

predation has reduced the abundance of WCT that have the adfluvial life history.

We examined the database of Shepard *et al.* (2003) to assess the extent that nonnative fishes, including recognized predacious species, co-occur (*i.e.*, are sympatric) with extant WCT for: (1) Nonintrogressed or suspected nonintrogressed populations and (2) introgressed or suspected introgressed “conservation” populations. Results indicated that two predacious species, brown trout (*Salmo trutta*) and lake trout (*Salvelinus namaycush*), each occur in only small proportions of the habitat occupied by WCT, mainly WCT that occur in metapopulations.

However, for reasons related to the database and described previously for whirling disease, those small proportions are inflated to an extent that cannot be quantified using the available data. Brown trout occur primarily in mainstem rivers and their major tributaries, whereas lake trout occur almost exclusively in lakes. When one or the other species occurred in the range of a WCT metapopulation, the procedures of Shepard *et al.* (2003) necessarily resulted in the entire WCT metapopulation being treated as sympatric with the nonnative species, although the actual region of species overlap within that range may be small.

The best scientific and commercial information available to us indicates that the WCT subspecies is not threatened by predation from brown trout, lake trout, or other predaceous, nonnative fishes. However, where such predation does occur, it is mainly on WCT that have either the fluvial or adfluvial life history. The remaining, nonnative fishes sympatric with WCT will be discussed in subsequent sections of this document.

#### (D) Inadequacy of Existing Regulatory Mechanisms

The Act requires us to examine the adequacy of existing regulatory mechanisms with respect to those extant threats that place the species in danger of becoming either threatened or endangered. Our initial status review (U.S. Fish and Wildlife Service 1999) revealed that there are numerous existing Federal and State regulatory mechanisms whose purpose is to protect WCT and their habitats throughout the subspecies’ range. Neither our initial nor our new status review revealed information to indicate that those mechanisms were not working or will not work to protect the WCT subspecies.

**Regulatory Mechanisms Involving Land Management**—During our initial status review (U.S. Fish and Wildlife Service 1999), we found numerous laws

and regulations that help to prevent the adverse effects of land-management activities on WCT. More recently, Hagener (2002) reiterated that Montana laws that benefit WCT include the Montana Stream Protection Act, the Streamside Management Zone Law, the Montana Natural Streambed and Land Preservation Act, and the Montana Pollutant Discharge Elimination System. Federal laws that protect WCT and their habitats in Montana and elsewhere include the CWA, Federal Land Management Protection Act (FLMPA), and the National Environmental Policy Act (NEPA). Much of the habitat of extant WCT is managed by Federal agencies, including the U.S. Forest Service and the Bureau of Land Management. Those Federal agencies have adopted the Inland Native Fish Strategy (INFISH) that includes standards and guidelines that protect watersheds. Furthermore, because the broad distribution of bull trout—listed as a threatened species under the Act in 1999—considerably overlaps the distribution of WCT, the WCT will benefit from the Act’s section 7 protective actions for bull trout in areas where the two species coexist.

In addition, the U.S. Forest Service recently reported (McAllister 2002) that existing regulatory mechanisms that protect WCT habitat include the Northwest Forest Plan; the Interim Strategies for managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California (*i.e.*, PACFISH); INFISH; the Wilderness Act; and the Upper Missouri (River) Memorandum of Understanding and Land Use Strategy (in draft). In Idaho (Moore 2002), regulatory mechanisms that protect WCT habitat include the Stream Channel Protection Act, the Lake Protection Act, and the Forest Practices Act. At the Federal level, protection is afforded by the CWA, the National Forest Management Act, NEPA, Wild and Scenic Rivers legislation, and the Wilderness Act. The St. Joe and Lochsa rivers are protected by “Wild and Scenic” designation and nearly all of the Middle Fork Salmon and Selway rivers and their watersheds are protected by Wilderness Act designations. In addition, the range of WCT in Idaho is almost entirely overlapped by that of one or more federally listed fish species, namely, bull trout, Kootenai River white sturgeon (*Acipenser transmontanus*), chinook salmon (*O. tshawytscha*), coho salmon (*O. nerka*), or steelhead. Protective measures under the Act for those listed fishes also benefit WCT.

During our initial status review, we found Federal regulations and guidelines that protect WCT and their habitat in Oregon and Washington included CWA, NEPA, FLPMA, INFISH, PACFISH, and National Forest Management Plans (U.S. Fish and Wildlife Service 1999). More recently, information received from Oregon (Unterwagner 2002) indicated that the Oregon Plan for Salmon and Watersheds (ORS 541.405) mandates restoration of watersheds and the recovery of fish and wildlife populations therein to productive and sustainable levels in a manner that provides substantial environmental, cultural, and economic benefits; the Oregon Forest Practices Act (ORS 527.610) mandates the protection, maintenance, and, where appropriate, improvement of functions and values of streams, lakes, wetlands, and riparian management areas; State fill and removal laws (ORS 196.800–990) require that a permit be obtained before materials are moved and mitigation measures be implemented if stream habitats will be negatively affected; a water right must be obtained before any surface water is diverted from a stream for beneficial use; and a Water Quality Management Plan is being written that addresses nonpoint source water-quality issues in the mainstem John Day River, identifies nonpoint source pollution, and ensures that agricultural producers do not degrade water quality as prescribed by the CWA. In Oregon, WCT inhabit a number of protected areas, including the Strawberry and North Fork John Day Wilderness Areas, and the Vinegar Hill-Indian Rock Scenic Areas.

In Washington, the Act’s section 7 protections accorded to bull trout and Pacific salmon also benefit WCT. The same holds true for Oregon, where bull trout and mid-Columbia River steelhead are listed fishes.

Hitt and Frissell (2001) used data from the Interior Columbia (River) Basin Ecosystem Management Project (ICBEMP) to assess the degree of spatial overlap between populations of bull trout and populations of WCT that were both considered “strong” by the ICBEMP. Those authors found that about 75 percent of the WCT populations did not co-occur with bull trout. Accordingly, Hitt and Frissell (2001) concluded that the bull trout may not be a good “umbrella” species, *i.e.*, a species whose protections accorded by the Act’s section 7 also would serve to protect WCT. However, our conclusion stated herein that the Act’s section 7 protections accorded bull trout and other listed fish species also would benefit WCT is not based on the