

# Eyes on the Lake Survey Report:

Upper Truckee River, Elks Club Road to Highway 50, Sept 5, 2019

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## Project Design

On September 5, 2019, the League to Save Lake Tahoe coordinated an Eyes on the Lake volunteer survey of the Upper Truckee River from the crossing near Elks Club Road to the Highway 50 overpass near North Upper Truckee Road, in Meyers, CA. The League conducted the survey in collaboration with California State Parks, which has an interest in restoring the reach of the Upper Truckee River through Washoe Meadows State Park and Lake Valley State Recreation Area. California State Parks – Sierra District owns the approximately 3 miles of the Upper Truckee River surveyed during this year’s event.



The September 5 survey was the third Eyes on the Lake survey to be conducted on the Upper Truckee River. The first survey was conducted in 2016 from the mouth of the Upper Truckee River to the Highway 50 overpass; the second was conducted in 2018 from the Highway 50 overpass to Elks Club Road. If future surveys are conducted, they will include additional stretches of the river upstream of Highway 50 near North Upper Truckee Road or possibly at other large tributaries flowing into Lake Tahoe.

The 2016 survey was conducted in collaboration with the California Tahoe Conservancy and provided the location of aquatic invasive plants above and below a proposed diversion of the river, where heavy equipment would potentially fill the existing channel and could risk transporting aquatic invasive plants. The Conservancy plans to redirect the river from this point into the Upper Truckee Marsh and allow the river to develop new channels naturally. The 2018 survey was conducted in collaboration with the Conservancy and the Tahoe Resource Conservation District, which had just at the time just purchased the property known as Johnson Meadow. Johnson Meadow encompassed the majority of the reach of river surveyed in 2018. Other sections of the reach surveyed in 2018 were owned by the City of South Lake Tahoe and the U.S. Forest Service. All landowners along the Upper Truckee River have a vested interest in ensuring that there are no aquatic invasive species in the river, so that these species are not spread through

restoration projects. The 2018 and 2019 surveys determined that there are indeed no infestations of aquatic invasive plants between Highway 50 (Lake Tahoe Boulevard) and Highway 50 near North Upper Truckee Road.

For the 2019 survey, three teams of three and one team of two, made up of five Eyes on the Lake volunteers, three League staff, two California State Park staff and one Tahoe Resource Conservation District staff member, surveyed four separate zones, respectively, along the stretch of river from Elks Club Road to Highway 50/North upper Truckee. (See attached map – Figure 4 – showing the four zones of the survey.) Teams



**Figure 1.** Team surveying Zone 2 on the Upper Truckee River.  
*Photo by League staff.*

started at designated access points and utilized trails or roads along the river to return to their starting point after completing the survey of their designated zone. Teams at Zones 1 and 2 received free use of Lake Tahoe Golf Course's golf carts, to safely traverse the golf course to access the river. After completing their surveys, teams met up for lunch and to exchange data at Ernie's Coffee Shop.

League staff instructed teams to survey their assigned zone from either the stream bank (one team member on each bank) or in the channel, depending on access, obstructions and water depth. Staff also instructed teams to collect plants in hand for verification. If any aquatic invasive plants were verified, teams were to record the plant name and a GPS point, as identified using a smartphone with a GPS application. Each team was provided with a clipboard, survey data sheet, map of their zone, access instructions and safety information, native western pearlshell mussel identification guide, Eyes on the Lake ID guide, waterproof cellphone pouch and a pen. Team members in Zones 1 and 2 were also given orange safety vests and hardhats as these zones traversed through Lake Tahoe Golf Course (Lake Valley State Recreation Area). Team members provided their own smart phones with GPS apps. Teams were given the option, but not required, to record locations of native plants (e.g., western waterweed, white water buttercup) as these are known to occur in this stretch of river. Teams were also instructed to record quantity and GPS coordinates for any native western pearlshell mussels found, as requested by California State Parks Natural Resources staff.

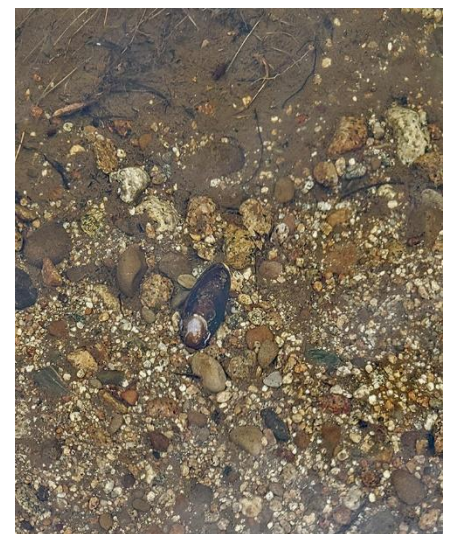
At the meeting location following the survey (Ernie's), League staff collected all clipboards with completed data forms with plant and mussel GPS locations and checked in with all volunteers to ensure there were no problems in surveying. As was expected or at least hoped for, teams located **no aquatic invasive plants** in this stretch of river. The Zone 1 team was the only team to find native mussels. Following the surveys, since no aquatic invasive plants were found, League staff entered two absence data points for each zone in the League's aquatic invasive plant database; one at the start or access point for the survey and a second at the center of the zone. For Zone 4, staff also entered one final absence data point for the end of the zone.

### Survey Results

The four survey teams each successfully completed a survey of their assigned zone. No team located any aquatic invasive plants in their zone. The only aquatic plants identified were the native plants common waterweed and white-water buttercup (Figure 2), distributed evenly throughout each of the zones. The team in Zone 1 found about 32 native western pearlshell mussels (Figure 3). The substrate in this stretch of the Upper Truckee River varied from clay to sand and cobble.



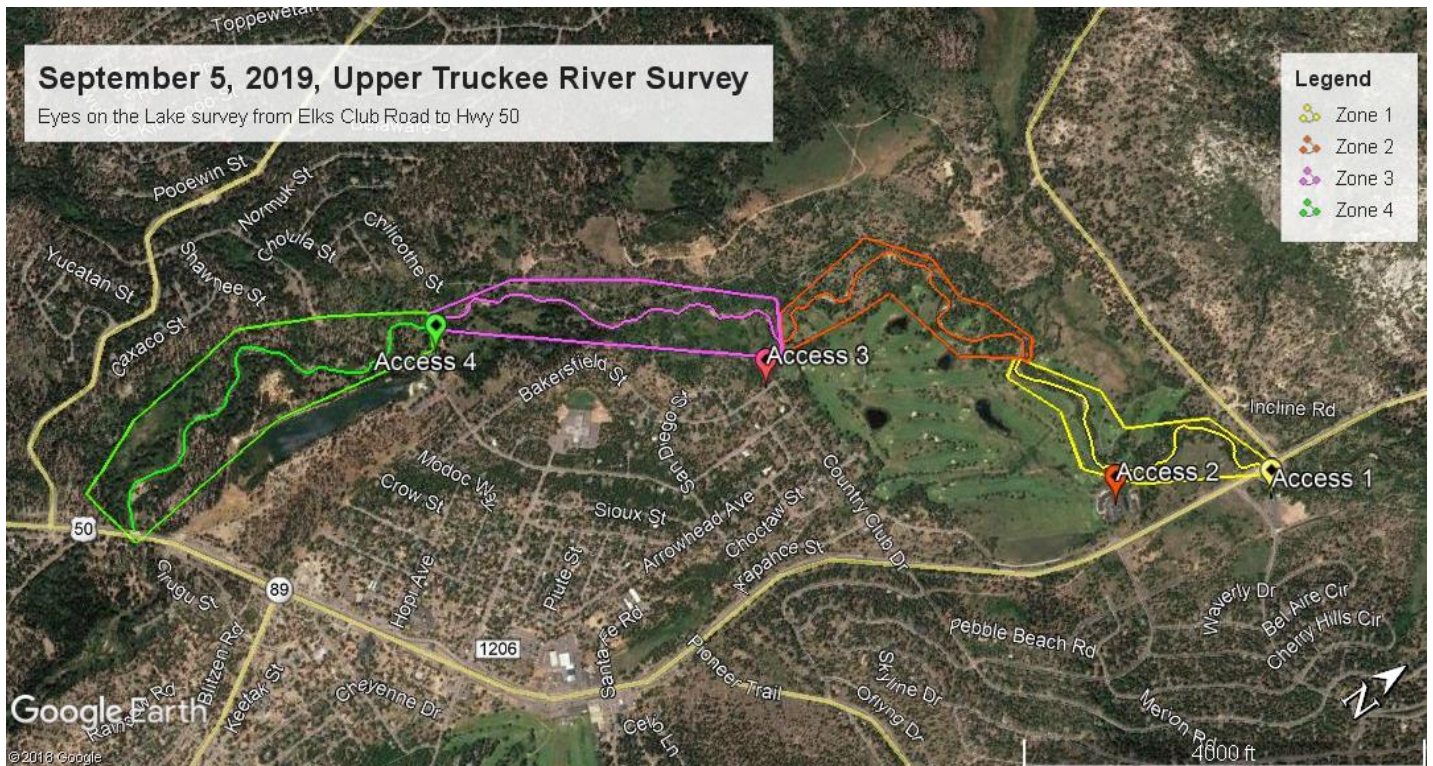
**Figure 2.** Native flowering white-water buttercup found in Zone 3. *Photo by Tahoe Resource Conservation District staff*



**Figure 3.** Native western pearlshell mussel found in Zone 1. *Photo by Eyes on the Lake volunteer*

### Next Steps

League staff are confident that teams conducted a thorough survey of this stretch of the Upper Truckee River from Elks Club Road to Highway 50 near North Upper Truckee Road, and that this section of river is “weed-free”. Even so, continued monitoring of the Upper Truckee River, including the reach from the river mouth to Hwy 50, is warranted to ensure new infestations of aquatic invasive plants don’t pop up in the future. Most immediately, League staff will encourage Eyes on the Lake volunteers to return to both stretches of the Upper Truckee River on their own to monitor for aquatic invasive plants. In the long-term, League staff will continue to work with the California Tahoe Conservancy to determine appropriate times and intervals to repeat surveys of these stretches of river.



**Figure 4.** Map of survey zones for Eyes on the Lake survey of the Upper Truckee River from Elks Club Road to Highway 50 near North Upper Truckee Road. September 5, 2019.