	Minor
Methow	Below Flood	Near Flood
Similkameen	Below Flood	Near Flood
Kootenai	Near Flood	Near Flood
St. Joe	Below Flood	Near Flood
Entiat	Below Flood	Below Flood

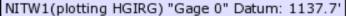
# Okanogan & Ferry Counties

There are numerous small creeks, rivers and lakes that will experience renewed flooding this week due to warming temperatures.



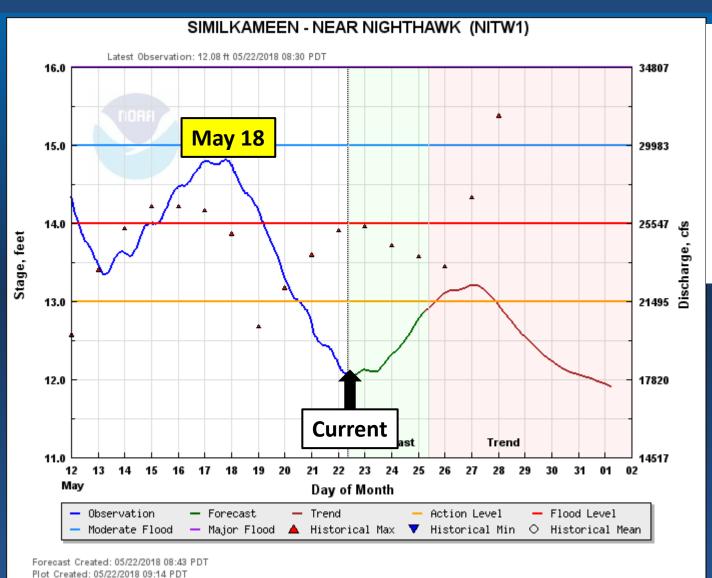
## Similkameen River





Observations courtesy of US Geological Survey

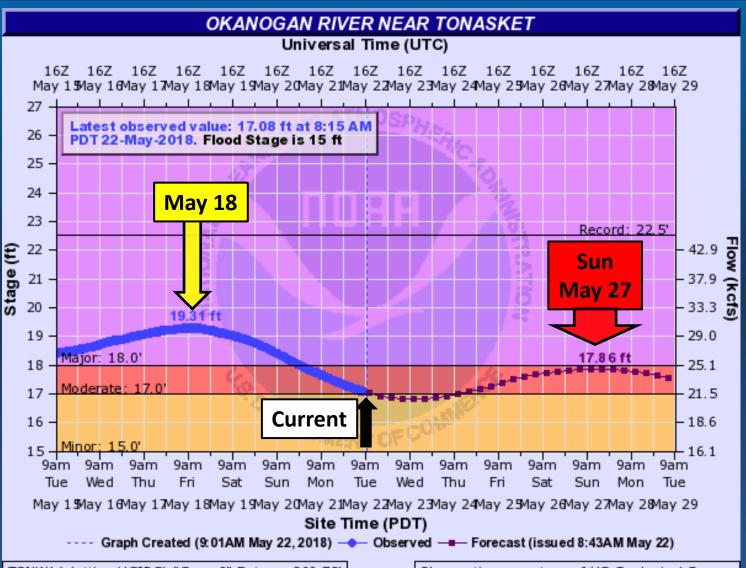
## Similkameen River



#### **Historic Crests**

- (1) 17.97 ft on 06/01/1972
- (2) 17.62 ft on 05/30/1948
- (3) 15.52 ft on 06/17/1974
- (4) 15.50 ft on 05/11/2018
- (5) 15.47 ft on 06/17/1950
- (6) 15.13 ft on 06/13/1955
- (7) 14.96 ft on 04/26/1934
- (8) 14.76 ft on 05/15/1949
- (9) 14.59 ft on 05/17/1997
- (10) 14.25 ft on 05/22/1991

# Okanogan River



## Sustained high flows

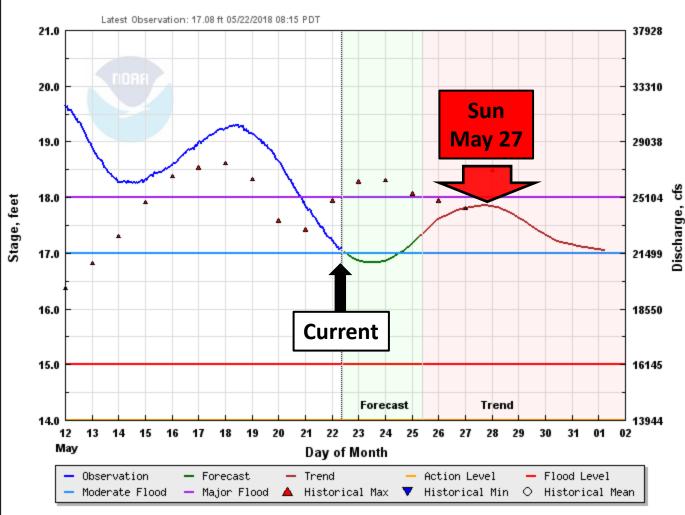
- Increased water table and flood issues
- Saturated banks, roadbeds, levees
- Erosion

TONW1 (plotting HGIRG) "Gage 0" Datum: 860.78'

Observations courtesy of US Geological Survey

# **Okanogan River**





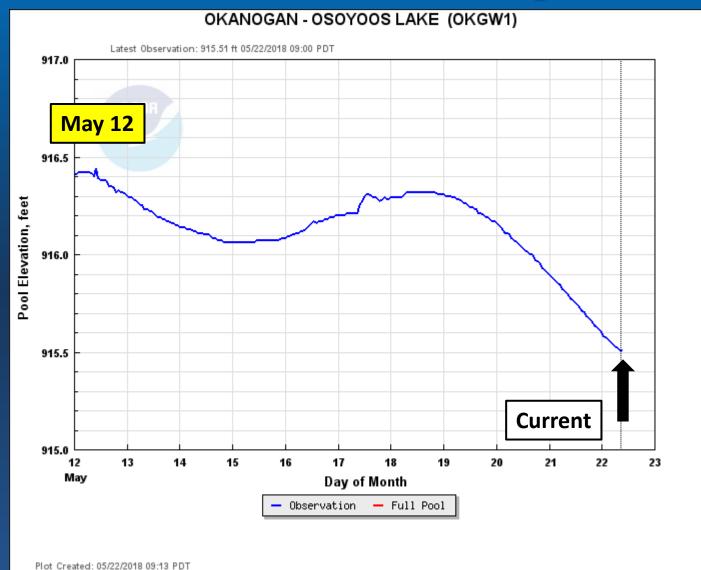
Forecast Created: 05/22/2018 08:43 PDT Plot Created: 05/22/2018 09:15 PDT

Observations Provided by USGS

#### **Historic Crests**

- (1) 22.54 ft on 06/02/1972
- (2) 21.79 ft on 05/31/1948
- (3) 19.71 ft on 05/12/2018
- (4) 18.79 ft on 06/19/1974
- (5) 18.66 ft on 06/18/1950
- (5) 18.00 ft off 00/18/1950
- (6) 18.31 ft on 04/27/1934
- (7) 18.12 ft on 06/14/1955
- (8) 18.05 ft on 05/17/1949
- (9) 17.80 ft on 05/18/1997
- (10) 17.62 ft on 06/11/2011

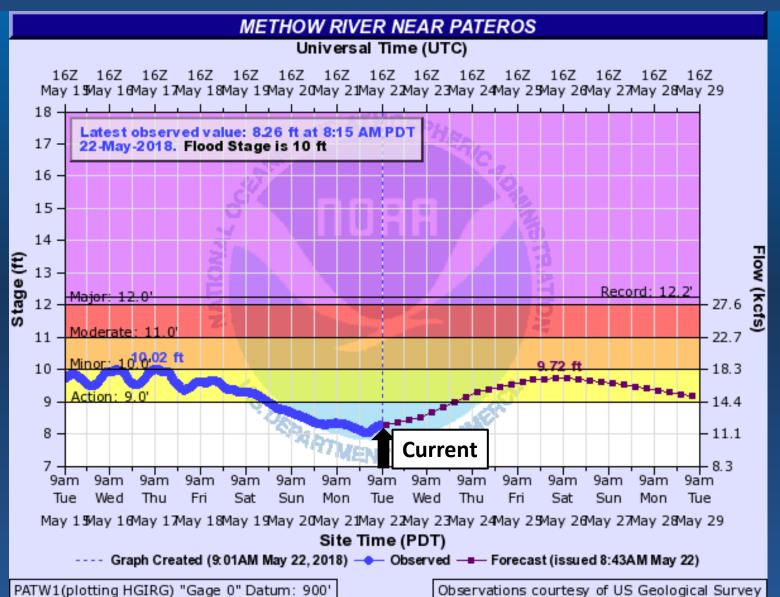
# Lake Osoyoos



Flooding occurs above 914ft + Winds cause wave erosion

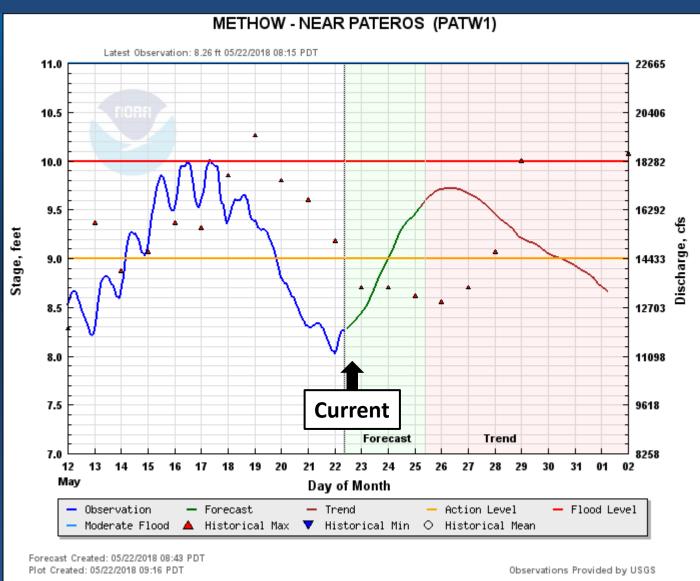
My see slight additional rises later this week as Similkameen rises again

## **Methow River**





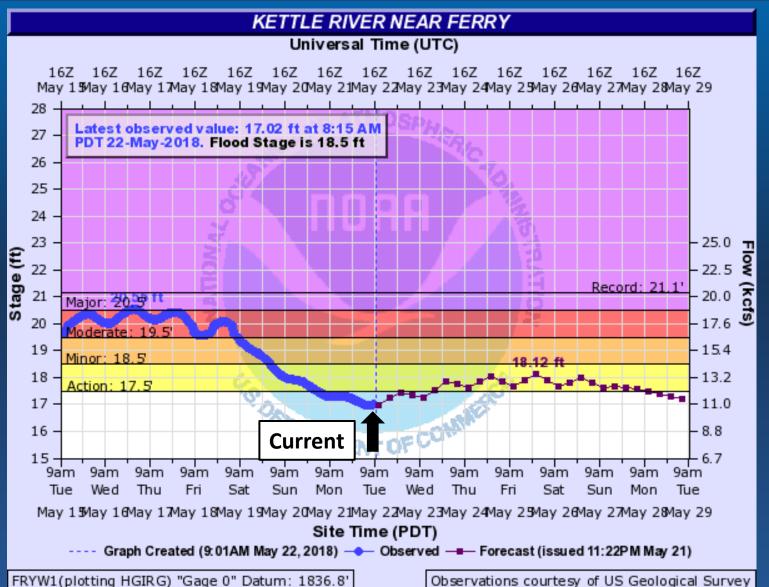
## **Methow River**



#### **Historic Crests**

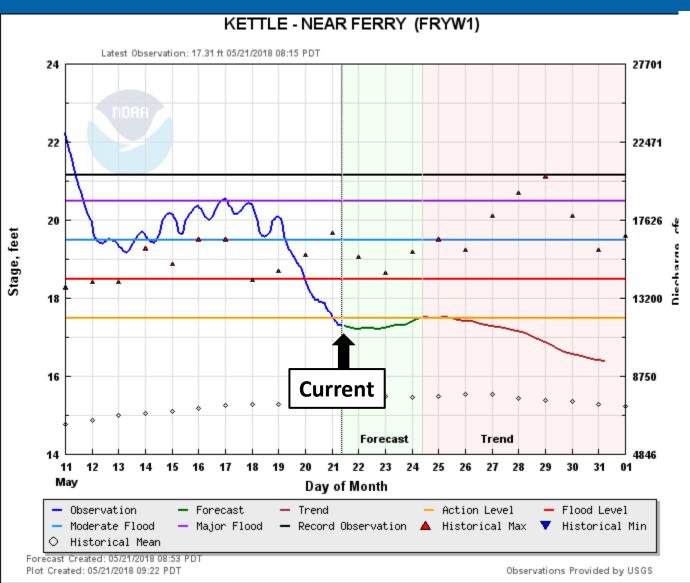
- (1) 12.25 ft on 05/31/1972
- (2) 11.26 ft on 06/17/1974
- (3) 10.68 ft on 05/31/1983
- (4) 10.65 ft on 05/10/2018
- (5) 10.63 ft on 05/19/2006
- (6) 10.61 ft on 06/22/1967
- (7) 10.52 ft on 06/17/1999
- (8) 10.31 ft on 06/01/2017
- (9) 10.21 ft on 05/19/2008
- (10) 10.00 ft on 05/24/2017

# **Kettle River @ Ferry**





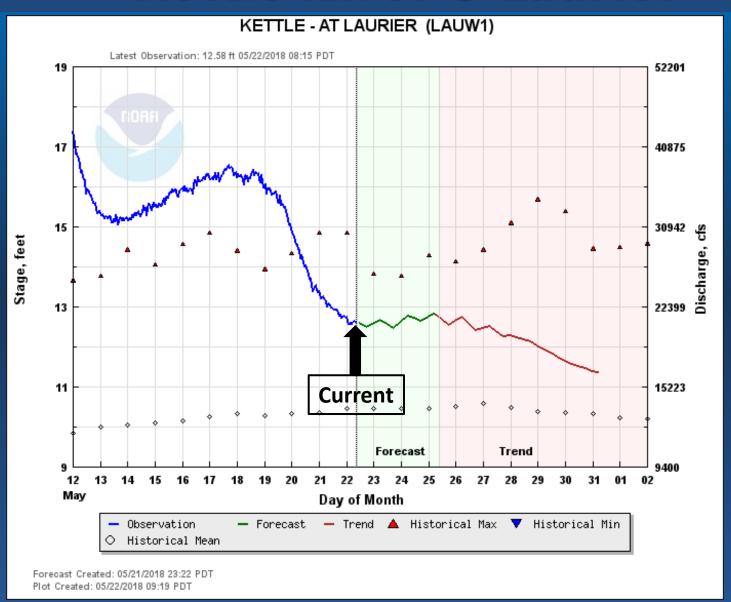
## **Kettle River**



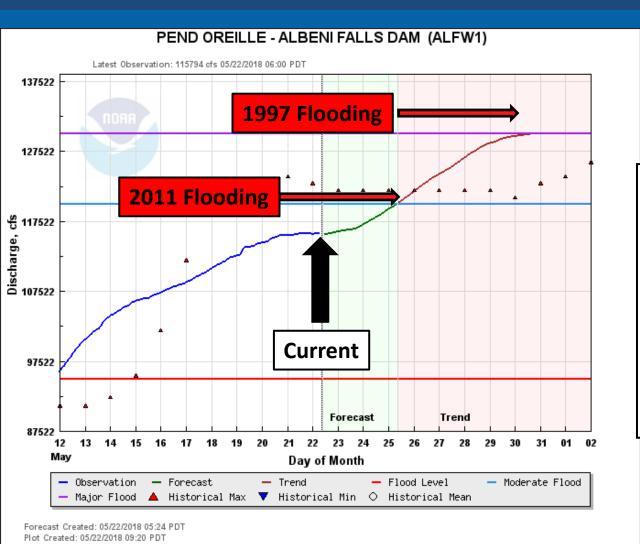
#### Historic Crests

- (1) 22.54 ft on 05/11/2018
- (2) 21.15 ft on 05/29/1948
- (3) 20.85 ft on 06/01/1997
- (4) 20.67 ft on 05/07/2017
- (5) 20.54 ft on 05/27/1942
- (6) 20.18 ft on 05/22/2006
- (7) 19.69 ft on 06/01/1972
- (8) 19.60 ft on 05/21/1956
- (9) 19.56 ft on 05/25/2017
- (10) 19.52 ft on 05/14/1971

## **Kettle River @ Laurier**



## **Pend Oreille River**

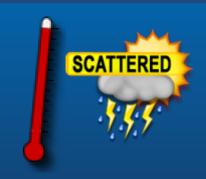


#### Historic Crests

- (1) 200,000 cfs on 06/01/1894
- (2) 167,000 cfs on 06/01/1948 (P)
- (3) 136,400 cfs on 06/12/1972
- (4) 133,600 cfs on 06/23/1974
- (5) 132,000 cfs on 06/05/1997
- (6) 127,000 cfs on 06/04/1956
- (7) 120,200 cfs on 06/16/2011 (P)
- (8) 120,000 cfs on 06/18/1964
- (9) 115,000 cfs on 06/08/1961
- (10) 106,400 cfs on 06/11/1967

## Summary

 Temperatures well above normal. Chance of showers and thunderstorms Wednesday through Saturday.



 Rivers in northcentral WA will see another rise through the week, although not as high as the previous flood crest. Pend Oreille river will continue to rise into early next week.



 A return to higher flows could be problematic for saturated levees, road beds, and eroding river banks.