

State of California
Department of Fish and Wildlife

Memorandum

Date: November 9, 2020

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Cc: CDFW North Central Region Fish Files

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Subject: Pre-Stocking Evaluation at Lola Montez Lakes, Nevada County

Upper and Lower Lola Montez Lakes (Lake IDs 13202 and 13212), Nevada County, are day hiking destinations accessible from the Lola Montez Trailhead (**Figures 1 and 2**).

The trailhead is located north of the Interstate-80 Soda Springs exit, just past the fire station. The California Department of Fish and Wildlife (CDFW) has been stocking Upper Lola Montez Lake with Rainbow Trout (*Oncorhynchus mykiss*; RT) since at least 1967 and most recently stocked Lower Lola Montez Lake with RT in 2018.

To assess the current status of the sport fisheries at Lola Montez Lakes and determine if continued fish plants are warranted, two CDFW Scientific Aides surveyed the

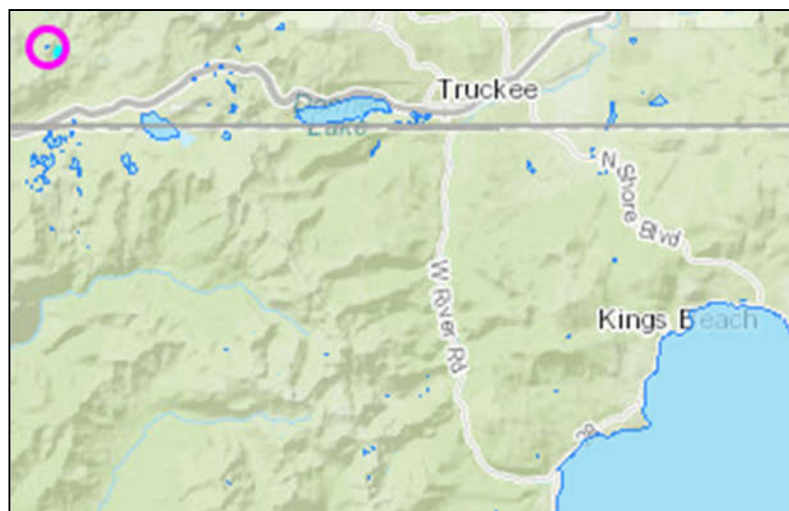


Figure 1. Map of the Lola Montez Lakes, Nevada County, (pink circle) in relation to Lake Tahoe and Truckee, CA (CDFW BIOS Viewer, retrieved August 19, 2020).



Figure 2. Overview photo of Lower Lola Montez Lake, Nevada County, facing east (CDFW, July 29, 2020).

Lola Montez Lakes on July 29, 2020. A monofilament gill net was set in Lower Lola Montez Lake (Lake ID: 13212) for 8 hours during daytime on July 29, 2020. The gill net catch included Rainbow Trout (*Oncorhynchus mykiss*; RT) and Golden Shiner (*Notemigonus crysoleucas*; GS) (**Table 1**). A monofilament gill net was set in Upper Lola Montez Lake (Lake ID: 13202) for 6 hours during daytime on July 29, 2020 and yielded zero fish.

Scientific Aides also conducted visual encounter surveys (VES) of the two main lakes, as well as smaller waterbodies throughout the watershed. In total, fourteen waterbodies were surveyed. Populations of Pacific Chorus Frog (*Pseudacris regilla*; PSRE), Southern Long-toed Salamander (*Ambystoma macrodactylum sigillatum*; AMMA), and Mountain Gartersnake (*Thamnophis elegans elegans*; THEL) were present. **Table 2** summarizes the survey findings.

Table 1. Length, weight, sex, and egg stage of Rainbow Trout captured during a gill net survey at Lower Lola Montez Lake, Nevada County, on July 29, 2020.

Species	Length (mm)	Weight (g)	Sex
RT	347	400	Unknown
RT	342	315	Unknown
RT	340	295	Unknown
RT	389	209	Unknown
RT	315	249	Unknown

Results of the VES and gill net set suggest that Lower Lola Montez Lake is an ideal location for an aerially stocked put-and-grow RT fishery. Gill net data suggests that ample prey availability leads to significant growth of RT (**Table 1**, **Figure 3**). All RT netted in Lower Lola Montez Lake were of comparable size and no juvenile size classes were captured. This suggests no RT reproduction in Lower Lola Montez Lake. Since 2012, CDFW has planted sterile, triploid RT in Lower Lola Montez Lake (**Table 3**). This was demonstrated in the gill net catch; all RT caught had indistinguishable sex organs. These findings also suggest that the RT present in Lower Lola Montez Lake are from recent planting events, rather than hold-over fish or naturally spawned fish. Due to the

presence of forage fish, evidence of terrific RT growth, and the absence of special status herpetofauna, Lower Lola Montez Lake is an ideal location to provide a put-and-grow RT fishery to the avid backcountry angler.

Table 2. VES observations from Lola Montez lakes area surveys conducted July 29, 2020. Species abbreviations: PSRE – Pacific Chorus Frog. AMMA – Southern Long-toed Salamander. THEL – Mountain Gartersnake.

<i>Lake ID</i>	<i>Habitat Type</i>	<i>Species</i>	<i>Adult</i>	<i>Sub-Adult</i>	<i>Meta-Morph</i>	<i>Larvae</i>
13202	Lake	THEL	-	1	-	-
13205	Lake	PSRE	-	9	99	150
		THEL	-	1	-	-
13212	Lake	AMMA	6	-	-	-
		THEL	2	1	-	-
13214	Lake	PSRE	-	2	3	9
13217	Lake	PSRE	-	22	-	3
		THEL	-	2	-	-
13218	Lake	PSRE	-	-	-	59
13219	Lake	PSRE	-	1	1	5
13221	Lake	PSRE	-	1	2	8
		THEL	1	-	-	-
13225	Lake	PSRE	-	1	21	46
		THEL	1	-	-	-
13231	Lake	PSRE	-	6	-	-
13233	Lake	THEL	1	-	-	-

Table 3. CDFW Lower Lola Montez Lake Fish Stocking History, 2009-2020

<i>Year</i>	<i>Species</i>	<i>Number of Fish Planted</i>	<i>Size</i>	<i>Triploid (Y/N)</i>
2009	RT	2,800	Fingerling	N
2011	RT	3,500	Fingerling	N
2012	RT	3,500	Fingerling	Y
2013	RT	3,500	Fingerling	Y
2017	RT	3,500	Fingerling	Y
2018	RT	3,500	Fingerling	Y

Upper Lola Montez Lake is extremely difficult to access on foot from Lower Lola Montez Lake and currently does not support a sport fishery. CDFW most recently planted the lake with Brook Trout (*Salvelinus fontinalis*; BK) in 1999. Surveys conducted by CDFW in 2001 and 2012 found evidence of persistent trout populations. However, current data suggest the lake may be fishless. Regardless, due to access issues alone, Upper Lola Montez should not be aerially planted by CDFW.



Figure 3. Photograph of Rainbow Trout and Golden Shiner captured during a gill net survey at Lower Lola Montez Lake, Nevada County (CDFW, July 29, 2020).