

Stop The Priest Lake Siphon!



Town Hall Meeting
June 18, 2022, 2:00 PM
Priest Lake Elementary
School

Stopthepriestlakesiphon.org
#stopthepriestlakesiphon



Protect Outlet Bay & Priest Lake

ISSUE

The Idaho Department of Fish and Game (IDFG) is proposing to spend between \$8.2 - \$16.5 (or more) million according to their engineers' estimate (in 2019 dollars) to build a siphon that will extract the colder deep water (hypolimnion layers) of Priest Lake. The siphon, a 5-foot diameter pipe, would run over 7500 feet from below the outlet dam through Match Bay all the way through the Outlet channel and into Priest Lake out to a depth of at least sixty feet. The siphon would bypass 75% of the natural, existing water volume and current flow rates away from this popular and highly used area and pipe it directly into Priest River. IDFG has stated its goal is to use the "colder water" to lower the temperature of the 45-mile-long Priest River, to encourage improved natural fish production, creating a so called "high-value fishery" one that they say will generate \$1.5 million in annual economic benefits to the local area. Our opposition is based on many factors several are listed below.

The potential of harm to the lake is real. Any proposal to enhance the river must ensure that there could be no harm to the lake.

1. GEOLOGIC ASSESMENT AND SEDIMENT PROFILES IMPACT

No studies or assessments have been made to determine the toxicity of the sediment either at the intake or outlet end of the siphon. Excavating and installation of over a mile long, 7-foot-deep channel will disrupt lakebed sediments and possible toxins from past mining, logging, or other sources. This disturbed material would likely be washed downstream and could harm Priest River. No adequate geologic assessment of outlet bay has occurred. It is well known that the outlet consists of rock below the sediment making excavation for the pipe extremely difficult and costly.

2. IMPACT ON THE LAKE DUE TO THE SIPHON'S LONG TERM HYPOLIMNETIC WATER WITHDRAWAL

The limnology study commissioned by IDFG, measured only one summer (2020) and assumed stasis. Problems have appeared with cold water by-pass systems in several North American lakes over extended periods of time. Multi-year droughts, heat domes, the continuing impact of climatic changes, global warming, along with the impacts of fires and large-scale logging coupled with increased hypolimnion withdrawals and the impact of reduced winter recharge, all generate negative impacts on this resource over time. These factors, in other lakes and reservoirs, have resulted in the warming of the hypolimnion as well as creating other devastating impacts to their overall thermostructure and on their fishery. The unintended long-term consequences of warming on Priest Lake would be disastrous.

3. HARMFUL ALGAE BLOOM (HAB)

In the summer of 2021 Priest Lake experienced a public health advisory for HAB. This was a first for Priest Lake, and it occurred in the exact area that would be impacted by the siphon which will reduce the water volume and flow rates by 75%. Historically, warm surface water continually flows out the dam. By diverting the water around the Outlet Bay channel, it will become more stagnant, become warmer, and further exacerbate the incidence of HAB as well as promoting other adverse changes in the ecosystem. HAB can cause poisoning and death to animals and humans as well, and many people still get their drinking water from the lake.

In discussing this issue with Idaho Department Environmental Quality (IDEQ), they relied solely on the study in 2020 which concluded that an “unidentified” source of cooler water in the outlet would prevent HAB. Obviously, this conclusion was erroneous based upon the 2021 incident.

4. THE SIPHON WILL NOT ACHIEVE THE INTENDED RESULT.

The latest study supporting the bypass concept states clearly that the bypass would only have a cooling impact on the upper 30 miles of the 45-mile-long river. The most impact would only occur in the first few miles below the dam. Thirty-five miles of the river would not be cooled to the preferred temperature for bull trout and cutthroat trout. According to a 2001 study by the Environmental Protection Agency (EPA) and confirmed by IDFG’s own 1992 study, the preferred temperature for bull trout is 42.8 to 57.2 Fahrenheit (6-14 Celsius) and 50-57.2 Fahrenheit (10-14 Celsius) for cutthroat. At the mouth of the river, this project would cool the water temperature by 1 degree Celsius resulting in 67.84 Fahrenheit.

This exceeds the temperatures from government studies by at least 10 degrees. Further,

IDFG has stated in previous studies that a flow rate of 200 cfs is required for the target species. The IDFG bypass studies admit that the summer flow in the river is only 60 cfs below the dam and 106 cfs at the confluence of the east river fork which is grossly insufficient for the stated goal. The siphon could not alter the total flow rate without significantly lowering the lake level.

5. THERE ARE OTHER ALTERNATIVES TO COOL THE RIVER

IDFG has not comprehensively explored more natural methods to address how Priest River and its tributaries could be cooled to support an improved fishery. Many available studies identify positive results resulting from riparian improvements such as rock weirs, islands, log deflectors, shade trees, etc, in and along the river to create cooler habitats for fish. Adopting a similar approach for Priest River and its several tributaries would be a very cost effective, natural and environmentally friendly way to help work toward IDFG goals rather than trying to create an artificial siphon system that has significant downsides and highly questionable benefits.

Another alternative put forward in the engineering study by McMillen Jacobs Associates, is the Groundwater System. This alternative would take cooler groundwater from wells and pump it into upper Priest River. It would be significantly less expensive than the Siphon and would not adversely impact the lake or the Outlet Bay channel.

Other alternatives need to be considered

The concerned residents of Priest Lake are in favor of creating an improved fishery. in Priest River.



Outlet Bay—August 2021

There are several alternatives to this ill-conceived, costly, and detrimental siphon concept. This issue should not be one of, the lake versus the river. The alternatives need to be explored!

Priest Lake Stop the Siphon Committee

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