

**Monitoring Data: Galisteo Creek at Puente Vieja**  
October 30, 2025

River Source is happy to share the following stream monitoring data gathered with El Dorado Middle School 8th grade students on October 30, 2025, at Galisteo Creek by Puente Vieja. Approximately 38 8th grade students of Marion Markham and many parent chaperones were grateful for the opportunity to learn and get an opportunity to care for the Galisteo Bosque thanks to the support of the Galisteo Community. Amazing volunteers from Galisteo and the Truchas Chapter of Trout Unlimited helped with Russian olive mapping and removal and finding 10 types of aquatic invertebrates in the stream.

Thank you to the residents of Galisteo for making this learning and service opportunity possible

**Chemistry and Streamflow**

The following table summarizes chemistry and stream measurements from the field trip. The values represent an average of two to five measurements taken on the same day. Historic data from the same location is included for context and comparison.

| Parameter (unit)                   | 10/30/25 | 10/29/24 | 11/2/23 | 11/5/18 | 10/26/17 |
|------------------------------------|----------|----------|---------|---------|----------|
| Streamflow (Cubic Feet per Second) | 0.28     | 0.46     | —       | —       | 0.35     |
| Temperature (°C)                   | 9.4      | 12.83    | 10.33   | 11.5    | 12.75    |
| TDS (mg/L)                         | 508      | 450      | 320     | 430     | 445      |
| Turbidity (NTU)                    | 10.65    | 4.32     | 7.19    | 6.91    | 6.11     |
| pH                                 | 8        | 8.07     | 7.35    | 8.6     | 7.28     |
| Nitrate (mg/l)                     | 2.6      | 2.75     | 28.7    | —       | 1.05     |
| Dissolved Oxygen (mg/l)            | 7.78     | 6.14     | 8.7     | 6.7     | 7.95     |
| Reactive Phosphorus (mg/l)         | 0.98     | 0.09     | 1.0     | 1.9     | 0.31     |

The average streamflow measurement of 0.28 CFS is below the 0.5 CFS threshold and is considered poor for fish. The average turbidity of 10.65 NTU is slightly above the fish standard of 10 NTU above background levels. All other values are within the range of high quality coldwater fish standards.

**Benthic Macroinvertebrates**

The following table lists the sensitive, somewhat sensitive, and tolerant groups of benthic macroinvertebrates identified by students with the help of Trout Unlimited volunteers.

| Sensitive Groups                  | Somewhat Sensitive Groups                                                                     | Tolerant Groups                                                               |
|-----------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Caddisfly larvae<br>Mayfly larvae | Crane fly larvae<br>Predatory diving beetle<br>Dragonfly larvae<br>Midge fly larvae (not red) | Aquatic worm<br>Blackfly larvae<br>Midge fly larvae (red)<br>Pouch/pond snail |

Given this distribution of groups, students calculated a benthic macroinvertebrate biotic index score of **Good (1.8)** on a scale of Poor (1.0–1.6), Good (1.7–2.3), and Excellent (2.4–3.0).

### Nonnative Survey and Removal

Students conducted surveys of the Russian olives upstream of the bridge. Many nonnative plants were removed and painted with 30% vinegar. Following is a link to the map of student surveys of the locations where the identified and removed Russian olives up to about 5 inches in diameter:

[Click on this link to see the 2025 mapping data compared to the 2024 data:  
https://arcg.is/SGgeu0](https://arcg.is/SGgeu0)

### Repeat photography & Drone Footage

Students also helped repeat photography from an established Picturepost and capture drone footage of the bosque. The following pages have two sets of paired photos that indicate an increase in coverage of Russian Olive, particularly in the first set

The short drone video begins with a view downstream from the bridge at Highway 41 looking over a dense forest of Russian olives. The drone then turns to look upstream in the area between Puente Vieja and Highway 41. [Click here on this link to see the video:  
https://drive.google.com/file/d/10elqjGj8\\_FcZjE4bUWp2IHjHCBn-iSJ5/view?usp=sharing](https://drive.google.com/file/d/10elqjGj8_FcZjE4bUWp2IHjHCBn-iSJ5/view?usp=sharing)





May 7, 2019





**October 30, 2025:** Note Russian olives growing below cottonwood trees





**May 7, 2019**





**October 30, 2025:** Note the Russian olives now growing in the left center and top areas of the image.