

State of California  
Department of Fish and Wildlife

# Memorandum

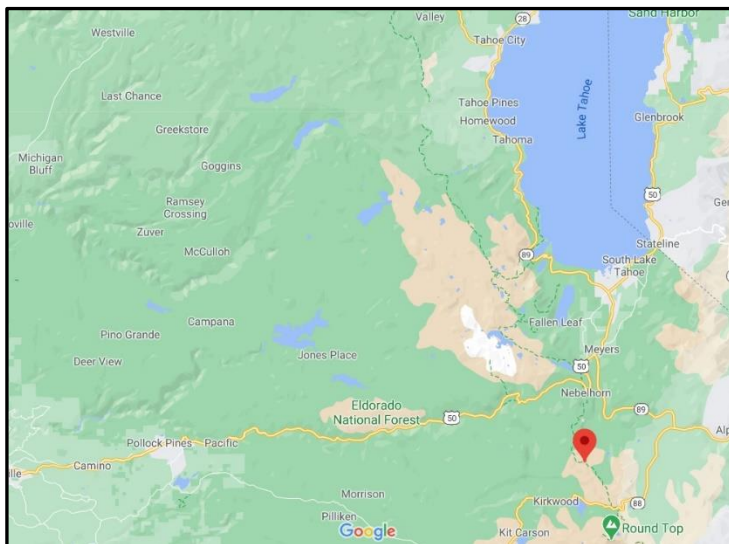
**Date:** November 9, 2020

**To:** Sarah Mussulman  
Senior Environmental Scientist; Supervisor  
Department of Fish and Wildlife  
North Central Region  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670

**Cc:** CDFW North Central Region Fish Files

**From:** Mitch Lockhart; Environmental Scientist, &  
Clyde "Cian" Hettrick; Scientific Aid  
Department of Fish and Wildlife  
1701 Nimbus Road, Suite A  
Rancho Cordova, CA 95670

**Subject:** Pre-Stocking Evaluation at Showers Lake, El Dorado County.



**Figure 1:** Showers Lake (red pin) in relation to Lake Tahoe (Google Maps retrieved 9/04/20)

Showers Lake (Lake ID: 14485) is a hiking and backpacking destination located in El Dorado County within the Dardanelles Roadless Area managed by the U.S. Forest Service Lake Tahoe Basin Management Unit (LTBMU) (**Figure 1 & Picture 1**). The lake is accessible by a five-mile hike via the Meiss Meadow Trailhead. The lake level is enhanced by a small earthen dam to an elevation of 8,647 feet above sea level. The creek flowing out of Showers Lake is a tributary to the Upper Truckee River and eventually flows into Lake Tahoe. California Department of Fish and Wildlife (CDFW)

initially planted Brook Trout (*Salvelinus fontinalis*; BK) in Showers Lake in the 1950s (**Table 1**). In 1997 CDFW switched to Lahontan Cutthroat Trout (*Onchorhynchus clarkii henshawi*; LCT), the native trout to the Lake Tahoe Basin.



**Picture 1:** Overview photo of Showers Lake looking south (07/08/2020).

Showers Lake is part of the Upper Truckee River Lahontan Cutthroat Trout Restoration Project (UTRLCTRP). For more on this project refer to LTBMU's UTRLCTRP 2018 Annual Report.

**Table 1.** CDFW Stocking history of Showers Lake from 1990 to 2020.

Year	Species	Number of Fish
1990	BK	1,200
1991	BK	400
1992	BK	1,000
1993	BK	1,000
1994	BK	1,000
1996	BK	1,000
1997	LCT	2,000
1998	LCT	2,000
1999	LCT	2,000
2000	LCT	2,000
2004	LCT	2,000
2006	LCT	2,000
2007	LCT	2,000
2008	LCT	2,000
2009	LCT	2,000
2013	LCT	2,000

To assess whether continued plants of LCT are appropriate at Showers Lake, a CDFW Environmental Scientist, three CDFW Scientific Aides, and two volunteers performed hook and line surveys on the afternoon of the July 8, 2020 and morning of July 9, 2020.

July 8, the surveyors fished from 3:45 p.m. to 9:26 p.m. for a combined angling effort of 9.8 hours. The morning of July 9, 2020 the crew fished between 5:15 a.m. and 8:00 a.m. for an effort of 10.8 hours. No trout were hooked or landed during the two survey periods. Schools of Speckled Dace (*Rhinichthys osculus*; DC) were observed swimming in the shallows. One very large adult LCT was observed cruising along the shoreline but did not bite.

Three Scientific Aides conducted a visual encounter survey (VES) on July 9, 2020 to document the presence of any diurnal herpetofauna species that reside in or around the lake, specifically the Federally Endangered Sierra Nevada Yellow-Legged Frog (*Rana sierrae*; SNYLF). The VES began at 9:25 a.m. and concluded at 9:36 a.m. under partly cloudy skies and light wind for a total survey effort of 34 minutes. Air temperature was 14 degrees Celsius and water temperature was 14.5 degrees Celsius. We observed one adult Mountain Garter Snake (*Thamnophis elegans elegans*; THEL) during the survey.



**Picture 2:** Female LCT stranded in a pool on the intermittent Showers Lake outlet (7/09/20).

During the outlet survey a female LCT, measuring 410 mm (~16 in.), was found stranded in a small intermittent pool 200 meters from the lake with no ability to move up or downstream (**Picture 2**). The crew attempted to rescue the fish and return it to Showers Lake; however, the fish was significantly stressed and did not survive the rescue attempt.

The survey crew set a monofilament gill net because no fish were captured during the hook and line sampling. The gillnet was set for a shortened period of four hours and checked every hour during the sample period. The net was set at 7:40 a.m. and pulled at 11:43 a.m. One male LCT was captured measuring 555 mm (~22 in.) in length and 284 mm (~11 in.) in girth (**Picture 3**). The surveyors believe this fish to be the same individual LCT observed from the shore and mentioned above.

LCT at Showers Lake cannot naturally reproduce, the lake does not have significant inlets and the small dam located on the outlet serves as a fish barrier, precluding fish moving from the outlet creek into the lake. Moreover, these survey data clearly show





**Picture 3:** 22-inch male LCT captured at Showers Lake during a gillnet survey (7/09/20).

backpack.

that LCT are not spawning within the lake. As a result, CDFW will continue to manage Showers Lake as a put-and-grow fishery.

The last CDFW plant was in 2013 with 2,000 LCT fingerlings (**Table 1**). Results from this survey prove that LCT can survive and grow to trophy-size. The lack of competition and the presence of a robust population of Speckled Dace produces individuals more than 20-inches in length. Showers Lake should receive future plants of LCT fingerlings at similar numbers to prior year plants. Hook-and-line monitoring surveys should be conducted annually one to three years after the next planting event to document growth and survivorship. If aerial planting is not available for the 2021 planting season, all efforts should be made to deliver fingerling LCT by mule or

# FISH SURVEYING

Trout: rainbow trout (RT), golden trout (GT), cutthroat trout (CT), brown trout (BN), brook trout (BK), hybrids (GT x RT, CT x RT)										DATE: 07/09/2020	
Site Name (if available): Showers Lake				Survey Crew: JTS				Net Depth (m):			
SITE ID: 14485		Fish Survey Method: (circle one) gill net hook and line e-fish				Net Location: E (UTM NAD 83) N:		Fish captured? (circle one) Y (insert data below) N			
Gill Net		General location (circle one): near inlet near outlet other		Net Set Date:		Net set time (hhmm):		Net Pull Date:		Net pull time (hhmm):	
Electrofishing		Location: (inlet or outlet #)		Start coord. (downstream) E N		End coord. (upstream) E N		Start (hhmm): 0515		End (hhmm): 0815	
E-fisher Settings (if needed):		Volts:		Hz:		Duty Cycle:		Pulse:		Other:	
On Time (sec): 2hrs 30min											
Fish #	Species	Tot Lgth (mm)	Weight (g)	Sex	Egg Stage (F only) Early Ripe Late			Otoliths?	Comments		
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
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27											
28											
29											
30											
31											
32											
33											
34											
35											

Spent 1hr fishing from float tube. 1hr 30 min from shore. No success whatsoever.

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Data Sheet 2, pg. 1 of 2

**Figure 2:** Hook and line datasheet for Angler 1 for July 9, 2020 on Showers Lake, El Dorado County.

# FISH SURVEYING

Trout: rainbow trout (RT), golden trout (GT), cutthroat trout (CT), brown trout (BN), brook trout (BK), hybrids (GT x RT, CT x RT)										DATE: 07/08/2020	
Site Name (if available): Showers Lake				Survey Crew: JTS				Net depth (m):			
SITE ID: 14485		Fish Survey Method: (circle one) gill net hook and line e-fish		Net Location (UTM NAD 83): N		E:		Fish captured? (circle one) Y (insert data below) N			
Gill Net		General location (circle one): near inlet near outlet other		Net Set Date:		Net set time (hhmm):		Net Pull Date:		Net pull time (hhmm):	
Electrofishing		Location: (inlet or outlet #)		Start coord. (downstream): E N		End coord. (upstream): E N		Start (hhmm): 1955		End (hhmm): 2126	
E-fisher Settings (if needed):		Volts:		Hz:		Duty Cycle:		Pulse:		Other:	
On Time (sec): 1hr 30min											

Fish #	Species	Tot. Lgth (mm)	Weight (g)	Sex	Egg Stage (F only)			Otoliths?	Comments
					Early	Ripe	Late		
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									Several large LCT seen from shore.
12									
13									Many speckled dace present in lake.
14									
15									
16									
17									
18									
19									
20									
21									
22									
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32									
33									
34									
35									

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Data Sheet 2, pg. 1 of 2

**Figure 3:** Hook and line datasheet for Angler 1 for July 8, 2020 on Showers Lake, El Dorado County.

## FISH SURVEYING

Trout: rainbow trout (RT), golden trout (GT), cutthroat trout (CT), brown trout (BN), brook trout (BK), hybrids (GT x RT, CT x RT)										DATE: Jul 9 2020	
Site Name (if available): Showers Lake				Survey Crew: M Lockhart B Munsee				Net depth (m):			
SITE ID: 14485		Fish Survey Method (circle one) gill net <input checked="" type="radio"/> hook and line <input checked="" type="radio"/> e-fish <input type="radio"/>		Net Location (UTM NAD 83) E: N:		Fish captured? (circle one) Y (insert data below) <input checked="" type="radio"/> N					
Gill-Net: General location (circle one): near inlet <input type="radio"/> near outlet <input type="radio"/> other <input type="radio"/>		Net Set Date:		Net-set time (hhmm):		Net Pull Date:		Net pull time (hhmm):			
Location: (inlet or outlet #)		Start coord. (downstream) E N		End coord. (upstream) E N		Start (hhmm): 0530		End (hhmm): 0830		On Time (sec): 195 minutes	
Electrofishing		E-fisher Settings (if needed):		Volts:		Hz:		Duty Cycle:		Pulse:	
Other:											

Fish #	Species	Tot. Lgth (mm)	Weight (g)	Sex	Egg Stage (F only)			Otoliths?	Comments
					Early	Ripe	Late		
1									
2									
3									
4									
5									
6									
7									
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35									

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Date Sheet 2, pg. 1 of 2

**Figure 4:** Hook and line datasheet for Angler 2 & 3 for July 9, 2020 on Showers Lake, El Dorado County.

# FISH SURVEYING

Trout: rainbow trout (RT), golden trout (GT), cutthroat trout (CT), brown trout (BN), brook trout (BK), hybrids (GT x RT, CT x RT)

Site Name (if available): Showers Lake Survey Crew: M. Lockhart + B. Munsee DATE: Jul 8 2020

SITE ID: 14485 Fish Survey Method (circle one): gill net hook and line e-fish Net location (UTM NAD 83): E N Fish captured? (circle one): Y (insert data below) N

Gill Net: General location (circle one): near inlet near outlet other Net Set Date:                      Net Set time (hhmm):                      Net Pull Date:                      Net pull time (hhmm):                     

Electrofishing Location:                      Start coord. (downstream) E N End coord. (upstream) E N Start (hhmm): 1545 End (hhmm): 2050 On Time (sec): 245 minutes

E-fisher Settings (if needed):                      Volts:                      Hz:                      Duty Cycle:                      Pulse:                      Other:                     

Fish #	Species	Tot. Lgth (mm)	Weight (g)	Sex	Egg Stage (F only)			Otoliths?	Comments
					Early	Ripe	Late		
1									lots of Speckled Dace schooled by shoreline 2 large >16" LCT seen.
2									
3									
4									
5									
6									
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**Figure 5:** Hook and line datasheet for Angler 2 & 3 for July 8, 2020 on Showers Lake, El Dorado County.



14485  
Water: Showers lake Date: 7/8/20  
Start: 1945 am Stop: 2120 am  
No. Anglers: 1 Species Targeted: LCT

Fish No.	Species Caught	Total Length	Fln Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
Mountain Whitefish = MWF

14485  
Water: Showers lake Date: \_\_\_\_\_  
Start: \_\_\_\_\_ am Stop: \_\_\_\_\_ am  
No. Anglers: 1 Species Targeted: LCT

Fish No.	Species Caught	Total Length	Fln Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
Mountain Whitefish = MWF

14485  
Water: Showers lake Date: 7/9/20  
Start: 0530 am Stop: 0910 am  
No. Anglers: 1 Species Targeted: LCT

Fish No.	Species Caught	Total Length	Fln Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
Mountain Whitefish = MWF

Water: \_\_\_\_\_ Date: \_\_\_\_\_  
Start: \_\_\_\_\_ am Stop: \_\_\_\_\_ am  
No. Anglers: \_\_\_\_\_ Species Targeted: \_\_\_\_\_

Fish No.	Species Caught	Total Length	Fln Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
Mountain Whitefish = MWF

**Figure 6:** Hook and line datasheet for Angler 4 for July 8-9, 2020 on Showers Lake, El Dorado County.

14485  
 Water: Shawers lake Date: 7/8/20  
 Start: 1945 am pm Stop: 2110 am pm  
 No. Anglers: 1 Species Targeted: LCT

Fish No.	Species Caught	Total Length	Fish Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
 Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
 Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
 Mountain Whitefish = MWF

Water: \_\_\_\_\_ Date: \_\_\_\_\_  
 Start: \_\_\_\_\_ am pm Stop: \_\_\_\_\_ am pm  
 No. Anglers: \_\_\_\_\_ Species Targeted: \_\_\_\_\_

Fish No.	Species Caught	Total Length	Fish Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
 Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
 Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
 Mountain Whitefish = MWF

P.B.  
 14485  
 Water: Shawers lake Date: 7/8/20  
 Start: 0530 am pm Stop: 0910 am pm  
 No. Anglers: 1 Species Targeted: LCT

Fish No.	Species Caught	Total Length	Fish Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
 Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
 Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
 Mountain Whitefish = MWF

Water: \_\_\_\_\_ Date: \_\_\_\_\_  
 Start: \_\_\_\_\_ am pm Stop: \_\_\_\_\_ am pm  
 No. Anglers: \_\_\_\_\_ Species Targeted: \_\_\_\_\_

Fish No.	Species Caught	Total Length	Fish Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
 Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
 Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
 Mountain Whitefish = MWF

**Figure 7:** Hook and line datasheet for Angler 5 for July 8-9, 2020 on Showers Lake, El Dorado County.

Water: \_\_\_\_\_ Date: \_\_\_\_\_  
 Start: \_\_\_\_\_ am pm Stop: \_\_\_\_\_ am pm  
 No. Anglers: \_\_\_\_\_ Species Targeted: \_\_\_\_\_

Fish No.	Species Caught	Total Length	Fin Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
 Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
 Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
 Mountain Whitefish = MWF

Water: Showers Lake Date: 7/9/2020  
 Start: 0550 am pm Stop: 0715 am pm  
 No. Anglers: 1 Species Targeted: LCT

Fish No.	Species Caught	Total Length	Fin Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
 Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
 Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
 Mountain Whitefish = MWF

Water: Showers Lake Date: 7/8/2020  
 Start: 1603 am pm Stop: 1822 am pm 1.5 hrs  
 No. Anglers: 1 Species Targeted: LCT

Fish No.	Species Caught	Total Length	Fin Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
 Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
 Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
 Mountain Whitefish = MWF

Water: Showers Lake Date: 7/8/2020  
 Start: 2007 am pm Stop: 2115 am pm  
 No. Anglers: 1 Species Targeted: LCT

Fish No.	Species Caught	Total Length	Fin Clipped	Kept
1			Y N	Y N
2			Y N	Y N
3			Y N	Y N
4			Y N	Y N
5			Y N	Y N
6			Y N	Y N
7			Y N	Y N
8			Y N	Y N
9			Y N	Y N
10			Y N	Y N
11			Y N	Y N
12			Y N	Y N
13			Y N	Y N
14			Y N	Y N
15			Y N	Y N
16			Y N	Y N
17			Y N	Y N
18			Y N	Y N
19			Y N	Y N
20			Y N	Y N

Species Codes:  
 Kokanee = KOK, Chinook Salmon = CHIN, Lake Trout = LT, Rainbow Trout = RT,  
 Brown Trout = BN, Brook Trout = BK, Lahontan Cutthroat Trout = LCT, Golden Trout = GT,  
 Mountain Whitefish = MWF

**Figure 8:** Hook and line datasheet for Angler 6 for July 8-9, 2020 on Showers Lake, El Dorado County.

# FISH SURVEYING

Trout: rainbow trout (RT), golden trout (GT), cutthroat trout (CT), brown trout (BN), brook trout (BK), hybrids (GT x RT, CT x RT)										DATE: 7/9/2020	
Site Name (if available): Showers Lake				Survey Crew: MTL, JTS, LTM, LMH				Net depth (m): 4.6			
SITE ID: 14485		Fish Survey Method: (circle one) gill net		hook and line		e-fish		Net Location (UTM NAD 83) E: 0757654 N: 4292403		Fish captured? (circle one) Y (insert data below) N	
Gill Net near inlet		General location (circle one): near outlet		other		Net Set Date: 7/9/2020		Net set time (hhmm): 0740		Net Pull Date: 7/9/2020	
Electrofishing		Location: (inlet or outlet #)		Start coord. (downstream)		End coord. (upstream)		Start (hhmm):		End (hhmm):	
E-fisher Settings (if needed):		Volts:		Hz:		Duty Cycle:		Pulse:		Other:	
Fish #		Species		Tot. Lgth (mm)		Weight (g)		Sex		Egg Stage (F only)	
										Early Ripe Late	
1		LCT		555		—		M			
2		LCT		410		—		F		— — —	
3											
4											
5											
6											
7											
8											
9											
10											
11											
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32											
33											
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35											

Comments: 284mm Girth. Released. Rescued from outlet. In poor condition.

PLEASE Return to: Isaac Chellman, California Department of Fish and Wildlife, (916) 358-4038; 1701 Nimbus Rd., Rancho Cordova, CA 95670

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Data Sheet 2, pg. 1 of 2

**Figure 9:** Datasheet with gill net data from a survey conducted on July 9, 2020 at Showers lake, El Dorado County. this net was set on the northwest portion of the lake 200 yards to the west of the outlet.

**CDFW High Mountain Lakes - Amphibian and Reptile Visual Encounter Survey Data Sheet**

Site ID: 14485	Date: 7/9/2020	SKY: Clear	Partly Cloudy	Mostly Cloudy	Over-cast	Rain	Snow	Smoke	WIND: Calm	Light	Moderate	Strong
Topo Name: Showers Lake	County: El Dorado	Elevation: —	If not surveyed, provide reason:			Private Property	Frozen	Not Found	No Access			
Surveyors: LTM, CMH, JTS					Water Type: Lake	Unmapped pond	Marsh/ meadow	Spring seep	Stream (Skip to "STREAMS" on pg. 2)			
Lake Name: Showers Lake	East UTM: 0757661	North UTM: 4292408	UTM Zone: 10									
Color: Clear	Stained	Water (5 m from shore): 14.5 @ 0921	Air (1 m above water): 14 @ 0920	Temp: —	Temp: —	Seasonality: Perennial	Currently Dry?					
Turbidity: Clear	Cloudy	Temp 10cm deep: —	HERPS SEEN? YES	FISH SEEN? YES	HERPS SEEN? NO	FISH SEEN? NO	Ephemeral	Yes		No		
Survey START time: 0925	Survey END time: 0946	Total survey duration (min): 34										
*FOR LAKES/PONDS/MEADOWS: ALSO SURVEY FIRST 200 m OF INLETS AND OUTLETS. RECORD DATA SEPARATELY IN THE "STREAMS" SECTION ON PG. 2												
HERP SPECIES	# adults	# subadults	# metamorphs	# larvae	# egg m.	# swabs	Survey Method					
THEL	1						Visual	Trapped				
Calling? Y (N)							Aural	Hand Collected				
							Amp Net	Incidental				
							Visual	Trapped				
Calling? Y N							Aural	Hand Collected				
							Amp Net	Incidental				
							Visual	Trapped				
Calling? Y N							Aural	Hand Collected				
							Amp Net	Incidental				
							Visual	Trapped				
Calling? Y N							Aural	Hand Collected				
							Amp Net	Incidental				

**FISH SPECIES** (circle species seen, if known): BK (brook trout), BN (brown trout), CT (cutthroat trout), GT (golden trout), RT (rainbow trout) HYBRID (e.g., GT x RT), OTHER (e.g., minnows)

**Amphibians:** S. Long-toed Salamander (AMMA); Yosemite Toad (ANCA, fmlly BUCA); Sierran Treefrog (HYSL, fmlly PSRE or HYRE); Sierra Nevada Yellow-legged Frog (RASI)

**Amph. less common in HML:** CA Toad (ANBO, fmlly BUBO); Bullfrog (RACT); Cascades Frog (RACA); CA Red-legged Frog (RADR); Sierra Newt (TASI, fmlly TATO)

**Reptiles:** Sierra Gartersnake (THCO); Mountain Gartersnake (THEL); Valley Gartersnake (THSI); Western Pond Turtle (EMMA, fmlly CLMA)

PHOTOS	Photo Number	Camera	Time	Date (yyyy-mm-dd)	UTM E	UTM N	Comments
Overview	0908	LTM	0908	2020-07-09			overview photo
Herps	0934	LTM	0934				THEL in Amp-Net
Other	0437	CMH	0934				410mm LCT female stuck in small pool in outlet. Rescued and planted in Showers Lake. Subsequently was captured in Gill Net and released, slightly alive.
	0442	CMH	0940				Picture of Injured Canebrake

<p><b>SITE SKETCH:</b></p>	<p><b>NOTES:</b> No PSRE heard overnight, Fish present. LCT + LRS (minnows). 410 (mm) LCT female stuck in small pool in outlet. Rescued and planted in Showers Lake. Subsequently was captured in Gill Net and released, slightly alive.</p>
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Herp Data Sheet, pg. 1 of 2

**Figure 10:** Data Sheet with Visual Encounter Survey data from a survey conducted July 9, 2020, at Showers Lake, El dorado County. One adult THEL seen.