

Pinedale Region Aquatic Habitat Priorities

Region: Pinedale

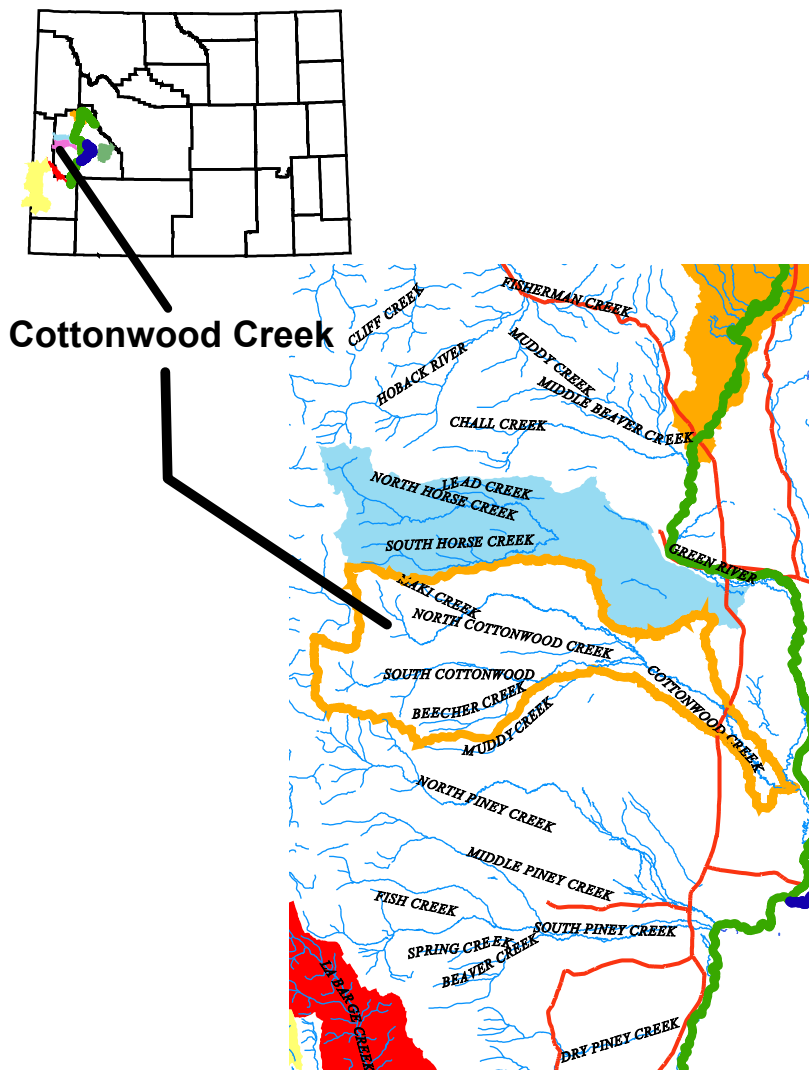
Priority Number: 4

Watershed Name: Cottonwood Watershed

HUC: 1404010106

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The Cottonwood watershed, primarily North Cottonwood, is the Pinedale Region's third highest priority for the Fish Division. The Colorado River Cutthroat trout (CRC) population in this watershed is considered a conservation population. Habitat conditions potentially affecting these native trout include stream, riparian, and aspen-beaver habitat and are of particular concern in this watershed. Several tributaries of North Cottonwood Creek (Sjhoberg, Nylander, Maki, Irene, Hardin, & Ole Creeks) provide important spawning and nursery habitat. The WGFD has constructed migration barriers on Nylander, Irene and Hardin Creeks to prevent nonnative trout from hybridizing and competing with CRC. Cottonwood Creek drains the central portion of the east slope of the Northern Wyoming Range. This watershed lies immediately south of the Horse Creek Watershed, which is the Pinedale Region's fourth highest priority for the Fish Division.



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LAND STATUS: 30% Private, 70% Public.

SPECIES THAT COULD BENEFIT FROM ACTIVITY IN THIS WATERSHED:

The Pinedale Region's Fish Division has focused habitat conservation efforts in this watershed on the native CRC. The management goal for the Cottonwood watershed is to assure the long-term conservation of genetically pure CRC by providing a diverse, healthy, productive and sustainable ecosystem, and eliminate threats from nonnative salmonids. Long-term watershed restoration efforts could provide benefits to assemblages of both native aquatic and native terrestrial wildlife species through the enhancement of watershed health and function by improving management and addressing identified vegetative succession concerns. The ultimate goal would be to assure the long-term prosperity of CRC by establishing a self-sustaining meta-population, and to maintain areas, which currently support self-sustaining CRC populations and manage other areas for increased abundance. The Forest Service has agreed, in principle, to this plan through the Tri-State CRC Conservation Agreement and Strategy.

CURRENT HABITAT CONDITIONS/LIMITING FACTORS:

Currently the trout population in this watershed is probably most limited by competition and hybridization with nonnative salmonid species (brook and rainbow trout). However, less than optimal habitat conditions, resulting from a combination of vegetative succession and past and present human impacts (roads, grazing, timbering and, fire suppression, etc.) could limit population recovery to desirable levels. For example, a significant decrease in willows and sedges along the stream channel were noted in Irene, Hardin and Nylander creeks between 1993 and 1997. Enhancement of aspen and woody riparian communities would improve habitat for beaver, which would be beneficial to CRC. Restoration of healthy and diverse plant communities throughout this watershed would optimize trout habitat over the long-term while providing benefits to numerous other wildlife species.

Additional limiting factors and potential activities listed in the Basin Management Plan for the Cottonwood Drainage include the following:

- Private access, irrigation diversions, and intensive livestock grazing (creating unstable stream banks, and increasing stream width-depth ratios) limit fisheries potential on Cottonwood Creek and the lower reaches of North and South Cottonwood creeks on private lands.
- Drought has significantly affected recruitment from some small tributaries such as Nylander, Hardin and Irene creeks. Lack of beaver activity in the upper reaches of these drainages has compounded the drought effects. These creeks also have man-made barriers at the confluence of North Cottonwood Creek that is also limiting population viability.
- The reach of South Cottonwood Creek between Soda Lake Ponds and the forest boundary had been impacted by past tie-hacking activities and the stream channel still shows the effects. For the most part this area has a wide, shallow channel with little trout cover except for a short reach with habitat improvements structures in place.
- Land management activities such as roads, grazing, oil/gas development, prescribed burns and timber harvest may affect the aquatic systems
- Upland vegetative treatment to increase aspen production may increase beaver activity and provide materials that can withstand the high spring run-off in Nylander, Irene creeks, and the lower reach of Sjhoberg Creek. Resulting ponds should create side channels and cover for young trout as well as provide holding areas during the drought years.

CONSERVATION EASEMENTS/AGREEMENTS

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Restoration of the vegetative communities in this watershed is most limited by the ability to control livestock grazing to provide for rest of vegetation treatments and proper follow up management following treatments. Readily available alternative locations to alleviate grazing pressure/demands in this watershed would provide greater opportunities for vegetation treatment/enhancement projects.

CURRENT ACTIVITIES/PROPOSED PROJECTS

An enhancement opportunity currently being analyzed by the USFS is the Cottonwood Analysis. Department personnel have identified 6000+ acres of aspen and mixed aspen/conifer communities for potential treatment. These areas are being evaluated in this USFS planning process. This could lead to opportunities to regenerate aspen communities to enhance beaver habitat, which would in turn enhance CRC habitat. Concerns include the potential risk of increased sedimentation associated with vegetation treatments (e.g. prescribed fire and mechanical treatments) if not properly implemented and the need for proper livestock grazing management practices to ensure vegetation treatment objectives can be met.

In December 1996 the USFS issued a final decision for the North and South Cottonwood allotment. The WGFD provided fairly extensive comments on the EA for this allotment plan and raised numerous concerns. Specific concerns regarding the use proposed in the plan in the Sjhoberg watershed, and general riparian conditions were not satisfactorily addressed by the USFS. Also, the FS initiated a formal grazing capacity in 1995 on the South Cottonwood Allotment, which indicated the allotment was over adjudicated. However, the stocking rate was not adjusted accordingly. The preferred alternative in the 1996 final decision proposed “a formal vegetative use capacity study which will be used to align the permitted livestock actual vegetative use with the vegetative use objectives” for the combined North and South Cottonwood Allotments. Results of this study are unknown.