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October 7, 2025

MEMORANDUM

TO: Council Members

FROM: Windy Schoby

SUBJECT: White sturgeon status report for the Snake River between Hells Canyon Dam and the Lower Granite pool

BACKGROUND:

Presenter: Joe DuPont, Clearwater Regional Fisheries Manager (Idaho Department of Fish and Game)

Summary:

The Idaho Department of Fish and Game, in collaboration with Idaho Power, is studying White Sturgeon populations in the Snake River between Hells Canyon Dam and Lower Granite Dam. The presentation will review population status, factors influencing abundance, ongoing efforts, and potential future actions to support long-term persistence.

Research indicates that juvenile sturgeon abundance in Hells Canyon has declined since the early 1970s. Juvenile growth rates are among the slowest in the Columbia Basin, reducing the number reaching adulthood. Over the past decade, meaningful recruitment has occurred only once, and the total population has declined by approximately 33%. It is estimated that more than 50% of each year-class is lost downstream of Lower Granite Dam, likely contributing to the long-term decline in juvenile abundance.

Recent changes in the biological community within the Lower Granite Reservoir appear to be affecting recruitment and survival. Trap-and-haul pilot studies, both

upstream and downstream, are underway to evaluate whether this approach can improve growth and increase spawning abundance. Additionally, the University of Idaho is developing a population model to assess long-term trends and evaluate the potential benefits of different management actions.

Relevance: White Sturgeon are listed as an [emerging priority](#) in the Council's 2014 Fish and Wildlife Program and 2020 addendum. This report provides information to the region on the status and management of a portion of the Snake River.

Background: Snake River White Sturgeon Management- (IDFG 2024)

White Sturgeon have declined from historical abundances across their range, including Idaho. Historical declines are a combination of factors including overfishing, habitat manipulation, poor water quality, bioaccumulation of contaminants, and altered fish assemblages in larger river systems. However, habitat alteration and fragmentation from dam construction during 1900 – 1980 are considered the primary factors in declines in wild populations within Idaho. Dam construction and operations blocked migrations and altered flows, water temperatures, and nutrient regimes.

Two genetically distinct White Sturgeon populations exist in the Snake River:

- **Lower Snake River Population** (below Hells Canyon Dam) — genetically similar to lower Columbia River sturgeon.
- **Middle Snake River Population** (upstream of Brownlee Dam) — genetically distinct and fragmented by six dams.

Below Hells Canyon Dam, there is one continuous free-flowing reach along the Idaho border, but outside of Idaho, the lower Snake River genetic population is fragmented by the four lower Snake River dams in the state of Washington. Above Brownlee Dam there are six management reaches within the Middle Snake River genetic population. Because of very low abundance and limited genetic information available for Oxbow or Hells Canyon reservoirs, it is unknown at this time whether these reaches are included in the Lower Snake or Middle Snake genetic populations.

Reaches from Lower Granite Dam to Hells Canyon Dam and C.J. Strike Dam to Bliss Dam support natural spawning and recruitment of White Sturgeon previously resulting in stable or increasing abundance. Remaining reaches in the middle Snake River require hatchery stocking or downstream movement of sturgeon to support reach abundance as limited or no natural recruitment occurs in these reaches.

Some reaches, such as from Lower Granite Dam to Hells Canyon Dam and C.J. Strike to Bliss Dam, still support natural spawning and recruitment. Other reaches rely on hatchery stocking or downstream movement of fish to maintain abundance.

The White Sturgeon hatchery program, jointly operated by IDFG and Idaho Power, collects fertilized eggs from the wild (C.J. Strike–Bliss reach), hatches and rears them in a hatchery, and releases juveniles into reaches with limited recruitment—a process known as **repatriation**. The program also supports recreational angling opportunities upstream of Shoshone Falls.

Management reaches are categorized as follows:

- **Core Wild:** Self-sustaining populations with adequate natural recruitment. Management focuses on maintaining environmental conditions that support spawning and survival.
- **Stocked:** Populations dependent on hatchery supplementation due to habitat limitations such as flow or fragmentation.
- **Non-native Range:** Reaches upstream of Shoshone Falls, supported solely through hatchery stocking to provide angling opportunities.

More info:

- [Idaho Department of Fish and Game Snake River White Sturgeon Management Plan 2024-2033](#)
- [2025 Joint Staff Report](#) – Stock status and fisheries for sturgeon and smelt
- The Council’s White Sturgeon [web page](#)
- Columbia Basin White Sturgeon Planning [Framework](#)
- [White Sturgeon Story Map](#)