

# **HUNTOON CREEK**

**Mono County, California**

## **2006 Stream Habitat Survey Report**



**Prepared By:**

**Humboldt-Toiyabe National Forest, Bridgeport Ranger District**

## **Introduction**

Huntoon Creek is located in Mono County, California. The mainstem of Huntoon Creek flows for approximately 3.1 miles in a northerly direction from its headwaters near Rickey Peak to its confluence with Long Valley Creek. Long Valley Creek is a tributary to Swauger Creek, which flows into Bridgeport Reservoir. All of Huntoon Creek occurs on National Forest lands. All 3.1 miles of Huntoon Creek were surveyed between Site 1 (2327m) and Site 6 (2719m).

## **Purpose and Need**

The 1995 Lahontan Cutthroat Trout Recovery Plan recommended that an ecosystem management plan be developed for the Walker River Basin in order to both determine objectives for the future desired conditions of the watershed, and to create strategies for achieving these objectives. In 1998 a Walker River Basin Recovery Implementation Team was organized to develop strategies for Lahontan cutthroat trout (LCT) restoration and recovery efforts in the Walker River Basin. In August 2003 the recovery team completed a Short-Term Action Plan for Lahontan Cutthroat Trout Recovery in the Walker River Basin. The short-term action plan outlines specific tasks to be completed within five years. Some of the tasks that were identified include: (1) identifying and evaluating fish passage and existing barriers within the Walker River Basin, (2) developing a watershed analysis of the physical components of the Walker River Basin, and (3) initiating habitat surveys to evaluate potential LCT introduction streams and validating against existing LCT inhabited streams.

The Walker River Basin historically provided an estimated 595 miles of stream habitat (Kling and Mellison 2008) and 49,400 acres of lake habitat for the native Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*). Populations of these salmonids within the watershed were interactive and interconnected, and therefore these metapopulations likely had high genetic diversity and were capable of long-term persistence through adverse conditions.

Within the Walker River basin, LCT currently occupy one stream that is within their historic range; By-Day Creek. Lahontan cutthroat trout have also been introduced into the formerly fishless headwaters of five other Walker River basin streams; Wolf Creek, Silver Creek, Mill Creek, Slinkard Creek, and Murphy Creek. Together, LCT within these 6 streams occupy approximately 17 miles of stream habitat, approximately 2.9% of the total miles that LCT presumably occupied historically.

The primary causes for the decline of LCT include: (1) reduction and alteration of stream discharge, (2) alteration of stream channels and morphology, (3) degradation of water quality, (4) reduction of lake levels and concentrated chemical components in natural lakes, and (5) introductions of non-native fish species. The Walker River Basin is primarily inhabited by non-native salmonid species that include but are not limited to: Rainbow Trout (*Oncorhynchus mykiss*), Brook Trout (*Salvelinus fontinalis*), and Brown Trout (*Salmo trutta*). These competitive and aggressive introduced fish have displaced

the endemic LCT. A small native population of LCT can be found in By-Day Creek part of the East Walker River system.

Long term survival and recovery of LCT with the Walker River Basin will require sustained cooperation and effort from multiple federal and state agencies, including the Forest Service and personnel of the Humboldt-Toiyabe National Forest. Gaining information through immediate action can aid in prioritizing future objectives for the restoration of LCT. The 2006 Walker River watershed surveys are being conducted to gain information about streams in the basin, and furthermore to provide an inventory of potential fish habitat for LCT. The surveys include the tasks of identifying potential fish passage barriers and evaluating physical characteristics that pertain to the success of the native LCT. Should recommendations be made to reintroduce LCT, these surveys can provide baseline information for future management of the fishery. Huntoon Creek was surveyed on July 10, 2006 by Joel Ingram and Harrison Davis of the Bridgeport Ranger District: Humboldt-Toiyabe National Forest.

## **Methodology**

Forest Service personnel surveyed Huntoon Creek by hiking the stream in an upstream manner. Interesting and relevant features were documented, photographed, and recorded into a Trimble GPS unit. These features included but were not limited to: road crossings, trail crossings, fish sightings, permanent fish barriers, seasonal fish barriers, tributaries, springs, beaver dams, areas of erosion concern, grazing impacts, dispersed campsites, etc.

Fish passage barriers were noted and categorized into one of four categories: natural-permanent, natural-seasonal, artificial-permanent, and artificial-seasonal. A permanent barrier is categorized as an obstacle, waterfall, or drop in excess of 5ft that would prevent passage of fish year-round (specifically LCT). A stadia rod was used to measure barriers where applicable. Barriers categorized as permanent barriers may actually be seasonal barriers, and some seasonal barriers may actually act as a permanent barrier.

## **Results**

Approximately 3.1 miles of Huntoon Creek were surveyed between Site 1 and Site 6. One seasonal fish barrier was documented at Site 2. Photo points were taken at Sites 1 and 4. Tributaries were located at Sites 3, 5, and 6. Upstream of Site 6 the stream gradient increases and based on a topographic map, this section of stream becomes intermittent; therefore, the survey ended at Site 6. The average stream gradient between Site 1 and Site 6 is 7.9%.

## **Discussion**

Huntoon Creek provides 3.1 miles of potential LCT habitat between Sites 1 and 6. Huntoon Creek is the largest tributary to Long Valley Creek. Long Valley Creek was also surveyed and it provides an additional 1.87 miles of potential LCT habitat. Although no permanent barriers were identified, one 3 foot high seasonal fish barrier does occur at

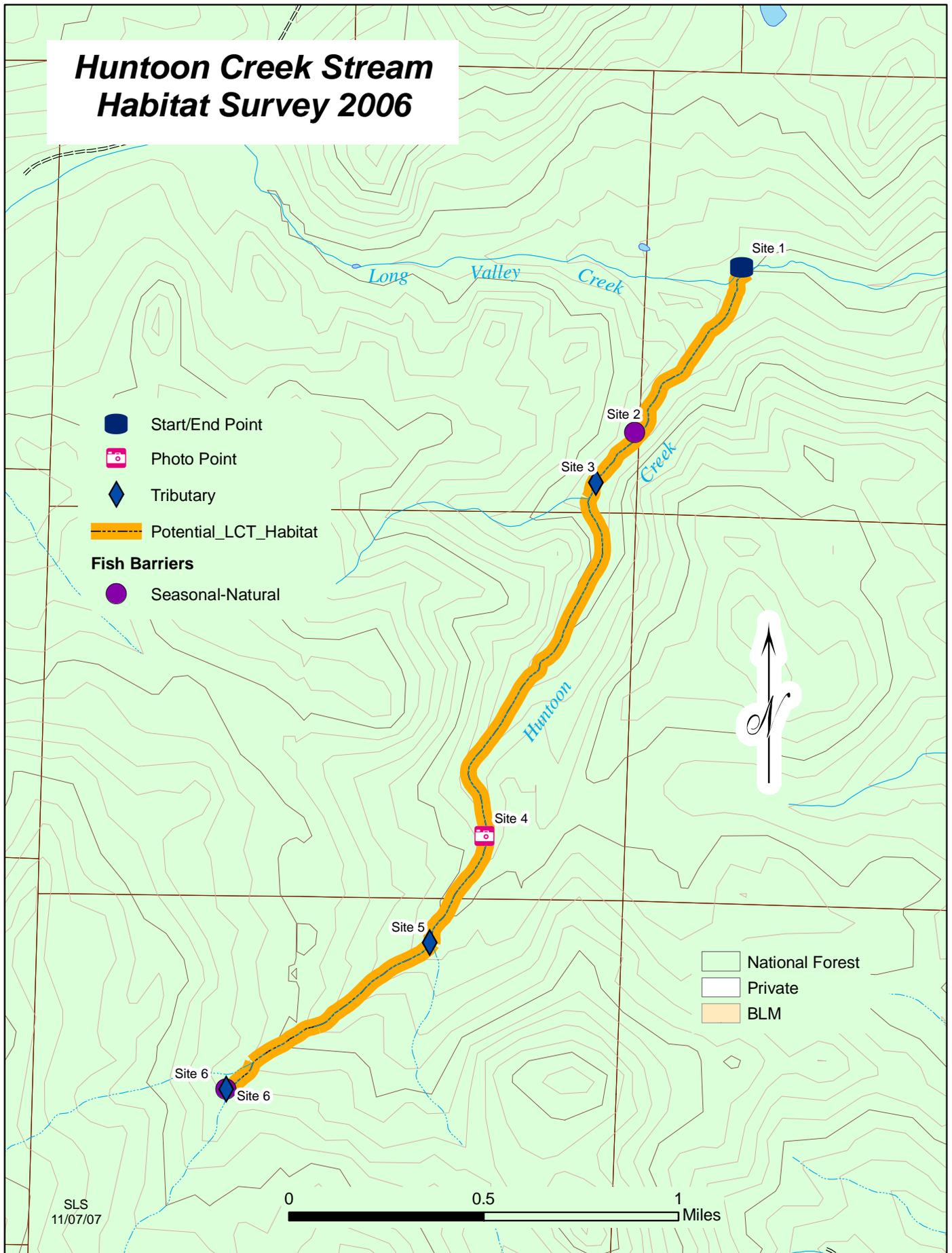
Site 2. Another small seasonal barrier occurs at the survey end point (Site 6). Huntoon Creek does provide a fair complexity of pool and riffle habitats.

Long Valley Creek was also surveyed and it offers 1.87 miles of potential LCT habitat located between Sites 1 and Site 5. Upstream of Site 5, Long Valley Creek does not have enough water to support a sustained population of fish. Site 5 is the confluence of Huntoon Creek and Long Valley Creek. Huntoon Creek contributes approximately 60-70% of the overall flow in Long Valley Creek. The two creeks combined provide approximately 4.97 miles of potential LCT habitat. Site 2 on Long Valley Creek is an 8.2 foot high naturally occurring permanent fish passage barrier. No other barriers were identified on Long Valley Creek. Because flows upstream of Site 5 on Long Valley Creek are so minimal and can't support a sustained population of fish, if a population of LCT were restored to Long Valley and Huntoon Creeks, that restored population of LCT would not be a metapopulation using two different drainages.

### **Recommendations**

1. Consider the entire 3.1 mile section of Huntoon Creek between Site 1 and Site 6 as potential LCT habitat and consider Huntoon Creek a medium candidate for restoration.

# Huntoon Creek Stream Habitat Survey 2006



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**Site 1:** Huntoon Creek, Bridgeport Ranger District, looking upstream at the survey start point. The start point is the confluence of Huntoon Creek (picture left side) and Long Valley Creek (picture right side). Huntoon Creek contributes approximately 60-70% of the overall flow in Long Valley Creek. This site is located at UTM N: 4242617 & E: 294105, Elevation 2327m.



**Site 2:** Huntoon Creek, Bridgeport Ranger District, looking upstream at a seasonal fish barrier. The barrier is 0.9m (3ft) high and has a pool depth of 0.4m (1.3ft). This site is located at UTM N: 4241933 & E: 293663, Elevation 2394m.



**Site 3:** Huntoon Creek, Bridgeport Ranger District, looking upstream at a small tributary that enters Huntoon Creek on the west side. This tributary contributes approximately 15-20% of the overall flow in Huntoon Creek. This site is located at UTM N: 4241722 & E: 293497, Elevation 2399m.



**Site 3 continued:** Huntoon Creek, Bridgeport Ranger District, looking upstream at Huntoon Creek from the tributary. This site is located at UTM N: 4241722 & E: 293497, Elevation 2399m.



**Site 4:** Huntoon Creek, Bridgeport Ranger District, looking upstream at the stream characteristics typical for this section of stream. The stream is flowing over rocks and creates one continuous riffle. This site is located at UTM N: 4240261 & E: 293042, Elevation 2523m.



**Site 4 continued:** Huntoon Creek, Bridgeport Ranger District, looking downstream at the stream characteristics typical for this section of stream. This site is located at UTM N: 4240261 & E: 293042, Elevation 2523m.



**Site 5:** Huntoon Creek, Bridgeport Ranger District, looking at a tributary that enters on the east side of the stream, at a point where the main channel is extremely braided. This site is located at UTM N: 4239823 & E: 292814, Elevation 2564m.



**Site 6:** Huntoon Creek, Bridgeport Ranger District, looking upstream at a small tributary that enters the stream on the river left side (west side). At this point on the topographic map, both of these streams are shown to be intermittent. The vegetation is extremely dense and the water is dropping in elevation very quickly, creating small falls every couple of feet. This site marks the survey end point. This site is located at UTM N: 4239215 & E: 291971, Elevation 2719m.



**Site 6 continued:** Huntoon Creek, Bridgeport Ranger District, looking upstream at Huntoon Creek from the tributary. This site is located at UTM N: 4239215 & E: 291971, Elevation 2719m.



**Site 6 continued:** Huntoon Creek, Bridgeport Ranger District, looking downstream at Huntoon Creek from the tributary. This site is located at UTM N: 4239215 & E: 291971, Elevation 2719m.