FINAL DRAFT - Recommendations for Development and Use of Captive Westslope Cutthroat Trout for Conservation and Management of Westslope Cutthroat Trout in Montana

Developed by an Ad Hoc meeting on January 25, 2000 at the FWP Fish Division Meeting at Chico Hot Springs, Montana.

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revised
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Participants at this meeting included numerous FWP Hatchery Managers and their staffs, numerous FWP Fishery Biologists and Field Technicians, several FWP Fish Managers, FWP's Fish Management Bureau Chief, Jim Peterson (FWP Fish Disease Specialist), several FWS Hatchery Managers, and Robb Leary from the Wild Salmon and Trout Genetics Laboratory.

We came to nearly universal agreement on the following background items.

1. The best option would be to have individual captive stocks for each unique population, but this option is technically and economically unlikely.
2. The statewide conservation agreement (FWP 1999) identifies the preservation of all existing genetically pure WCT populations as an objective. However, many of these existing populations are at a high risk of extinction. The WCT Technical Committee has suggested that replicating some of these populations may present the best opportunity to ensure their persistence (1998). Therefore, the ability to replicate wild populations, either by bringing them into a captive situation for a short time period (3-5 years) or by moving wild fish, to other streams will probably be an important component of restoration/conservation.
3. A genetically pure WCT production facility is necessary to provide pure WCT for stocking into waters (primarily mountain lakes) for recreational purposes where there might be a slight risk of stocked fish escaping into streams now inhabited by aboriginal genetically pure WCT. However, this production facility may not need to produce large numbers of fish. It may be useful to also provide genetically pure eggs from this facility for stocking into private fish ponds by providing eggs to commercial hatcheries.
4. Most conservation/restoration activities for WCT that require replication of existing populations into other streams or founding of new populations will rely on the use of fertilized eggs, rather than young fish, to start populations. This practice will reduce the need for rearing space at hatcheries for production, but will require the ability to hold small (about 100 adults) brood lots.
5. Disease concerns will require careful review and testing of wild populations before any transfers of wild fish occur, either to hatcheries or

to other streams. The Wild Fish Transfer Policy and Committee Review by FWP must be followed.

6. Past work has indicated that taking eggs from wild fish in the wild is extremely difficult and may not be a viable alternative. This issue must be further tested and resolved.
7. Recent genetic testing and analyses have indicated that WCT populations vary so much within and among populations that little (about 1%) of the total detectable variation within 38 populations in Montana (16 from the Upper Missouri and 22 from the Columbia drainages) could be attributed to differences between the Missouri and Columbia basins. These results suggest that there is presently no hard genetic evidence that can be applied to a decision to keep WCT from west of the Divide from being released east of the Divide. However, there are still valid concerns that there might be as yet undetected differences.
8. Genetic testing of the existing WCT brood stock being held at Anaconda (designated M012) indicates this brood is genetically very diverse and is maintaining its genetic diversity.

Based on the above background discussion the group made the following recommendations in order of priority.

1. Given that it is unlikely that numerous new hatcheries are likely to be constructed for the conservation of WCT, the next ideal situation would be to construct one additional facility that would house a WCT brood made up of fish (genetic material) collected from the Missouri River drainage. WCT derived from this brood could be used to plant mountain lakes and private ponds within the Missouri drainage. Eggs from this brood could be used to re-found “new” WCT populations in streams in the Missouri basin. This new hatchery should also be designed to have separate isolation facilities that could handle “short-term” wild broods that would be used to replicate existing populations.
2. If a separate new hatchery could not be funded, the group felt it would be worthwhile to consider designating a portion of the proposed Fort Peck hatchery for accomplishing objectives above.
3. If neither #1 nor #2 above were deemed feasible, the group recommended that the existing M012 WCT could be used for supporting recreational fisheries both east and west of the Divide. [Note: The genetic recommendations from the WCT Technical Committee (1998) suggest that for lakes or ponds connected to waters that support genetically pure WCT the best alternative is either to avoid stocking, use another native fish such as Arctic grayling, or use fish from the existing pure wild population. The next best alternative is to use pure WCT from another source. The WCT Technical Committee recommended against stocking other species, especially species or subspecies that could potentially hybridize with WCT (rainbow or Yellowstone cutthroat trout). Most of

these activities would require an environmental assessment where these issues and their resolution could be considered and displayed.]

4. The group also recommended that transferring wild fish from existing pure populations, or to a hatchery for a few years to build up the adult population for subsequent spawning and release of eggs, into other streams determined to contain suitable habitat is an important option for re-founding populations. The group discussed various specifics of the option for bring wild fish into the hatchery, but felt these specifics would be best left to the Hatchery Bureau for implementation. Some specifics we discussed were: 1) the use of fiberglass tanks in isolation facilities to hold adult wild fish; 2) the fact that few (<100) adults would likely be needed from wild populations; 3) the possibility that it might take several years to get 100 wild adults from some very small wild WCT populations that we might want to replicate; and 4) the possibility that the FWS Ennis Fish Hatchery might be able to get WCT eggs from FWP and raise them to adults in circular tanks before spawning these fish and providing fertilized embryos to FWP (for Ennis to successfully spawn WCT will require chillers to cool their water).

The group spent a little time discussing private ponds and how FWP could limit the risk from private ponds to extant WCT populations. Several options were discussed including denial of private pond permits in drainages that support extant WCT populations. Modifying FWP policy regarding the transfer of wild WCT into adjacent private ponds to prevent the loss of that WCT population in the stream. Karen Zackheim indicated this might already be possible if FWP could show it as a resource issue and do an EA. Jim Peterson indicated it would still probably require a review by the Disease Committee under the Wild Fish Transfer Policy. Make FWP excess eggs available to private pond owners. Work with commercial hatcheries to raise WCT and publicize their ability to obtain excess WCT eggs from our system. Many folks at the meeting were uncomfortable with allowing the stocking of any hatchery WCT into private ponds adjacent to existing wild WCT populations. Jim Vashro is already working on a review of private fish pond policy and is drafting new policy for protecting extant wild native fishes from impacts of private ponds. No conclusions or final recommendations were reached or made by the group, other than this is a major resource issue and must be resolved.