



April 17, 2014

**Mike Ryan, Regional Director
U.S. Bureau of Reclamation
Montana Area Office,
ATTN: Intake Diversion Dam EA
PO Box 30137
Billings, MT 59107.**

Dear Mr. Ryan,

The Montana Chapter of the American Fisheries Society (MT AFS) would like to comment on the process and planning for the Intake Dam (Intake) on the Yellowstone River with respect to its potential effects on endangered pallid sturgeon and dozens of other native fish species. The American Fisheries Society (AFS), the oldest professional society in North America dealing with natural resources, was organized in 1870. The Montana Chapter of AFS was chartered in 1967. Among its objectives are conservation, development and wise utilization of the fisheries, promotion of the educational, scientific and technological development and advancement of all branches of fisheries science and practice, and exchange and dissemination of knowledge about fish, fisheries and related subject.

The MT AFS Resource Management Concerns Committee was approached to review the revised recovery plan and some of the more recent interagency planning for the renovation of Intake as well as the draft supplemental Environmental Assessment. As an organization of fisheries professionals, our primary concerns relate to recent changes in the recovery strategy at Intake. Specifically, how the current biological success criteria for the pallid sturgeon recovery reflect the best available science and actions necessary to achieve meaningful recovery of pallid sturgeon throughout their range in Montana and beyond. Although our comments focus on the actions at Intake, we also question the overall direction of the recovery program throughout the Missouri Basin within Montana.

The 2013 revised recovery plan for pallid sturgeon has five recovery strategies, and our review of the current work at Intake focused on recovery strategies 1 through 4 (Jordan, 2013), and the revised plan for monitoring success:

- 1) conserve the range of genetic and morphological diversity of the species across its historical range;

- 2) fully quantify population demographics and status within each management unit;
- 3) improve population size and viability within each management unit;
- 4) reduce threats having the greatest impact on the species within each management unit;
- and,
- 5) use artificial propagation to prevent local extirpation within management units where recruitment failure is occurring.

We ask the federal agencies to implement the following recommendations:

Retain the Missouri River as Part of the Recovery Plan Targets:

Given that the 2000 and 2003 Biological Opinions (BiOps) issued by the US Fish and Wildlife Service (USFWS) concurred that continued operation at Fort Peck Dam would contribute to the jeopardy findings for pallid sturgeon and likely result in continued declines in population, MT AFS questions the decision to remove the Upper Missouri from the recovery targets. Monitoring the pallid sturgeon population above and below Fort Peck and their responses to dam operating strategies would provide important data for species recovery evaluation and planning. In addition, the Missouri and Yellowstone Rivers are connected; ignoring that connection disregards population biology and large river ecology tenets. The Milk River is also an important tributary with documented pallid sturgeon reproduction, and it should be included in the recovery targets and monitoring.

Removing the Upper Missouri and shifting the emphasis to the Yellowstone River, handicaps pallid sturgeon recovery in several ways. The number of wild pallid sturgeon in both watersheds is small, and their persistence is precarious at best. The 2013 Recovery Plan estimates that only 50 wild adult pallid sturgeon remain in the Missouri upstream of Fort Peck Dam, and approximately 125 live in the Missouri downstream from Fort Peck Dam and in the Lower Yellowstone River (Jaeger et al., 2009; USFWS 2007). These numbers remain well below the recovery targets, which call for a self-sustaining, genetically diverse population of 5,000 adult pallid sturgeon to be realized and maintained within each management unit (Jordan, 2013).

The current BiOp calls for Intake to become the primary pallid sturgeon recovery site for the next eight years. If spawning targets are not met after this period, then the Missouri would be reassessed for inclusion in the program. It is unjustified to remove the Upper Missouri from consideration while success in the Yellowstone River is unknown or dependent upon as yet incomplete projects, particularly when the proposed evaluation period (eight years) is so short in the context of pallid sturgeon life history. In addition, the US Army Corps of Engineers (ACOE) is now limited to providing a one-year warranty on the engineering success of the by-pass channel, and is then removed from obligations related to monitoring fish passage success. The BOR has assumed responsibility for monitoring, but does not have funding secured (Campbell, 2013).

Retain and Strengthen Stakeholder Accountability:

It is unclear what will happen if the 8-year targets are not met. How will the agencies involved in the planning, engineering, and operation of Intake, take responsibility if pallid sturgeon success criteria are not met? MT AFS recommends that specific mitigation actions be identified for pallid

sturgeon population target shortfalls, and that responsible agencies be named and held accountable if the planned passage structure is not effective or if its construction is delayed.

Using Missouri River recovery plan funding to build the new dam structure and headgate screens before establishing definite plans for fish passage and structure specifics does not promote any of the pallid sturgeon recovery tasks. Limiting the US Army Corps of Engineers' responsibility to the construction of the physical structure, and associated hydrologic parameters only, ignores the original intent of the design to incorporate fish passage. Delaying passage because of a lack of funding after the diversion dam was heightened is difficult for our committee of biologists to view as justified.

The revised 2013 Recovery Plan found that in order for pallid sturgeon to be recovered, the populations must have, "successful natural spawning and recruitment" (Jordan, 2013). Current propagation programs have shown success in postponing extinction, but to restore wild, self-sustaining populations, these stocked fish and the remaining wild fish need access to spawning areas and need to be able to migrate above the Intake structure on the Yellowstone (Recovery Task 1.1.2).

As the Bureau of Reclamation (BOR) increases its involvement and the project team becomes larger, it is critical that biologists representing all stakeholders remain involved in decisions, and if budgetary commitments are made, that they are confirmed by decision makers in writing.

Measure Success Biologically:

In general, the changes to the BiOp and to the functional management of pallid sturgeon recovery seem counter to biological science.

- Biologically, it is reasonable to monitor and attempt to recover an endangered species throughout its range; particularly if those areas have reduced connectivity compared to historic conditions.
- Biologically, it is reasonable to restore and evaluate the connectivity necessary for spawning, especially if natural recruitment has been identified as a critical element of recovery and if passage is a demonstrated hindrance. (Recovery Task 1.1.2)
- It is critical that the proposed bypass channel accommodate prescribed flows to allow successful passage. It is our understanding that the preliminary engineering models (one and two-dimensional) suggests that the current plan may not meet this goal.
- Given the absence of swimming ability studies for these fish, it is imperative that in-situ monitoring be used to assess how the fish respond to the engineered channel, and whether the flow model achieves viable passage paths for the fish.
- Although pallid sturgeon is the focal species in the recovery plan, increased passage and hydrograph naturalization will benefit multiple native species. Benefits to these species may prevent future listings, specifically six species of special concern listed in Montana (sauger, sturgeon chub, sicklefin chub, paddlefish, blue sucker, and shortnose gar).

In summary, the focus of the project at Intake should be whether the by-pass channel functionally improves fish passage, not if the engineering criteria are met. Once completed, the design must be evaluated in the context of the fish's ability to successfully navigate the by-pass channel. Finally, responsibility for fish passage success must be explicitly assigned and carried

through so shortfalls are addressed directly and effectively. We appreciate your attention to our concerns.

Sincerely,

Robert Al-Chokhachy
President
Montana Chapter of the American Fisheries Society

References Cited:

Campbell, G. (2013, December 18). Letter to Michael Thibault, USFWS Region 6 Director, Lower Yellowstone Intake dam modifications- fish passage improvement. Billings, Montana: U.S. Department of Interior, Bureau of Reclamation.

Jordan, G. (2013). *US Fish and Wildlife Service Draft Revised Recovery Plan for the Pallid Sturgeon (Scaphirhynchus albus)*. Denver: US Fish and Wildlife Service, Mountain Prairie Region.