

REQUEST FOR MODELING OF A MINIMUM-IMPACT LEES FERRY TEMPERATURE MANAGEMENT STRATEGY (LFTMS)

Save Lees Ferry respectfully requests that the Bureau of Reclamation, in coordination with the Grand Canyon Monitoring and Research Center and Western Area Power Administration, model a limited River Outlet Works operation designed to maintain a daily mean Colorado River temperature of 65°F or less at the Lees Ferry temperature monitoring station at River Mile 0 during the highest-risk summer thermal period.

This strategy is called the Lees Ferry Thermal Management Strategy (LFTMS).

We are requesting that Reclamation determine the minimum operational intervention and associated hydropower cost necessary to protect the Lees Ferry reach from extreme summer water temperatures.

Basis for the Request

The 2016 Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP) established protection of the Rainbow Trout Fishery as an explicit resource goal:

“Achieve a healthy high-quality recreational Rainbow Trout fishery in Glen Canyon National Recreation Area...”

The July 2024 LTEMP Supplemental Environmental Impact Statement and Record of Decision (ROD) did not eliminate that resource goal.

The 2024 ROD also established considerable flexibility in implementing cold-water alternatives.

Although the alternatives were modeled for cooling effects at River Miles 30 and 61, the ROD recognizes the existence of real-time temperature monitoring immediately below Glen Canyon Dam and at Lees Ferry, River Mile 0, and states that the temperature trigger location may occur anywhere upstream of River Mile 61 depending upon biological conditions and other considerations identified through the planning and implementation process.

Reclamation subsequently demonstrated this adaptive approach in 2025.

After targeting approximately 60°F at River Mile 61 during the 2024 Cool Mix operation, Reclamation moved the 2025 target upstream to River Mile 30 specifically to reduce negative impacts to hydropower.

Reclamation estimated that this adjustment, together with other management actions, would require bypassing less than one-quarter of the water bypassed during the previous year's operation.

This demonstrates that using the River Outlet Works is not necessarily an all-or-nothing operational decision.

The Unanswered Question

The remaining question is straightforward:

What would it take to maintain 65°F or less at River Mile 0?

Cool Mix was rejected because of its effects on hydropower generation; we believe Reclamation should determine the cost and operational requirements of the least-intensive alternative capable of protecting the Lees Ferry reach during the period of greatest thermal risk.

We therefore request modeling of the following scenario:

Lees Ferry Temperature Management Strategy (LFTMS):

Temperature compliance location: Lees Ferry temperature station — River Mile 0

Maximum target temperature: 65°F daily mean

Operational mechanism: Minimum necessary combination of powerplant releases and River Outlet Works releases.

Duration: Only during the highest-risk summer thermal window when modeled or observed temperatures would otherwise exceed the target

Hydropower optimization: River Outlet Works releases should, where practicable, be concentrated during lower-value generation periods while maximizing penstock releases during periods of highest electrical demand.

Requested Outputs

We request that Reclamation, GCMRC and WAPA determine:

1. The River Outlet Works discharge, in cubic feet per second, necessary to maintain $\leq 65^{\circ}\text{F}$ at RM 0 under representative 2026 reservoir elevations, release temperatures and dam operations.
2. The percentage of total Glen Canyon Dam discharge that would need to bypass the powerplant.
3. The number of hours per day River Outlet Works releases would likely be required.
4. The estimated number of days such an operation would have been required during the 2026 critical thermal period.
5. The estimated megawatt-hours of hydropower generation displaced.
6. The estimated gross financial effect on hydropower generation and the Basin Fund.

7. Whether optimizing bypass releases around daily electricity demand, as Reclamation did during previous Cool Mix operations, could further reduce that impact.
8. Comparative results for several reasonable temperature targets, including 60°F, 62°F and 65°F at RM 0, if those scenarios can be produced without substantial additional modeling effort.

Why This Analysis Matters

The LTEMP requires management of multiple resources.

Hydropower is one of those resources.

The Lees Ferry Rainbow Trout Fishery is another.

We recognize that the extraordinarily poor hydrologic conditions facing Lake Powell make protection of hydropower generation increasingly important. We are not asking Reclamation to disregard those realities.

We are asking Reclamation to quantify the tradeoff.

The progression from the 2024 to 2025 Cool Mix operations demonstrates why this analysis is necessary:

2024 — approximately 60°F to RM 61

2025 — approximately 60°F to RM 30, specifically modified to reduce hydropower impacts

2026 (LFTMS): ≤65°F at RM 0 during only the critical thermal window

The hydropower cost of that final scenario is presently unknown.

Without modeling it, neither Reclamation nor stakeholders can meaningfully compare the economic cost of protecting the Lees Ferry fishery against the economic, recreational and ecological consequences of allowing the fishery to deteriorate during prolonged periods of elevated water temperature.

A Bridge to a Permanent Solution

We recognize that River Outlet Works releases are not a permanent solution to warming releases from Glen Canyon Dam.

Long-term structural solutions capable of providing reliable cold water at lower Lake Powell elevations must continue to be investigated and advanced in short order.

However, designing, permitting, funding and constructing those solutions will take time.

The Lees Ferry fishery exists today.

The thermal threat exists today.

A narrowly tailored Lees Ferry Temperature Management Strategy (LFTMS) operation provides a bridge between the immediate problem and whatever permanent temperature-control solution ultimately emerges.

We therefore respectfully request that Reclamation perform and release the RM 0 / 65°F modeling analysis so that future decisions can be made using quantified operational, biological and economic information rather than treating river outlet works releases as a binary choice between the full historical operation and no operation at all.

Save Lees Ferry

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