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Montana Streamflow Conditions

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U. S. Geological Survey

Montana Governor's Drought and Water Supply Advisory Committee Meeting
May 9, 2024

ADCP measurement Clark Fork River at Gold Creek May , 2024. Photo- Brett Price

U.S. Department of the Interior
U.S. Geological Survey

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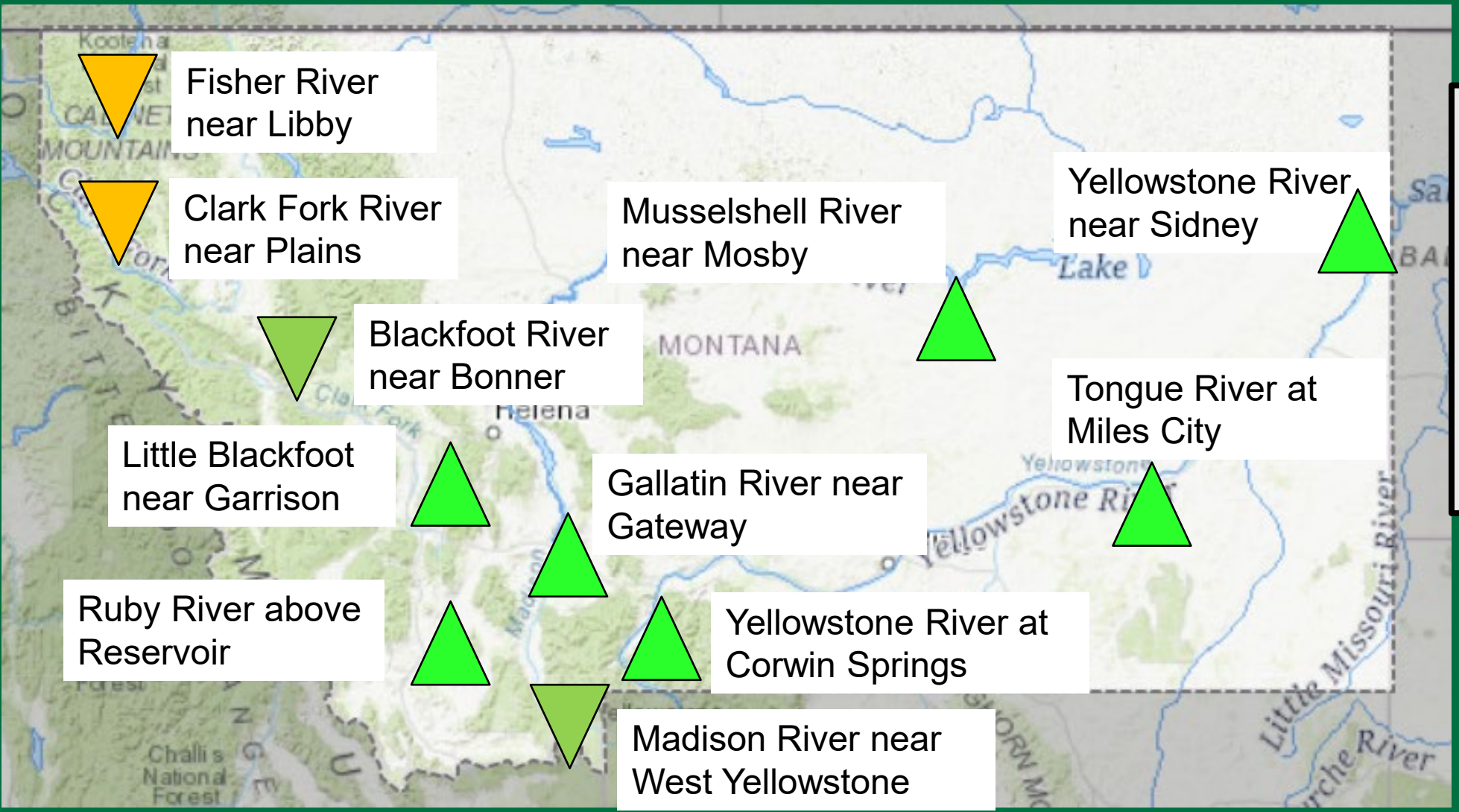
A look back at 2023: Average Water Year Flows



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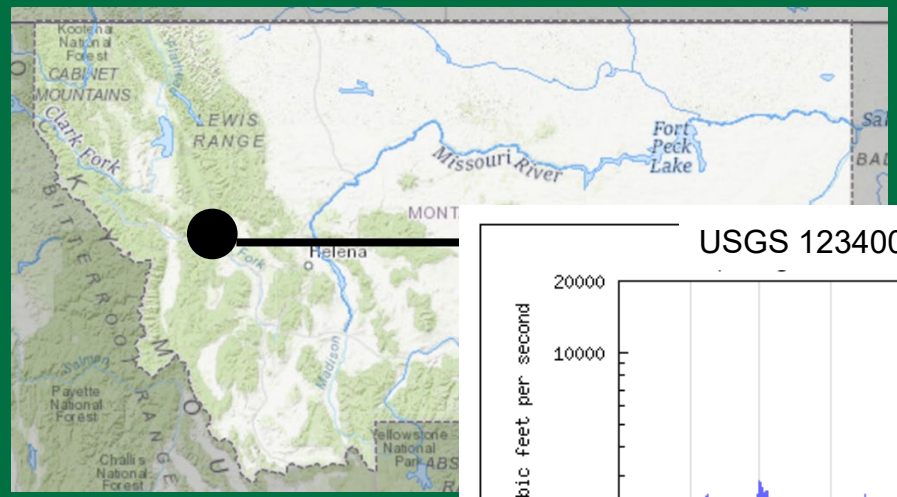
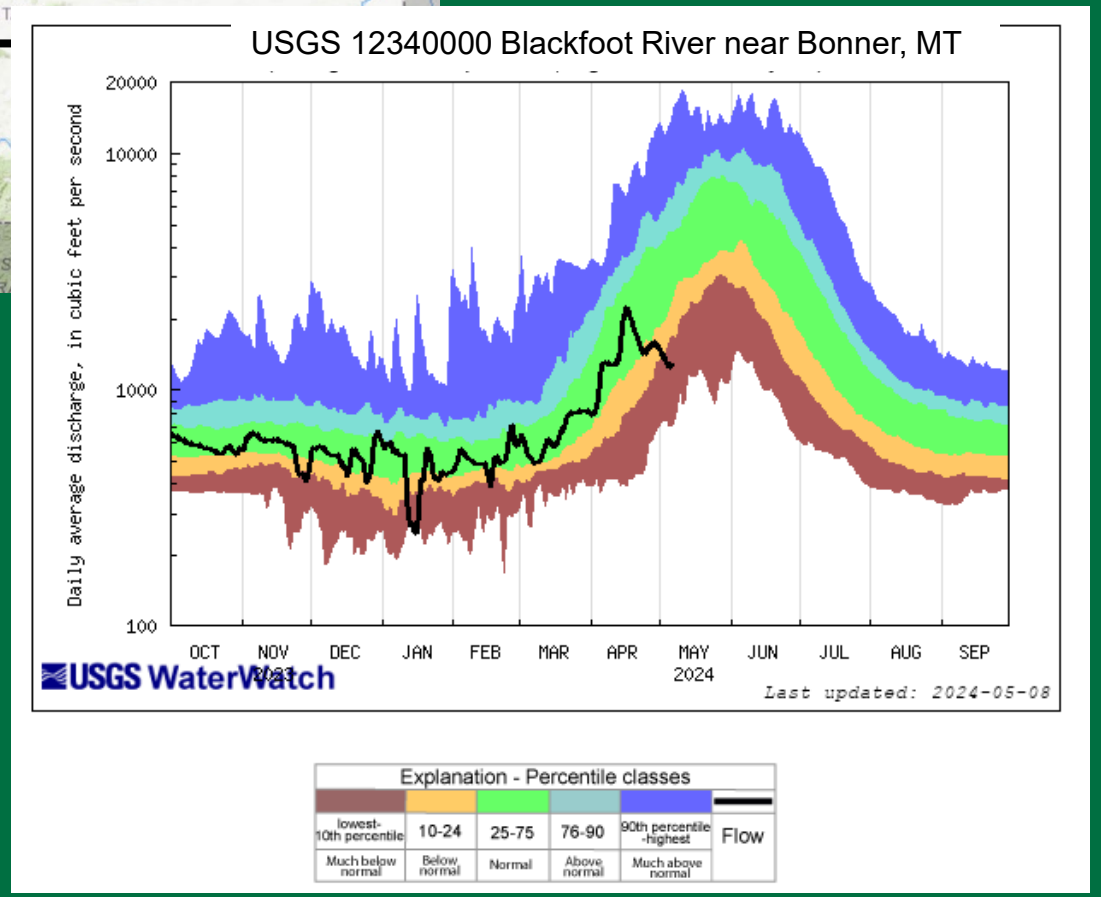
Where are we in the Water Year- West of the Divide





- Water Supply- Mountains
- Rising limb of runoff
- 85 years of record

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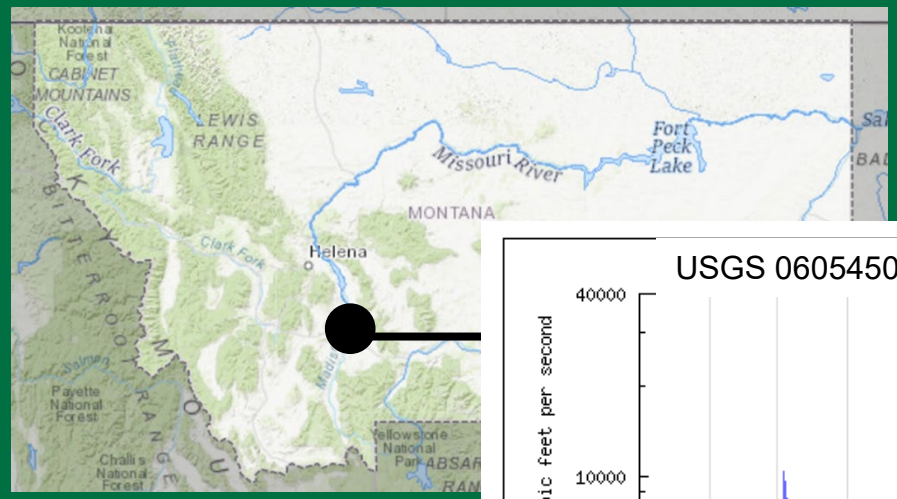
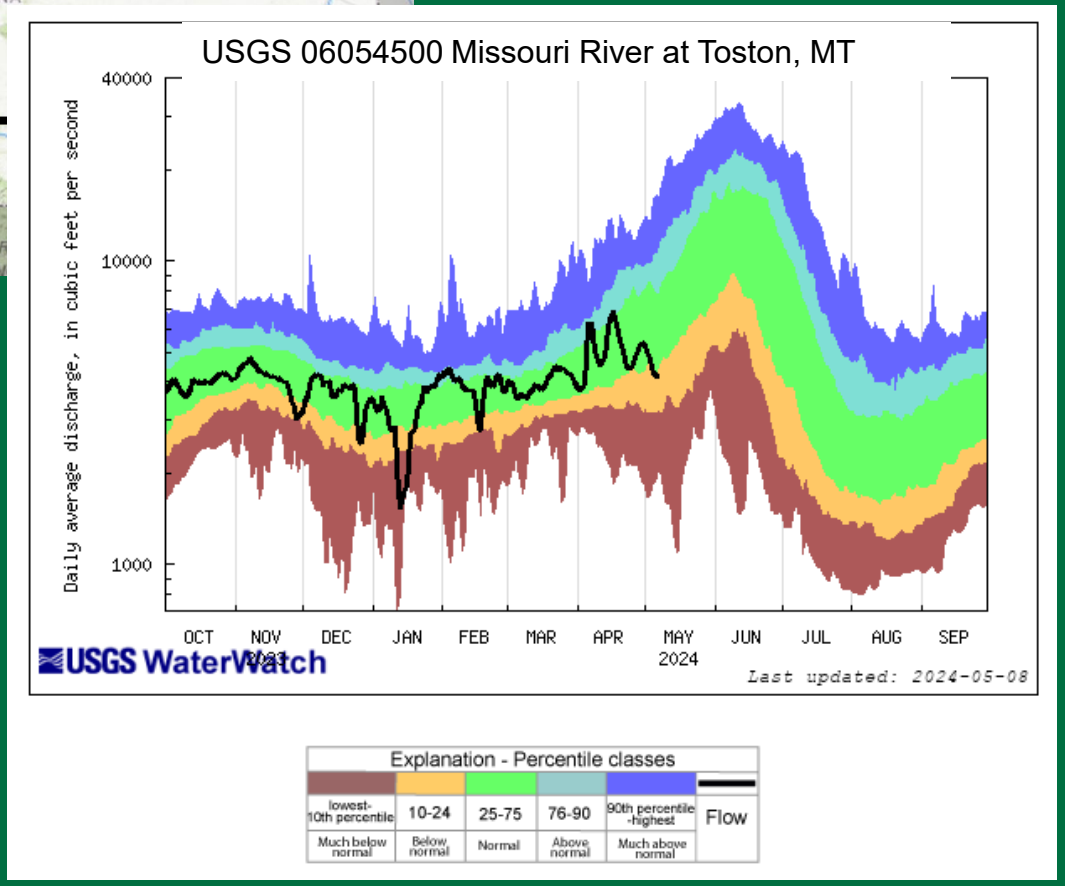
Graphic from Water Watch
https://waterwatch.usgs.gov/

Where are we in the Water Year- East of the Divide





- Water supply- mountains
- Runoff has yet to begin
- 86 years of record

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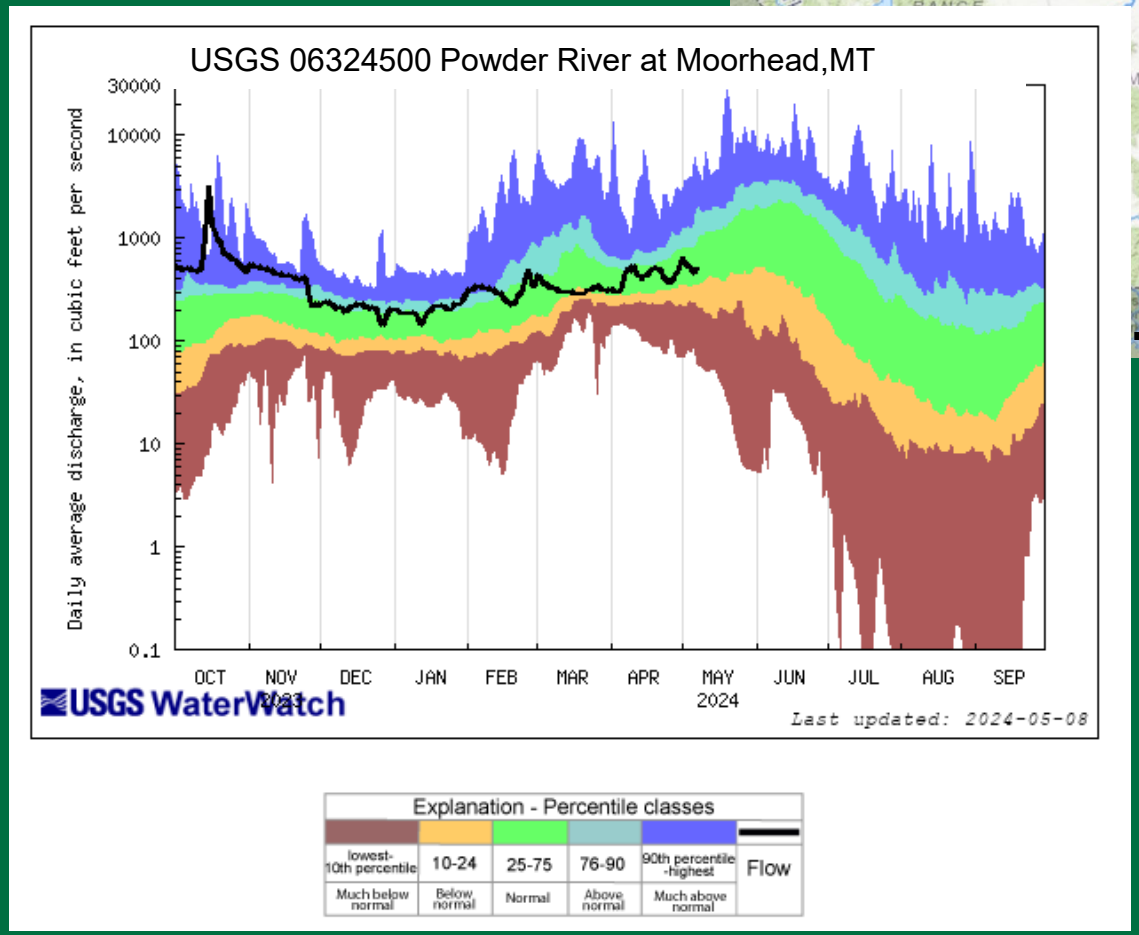
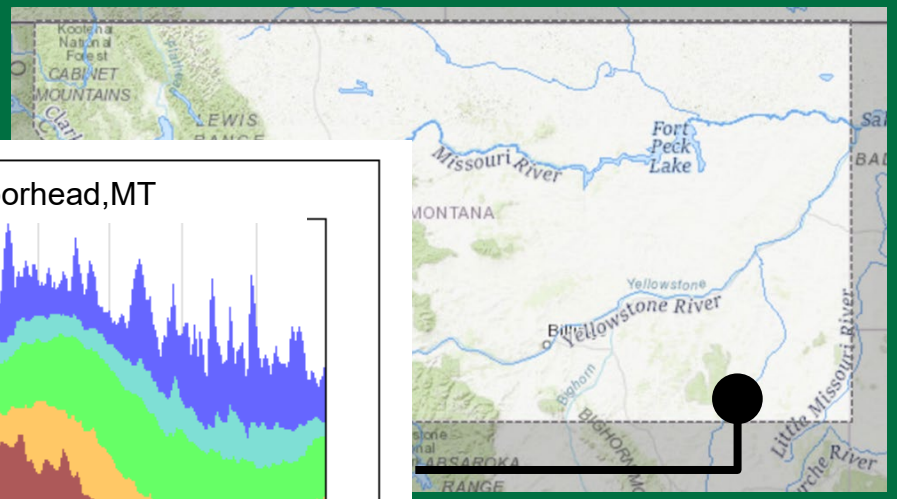
Where are we in the Water Year- East of the Divide





- Water supply-prairie
- Above median fall and winter
- Early snowmelt runoff
- 93 years record

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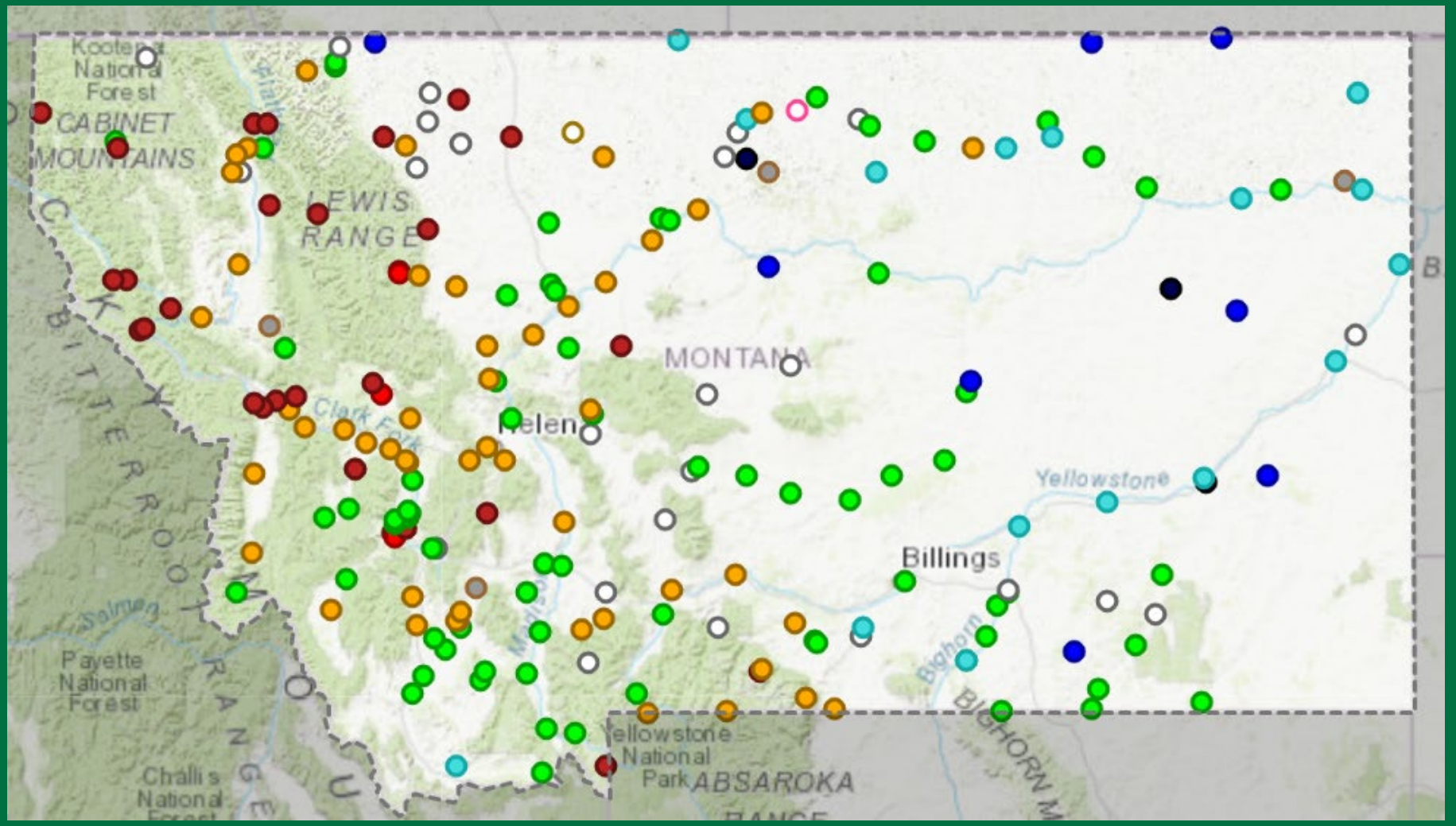
Current Streamflow Conditions for Montana

May 09, 2024



Streams: Flow status

All-Time Low for this Day	0th percentile (minimum)
Much Below Normal	<10th percentile
Below Normal	10th – 24th percentile
Normal	25th – 75th percentile
Above Normal	76th – 90th percentile
Much Above Normal	>90th percentile
All-Time High for this Day	100th percentile (maximum)
Not Flowing	0 cubic feet per second
Above NWS Flood Stage	See Comments
Not Ranked	See Comments

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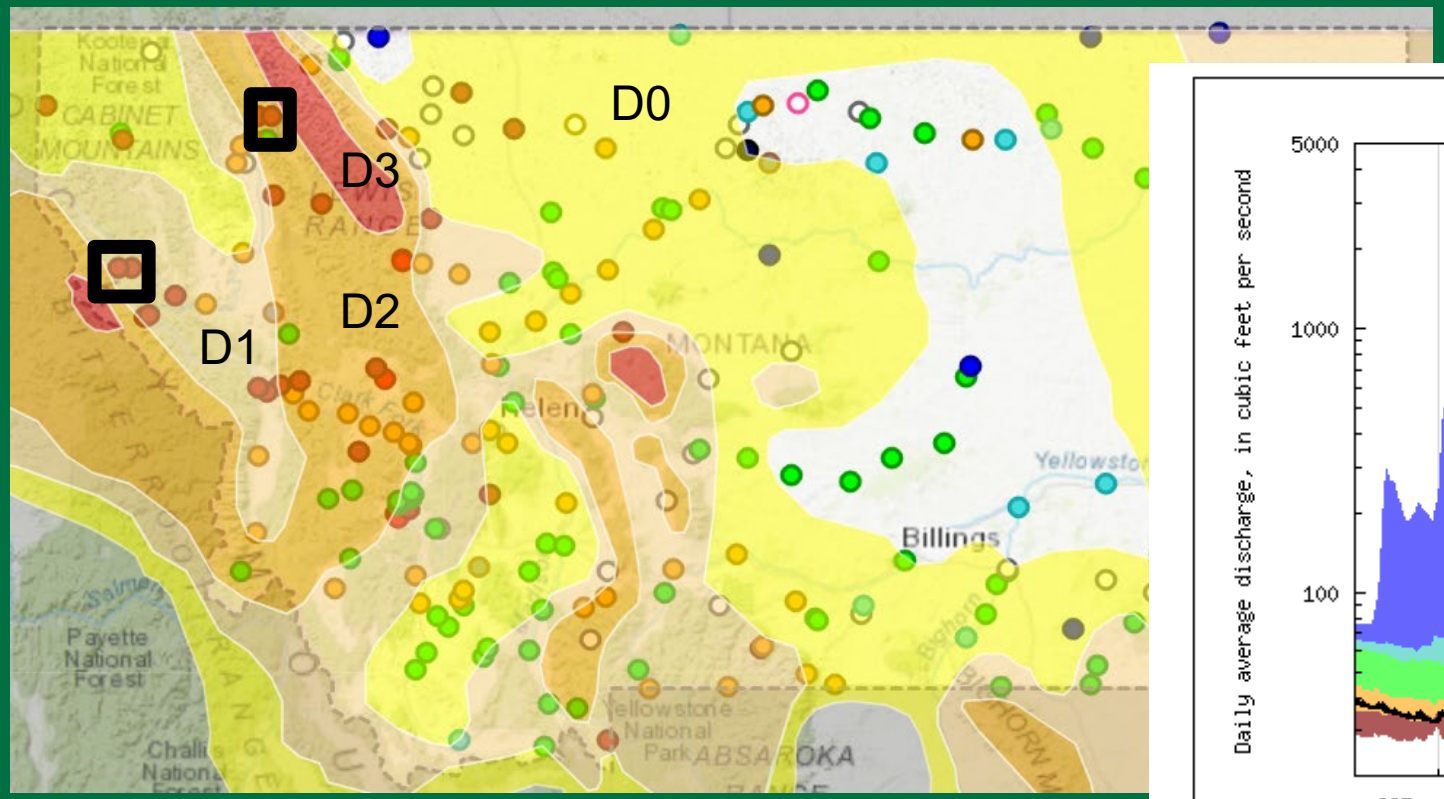
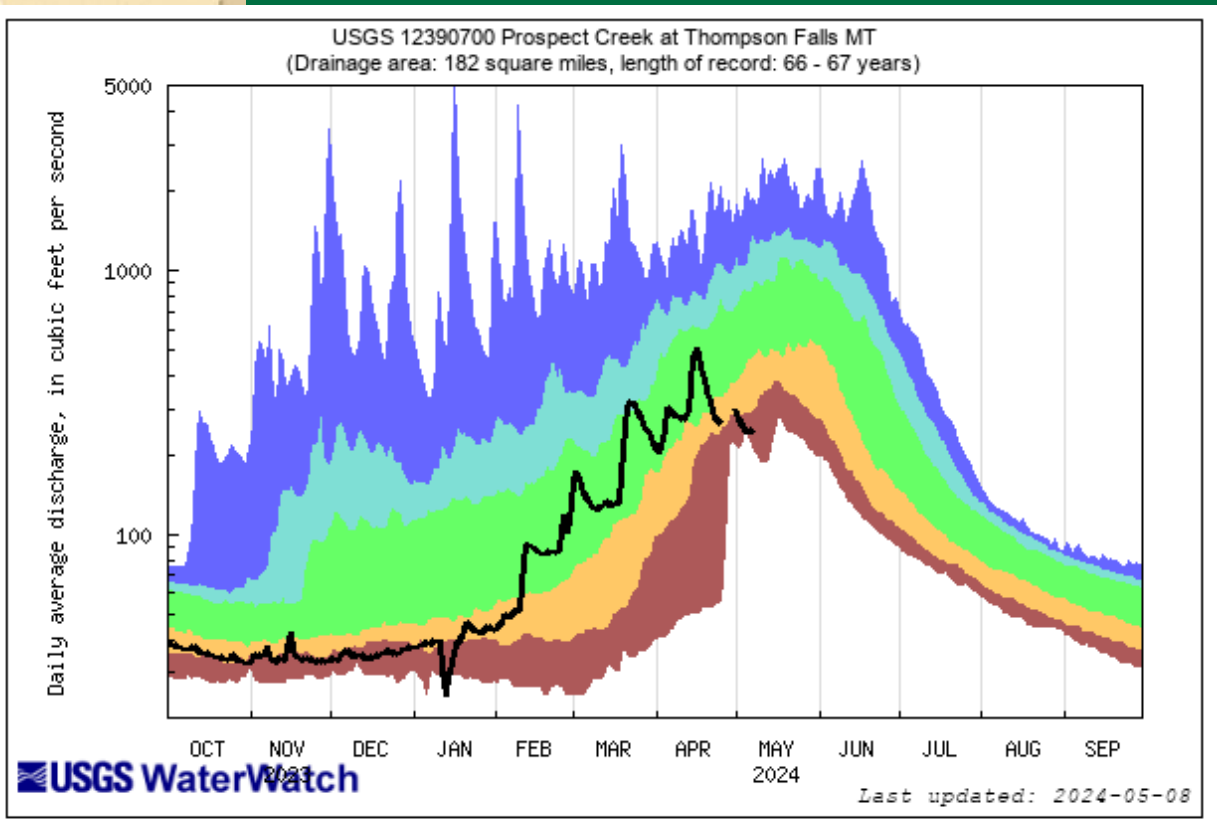
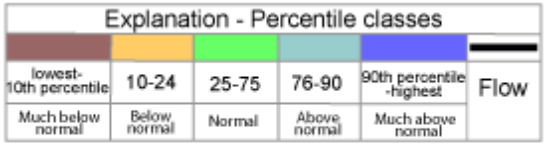
Graphic from National Water Dashboard
https://dashboard.waterdata.usgs.gov/app/nwd/?aoi=state-mt

Select Gages Within Classified Drought Areas
(Drought Classification as of April 30, 2024)







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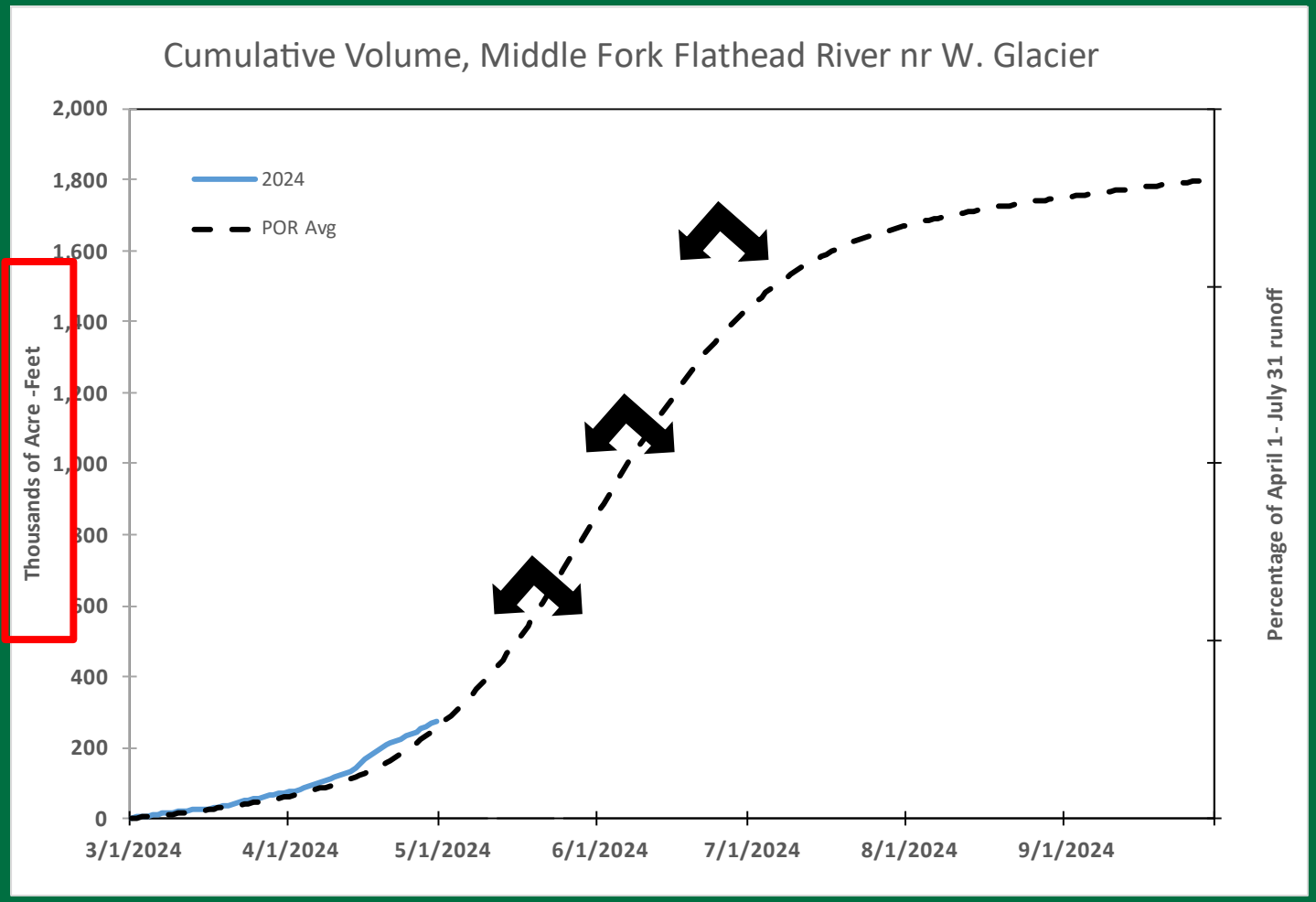
Graphic from National Water Dashboard https://dashboard.waterdata.usgs.gov/app/nwd/?aoi=state-mt

Cumulative Volume Graph Overview



- Timing
- Quantity

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Streamflow Summary to Date

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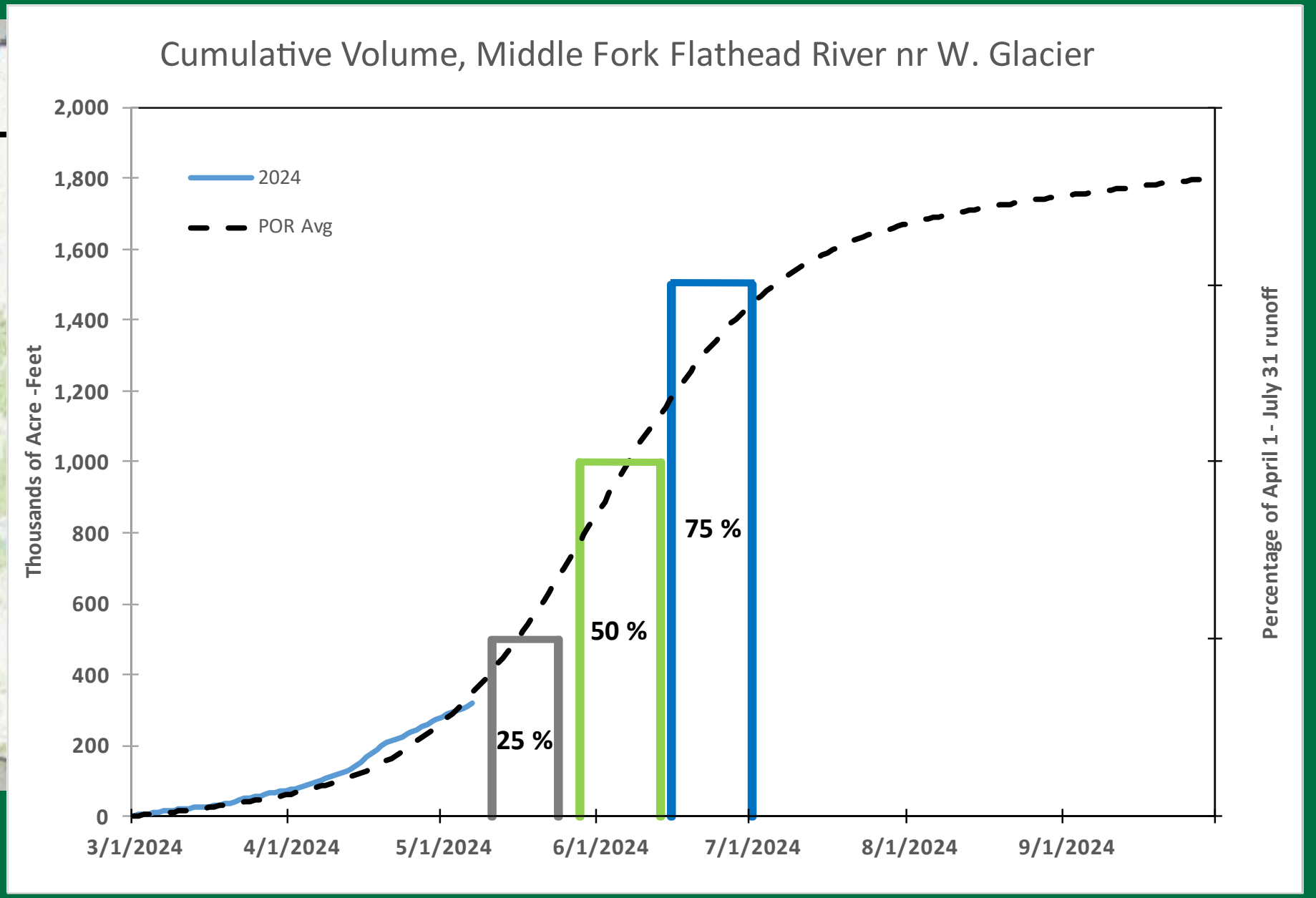

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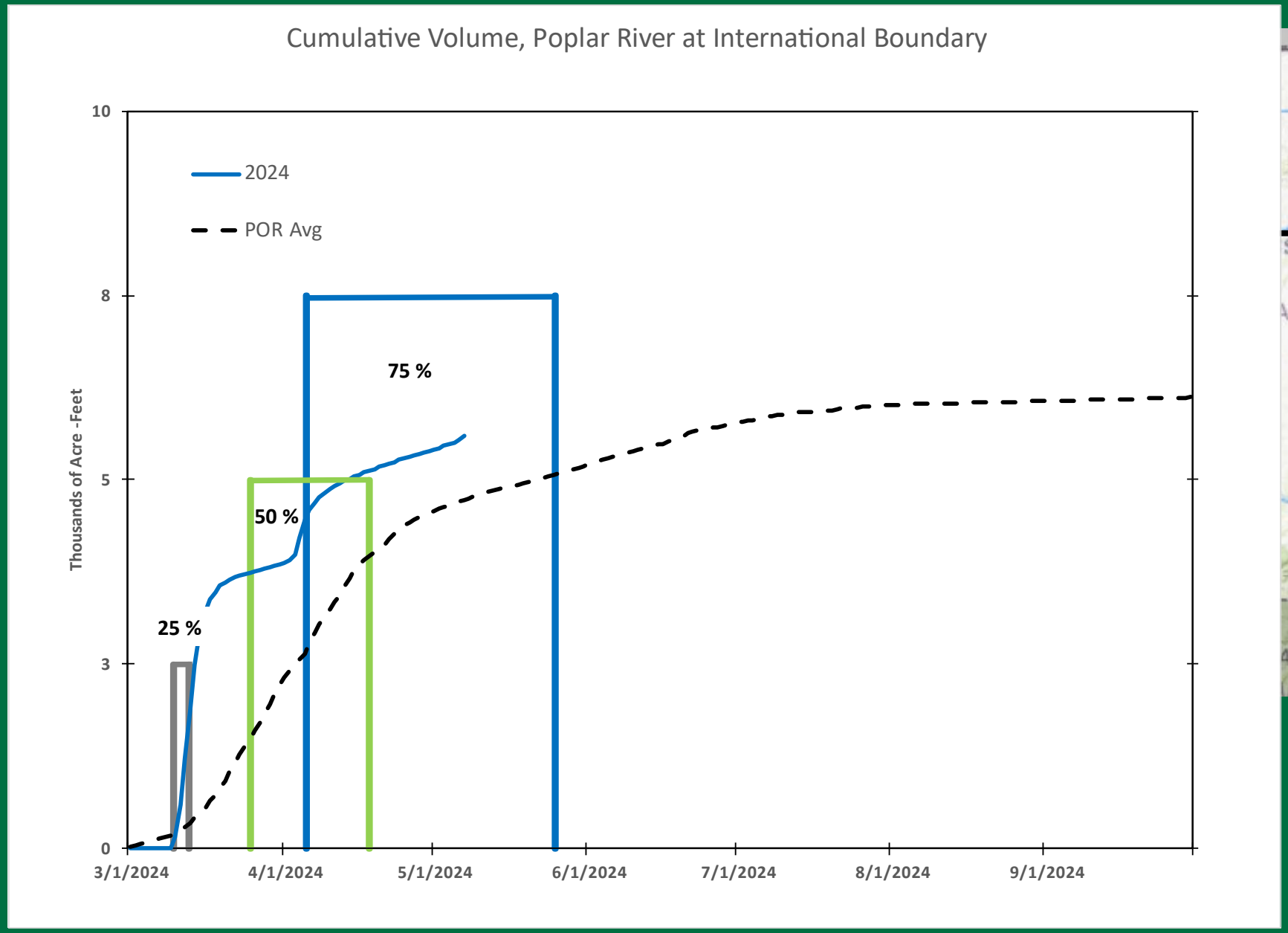

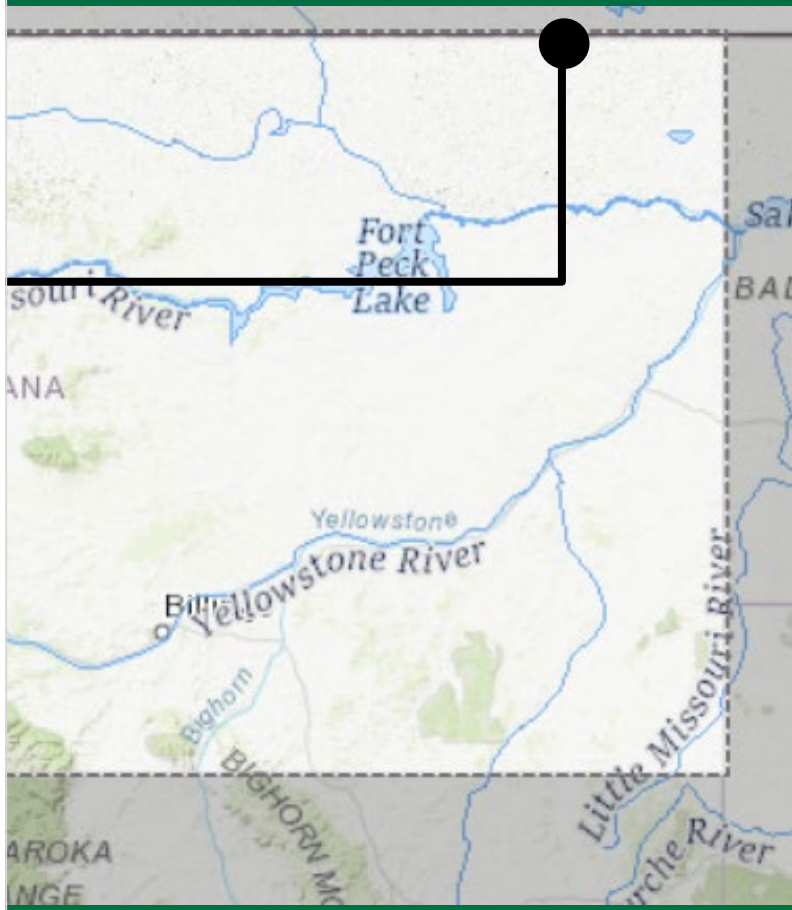

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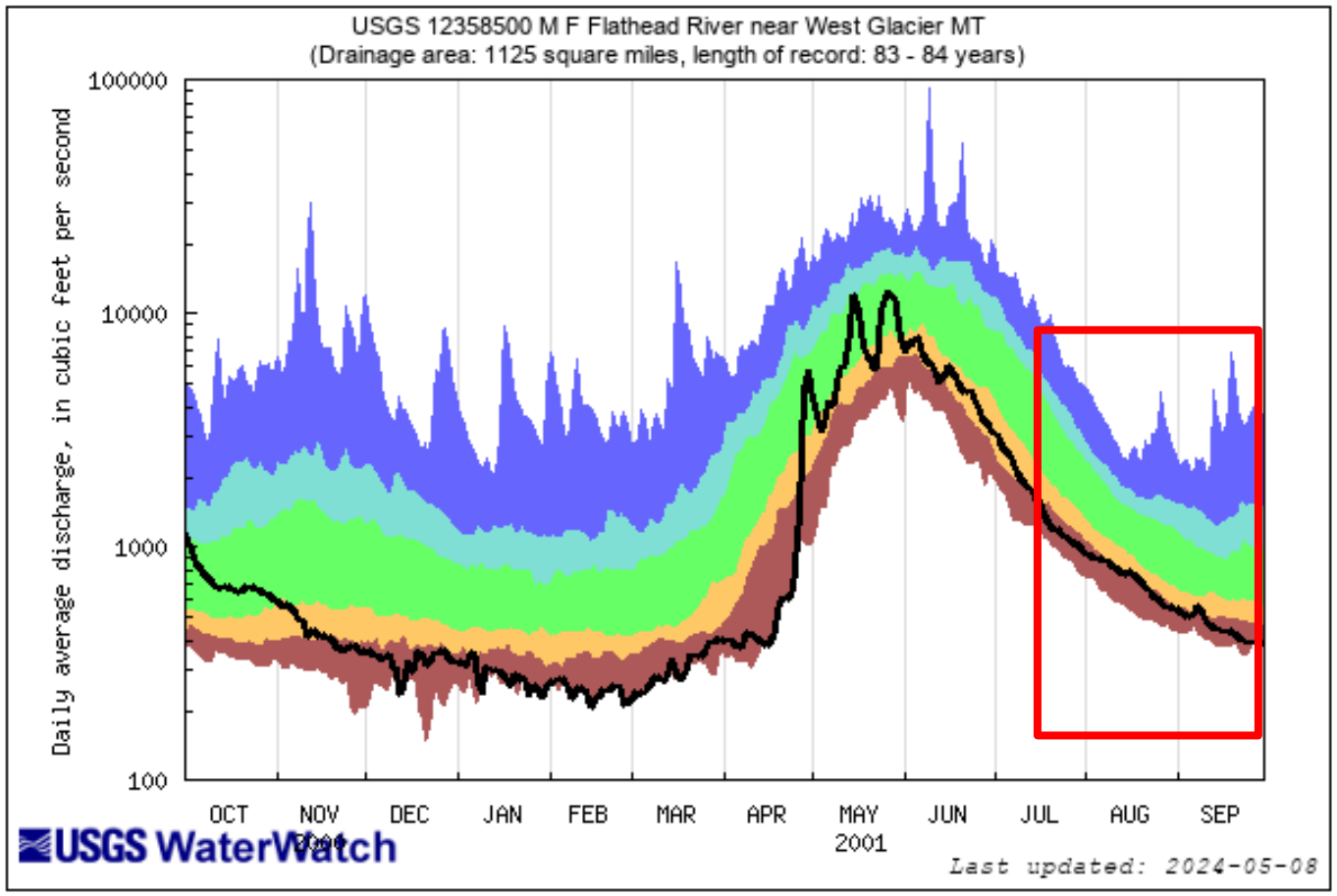
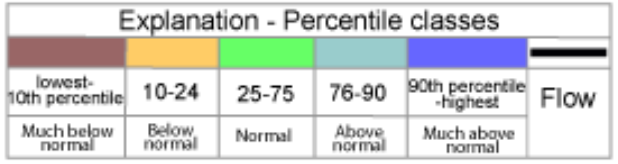
A look at the 2001 Water Year





- 41% less runoff volume (~660 KAF)
- Very Low post runoff
- Very low fall base flow

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Takeaway Messages

- It's still early!
- Low snowpack
- Average now flow ≠ average later (vice versa)
- May/June rain can:
  - provide relief low runoff conditions.
  - Prolong normal flow conditions.
  - Cause flooding.
- Only a snapshot of conditions.

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U.S. Geological Survey Contacts

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- Wyoming-Montana Deputy Director
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- Wyoming-Montana Hydrologist
  - Aaron Fiaschetti (afiaschetti@usgs.gov) (406) 457-5927

https://www.usgs.gov/centers/wy-mt-water

https://dashboard.waterdata.usgs.gov/app/nwd/?aoi=state-mt

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