



MEMORANDUM

To: Bill Schenk, Adam Strainer

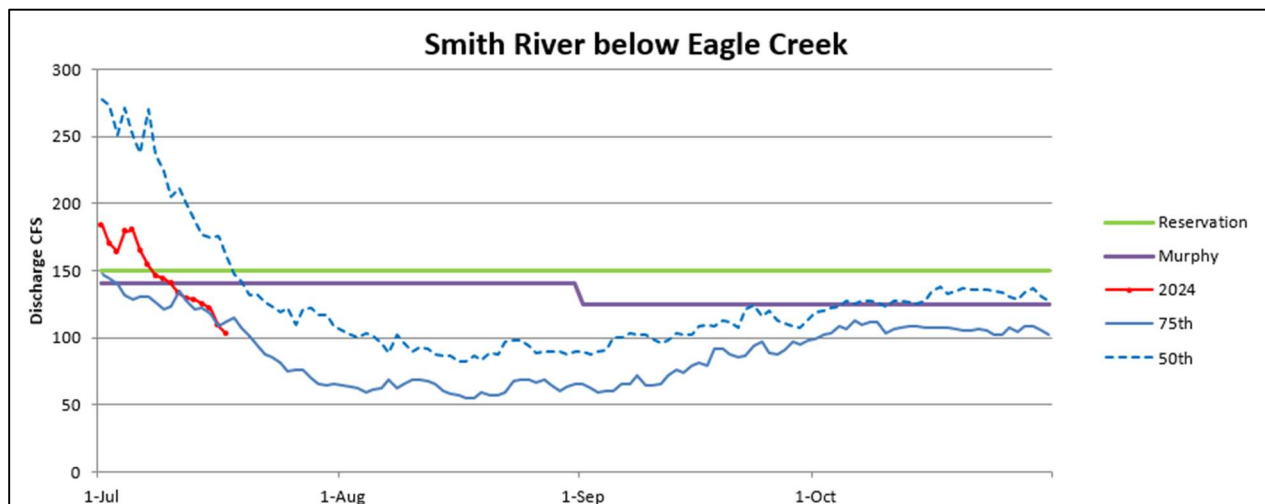
Cc: Jay Pravecek, Adam Geik, Jason Rhoten, Amy Groen, Stephen Begley

From: Andy Brummond, FWP Water Program
Jason Mullen, Regional Fisheries Manager

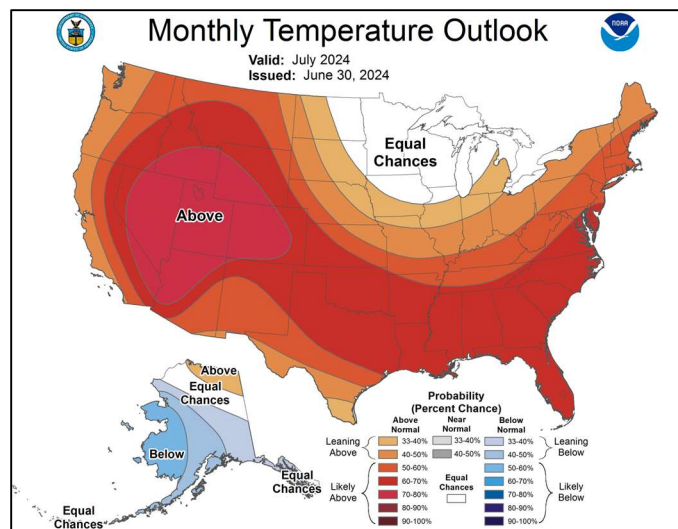
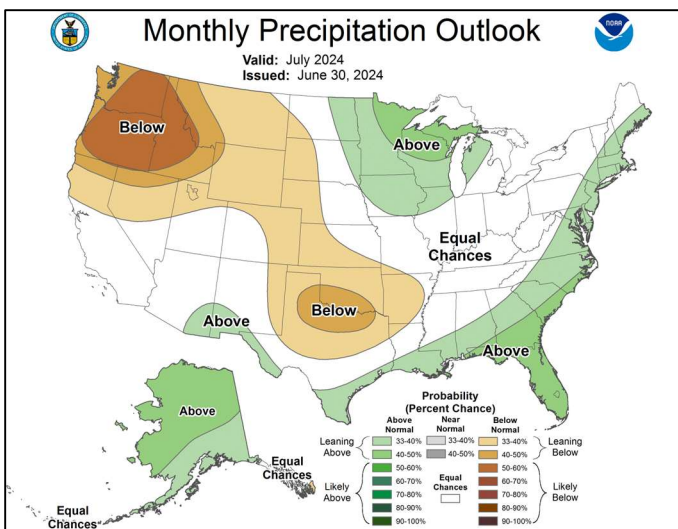
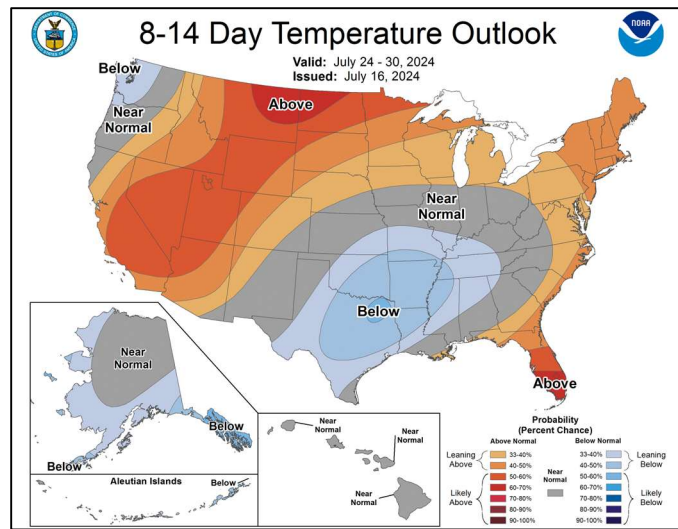
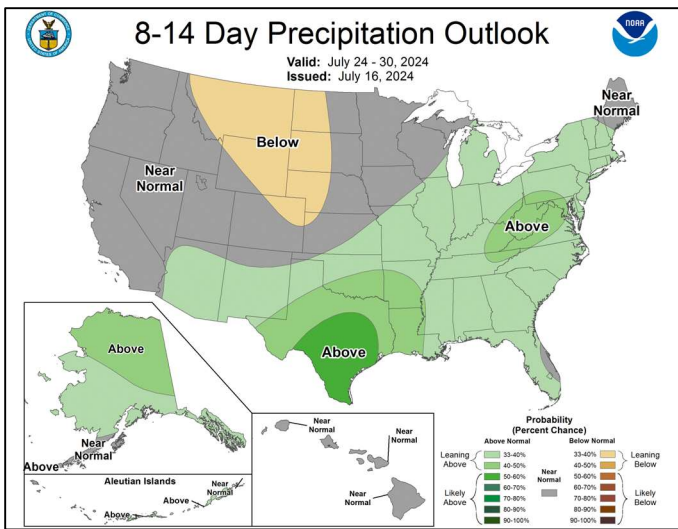
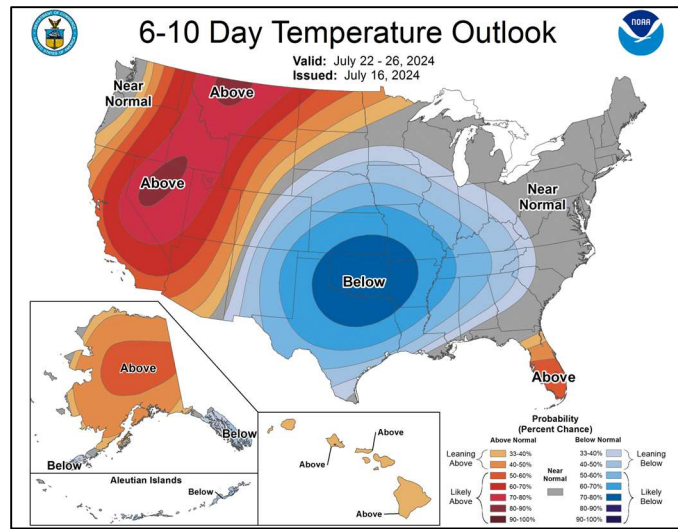
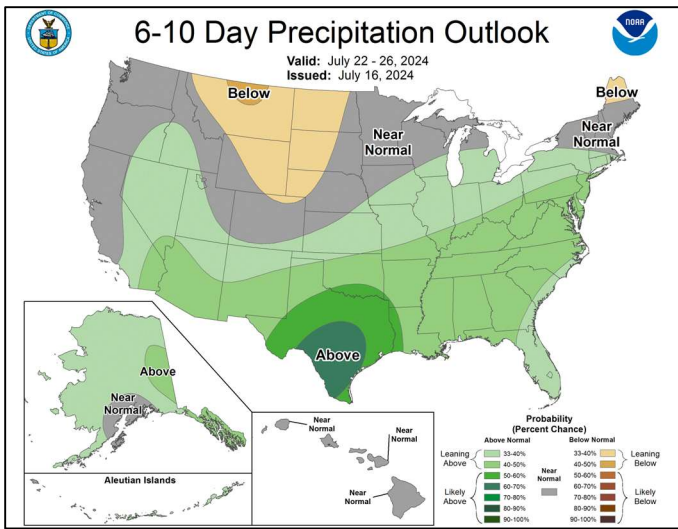
Date: July 17, 2024

Subject: Smith River – Call on Junior Water Rights

Fisheries and Water Program staff have monitored flow and water temperature in the Smith River and consulted on river conditions and potential merits of placing call on junior water uses. We jointly recommend that FWP make call on the Smith River. Stream flow in the Smith River has dropped well below FWP's instream water rights. The hydrograph below shows that flow is near the 75th percentile exceedance flow (level met or exceeded 3 out of 4 years) and the median for the USGS gage below Eagle Creek near Camp Baker (24-year period of record).



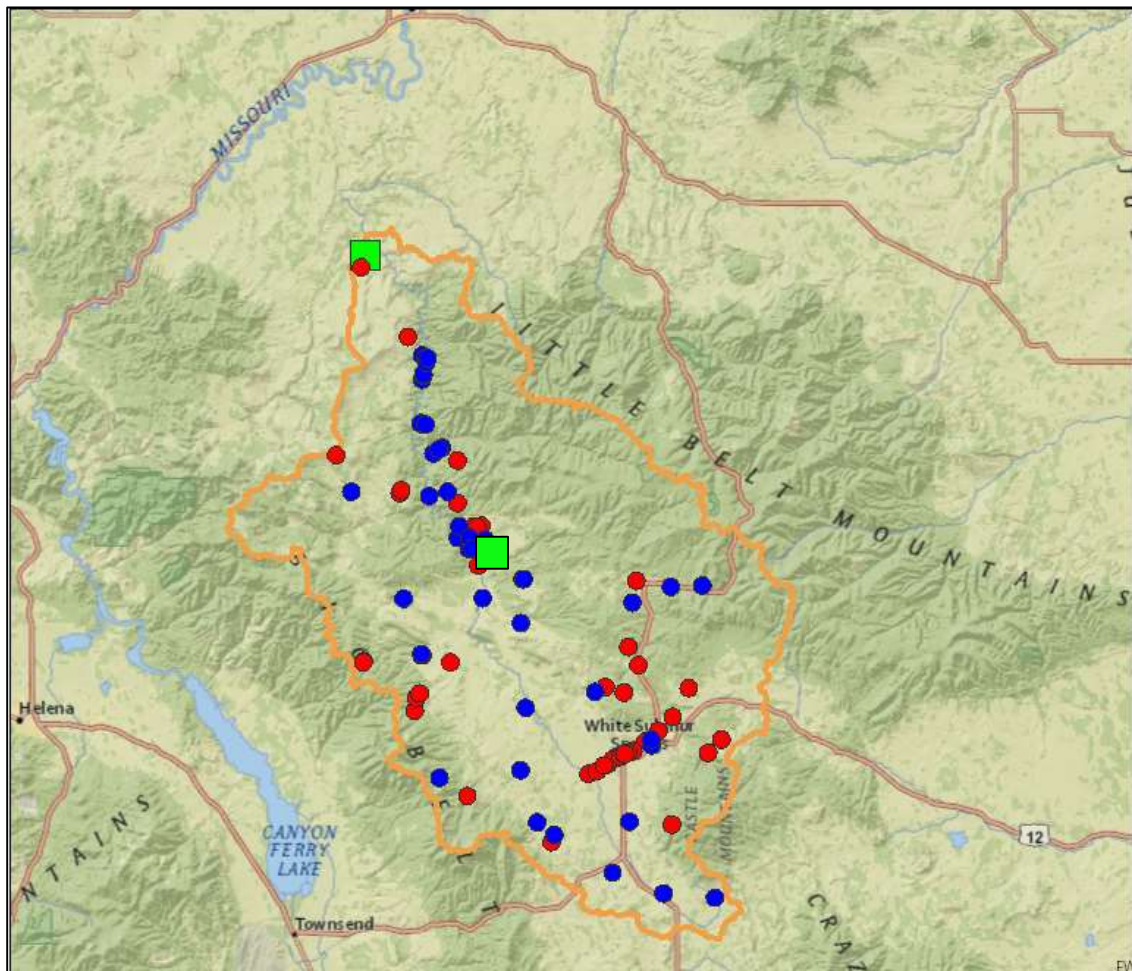
The 6-10-day, 8-14-day, and monthly precipitation outlooks lean towards below normal precipitation (graphics attached); normal precipitation for this time of year is relatively light overall. Temperatures for all three reporting periods point toward above normal temperatures. Given expected weather conditions and high demand for irrigation water, streamflow would not be expected to again meet FWP's instream flow rights into the fall without significant precipitation events.



DNRC's water rights database includes 81 junior water rights in the Smith River basin. Each water right was reviewed to determine if cessation of water use would likely result in additional flow reaching the Smith River. The following table lists the water rights by general purpose category.

Purpose	Call	No Call	Total Called Flow Rate
Fish, Wildlife, Recreation Ponds	5	0	1.92 cfs
Irrigation	28	17	88.62 cfs
Mining	2	8	2.77 cfs
Stock	0	18	-
Domestic	0	3	-
Total	35	46	93.31 cfs

The call on the Smith River includes two different letters, one for those rights junior only to FWP's Murphy Right and the other for those rights junior to FWP's water reservation. The following map shows the location of all junior water rights. Those represented by blue dots would be called while those represented by red dots would not. The green squares are the location of the USGS gages with the gage below Eagle Creek on which the call would be made shown near the center of the map.



The Smith River supports a very popular rainbow trout and brown trout fishery and represents a unique recreational floating and angling opportunity downstream of Camp Baker through Smith River State Park. The fishery supported over 36,000 angler days in 2019. Dewatering and associated warm water temperatures negatively impact the fishery with high-water temperatures and fragmented habitat increasing stress and mortality. During high temperature periods, increased streamflow can mitigate the effects of high temperature and improve fish survival by moderating water temperature and providing more deep pool habitat where fish can avoid higher water temperatures. As flows drop below 140 cfs, habitat is lost as demonstrated by wetted perimeter studies. Habitat loss becomes increasingly problematic as flows approach or drop below the lower inflection point of 80 cfs.

The chart below shows daily water temperatures at USGS gage 06077200 below Eagle Creek near Fort Logan exceeding 73°F beginning July 9th – 11th. Water temperatures fluctuated around 73°F before receding on July 15th, after which they increased again. As water levels have dropped, temperatures have increased to a maximum of 76.0°F on July 16th. With higher air temperatures forecasted, maximum daily water temperatures are expected to continue exceeding 73°F, resulting in continued stressful conditions for the trout population. Hoot owl fishing restrictions went into effect on July 12th for the Smith River from Eden Bridge to the confluence of the North and South forks.

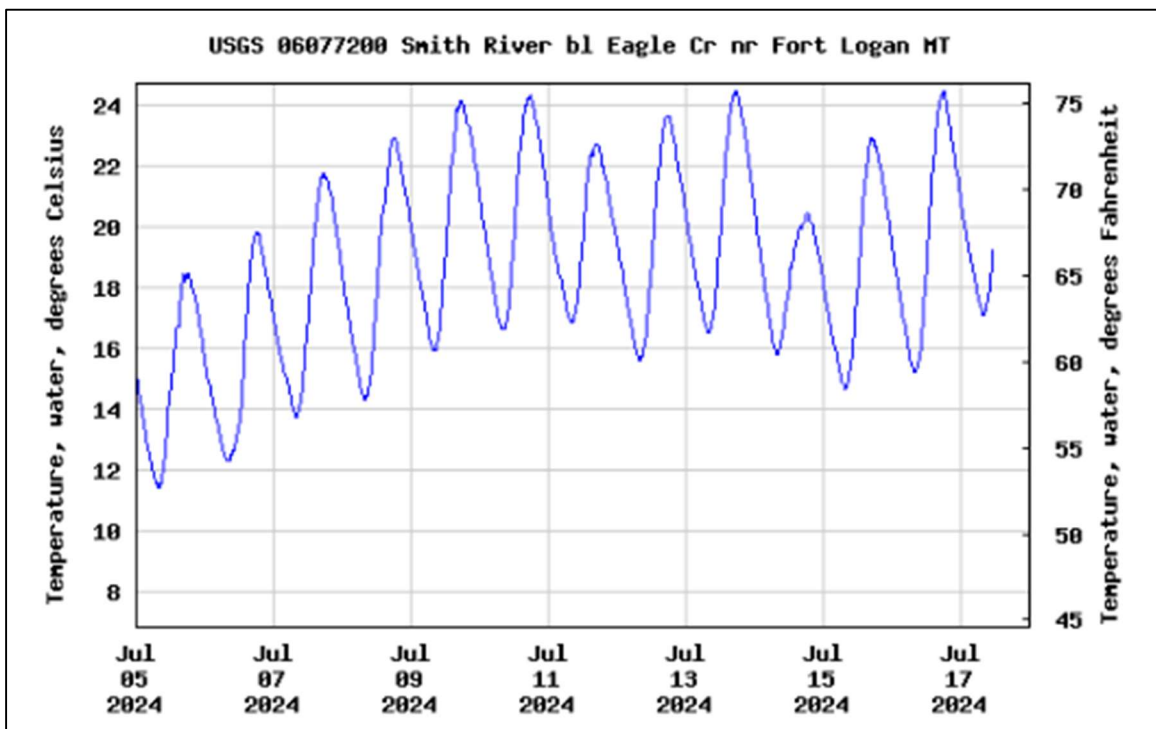


Figure 1. Water temperature at USGS gage 06077200 below Eagle Creek near Fort Logan from July 5th to July 17th.