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Todd Koel
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Re: comments on native fish conservation plan assessment

Dear Todd:

Thanks for the opportunity to comment on the Native Fish Conservation Plan and environmental analysis for Yellowstone National Park. These comments are submitted on behalf of the Montana Council of Trout Unlimited (Montana TU) and are intended to reinforce comments you receive from our Wyoming Council, Trout Unlimited national and local TU chapters.

Montana TU represents 3,400 individual TU members organized in 13 local chapters. Montana TU members, chapters and the council have a long history of interest in park resources. This interest has been demonstrated over the years, in part, through volunteer projects with TU members. This interest has also been formally recognized in the past when Montana TU, and our Wyoming and Idaho Councils as well as TU national, developed memorandums of understanding with the park to help further opportunities for cooperative projects.

Introduction

Native trout conservation is a primary objective of the full TU community. Because Yellowstone cutthroats are one of two cutthroat subspecies native to Montana, and because the range of this species has diminished significantly, and in light of how climate change will further reduce the range of this fish, TU in Montana concludes that conservation of the core population at Yellowstone Lake is critical to the long-term persistence of the subspecies. Because of climate change, the importance of high-elevation strongholds of native inland fish, such as those in Yellowstone Park, will become increasingly more important. Further, protecting national park populations of native fish – which is unequivocally part of the Park Service mission -- reduces the need to shift more of the conservation burden to the dwindling habitats managed for many uses by the states, private property owners and other federal land agencies.

Putting it simply, there are few native fish conservation priorities more important in the West than restoring the Yellowstone cutthroat population of Yellowstone Lake.

Montana TU supports Alternative 2. The plan and environmental assessment are well done. The disclosure of potential effects is detailed and thoughtful, and the appendices well-written and fairly inclusive of what we know to be the best available science. The explanations of the effects of piscicides are especially well done. It should help educate the general public about the oft-misunderstood objectives and risks of piscicide use.

Lake trout suppression and objectives for native fish restoration

We strongly endorse the park's stated priority that lake trout suppression and recovery of Yellowstone Lake's cutthroat population should be the highest priority. We further endorse the primary measures to be deployed to accomplish this: suppression of lake trout and improving physical connectivity between the lake and drought-parched tributaries. Because information is not available on whether the tributary work can significantly offset the impacts of lake trout predation, we recommend the park place a much higher priority on lake trout suppression than on restoring connectivity. Investing in reconnecting tributaries makes sense, but it appears its value is best optimized after reducing the predation sink represented by an expanding lake trout population. Improving connectivity can increase spawning success for cutthroats, but if survival of fry emigrating to the lake remains low because of lake trout predation, some of these efforts might have marginal return. Still, we believe low-cost, low-impact pilot projects that improve connectivity at stream mouths are worth trying (p. 41). Certainly, these projects, complimented with reintroductions using RISs, will be needed at some point for the park to meet its cutthroat restoration objective to have spawning returns in 11 tributaries of the lake (p 32., Table 5).

We are especially pleased that the plan includes measurable objectives for native fish restoration. It is also helpful that the park has developed primary, secondary and tertiary desired conditions, thereby providing the public an array of potential outcomes. We are pleased the minimum the park will shoot for is the secondary desired condition (p. 35). This desired condition for lake trout and lake cutthroats is achievable. By deploying an adaptive approach to restoration it also leaves flexibility to reach higher targets.

We endorse the plan's initial objective to shoot for no less than the secondary desired conditions that reduce the lake trout population by 25 percent a year. However, we recommend this target, as well as the .56 mortality rate, be reviewed by the scientific advisory committee as soon as practical to ensure it is an appropriate target, or at least one that is aggressive enough to significantly increase cutthroat abundance over the long term. It is possible a greater target for mortality might be needed to collapse the lake trout population sooner in order to better ensure long-term persistence of cutthroats. (We recognize that this is not independent of budgetary constraints. But increased effort early might reduce budget needs later.)

We support the objectives in the preferred alternative for cutthroat recovery that seeks to achieve 12,800 cutthroats returning to spawn to in Clear Creek, while also providing a catch rate of cutthroats on the lake to 1.5/hour. (p. 36). The plan, however, is unclear if these objectives are mutually exclusive, or, if they both must be met to achieve the desired condition for cutthroat restoration.

To meet these conditions – as well as time frame goals for cutthroat recovery (p. 16) -- certain conservation actions will need to be implemented that have not to this point been attempted or even available (p. 36). This includes a netting effort that would be at least twice that of current levels, the use of deep-water trap-nets, new technologies that remove eggs or juveniles at spawning sites, maintaining hydrological connectivity in 75 percent of the lake tributaries, and an overall suppression effort that reduces the lake trout population growth rate to 0.85 for at least 10 consecutive years (which will probably not be achieved in the first 10 years of this plan). We endorse these actions, and expect them to serve as the basis for budget planning and project implementation. We also commit with our fellow TU councils and TU national to help the park as much as we practically can to achieve the objectives in the preferred alternative.

Several items in Appendix A merit further clarification or discussion:

- The park concludes that focusing on spawning-age lake trout is the most effective way to reduce the population (p. 240). But the park also seems to discount using a method it has identified as being particularly effective for removing this cohort, electrofishing on spawning sites (p. 247). Are there ways to overcome the safety concerns of using electrofish technology on spawning sites?
- The plan says that, “a total mortality of 0.5 is widely accepted as sufficient to collapse a LKT population (Healey 1978.)” (p. 242). More recently, discussions on preliminary modeling for Flathead Lake seem to indicate that lake trout population collapse might require significantly higher mortality. On the other hand, we recognize that population scale and condition, species mix, foodwebs, etc., differ at all the western lakes wrestling with lake trout. This is why we urge the park to consult with the Scientific Review Panel on the topic of appropriate lake trout take.
- We compliment the park for incorporating commercial crews into its suppression efforts. And we support that continuing. The park says that “based on 2009 results, it appears the commercial techniques used were more efficient at capturing larger fish than the NPS methods” (p. 246). What is unclear is whether the park crews will be adopting the same techniques. We note that even when data indicate the CPUE between the two crews is comparable, that the commercial operations require fewer personnel. Because expanded suppression will be costly, it seems prudent to evaluate the cost-or labor-effectiveness of the two crews. Further, though the plan discusses implementing suppression alternatives using all park crews, or combinations of park crews with commercial crews, it never addresses the potential value of solely using commercial crews for suppression. We recommend this be considered. We understand there might be practical, economic or administrative barriers to doing this, but it would be helpful to discuss it as a possibility. Certainly it might allow the park to focus on what it has long done best, monitoring, research and non-suppression related fishery management.

Scientific Review

We compliment the park for committing to periodic science reviews of the lake effort by an outside panel. This is an essential component of implementation. Certainly it is a crucial element in any

project of this scale, with this much uncertainty and which necessitates adaptive management. We recommend strongly that the scientific group as soon as practical review these items:

1. The proposed lake trout mortality rate and targets, and how best to calculate them for cutthroat recovery in the lake.
2. Research needs, especially those the previous science panel identified, such as measures or methods that can determine population size, lake trout movement and spawning sites.
3. All previous recommendations emerging from the scientific review panel in 2008, in order to determine what needs to be added, dropped, modified or increased in emphasis.

We cannot recommend the most appropriate tool for estimating the abundance and structure of the lake trout population, but we do share the park's concern that a standard mark-recapture effort might be too large and expensive an endeavor. Advanced modeling tools using existing data (including 15 years of netting data coupled with the type of modeling employed in Syslo 2010) could be adequate. We do recommend the park, with outside partners, develop a study to better determine spawning sites. The most obvious tool would be telemetry using lake trout implanted with sonic tags. Investment in this research has turned out to be very helpful for pilot suppression efforts at Swan Lake. We believe it prudent that the park revisit the scope and methods for this type of study with the science review panel.

Restoration of native fish in the park's lakes and streams (outside of Yellowstone Lake)

The plan and EA are unclear on whether individual stream or lake restoration projects will require project-specific NEPA analysis. We aren't endorsing redundant analysis, but as specific projects are designed additional details about impacts to the natural environment and the public will certainly emerge. Further, because the park identifies the projects mentioned in the plan as "Examples of Potential Projects" (p. 56), it is not necessarily limiting itself to only those ventures mentioned in this document. The Park Service should clarify if this EA and plan are programmatic, and if so if additional NEPA analysis will be required for individual stream and lake projects.

We support the objectives identified for river, streams and lakes outside the Yellowstone Lake system. They are optimistic but achievable. Again, they should be secondary to objectives identified for restoration of Yellowstone cutthroats in Lake Yellowstone.

For the most part we endorse potential implementation of the projects proposed in the plan. The Grayling Creek project seems to have the most potential for significant native fish recovery. The park has been successful in the past using the proposed methods, and the fact that this venture could lead to the establishment of stable populations of two native species in up to 32 miles of connected stream habitat makes it attractive. For that reason it also might have the highest potential for attracting resources from other partners. Establishment of broods in Goose Lake and Trout Lakes is a very good idea. Having a local source of replicated near-neighbor stocks for restoration and conservation purposes will reduce demands on outside sources and probably be more efficient.

Without additional information on goals, implementation and costs it is difficult to say much about some of the project ideas. However, as we've conveyed previously to the park, we are still unclear about the objectives and ultimate potential success of the Slough Creek project. We look forward to discussing that further.

We appreciate the rigor and thought park staff have employed in preparing this plan and EA. It represents a significant step forward for restoring and conserving native fish in Yellowstone National Park. We look forward to working with the park on implementation.

Sincerely,

Bruce Farling
Executive Director

cc.

Larry Harris, TU National, NLC
Jack Williams, TU National
Dave Sweet, Wyoming Council
Jim Broderick, Wyoming Council
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Montana FWP