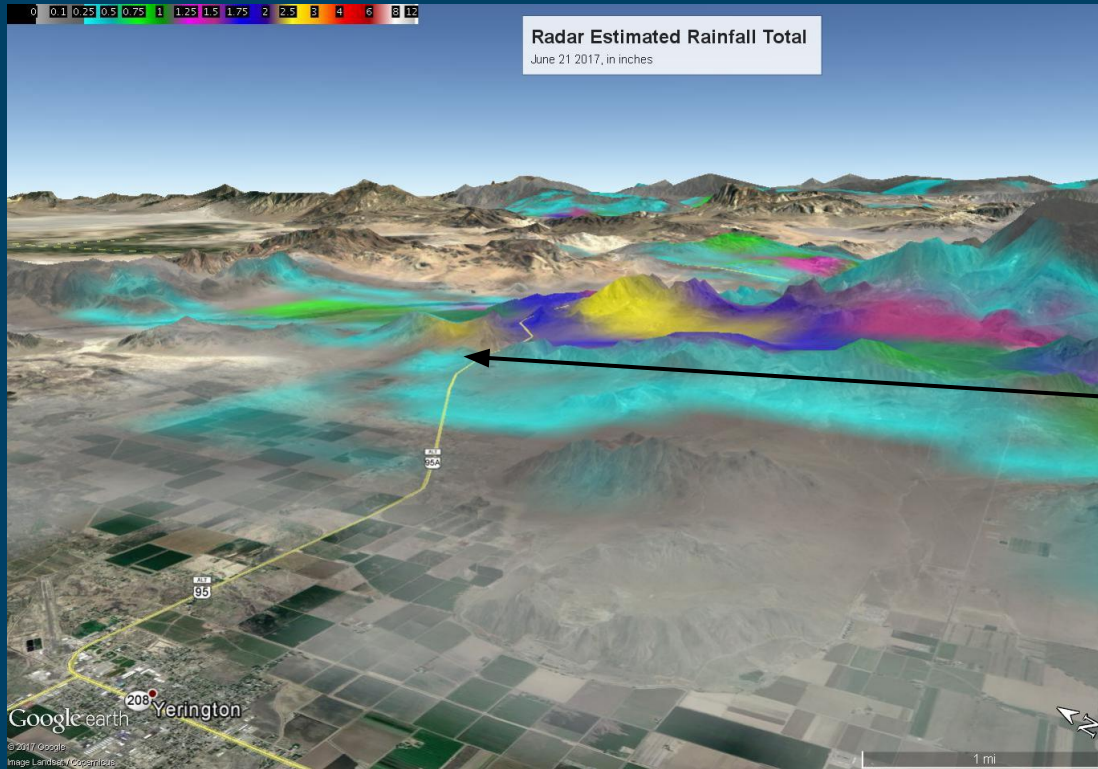


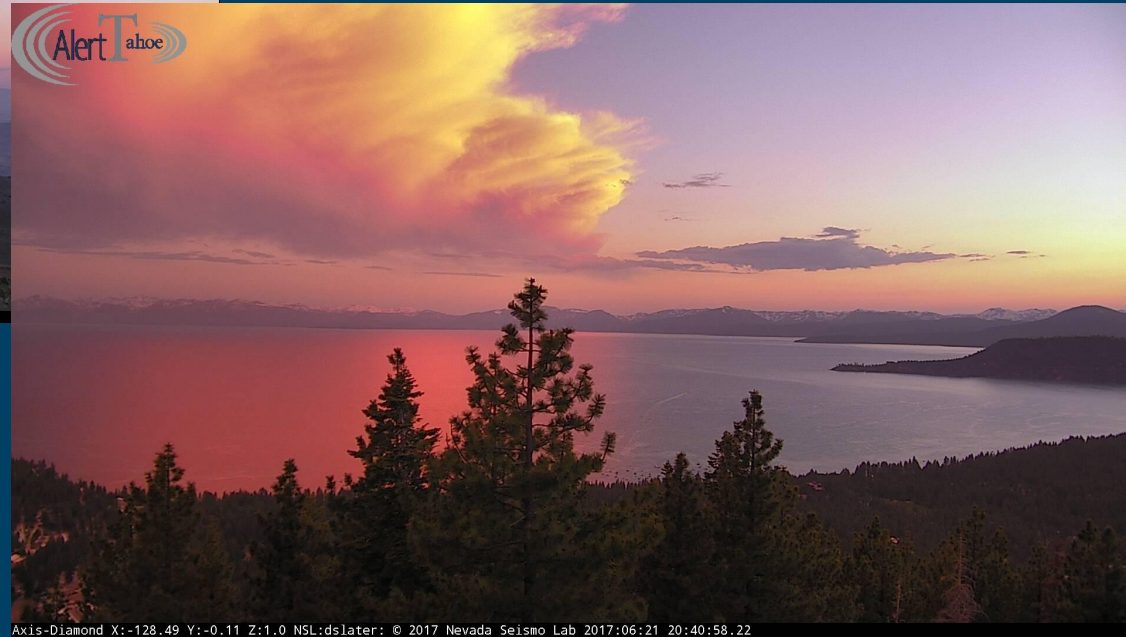
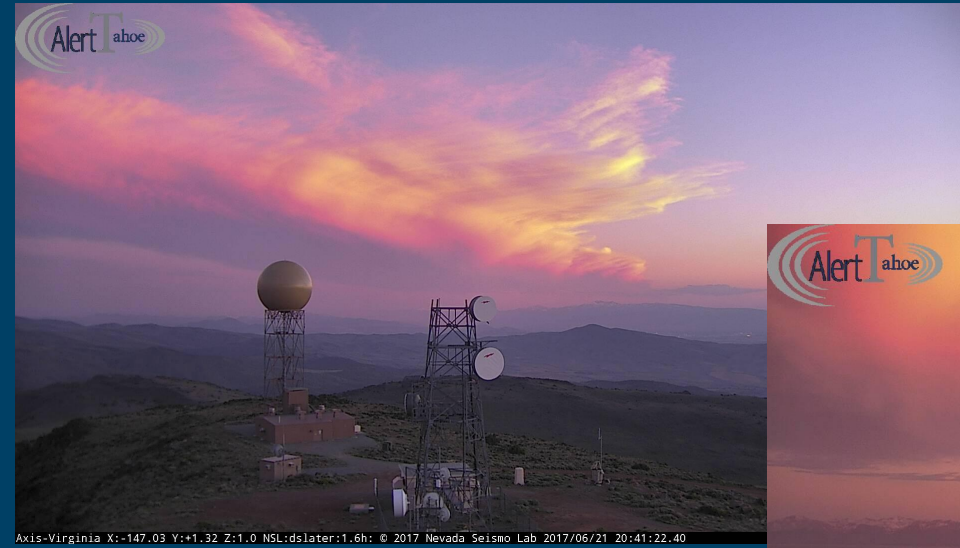
Thunderstorms Created Flash Flooding



Bonanza Lane flash flood, from Lyon Co SO video clip



but Also Spectacular Sunsets!!



Short Attention Span Brief Weather

- **Hot temperatures ramping back up for weekend, high confidence.** Cool down next week looking more likely but more “seasonable” than “cool”.
- Factoid -- Reno’s high of 98°F Wednesday was cooler than Death Valley’s low temperature of 99°F as of 5 AM this morning...
- **Heat health issues remain possible** through weekend. Get work or outdoor activities done early in the day. Hydrate! First responders, fire fighters especially! **Watch for heat health impacts at outdoor events this weekend.**
- **Thunderstorms** remain possible each afternoon/evening over mountains and adjacent areas. Mainly isolated coverage; localized winds, flash flooding, lightning. New fire starts remain possible from any storm.

Short Attention Span Brief Hydrology

- **Continued minor to moderate flooding** on rivers streams draining high elevation terrain (Walker River and Mono county streams) with persistent heat through weekend.
- Flows this morning on many Mono County streams as high or higher than earlier this week. West Walker near Sonora Jct -- I'm 70% confident that we're past peak flows, but not a guarantee. Could still see another spike with weekend hot temps.
- High flows until further notice -- **may cause additional and unexpected impacts.**
- Mason Valley continuing rise into **moderate and possible major flood stage** depending on continued flood plain storage and attenuation as well as management and reservoir capacity.
- **Don't let your guard down on other creeks and streams** draining high elevation terrain (Including Galena Creek and others draining Mt. Rose). Very High flows through the weekend.
- **Average to high forecast confidence in headwaters (low to average - Mason and Wabuska).**

Situational Awareness - When Should I Freakout?

Chris' 7-Day Regional Freakout Forecast for the Sierra and western Nevada

	Today ^{6/22}	Friday ^{6/23}	Saturday ^{6/24}	Sunday ^{6/25}	Monday ^{6/26}	Tuesday ^{6/27}	Wed. ^{6/28}
Wind	Typical slope or zephyr winds, mainly under 10-15 mph				Increased W/SW winds each afternoon, gusts 30-35 mph type stuff		
River & Snowmelt Flooding	Widespread moderate flooding E Sierra streams, Walker River. Possibly nearing or exceeding major flooding on Walker at Mason late this week or weekend, depending on reservoir management and when Topaz fills. Remaining basins such as Tahoe, Truckee, Carson, Humboldt will see high flows with only minor spot flooding issues.					Anticipating even with warm temps, rivers will start “running out of gas” due to diminishing snow covered areas	
Flash Flooding (fast paced, localized flooding outside of rivers)	Drier air working in from northeast - lowers flash flooding risk some		Flash flooding possible from storms as moisture returns to region		Low predictability this far out		
Thunderstorms	Pretty much daily isolated storms over mountains and adjacent areas - mainly eastern Sierra, central Nevada, far NE California. Hazards - the usual strong outflow winds, lightning, localized heavy rains and flash flooding						
Unusual Cold or Heat	Continued daily heat health concerns for sensitive groups, first responders, and people outdoors all day in most lower elevation valleys of W Nevada, E Sierra, NE California					Cooling to more typical temps. Enjoy!	
Fire Weather	Continued heat + low humidity = very dry gasses, drying sage/PJ fuels fast moving grass fires could occur during afternoon winds				Increased winds, possibly approaching critical fire weather conditions in afternoons; “enhanced zephyr” scenarios		
Air Quality (primarily from wildfire smoke plumes and local AQMD inputs)	Localized smoke, haze impacts downwind of ongoing fires, ozone in urban centers		Low predictability this far out				

What Does This Mean?

Integrates impacts and confidence

No worries



Low

freakoutness



Moderate

freakoutness



High

freakoutness



Really bad



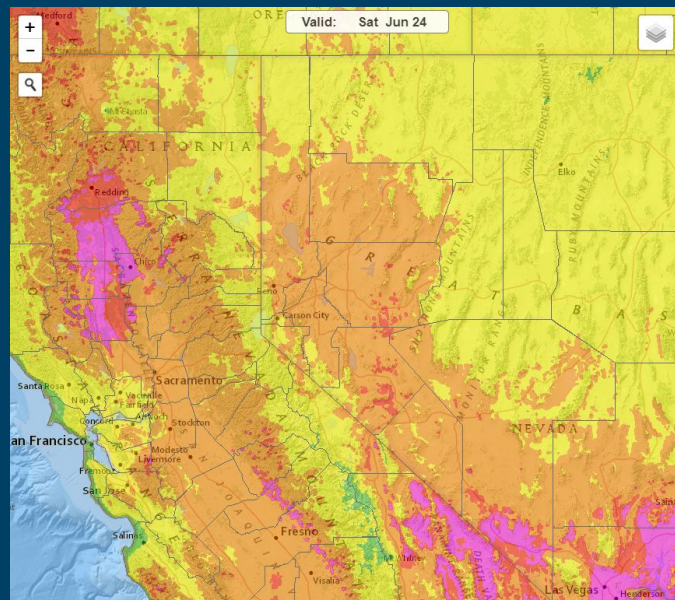
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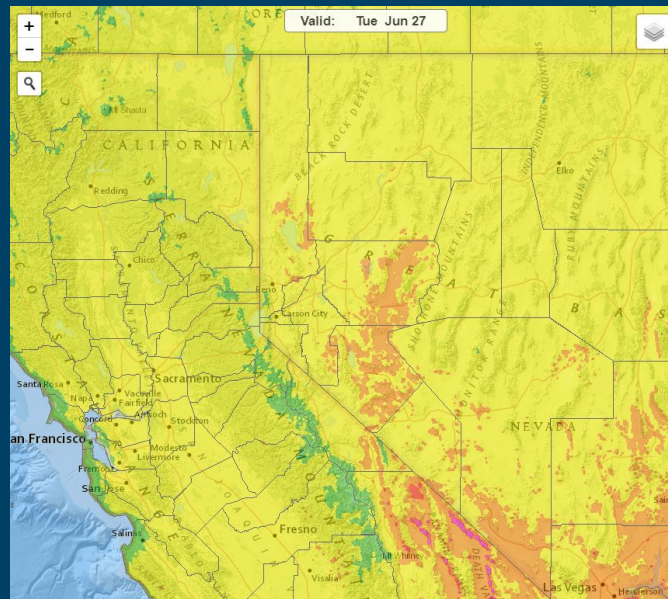
Temperature Trends

Hot through Weekend, then Cooling



Pretty similar values Thursday-Sunday

Cooling to near normal starting Monday



Heat Risk Levels

Green	0	No Elevated Risk
Yellow	1	Low Risk for those extremely sensitive to heat, especially those without effective cooling and/or adequate hydration
Orange	2	Moderate Risk for those who are sensitive to heat, especially those without effective cooling and/or adequate hydration
Red	3	High Risk for much of the population, especially those who are heat sensitive and those without effective cooling and/or adequate hydration
Magenta	4	Very High Risk for entire population due to long duration heat, with little to no relief overnight

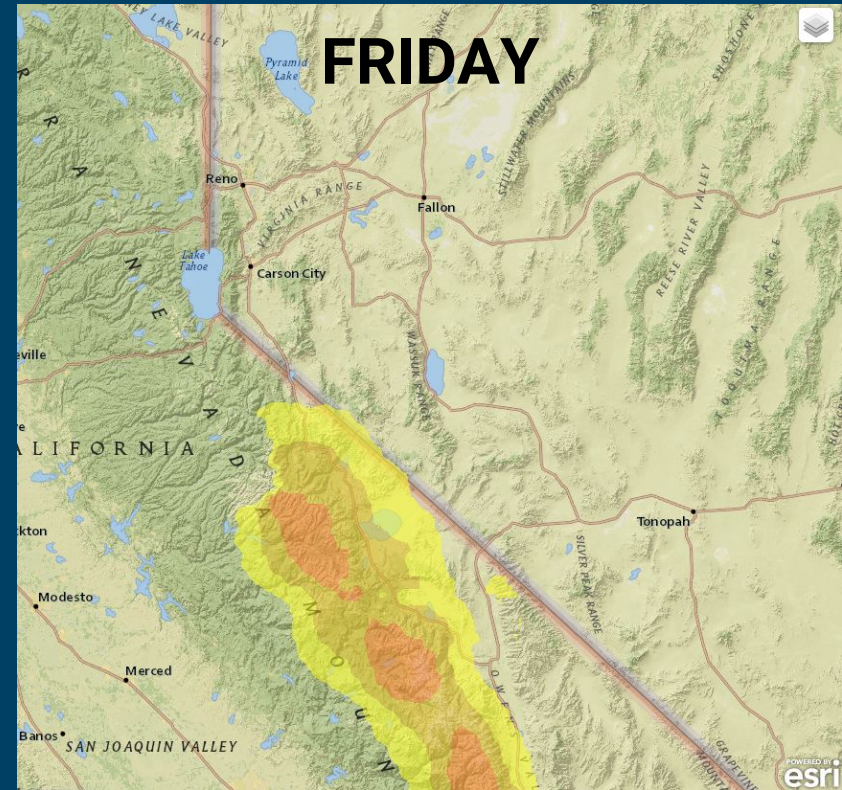
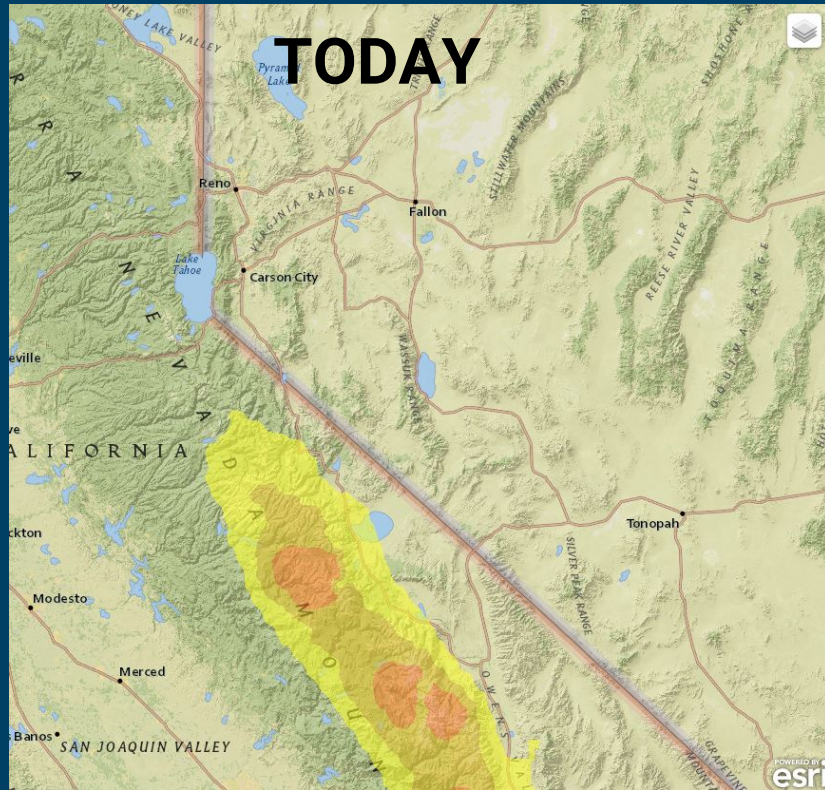
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Thunderstorm Coverage

Mainly Eastern Sierra through Friday, More Widespread Sat/Sun



% Coverage



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Situational Awareness - When Should I Freakout?

Chris & Tim's Rough Sketch on Timing the Highest Risks of Snowmelt Flooding

	Rest of June	July	August
Walker River Basin	widespread moderate to major flooding likely with prolonged heatwave; don't let your guard down	likely downward trend but uncertain how quickly, minor-moderate flooding could continue into July especially along mainstem Walker	high water but likely on downward trend
Carson River Basin	Isolated minor flooding during heatwaves, mainly Carson Valley and upper reaches of E/W forks	above normal flows continue	
Truckee River Basin	heavily regulated system; high flows persist with main flood issues above Truckee, CA	above normal flows continue	
Tahoe Basin Creeks/Streams	high flows persist with areas or minor flooding during heatwaves	high water continues but likely on downward trend; many wide, deep stream crossings for hikers	
NE California Basins	past peak, very localized minor flooding issues		
E Sierra Creeks/Streams	many areas of moderate flooding during heatwaves; don't let your guard down	high water continues but likely on downward trend; many wide, deep stream crossings for hikers	
Lower Humboldt River Basin	high water continues but mainly localized impacts	gradual decrease in flows	

What Does This Mean?
Integrates impacts and confidence

No worries



Low
freakoutness



Moderate
freakoutness



High
freakoutness



Really bad



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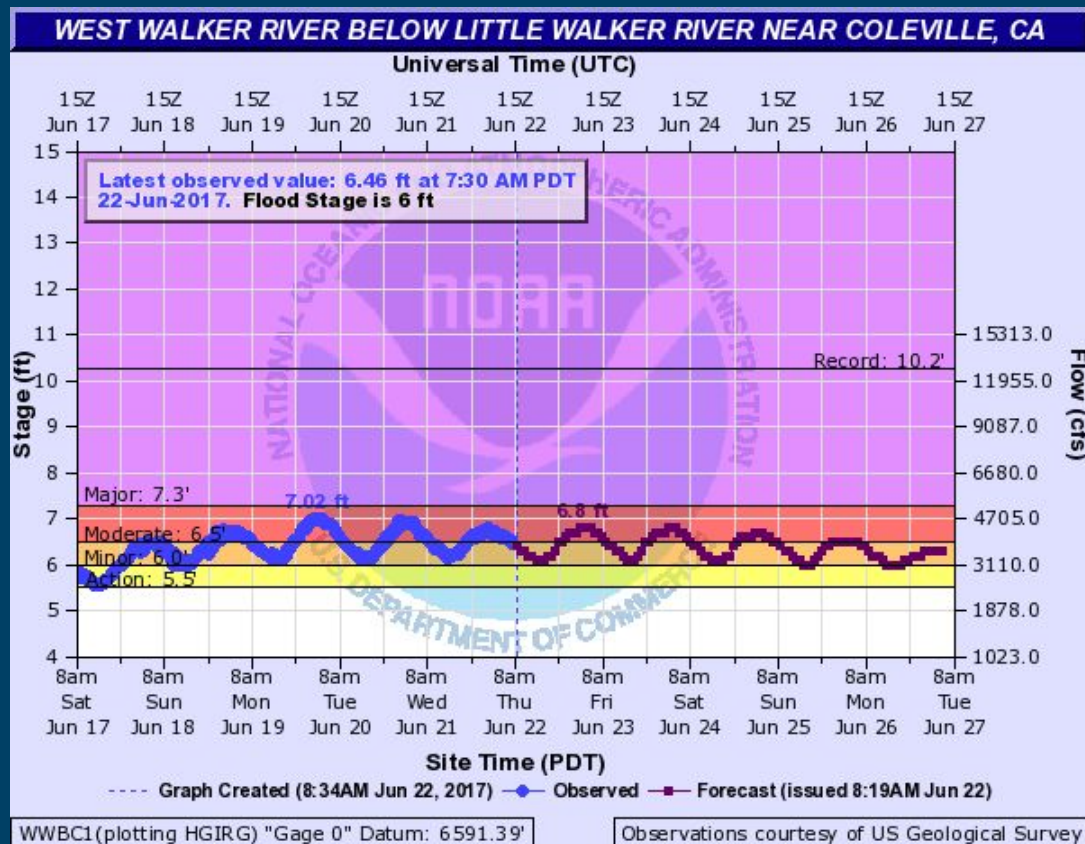
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5 Day Forecast West Walker @ Sonora Junction

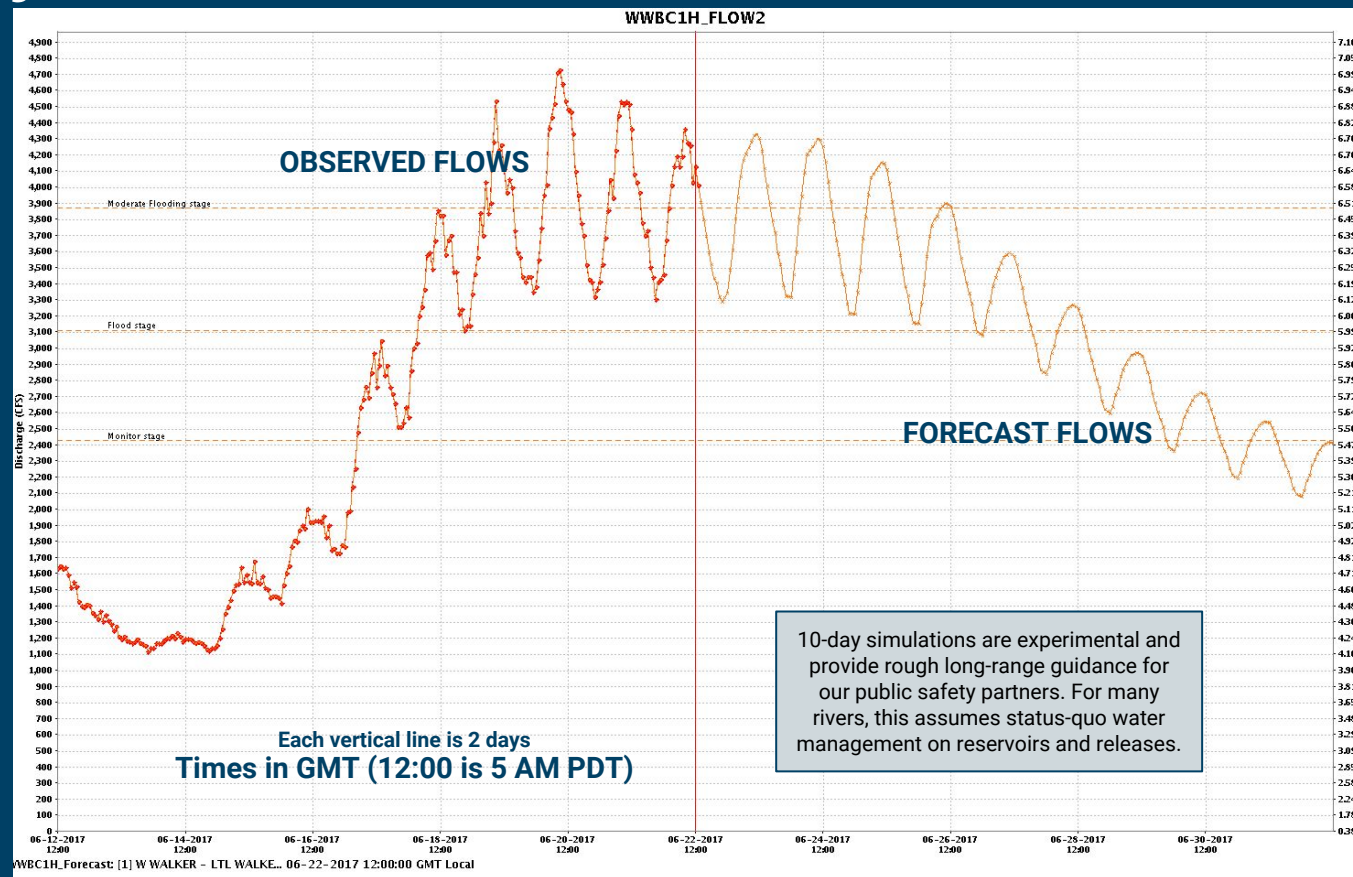
5-day official forecasts - [CNRFC](#) or [NWS Reno](#)

- Last two nights slight decrease in peaks. **Not out of the woods yet**, likely least 3-4 more days above moderate flood stage.
- **Past Peak?** Likely but not high confidence. We can't rule out an additional rise back near earlier peak over the weekend.
- **Moderate flooding**, impacting mainly agricultural areas and rural roads in Antelope Valley, potential for expanded impacts into Smith Valley.
- Slow ramp down expected with snow depletion and more seasonal temps mid next week.



10 Day Simulation West Walker near Sonora Jct

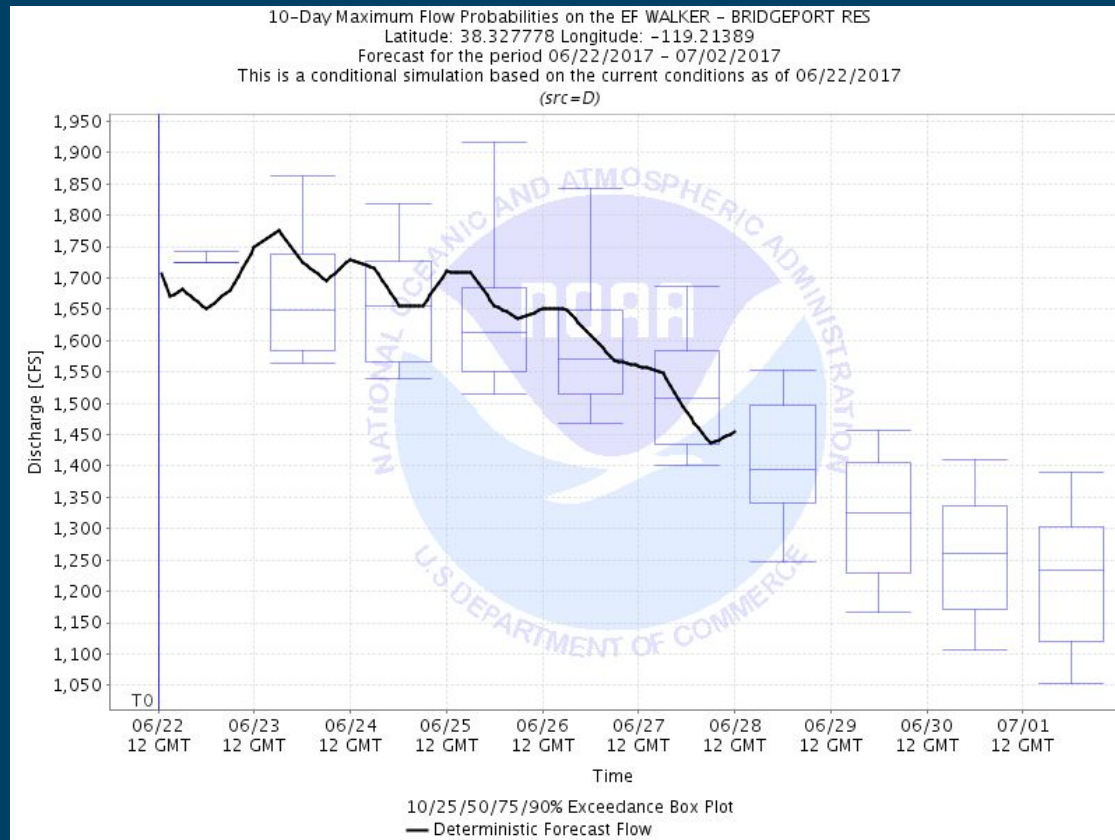
5-day official forecasts - [CNRFC](#) or [NWS Reno](#)



10 Day Ensemble East Walker - Bridgeport inflow

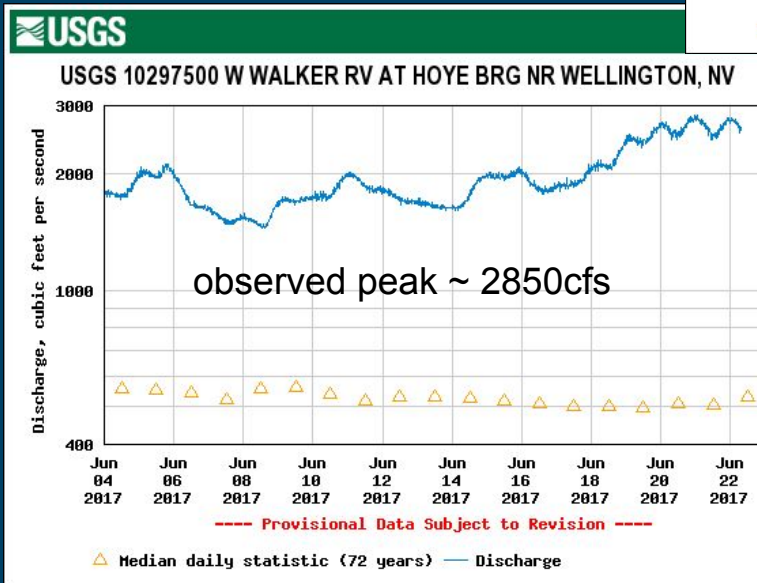
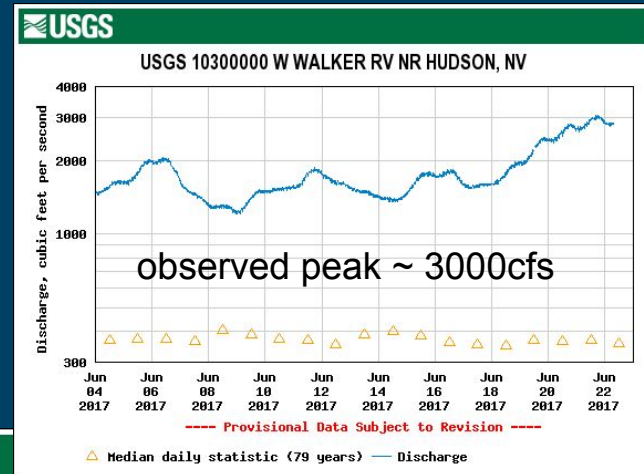
5-day official forecasts - [CNRFC](#) or [NWS Reno](#)

- **IMPORTANT:** These are estimated inflows, no gauging data to calibrate from so increased margin of error.
- Flows increasing through the week and perhaps beyond.
Likely to see peak this week.
- Long duration high flows expected.
- Bridgeport Reservoir has ~ 12,000 Acre-feet remaining capacity.



Observed Flows below Topaz

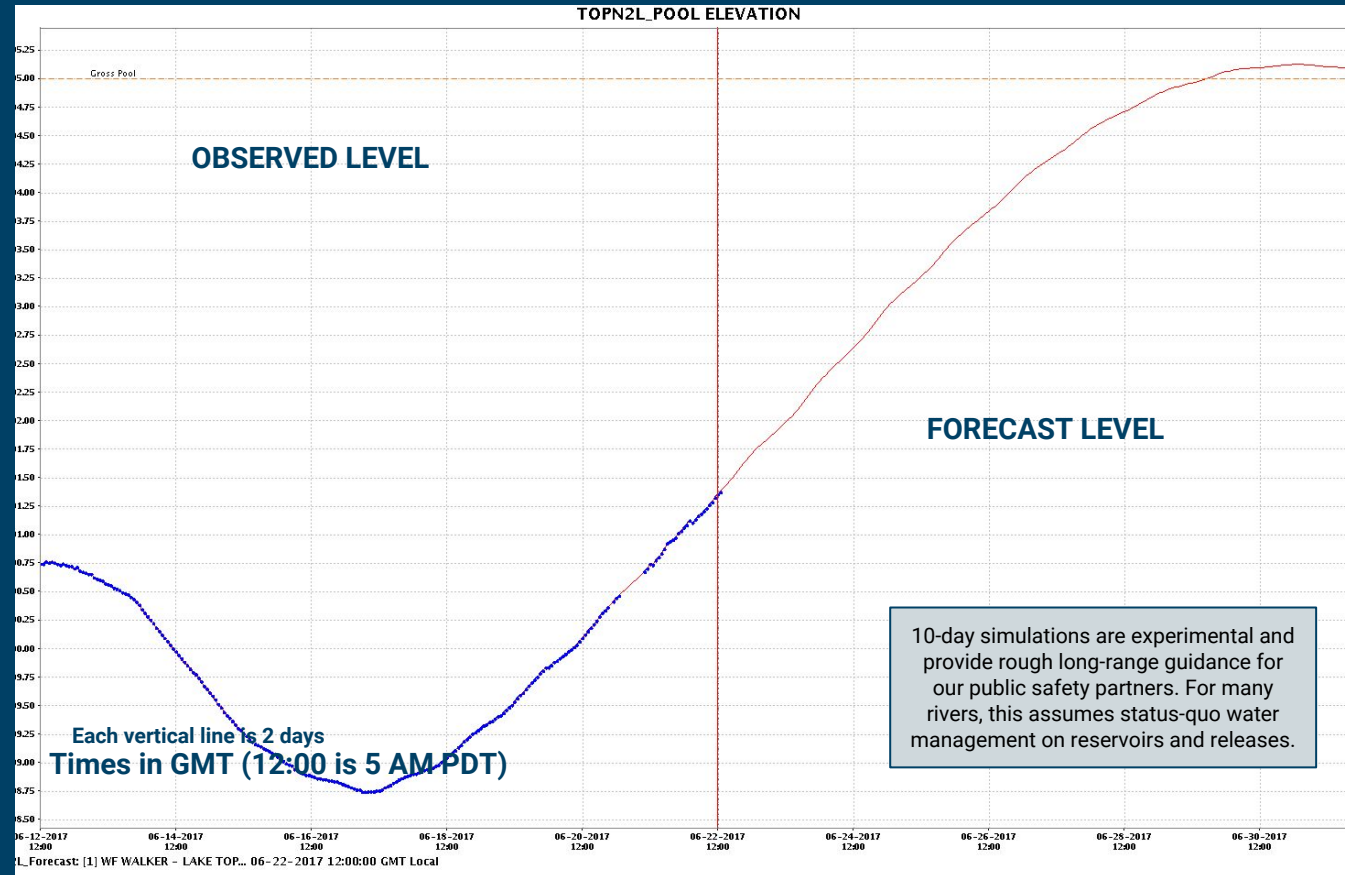
- This water is already in the system below Topaz.
- Both Hoyer and Hudson have set new preliminary snowmelt peak flows! Both Exceeding July 11, 1995.
- In July 1995 considerably more water (~ 700cfs) was coming down East Walker.
- These flows are ~ 25% of January 1997 peak.
- Considerable floodplain storage and attenuation have limited downstream rises (so far).



10 Day Simulation Topaz Reservoir

5-day official forecasts - [CNRFC](#) or [NWS Reno](#)

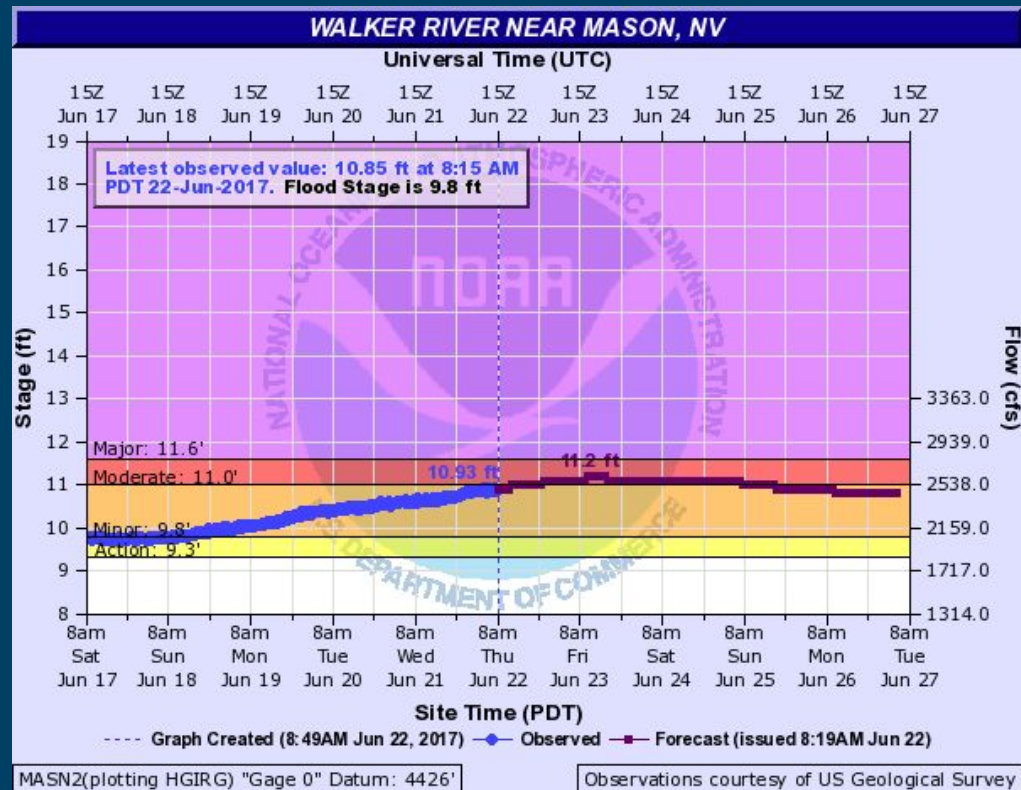
- Internal model Topaz elevation simulation.
- **Estimates Topaz filling ~ mid next week** under current forecasted flows and management.
- Downstream impacts will depend on timing of fill related to magnitude of continued upstream flows and timing of Bridgeport filling.



5 Day Forecast Walker River @ Mason/Yerington

5-day official forecasts - [CNRFC](#) or [NWS Reno](#)

- Continued rises into moderate stage over weekend. Additional rises are possible!
- IMPORTANT:** Management has been very proactive and dynamic, this will lead to frequent forecast adjustments. Stay tuned.
- Lower than average forecast confidence on both timing and magnitude due to considerable upstream floodplain storage and attenuation.



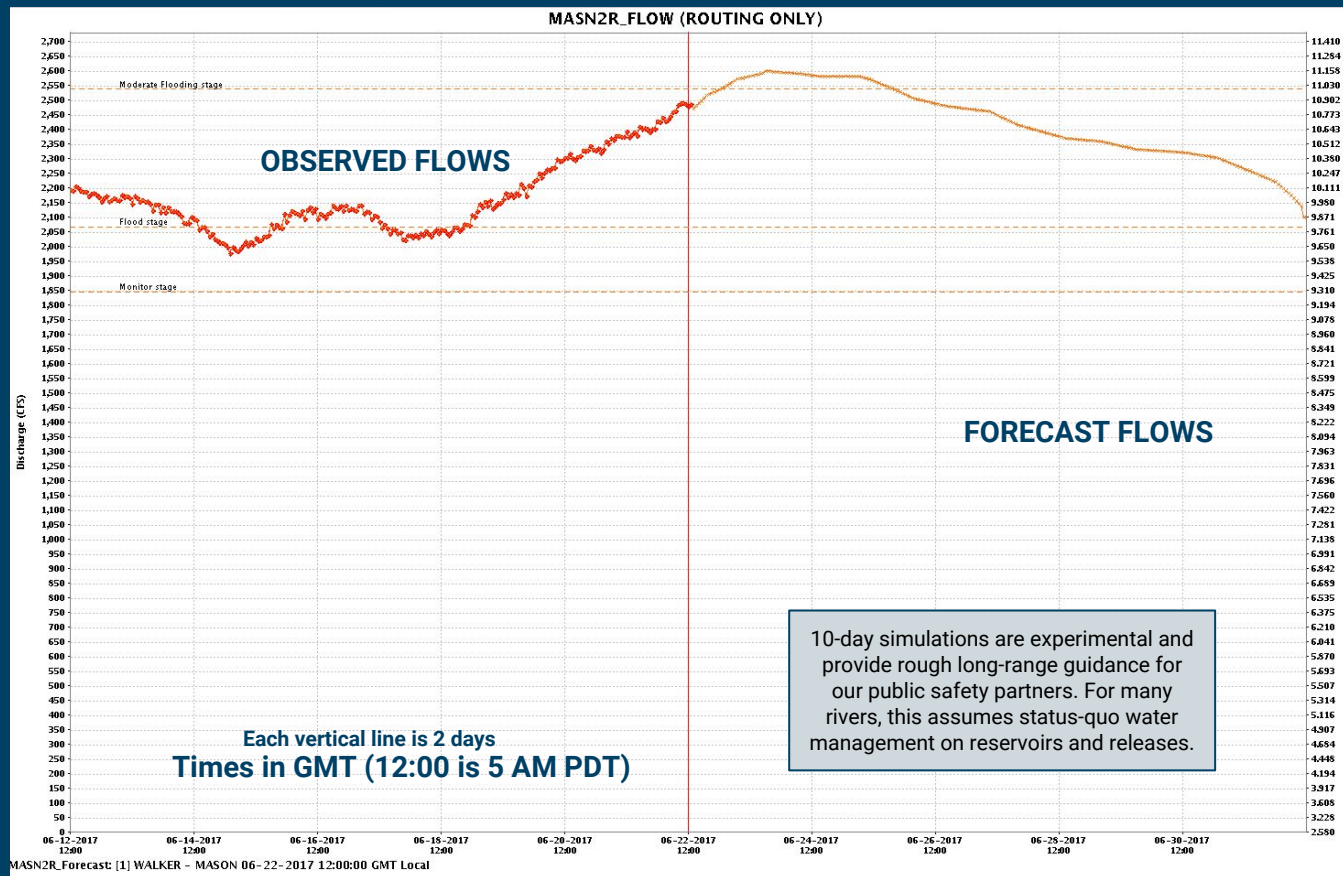
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10 Day Simulation Mason

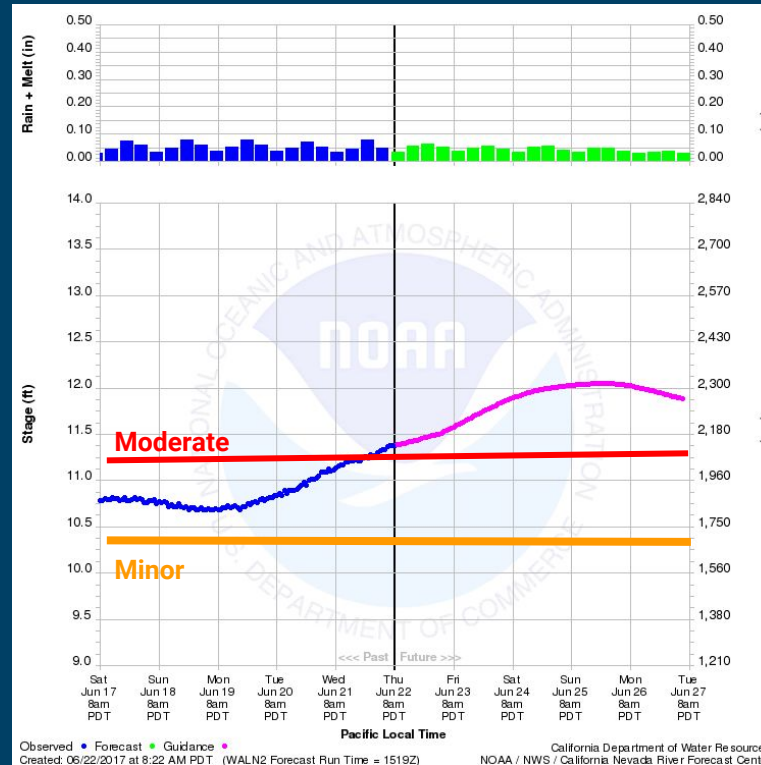
5-day official forecasts - [CNRFC](#) or [NWS Reno](#)



5 Day Forecast Walker River @ Wabuska

5-day official forecasts - [CNRFC](#) or [NWS Reno](#)

- High flows, increasing slowly into early next week.
- Additional rise or more extended period of very high flows possible.
- ~ One to three day lag to Weber Reservoir.
- **IMPORTANT:** Same forecast and management caveat from Mason applies
- Long duration and high volume event may result in minor flood impacts below Weber Reservoir.



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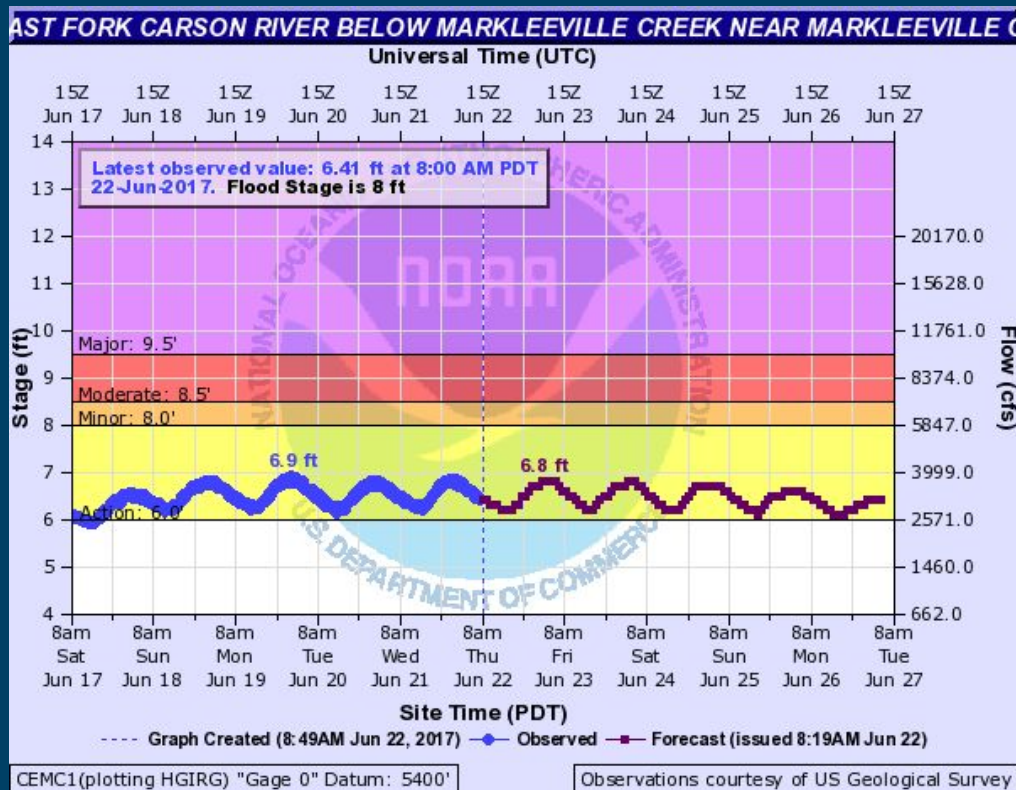
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5 Day Forecast East Carson @ Markleeville

5-day official forecasts - [CNRFC](#) or [NWS Reno](#)

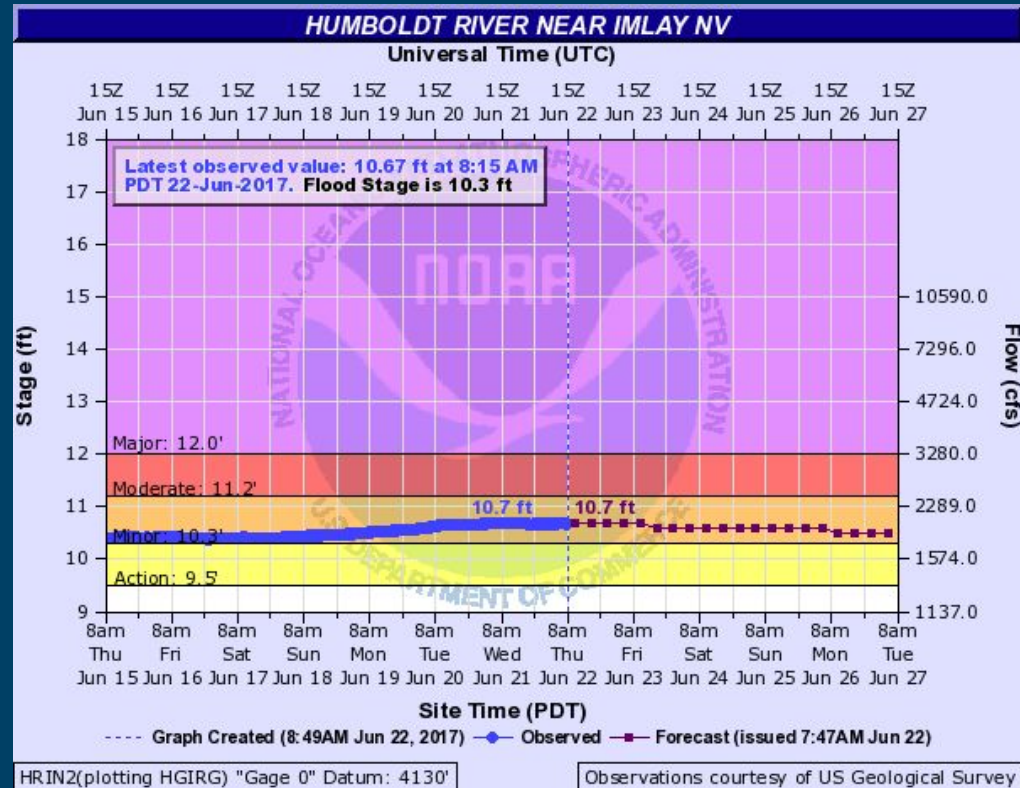
- No flooding expected but high “monitor” flows continue all week. Peak flows pre-dawn each day.
- Similar, but less dramatic response at Woodfords.
- Keep an eye on stream response with continued heat, small potential for remaining high elevation snowmelt to exceed expectations with prolonged heat.



5 Day Forecast Humboldt at Imlay

5-day official forecasts - [CNRFC](#) or [NWS Reno](#)

- Continued prolonged minor flooding.
- Impacts limited to rural roads and agricultural areas.



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Eastern Sierra Outlook General Guidance

- High flows with minor to moderate flooding will continue all week. As of this morning many flows were somewhat higher than earlier this week.
- **Impacts from recent flows will remain similar or get worse with duration through the weekend.** Severity remains low confidence.
- Low certainty on when flows will peak for good - hot temps all week but when will meaningful snow run out?
- Many impacts to campgrounds and roadways along creeks in the eastern Sierra. Some closures due to flooding.



Source - [LADWP Real-time data](#)

NWS does not have specific river simulations in the eastern Sierra, aside from Walker River basin. So we use projected rises on the Walker River and internal (highly) experimental National Water Model guidance.



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