

Memorandum

Date: 09/23/2016

To: Kevin Shaffer
Fisheries Branch Chief (acting)
Department of Fish and Wildlife

From: Jeff Weaver
Heritage and Wild Trout Program Leader
Department of Fish and Wildlife

Subject: Hot Creek fishery status

Hot Creek (Mono County) is an iconic western river, well known for its outstanding fishery for trophy rainbow and brown trouts, as well as high catch rates in an exceptionally aesthetic setting. It was among the first group of waters designated as Wild Trout Waters (1980), owing to its renown as a destination sport fishery. For unknown reasons, the Hot Creek fishery appears to have declined substantially in recent years, with markedly lower catch rates and few trophy (>18") fish coming to the creel. Drought-related impacts are the suspected cause, including low flows, lack of flushing flows in late spring/early summer to mobilize fine sediments and expose spawning gravels, potential changes in water quality/chemistry and increased aquatic vegetation. Recent single-pass electrofishing surveys (August, 2016) were consistent with angler reports, with low densities and few larger fish captured or observed in both the public section below Hot Creek Ranch and within the Hot Creek Ranch property.

As part of the adaptive management process, and in an effort to adhere to the criteria set forth in Fish and Game Code (Sec. 1725 et. seq.) and Fish and Game Commission Wild Trout Policy, it has been determined stocking of Hot Creek is warranted at this time. Current plans include stocking 12,000 sub-catchable fish each year, of which 8,000 will be Hofer-strain rainbow trout and 4,000 will be brown trout. These fish will be provided by Hot Creek Hatchery and will be stocked at three locations. At each location approximately 1/3 of the total allotment will be stocked. Specific stocking site locations remain to be determined, depending on access feasibility, but will include one or more locations within the designated Wild Trout section.

All stocked trout will have the adipose fin removed and the Department will perform outreach and possible roving creel census to gather data from guides and anglers in order to monitor numbers caught by species, size of catch, catch rates, and the proportion of adipose-clipped fish contributing to the fishery. Angler survey box sites (three) on Hot Creek will be utilized for information posting and outreach. Department staff will contact appropriate organizations (e.g., the Eastern Sierra Fishing Guides' Association) to articulate the need for, and request assistance with, post-stocking monitoring.

The short-term plan includes stocking approximately 3,000 sub-catchable rainbows and 4,000 sub-catchable browns in early October, 2016 due to limited availability, age/size of available fish and timing restrictions. Thereafter, the annual allotment of 8,000 rainbows will be stocked each spring/summer and 4,000 browns will be stocked each fall for the following two years (2017, 2018).

The Department is planning to perform annual single-pass electrofishing surveys in 2017 and 2018, in order to evaluate relative abundance, the proportion of hatchery to wild fish, ratio of rainbow to brown trout, size class structure, and to try to document natural recruitment within the fishery. If these surveys document high levels of wild recruitment, as evidenced by a substantially increased proportion of young-of-year fish with adipose fins intact, stocking may be discontinued at any point. Multiple-pass electrofishing surveys will be performed in 2019 in order to develop density and biomass estimates and eliminate the inherent survey limitations associated with single-pass electrofishing (non-closed section; high likelihood/ability of fish to evade capture). Data from these surveys, coupled with ongoing fishery/angler-focused data collection (ASB forms, possible creel census data, personal communications with guides who frequently fish Hot Creek with clients, etc.) will direct future management.

While it may appear counterintuitive to stock a designated Wild Trout Water, California Fish and Game Commission Policy allows for such stocking under specified terms and conditions. The Commission Designated Wild Trout Waters Policy, under subsection I.B. states that designated waters should be: "Able to support, with appropriate angling regulations, wild trout populations of sufficient magnitude to provide satisfactory trout catches in terms of number or size of fish." Subsection II.A. states: "Domestic strains of catchable-sized trout shall not be planted in designated wild trout waters." And Subsection II.B. states: "Hatchery-produced trout of suitable wild and semi-wild strains may be planted in designated waters, but only if necessary to supplement natural trout reproduction."

Given the planned planting of sub-catchable sized trout, the apparent low natural recruitment in Hot Creek in recent years, and the lack of wild trout populations to sustain the fishery, this effort is in keeping with Commission Policy.

<http://www.fgc.ca.gov/policy/p2fish.aspx>

Cc: Mike Giusti, Senior Environmental Scientist, Inland Deserts Region

Cc: Roger Bloom, Environmental Program Manager, Fisheries Branch

Cc: Stafford Lehr, Deputy Director, Wildlife and Fisheries Division