



AGENDA

IDAHO WATER RESOURCE BOARD

Brad Little
Governor

Jeff Raybould
Chairman
St. Anthony
At Large

Jo Ann Cole-Hansen
Vice Chair
Lewiston
At Large

Dean Stevenson
Secretary
Paul
District 3

Dale Van Stone
Hope
District 1

Albert Barker
Boise
District 2

Brian Olmstead
Twin Falls
At Large

Marcus Gibbs
Grace
District 4

Patrick McMahon
Sun Valley
At Large

Special Committee on Priest Lake Operations Meeting No. 1-26

Monday, July 13, 2026

10:00 AM (PT) 11:00 AM (MT)

West Bonner Library District
118 Main Street
Priest River, ID 83856

Livestream available at <https://www.youtube.com/@iwrbb>

1. Roll Call
2. Priest Lake Outlet Dam Introduction and History
3. Priest Lake Outlet Dam Operations - Lake & River System Management Best Practices Manual*
4. Priest Lake Operations – Water Supply Forecasting Protocol
5. Priest Lake Operations – 2026 Season Updates
6. Public Comment - In Person - (*See protocol below*)
7. Non-Action Items for Discussion
8. Adjourn

Committee Members:

Chair Pat McMahon, Jo Ann Cole-Hansen, and Dale Van Stone.

* Action Item: A vote regarding this item may be made at this meeting. Identifying an item as an action item on the agenda does not require a vote to be taken on the item. **Americans with Disabilities:** If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email mlin.ream@idwr.idaho.gov or by phone at (208) 287-4800.

Public Comment Protocol: To provide opportunity for broad public comments, agencies and representatives from organized groups will be limited to 10 minutes, and individuals will be limited to 5 minutes.

MEMO



To: Idaho Water Resource Board
From: Amy Cassel, IDWR Project Manager
Date: July 10, 2026
Subject: Priest Lake Outlet Dam – History, Timeline, and Guidance

INFORMATIONAL ITEM

Staff will present a PowerPoint overview of the history, timeline, and operational guidance associated with the Priest Lake Outlet Dam.

Attachments:

- *PowerPoint Presentation*



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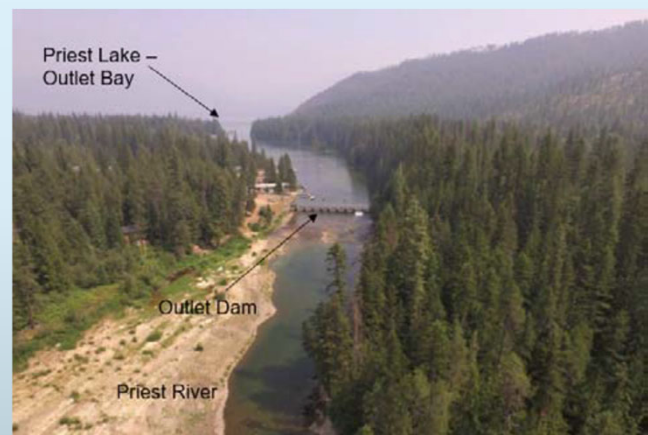
Purpose and Goal

Purpose:

- History of the Priest Lake Outlet Dam
- Timeline of important dates and decisions
- Statutory authority and other regulatory documents

Goal:

- Provide the historical context and legal framework for current dam operations and best practices going forward



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Priest Lake Outlet – Pre-Dam Construction



Logging Operations and Mill – 1940's

3

Idaho Code – Title 70, Chapter 5

- **I.C. §70-501** – authorized outlet control structure in 1950, downstream of Diamond Match Mill
- **I.C. §70-502** – approved construction
- **I.C. §70-503** – established fund to receive contributions
- **I.C. §70-504 & 70-505** – money appropriated



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Idaho Code – Title 70, Chapter 5

I.C. §70-507 – Priest Lake (updated in 2018)

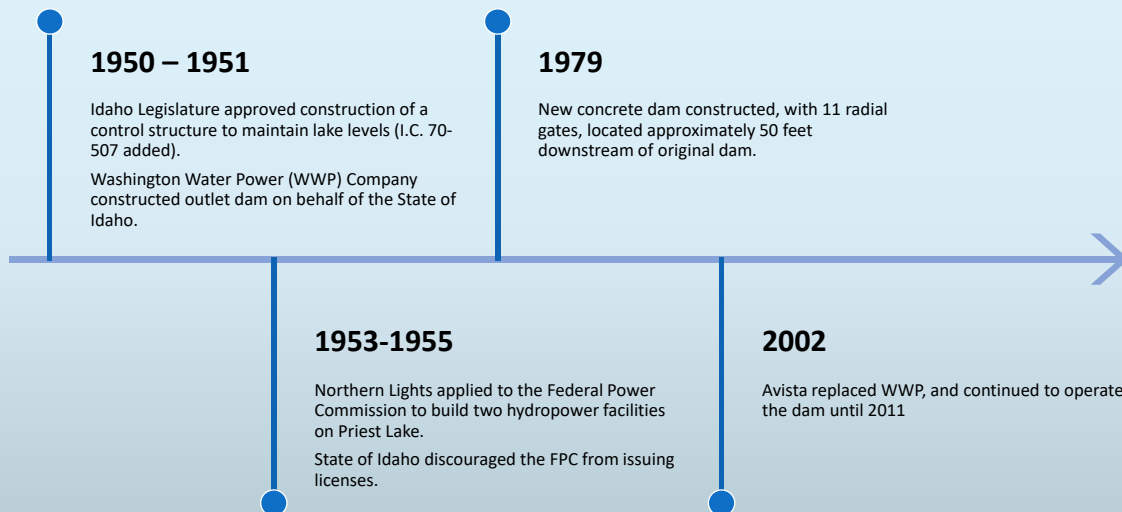
- granted ownership to the IWRB;
- authorized lake level of 0.1 ft to 3.5 ft (amended from 3.0 feet to 3.5 feet in 2018)
- May exceed 3.0 feet during spring runoff
- Maintain between 3.0 and 3.5 feet through recreation season (interpreted to begin on Memorial Day weekend)
- Other times of year, maintain between 0.1 and 3.0 feet



Priest Lake Outlet looking upstream from dam

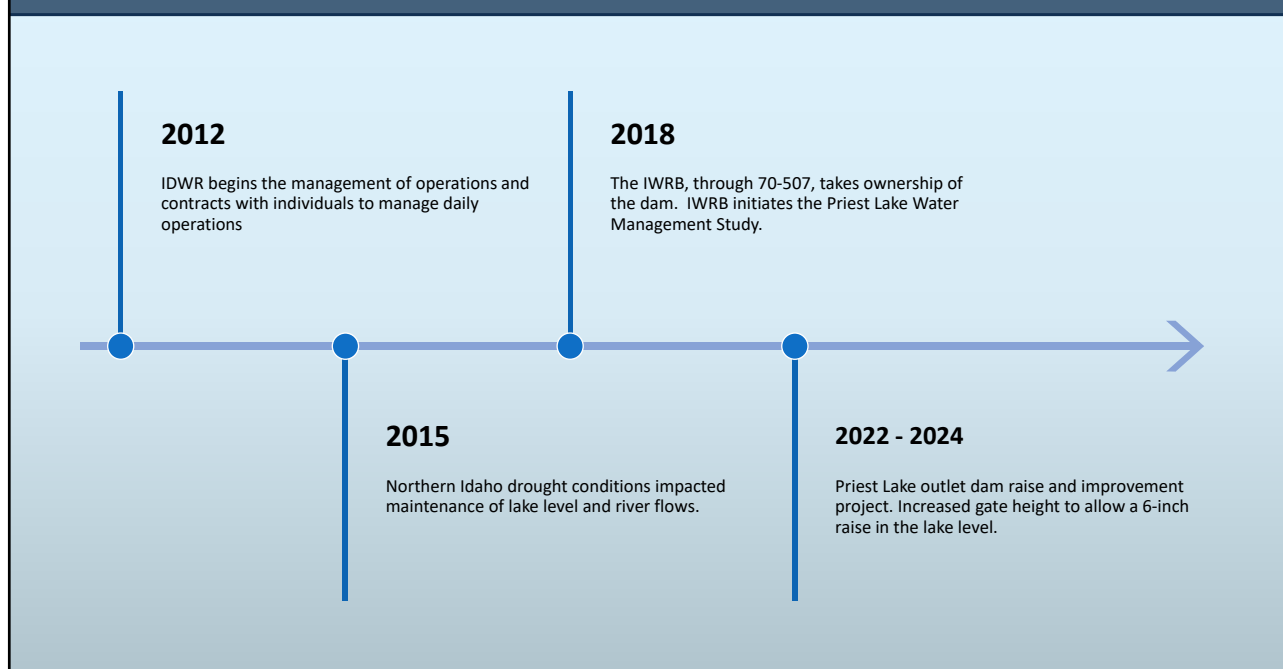
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Priest Lake Outlet Timeline



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Priest Lake Outlet Timeline – continued...



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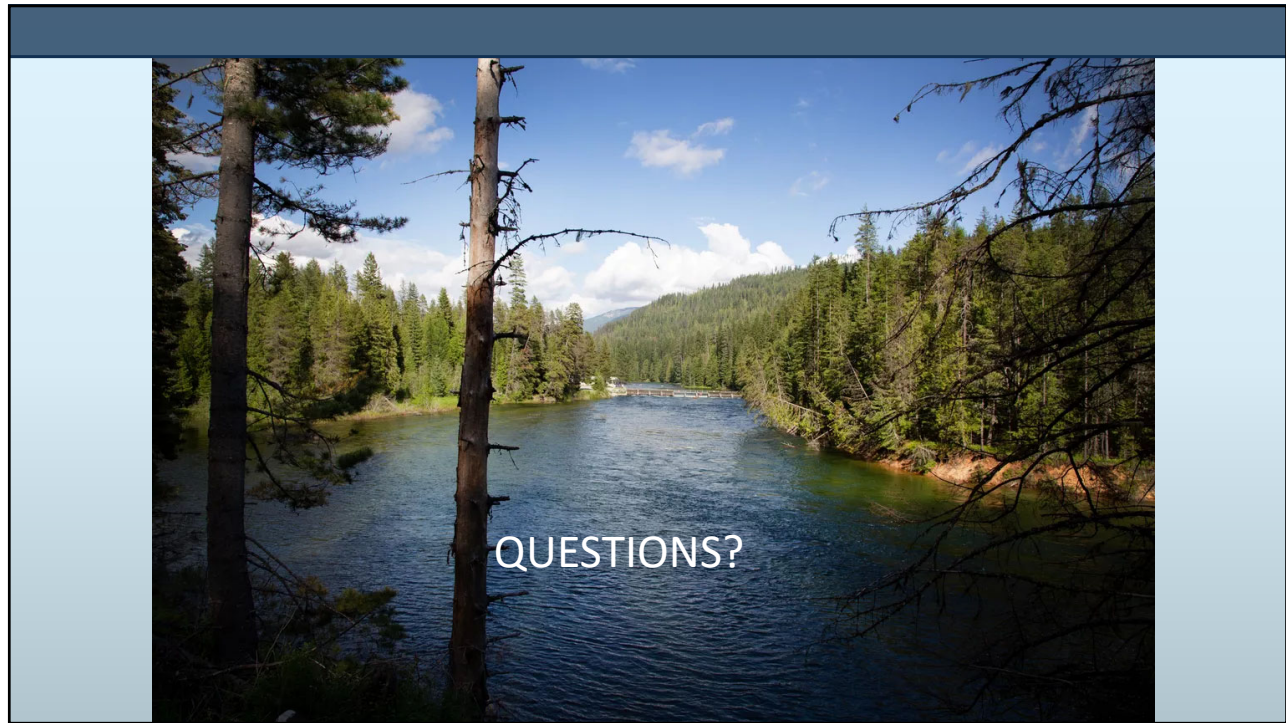
Priest River Outlet Dam – Regulatory and Policy Requirements

- Governor's Lake Level water right 97-2020 – **1927**
 - 800,000 AF
- I.C. §70-501-507 – **1950**, amended 2018
- Lower Priest River Instream Flow Study – Idaho Department of Fish and Game, **1992**
- Priest River Basin Plan – adopted **1995**, amended 2003
- IWRB Minimum Stream Flow Water Right; Priest River – **1997**
 - 8/1 – 10/31: 300 cfs
- Historic operation agreements had followed a policy to maintain a minimum of 60 cfs discharge into the river during the summer months



Priest River below outlet dam

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MEMO



To: Idaho Water Resource Board (IWRB)
From: Michelle Richman, IDWR N. Regional Manager
Date: July 10, 2026
Subject: Priest Lake Outlet Dam Operations – Best Practices Manual

REQUESTED ACTION: Presented for the Committees Review, Discussion, and Recommendation to the Full IWRB Board for Approval

Staff will provide a PowerPoint presentation overview of the following:

- Framework for Dam Operation Decisions
- Managing the River and Lake as a System
- Data Gaps

Attachments:

- *PowerPoint Presentation*



Priest Lake Dam: Best Practices



Michelle Richman
July 13, 2026



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Purpose – To Discuss:

How dam operation decisions are made

How to manage the river and lake as a system

Data gaps

FAQs

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Topics

- Context
- Goal – Strike a balance
- Framework for decisions



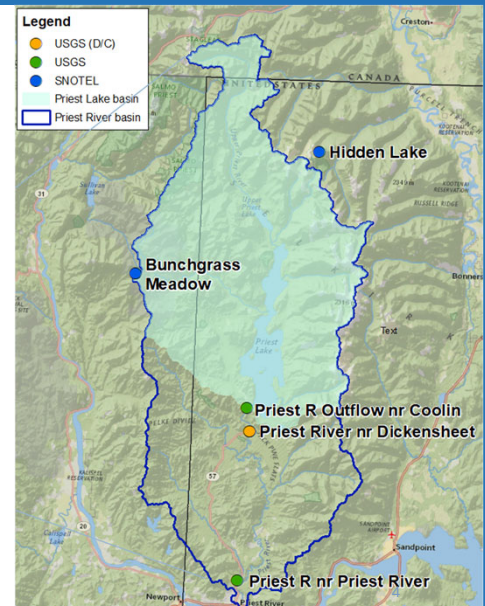
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Framework for Dam Operation Decisions

- Written Guidance
- Stakeholder Input
- Natural Inputs
- Basin Characteristics
- Monitoring Information
- Physical Configuration of the Dam



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Natural Inputs, Basin Characteristics

- Tributaries & Thorofare
- Weather (NOAA)
- Snowpack (SNOTEL)
- Collaboration



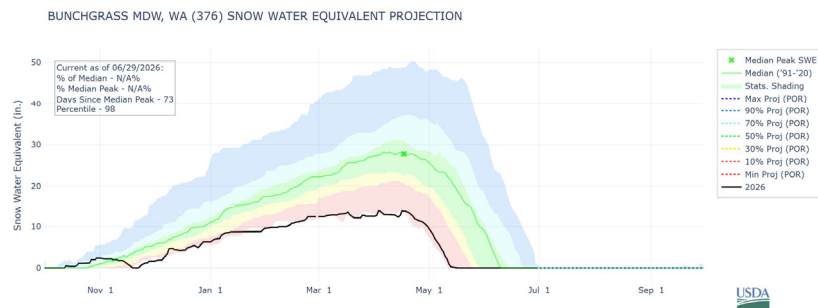
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Monitoring Information - Spring

- NRCS SNOTEL
- NRCS Water Supply Forecasts
- Drought Monitor



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Monitoring Information – Year-round

- USGS Stations (3)



USGS Priest River nr Coolin

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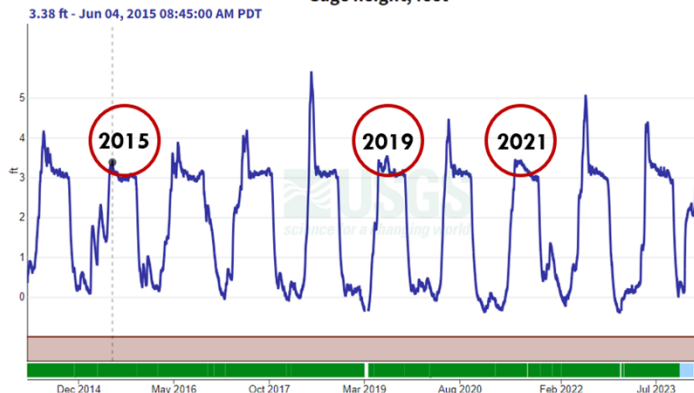
Spring – Dam Operations

- First Decision
 - Catch from peak
 - Bring lake level up
- Second Decision
 - Dry vs. Wet
 - Determines lake level
 - Wet – 3.0 feet
 - Dry – 3.0 to 3.5 feet

Priest Lake at Outlet NR Coolin ID - 12393000

February 26, 2014 - February 24, 2024

Gage height, feet



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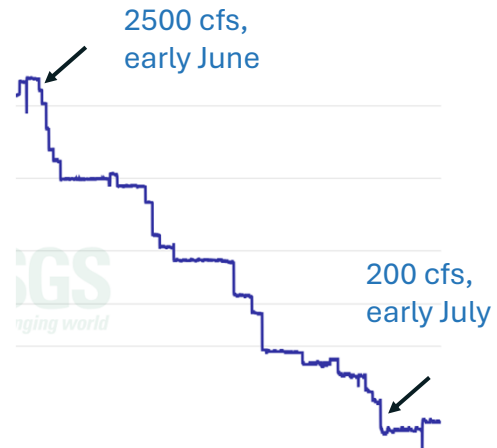
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Spring – Daily Operations

- Hold lake at a specified level
- Match **estimated** inflow
 - Hydrology calculation
 - Granite Creek calculation



Rapidly falling inflow – 2021

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Summer Operations

- Held at 3.0 feet 1951 to 2022
- Last 4 years: 3.0 to 3.5 feet
 - 2022
 - 2023
 - 2024
 - 2025



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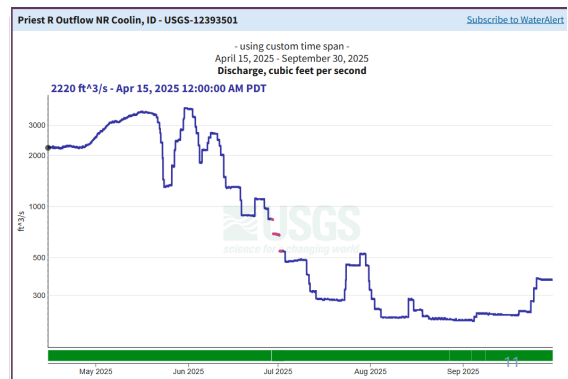
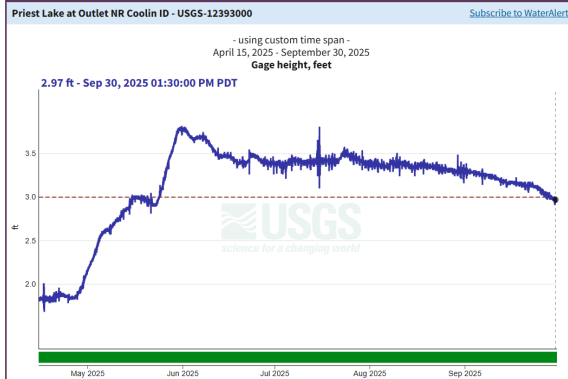
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Summer – 2025

- Hold lake between 3.0 and 3.5 ft, while maintaining 200 cfs



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Supporting Guidance

- IF&G
 - 200 cfs minimum from 8/1 to 10/31
 - 400 cfs ideal
- IWRB
 - MSF 300 cfs (8/1 to 10/31)
- No sudden decreases



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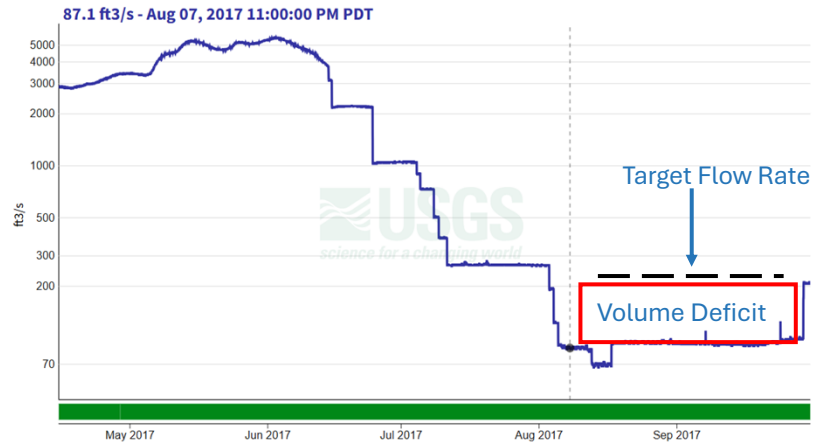
2017

- Sustained low flow

Priest R Outflow NR Coolin, ID - 12393501

[Subscribe to WaterAler](#)

- using custom time span
April 15, 2017 - September 30, 2017
Discharge, cubic feet per second



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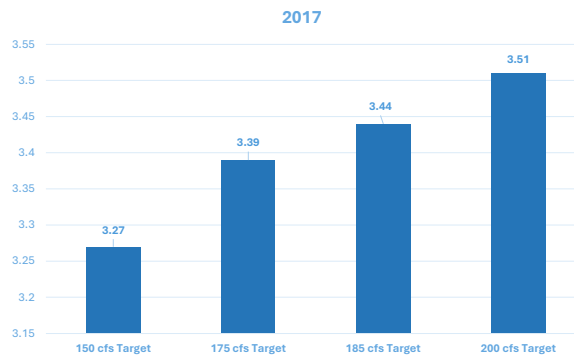


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Targets

- 2017

	<u>150 cfs Target</u>		<u>175 cfs Target</u>		<u>185 cfs Target</u>		<u>200 cfs Target</u>	
Year	Volume Deficit (AF)	Required Lake Storage (feet)	Volume Deficit (AF)	Required Lake Storage (feet)	Volume Deficit (AF)	Required Lake Storage (feet)	Volume Deficit (AF)	Required Lake Storage (feet)
2017	6,481	3.27	9,282	3.39	10,413	3.44	12,108	3.51



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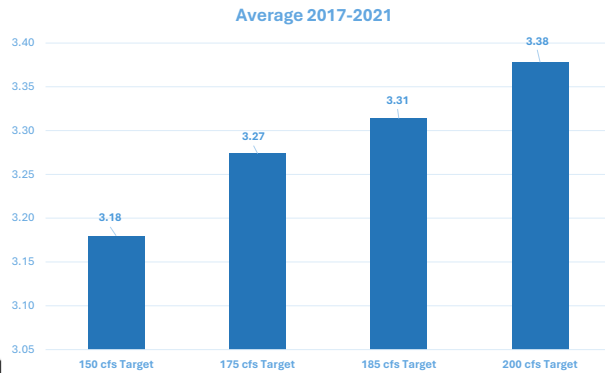


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Targets

- Average of 2017-2021
- Why not 400 cfs?

	150 cfs Target		175 cfs Target		185 cfs Target		200 cfs Target	
Year	Volume Deficit (AF)	Required Lake Storage (feet)	Volume Deficit (AF)	Required Lake Storage (feet)	Volume Deficit (AF)	Required Lake Storage (feet)	Volume Deficit (AF)	Required Lake Storage (feet)
2017	6,481	3.27	9,282	3.39	10,413	3.44	12,108	3.51
2018	4,501	3.19	6,689	3.28	7,601	3.32	8,976	3.38
2019	4,809	3.2	6,824	3.29	7,677	3.32	9,028	3.38
2020	1,906	3.08	3,584	3.15	4,265	3.18	5,330	3.22
2021	3,882	3.16	6,282	3.26	7,439	3.31	9,428	3.4
Average		3.18		3.27		3.31		3.38



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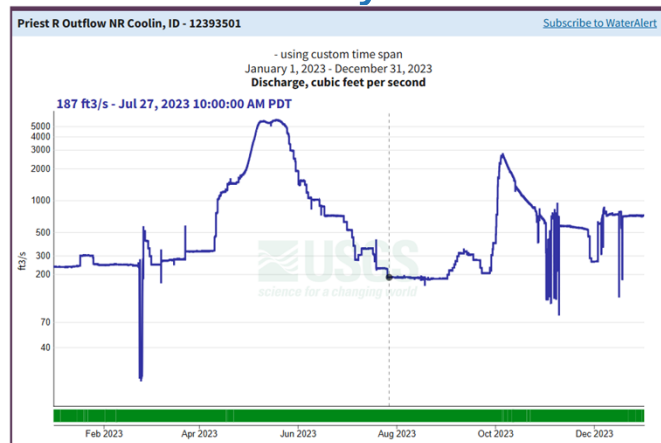
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Recommended Best Practices – Dry Years

- Hold lake to 3.0-3.5 feet
- Target flow rate of 200 cfs
- Flow will fall below target in some dry years
- Wet years – no change



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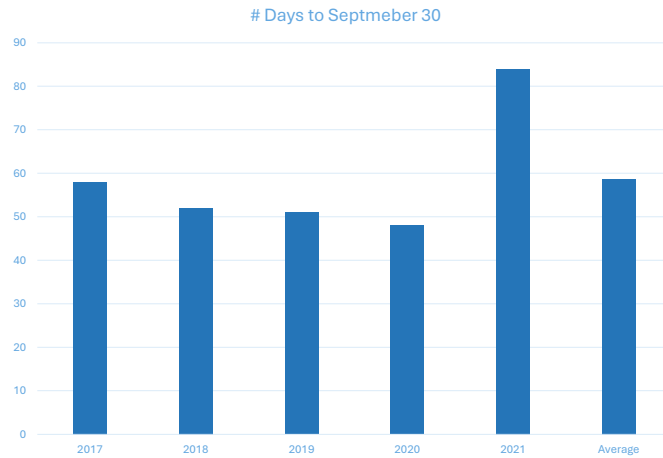
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Dates Inflow Drops Below 200 cfs

Target Flow:
200 cfs

Date Drop Below 200 cfs	
2017	8/3/2017
2018	8/9/2018
2019	8/10/2019
2020	8/13/2020
2021	7/8/2021



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End of Summer vs Spring Volumes

	April - September			August - September		
Year	Type of Year	Volume (KAF)		Type of Year	Volume (KAF)	Observed Min Flow Rate (cfs)
2017	Wet	714		Dry	15.7	69
2018	Wet	734		Dry	14.9	77
2019	Very Dry	404		Dry	16.9	33
2020	Wet	678		Wet	22.4	103
2021	Very Dry	346		Dry	15.6	63
2022	Wet	697		Dry	16.2	99
2023	Dry	504		Wet	22.8	180
2024	Very Dry	446		Dry	13.4	87

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Fall Release supporting Guidance

- Statute: Close of main recreation season
- IF&G: Complete by Nov. 1
- IF&G: >600 cfs, negative impact
IF&G: 1000 cfs max



Photo – Craig Hill, Nov. 12, 2019

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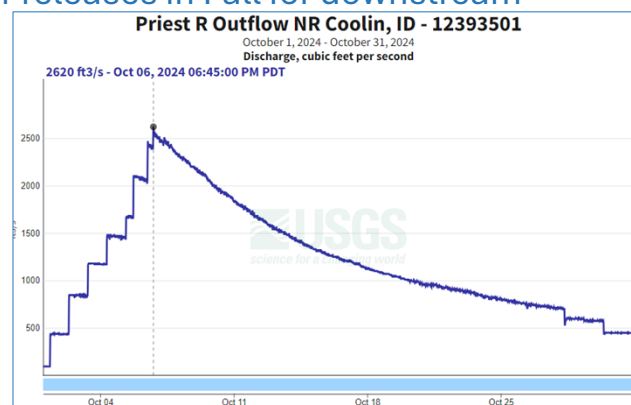
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Fall Release Past Practices

- WWP/Avista operated for water releases in Fall for downstream power production
- Incrementally open gates
- Lake drains
- Flow exceeded 2000 cfs



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Fall Release Best Practices

- No current agreements for power production = opportunity
- Incrementally open gates on Oct. 1
- Cap at 1200 cfs
- Instead of dropping 3 feet (0.1 ft), lake drops ~2.5 feet
- To ~0.56 ft by Nov. 1 & Hold
- Leaves room for spring runoff

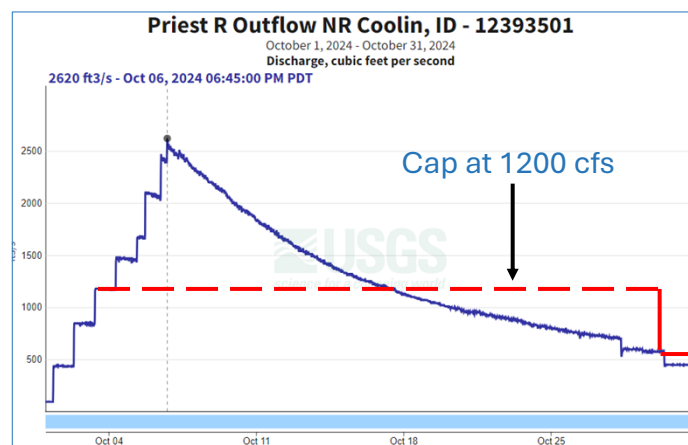
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Fall Release Best Practices



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Next Steps

- Data collection
- Informed decisions
- Stakeholder input
- Communication



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Conclusions

- Planning for the future
- Striking a balance to manage the lake and river as a system



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Questions?

Michelle Richman

northerninfo@idwr.idaho.gov

208-762-2800



MEMO



To: Idaho Water Resource Board
From: Josh Morell, IDWR Hydrologist
Date: July 10, 2026
Subject: Priest Lake Operations - Water Supply Forecasting Protocol

INFORMATIONAL ITEM

Staff will present a PowerPoint presentation reviewing the water supply forecasting protocol for Priest Lake operations.

Attachments:

- *PowerPoint Presentation*



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Priest Lake

Water Supply Forecasting
Protocol



Josh Morell
July 13, 2026



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Priest Lake Water Supply Forecasting Protocol

- 1) Pre Season-Before mass snowmelt (Memorial Day)
- 2) During Snowmelt-While snow is melting out (~April 15th-June 1st)
- 3) During Season-After the snow has melted out (~June 1st –Labor Day)

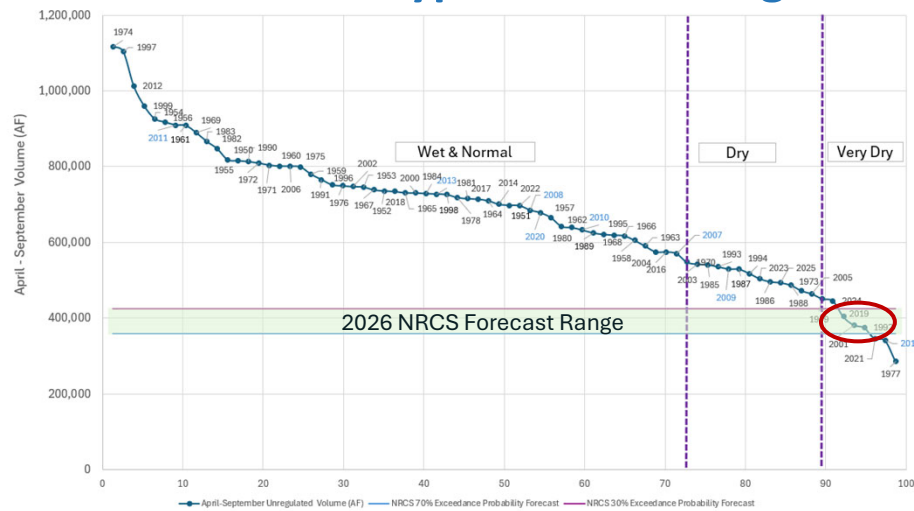
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Pre Season-Type of Year Designation



- SNOTEL Sites
- NRCS Streamflow Volume Forecast
- NOAA Seasonal Outlook
- U.S. Drought Monitor
- Soil Moisture

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During Snowmelt-Water Supply

- NRCS Forecasts
- Snow/Weather
- Inflow Calculations



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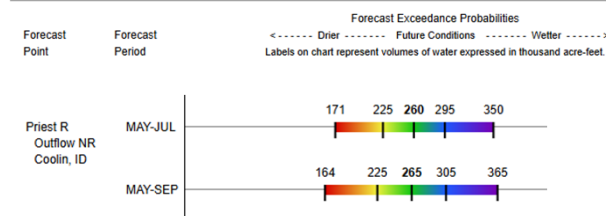


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During Snowmelt-NRCS Forecast

- NRCS provides a Volume Forecast
- There is almost always enough water to fill the lake more than twice over
- TIMING - capturing the water is all dependent on WHEN and HOW the water comes down from the mountains.

NRCS-Volume Forecast



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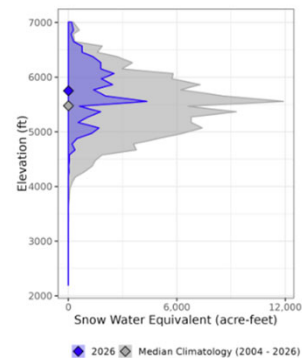


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During Snowmelt-Snow/Weather

- SNOTEL sites
 - Melt rates
 - Percent melt-out
- SWE volume estimates
- Local weather forecasts in the mountains above Priest Lake
- NOAA climate outlooks

Hypsosome-SWE for Priest (HUC8: 17010215)
2026-05-28 (25% of Normal)



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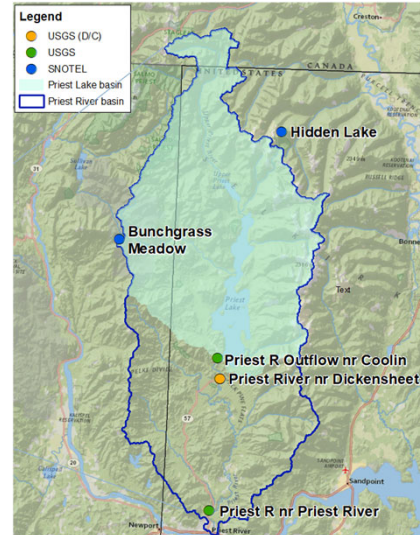
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During Snowmelt-Inflow

$$\Delta S + \text{Outflow} = \text{Inflow}$$

(Change in Storage)

*Inflow must be calculated because there is no gage(s) measuring inflows into the lake.



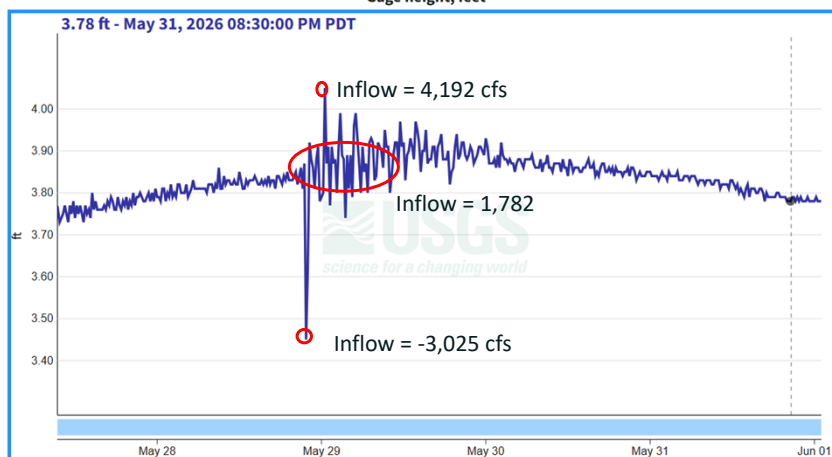
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During Snowmelt-Inflow

May 24, 2026 - June 23, 2026
Gage height, feet



- ΔS (Change in lake volume)
- Data on lake gage is noisy due to wind and a sloshing effect
- Lake level at midnight when the lake is the calmest
- Averaging technique if data is noisy

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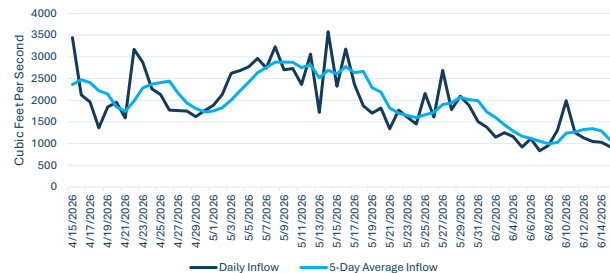


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During Snowmelt-Challenges

- Snowmelt/streamflow timing
- Lag affect from lake operations
 - Unknowns in relationship between Upper Priest Lake and Priest Lake
- No gages for inflow → Inflow calculation
 - Wind affect on staff gage
 - 1-day lag in calculations
 - Priest Lake is a managed lake
 - Evaporation

Inflow: Daily vs. 5-day Average



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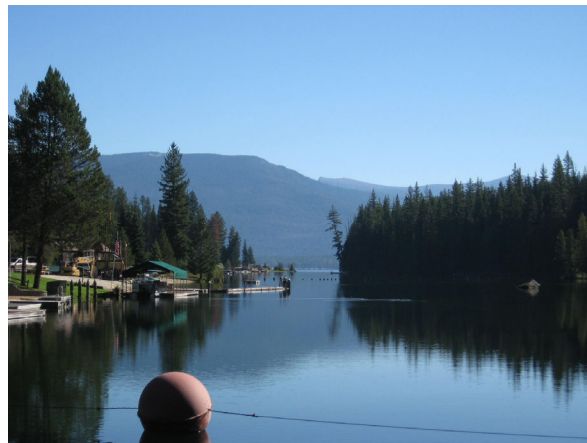
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After Snowmelt

- Weather
- Inflow calculations
- Lake level & outflow projections



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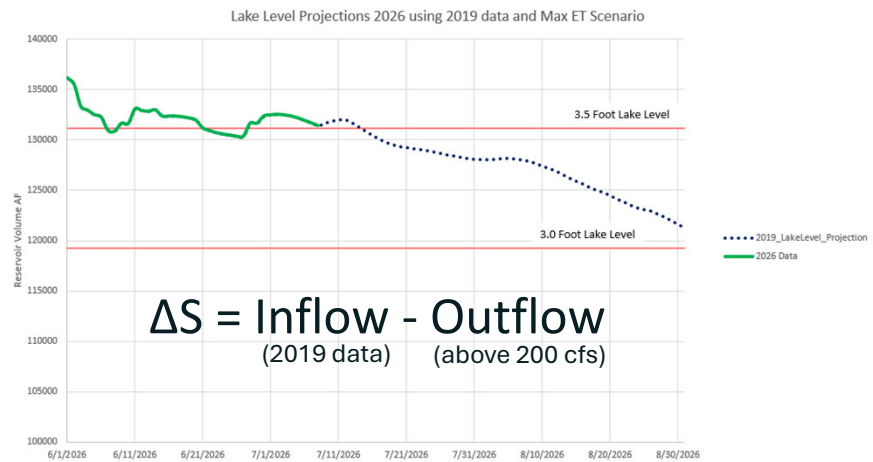
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After Snowmelt-Projections

- Goal: to determine if there is enough water to hold outflows at 200 cfs and keep the lake level at 3 feet until Labor day
- Projection of analog year
- Maximum evaporation
- Assumes the same inflows as analog year



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Questions?

Josh Morell

Josh.Morell@idwr.idaho.gov



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MEMO



To: Idaho Water Resource Board
From: Bill Cresse, IDWR Associate Engineer
Date: July 10, 2026
Subject: Priest Lake Operations – 2026 Season Updates

INFORMATIONAL ITEM

Staff will provide a PowerPoint presentation overview of the following:

- Year-to-Date Dam Operations
- Summer 2026 Lake Levels and River Flow
- Fall 2026 Operations
- Operation Best Practices

Attachments:

- *PowerPoint Presentation*



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Priest Lake Dam Operations Overview



Bill Cresse
July 2026



1



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Purpose – To Discuss:

Very Dry Year / Drought Declaration

Year to Date Dam Operations

Summer 2026 Lake Level & River Flow

Fall 2026 Operations

Operations Best Practices / Stakeholder Feedback

2



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Lake Level – Year to Date

- Early lake level increase
 - Maintain lake level
 - 3.0'-3.5' per \$70-507



3



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River Flow – Year to Date

- Maintain lake level
 - While maximizing outflow
 - Can we stay above 200 cfs through September???

Side Note: How do we change outflow? Roy takes his Portable Corded Pipe Threading Machine and adjusts radial Tainter gate openings per below pictured red paint scale (typically 3" increments)...



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Operations – Fall Drawdown 2026

- Capped outflow
- Start on Oct. 1
- Done by Nov. 1
- Winter lake level



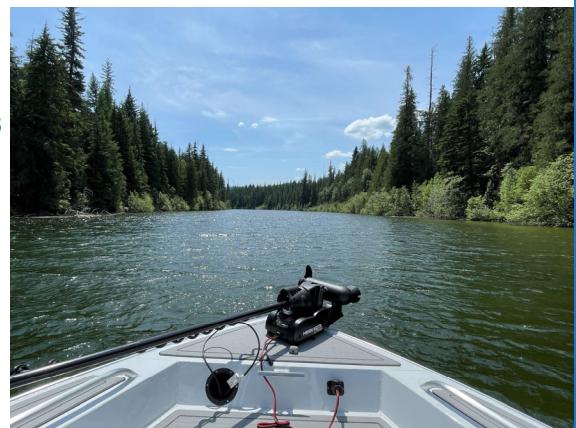
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Operations – Best Practices

- Tributary inflow
 - Add staff gages
 - Continue flow measurements
 - Cooperation with DEQ
 - More data = less reactive operations



Thorofare

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Stakeholder Feedback

- Need to get dock in water at 2.85'
- Elkins Resort: Summer lake level
 - Higher sooner (Mother's Day)
- Lake level – flooding
 - Lake levels above 4' during Spring runoff
- **River fluctuations**
 - Is there any science to this?

Hughes Fork



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Questions?

Michelle Richman

Bill Cresse

northerninfo@idwr.idaho.gov

208-762-2800



8

MEMO



To: Idaho Water Resource Board (IWRB)
From: Planning and Projects Bureau Staff
Date: July 10, 2026
Subject: Public Comment

INFORMATIONAL ITEM

This agenda item provides an opportunity for the public to provide comments related to Priest Lake Operations. Representatives of agencies and organized groups are limited to 10 minutes each. Individual speakers are limited to 5 minutes each.

Attachments:

- *None*

MEMO



To: Idaho Water Resource Board (Board)
From: Planning and Projects Bureau Staff
Date: July 10, 2026
Subject: Non-Action Items for Discussion

INFORMATIONAL ITEM

This item is presented to provide an opportunity for discussion of non-action items and general Board updates.

Attachments:

- *None*