

Lower Honeymoon Lake wild trout management plan

State of California

Natural Resources Agency

Department of Fish and Wildlife

Heritage and Wild Trout Program

Central Region



Prepared by

Jeff Weaver and Kenneth Johnson

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Executive summary

California Fish and Game Code (Chapter 7.2, Section 1726.4 (b)) states it is the intent of the Legislature that “the department [specifically, the California Department of Fish and Wildlife (CDFW) Heritage and Wild Trout Program (HWTP)], in administering its existing [heritage and] wild trout program, shall maintain an inventory of all California trout streams and lakes to determine the most suitable angling regulations for each stream or lake. The department shall determine for each stream or lake whether it should be managed as a wild trout fishery, or whether its management should involve the temporary planting of native trout species to supplement wild trout populations that is consistent with this chapter.” Section 1726.4 (b) additionally states that “biological and physical inventories prepared and maintained for each stream, stream system, or lake shall include an assessment of the resource status, threats to the continued well-being of the fishery resource, the potential for fishery resource development, and recommendations, including necessary changes in the allowed take of trout, for the development of each stream or lake to its full capacity as a fishery.”

Furthermore, California Fish and Game Code (Chapter 7.2, Section 1727 (d)) requires that the CDFW “shall prepare and complete management plans for all wild trout waters not more than three years following their initial designation by the commission, and to update the management plan every five years following completion of the initial management plan.” For clarification, wild trout waters, as stated above, represent waters that have been formally designated by the California Fish and Game Commission (Commission) as Heritage and/or Wild Trout Waters.

Wild Trout Waters are those that support self-sustaining trout populations, are aesthetically pleasing and environmentally productive, provide adequate catch rates in terms of numbers or size of trout, and are open to public angling. Wild Trout Waters may not be stocked with catchable-sized hatchery trout. Heritage Trout Waters are a sub-set of Wild Trout Waters that highlight wild populations of native California trout found within their historic drainages.

In an effort to comply with existing policy and mandates, the HWTP has prepared a fishery management plan (FMP) for Lower Honeymoon Lake (Fresno County). This FMP is intended largely as an operations guide for internal planning purposes to communicate management direction to the public, other agencies, and trout angling organizations. This FMP is intended to provide direction and list actions necessary to sustain the recreational fishery for the benefit and enjoyment of the angling public. However, actions associated with this FMP are initiated independently, thus any environmental review/permits needed to implement the actions are separate from the FMP itself.

Resource status

Area description

Lower Honeymoon Lake (Fresno County) is located in the central Sierra Nevada Mountains in the John Muir Wilderness and is one of many trout-bearing headwater lakes along the north slope of the Glacier Divide in the Piute Creek drainage. It was designated as a Wild Trout Water by the Commission in 2009. Lower Honeymoon Lake is a remote, high elevation (approximately 10,400 feet) lake accessible only on foot (hiking or backpacking) or horseback, as no vehicles or mechanized equipment are allowed in federally-designated wilderness areas. The lake is approximately 4.20 hectares (10.4 acres) in size, with a maximum depth of 14 meters (46 feet). Lower Honeymoon Lake is best accessed from the eastern Sierra via the North Lake trailhead over Piute Pass (near Bishop, CA), or from the west-side of the Sierra Nevada Mountains via Florence Lake. The Piute Creek drainage and surrounding area supports a large number of lake and stream-based wild trout fisheries in an extremely aesthetically pleasing alpine environment. Lower Honeymoon Lake is the first in a series of "Wilderness" Wild Trout Waters the HWTP will propose to the Commission for designation in order to provide for and establish active management of remote, high quality recreational fisheries across the Sierra Nevada and other remote mountain locations statewide.

Land ownership/administration

- | | |
|---|---|
| <input checked="" type="checkbox"/> U.S. Forest Service | <input type="checkbox"/> State Parks |
| <input type="checkbox"/> Bureau of Land Management | <input type="checkbox"/> National Parks |
| <input type="checkbox"/> Fish and Wildlife | <input type="checkbox"/> Private |
| <input type="checkbox"/> Other | |

Public access

- | | |
|-----------------------------------|--|
| <input type="checkbox"/> Roadside | <input checked="" type="checkbox"/> Remote/hike-in |
| <input type="checkbox"/> Boat | |

Designations

- | | |
|--|--|
| <input checked="" type="checkbox"/> Wild Trout Water | <input type="checkbox"/> Heritage Trout Water |
| <input type="checkbox"/> Federal Wild and Scenic River | <input checked="" type="checkbox"/> Wilderness |
| <input type="checkbox"/> Other- | |

Area maps

Figure 1. Overview map of Lower Honeymoon Lake (yellow star)

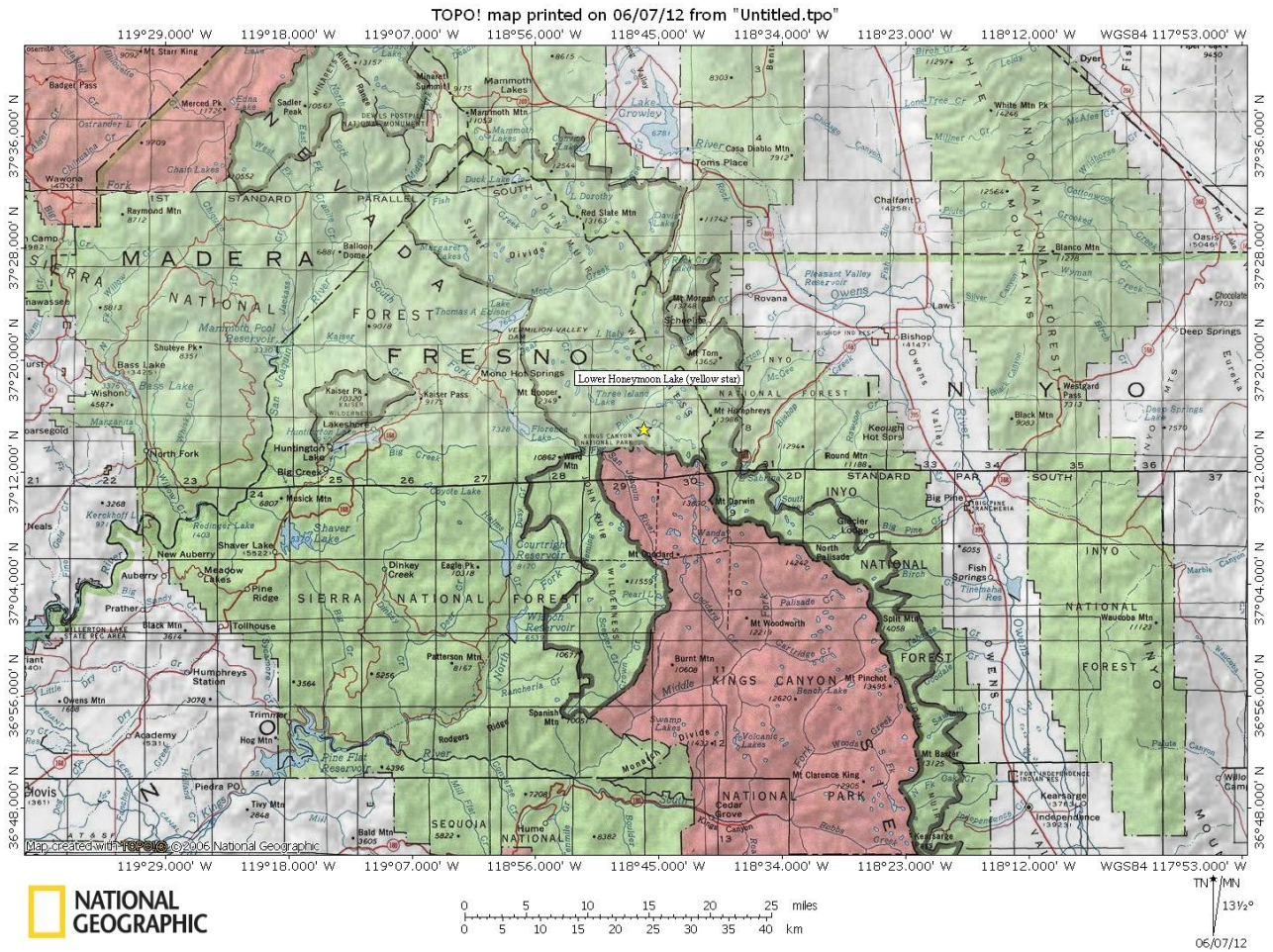


Figure 2. Mid-scale level map of Lower Honeymoon Lake within Piute Creek drainage

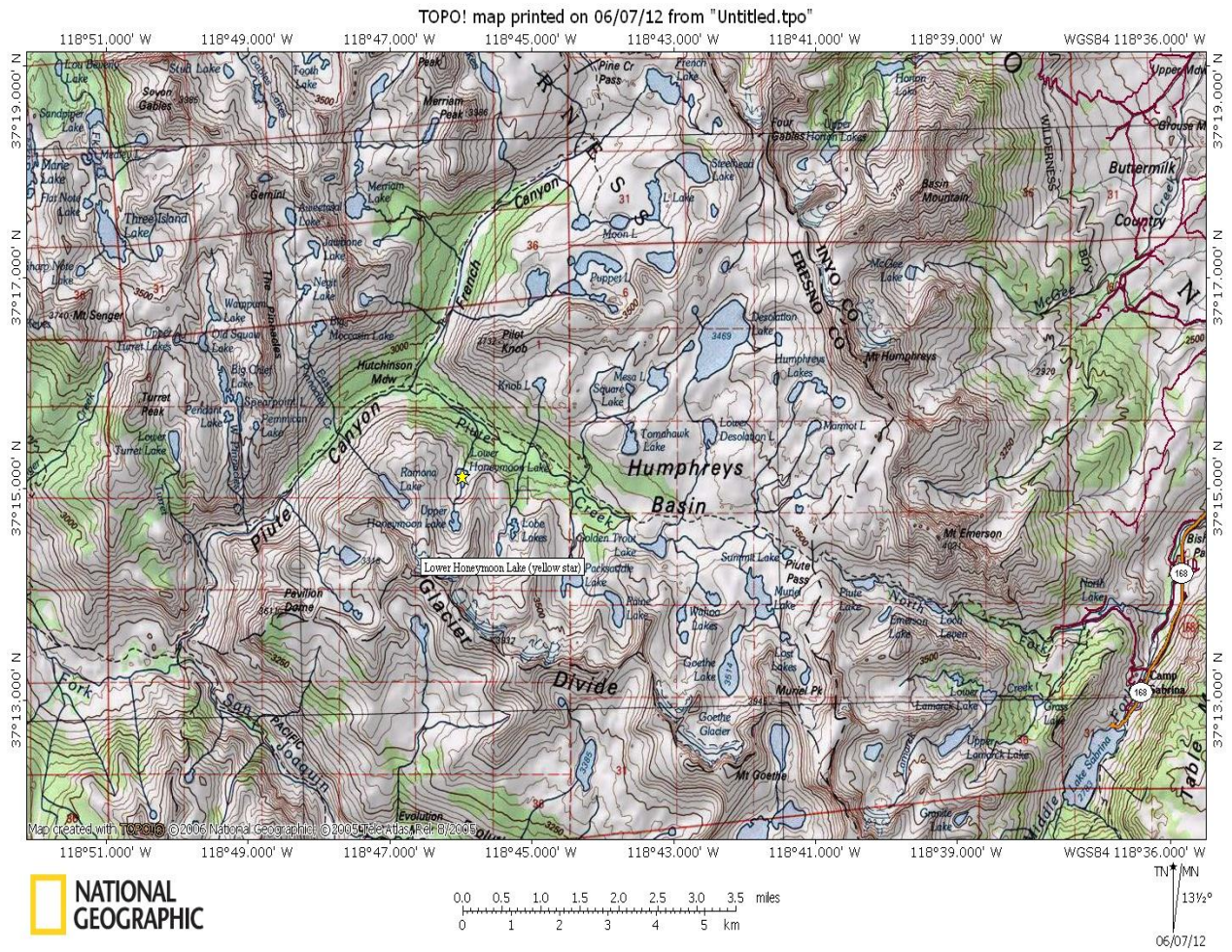
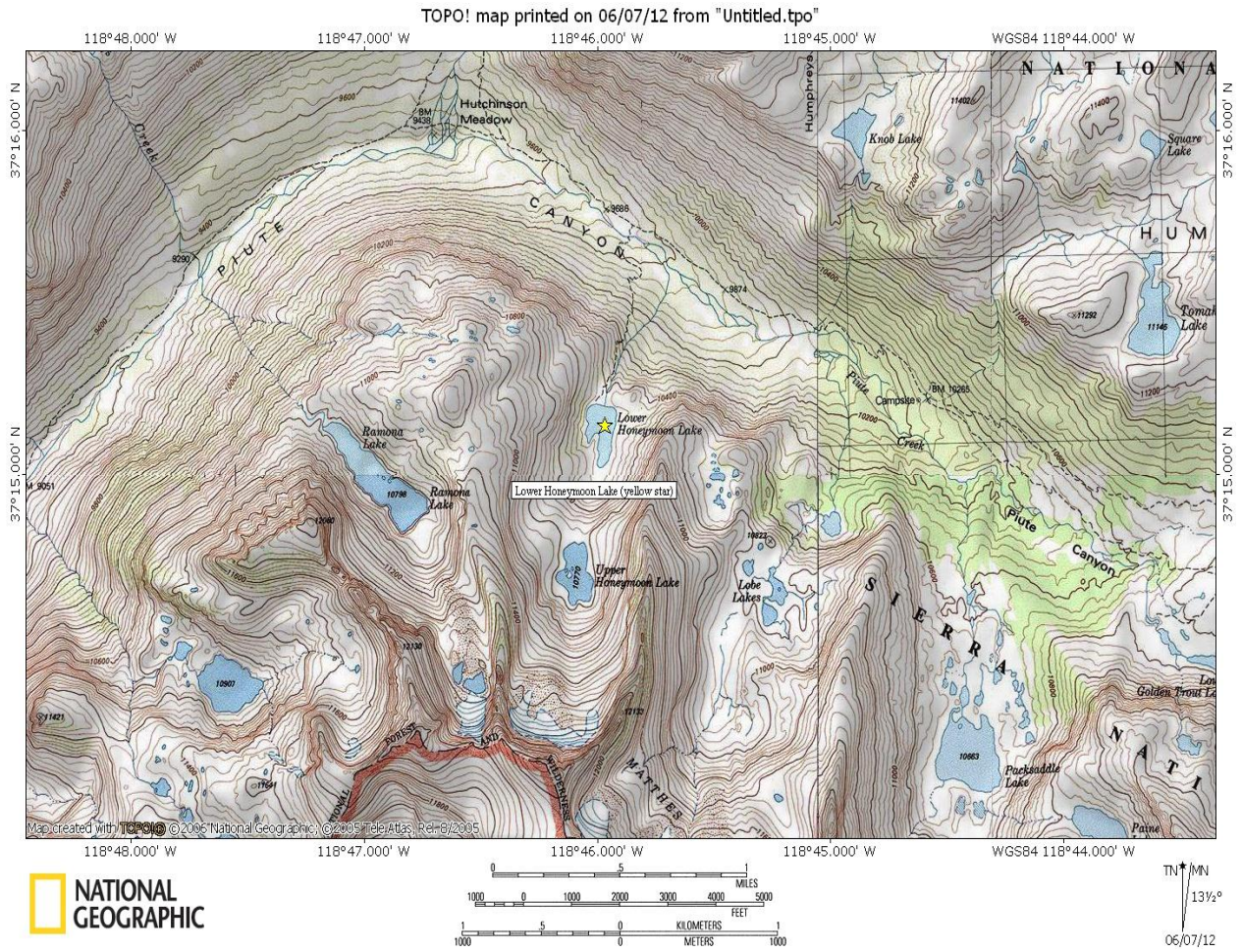


Figure 3. Detail map of Lower Honeymoon Lake within Piute Creek drainage



Fishery description

Lower Honeymoon Lake provides a fast-action fishery for California golden trout, California's State Freshwater Fish. California golden trout were stocked once in the lake in 1958 and the population has apparently remained self-sustaining. No other fish species are present in the lake. Although this population of California golden trout is outside the species' native range, the lake provides a quality fishery with high catch rates. Catch rates, based on hook and line sampling from the shoreline performed in 2009 were 53 fish per hour in the lake, and 29 fish per hour in the lake's outlet stream. Fish sizes, based on angling assessments, ranged between six and eight inches. Multiple age classes were observed, both in the lake and in the lake outlet. Young-of-year and smaller (2 in) fish were observed in the outlet, indicating spawning occurs in the outlet and possibly one or more of the three identified inlets (not surveyed). These sizes are in synch with gill net data collected in 1996, which documented fish sizes between three and eight inches.

The aesthetics of this remote alpine lake basin, coupled with exceptional catch rates for one of the world's most beautiful trout, make this and other select waters in the area a prime destination for anglers who seek remote wilderness angling opportunities. Lower Honeymoon Lake was selected as the first in a series of lakes in the South Fork San Joaquin River drainage (along with Piute Creek itself, which was surveyed in 2007 and 2009) which will be proposed for designation as Wild Trout Waters, to create a watershed-level designation. The HWTP is interested in promoting these exceptional fisheries and to manage them for recreational angling for multiple species of wild trout, in both lake and stream habitats.

Water source

Spring

Rain

Snow

Tailwater

Gradient

Low (< 2%)

Medium (2-4%)

High (>4%)

N/A

Fish species

California golden trout (*Oncorhynchus mykiss aguabonita*)

Other aquatic species

None known, based upon hook and line (2009), gill netting and visual encounter surveys for amphibians (1996).

Fisheries and habitat assessments

A hook and line assessment to determine species presence, species composition, size ranges, catch rates, and potential for designation as a Wild Trout Water was performed on July 31, 2009 by CDFW HWTP staff. One angler, using fly rod and dry fly, fished for 41 minutes and landed 36 fish in the lake, for a catch per unit effort of 53 fish per hour. The same angler fished the outflow stream from Lower Honeymoon Lake for 25 minutes and landed 12 fish, for a catch per unit effort of 29 fish per hour. No habitat assessments were performed. In 1996, CDFW staff performed gill net and visual encounter surveys (amphibian presence/absence). No amphibians were detected and an 11-hour gill net set captured 88 California golden trout, which ranged in size from 80 to 190 mm. The average length was 131 mm (5 in) and the average weight was 23 g (0.05 lb). Although catch rates are very high in the lake and its outlet, the lake does not support large trout and their condition factor (denoted as K, a length to weight coefficient) is relatively low ($K=0.942$). No other biological assessments are known to have been performed.

Angling regulations

Sierra District General Regulations apply to this lake fishery. The open season is all year and the daily bag and possession limit is five per day and ten in possession. Given Lower Honeymoon Lake's geographic location and high altitude, the effective fishing season is from approximately July through October, depending on annual snow pack.

Known stressors

None. This fishery is well protected from stressors due to its remote, high elevation location within the John Muir Wilderness. In addition, the lake is situated at the terminal end of a little used, high-gradient spur trail with substantial elevation gain from the nearest primary trail. Based on a cursory visual assessment of the lake's shore in 2009, little human use was evident and only one small fire ring was found. Angler use is assumed to be low. The golden trout population has probably exceeded the lake's carrying capacity with very limited food or forage base and the fishery could benefit from increased harvest to reduce competition for scarce resources.

Management

Management goals and objectives

- Fast action (catch rates \geq 2 fish/hour)
- Trophy (trout \geq 18 inches)
- Heritage trout
- Other

Monitoring

Due to its remote location and apparent absence of stressors, this fishery requires a low frequency of monitoring. The lake's clarity and abundance of easily seen golden trout allows for simple visual inspection, although hook and line or gill netting can provide more information in terms of catch rates and size class distribution (and weights if desired). A site visit every ten years is recommended. As part of the next monitoring effort, it is suggested that tissue samples be collected for genetic analyses, given the early date of stocking (1958) and single stocking occurrence. A genetically pure out-of-basin population may have important conservation value.

Angling regulations

CDFW will monitor the Lower Honeymoon Lake fishery, along with angler satisfaction/preferences, to determine if Sierra District general regulations are adequate or if a special regulation is warranted. Regulations will be used in an adaptive manner to optimize angler opportunities in conjunction with management goals/objectives outlined in the FMP.

Addressing stressors

No stressors to the fishery or surrounding habitats have been identified.

Adaptive strategies

This FMP provides guidance and management direction for wild trout resources in Lower Honeymoon Lake. These management recommendations are based on existing conditions and should be used in accordance with updated information over time. Long-term monitoring of the fishery and associated angler satisfaction should play a central role in future management prescriptions. Any changes to the prescribed management goals and objectives should be based on updated quantifiable data, stakeholder input, HWTP Policy (Bloom and Weaver 2008), the Strategic Plan for Trout Management (Hopelain and Pert 2003), and collaborative (CDFW Headquarter and Central Regional) HWTP review.

References

Bloom, R. and J. Weaver. 2008. The California Heritage and Wild Trout Program Handbook (Draft). State of California Natural Resources Agency. Department of Fish and Game. Heritage and Wild Trout Program. Rancho Cordova, CA.

Hopelain, J.S. and E. Pert. 2003. Strategic plan for trout management. State of California Resources Agency. Sacramento, CA.