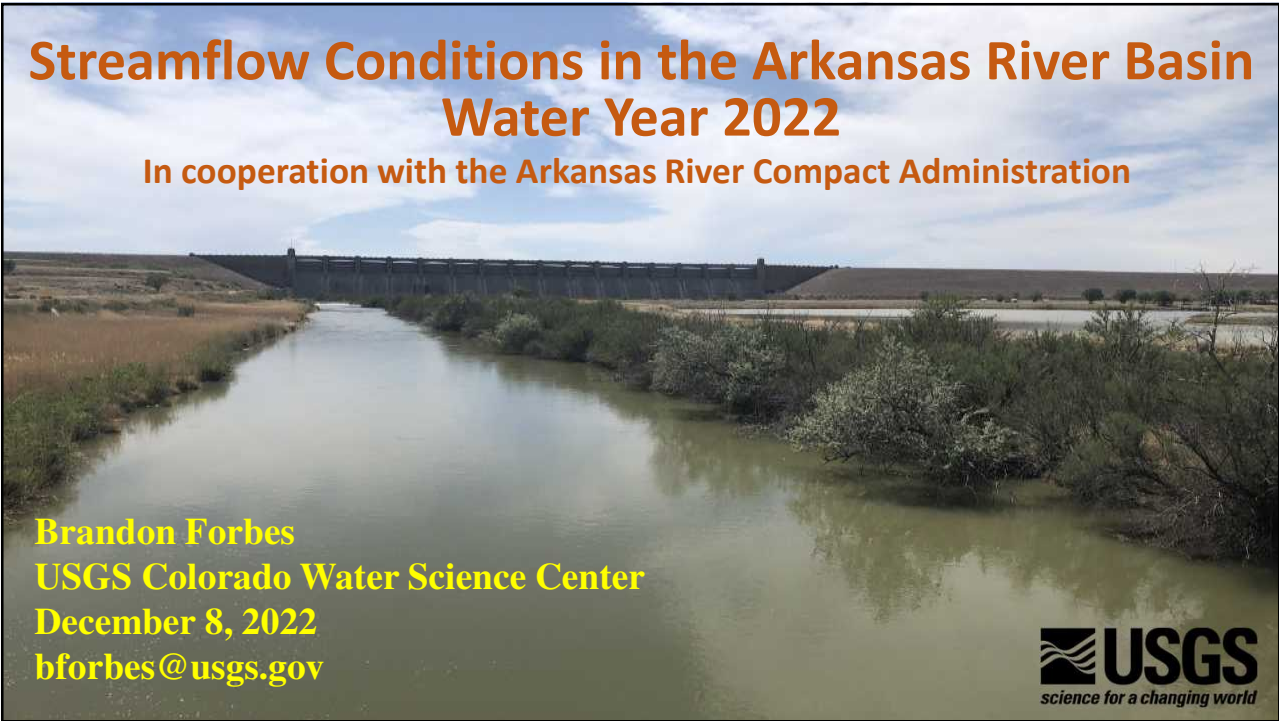



# Streamflow Conditions in the Arkansas River Basin Water Year 2022

In cooperation with the Arkansas River Compact Administration



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December 8, 2022  
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## USGS/ARCA Cooperative Streamgauge Program

- Mainstem Arkansas Sites (5)
- Tributary Sites (3)
- Frontier Ditch
- Potential Discontinued Site: Big Sandy nr Lamar
- Potential Reestablished Site: Arkansas River at Holly



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## Proposed Changes to the Engineering Committee

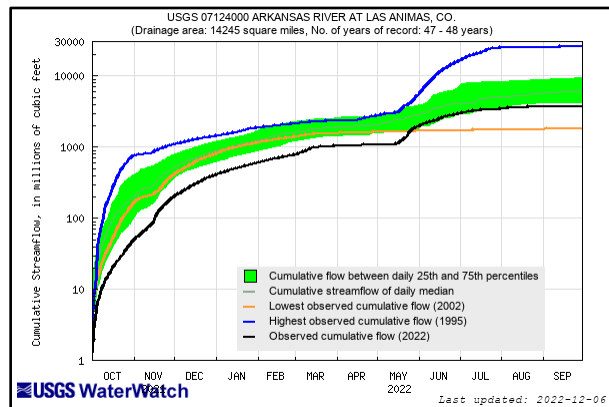
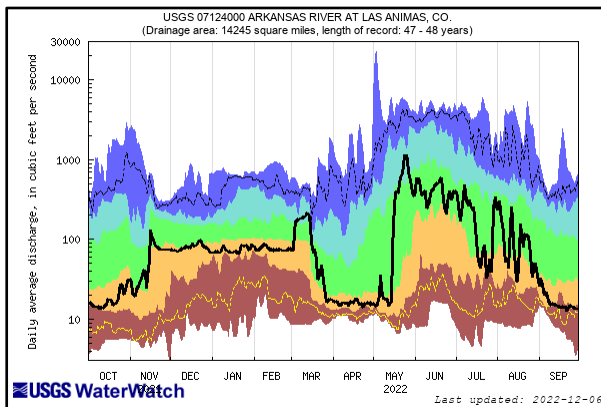
- Discontinuation of the Big Sandy Gage
- Reestablishment of the Ark River at Holly Gage
- Reuse gaging equipment to save costs
- Installation of new equipment
- 6 additional stream flow measurements to improve rating development



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## Water Year 2022 Streamflow Conditions

### Arkansas River at Las Animas



Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

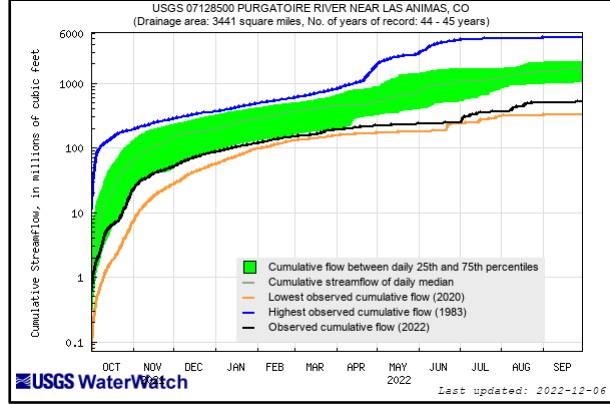
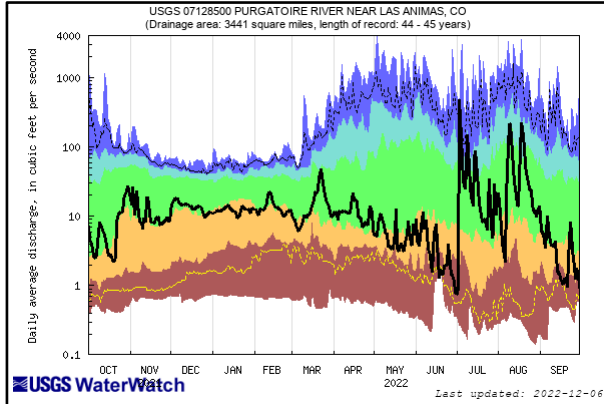
In Water Year 2022:  
**88,746 Acre-Feet**, 47% of the long-term average



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# Water Year 2022 Streamflow Conditions

## Purgatoire River near Las Animas



Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

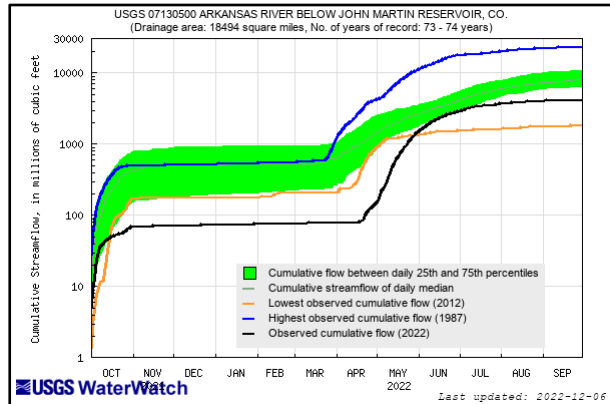
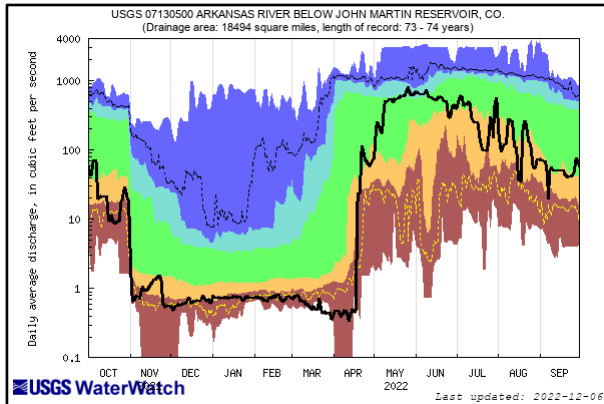
In Water Year 2022:  
12,145 Acre-Feet, 29% of the long-term average



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# Water Year 2022 Streamflow Conditions

## Arkansas River Below John Martin Reservoir



Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

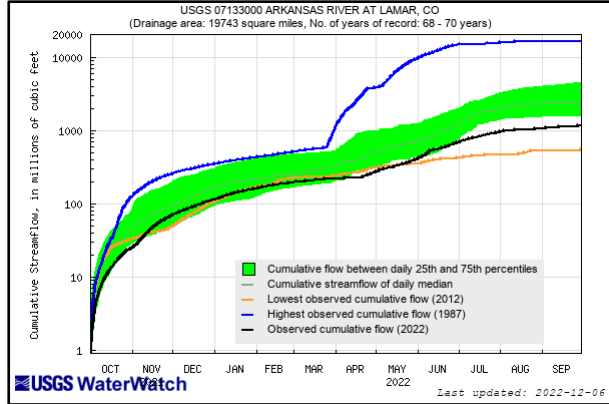
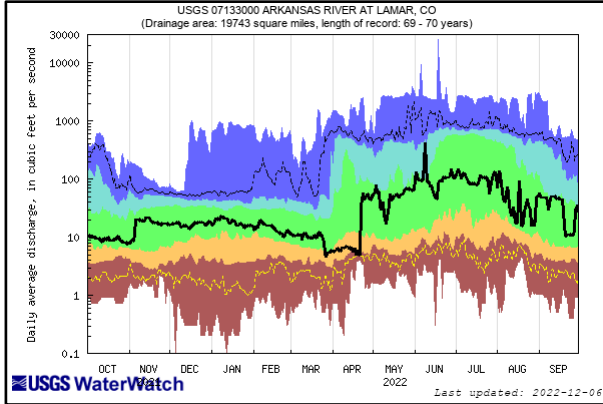
In Water Year 2022:  
98,156 Acre-Feet, 49% of the long-term average



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# Water Year 2022 Streamflow Conditions

## Arkansas River at Lamar



Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

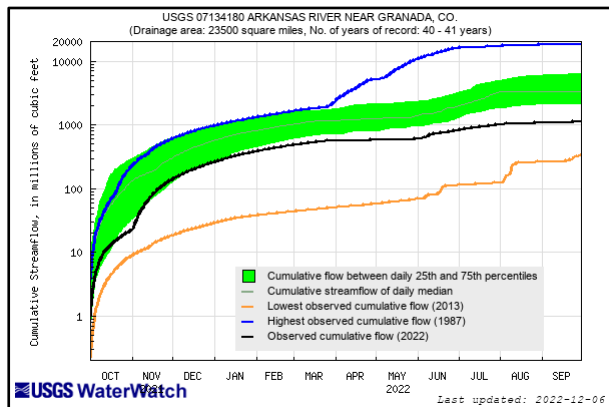
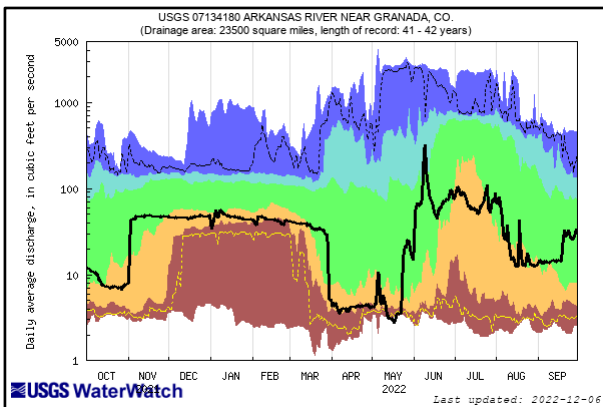
In Water Year 2022:  
27,118 Acre-Feet, 34% of the long-term average



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# Water Year 2022 Streamflow Conditions

## Arkansas River at Granada



Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

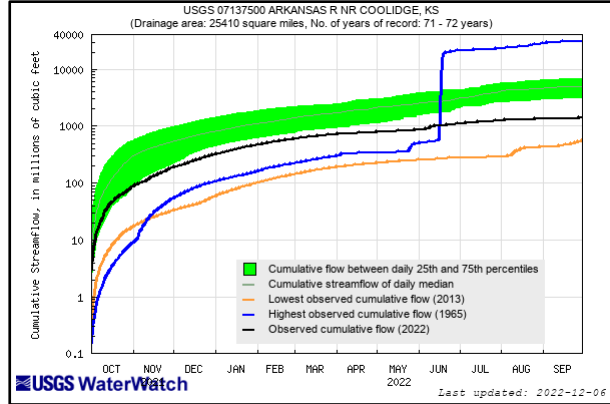
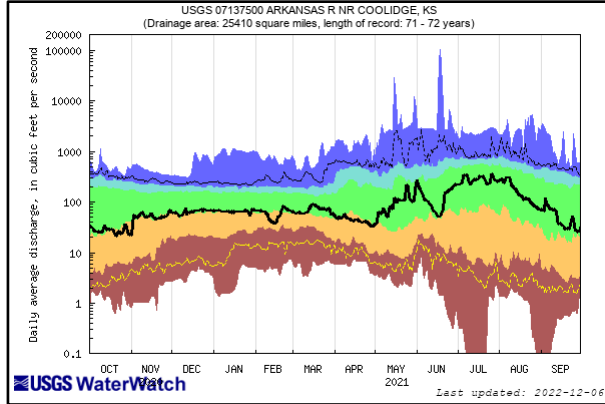
In Water Year 2022:  
26,668 Acre-Feet, 23% of the long-term average



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# Water Year 2022 Streamflow Conditions

## Arkansas River at Coolidge



Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile-highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

In Water Year 2022:  
33,160 Acre-Feet, 23% of the long-term average



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# Water Year 2022 Streamflow Conditions



## Summary of streamflow at USGS/ARCA stations Water Year 2022 (Oct 1, 2021 - Sept 30, 2022)

USGS Station Number	Station Name	WY2022 Annual total flow, in acre-feet	WY2022 as Percentage of long-term average
07119500	Apishapa River near Fowler	5,376	32%
07124000	Arkansas River at Las Animas	88,746	47%
07128500	Purgatoire River near Las Animas	12,145	29%
07130500	Arkansas River below John Martin Reservoir	98,156	49%
07133000	Arkansas River at Lamar	27,118	34%
07134100	Big Sandy Creek near Lamar	2,121	23%
07134180	Arkansas River near Granada	26,668	23%
07134990	Wild Horse Cr. above Holly, October, April-Sept	749	21%
07137500	Arkansas River near Coolidge, KS	33,160	23%
07137000	Frontier Ditch near Coolidge, KS	10,288	120%

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## Water Year 2022 Streamflow Conditions

-The two major tributaries to John Martin Reservoir, the Apishapa and the Purgatoire produced 32% and 29% respectively, of the long-term average flow.

-Outflow from John Martin Reservoir produced 49% of the long-term average.

-Huge thanks to the USGS staff in Colorado and Kansas for all the hard work this year!

-The network has just under 700 years of gage operation collectively; two gages have been in operation over 100 years!  
(Purgatoire nr Las Animas and Ark at Lamar)

-Gage calibration in WY 2022 required over 125 individual discharge measurements



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# Questions?



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