

Predicted 2026 Water Supply and Water Quality



Osborne Bridge, March 15 2019



Osborne Bridge, March 17 2026

Rob Van Kirk, Henry's Fork Foundation
Henry's Fork Watershed Council, April 14, 2026

~~Predicted~~ 2026 Water Supply and Water Quality



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Osborne Bridge, March 17 2026

Rob Van Kirk, Henry's Fork Foundation

Henry's Fork Watershed Council, ~~April 14, 2026~~ October 13, 2026

Outline

- Water year statistics
- Long-term trends
- Upper Snake River System Operational Guidelines
- My April-1 predictions
- Comparison of predicted and observed
- Predictions for upcoming winter

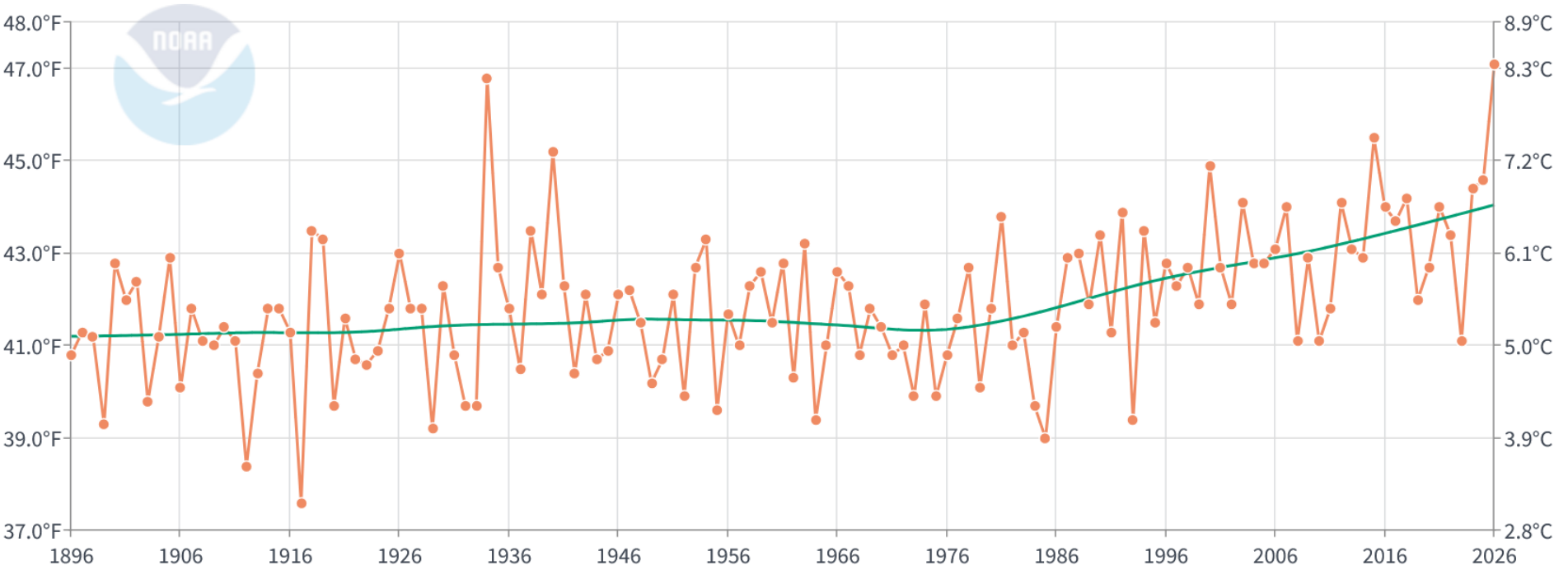
Henry's Fork Watershed in 2026

- Warmest water year in 132-year record
- Precipitation 96% of average
- Peak SWE 67% of average
- Snow water equivalent (SWE) peaked March 17 (27 days early)
- Lowest April-1 SWE on record
- Record-low 55% of precipitation stored as snow
- Record-low 30% of precipitation turned into streamflow
- Natural flow: 72% of average; lowest since 1934

Idaho, Climate Division 10 Average Temperature

October-September

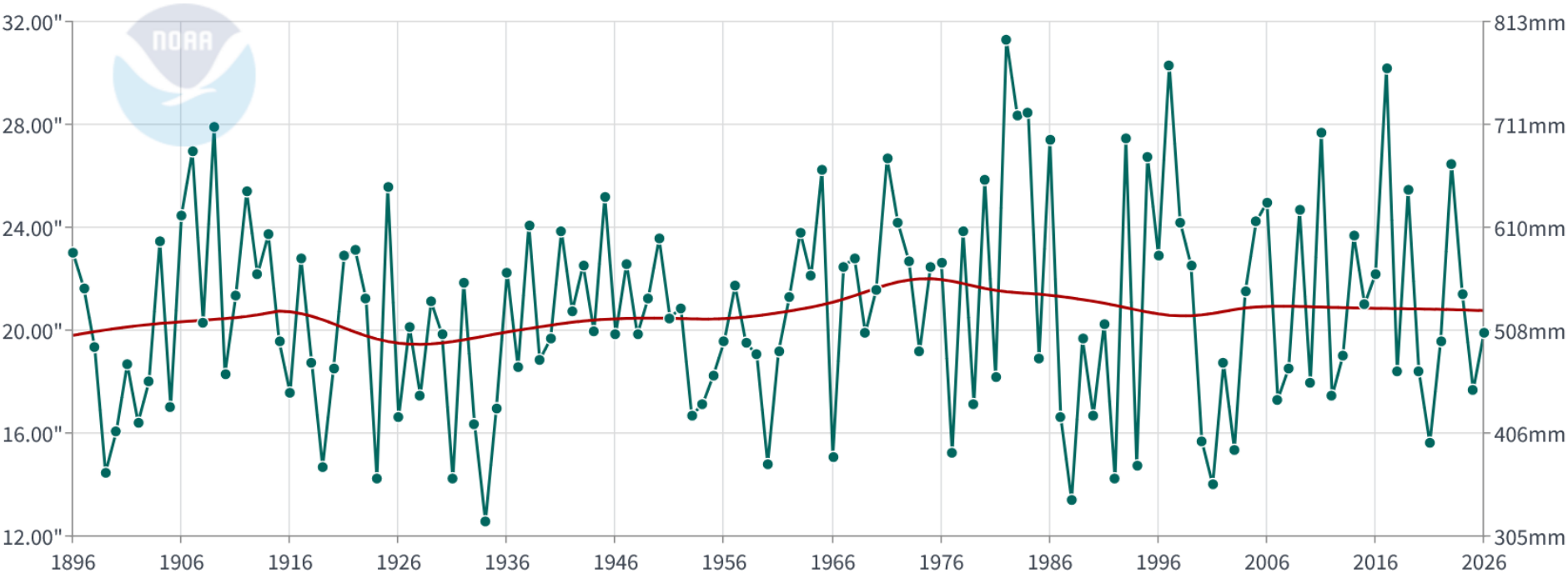
— LOESS



Idaho, Climate Division 10 Precipitation

October-September

LOESS



Trends

↑ Warmer

↔ Precipitation

↓ Amount of precipitation that turns into streamflow

? Natural flow

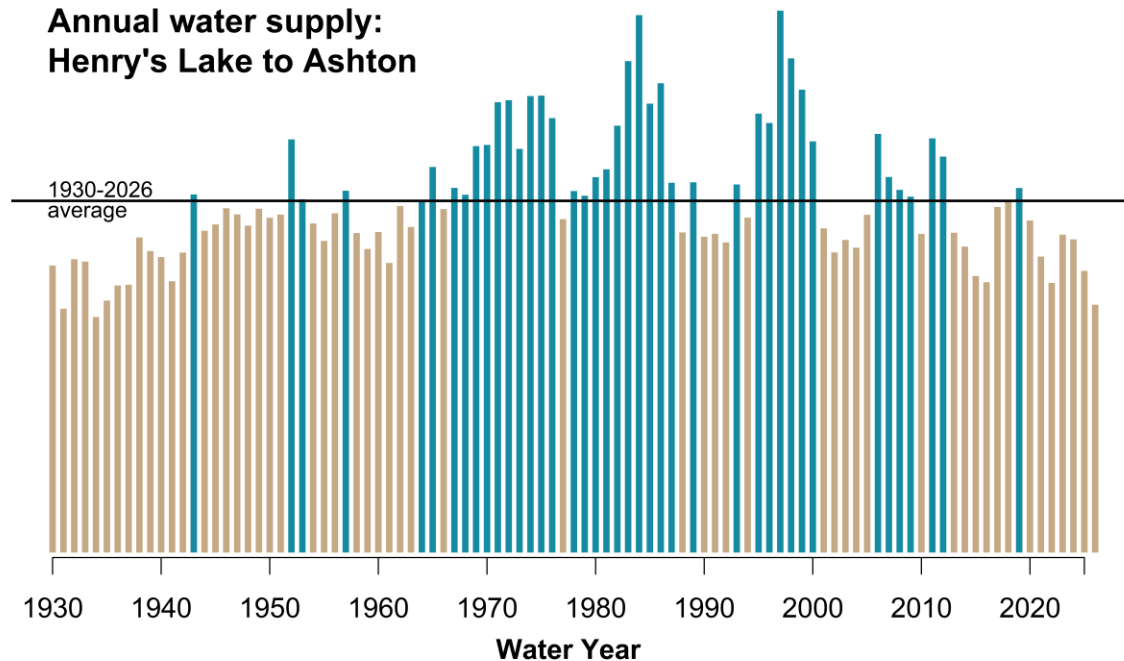
Trends

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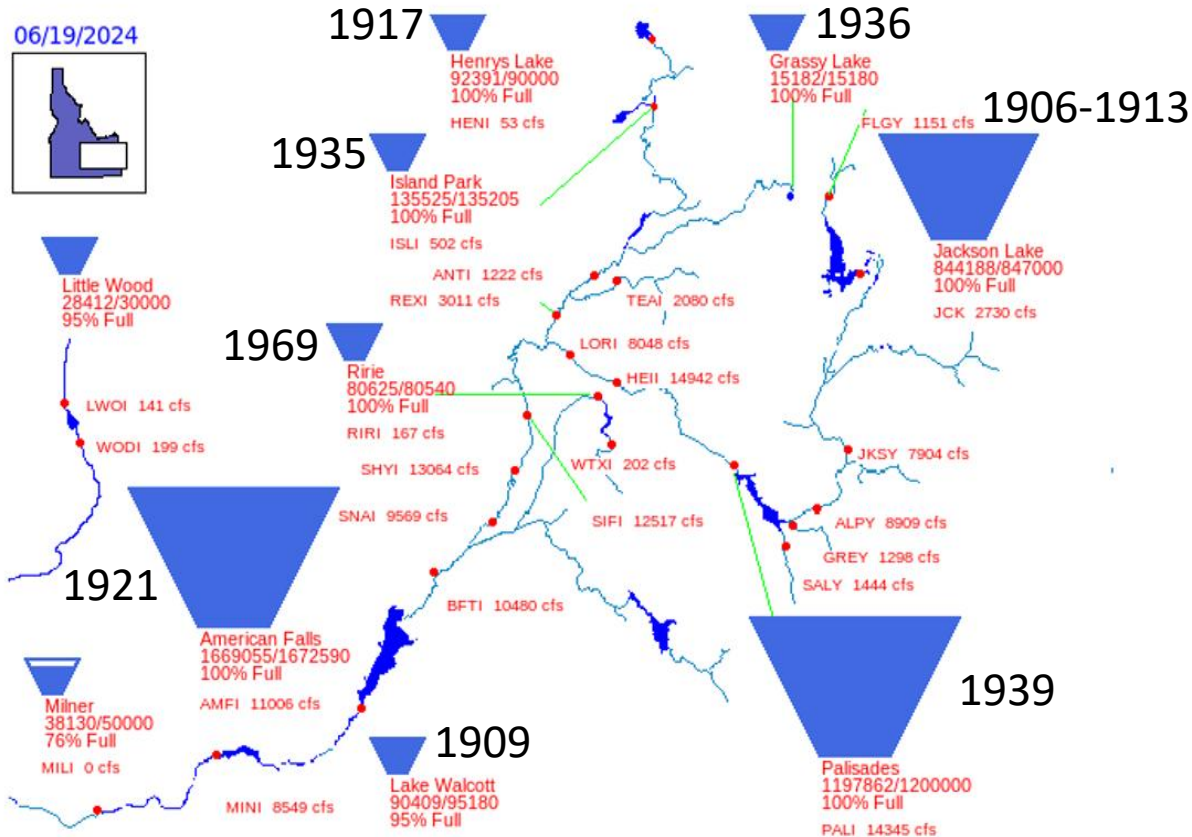


Upper Snake Reservoir Guidelines

- Store water as high in the system as possible
- Draft reservoirs only as needed to meet total diversion and key streamflow targets
- Flood risk management & dam safety as needed
- Hydropower, fish, wildlife, recreation subordinate
- Physical and paper water are not the same thing

Bureau of Reclamation, Pacific Northwest Region

Major Storage Reservoirs in the Upper Snake River Basin



Priority
dates of
largest
storage
rights

PROVISIONAL DATA - Subject to change

HFF predictive models

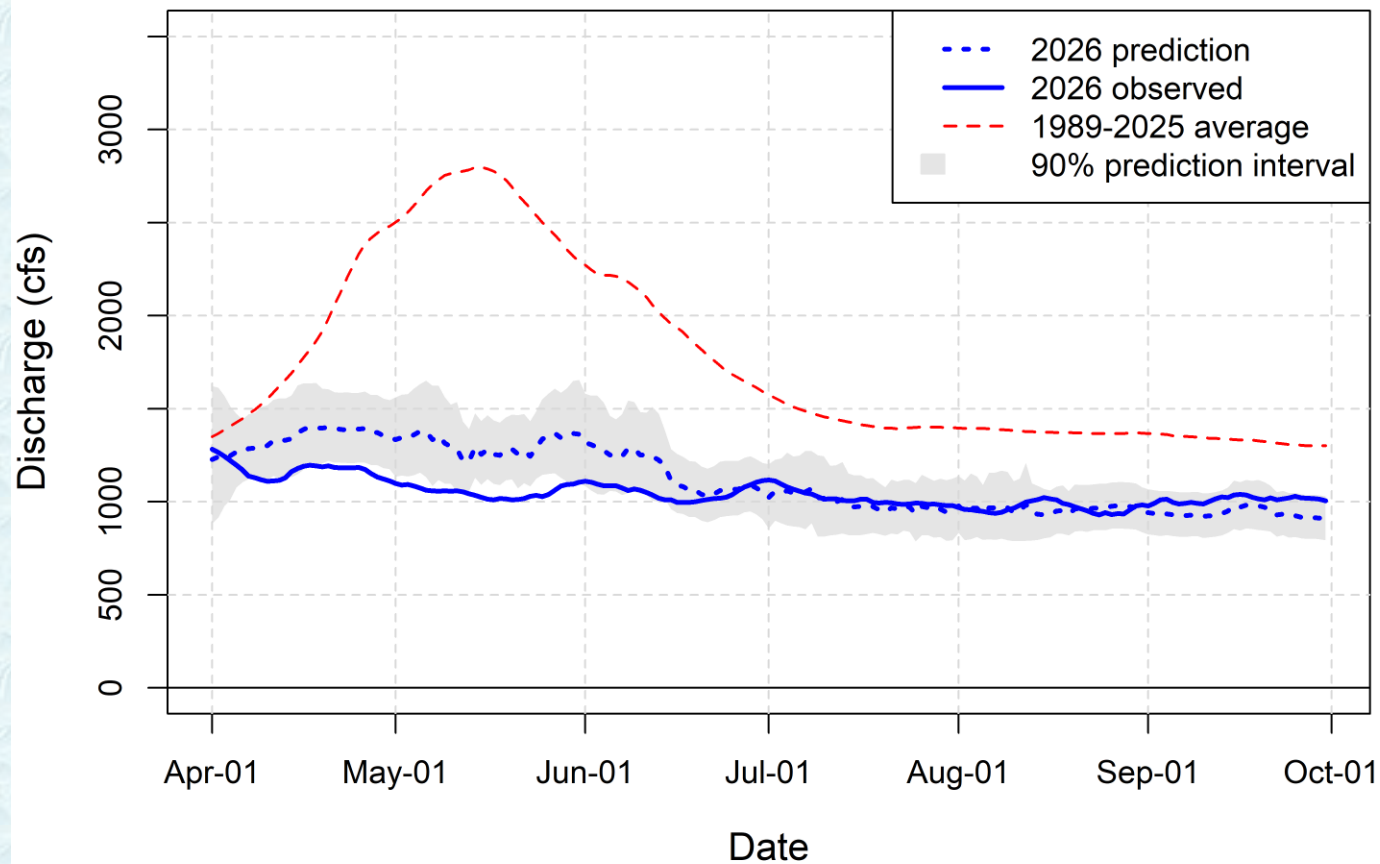
- First developed in 2017; average error in predicting natural flow: 10.5%
- Inputs
 - April-1 snow water equivalent (SWE)
 - October – March base flow
 - Moisture
 - Projected summer evapotranspiration
- Outputs
 - April – Sept streamflow volume
 - Streamflow timing
 - April – Sept diversion volume
- Water operations model
 - Reservoir draft (Henrys, Grassy, Island Park)
 - Lower-watershed streamflow targets
 - Crosscut Canal delivery
 - Send water to American Falls?

	Mean April 1 – September 30 natural flow						
	2026 prediction		2026 observed		Prediction error (%)	2025 observed	
	cfs	% of ave.	cfs	% of ave.		cfs	% of ave.
Upper HF	1,094	62%	1,045	59%	4.7%	1,270	72%
Fall River	815	61%	828	62%	-1.6%	1,071	81%
Teton River	664	57%	755	65%	-12.1%	925	79%
WATERSHED	2,492	59%	2,628	62%	-5.2%	3,266	77%

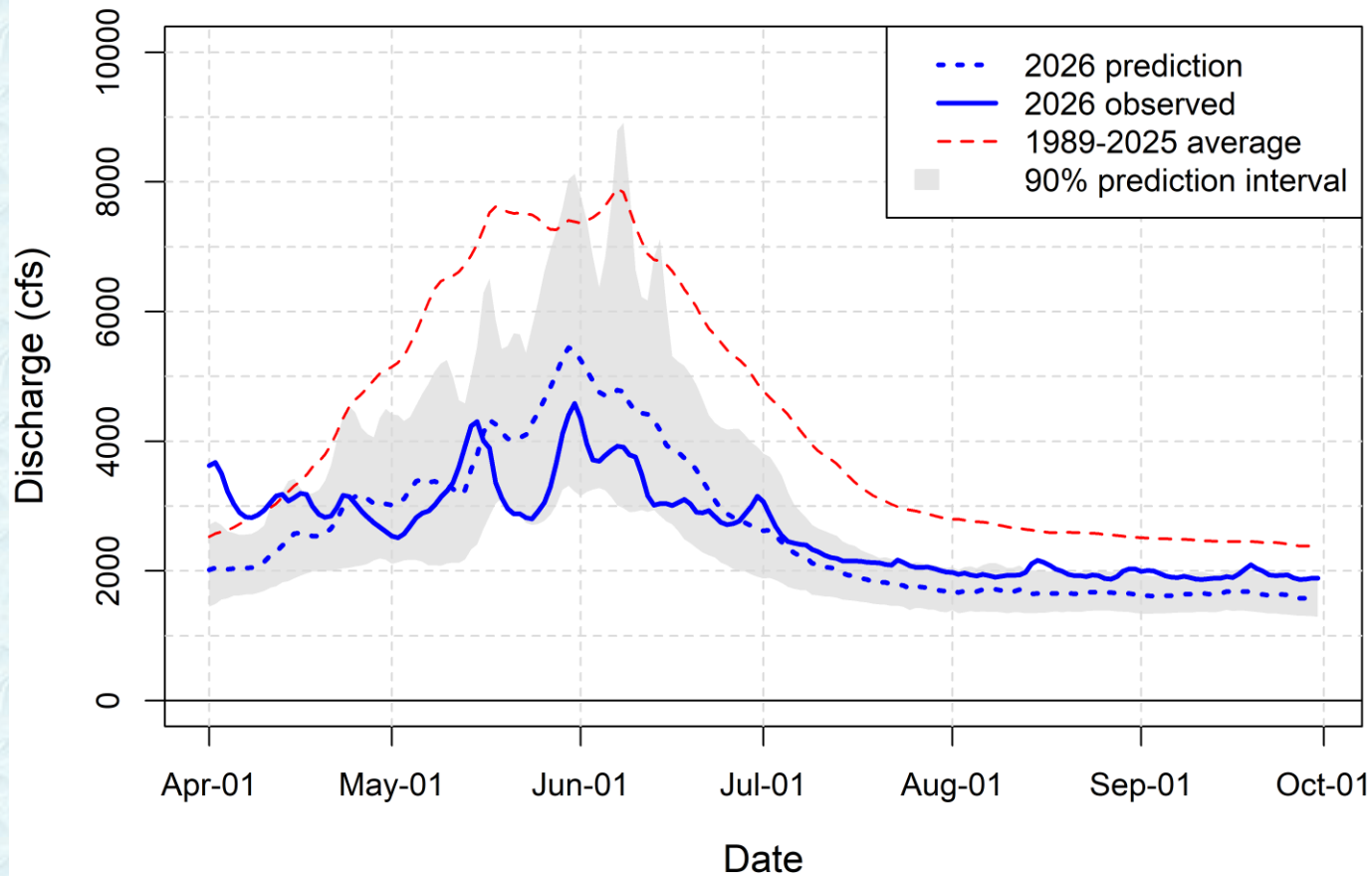
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Compare to 10.5% average

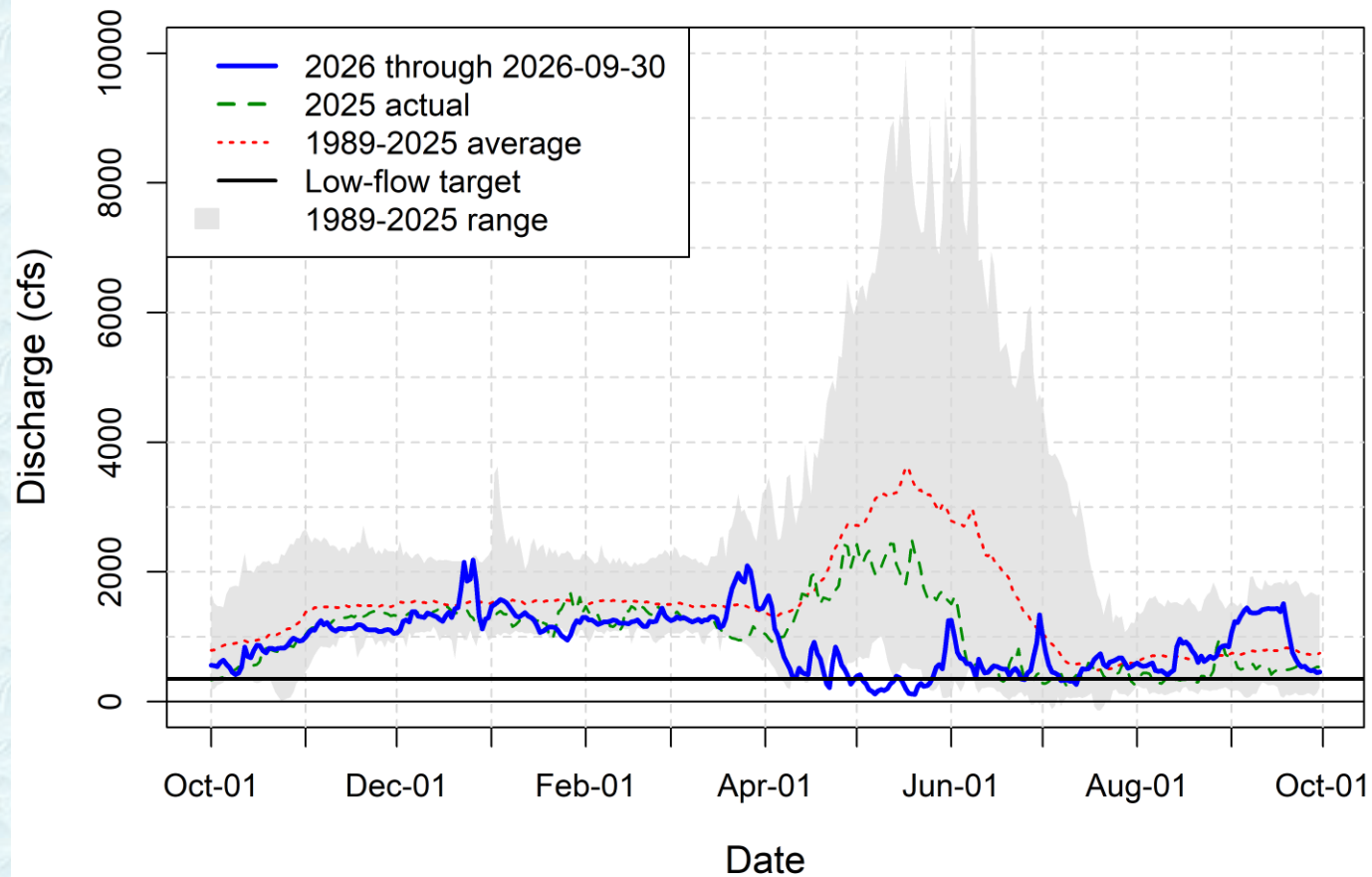
Upper Henry's Fork (at Ashton) Natural Flow



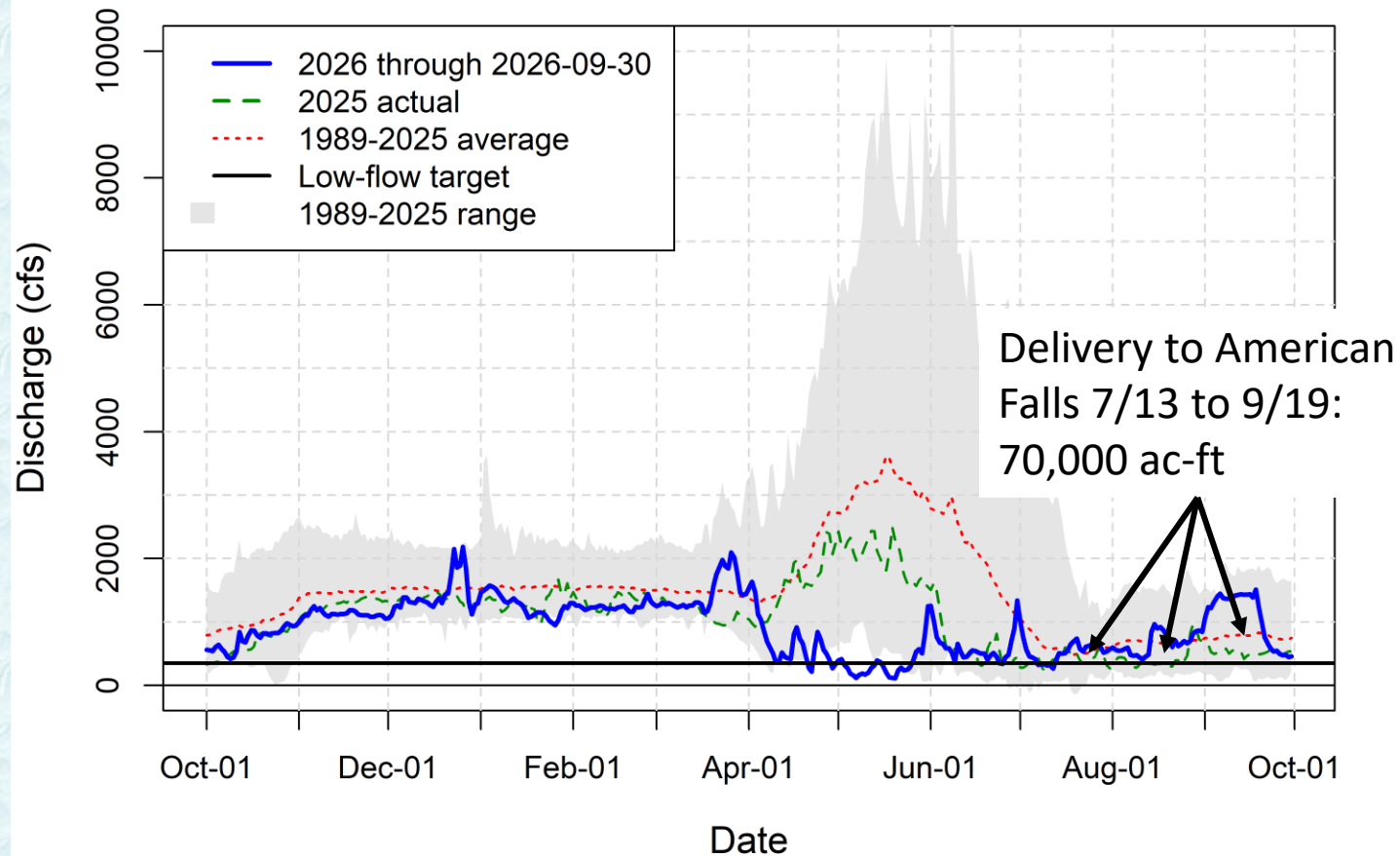
Henry's Fork Watershed Natural Flow



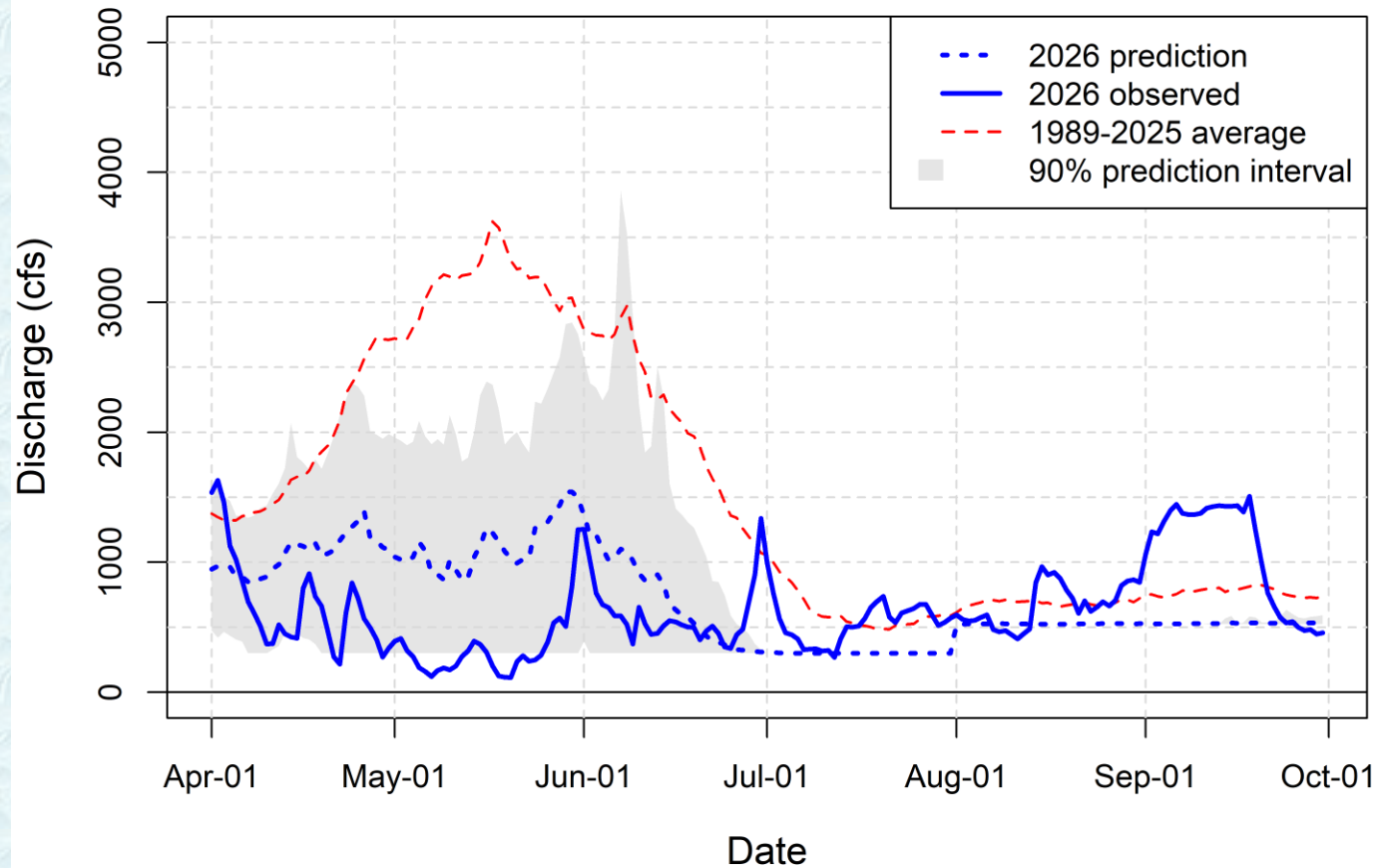
Henry's Fork Downstream of all Diversions



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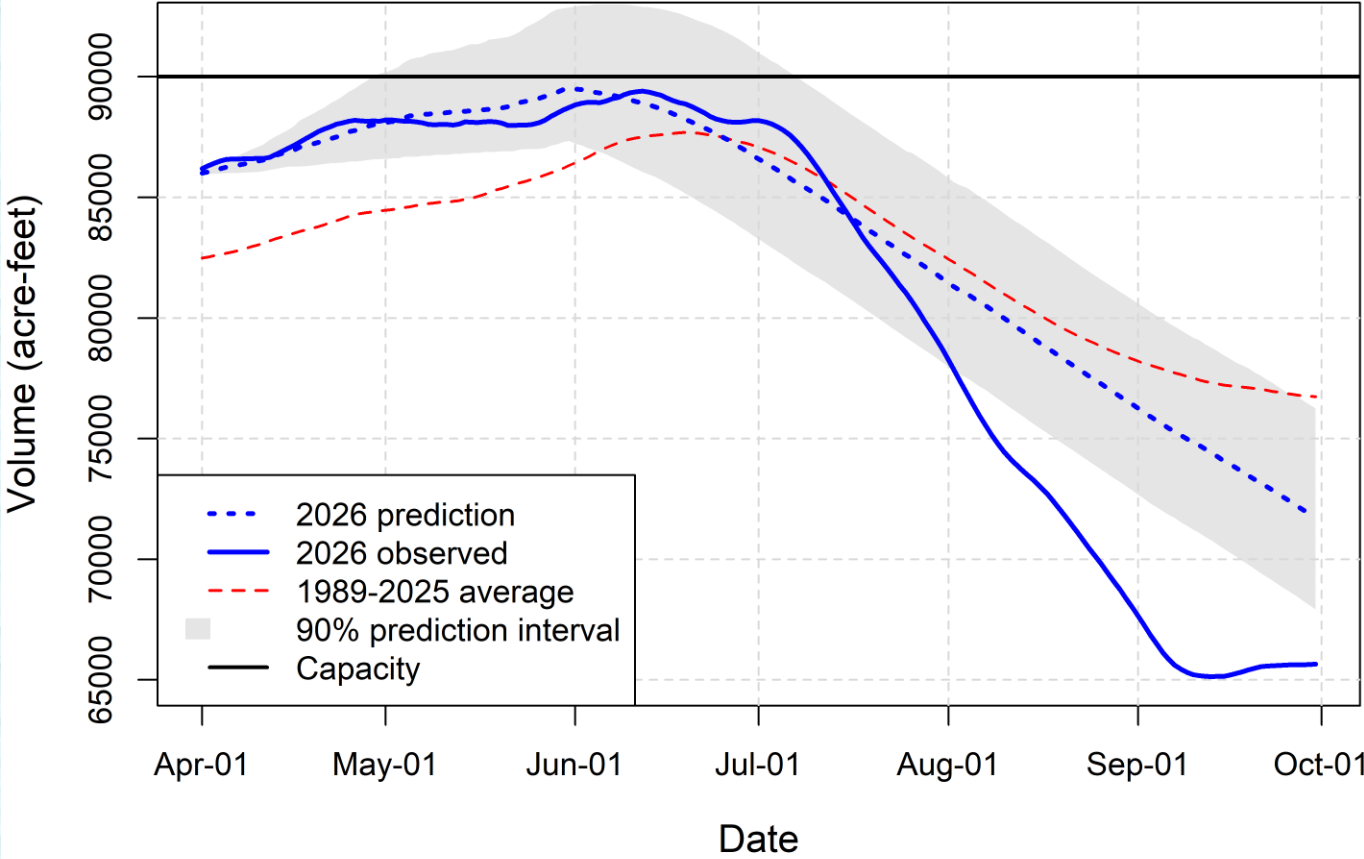


Henry's Fork Downstream of All Diversions

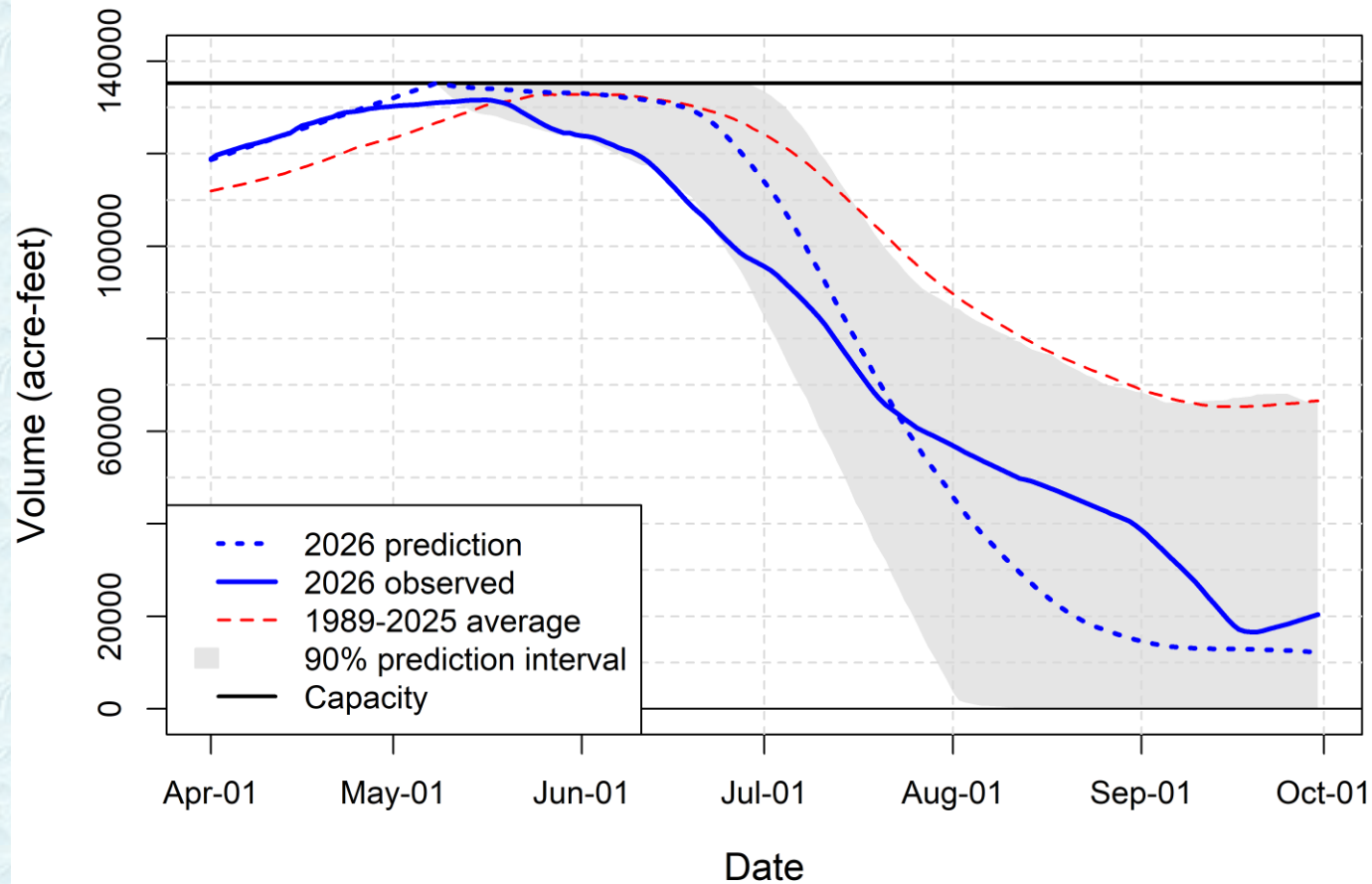


	End-of-season Volume						
	2026 prediction		2026 observed		Prediction error (%)	2025 observed	
	ac-ft	% full	ac-ft	% full		ac-ft	% full
Henry's Lake	71,717	80%	65,138	72%	10%	76,419	85%
Island Park	12,278	9%	16,603	12%	-26%	43,948	33%
Grassy Lake	6,966	46%	6,628	44%	5%	9,203	61%
TOTAL	90,960	38%	88,369	37%	3%	131,570	55%

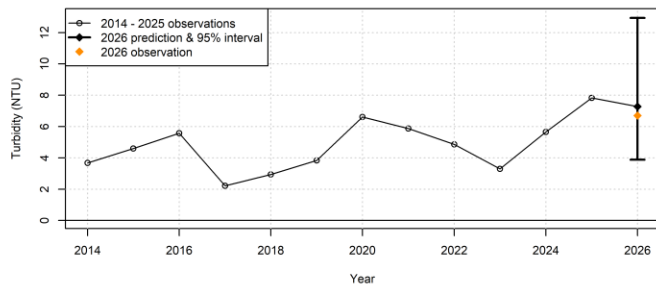
Henrys Lake Volume



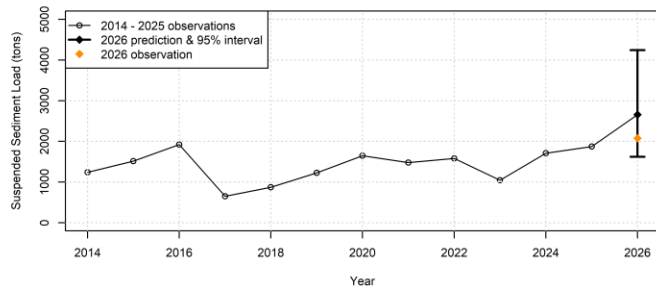
Island Park Reservoir Volume



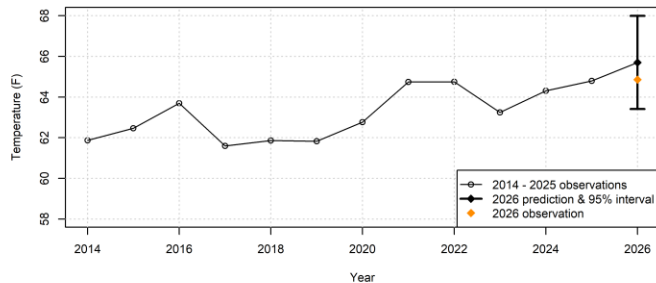
Jun 15 - Sep 30 Turbidity



Jun 15 - Sep 30 Sediment Load



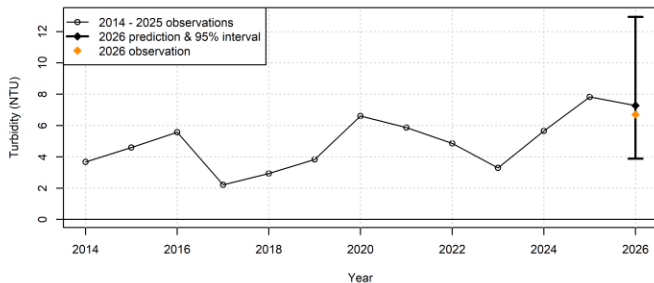
Jul 1 - Aug 31 Water Temperature



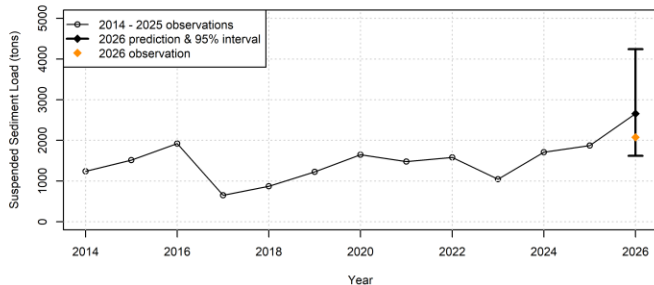
Island Park Reservoir Water Quality

- Turbidity lower than expected in 2026
- Increasing trend

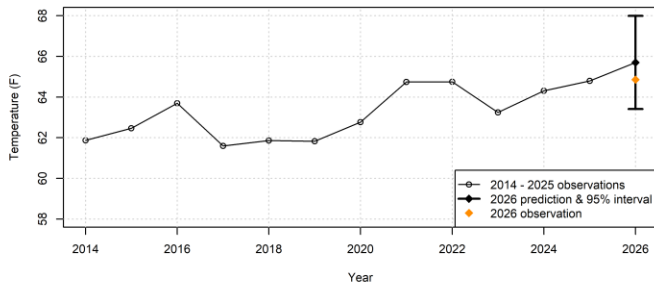
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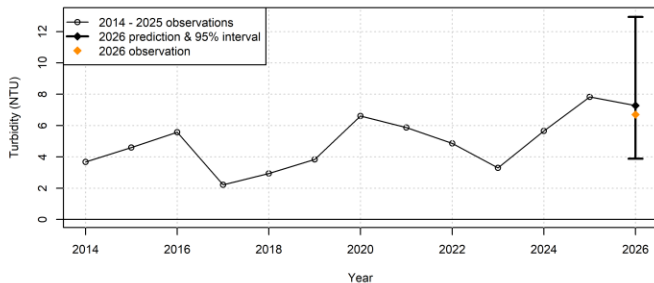


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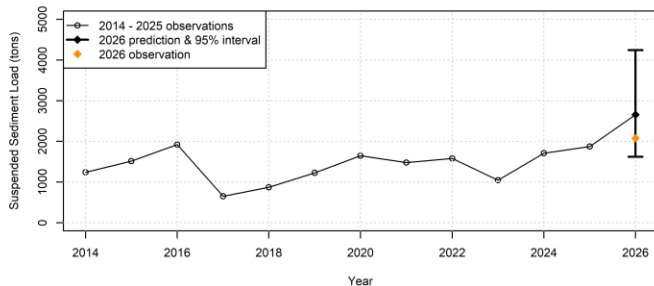
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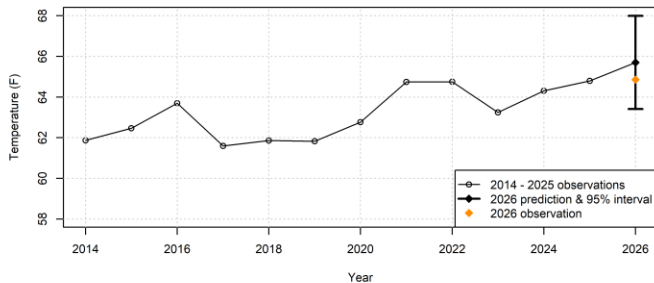
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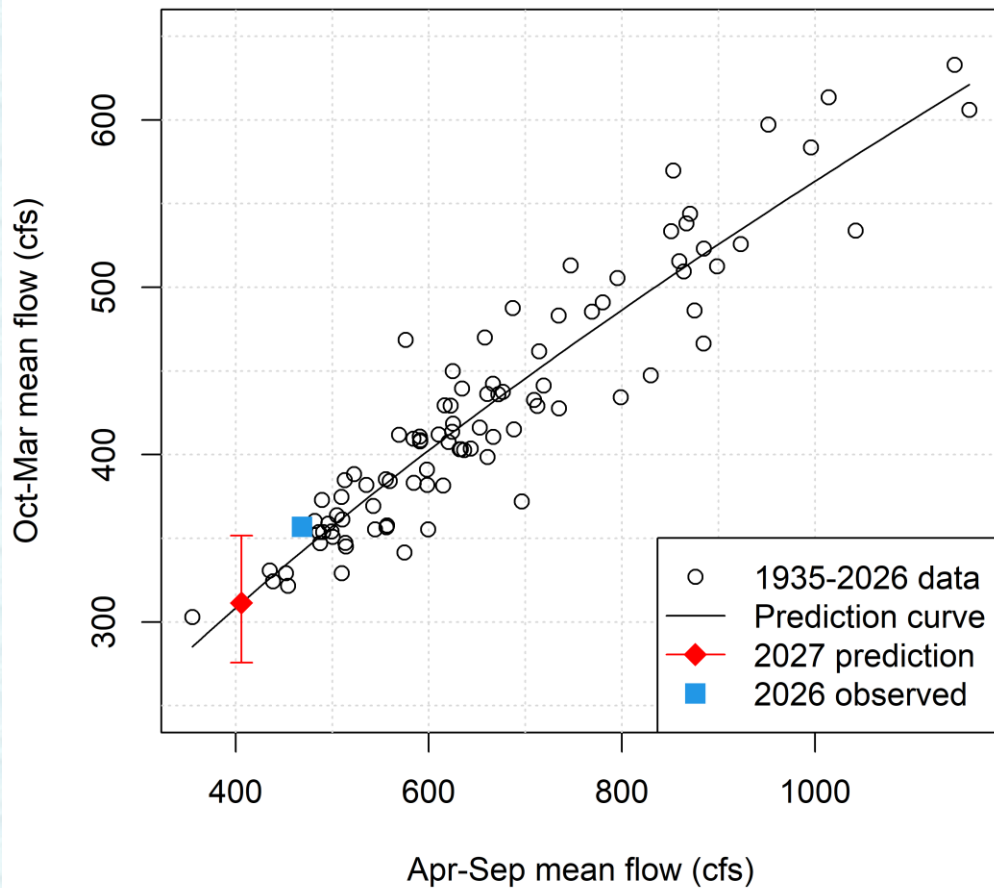
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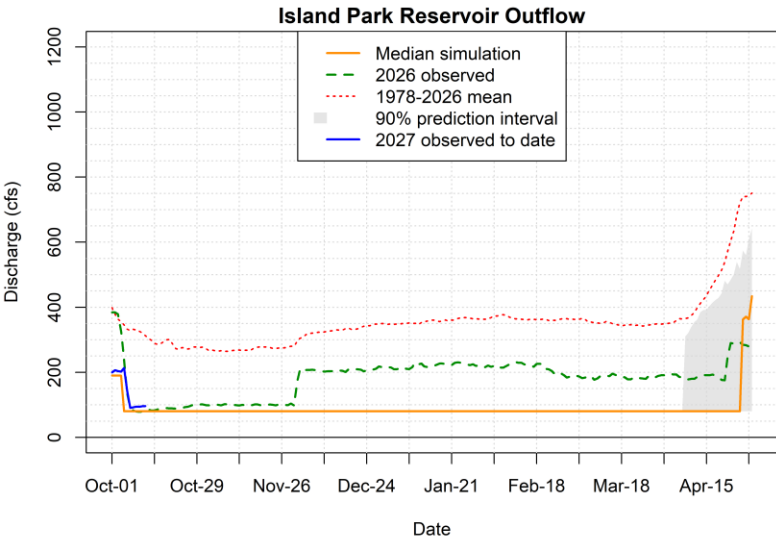
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- Sediment load lower than expected
- Increasing trend

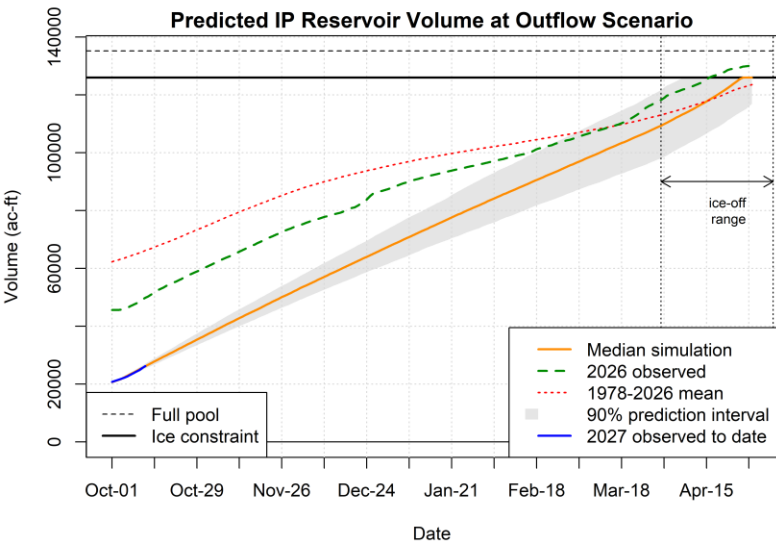
- Water temperature cooler than expected
- Increasing trend

Oct-Mar Henry's Lake to Island Park inflow





- Outflow stays at 80-90 cfs until spring



- 60% chance of reaching ice constraint (93% full) by May 1
- >5% chance reservoir is less than 87% full on May 1

2026: Anomaly or “new normal”?

