

## **CSS December Potluck, Business Meeting, and 2025 President's Address**

**Geochronologic data reveal late Pleistocene to Holocene debris-flow history and wildfire association within Whiskeytown National Recreation Area, Klamath Mountains, northern California**

**Tuesday, December 2, 2025**

**Presentation by: Shannon Mahan, U. S. Geological Survey and Colorado Scientific Society 2025 President**

**At New Terrain Brewing Company, Golden, CO**

**In-person Potluck Dinner at New Terrain Brewing Company for 50 people, or Join us on Zoom**

**5:15 – Arrive at New Terrain Brewing Company with your potluck dish.**

**5:30 – Potluck Dinner and Social time**

**6:00 – Colorado Scientific Society Annual Business Meeting (people can still be eating)**

**6:30 – Past President's presentation – Whiskeytown boulder sampling to elucidate wildfire history and role in debris flows using luminescence**

**8:00 – Conclusion**

**A baked ham and dinner rolls will be provided; attendees are invited to bring any other main or side dishes, appetizers, salads, deserts, etc. No registration to attend is needed.**

**Link to Join CSS December Meeting via Zoom**

**CSS invites you to Join our meeting via Zoom on Thursday, December 2nd after 5:45 pm.**

**Click to Join CSS Zoom Meeting  
from PC, Mac, Linux, iOS or Android**

**The location of New Terrain Brewery and details of the potluck dinner are described after CSS Annual Business Meeting agenda and Shannon Mahan's presentation.**

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**Colorado Scientific Society Annual Business Meeting**

**2025 Best Paper Award**

**To Lauren Heerschap from Brunton**

**View a video of the meeting here: [CSS 2025 Archives, April meeting about Brunton](#)**

**2025 CSS Treasurer's Report by James Paces**

## **Election of new Colorado Scientific Society Councilors**

**Presentation of the Silver Gavel from the outgoing President of the Colorado Scientific Society to the incoming CSS President**

**Shannon Mahan presents the Silver Gavel to Amy Atwater, our incoming CSS President.**

See [Silver Gavel](#) for details.

## **Election of new Colorado Scientific Society President-Elect**

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**Geochronologic data reveal late Pleistocene to Holocene debris-flow history and wildfire association within Whiskeytown National Recreation Area, Klamath Mountains, northern California**

### **Authors:**

**Shannon A. Mahana, John R. “Jack” Woodb, Amy E. Eastc, Eric L. Bilderbackd, Emma T. Krolczyka, Brian A. Rasmussene, Karina S. Zyatitskyf, Leticia Hallasg**

**a U.S. Geological Survey, Luminescence Geochronology Lab, Denver Federal Center, Denver, CO 80225**

**b National Park Service, Geologic Resources Division, Denver Federal Center, Denver CO 80225**

**c U.S. Geological Survey, Pacific Coastal and Marine Science Center, 2885 Mission St., Santa Cruz, CA 95060**

**d U.S. Geological Survey, Geologic Hazards Science Center, Golden, CO 80401**

**e National Park Service, Lassen Volcanic National Park, PO Box 100, Mineral, CA 96063**

**f Conservation Legacy, Scientists in Parks Program, 701 Camino del Rio Suite 101, Durango, CO 81301**

**g Contractor, U.S. Geological Survey Pacific Coastal and Marine Science Center, 2885 Mission St., Santa Cruz, CA 95060**

**Abstract: Understanding the local to regional history of extreme events such as debris flows and floods provides context to plan for and mitigate these hazards to life, property, and infrastructure. The Klamath Mountains of northwestern California have experienced both debris flows and devastating wildfires. Whiskeytown National Recreation Area (WHIS) is at the heart of this range and has a wealth of debris-flow-related landforms. Gaining an understanding of pre-historic flows and the relationship with fire or other potential triggers can help mitigate future problems.**

**Optically stimulated luminescence and radiocarbon analyses from sediment and entrained organics in undisturbed facies, including beneath partially buried boulders, establishes a**

chronology of paleo-events in WHIS. The levee deposits indicate a repetition of debris flows during the latest Holocene, every 125-150 years, since 850 yr. Larger flows occurred, with a record elucidated from debris-flow deposits along Clear Creek, with middle Holocene ages, ca 2600 to 5500 yr, most of which have sufficient concentrations of charcoal to indicate origins as post-fire debris flows. Deposits at higher elevations show events from the latest Pleistocene ca. 13,000 yr. This geochronology indicates that these are not singular events but are relatively common and inherent to the geomorphic processes shaping this landscape.



Shannon Mahan, Colorado Scientific Society 2025

President and Director of the USGS Luminescence Geochronology Lab

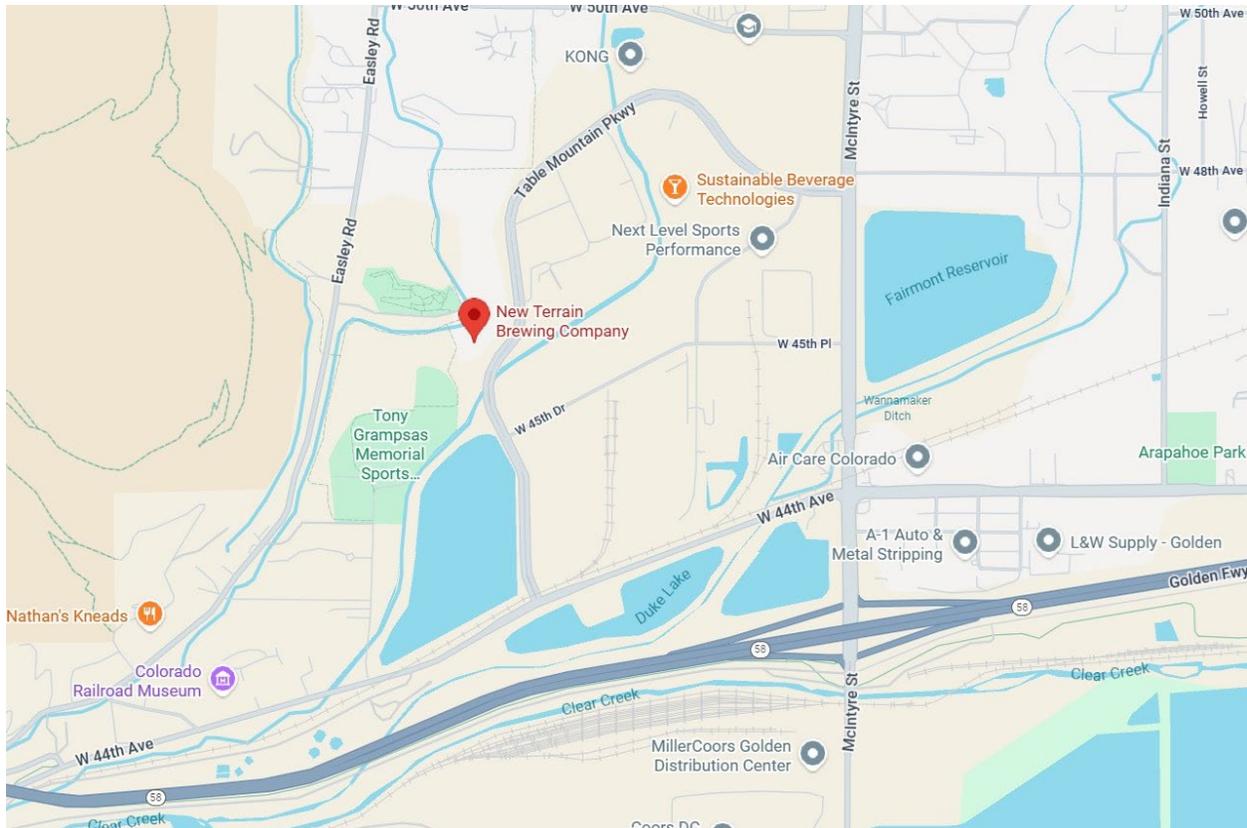
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### **New Terrain Brewing Company**

16401 Table Mountain Pkwy, Golden, CO 80403

New Terrain Brewing company is southeast of North Table Mountain, on Table Mountain Parkway, which is north of 44th Ave.

There is ample parking at New Terrain.



New Terrain Brewing Company is southeast of North Table Mountain

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### CSS Potluck Dinner – after 5:30 pm

- A baked ham and dinner rolls will be provided; attendees are invited to bring any other main or side dishes, appetizers, salads, deserts, etc. No registration to attend is needed.
- Bring a main course entree, a side dish, salad, or dessert, etc. to share with other CSS members.
- We will not be able to cook at New Terrain Brewery. We should be able to warm up dishes.
- CSS will provide plates, bowls, cups, dishes, napkins and eating utensils.
- Purchase a selection of beers and ales from New Terrain (and help cover our expenses for the night).  
Please do **not** bring your own alcoholic beverages.

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Upcoming meetings in 2026:

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**CSS January Meeting**

**The evolution and recovery of plant life across the Cretaceous–Paleogene mass extinction**

**Thursday, January 15, 2026**

**Dr. Gussie Maccracken**, Assistant Curator of Paleobotany at Denver Museum of Nature and Science

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**CSS February Meeting**

**Discussing research on vertebrates from the Niobrara Formation (Title TBD)**

**Thursday, February 19, 2026**

**Anthony Maltese**, Senior Curator for Research, Exploration And Morphology at Rocky Mountain Dinosaur Resource Center

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Click to Join or Renew your  
Colorado Scientific Society  
Membership

**Please pay your CSS dues for 2025 (if you never did!) or 2026.**

You may pay dues online or print out a PDF of the membership form and mail it to us with a check. Continuing your membership in CSS will enable us to continue all our ongoing programs, including our field trips, virtual meetings, Student Research Grants, and more.

See [Membership and Donations](#) for the CSS membership PDF and our online membership payment form.

**Regular CSS Membership** is \$25;

**Student Membership**, \$5;

**Life Membership**, \$395.

Send your membership payment, if not done through [our online membership payment form](#),

to Colorado Scientific Society P.O. Box 150495 Lakewood, CO 80215-0495.

Thank you!

New and renewal memberships in November and December are also good for the next year.

## Photos from CSS 2025 Poster Night



