



**TWSA BOARD MEETING PACKET
for 3/2/2022**

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TWSA Board Meeting Quarter 1 2022
Wed, Mar 2, 2022 1:00 PM - 4:00 PM (PST)

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AGENDA

- A. **Introductions**
- B. **Public Comment** Conducted in accordance with Nevada Revised Statute (NRS) Chapter 214.020 and limited to a maximum of 3 minutes in duration.
- C. **Presentations:** none scheduled
- D. **Approval of Agenda** for the March 2, 2022 TWSA Board Meeting
- E. **Approval of Minutes** for the December 1, 2021 TWSA Board meeting
- F. **Reports**
 - a. **Staff Reports** (Annual Report Publication; TKPOA CMT decision; Spring Events)
 - b. **Budget** - see enclosed information for current expense details.
Open Gov. link for current budget and expenses: <https://bit.ly/3wxURUA>
- TWSA Chair Report**
- G. **General Business** (for possible action):
 - a. TKPOA Control Methods Test / Lahontan Water Board meeting Jan. 2022
 - b. 2022-2023 Proposed TWSA Budget
 - c. Budget Authorization for June 1, 2022 event
 - d. TWSA Board ByLaws Membership Addendum defining Associate Status
 - e. Membership requests:
 - 1. Heavenly Water System request for admission as Associate Member (discuss – vote in June).
 - 2. Logan Creek Estates GID request for admission as Associate Member (discuss – vote in June).
- H. **Purveyor Updates**
- I. **Public Comment**
- J. **Adjournment**

Lahontan / TRPA - TKPOA Control Methods Test - January 2022 (TBD): Lahontan Board Decision.
Final project and environmental document review <https://tahoekeysweeds.org>

2022 TWSA Board Meetings

First Wednesdays, quarterly, held from 1 to 4 pm; virtual until further notice.

March 2, 2022

June 1, 2022 NOTE: TWSA's 20 year anniversary event at North Tahoe Event Center.

11:30 am to 1 pm – luncheon; followed by TWSA Board meeting 1 to 4 pm.

September 7, 2022

December 7, 2022

TWSA Board of Directors

Suzi Gibbons (Chair)	North Tahoe Public Utility District
Andrew Hickman	Round Hill General Improvement District
Richard Robilliard; Tom White (alt.)	Douglas County Systems
Patrick McKay; Mike McKee (alt.)	Edgewood Water Company
Cameron McKay	Glenbrook Water Cooperative
Brad Underwood	Incline Village General Improvement District
Mitch Dion; Brandon Garden (alt.)	Kingsbury General Improvement District
Nakia Foskett	Lakeside Park Association
Kim Boyd; Tony Laliotis (alt.)	Tahoe City Public Utility District
Shelly Thomsen (Vice-chair)	South Tahoe Public Utility District

For more information, please contact: Madonna Dunbar, TWSA Executive Director
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(775) 832-1212 office / (775) 354-5086 cell /email: mod@ivgid.org

Certification of posting of agenda = Physical Posting Suspended - Covid-19 restrictions. Online posting and email delivery of notice provided one week ahead of meeting. In compliance with State of Nevada Executive Department, Declaration of Emergency Directive 006, 016 and 018, this meeting is closed to the public and attendance is limited to members of the Board of Trustees and essential staff. Public comment is allowed and the public is welcome to make their public comment either via e-mail (please send your comments to mod@ivgid.org by 5 p.m. on Tuesday, Feb. 28, 2022 or via telephone (775-354-5086) on the day of the meeting. By, Madonna Dunbar, Executive Director, TWSA

Notes: Items on the agenda may be taken out of order; combined with other items; removed from the agenda; moved to the agenda of another meeting; moved to or from the Consent Calendar section; or may be voted on in a block. Items with a specific time designation will not be heard prior to the stated time, but may be heard later. Members of the public who are disabled and require special accommodations or assistance at the meeting are requested to call IVGID at 832-1212 at least 24 hours prior to the meeting.

TWSA agenda packets are available at the TWSA website www.TahoeH2O.org
or the TWSA office at 1220 Sweetwater Road, Incline Village, Nevada 89451.

TWSA Board Meeting
Wednesday, December 1, 2021 – 1:00 pm to 2:30 pm

Minutes

- A. Introductions**
No guests were present.
- B. Public Comment**
No public comment was given.
- C. Presentations**
No presentations were given.

Roll Call of Members in Attendance

Suzi Gibbons (NTPUD), Shelly Thomsen (STPUD), Nakia Foskett (LPA), Kim Boyd (TCPUD), Andrew Hickman (RHGID), Brad B. Underwood (IVGID), Richard Robillard (Douglas County), Tom White (Douglas County), Mitch Dion (KGID), Patrick McKay (Edgewood and Glenbrook).
TWSA Staff in attendance: Madonna Dunbar and Sarah Vidra

- D. Approval of Agenda** for the December 1, 2021, TWSA Board Meeting
Motion to approve agenda as submitted made by Andrew Hickman, second by Mitch Dion, all in favor; motion carried.
- E. Approval of Minutes** for the October 6, 2021, TWSA Board Meeting
Motion to approve Minutes from October 6, 2021, as submitted made by Nakia Foskett, second by Andrew, all in favor; motion carried.
- F. Reports**
- a. Staff Reports (2021 Events, Special Projects, Annual Report)

Staff highlighted several activities from the quarter; a full activity report is available in the Board Packet.

- Staff provided comments to the Lahontan RWQCB on October 28, 2021. Our CEQA consultant WQTS also submitted their comment letter.
- Caldor Fire press continues with the TRPA release in a special issue of the *Tahoe In Depth*, TRPA's environmental publication, to cover the Caldor Fire. STPUD provided a water supplier focused article for publication. Additionally, regulatory agencies and our scientific partners have been monitoring water quality in the nearshore after the fire. Preliminary results are better than expected.
- TWSA 'DRINK TAHOE TAP' trademarking is complete for the next five years.
- Staff is working on the Annual Report, electronic publishing will be done by Dec.12, 2021 with hard copy publishing and distribution to follow.
- *NDEP 319 (h) Pilot Project to Reduce Source Water Plastic Pollution at Lake Tahoe* continues. Last quarter of 2 year NDEP grant.
- Take Care Partnership hosted a *Community Based Social Marketing Workshop*; sponsored by Take Care and TRPA. Three focus areas were decided: 1. Dog Poop, 2. Drink Tahoe Tap, 3. Defensible Space.

- Sierra Nevada University intern provided the TWSA with Instagram social media presence including taking images and technical specs for scheduling postings.
- b. Current Budget
\$175K in reserve and \$80K in operating pending payment from STPUD.
 - c. TWSA Chair Report
The Chair discussed the influence of fire retardant in the watershed. Staff will monitor for information from regulatory agencies (Lahontan and NDEP). Fire suppression chemicals are primarily composed of per- and- polyflouroalkyl substances (PFAS); that are a contaminant of emerging concern.

G. General Business (for possible action):

- a. TKPOA Control Methods Test/ Lahontan Water Board meeting Jan 2022.

Regulatory process overview:

Lahontan Water Board Public Hearing – Wed. January 12-Thur. January 13, 2022

TRPA Governing Board – Wed. January 26, 2022

If Lahontan grants the exemption to the Lake Tahoe basin pesticide prohibition, work will kick off the CMT, with Group A methods including herbicide in May 2022.

Lahontan could deny the exemption application and approve the CMT with non-chemical methods only. The TKPOA may then politically and financially reject doing any work. TWSA staff believes that if herbicide use is authorized, there will be legal challenges from private environmental or non-profit organizations.

Lahontan would need to regulate the TKPOA into action, as the EIR/EIS states that the only option with significant impact to Lake Tahoe is no action.

The Executive Director is pessimistic about the Lahontan Board denying the proposed CMT project. The project has checked all the boxes on regulatory requirements. The CMT makes sense on a lot of levels. It doesn't necessarily feel like the right decision for protecting water quality.

TWSA is receiving correspondence from interested parties and entities on how to submit a comment and the water suppliers' view on the CMT regarding drinking water concerns. The Executive Director will be participating in meetings when requested.

TWSA submitted comment letter (^reference link at end) highlighted the need for the boating community to be held accountable for preventing AIS vector spread. There is so much work being done, so they are not impacted. The Executive Director will continue to challenge that fact, championing the non-chemical method of regulating vessels leaving the Tahoe Keys Lagoons to the same standards of other access points to Lake Tahoe. Fragment control needs to be appropriately managed and enhanced.

"We are all beneficial users of the Lake; this is a higher ranking of recreation - if the proposed CMT is approved." - Madonna Dunbar 12/01/2021

The Chair brought to the board's attention that the TWSA staff does not agree with the antidegradation analysis provided by Lahontan staff. The analysis is based on the assumption of knowing everything (about chemicals) when science has been wrong in the past, and we can't have blinders on to that.

Lahontan staff stated in the documentation that they shouldn't have to conduct an antidegradation analysis due to the size of the project. The documentation will be used as precedent on herbicide use in ONRW Tier III waters and filtration-exempt water systems. Staff, including comments that they are only providing the analysis because the TWSA is bugging them about it, seemed unprofessional. The requirement for antidegradation analysis is their own requirement, and it has no stipulation on the size of the project. The TWSA representatives were the ones to tell them they needed to do the antidegradation analysis. They were not planning on producing one. TWSA's involvement in the Stakeholder Committee has been beneficial to water quality protection.

The Stakeholder committee is working on a report on the collaborative process. The ED and Chair are continuing to ensure the water suppliers' voice is heard in the document, as (TWSA) is the only member of the stakeholder committee who does not support herbicide use. Tahoe RCD accepts the test, due to mitigation and monitoring proposed, the League to Save Lake Tahoe supports limited herbicide use. The TRPA is in support. The commentary from the ED has been consistent throughout the CEQA process that "we have to have more ways to address the problem."

The Executive Director shared the statement provided to the stakeholder committee for the final report of the mediation process.

"Do not fully agree with the anti-degradation findings that chemical use will preserve water quality."

Expanded quote submitted:

"The antidegradation analysis determined that the use of herbicides as proposed would not produce a long-term degradation to water quality. It was presented in a manner which states that NOT using herbicides could itself have long term quality degradation; based on the 'clear, blue water' standard (Order No. RST-2022-{TENT} Pages G-4, G-17). The analysis assumes we know all the possibilities of risk of that substance at this time. We know a lot, but not all. Historically, there is a list of chemicals which were determined safe, then not safe after the fact. We simply do not agree with this finding as presented".

There were no questions or comments from the board.

- b. Membership requests (per bylaws voting on this item to occur at December meeting):

The board discussed the administrative restructuring of associate membership. TWSA staff will work with IVGID on updating the membership agreement and legal counsel review.

A full proposal including a recommendation and alternative on structure of associate membership will be provided during the March 2022 meeting as requested by STPUD.

All changes would be in effect on July 1, 2022. STPUD will remain a voting member for the remainder of the year and pay their dues fully for FY 2021-2022.

- c. Establish new Vice-Chair
Vote on Vice-Chair will be held in March 2022 or June 2022, effective July 1, 2022.
- d. Adopt a Hydrant Take Care Campaign discussion (S. Thomsen)
The campaign does not meet the TWSA mission statement of source water protection, and monetary support will not be provided.

H. Purveyor Updates

Verbal updates were provided for July 2021-December 2021.

RHGID – Projects delayed due to backups in services or available goods to complete projects. Focusing on maintenance and cleaning of storm water appurtenances.

IVGID- Rescinded an award of contract due to materials being delayed, the project will be rebid in 2022.

KGID- No project related issues. Bidding will be done in January for 2021 projects. KGID has seen out of characteristic rises in Total Coliform. The district is focusing on cleaning drainage basins and maintenance.

STPUD- the district has not increased rates in two years, and will be asking their board for a rate increase for FY 22-23. STPUD held a contractor workshop to discuss upcoming projects, and materials sourcing.

TCPUD- the TCPUD approved rate increase in November - implements January 2022. Construction has started on the West Lake Tahoe Regional Water Treatment Plant. TCPUD is working on plans for Tahoma where water mains run through backyards, and how to implement improvement projects.

LPA – The Azure Avenue 1500 feet of water main creating a looped system, where there previously was a dead end line. The C900 Pipe was pre-purchased, and was stored until the project started to ensure project completion. LPA is preparing to service a neighborhood off of Stateline Ave, including updating water supply permit and place of use for the new area.

Douglas County – Cave Rock project: 8,500 linear feet of pipe into the system, completing the distribution project including new service and meter pits. Summer 2022 will include a project in the Villas, before meters are set. The Microfiltration Plant Upgrade's temporary treatment facility is setup on-site, the microfiltration skids are on a trailer. The plant will be down for 4-5 months, concerned about material procurement and getting pumps on-time. The county is working though the permitting process to upgrade the lake intake, to install the inline submersible to deal with lower water levels. The project is planned for 2022.

The Hidden Woods and Lakewood (Lake Ridge) system are in 90% design for 7,500 feet of water main replacement in summer 2022.

Douglas County ZWUD- the PLC Upgrade Tesco 5, upgrade - the plant was shut down for three days, Snyder pack 350. Monitoring showed increased coliform counts after October storm, at the raw water ZWUD site, not in the distribution system.

Edgewood - The lake intake inspection and screen cleaning was completed after delay from contractor due to boat issues. Projects are delayed due to product wait times.

NTPUD- Dollar Hill Water Tank Rehabilitation Project is completed inside, the exterior will be completed in spring 2022. Grey and Toyon Water main project is completed, NTPUD ordered and purchased the hydrants ahead of time. The Golden and Rainbow Water Main Replacement Project is in design, as well as the Carnelian to Watson Creek water main replacement project for 2022. The district is applying for small community funding grant for a project in the Kings Beach Grid and Brockway Waterline Replacement Project.

I. Public Comment

No public comment was given.

J. Adjournment

Meeting adjourned at 2:34 pm.

Motion to adjourn made by Andrew Hickman, second by Patrick McKay, all in favor; motion carried.

^ TWSA submitted comment letter for reference:

[https://www.yourtahoeplace.com/uploads/pdf-public-works/TWSA_FINAL_comments_on_Lahontan_Permit_\(submitted_10_28_2021\).pdf](https://www.yourtahoeplace.com/uploads/pdf-public-works/TWSA_FINAL_comments_on_Lahontan_Permit_(submitted_10_28_2021).pdf)

TWSA Staff Report Q 1 2022

(1/28/22)

TWSA / Water Quality / Water Efficiency:Aquatic Invasive Species (AIS):

Staff attended all relevant online regulatory meetings regarding the Tahoe Keys Property Owners Association (TKPOA) Control Methods Test project. This test, seeking approval for the potential use of herbicides) has been a major focus for staff and subcommittee members, for multiple years. The project went through the decision making process by Lahontan Water Board and Tahoe Regional Planning Agency (TRPA) in January 2022. Public comment was offered at all relevant sessions.

Approval of the test was granted by all relevant agencies, in January 2022. Implementation of Year 1 of the test is scheduled for May 2022. <http://www.tahoekeweeds.org/>

<https://www.tahodailytribune.com/news/lahontan-water-board-approves-testing-of-herbicides-and-non-chemical-treatments-for-tahoe-keys/>

Staff has spent countless hours in review of the many versions of the Lahontan and TRPA released environmental documents; followed by analysis of revised language and then preparation of comments. Staff coordinated with Water Quality Treatment and Solutions Inc. on Board requested consultant comments.

TWSA Comment Letter on draft DEIR: [https://www.yourtahoepace.com/uploads/pdf-public-works/TWSA_FINAL_comments_on_Lahontan_Permit_\(submitted_10_28_2021\).pdf](https://www.yourtahoepace.com/uploads/pdf-public-works/TWSA_FINAL_comments_on_Lahontan_Permit_(submitted_10_28_2021).pdf)

TWSA Project Staff summary:

https://www.yourtahoepace.com/uploads/pdf-public-works/TKPOA_CMT_TWSA_Staff_Summary_Antideg_10152021.pdf

Technical Documents reviewed Oct. 2021-Jan. 2022:

TENTATIVE RESOLUTION GRANTING AN EXEMPTION TO THE AQUATIC PESTICIDE DISCHARGE PROHIBITION IN THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION FOR THE CONTROL METHODS TEST OF HERBICIDES AND OTHER TECHNIQUES TO REDUCE AQUATIC INVASIVE PLANTS IN THE TAHOE KEYS LAGOONS
https://www.waterboards.ca.gov/lahontan/board_decisions/tentative_orders/2021/tkweedsres.pdf

TENTATIVE WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR TAHOE KEYS PROPERTY OWNERS ASSOCIATION TAHOE KEYS LAGOON AQUATIC WEEDS CONTROL METHODS TEST
https://www.waterboards.ca.gov/lahontan/board_decisions/tentative_orders/2021/tkweedspermit.pdf

MITIGATION MONITORING AND REPORTING FOR THE CONTROL METHODS TEST OF HERBICIDES AND OTHER TECHNIQUES TO REDUCE AQUATIC INVASIVE PLANTS IN THE TAHOE KEYS LAGOONS
https://www.waterboards.ca.gov/lahontan/board_decisions/tentative_orders/2021/tkweedsmmrp.pdf

LAHONTAN STAFF REPORT

https://www.waterboards.ca.gov/lahontan/water_issues/programs/tahoe_keys_weed_control/docs/tkweedstaff.pdf.pdf

AMENDED TKPOA APPLICATION/PLAN 2021 DOCUMENTS www.tahoekeweeds.org

Administration

The Board meeting scheduled for 12/1/2021 was held virtually.

Staff prepared membership addendum documents for Board review for March meeting.

Staff prepared initial budget and basic event preparations for the June 1, 2022 special meeting, TWSA 20th anniversary luncheon.

Staff continues to work with regional agencies and monitoring of water quality related to Caldor Fire impacts and Aquatic Algae Blooms. Regional water quality impacts have been minimal this year despite drought and fires. <https://www.tahodailytribune.com/news/initial-lake-tahoe-water-clarity-study-findings-promising-after-caldor-fire/>

A special issue of *Tahoe In Depth* featured an article about STPUD's emergency response during the crisis. (pg. 5) https://www.trpa.gov/wp-content/uploads/CaldorFire_12pgs_No20_FINAL_web.pdf

Staff continues to monitor the monthly TRPA Shorezone Project Review Committee Project Application Meetings.

DRINK TAHOE TAP®; and I DRINK TAHOE TAP®; trademarks are valid to 2026.

We continue to collaborate with the Tahoe Environmental Research Center (TERC) and Sierra Watershed Education Partnership (SWEP) to support regional peer student on-line education efforts.

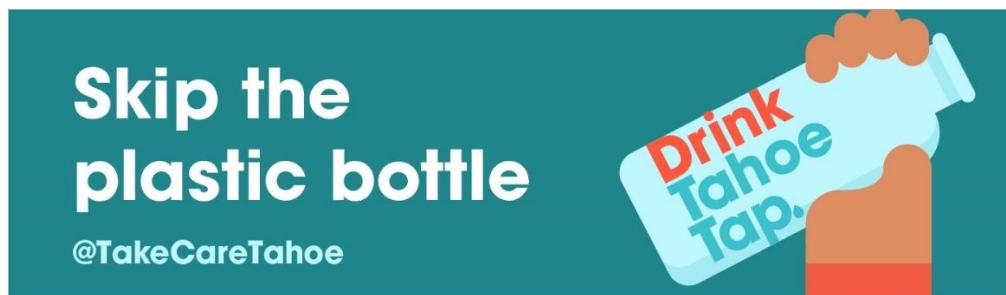
Most (on-site) student activities are still on hold due to Covid-19.

Sierra Beck conducted a Sierra Nevada University (50 hour) service-learning project creating Instagram content and marketing materials (#where2fill) for DRINK TAHOE TAP®.

A DRINK TAHOE TAP® ad is running year-round in the Tahoe.com regional print publication and website.

Take Care Tahoe Campaign:

TWSA messaging was featured in the electronic billboards on four of the Tahoe gateway highway entrances (I-80 Colfax; 395 Sout Reno; Hy 50 Carson City; Hwy 50 Rancho Cordova) in January/Feb 2022:



TWSA Watershed Control Program Annual Report

Staff worked hard to ensure the production of the TWSA 2021 Annual Watershed Control Program (WCP) Report was completed despite the challenges of the review and comment needed for the Tahoe Keys Control Methods Test project materials, at the same time. In the Annual Report, extensive data sets are recorded, documenting the regions' exceptional water quality results, for 11 of the agency members, both annual and long-term source water and finished water. Annual activities such as weather and climate, member production numbers, member capital improvement projects, and community-wide watershed actions such as storm water programs, environmental improvement projects, relevant research, land use and regulatory, development and other parameters are recorded in the reports.

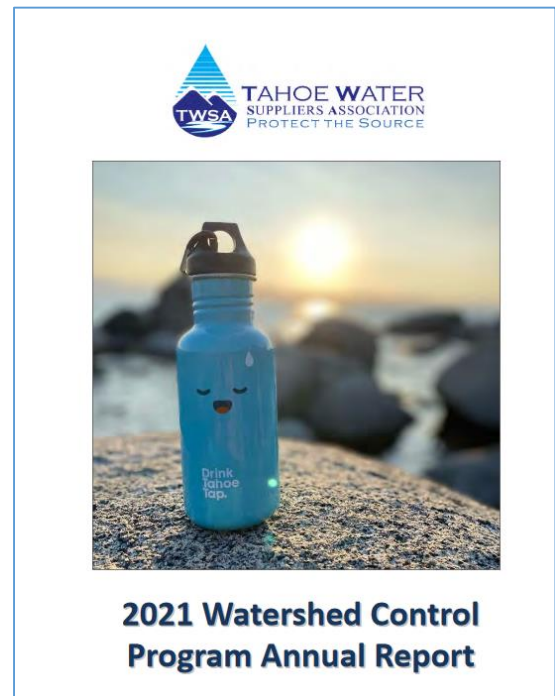
Hardcopies were distributed to member agencies and applicable regulators. This report directly supports the US EPA and state filtration exemption permit requirements for an annual WCP report, and rolling updates for WCP sanitary survey needs, for 6 of the Tahoe Water Supplier Members (filtration exemption systems).

The TWSA Annual Report is posted at: [https://www.yourtahoeplace.com/uploads/pdf-public-works/CORRECTED - 2021 TWSA ANNUAL REPORT \(12 13 2021\) \(smaller\) only 1 map.pdf](https://www.yourtahoeplace.com/uploads/pdf-public-works/CORRECTED - 2021 TWSA ANNUAL REPORT (12 13 2021) (smaller) only 1 map.pdf)

Micro-Plastics Reduction Education Project

Staff closed the NDEP 319h Source Water Protection *Microplastics Education and Reduction Grant* activities and submitted a draft final report to NDEP for review, in December 2021. This report is included at the end of the 3/2/2022 TWSA Board packet. A tremendous amount of collaborate accomplishments were achieved by the project partners.

This project was a collaborative effort by researchers and regional educators. Extensive micro plastics research has been conducted in marine research; however, the research of its impacts on freshwater ecosystems is limited. Tahoe Water Suppliers Association worked with working with the Tahoe Environmental Research Center (TERC – UC Davis), Desert Research Institute (DRI), Clean Up the Lake (CUTL), the League to Save Lake Tahoe, Raley's stores, Sierra Watershed Education Partnerships (SWEP) and others, to lead research and education efforts at Lake Tahoe in this emerging field. Several projects remain ongoing after the grant period.



<https://www.epa.gov/newsreleases/us-epa-awards-nearly-100000-address-microplastic-pollution-lake-tahoe>

<https://www.trpa.org/wp-content/uploads/Researchers-studying-impact-of-microplastics.pdf>

The microplastics reduction education project highlights include a new Exhibition which opened in June at the TERC Center in Incline Village, Nevada.

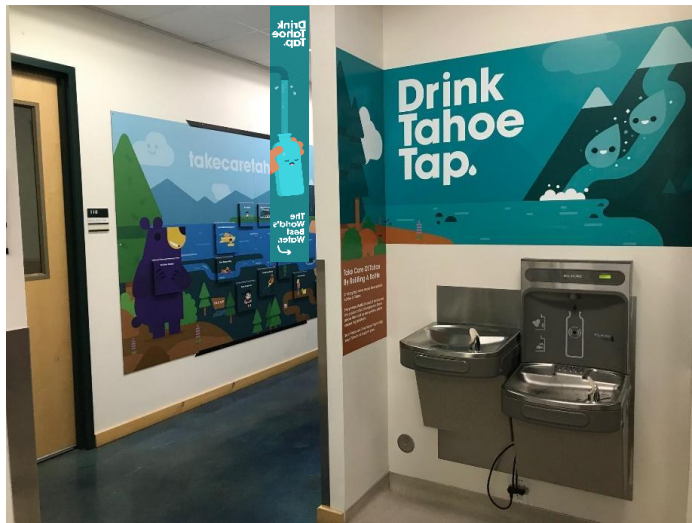
<https://tahoe.ucdavis.edu/microplastics>

A second exhibit is being developed for the Sand Harbor Visitor Center for 2022 installation.



Water Refill Station and additional Microplastics Signage installed at TERC Center in Incline Village, Nevada – October 2021

As part of the microplastics display, UC Davis and the Tahoe Water Suppliers Association installed a water refill station at the Tahoe Science Center in Incline Village, NV. Custom signage was created to reinforce Tahoe’s sourcewater protection – tap water connection.



Lakewide Microplastics Research Partnerships:

The most comprehensive characterization of microplastics in the Lake Tahoe Basin to date is occurring. Two TWSA Nevada members are participating with raw water samples for micro plastics analysis by TERC researchers. TWSA's sponsored Manta Trawl been used in lake wide sampling for more than a year now.

. There has been no report provided on micro-plastics sampling efforts to date, but there was recent publicity:

Researchers Look for Sinks of Microplastics Pollution in Lake Tahoe

THE MOST COMPREHENSIVE CHARACTERIZATION OF MICROPLASTICS IN THE LAKE TAHOE BASIN TO DATE

by [Brian Bahouth](#)

<https://ucscsciencenotes.com/feature/lake-tahoepristine-legacy-threatened-by-microplastics/>

<https://www.sierranevadaally.org/2021/08/07/researchers-look-for-sinks-of-microplastics-pollution-in-lake-tahoe/>

"Microplastic pollution is seemingly ubiquitous, and few know this as well as staff research associate with the UC Davis Tahoe Environmental Research Center Katie Senft. Senft, in collaboration with the Nevada Division of Environmental Protection, is looking for sinks of microplastics in Lake Tahoe.

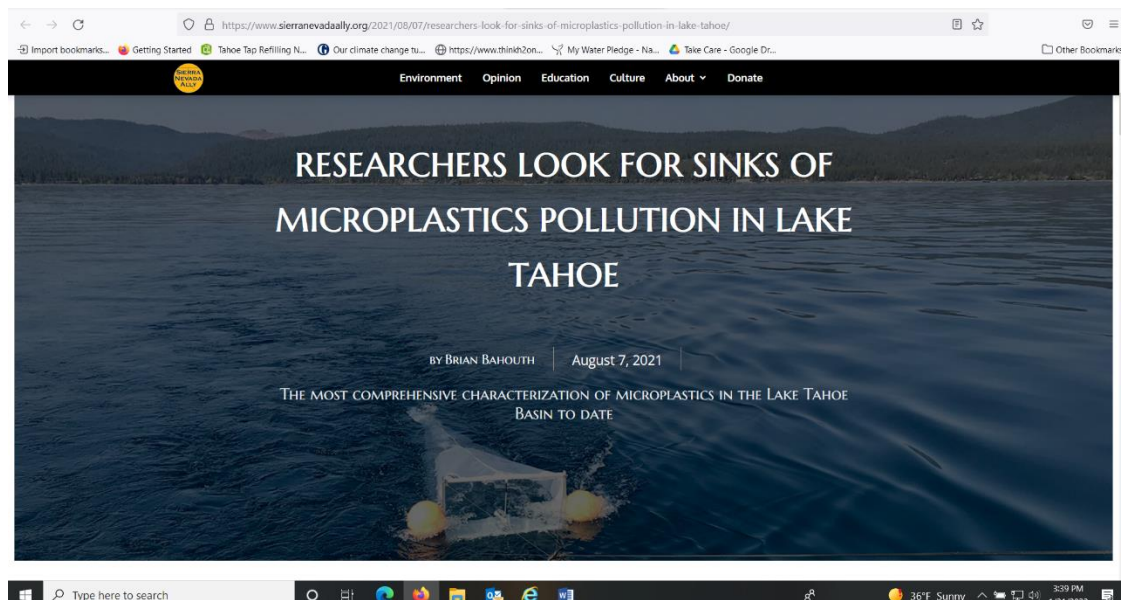
"A sink is a place where the plastics will collect once they enter Lake Tahoe. Based on the work U.C. Davis has done, as well as research done by the Desert Research Institute looking at stormwater samples, we know that plastics are in the lake," said Senft by phone. "The big question now is, where are they going once they get in there."

Senft is looking at five different areas of the lake. The first is surface water.

"A lot of plastics are buoyant and they float. So monthly we've

been dragging a net through the northern part of the lake and collecting surface waters, which we analyze back at the lab for plastics," Senft said. "And that's kind of the classic ... when you think of ocean plastic research, the Manta Trawl is what they're towing behind their boats, and that's what we're using on the lake."

Lake Tahoe is nearly 1,700 feet deep. The second area of inquiry is the vertical distribution of microplastics. "As plastics get colonized with biofilms or algal growth that can change their density and make them a little heavier, they'll settle eventually. So we're looking at water at six different depths from top to bottom."



Senft will also study deep-water sediments. "There's a lot of deep areas in Lake Tahoe, and we went out and collected sediments from about 400 meters deep in the water. We want to see if the plastics are settling down there and getting locked up and away from fish and other wildlife."

The fourth area of scrutiny is municipal waters. Researchers will collect water from two different water treatment plants in the Tahoe basin on a quarterly basis.

For the current study, the fifth and final area of microplastics inquiry will be two species of nonnative wildlife. "We'll look at Kokanee salmon guts as well as Asian clams," Senft said.

Raley's / Drink Tahoe Tap Collaboration

The Raley's stores produced, funded and stocked custom 11,000 bottles for this campaign. Bottles are in 116 Raley's stores to support the Drink Tahoe Tap campaign.

Extensive details are provided in earlier Board reports.

Staff is remaining in contact w/ Raley's to see where the campaign goes...

In 2022, Raley's and Tahoe Fund are collaborating with Pixlbank on a social media & photography crowd-source platform in 2022.

<https://www.ilovetahoe.org/drink-tahoe-tap>



Screenshot of the Drink Tahoe Tap website showing the upload photo contest details.

LOVE TAHOE The Projects The Prizes Get Involved

Drink Tahoe Tap.

Upload a photo of you holding a Drink Tahoe Tap bottle or of you hydrating with Tahoe's finest H₂O.

Then share your photo on social media to unlock a \$10 donation from Raley's that will go towards installing water refill stations to help reduce plastic water bottle waste in Tahoe.

You'll get 100 entries to win a prize just for sharing your photo.

UPLOAD A PHOTO

WE USE COOKIES TO PROVIDE YOU WITH AN EXTRA AWESOME EXPERIENCE. You can visit our [Privacy Policy](#) to learn more. GOT IT!

Type here to search 40°F Sunny 1:41 PM 1/24/2022

12/27/2021 Tahoe Fund partners with Raley's to launch a new way to donate

By [Tahoe Daily Tribune](#)

<https://www.mtdemocrat.com/prospecting/tahoe-fund-partners-with-raleys-to-launch-a-new-way-to-donate/>

SOUTH LAKE TAHOE — The Tahoe Fund and Raley's are promoting responsible tourism while inspiring residents and visitors to reduce plastics in Lake Tahoe through a unique new social campaign.

The companies have partnered with the social good platform PixlBank to launch the photo campaign, which focuses on the "Drink Tahoe Tap" message and is part of a larger initiative called I Love Tahoe.

In stores or online, people will be directed to the Drink Tahoe Tap [campaign page](#) on the I Love Tahoe website where they can upload a photo of themselves drinking Tahoe Tap water. They can then share their photo directly to their social media pages to unlock a \$10 donation from Raley's that will go toward installing water refill stations to help reduce plastic water bottle waste in Tahoe and to work with partners at UC Davis Tahoe Environmental Research Center and the Tahoe Water Suppliers Association.

"We are always looking for creative ways to encourage people to take care of Tahoe," states Tahoe Fund CEO Amy Berry in a press release. "We think this is a fun way to drive more people to drink Tahoe Tap instead of using plastic water bottles. We are thankful to our partners at Raley's for continuing their efforts to get this message out." The campaign is an extension of the partnership with Raley's to promote Drink Tahoe Tap water bottles in their stores. Drink Tahoe Tap water bottles are available for purchase at all nearby Raley's locations.

To help motivate people to share their photos and incentivize others to Boost those photos with donations, PixlBank has developed a built-in sweepstakes model that converts peoples' actions (and donations) into entries to win prizes, like GoPro® cameras and video drones. I Love Tahoe and Drink Tahoe Tap will give Tahoe visitors and residents a fun and rewarding way to empower and invest their social currency in the preservation and restoration of Lake Tahoe.

Refill Stations:

Grants: The TWSA/Tahoe Fund Water Bottle Filling Station Grant Program has become active again with easing of COVID restrictions for businesses. To date, 18 grants have been issued (\$11,500) with several applications active. New signage has been developed for the refill stations.

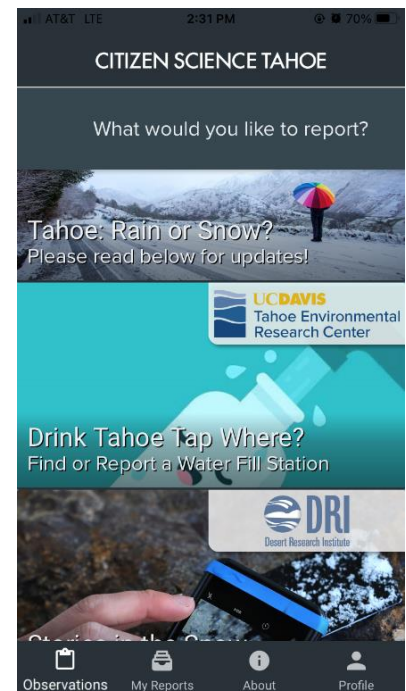
<https://www.yourtahoeplace.com/news/twsa-water-bottle-refill-station-grant-program>

Find a Station:

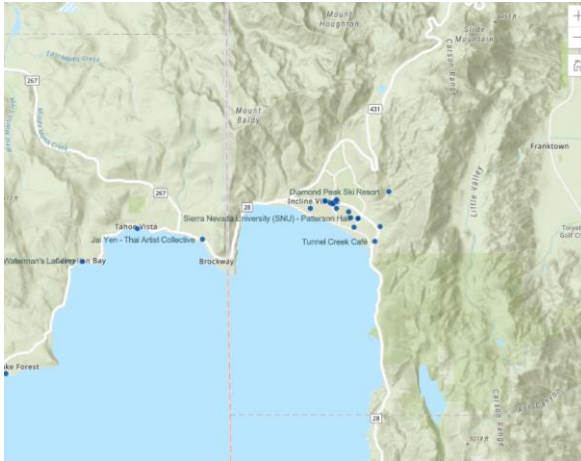
50 fill station locations are presently logged on the map/apps.

- Tahoe Citizen Science App:
<https://citizensciencetahoe.org/home>

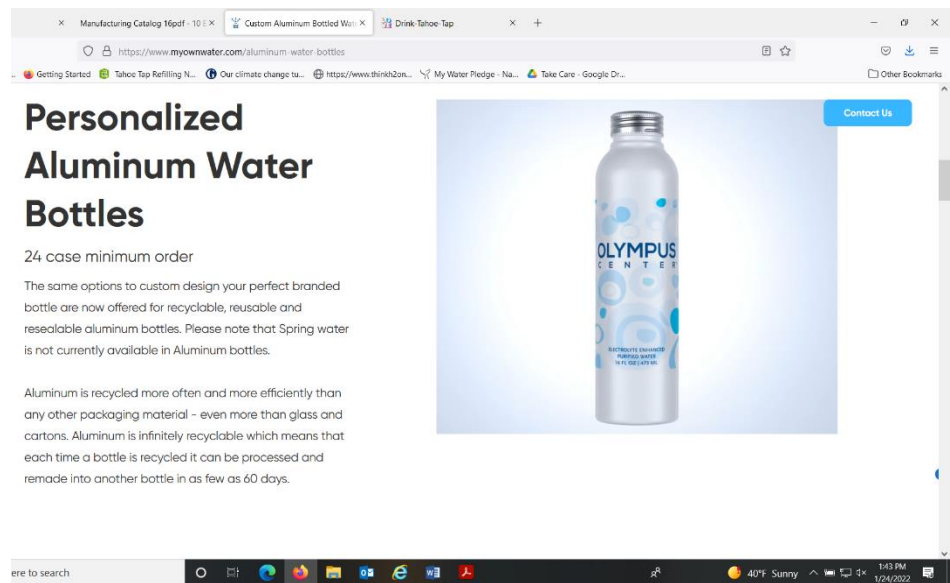
TERC'S 2022 Tahoe Citizen Science App is now active with a DRINK TAHOE TAP refill station feature.



There is also an ARC GIS Web Map of DRINK TAHOE TAP refill locations: <https://bit.ly/30gkspB>



A Take Care Tahoe focus group on DRINK TAHOE TAP is meeting to develop collateral for short term rental and lodging outreach. Staff participated in a “Tahoe Community Based Social Marketing Professional Workshop” hosted by TRPA and the Tahoe Care Partnership in spring 2021. The four-part series was facilitated by Conservation Science Partners, Inc. The goal is to use social science to refine Take Care outreach messaging to create better behavior change. CBSM builds behavior chains for each focal behavior, after identifying key barriers and benefits to promote for each focal behavior. This training series was offered from funds raised with the Tahoe 50th anniversary commemorative coin. Through the process 3 themes were identified for further action; one is that a small group is going to target a high end hotel/resort property and see if they will replace bottled water with Tahoe Tap options. Staff is investigation the costs for a custom, empty, aluminum refillable bottle.



A second Take Care Tahoe focus group is addressing ways to increase compliance with dog owners on picking up dog waste to protect the watershed.

Staff has been monitoring the efforts of Clean Up the Lake as they conduct the 72 mile lake-wide cleanup. Staff participated in the Media Event held on 11/10/2021. Staff has not acted on the Board approved \$5000 match fundraiser yet with the organization; but both directors anticipate an effort in spring 2022.

Staff attends the Nearshore Aquatic Weeds Working Group (NAAWG) quarterly.

Staff is monitoring the ongoing situation with PCE issues and uranium detection in the Tahoe Keys municipal wells. https://www.tahodailytribune.com/news/tahoe-keys-association-addresses-uranium-in-water/?fbclid=IwAR2BEJ2JRVj0tDwh6Qig2-Waub3Vtx3ewdDhuRvoRx_P3FTTpb5qf0H53cA

The 'Cigarette Bin Collection Project' initiated between TWSA, League to Save Lake Tahoe and Keep America Beautiful (KAB) began region-wide bin distribution/installation in June 2019. More than 125 bins are installed now in the Basin. More than 8,000 butts have been recorded for collection (this is from a portion of the distributed containers). KAB has provided 250 metal cigarette filter collection bins to IVGID Waste Not (for TWSA) for distribution and use within the Tahoe Basin. Project is ongoing.

Professional Development/Other:

Sierra Beck conducted a Sierra Nevada University (50 hour) service-learning project creating content and marketing materials for DRINK TAHOE TAP's @where2fill Instagram campaign.

<https://www.instagram.com/where2fill/>

The potential AmeriCorps team of 'Tahoe Aquatic Weed Control Operators (TAWCOs)' has been put on hold; with the team deciding to hold on the project to 2023. Current site logistics for the divers are challenging with boat traffic concerns. This project would put together a staffed team of 6 AmeriCorps members who are trained in underwater hand removal methods. The divers would concentrate on hand pulling and diver suction AIS removal for shoreline areas in South Lake Tahoe areas scheduled for hand removal treatment. A proposal was drafted where the League to Save Lake Tahoe (League) and Tahoe RCD would host six half-year positions (22.5 weeks/900 hours per position) as part of the Sierra Nevada Alliance Partnership (SNAP) summer/fall 'Serve the Sierra' AmeriCorps program. Planning partners include TWSA, League to Save Lake Tahoe, Tahoe RCD.

INCLINE VILLAGE GENERAL IMPROVEMENT DIST
G/L TRANSACTION DETAIL

From Date: 07/01/2021
 To Date: 01/20/2022
 From Account: 200-28-990
 To Account:
 Exclude Accounts With No Activity
 Run Date: 01/20/2022
 User: mod

G/L#	EFFECTIVE DATE	DESCRIPTION	STP	SOURCE	JE#	DEPOSIT	VENDOR	DEBIT	CREDIT	BALANCE
200-28-990-4417		Service & User Fees						Balance	Forward	0.00
	07/12/2021	TWSA Membership Dues FY2022	AJ	GL	360198				28,855.00	28,855.00 CR
	08/05/2021	North Tahoe Public Utility Distr	AJ	GL	361527				14,370.00	43,225.00 CR
	08/05/2021	Tahoe City Utility Distr	AJ	GL	361527				16,739.00	59,964.00 CR
	08/05/2021	Glenbrook Water Cooprative	AJ	GL	361527				7,221.00	67,185.00 CR
	08/05/2021	Kingsbury General	AJ	GL	361527				11,580.00	78,765.00 CR
	08/05/2021	Round Hill General Impr Distr	AJ	GL	361527				6,567.00	85,332.00 CR
	09/24/2021	Edgewood Companies	AJ	GL	364992				10,043.00	95,375.00 CR
	09/24/2021	Lakeside Park Assoc	AJ	GL	364992				6,200.00	101,575.00 CR
	09/24/2021	Douglas County NV	AJ	GL	364992				19,478.00	121,053.00 CR
		TOTAL						0.00	121,053.00	121,053.00 CR
200-28-990-4510		Operating Grants - State						Balance	Forward	0.00
	08/19/2021	NDEP MicroPlastics Grant Receipt	AJ	GL	366095				13,163.19	13,163.19 CR
		TOTAL						0.00	13,163.19	13,163.19 CR
200-28-990-6030		Professional Consultants						Balance	Forward	0.00
	08/13/2021	TM/SM Reg Renewal	SYS	AP	362851		Law Office of Lara Pearson LTD., PBC	3,500.00		3,500.00

G/L#	EFFECTIVE DATE	DESCRIPTION	STP	SOURCE	JE#	DEPOSIT	VENDOR	DEBIT	CREDIT	BALANCE
	08/31/2021	Gov't filing fees - Filing fee for 1 Class	SYS	AP	363790		Law Office of Lara Pearson LTD., PBC	1,700.00		5,200.00
	11/19/2021	CEQA Review for TWSA, per Proposal dated April 24, 2020.	SYS	AP	368613		Water Quality & Treatment Solutions, Inc	6,607.80		11,807.80
		TOTAL						11,807.80	0.00	11,807.80
200-28-990-7010		Advertising - Paid						Balance	Forward	0.00
	07/01/2021	Side Banners	SYS	AP	362522		Tahoe.com	62.50		62.50
	07/01/2021	Side Banners	SYS	AP	362525		Tahoe.com	62.50		125.00
	07/14/2021	"TENVCST" - Citizen Science Tahoe App Participating Partner	SYS	AP	360385		The Regents of the University of California	1,000.00		1,125.00
	07/21/2021	Roadie Sponsorship 2021	SYS	AP	361311		Tahoe City Downtown Association, INC	250.00		1,375.00
	07/29/2021	Reimbursement from TWSA for \$2500 and include IVGID for \$500 of partial expenses incurred by the UCD Tahoe Environmental Research Center for Assembly and Distribution of the "Tahoe :State if the Lake Report2021"	SYS	AP	361362		The Regents of the University of California	2,500.00		3,875.00
	07/30/2021	Magazine S21	SYS	AP	362523		Tahoe.com	548.00		4,423.00
	07/30/2021	Side Banners	SYS	AP	362524		Tahoe.com	62.50		4,485.50
	09/01/2021	Side Banners	SYS	AP	365960		Tahoe.com	62.50		4,548.00
	09/24/2021	TWSA Sponsorship Tahoe Film Fest Dec 2-5,2021	SYS	AP	365593		Tahoe Film Fest	750.00		5,298.00
	09/27/2021	IN NORTH TAHOE BUSINESS,Co branding Drink Tahoe TAP / MPTB and annual membership renewal	AJ	GL	366322			700.00		5,998.00
	09/30/2021	Side Banners	SYS	AP	365961		Tahoe.com	62.50		6,060.50
	10/01/2021	Side Banners	SYS	AP	366896		Tahoe.com	62.50		6,123.00
	11/01/2021	Side Banners	SYS	AP	368750		Tahoe.com	62.50		6,185.50
	11/26/2021	DOMAINSDONERIGHT LLC,Where2fill web domain names	AJ	GL	369803			120.00		6,305.50

G/L#	EFFECTIVE DATE	DESCRIPTION	STP	SOURCE	JE#	DEPOSIT	VENDOR	DEBIT	CREDIT	BALANCE
	12/01/2021	Side Banners	SYS	AP	370628		Tahoe.com	62.50		6,368.00
	12/15/2021	Magazine	SYS	AP	370629		Tahoe.com	600.00		6,968.00
	12/15/2021	1/4 page ad Drink Tap	SYS	AP	370704		Mountain News Corporation	200.00		7,168.00
		TOTAL						7,168.00	0.00	7,168.00
200-28-990-7310		Computer License & Fees						Balance	Forward	0.00
	07/27/2021	ADOBE CREATIVE CLOUD,Adobe creative suite current price pro rated	AJ	GL	361913			10.72		10.72
		TOTAL						10.72	0.00	10.72
200-28-990-7405		Office Supplies						Balance	Forward	0.00
	07/19/2021	Operating Supply	SYS	AP	362062		Rainbow Printing & Office Supplies, Inc.	99.99		99.99
	11/09/2021	Operating Supply	SYS	AP	369683		Rainbow Printing & Office Supplies, Inc.	89.49		189.48
	11/17/2021	Operating Supply	SYS	AP	369612		Rainbow Printing & Office Supplies, Inc.	79.98		269.46
		TOTAL						269.46	0.00	269.46
200-28-990-7415		Operating						Balance	Forward	0.00
	07/27/2021	RENO TAHOE PROMOTIONS,SWP hoodies student stipends - NDEP grant	AJ	GL	361913			1,617.88		1,617.88
	08/27/2021	AMZN MKTP US 2E0289UJ2,TWSA: hoses, dog bags	AJ	GL	364158			161.10		1,778.98
	08/27/2021	BLT RESTAURANT SUPPLY, LL,Water Station Parts	AJ	GL	364158			152.46		1,931.44
	08/27/2021	AMAZON.COM 2P1AK9J40 AMZN,TWSA: hoses, dog bags	AJ	GL	364158			18.04		1,949.48
	08/27/2021	AMZN MKTP US 2P5QK5Z80,TWSA: hoses, dog bags	AJ	GL	364158			126.72		2,076.20
	08/27/2021	AMZN MKTP US 2P8D21JF0,TWSA: hoses, dog bags	AJ	GL	364158			211.41		2,287.61

G/L#	EFFECTIVE DATE	DESCRIPTION	STP	SOURCE	JE#	DEPOSIT	VENDOR	DEBIT	CREDIT	BALANCE
	09/01/2021	Pilot Project to Reduce Sourcewater Plastic Pollution at Lake Tahoe	SYS	AP	365132		The Regents of the University of California	362.27		2,649.88
	10/05/2021	TWSA Water Fill Station Grant Program - Field 4@ NTPUD Regional Park installed outdoor water station	SYS	AP	365980		North Tahoe PUD	1,000.00		3,649.88
	10/18/2021	PPE	SYS	AP	366430		Tahoe Supply Company LLC	100.16		3,750.04
	10/21/2021	MITTEN DOG BAG 2000/CS 2PLY	SYS	AP	366777		A-#1 Chemical, Inc	1,694.00		5,444.04
	10/31/2021	Acct 4244 - Oct 2021 In-Store Chg	SYS	AP	367672		Village Ace Hardware	60.25		5,504.29
		TOTAL						5,504.29	0.00	5,504.29
200-28-990-7470		Printing & Publishing						Balance	Forward	0.00
	07/27/2021	STICKER MULE,outdoor water station stickers	AJ	GL	361913			127.00		127.00
	07/31/2021	Record Sign Shop July 2021 - 21-997 - 12- Water station grant signs	AJ	GL	361285			278.00		405.00
	07/31/2021	CNB12777-01 PW Copier Base 07/30/21-07/31/21	SYS	AP	362168		Sierra Office Solutions	63.00		468.00
	08/01/2021	CNB12777-01 PW Copier Base 08/01/21-08/31/21	SYS	AP	362167		Sierra Office Solutions	63.00		531.00
	09/08/2021	CNB12777-01 PW Copier Base 09/01/21-09/30/21	SYS	AP	364786		Sierra Office Solutions	63.00		594.00
	09/09/2021	Layout for alcove and hallway for US Davis Science Center filling station.	SYS	AP	364780		Brontosaurus , LLC	2,000.00		2,594.00
	09/28/2021	CNB12777-01 PW Copier Overage 06/30/21-09/29/21	SYS	AP	365658		Sierra Office Solutions	17.70		2,611.70
	10/04/2021	CNB12777-01 PW Copier Overage 10/30/21-10/31/21	SYS	AP	366527		Sierra Office Solutions	63.00		2,674.70
	10/27/2021	STICKER MULE,reprint drink tahoe tap stickers 1300 units	AJ	GL	367631			974.00		3,648.70
	10/27/2021	STICKER MULE,Drink Tahoe Tap hang tag w sticker STR outreach	AJ	GL	367631			231.00		3,879.70

G/L#	EFFECTIVE DATE	DESCRIPTION	STP	SOURCE	JE#	DEPOSIT	VENDOR	DEBIT	CREDIT	BALANCE
	10/27/2021	IN POPPYCOLORLLC,Custom graphics TERC Drink Tahoe Tap display	AJ	GL	367631			1,633.40		5,513.10
	11/02/2021	CNB12777-01 PW Copier Overage 11/30/21- 11/30/21	SYS	AP	367389		Sierra Office Solutions	63.00		5,576.10
	12/01/2021	CNB12777-01 PW Copier Overage 12/01/21- 12/21/21	SYS	AP	369866		Sierra Office Solutions	42.68		5,618.78
	12/20/2021	15QTY Color Copy, Double Sided, 8.5x11	SYS	AP	370623		Rick's AEC Reprographics, Inc.	2,589.00		8,207.78
		TOTAL						8,207.78	0.00	8,207.78
200-28-990-7685		Travel & Conferences						Balance	Forward	0.00
	07/27/2021	LOGMEIN GOTOMEETING,TWSA monthly toll free number	AJ	GL	361913			5.00		5.00
	08/27/2021	LOGMEIN GOTOMEETING,monthly toll free conference line	AJ	GL	364158			5.00		10.00
	09/27/2021	LOGMEIN GOTOMEETING,monthly toll free line charge	AJ	GL	366322			5.00		15.00
	10/27/2021	LOGMEIN GOTOMEETING,monthly toll free charge for web meetings	AJ	GL	367631			5.00		20.00
	11/26/2021	LOGMEIN GOTOMEETING,toll free conference call audio monthly	AJ	GL	369803			5.00		25.00
	12/27/2021	LOGMEIN GOTOMEETINGtoll free number	AJ	GL	371434			5.00		30.00
		TOTAL						30.00	0.00	30.00
200-28-990-7840		Telephone						Balance	Forward	0.00
	09/21/2021	1st QTR Stipend 7/1/2021 - 9/30/2021	SYS	AP	364652		MADONNA DUNBAR	48.00		48.00
	12/21/2021	2nd QTR Stipend 10/1/2021 - 12/31/2021	SYS	AP	369967		MADONNA DUNBAR	48.00		96.00
		TOTAL						96.00	0.00	96.00
200-28-990-7980		Central Services Allocation Cs						Balance	Forward	0.00
	08/01/2021	July Central Service Allocation	AJ	GL	367620			733.87		733.87
	08/31/2021	August Central Service Allocation	AJ	GL	367621			696.43		1,430.30
	09/30/2021	Sept Central Service Allocation	AJ	GL	367858			621.14		2,051.44

G/L#	EFFECTIVE DATE	DESCRIPTION	STP	SOURCE	JE#	DEPOSIT	VENDOR	DEBIT	CREDIT	BALANCE
	10/31/2021	October Central Service Allocation	AJ	GL	369315			718.09		2,769.53
	11/30/2021	Central Service entry adjustment	AJ	GL	371002			763.09		3,532.62
		TOTAL						3,532.62	0.00	3,532.62
		GRAND TOTAL						80,611.04	134,216.19	53,605.15 CR

2022-23 TWSA BUDGET WORKSHEET		Approved	Approved
IVGID ACCOUNT (200.28.99)		2021-22	2020-21
	Proposed 2022-23		
Paid Advertising			
ADS: TV/Radio/Print	\$ 6,000	6,000	6,000
Tahoe In Depth Sponsorship (\$500 x 3)	\$ 1,500	1,500	1,500
Earth Day events (North and South Shore) sponsorships (\$500 each)	\$ 1,000	1,000	1,000
Regional event sponsorships	\$ 1,500	1,500	1,500
State of the Lake Report sponsorship	\$ 2,500	2,500	2,500
Total:	\$ 12,500	12,500	12,500
Office Supplies			
Monthly Xerox machine costs, Board materials, brochures, in-house printing	\$ 1,600	1,400	1,400
Total:	\$ 1,600	1,400	1,400
Operating General			
TWSA logo trademarked clothing	\$ 1,000	-	1,000
NDEP Grant - water bottles	\$ -	10,000	10,000
NDEP 319h Grant MicroPlastics Ed	\$ -	21,000	21,000
TWSA Water Bottles	\$ 30,000	16,000	16,000
Board meeting hospitality (lunches)		1,600	1,600
Monitoring Supplies	\$ 800	600	600
Snapshot Day	\$ 800	600	600
Water Fill Station Rebate Program		existing budget rollover /reserves	existing budget rollover /reserves
Citizen Science / Tahoe Tap App	\$ 5,000		
Dog Waste Campaign (bags, small dispensers)	\$ 4,000	3,500	2,500
misc event supplies	\$ 1,000	1,000	1,000
Total:	\$ 42,600	54,300	54,300
Printing / Publishing			
'Drink Tahoe Tap' stickers	\$ 6,000	5,500	6,000
Postage	\$ 200	200	200
Annual Report Printing (outsourced)	\$ 3,700	3,300	2,500
Watershed Protection signs	\$ 1,000	1,000	1,000
Total:	\$ 10,900	10,000	9,700
Professional Services			
Professional Services (WQTS estimate for technical reviews) ^		existing budget rollover /reserves	budget rollover
Reserve Fund	\$ -	-	25,000
Total:	\$ -	-	40,000
Education/conferences			
Annual Mileage - personal vehicles	\$ 500	1,000	1,000
Phone	\$ 200	200	200
Trainings/Professional Memberships	\$ 800	800	800
Conference Call service for meetings	\$ 500	500	500
Total:	\$ 2,000	2,500	2,500
Grand Total Operating:	\$ 69,600	80,700	120,400
Total Budgeted Salary and Benefits	\$ 90,000	84,805	84,805
1366 combined hours, annual (MOD&SGV)			
IVGID Central Service costs included (\$500 month)			
Total Annual Budget (Operating & Salaries)	\$ 159,600	165,505	205,205
Revenue from reserves allocated to WQTS professional services^	0		(25,000)
Grant Funds (NDEP - Microplastics)	0	(31,000)	(31,000)
Total Budget minus reserves/grant funds		134,505	149,205
STPUD Fee (10% of total budget minus addl. revenue)	0	(13,451)	(14,921)
Members Cost share TOTAL (STPUD not included 2022-23)	\$ 159,600	121,055	134,285

Shared Costs are 25% staff/75% operating
 Dependent Costs are 75% staff/25% operating

Potential TWSA Associate Membership Fees have not been included.
 An anticipated \$5000 additional may be collected if status is approved and proposed member agencies join the association.

updated 12 21 2021

Shared	\$74,700	TOTAL TO
Depend	\$84,900	SHARE
		\$159,600

2022-23 TWSA Cost Share (PROPOSED) based on 3 year average / production daily flow

	Shared Costs	Dependent Costs	Avg Daily Flow gpd	Member cost share - FINAL	% of Total	Shared Cost	Depend Cost	Flow Ratio	Member cost share - previous year
Incline Village General Improvement District	9.10%	35.17%	2,527,667	\$ 36,658	22.97%	\$6,798	\$ 29,860	0.352	\$ 31,560
Kingsbury General Improvement District	9.09%	9.93%	713,792	\$ 15,223	9.54%	\$6,790	\$ 8,432	0.099	\$ 12,682
Round Hill General Improvement District	9.09%	2.61%	187,244	\$ 9,002	5.64%	\$6,790	\$ 2,212	0.026	\$ 7,456
Edgewood Water Company	9.09%	7.69%	552,384	\$ 13,316	8.34%	\$6,790	\$ 6,526	0.077	\$ 11,138
Zephyr Water Utility	9.09%	2.64%	189,883	\$ 9,033	5.66%	\$6,790	\$ 2,243	0.026	\$ 7,724
Glenbrook Water Company	9.09%	3.56%	255,966	\$ 9,814	6.15%	\$6,790	\$ 3,024	0.036	\$ 8,554
Tahoe City Public Utility District	9.09%	17.47%	1,255,644	\$ 21,624	13.55%	\$6,790	\$ 14,833	0.175	\$ 17,437
Skyland	9.09%	2.43%	174,284	\$ 8,849	5.54%	\$6,790	\$ 2,059	0.024	\$ 7,533
Cave Rock	9.09%	2.43%	174,284	\$ 8,849	5.54%	\$6,790	\$ 2,059	0.024	\$ 7,533
Lakeside Park Association	9.09%	2.1%	148,777	\$ 8,548	5.36%	\$6,790	\$ 1,758	0.021	\$ 6,979
North Tahoe Public Utility District	9.09%	14.01%	1,006,858	\$ 18,685	11.71%	\$6,790	\$ 11,894	0.140	\$ 15,687
Total to split	100.00%	100.00%	7,186,783	\$ 159,600	100.00%	\$74,700	\$ 84,900	1	\$ 134,284

TWSA Program Expenses

Cat	Description	Budget
	Staff Total	\$ 90,000
	Op Exp Total	\$ 69,600
	Grand Total Budget	\$ 159,600
		\$ 159,600
	Shared Costs (25% staff 75% operating)	\$ 74,700
	Dependent Costs (75% staff 25% operating)	\$ 84,900
		159,600

Member 3 year production water averages

Daily Flow averages (GALLONS)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	3 year GPD rolling average
IVGID	2,800,000	3,163,000	3,025,000	2,876,000	2,557,000	2,520,830	2,806,000	2,989,000	2,914,000	2,771,943	2,903,000	2,891,648	2,593,000	2,541,000	2,449,000	2,849,000	2,613,000
KGID	1,140,000	1,230,000	1,160,000	1,114,839	984,900	908,719	916,869	849,235	835,980	793,712	757,226	759,511	624,595	786,482	730,300	810,802	775,861
RHGID	224,216	224,216	236,175	224,785	209,405	202,440	209,595	241,350	211,311	200,418	184,090	177,643	175,915	195,718	190,100	205,632	197,150
Edge	868,537	880,621	874,500	750,000	694,000	788,900	675,273	693,234	700,829	601,715	551,896	540,377	574,000	577,149	506,004	537,314	540,156
Zephyr	223,756	220,704	222,855	233,553	225,532	211,704	206,460	217,301	204,644	322,735	182,745	260,321	181,510	190,371	197,769	200,140	196,093
Glenbrook	140,085	140,085	213,000	215,000	690,000	149,480	281,255	325,065	288,700	248,300	232,233	365,850	243,857	280,197	243,845	274,652	266,231
TCPUD	1,300,000	1,610,000	1,740,000	1,626,000	1,278,484	1,259,218	1,139,000	1,326,000	1,210,000	1,038,131	890,713	964,018	1,210,000	1,472,000	1,084,931	1,181,000	1,245,977
C Rock	174,514	197,454	197,119	202,660	180,163	169,692	177,359	172,252	145,122	313,500	152,561	230,667	159,393	183,060	180,399	184,640	182,700
Skyland	174,514	197,454	197,119	202,660	180,163	169,692	177,359	172,252	145,122	313,500	152,561	230,667	159,393	183,060	180,399	184,639	182,699
NTPUD	1,480,000	1,470,000	1,470,000	1,402,000	1,372,000	1,325,000	1,217,217	1,264,000	1,190,000	1,160,000	951,046	1,082,030	1,016,718	1,004,203	999,654	1,015,294	1,006,384
Lakeside	242,000	217,000	217,000	156,000	129,000	101,600	108,100	125,000	140,000	100,000	97,000	70,000	134,000	197,330	115,000	115,890	142,740
TOTAL USE	8,767,622	9,550,534	9,552,768	9,003,497	8,500,647	7,807,275	7,914,487	8,374,689	7,987,722	7,863,954	7,055,071	7,572,732	7,072,380	7,610,570	6,877,401	7,559,003	7,186,784

TWSA 20th Anniversary luncheon June 1, 2022 - 11:30 AM - ‘DEFINING OUR LEGACY’

BUDGET REQUEST (for review at board meeting 3/2/22): \$10,000

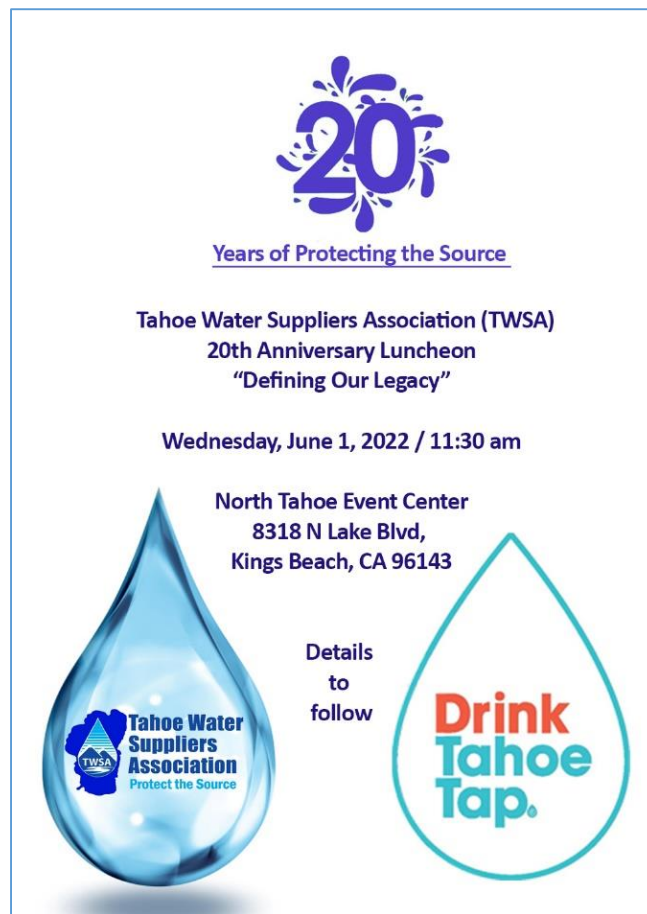
Use funds from existing budget first; then access reserve as necessary

EVENT NEEDS:

		<u>(COMP VALUE)</u>
Room: being hosted by North Tahoe PUD	N/C	(\$1500)
Parking: accommodated as part of public meeting	N/C	(\$1000)
Catering lunch: 100 pp @ \$50 head	\$5000	
A-V for speakers	\$1000	
Video/Photographer:	\$1000	
Event Staging Rentals (linens, signage, misc.)	\$1000	

COMMEMORATIVE ITEMS:

FILL (blue bottle) Klean Kanteen	100 units @\$20 per	existing stock	(\$2000)
Tahoe HeartBeat custom hats	100 units @\$20 per	\$2000	
(or) MIIR tumblers			



**TWSA MEMBERSHIP
EXISTING MEMBER STATUS CHANGE REQUEST FOR 2022-23**

STPUD Transition to Associate Member:

The South Tahoe Public Utility District requests the TWSA Board's approval to transition from a voting member back to an associate member of TWSA. The STPUD has been affiliated with Tahoe Water Suppliers since the association formed. The STPUD was originally an associate member and transitioned to a voting member in February, 2017. As the only groundwater provider in the TWSA, the STPUD is not required to submit an annual surface water report, which is a major benefit for TWSA members. The STPUD is currently working on lobbying efforts at the state and federal level and would like to invest these funds to help our region in that capacity.

Shelly Thomsen
Public Affairs and Conservation Manager
South Tahoe Public Utility District
sthomsen@stpud.us
(530) 543-6208



**TWSA MEMBERSHIP - ASSOCIATE MEMBERSHIP
ADMISSION REQUEST FOR 2022-23**

To: Tahoe Water Suppliers Association (TWSA) Board of Directors:

Heavenly Ski Resort would like to request Heavenly Water System's:

CA0900587 Heavenly Sky Deck

CA0900660 Heavenly Creek Station

CA0900665 Heavenly Gondola

NV0002218 Heavenly East Peak Lodge

For admission to the Association, as an Associate Member.

Becoming a part of the Tahoe Water Suppliers Association would be informative, supportive, and beneficial. As California, Nevada and local county regulations advance, Heavenly Ski Resort aspires to ensure the water we provide to our guests and employees is clean and safe.

Thank you for your consideration,

Ryan Smith

Senior Manager

Building Maintenance

Heavenly Mountain Resort

C: 805.797.5824 | O: 775.586.4430

rsmith2@vailresorts.com



**TWSA MEMBERSHIP - ASSOCIATE MEMBERSHIP
ADMISSION REQUEST FOR 2022-23**

From: Jeff McDaniel [<mailto:jeff@mcdaniel.net>]
Sent: Monday, October 11, 2021 5:19 PM
To: Dunbar, Madonna <madonna_dunbar@ivgid.org>
Cc: Drink Tahoe Tap <drinktahoetap@ivgid.org>
Subject: RE: Request For Information

Madonna:

My name is Jeff McDaniel and I am on the Board of Director's for the Logan Creek Estates GID. We have our own water system that we maintain for our local residents and it was recommended from our current water system engineering company, Lumos and Associates, that we should reach out to your organization to see about becoming members. I wanted to learn a bit more about TWSA and was hoping that you might be able to help me with general information and membership requirements.

I can be reached at the following.

Thank you,

Jeff McDaniel
jeff@mcdaniel.net
Cell: (209) 482-8562

Tahoe Water Suppliers Association (TWSA) Agreement 2016

This Tahoe Water Suppliers Agreement is entered into this December 8, 2016, by and between Douglas County (“Zephyr Cove, Skyland, Cave Rock”), Incline Village General Improvement District (“IVGID”), Glenbrook Water Cooperative (“Glenbrook”), Round Hill General Improvement District (“Round Hill”), Kingsbury General Improvement District (“Kingsbury”), Edgewood Water Company (“Edgewood”), Lakeside Park Association, North Tahoe Public Utility District (“NTPUD”), South Tahoe Public Utility District (“STPUD”), Tahoe City Public Utility District (“TCPUD”) (collectively referred to herein as the “Parties” or “Water Supplier”).

Recitals

1. Each of the Parties owns and operates a public water system within the Lake Tahoe Basin (Basin).
2. In order to assure a safe water supply and promote responsible use of a natural resource water suppliers must conduct watershed sanitary surveys on a regular basis, participate in an active watershed protection program, and comply with additional requirements and regulations.
3. The Parties desire to create the Tahoe Water Suppliers Association whose purpose is to develop, implement and maintain an effective watershed control program in order to satisfy recommendations in watershed sanitary surveys, advocate for the protection of Lake Tahoe as a viable source of drinking water and to satisfy additional state and federal requirements.

NOW, THEREFORE, based upon the foregoing, the Parties hereto agree as follows:

ARTICLE I

INTENT

With the execution of this agreement, it is the intent of the Parties to provide for the establishment of the Tahoe Water Suppliers Association (“Association”) to assist the Parties in:

- a) Meeting federal and state requirements for filtration avoidance and other requirements; promulgated by the Surface Water Treatment Rule and its amendments.
- b) Maintaining an active watershed management control program, and carrying out the goals of the Association.
- c) Promoting and protecting Lake Tahoe and other sources in the Basin as viable sources of drinking water
- d) Defining the roles and responsibilities of the Executive Director and securing funding for the Executive Director to coordinate and execute the activities of the Association.

ARTICLE II

CREATION OF THE TAHOE WATER SUPPLIERS ASSOCIATION

Section 2.1. Establishment of Association. The Parties to this Agreement agree to establish the Tahoe Water Suppliers Association with the authority and responsibilities set forth in this Agreement.

Section 2.2. Executive Director. IVGID shall designate one of its staff persons to act as the Executive Director for the Association and IVGID may assign additional staff to perform the activities of the Association.

Section 2.3. Association Board. The Association shall be managed by the Board of Directors (“Board”). The Board shall consist of one representative appointed by each dues paying Water Supplier. The position of Board Chair and Vice Chair will be elected annually by the Board. The Board shall also have the position of Vice Chair to act as Chair in their absence. The Chair shall conduct the Association Board meetings and participate with the Executive Director

in preparation of the agenda. The Chair shall act as the spokesperson for the Association Board on matters of concern to the Association or assign this to the Vice Chair or Executive Director, or other members of the Board.

Water Suppliers List

Douglas County – Zephyr Cove
 Douglas County – Skyland
 Douglas County – Cave Rock
 Edgewood Water Company
 Glenbrook Water Cooperative
 Incline Village General Improvement District
 Kingsbury General Improvement District
 Lakeside Park Association
 North Tahoe Public Utility District
 Round Hill General Improvement District
 South Tahoe Public Utility District
 Tahoe City Public Utility District

Section 2.4. Duties. The Board shall be responsible for implementing the terms and conditions of this Agreement including, without limitation, the following:

- 2.4.1 Setting of periodic meetings to insure dissemination of information and discussion of issues.
- 2.4.2 Providing for cooperation among the Parties and with local, state and federal agencies and private entities with respect to watershed evaluation and watershed management.
- 2.4.3 Providing for the prevention of watershed degradation through advertising and education, conducting studies, retaining consultants as needed.
- 2.4.4 Developing a budgeting and funding process that ensures that the Association's cooperative efforts will be adequately staffed and funded.

Section 2.5. Appointment Alternatives. Each of the Parties to this Agreement shall name an alternate Board member representative to act in the event a Party's appointed Board representative is not in attendance at the meeting. In the event that the Party's appointed Board member is not in attendance at the meeting, the alternate Board member shall be entitled to one (1) vote in conducting the business of the Board. A Board member may also assign its voting privileges by standard proxy provisions.

Section 2.6 Meetings.

- 2.6.1. Regular Meetings. Regular meetings of the Board shall be held at least quarterly or at such other time as decided by the Board majority and shall be held at such place as the Chair or members of the Board may determine. Members can attend via conference call or other electronic communication methods.
- 2.6.2. Special Meetings. Special meetings of the Board may be called by or at the request of the Chairman or any two (2) members of the Board, and shall be held at such place as the Chairman or members of the Board may determine.
- 2.6.3 Emergency Meeting. An emergency meeting can be convened at any time with 100% concurrence of the Board members and shall be held at such place as the Chairman or members of the Board may determine.

Section 2.7 Notice of Meetings. Meeting notices will be posted according to Nevada Revised Statutes 241 and the California Brown Act, whichever is more restrictive. The Board shall be given notice of meetings and meeting agenda packets, delivered personally, sent by email, or sent by mail to each Board member at the Board member's address as provided in the Association records. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail in a sealed envelope, so addressed, with postage thereon prepaid.

Section 2.8. Quorum. A majority of the members of the Board shall constitute a quorum for the transaction of business at any meeting of the Board. Each water supplier as listed in Section 2.3 is entitled to one vote. A single person may represent more than one water supplier and therefore have more than one vote.

Section 2.9. Voting Requirements. An affirmative vote of a majority members of the Board at any meeting shall be required to take action. Votes can be either voice votes or other methods of tabulating votes by electronic communication means.

Section 2.10. Books and Records. The Board shall keep correct and complete books and records of account, minutes of its proceedings and record giving the names and addresses of the members entitled to vote. All books and records of the Board shall be kept at a location determined by the Board and may be inspected by any Board member, or that member's agent or attorney, for any proper purpose at any reasonable time. Records shall be retained in accordance with record retention policies.

ARTICLE III

CHARGES

Section 3.1. Establishment. Consistent with this Agreement, the Board shall establish charges to be paid by each Party to finance all necessary activities. Necessary activities are those identified by the Board in an approved annual budget.

Section 3.2. Apportionment of Charges. Parties shall pay the percentages of the annual budget. Each party's costs include shared program costs and dependent program costs, other than STPUD which pays 10% of total TWSA costs. Shared program costs are defined as 25% of TWSA staff costs and 75% of TWSA operating costs and account for activities that are necessary for all members. The shared costs effort does not vary based on size of the member's service area. Dependent program costs are defined as 75% of TWSA staff and 25% of TWSA operating. The dependent costs account for activities such as mapping and monitoring that inherently are more time and resource demanding for members with larger service areas and greater number of customers/connections than members with smaller services areas and customers/connections. Shared costs are appropriated equally to all Parties while, dependent costs are proportioned according to the size of the service area, customers, and connections.

Section 3.3. Use of Funds. Funds received from such charges shall be used for those purposes for which the Association has established.

Section 3.4. Budget and Charges. The Executive Director shall prepare an annual budget that will include a budget for all anticipated shared program and dependent program costs by the third quarterly meeting proceeding the budget year which begins on July 1st. The Board shall review and direct charges to the budget proposal and shall approve an annual budget at the March Meeting. The charges paid by each Party for the succeeding budget year shall be based on the approved budget.

Section 3.5. Account. The Executive Director will establish an account called the Tahoe Water Suppliers Association Account ("Account") to be used exclusively for purposes of the Association. Annual budget will determine the amount budgeted in the Account. The budget will be prorated for the Parties according to Section 3.2 and billed out on or about July 1 annually and become due 45 days later. Any monies not utilized during the budget year will be allocated to the next budget cycle unless allocated to the TWSA reserve fund. IVGID manages the reserve fund.

Section 3.6. Account Disbursements. All disbursements from the Account will be used for expenditures authorized by the Board in accordance with this Agreement. Except as otherwise provided in this section, the Board shall approve all TWSA programs and related payments from the Account in the annual Association budget process. The TWSA Director is authorized to approve all transactions as already defined and specified in the approved Association budget. Payments

of \$500 or less may be made by the Executive Director for actions not previously approved or detailed in the Association budget. All disbursements from the Account of greater than \$500 and less than \$1,000 shall require the approval of the Chairman for actions not previously approved or detailed in the Association budget. All disbursements from the Account \$1,000 or greater shall require approval of the majority of the Board for actions not previously approved or detailed in the Association budget.

ARTICLE IV

MEMBERSHIP PROCESS

Section 4.1. Admission of New Association Members. Public Water Systems desiring to join the Association shall submit a written request for consideration. The Board shall consider and discuss the request at a regularly scheduled Board meeting and conduct a vote on whether to admit the new member at a following regularly scheduled Board meetings. Public Water Systems requesting consideration of admission shall not have interests in conflict with TWSA's Mission Statement. A prospective member must receive approval by a minimum of at least 75% of the whole Board at the regularly scheduled meeting. Membership dues will be prorated for the current budget year based on the date of becoming a member and will become payable within 45 days of issuing the membership bill.

ARTICLE V

MISCELLANEOUS

Section 5.1. No Joint Venture / No Joint Power Authority. The Parties specifically acknowledge that no Party is acting as the agent of any other Party in any respect, and that each Party is an independent entity with respect to the terms, covenants and conditions contained in this Agreement. None of the terms or provisions of this Agreement shall be deemed to create a partnership between or among the Parties in their businesses, operations, affairs, or otherwise; nor shall it cause them to be considered joint ventures, joint power authority or members of any joint enterprise.

Section 5.2. No Third-Party Beneficiary. This Agreement is not intended, nor shall it be construed, to create any third-party beneficiary rights in any person or entity that is not a Party to this Agreement.

Section 5.3 Entire Agreement. This written Agreement constitutes the entire Agreement between the Parties with respect to the subject matter of the Agreement and supersedes all negotiations, prior agreements, and understandings between the Parties with respect to the subject matter.

Section 5.4. Further Actions. Each Party agrees to take all reasonable actions, to do all reasonable things, and to execute any and all documents and writings that may reasonably be necessary or proper to achieve their purposes and objectives of this Agreement.

Section 5.5. Good Faith. The Parties recognize and adopt the covenant of good faith and fair dealing in carrying out this Agreement.

Section 5.6. Modification. The Parties may not modify the terms of this Agreement except by approval of 75% of all Association members.

Section 5.7. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Nevada.

Section 5.8. Construction. The Parties acknowledge that each had the benefit of legal counsel, has had an opportunity to review this Agreement with its legal counsel, and that this Agreement shall be construed as if jointly drafted by all Parties.

Section 5.9. Counterparts. This Agreement may be executed by the Parties in counterparts, each of which shall be deemed an original instrument, and all of which shall constitute one and the same instrument.

Section 5.10. Notices. Any and all notices or other communications required or permitted by this Agreement or by law

to be served on or given to any Party by any other Party, shall be in writing, and shall be deemed duly served and given when personally delivered to the Party to whom it is directed, or in lieu of such personal service, then deposited in the United States Mail, first class postage prepaid, addressed to the Party at its last known address.

Section 5.11. Severability. In the event that any provision of this Agreement shall be held to be invalid or otherwise unenforceable, the Parties agree that the remaining provisions shall be valid and binding on the Parties hereto.

Section 5.12. Clarifying Statement. No member is delegating any of its authority or granting any right to act on its behalf by participation, except as to the specific tasks and revenues referenced. This Agreement provides no authority to bind its members.

Section 5.13. Termination. Any Party to this Agreement may withdraw from the Association for the upcoming year by giving notice of withdrawal to the other Parties at any time. No refund will be made of sums paid under this Agreement.

####

TWSA Board of Directors Membership Addendum 2022

ARTICLE IV - MEMBERSHIP PROCESS

Section 4.1. Admission of New Association Members. Public Water Systems desiring to join the Association shall submit a written request for consideration. The Board shall consider and discuss the request at a regularly scheduled Board meeting and conduct a vote on whether to admit the new member at a following regularly scheduled Board meetings. Public Water Systems requesting consideration of admission shall not have interests in conflict with TWSA’s Mission Statement. A prospective member must receive approval by a minimum of at least 75% of the whole Board at the regularly scheduled meeting. Membership dues will be prorated for the current budget year based on the date of becoming a member and will become payable within 45 days of issuing the membership bill.

Part 1:

The following definition to establish the category of ASSOCIATE MEMBERSHIP was authorized/recorded by TWSA Board vote on XX/XX/2022.

ASSOCIATE MEMBERSHIP is an auxiliary status, based on support of common Tahoe region watershed protection goals. Associate members must be compliant with all applicable state water quality requirements. Members of this status have no voting privileges, nor water quality reporting status in the TWSA Annual Report. Associate members have use of TWSA outreach materials including select approved use of the organization’s trademark, DRINK TAHOE TAP®. Memberships are effective July 1 – June 30, annual.

Proposed Annual Dues for TWSA Associate Membership based on number of connections:

- A. 1 to 999 connections \$1000
- B. 1000 to 1999 connections \$2000
- C. 2000 connections or more \$3000

Part 2:

The Tahoe Water Suppliers Association Agreement is modified to include ASSOCIATE MEMBERS, as approved by the TWSA Board vote recorded on: xx/xx/2022.

1. Change:
Associate Membership for
SOUTH TAHOE PUBLIC UTILITY DISTRICT
John Thiel (General Manager)

ADDRESS _____
by: _____

2. Add:
Associate Membership for
HEAVENLY WATER SYSTEMS
(NAME/TITLE) _____
ADDRESS _____
by _____

3. Add:

Associate Membership for

LOGAN CREEK ESTATES GID

(NAME/TITLE) _____

ADDRESS _____

by: _____

NDEP 319H GRANT REPORTING

DEPS 20-026 FINAL REPORT (MICROPLASTICS)

PROJECT SUMMARY:

A 2 YEAR PROJECT INCLUDING EDUCATION AND PUBLIC OUTREACH TO ACHIEVE A BEHAVIOR CHANGE IN THE REGION WITH THE GOAL OF:

1. RAISING AWARENESS OF PLASTIC POLLUTION,
2. INCREASING PUBLIC UNDERSTANDING OF THE DIFFERENT TYPES OF PLASTICS AND THE IMPACTS OF THEIR CONSUMER CHOICES,
3. REDUCING THE USE OF SINGLE-USE PLASTIC,
4. AND THEREBY REDUCING THE PRESENCE OF PLASTIC IN LAKE TAHOE'S WATERS AND BEACHES.

Project Partners:

Tahoe Water Suppliers Association (TWSA)
UC Davis Tahoe Environmental Research Center (TERC)
Sierra Watershed Education Partnerships (SWEP)

Additional Partners:

Tahoe Fund / Take Care Campaign
Raley's

DECEMBER-2021



NDEP 319h Grant Reporting\DEPS 20-026 FINAL Report (MICROPLASTICS) (December-2021)

Project Title: Pilot Project to Reduce Sourcewater Plastic Pollution at Lake Tahoe

Lead Agency: Incline Village GID / Tahoe Water Suppliers Association

Primary Contact: Madonna Dunbar, 1220 Sweetwater Road, Incline Village, NV 89451
madonna_dunbar@ivgid.org
 Ph. (775) 832-1212 office / (775) 354-5086 mobile

Project Location: Lake Tahoe, HUC: 16050101

Project Summary:

The project includes education and public outreach to achieve a behavior change in the region with the goal of raising awareness of plastic pollution, increasing public understanding of the different types of plastics and the impacts of their consumer choices, reducing the use of single-use plastic, and thereby reducing the presence of plastic in Lake Tahoe's waters and beaches.

Start-Complete Dates:

Project Start Date: 1/1/2020

Anticipated Project Completion Date: 12/31/2021; extension request to 6/30/22 in process.

Fiscal Summary:

NDEP 319(h) \$61,995

Budgeted total amount of non-federal match funds \$78,200

Total Project Cost \$140,195

Project Partners:

UC Davis Tahoe Environmental Research Center, Heather Segale, Education and Outreach Director, 775-881-7562, hmsedale@ucdavis.edu

Sierra Watershed Education Partnerships, Missy Mohler, Executive Director, 530-583-1430, missy@4swep.org

Incline High School, Joel Kivo, Science Teacher and Department Leader, jkivo@washoeschools.net

Metrics/Evaluation – proposed in grant – all completed

- **2 campaign designs developed - done**
 - 1. Drink Tahoe Tap (<http://www.drinktahoetap.org/> and also <https://takecaretahoe.org/take-action/tahoe-tap/>)
 - 2. Microplastics (<https://takecaretahoe.org/take-action/microplastics/>)
- **2,500 water bottles purchased and distributed – done**
 TWSA purchased 2500 bottles and is distributing as volunteer incentives.
 - Drink Tahoe Tap water bottles (2 designs)
 - “Fill” character water bottles
- **4 exhibits developed for Tahoe Science Center and outreach events – completed.**
- **Double the number of sites listed on the Tap App within the Tahoe Basin - completed**
- **Curriculum for 4 in-classroom presentations/field trips – done, plus much more!**
- **4 in-classroom presentations/field trips – done, plus much more!**
- **Completed student business plan - Modified due to COVID restrictions for student in-person interactions.**

- **10 students each communicate with a minimum of 2 store managers in the Tahoe Basin for a total of 20 stores:** COVID halted the ability to conduct in-store interviews. However the Envirolution Club's Microplastics Committee met on several occasions with Raley's corporate management. This opportunity gave the students an excellent, professional development experience and offered corporate management direct feedback from a younger demographic.
- **Minimum of 10 locations around the Tahoe Basin with signs and reusable water bottles available for customers:** All the Tahoe area Raley's have Tahoe Tap bottles for sale. 116 stores total in the greater regions. Tap water is available at the stores at fountains or cafe areas. There are 48 DRINK TAHOE TAP network refill business locations available offering refills in the basin. 17 new fill stations were installed under the grant program. This is below target but was heavily impacted by the year of Covid restrictions. The refill station is being continued to 2023, past the grant period.

Activities/Tasks

Create a campaign focused on shifting behaviors about single-use plastic and reducing plastic trash:

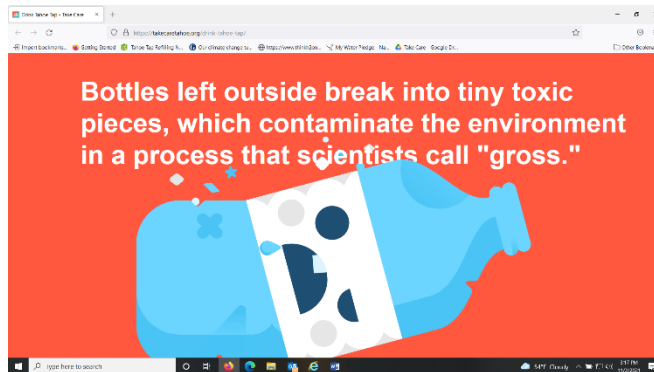
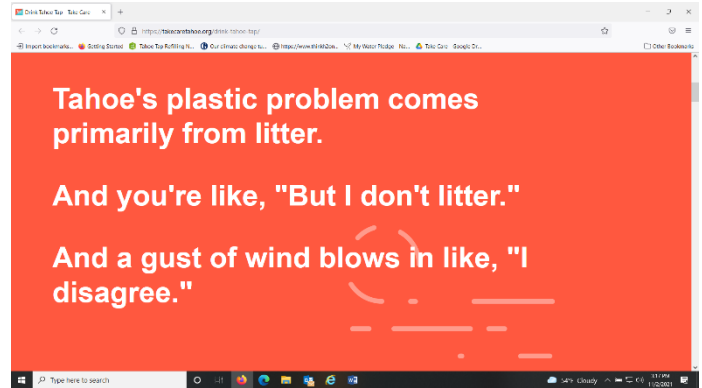
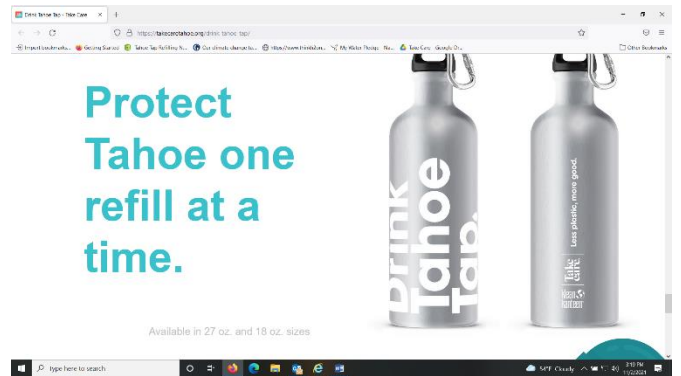
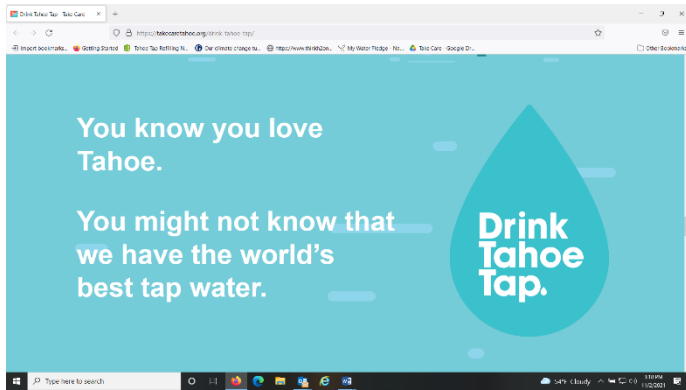
- Better choices - Choose reusable
- Better for you - Tap water is better for you than plastic
- Better for the planet - Plastic pollution affecting our source water

Focus areas included:

- **Plastics Awareness Campaign**
- **Online Education**
- **Point of Sale Consumer Marketing**
- **Drink Tahoe Tap® Messaging**
- **Community-Based Social Marketing (CBSM)**
- **Refilling Locations**

In partnership with the Drink Tahoe Tap® campaign and the Take Care Tahoe campaign, this component included developing new messages and graphics focused on microplastics to increase public awareness of the issue. A suite of custom Take Care Tahoe / Drink Tahoe Tap® messaging and graphics was developed over the course of the grant. These were used extensively in the partners' social media, print and advertising campaigns. Working with Nathan Laver and his creative team (Brontosaurus LLC) to develop both first-level and second-level outreach messaging, a pool of custom Take Care graphics and messages was distilled down. The messages focus on the impacts of single-use plastics (specifically single-use packaged water bottles) discarded in the watershed, and the alternative of using a refillable water bottle to prevent the plastic waste. Information and graphics on the high quality of Tahoe Tap waters was also developed. These graphics are being used in regular rotation on social media postings, and a new storyboard website (www.DrinkTahoeTap.org). Social content (hashtag, picture, caption) developed includes posting on billboards at I-80/Hwy 50, Instagram, Facebook and other outlets.

- Graphics and messaging featured on Take Care Website, Social Media Sites and Billboards
<https://takecaretahoe.org/take-action/tahoe-tap/>

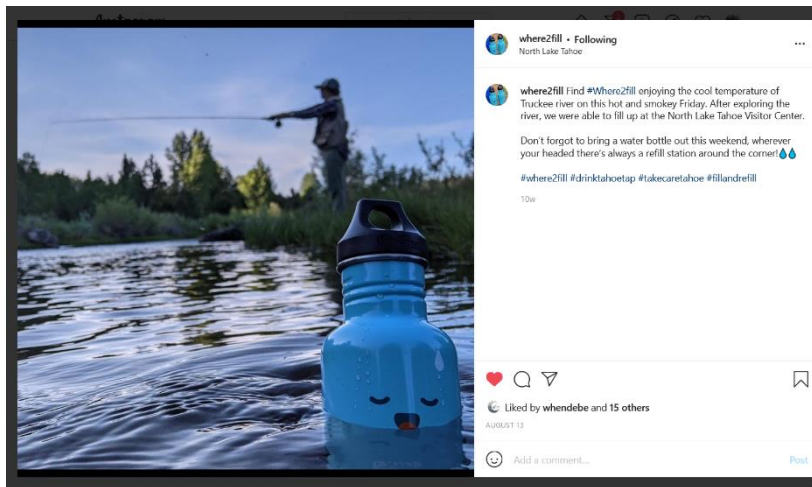




- Created the plastic pollution education microsite hosted at: www.DrinkTahoeTap.org.
- Drink Tahoe Tap® stickers were also produced from the new graphics.



- Partners participated in the **Community-Based Social Marketing (CBSM) training** with Conservation Science Partners (CSP) with Stacy Lischka, PhD Lead Scientist, training and consultant funded by Tahoe Fund; Trainings on Barriers, Benefits, and Solutions. Workgroup identified future work in reaching out to hospitality sites to commit to promoting Tahoe Tap water over bottled water. Collateral such as Drink Tahoe Tap® hang tags (for sink refill locations) and custom coasters may still be produced as outreach collateral in 2022.
- Where2fill and DrinkTahoeTap Instagram accounts** were established. Sierra Beck conducted a Sierra Nevada University (50 hour) service learning project creating content and marketing materials for DRINK TAHOE TAP's @where2fill Instagram campaign. "FILL M. UP" character bottle is featured in Tahoe locations with refill site information promoted. Sierra's contribution drove us from about 67 followers to 171 on @where2fill which is a 155% increase since September. <https://www.instagram.com/where2fill>



- Tahoe Ambassadors – Drink Tahoe Tap® messages were featured on the Tahoe Ambassador sandwich boards.** The Tahoe Ambassadors, a multi-organization group promoting sustainability in the Tahoe Basin, included Drink Tahoe Tap® messages on their public ambassador sandwich boards to encourage visitors to use less plastic. Ambassadors also received custom Drink Tahoe Tap® bottles for use on assignment.

- **Raley's Partnership promotion of Drink Tahoe Tap® project.** A Trademark License Agreement between the “Tahoe Water Suppliers Association” and “Raley's Corporation” provided Raley's a non-exclusive license to use its DRINK TAHOE TAP Mark on water bottles and in connection with marketing and advocacy to promote Raley's environmentally conscious grocery services during the Term of June 1, 2020 – December 31, 2021 (the “Initial Term”) and automatically renewing for year-long terms after that (the “Renewal Terms”).
- **Created an official Drink Tahoe Tap® refillable bottle for retail sale at Raley's**



Drink Tahoe Tap water bottles on sale at all Raley's stores in the Tahoe region. Retail reach includes 116 stores spanning the greater Sacramento, northern California and northern Nevada regions.

Pilot project to promote reusable water bottles and water filling stations instead of single-use:

- **Replace a section of the single-use bottled water with reusable water bottles**
- **Include signage**
- **Provide filling station and signage**
- **Raley's / Take Care Fundraising Partnership**

The team worked with the concept of building a brand presence for the “Tahoe Tap” product; marketing it as ‘a luxury water offered free from the tap’. Coupled with this was the design of an ‘official Tahoe Tap refillable bottle’. Design products include multiple bottle designs, end cap design for Raley's grocery story, grocery store aisle blade, refill badge sign for businesses, signage at the water refill stations, and wayfinding blazes (store and shelf presence).

Linked to the creation of ‘the official bottle’ was the development of a partnership with Raley's Supermarkets, as this project fits in very well with the organization's sustainability program development.



The team approached the large regional retailer with the idea of offering a high quality, branded Drink Tahoe Tap® bottles for sales in area stores.

The Raley's Drink Tahoe Tap® pilot project launched on July 3, 2020 and continues to date. The idea was to give Tahoe Tap a presence in the store, to visually attract, educate and motivate shoppers at point of sale. IVGID executed a trademark agreement with Raley's and production began. Raley's sponsored production of 3 designs for a total of 12,000 Klean Kanteen co-branded bottles (estimated \$150,000 investment). They were placed on shelves in 116 Raley's stores in the northern California and northern Nevada regions with the Take Care display materials. Response was positive. As of report date approximately ½ the stock has sold.

As mentioned above, the partnership with Raley's Supermarket resulted in an in-store presence and investment by the company, for Tahoe Tap. This included signage and display at the entrances and on end caps. Signage was placed at cases of water. Alternatives to plastic bottled water are available at the point-of-sale.

Raley's has also proposed to install water fill stations to their four Tahoe area stores in 2022.

Raley's / Take Care Fundraiser Promotions 2022

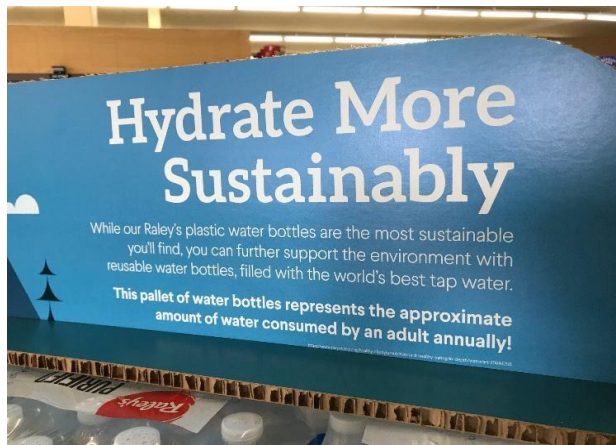
<https://photos.pixlbank.com/f/pTFMMKuu>

The partnership also opened up a Raley's corporate relationship with the Tahoe Fund. Raley's has provided a significant pledge towards the Tahoe Tap/ Take Care campaign. Drink Tahoe Tap is a giving option through Raley's 'We Give' program.

These funds will be used to continue portions of the pilot program. There is a social media photo sharing contest live now at PixlBank; being promoted at select Raley's stores with a goal of \$10,000. Project partners are Raley's/Tahoe Fund/Take Care.



IVGID staff and Raley's staff are participating in the newly formed Nevada Source Reduction Workgroup organized by the Bureau of Sustainable Materials Management Nevada Division of Environmental Protection (BSM_NDEP).



**Sourcewater Protection Exhibit at UC Davis Tahoe Science Center is developed.
Second exhibit for Sand Harbor under development.**

- **Created microplastics exhibits and educational materials to educate on:**
 - a) What are the sources of plastic at Lake Tahoe?
 - b) Macro to micro matching game – how plastics break down
 - c) Quantifying microplastics
 - d) Where do microplastics end up around the lake? (based on sampling, gyres)

Metrics/Evaluation:

4 exhibits developed for Tahoe Science Center and outreach events. UC Davis developed a large-scale, hands-on exhibit titled “Tahoe Plastic Problem”. An outreach version was also developed for display at events such as the Truckee River Day event on October 17, 2021.

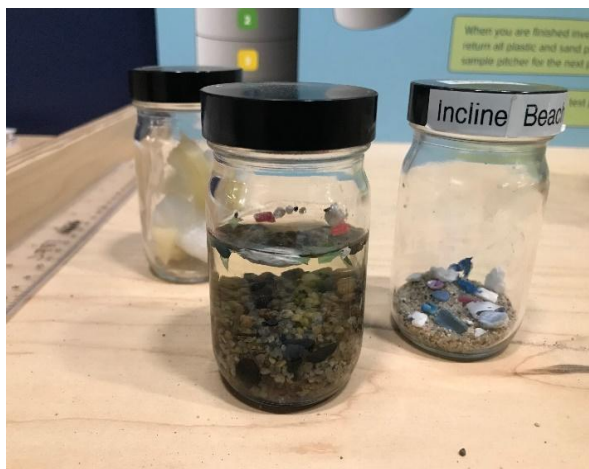
- The final exhibit actually includes 5 panels (Tahoe’s Plastic Problem, A Day at the Beach, Plastics are Forever, Microplastics in Lake Tahoe, and It’s Time for Solutions) as well as

6 hands-on activities (Sorting Plastic by Resin Type; Flip Panels of Plastic by Resin Identification and Recyclability; Sieve Separation of Macro/Meso/Micro/Nano Plastics; Microscopic Investigation of Films, Foams, Fragments; iPad Learn More; Reusable versus Single Use)

“Tahoe’s Plastic Problem” - Microplastics Exhibit was installed at the UC Davis Tahoe Science Center (Tahoe Environmental Research Center, Incline Village, NV) during the winter of 2020-21 as a main feature of the science center lobby.

After being closed due to COVID, the UC Davis Tahoe Science Center re-opened to the public (by reservation) in June 2021. TERC Docents received training on the microplastics topics and “Tahoe’s Plastic Problem” from UC Davis staff, in order to share knowledge with visitors.

Partner staff are now working with Nevada State Parks and NDEP (solid waste) staff to develop a parallel exhibit for installation at the Sand Harbor Visitor Center in 2022.





Extensive Media Coverage of Trash and Plastics Issue:

In depth article on research: <https://ucscscienotes.com/feature/lake-taho-pristine-legacy-threatened-by-microplastics>

- Article on microplastics display in Tahoe Daily Tribune: [Tahoe Science Center to reopen with new plastics exhibit; Get involved](#)
- TERC Newsletter article: https://tahoe.ucdavis.edu/sites/g/files/dgvnsk4286/files/inline-files/Summer%20Newsletter%202021%20FINAL_0.pdf
- Tahoe In Depth article: https://www.trpa.org/wp-content/uploads/Winter2020_24pgs_FINAL_web.pdf
- <https://www.kolotv.com/2020/07/02/raleys-working-with-tahoe-organizations-and-uc-davis-to-reduce-plastic-waste/>
- <https://www.sierrasun.com/news/environment/microplastic-clean-up-research-continues-at-lake-tahoe/>
<https://www.tahodailytribune.com/news/microplastic-clean-up-research-continues-at-lake-tahoe/?fbclid=IwAR0ZrNliqsQD21ULLd0GsJrFmsEfffgh3r2lg8wG7EQQS01oMkzxNnuQQaTk>
- <https://www.ktvn.com/story/42349550/incline-village-raleys-encourages-customers-not-to-buy-plastic-water-bottles-as-part-of-new-initiative>
- <https://www.sierrasun.com/opinion/columns/darcie-goodman-collins-tina-dvon-gallier-save-lake-tahoe-from-single-use-plastics/>
- <https://www.sierrasun.com/news/the-fate-of-plastics-in-lake-tahoe/>
- <https://www.sierrasun.com/news/environment/clean-up-the-lake-pulls-more-than-8200-pounds-of-trash-from-tahoe-donner/>
- <https://www.sierrasun.com/news/pack-it-in-pack-it-out-locals-protest-surge-of-litter-left-in-truckee-tahoe-area/>
- <https://www.sierrasun.com/news/power-of-the-people-how-truckee-tahoe-locals-are-taking-to-beaches-to-clean-up-litter-left-by-visitors/>

- <https://www.sierrasun.com/news/placer-county-temporarily-increases-trash-service-in-north-lake-tahoe/>
- <https://www.sierrasun.com/news/environment/trash-problem-piling-up-around-lake-tahoe/>
- <https://www.sierrasun.com/news/litter-mitigation-on-tap-at-truckee-town-council/>
- <https://www.sierrasun.com/news/mitigating-microplastics-what-types-of-plastics-are-getting-into-lake-tahoe-and-landing-on-beaches/>
- <https://www.sierrasun.com/news/community/moop-the-lake-collects-over-200-pounds-of-trash/>
- <https://takecaretahoe.org/success-stories/raleys-is-first-tahoe-area-grocery-store-to-encourage-customers-not-to-buy-single-use-water-bottles/>
- <https://www.tahoedailytribune.com/news/partnership-aims-to-get-more-people-drinking-tahoe-tap-water/>



Microplastics StoryMap: TERC AmeriCorps member Anne Graham created a Microplastic StoryMap - “Big Problems in Tiny Pieces; Researchers conduct complementary research to determine the threat of microplastics at Lake Tahoe.” Learn more about the microplastics problem at Lake Tahoe at:

<https://tinyurl.com/TahoesPlasticProblem>

Where could microplastics in Lake Tahoe come from?

Microplastics originate from people but they enter the environment in a number of ways. Scientists have narrowed down some likely sources including wastewater, litter, roadways, storm drains, and deposition from the atmosphere. TERC and DRI are studying several of these potential sources to Lake Tahoe.

Litter has long been a concern around Lake Tahoe, and is assumed to be a primary avenue for microplastics getting into the lake. Litter left on beaches or entering the water directly from recreational boating are the most likely pathway.

Streams and storm drains that flow into the lake pick up and carry plastic on their way to Lake Tahoe. The League to Save Lake Tahoe (Keep Tahoe Blue) and DRI collaborate on a citizen science project to collect storm drain water for microplastics testing.

A custom Drink Tahoe Tap display was developed at the Refill Station at the Tahoe Science Center

As part of the microplastics display, UC Davis and the Tahoe Water Suppliers Association installed a water refill station at the Tahoe Science Center in Incline Village, NV. Custom signage was created to reinforce Tahoe’s sourcewater protection – tap water connection. Note: We are still awaiting installation hardware for the “aisle blade” directional signage to be added to the display.



Populate Tap App with more locations for water bottle filling in the Lake Tahoe Basin locations for water bottle filling in the Lake Tahoe Basin.

Another task was to promote the use of the “Tap App” and the 40 new water filling stations around the community previously funded by a TWSA/Tahoe Fund grant, and report on use statistics of “Tap App” and volume of water served at filling stations.

The goal of doubling the number of registered fill stations on the TAP App, was met in Year 1. The baseline, set in December 2019, was 22 businesses (in basin) registered on the Tap App as refill sites. As of October 2, 2020 there were 48 registered refill locations (in-basin) with an expanding network also occurring outside the basin. Continuing to add sites in the network will be a major program focus, past this grant.

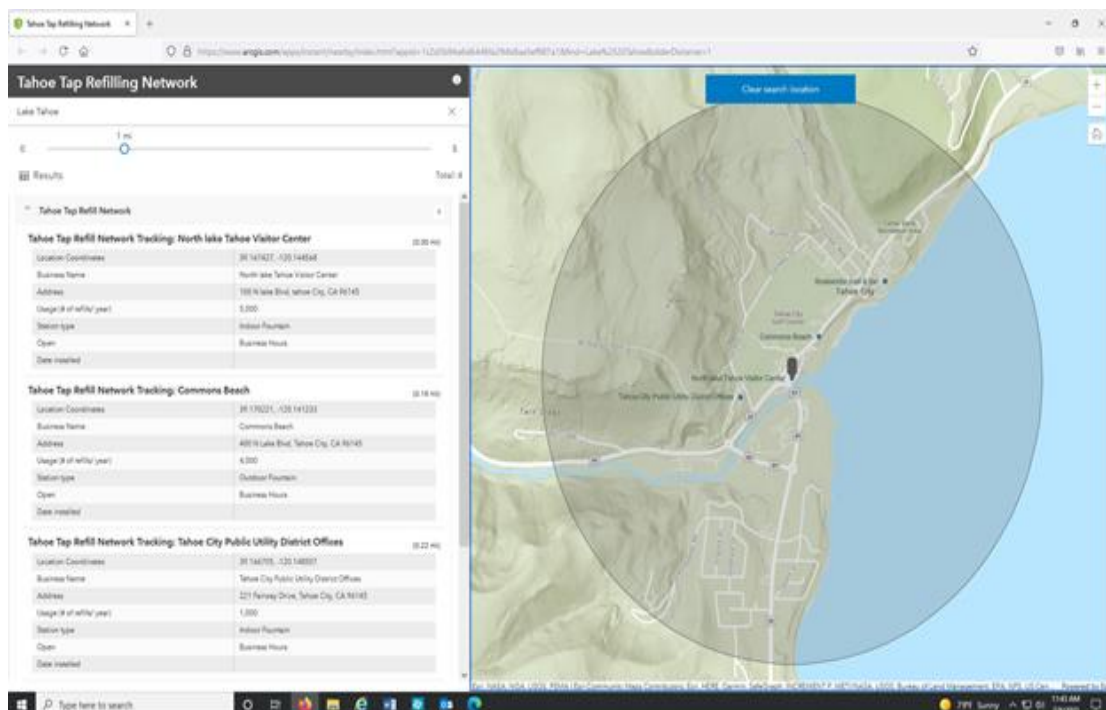
The letter to businesses to become a “Drink Tahoe Tap®” Water Refill Site” information is available [here](#). A Take Care and new graphics were designed to support fresh publicity of the grant program and app. Our original distribution plan has been impacted by restricted in-person contact, due to COVID-19 concerns.

Drink Tahoe Tap Refill Network Expanded

Getting a simple map or app for location posting water bottle refill stations has proven to be a technical challenge. Work continues on resolution of the TAP APP and location map resources. The original water fill station map/app (called the TAP APP) has been altered by the host site and is no longer supported or functioning. So staff has developed some alternatives, but are still seeking the ‘final answer’ short of developing our own app.

Solutions currently include:

- Tahoe Tap fill station information is included in the 2022 Citizen Science Tahoe App (<https://citizensciencetahoe.org/>). We will try to see if that will provide a good platform for highlighting available water stations.
- Transferring to the global platform <https://closca.com/pages/closca-water-app>.
- South Tahoe Community College students created a dedicated **TAHOE TAP MAP**. <https://www.arcgis.com/apps/instant/nearby/index.html?appid=1c2d3b94a6d6446fa394b8aa5ef987a1>
- Setting up a dedicated website (Where2fill / Where2fillTahoe) for hosting the map, and Citizen Science App portal is under development for 2022.



Water Bottle Filling Station Grant Program

The grant program resulted in an increase of locations for refilling at water bottle refill stations in the Lake Tahoe Basin open to the public. Covid-19 impacts resulted in the loss of a full year of applications to the program, as most businesses were simply trying to stay open. The Drink Tahoe Tap Refill Network /Tahoe Fund Water Bottle Filling Station Grant Program became active again in 2021, with easing of COVID restrictions for businesses. The program is being continued by TWSA. Grants of \$500/\$1000 are offered for the installation of (indoor/outdoor) permanent water fill stations.

Media coverage:

<https://www.kolotv.com/content/news/Tahoe-business-owners-could-add-water-refill-station-inside-stores--525119571.html>

Program information at:

[https://www.yourtahoeplace.com/uploads/pdf-public-works/Water_Bottle_Filling_Station_TWSA_TF_GRANT_Program_-_whole_packet_UPDATED_for_2021-22_\(April_2021\).pdf](https://www.yourtahoeplace.com/uploads/pdf-public-works/Water_Bottle_Filling_Station_TWSA_TF_GRANT_Program_-_whole_packet_UPDATED_for_2021-22_(April_2021).pdf)

17 new, permanent indoor and outdoor water fill stations were installed under this grant program. Data is not available on water bottle use offset from the stations.

Installed Indoor Stations:

Tunnel Creek Cafe
 Homewood Mountain Resort
 TCPUD offices (x 2)
 BoatWorks Mall
 Boatworks Inn
 Suzie Scoops
 Sierra Nevada University Patterson Hall
 Tahoe Environmental Research Center
 Granlibakken Resort (x2); lobby and pool/tennis area

Installed Outdoor Stations:

NTPUD Field 4
 Watermans' Landing
 Pomin Park
 Kilner Park
 Commons Beach
 South Tahoe's Soroptimist Stadium



The TWSA Mobile Events Water Stations received a Tahoe Tap / Take Care rebranding makeover in 2021. We had 100% reuse of old signage with a new DRINK TAHOE TAP overlay. Mobile Stations were used with the Tahoe Ambassador program and selected events in 2021 including Meyers Farmers Market, Tahoe Shakespeare Festival, Regan Beach, the Lake Tahoe Summit, Carson City Nevada Day Celebrations, Truckee River Day, and Hangtown Music Festival.



Members of the team also took part in a four-part workshop series funded by Tahoe Fund on **Community-Based Social Marketing (CBSM)** with Conservation Science Partners (CSP) with Stacy Lischka, PhD Lead Scientist, training and consultant.

Trainings were held on 4 dates in summer 2021. The group discussed the barriers, benefits, and solutions for the plastic water bottle problem at Tahoe.

Residents and visitors use reusable water bottles to drink Tahoe tap water at home, in rentals, and at hotels	
<p><i>Barrier: Single use plastic bottles are seen as most convenient option</i></p> <p>Strategy:</p> <p>Convenience</p> <ul style="list-style-type: none"> Work with luxury hotels to provide "I Drink Tahoe Tap" reusable bottles, metal/cardboard bottles, and/or filling stations instead of single use plastic bottles <p>Social Diffusion</p> <ul style="list-style-type: none"> Identify opportunities for early adopters to become leaders with others in the hospitality industry Link "I Drink Tahoe Tap" bottles to luxury brand/identity 	<p><i>Benefit: Environmental benefit of reducing single use plastics</i></p> <p>Strategy:</p> <p>Commitments</p> <ul style="list-style-type: none"> Tie reusable water bottles and filling stations to other actions that hotel chains have taken or commitments to sustainability they have made (Edgewater)

csp-inc.org

The group decided to target hotels and vacation rentals to offer guests easy access to tap water and potentially a plastic-free aluminum water bottle instead, with Take Care messaging. Work will continue in 2022 on this focus topic.

Develop curriculum and program to educate local high school students (starting with Incline High School AP Environmental Science) on plastic pollution:

- Science presentations by UC Davis TERC (research, sources of plastic, types of plastic, solutions)
- Work with students to develop Business Plan to promote the economics of bottled water versus reusable (\$10/case of 24 versus 4x\$20 for reusable bottles)
- Student outreach to grocery stores (starting with Raley's Incline Village)
- TTUSD Envirolution & Green Teams participate in student outreach as described above
- Trashion shows hosted at Incline High School

UC Davis hosted microplastic education programs with Incline High School AP Environmental Science classes, South Tahoe High School, and through SWEP's Envirolution Club connected with students from North Tahoe High School and Truckee High School. *See dates and student interaction numbers in the table below.*



Microplastics education hosted by UC Davis TERC at High School AP Environmental Science Classes

Through this project, we partnered with the local school-based "Envirolution," "Green Teams," and "Eco-Action Teams" operated by the Sierra Watershed Education Partnerships to get local students conducting outreach to local businesses and survey shoppers about their single-use plastic water bottle purchases. Students, residents, and visitors also used the Citizen Science Tahoe mobile app to track plastic litter found on trails, beaches, and in the lake. We developed curriculum and education programs to teach local students about NPS plastic pollution, as described below.

Curriculum Development. TERC and Sierra Watershed Education Partnership (SWEP) created a variety of online video lessons. In-person curriculum delivery was slightly restricted due to COVID-19. However, we more than made up for the in-person restrictions. As part of this grant, SWEP created the “Beach Detectives” <https://www.4swep.org/post/beach-detective> virtual field program and associated [Microplastics-Beach Detective Data Sheet](#). UC Davis created this [video](#) lesson to help guide student investigations. New micro-plastics snippets created and web posted, see <https://www.4swep.org/swep-snippets> for all the sessions, these are plastic specific:

<https://www.4swep.org/post/what-is-plastic>
<https://www.4swep.org/post/beach-detective>
<https://www.4swep.org/post/how-long-until-gone>
<https://www.4swep.org/post/upcycled-milk-jugs>
<https://www.4swep.org/post/zero-waste-lunch>
<https://www.4swep.org/post/litter-scavenger-hunt>
<https://www.4swep.org/post/upcycled-t-shirt-bags>

A comprehensive list of all student lessons and outreach sessions for 2020-2021, is provided at the end of this report.

Student Social Media Outreach. For 2020-21 school year, the Tahoe-Truckee High School’s combined Envirolution Club (facilitated by SWEP staff advisors) has created an on-line, community participation portal via Instagram at <https://www.youtube.com/watch?v=nwFeMZfvPE0>.

There was a fantastic opportunity in 2020-21 when the students worked directly with Raley’s management on their sustainability measures, providing a youth feedback perspective.

Education Program Tasks Listed in Grant Proposal	Update
Create curriculum and education programs to teach local students about NPS plastic pollution	Throughout April & May 2021, SWEP Green Teams & EcoAction Club students focused weekly club meetings on creating zero waste initiatives to address plastic pollution in their homes, schools and community.
	SWEP Sustainability Club students hosted Earth Day Trashion Show Parade to share student advocacy surrounding plastic pollution and single-use plastic reduction.
	SWEP Envirolution Club’s Climate Action Committee created a series of Earth Week mini-lessons that were shared with K-8 TTUSD classroom teachers. Mini-lesson topics included education and outreach about the harmful impacts of single-use plastics and shared information on plastic-free alternatives.

Partner with SWEP's "Envirolution Club" and "Green Teams"	Done with great success! See this recent article: https://www.tahoedailytribune.com/news/tahoe-students-address-plastic-problem-inspire-change-in-raleys/
Work with students to conduct outreach to local stores	Students conducted site surveys at local stores offering plastic reduction suggestions. Working with Raley's staff/executive team on recommendations. https://www.youtube.com/watch?v=O7SOMQKRPwM
Students conduct shopper surveys to determine why individuals are choosing single-use plastics and to promote alternatives	Unable to conduct shopper surveys in person.* Conducted Google survey instead. Compiled results here: https://docs.google.com/document/d/15-ThpM3czHS1-a11bavSyk2uA3UrAttP4S9P-3Uj1o/edit?q=plastics+survey
Students work directly with local businesses to reduce the consumption and purchase of single-use plastics in our community	<p>Amazing student presentation to Raley's Executive Team with CEO making commitments on Earth Day (see article link above) .See this recent article: https://www.tahoedailytribune.com/news/tahoe-students-address-plastic-problem-inspire-change-in-raleys/</p> <p>The students presented their findings to the Raley's executive team on April 22, 2021 and highlighted three areas for improvement: plastic water bottles, plastic grocery bags, and plastic sleds and toys that break apart easily. Other suggestions the team made included moving away from distribution of straws, plastic to-go ware, and plastic souvenirs.</p> <p>Inspired by the presentation, Raley's President and CEO Keith Knopf said, "We appreciate the students' hard work and dedication to reduce microplastics and their thoughtful solutions for Raley's to consider." He continued, "We commit to several changes: eliminating plastic straws by switching to paper and reusable options and eliminating single use plastic silverware." Knopf also said his team would look into an email receipt system, consider implementing a refill station in the plastic water bottle aisle, and explore options to reduce plastic grocery bag use—perhaps by offering reusable totes for their loyalty members. They will also look into alternatives to plastic sleds, toys, and souvenirs.</p>

*While we were able to complete the majority of these tasks virtually, because of COVID restrictions, we were unable to have students conduct the in-person shopper surveys. In the original grant proposal, they worked on microplastics and plastic reduction and wanted to discuss alternative uses of those funds. This was conducted online instead, and the student involvement with Raley's management became their focus. We have discussed converting the "student stipend" conversion to "student project swag" and are proceeding on that route. Sustainable hoodies with Drink Tahoe Tap logo were ordered and distributed to the students after obtaining permission from NDEP for this modification.

SWEP / Envirolution / Sustainability Club Activities:

SWEP staff worked with high school students from Truckee and North Tahoe High School's Envirolution Club to establish a subcommittee of students to specifically address the issue of plastic & microplastic pollution. The "Plastics" subcommittee engaged in the following activities between October 2020 and December 2020:

- Bi-weekly "plastics" subcommittee club meetings allowed students to collaborate to build background knowledge on the issue of plastic & microplastic pollution as well as opportunities to collaborate to design solutions to address this issue.
 - Guest experts from Tahoe Environmental Research Center (TERC) were brought in to share current research and data of plastic pollution in Lake Tahoe.
 - Students worked with the TERC team to identify potential sources of pollution and designed a plan to address plastics pollution at the source. Specifically, students decided to work with local businesses to promote the use and sale of reusables to replace single-use plastics.
 - Students developed a survey and strategy for collecting data from local businesses to better understand what plastics are being used and why.
 - Students began collecting data at local Raley's stores. However, stay-at-home orders as a result of COVID pandemic caused many students to postpone their data collection.
- At Bi-weekly Envirolution Club meetings, plastics subcommittee members shared results of subcommittee meetings so that the whole club is informed on issues of plastic & microplastic pollution.
 - Guest presenters from TERC & Raley's Sustainability team presented to the Envirolution Club in January 2021 to share how they are collaborating to reduce single-use plastics at a local and regional level.

Additionally, other Envirolution subcommittee groups created and shared education & outreach messages to encourage the community to take action to combat the plastic & microplastic pollution crisis. These subcommittees created the following education & outreach messages between October 2020 and December 2020:

- Trashion subcommittee worked to create a virtual adaptation of their Trashion Show Assembly in the form of "Trashion Reels" that are shared through social media. Examples of Trashion Reels are linked below:
 - [Trashion Reel "Lean Back on Plastics"](#)
 - [Trashion Reel: "Plastic: Go Out with a Bang"](#)
- Zero Waste Subcommittee created infographics and short videos to encourage the Tahoe-Truckee community to reduce excess waste created during the holidays. An example of their plastic focused outreach is linked here. [Plastic Free Holiday Infographic](#) This and other resources were shared through SWEP email marketing and & social media platforms as well as through club social media.

SWEP administrators collaborated with partners at Tahoe Environmental Research Center and Tahoe Water Suppliers to ensure that the Pilot Project to Reduce Single Use Plastics is on track despite challenges presented by COVID.

Students from environmental clubs at four high schools in the Tahoe region partnered with TERC and local nonprofits to learn about plastic pollution and how they can help Take Care of Lake Tahoe. On Earth Day 2021, their efforts came to fruition when the CEO of Raley's agreed to create lasting, sustainable changes at their grocery stores in the Basin. When the initiative began in 2019, TERC

Education Programs Associate Elise Matera and staff members at Sierra Watershed Education Partnerships (SWEP) and the Tahoe Water Suppliers Association (TWSA) educated students from North Tahoe, Truckee, Incline, and South Tahoe High Schools about the challenge of microplastics at Lake Tahoe.

The North Tahoe and Truckee Envirolution Club members were inspired to make a difference and formed a plastics subcommittee to assess which of these problems could be solved. The students surveyed their local Raley's stores to come up with ways in which plastic waste could be reduced. The group also toured the Truckee Raley's O-N-E Market and developed a four-part action plan for Raley's executive team to consider how they could reduce plastic waste locally.

The students presented their findings to the Raley's executive team on April 22, 2021, and highlighted three areas for improvement: plastic water bottles, plastic grocery bags, and plastic sleds and toys that break apart easily. Other suggestions the team made included moving away from distribution of straws, plastic to-go ware, and plastic souvenirs.

Inspired by the presentation, Raley's President and CEO Keith Knopf said, "We appreciate the students' hard work and dedication to reduce microplastics and their thoughtful solutions for Raley's to consider." He continued, "We commit to several changes: eliminating plastic straws by switching to paper and reusable options and eliminating single use plastic silverware." Knopf also said his team would look into an email receipt system, consider implementing a refill station in the plastic water bottle aisle, and explore options to reduce plastic grocery bag use—perhaps by offering reusable totes for their loyalty members. They will also look into alternatives to plastic sleds, toys, and souvenirs. "We appreciate the work Raley's has done to implement sustainability initiatives in their stores and business model," said Envirolution Club Co-President Ben Anderson. "We are grateful to have the opportunity to work with them now and in the future."

The Envirolution Club plastic reduction project won second place in the local Shane McConkey EcoChallenge which "challenges kids to identify and help resolve an eco issue in their school or community." <https://www.facebook.com/shanemcconkeyecochallenge/>

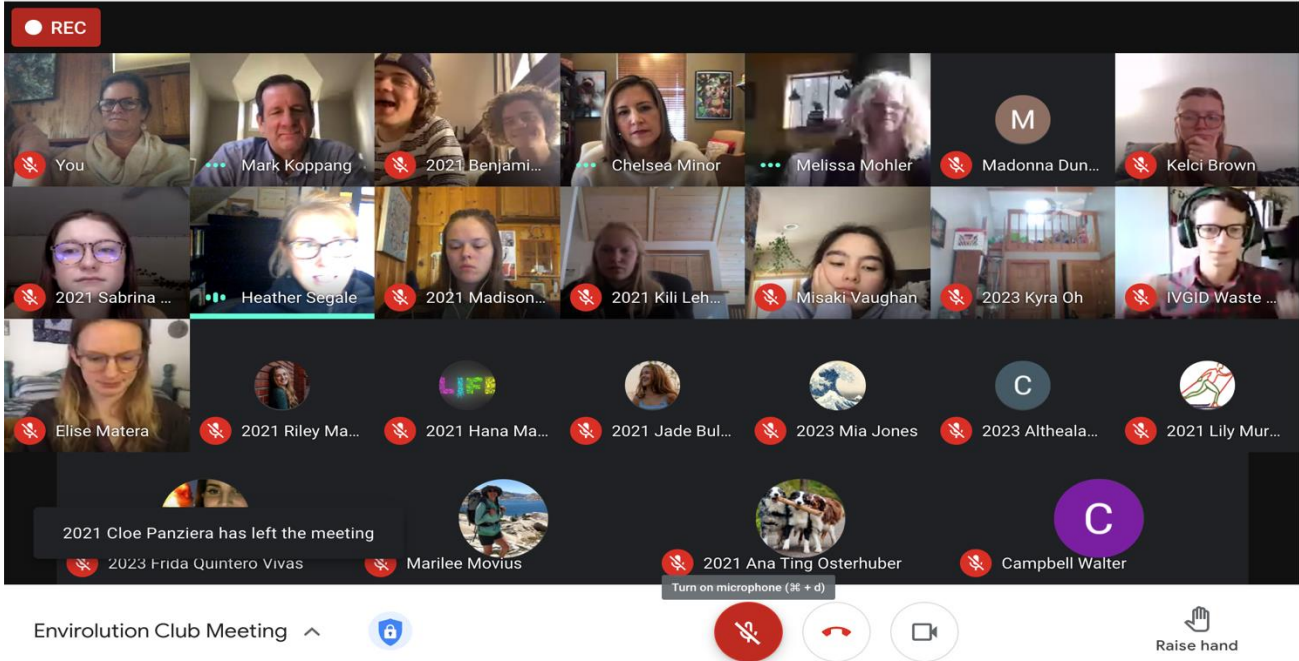
You can watch the condensed version of the Envirolution student presentation to the Raley's team as well as other project-related activities (curriculum, microplastics exhibit, Raley's site visit, etc.) Here is the Tahoe's Plastic Problem YouTube Playlist:

https://www.youtube.com/watch?v=IFnaHfUfvYg&list=PLa3BRSexOpXzUzFo6wgmUj4oVYrCr_P4V

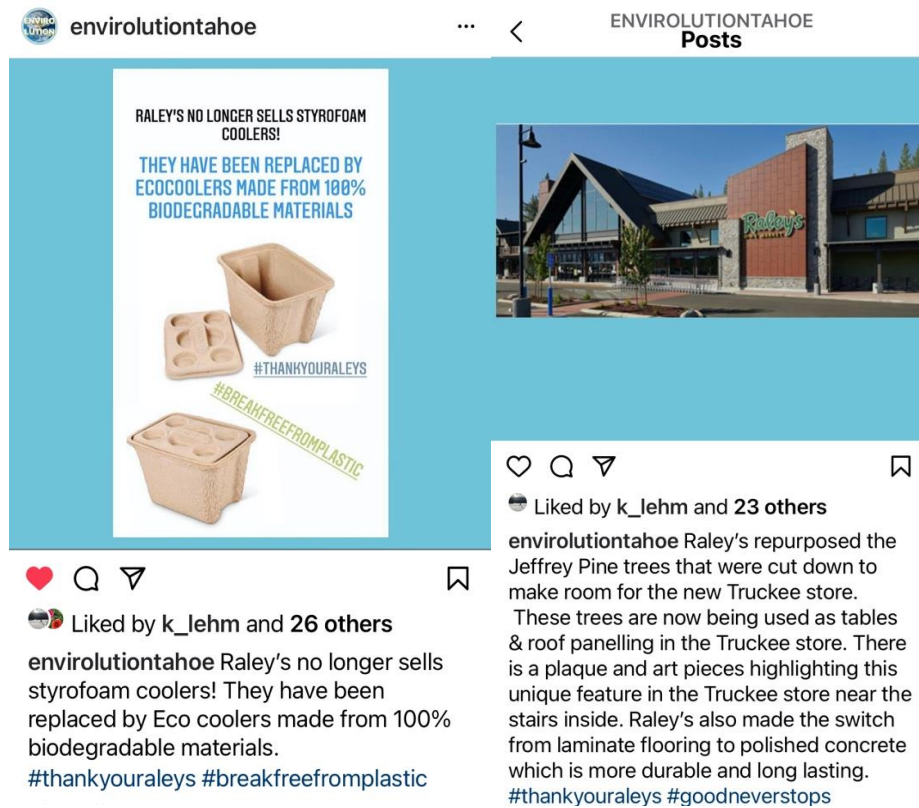
The press release for the Envirolution project is online:

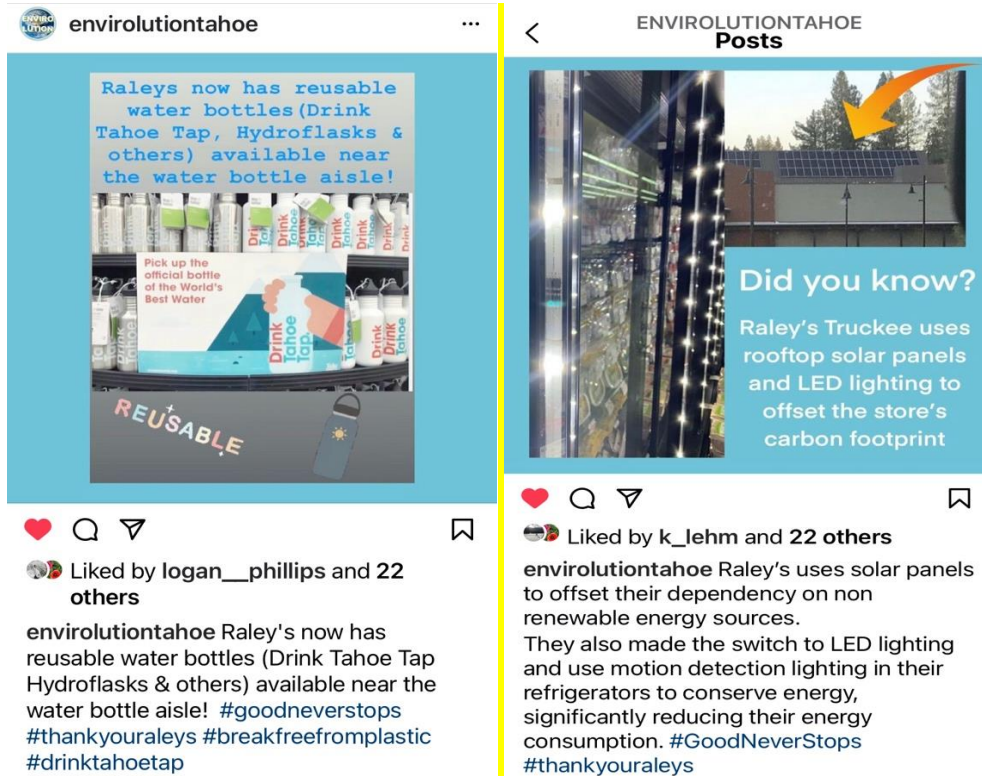
- <https://takecaretahoe.org/success-stories/students-make-strides-in-effort-to-reduce-local-plastic-pollution/>

- <https://www.tahodailytribune.com/news/tahoe-students-address-plastic-problem-inspire-change-in-raleys/>



Screenshot from the Enviolution Club presentation to the Raley's Executive team on April 22, 2021.





Social media outreach by high schoolers in Envirolution Club @envirolutiontahoe on #ThankYouRaley campaign.

In addition to supporting our Envirolution Club, Plastics Subcommittee students with their work on the Raley's project, SWEP also completed the following enhanced education and outreach with local students to address plastic pollution:

SWEP Green Team & Eco Action Club Zero Waste/Plastic Reduction Initiatives:

Throughout April & May SWEP's Green Team and EcoAction Club students worked to implement zero waste and plastic reduction initiatives in their homes, school & community. As part of this project students learned about the problem of plastics including: lifecycle, biodegradability, recyclability, pollution impacts on human health and the environment, and more. Students created art and upcycling projects to raise awareness and educate their peers and school community about the problem with plastics. Additionally, students shared weekly outreach messages that were broadcast to the entire school community, published on school and SWEP websites and featured on social media. Examples of "Sustainability Club: Tip of the Week" outreach videos related to plastics are linked below:

[Tip of Week-Plastics #1](#)

[Tip of the Week-Plastics #2](#)

[Tip of the Week-Plastics #3](#)

SWEP Earth Day Trashion Parade: SWEP Sustainability Club students created and hosted a Trashion Parade on Earth Day to replace our annual Earth Day Trashion Show at the Tahoe Truckee Earth Day Festival that was cancelled due to COVID safety restrictions. Students from SWEP Envirolution Clubs, Eco Action Clubs & Green Teams came together for a community event that showcased students advocating for climate action, waste reduction, water and energy conservation and an end to plastic pollution. Linked here is a [folder of photos from the Earth Day Trashion Show Parade](#).

SWEP Earth Week Mini Lessons: SWEP Envirolution Club’s Climate Action Committee created a series of Earth Week mini-lessons that were shared with K-8 TTUSD classroom teachers. Mini-lesson topics included education and outreach about the harmful impacts of single-use plastics and shared information on plastic-free alternatives.

More on SWEP’s student Earth Day advocacy can be found on our [2021 Earth Day Blog](#).

SWEP hosted Junior Explorers summer camps based in North Tahoe for children ages 6-12 years old. Weekly summer camp activities included watershed clean-ups, as well as microplastic beach surveys. Students evaluated results of beach surveys to understand the impacts of human activity on watershed health.

SWEP also worked with graduating seniors to wrap-up the Envirolution Microplastics Outreach Project (EMOP) for the quarter. Students who showed great professionalism in their preparation and efforts with EMOP received DRINK TAHOE TAP custom RPET recycled hoodies. 33 hoodies were distributed to project participants.

SWEP also worked with 10 different elementary school classes to host “watershed warrior” service learning projects. Students learned about the Lake Tahoe Basin Watershed and the environmental issues impacting the watershed and then took action to protect the watershed through clean-up events and storm drain monitoring. Students identified microplastic pollution as a significant concern to watershed health and brainstormed solutions to reduce the negative impacts of plastics on the environment.

Cumulative Record of Student Interactions

Record of Student Lessons and General Outreach 2020-21

December 4th, 2019	“Crafternoon” with Truckee High & North Tahoe High School Envirolution Club Students	55 students	2.5 hours	Envirolution Club students from Truckee High School & North Tahoe High School hosted a workshop to create Trashion outfits using plastics (water bottles) and microplastics (collected from beach clean-up service projects) to be featured in upcoming Trashion Show Assemblies at local elementary schools. Students learned more about the issue of plastic pollution and presence of microplastics in our region.
December 17, 2019	Envirolution Club “MicroPlastics” Trashion Show at Tahoe Lake Elementary School & Kings Beach Elementary School	627 students	4.25 hours	Envirolution Club students from Truckee High School & North Tahoe High School presented their “Trashion Show” assembly to K-4 students at two local elementary schools. Outreach messages related to plastic pollution and microplastics were emphasized throughout the show.

Ongoing weekly club meetings from November 2019 - March 2020	<p>Green Teams: Kings Beach Elementary, Tahoe Lake Elementary School, Truckee Elementary School, Glenshire Elementary School & Sierra Expeditionary Learning School</p> <p>Eco-Action Clubs: North Tahoe School and Alder Creek Middle School</p> <p>Envirovolution Clubs: Truckee High School & North Tahoe High School</p>	213 students	1 hour/week (+ occasional additional hours outside of regular club hours)	Green Teams (elementary), Eco Action Clubs (middle school) and Envirovolution Clubs (high school) sustainability clubs meet weekly at each school site. Club members work together to address environmental challenges on their school campus or within their community. All clubs focus on plastic pollution and implement measures to reduce single-use plastic on their school campus and with the community. Examples include: reduction of single use cutlery in cafeterias, and reduction of single-use plastic bottles through implementation of water bottle filling stations.
December 2019- January 2020	NTHS Envirovolution Club	438 students	10 hours	<p>North Tahoe High School's Envirovolution club students created a "Say No to Single Use Bottles" campaign to encourage their school community to make the switch from single use plastic bottles to reusable water bottles. The campaign stretched over a 10 week period and included weekly video announcements with facts related to plastic pollution, A large bulletin board display in a central school meeting area with outreach and education messages related to plastic pollution and classroom presentations to build awareness. Envirovolution club also hosted a school-wide competition to encourage the use of reusable drink bottles.</p> <p>Link to one outreach video created as part of the campaign: https://drive.google.com/file/d/15-NjcyOSmhH09gUAQo7334fXHzE07LXG/view?usp=sharing</p>
January-March 2020	<p>Green Teams: Kings Beach Elementary, Tahoe Lake Elementary School, Truckee Elementary School, Glenshire Elementary School & Sierra Expeditionary Learning School</p> <p>Eco-Action Clubs: North Tahoe School and Alder Creek Middle School</p>	173	1 hour/week (+ additional workshop hours outside of regular club hours)	"Is This Your Trash?" art & advocacy project to raise awareness of plastic pollution in the Tahoe-Truckee region. Students created native animal heads using paper mache and then mounted them to cardboard frames. Each frame was decorated with litter collected from the bottom of Lake Tahoe. Students' art was combined to create artistic displays at each school site where animals appear to emerge from plastic begging for help. These art & advocacy pieces were combined with facts and data related to litter collection, sources of plastic pollution and possible solutions to eliminate the threat.

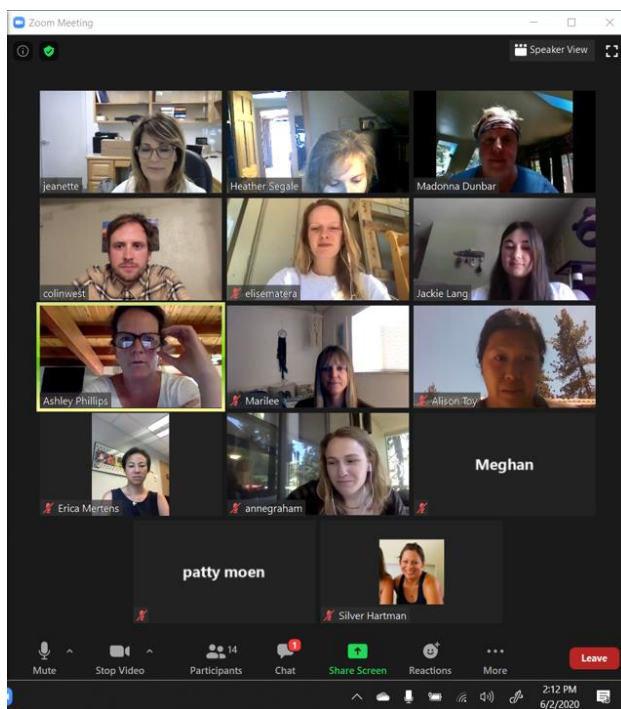
January 28, 2020	Incline High School AP Environmental Science class Session #1	16 students	2.25 hours	<p>Students sorted through recycling bags to determine the contamination rate and learned about the different plastic resin types and that not all of them can be recycled equally. (Classroom worksheet and presentation attached)</p> <p><a href="https://docs.google.com/document/d/1iU-
iohUVVFiSx4tXy5tFBiKlZpkR6KX4v4_esYUCAI/edit?usp=sharing">https://docs.google.com/document/d/1iU- iohUVVFiSx4tXy5tFBiKlZpkR6KX4v4_esYUCAI/edit?usp=sharing</p> <p><a href="https://docs.google.com/presentation/d/13r29NqCXF_4by9is
igjEaPC-UI8QjAUL9gyPua1llwc/edit?usp=sharing">https://docs.google.com/presentation/d/13r29NqCXF_4by9is igjEaPC-UI8QjAUL9gyPua1llwc/edit?usp=sharing</p>
January 28, 2020	Incline High School Roots & Shoots Club	13 students	30 minutes	Introduced the problem of single-use plastic, and explained the realities of the recycling problem
February 27, 2020	Incline High School Roots & Shoots Club	5 students	30 minutes	Water bottle survey draft one discussed, a student translated to Spanish
March 6, 2020	Incline High School AP Environmental Science class Session #2	14 students	2.25 hours	<p>Students engaged in a microplastics laboratory in which they were given samples of beach sand and used scientific protocols to isolate tiny plastic pieces and view them under the microscope. See attached curriculum plans (Microplastics Lab Manual & Presentation).</p> <p><a href="https://docs.google.com/document/d/1hX727jD6MUN0Z-
ddS8qbo9s2i1GusdAV0rbUK1XCmkA/edit?usp=sharing">https://docs.google.com/document/d/1hX727jD6MUN0Z- ddS8qbo9s2i1GusdAV0rbUK1XCmkA/edit?usp=sharing</p> <p><a href="https://drive.google.com/file/d/147fdAj-
NpWp7q5QNNFR2tMNy_ht4U7y5/view?usp=sharing">https://drive.google.com/file/d/147fdAj- NpWp7q5QNNFR2tMNy_ht4U7y5/view?usp=sharing</p>
March 12, 2020	Incline High School Roots & Shoots Club	5 students	30 minutes	second version of water bottle survey and water bottle designs discussed
March 18, 2020	Truckee High & North Tahoe High School Envirolution Club Students	55 students	1 hour	All Envirolution Club Students were given the Water Bottle Survey to complete.
March-June 2020	All TTUSD Students as well as other students from partnering schools around the Tahoe Basin	Unknown...329 views on website	3 hours	<p>Distance learning activity: "Upcycled T-Shirt" shared with students, teachers, and parents to raise awareness of the plastic pollution problem and encourage solutions. Students show how to make a reusable grocery or tote bag from a used cotton t-shirt. Facts and resources related to plastic pollution shared.</p> <p>Link to activity and resources: https://www.4swep.org/post/upcycled-t-shirt-bags</p>

March-June 2020	All TTUSD Students as well as other students from partnering schools around the Tahoe Basin	Unknown...2 26 views on website		<p>Distance learning activity: "Upcycled Milk Jug Container" shared with students, teachers, and parents to raise awareness of the plastic pollution problem and encourage solutions. Students show how to make a reusable lunch container from a plastic gallon jug. Facts and resources related to plastic pollution shared.</p> <p>Link to activity and resources: https://www.4swep.org/post/upcycled-milk-jugs</p>
March-June 2020	All TTUSD Students as well as other students from partnering schools around the Tahoe Basin	Unknown...1 63 views on website		<p>Distance learning activity: "Litter Scavenger Hunt" shared with students, teachers, and parents to raise awareness of the plastic pollution problem and encourage solutions. Students participated by conducting a litter clean-up in their neighborhood and recording their findings using SWEP's Litter Scavenger Hunt activity sheet. Facts and resources related to plastic pollution shared.</p> <p>Link to activity and resources: https://www.4swep.org/post/litter-scavenger-hunt</p>
March-June 2020	All TTUSD Students as well as other students from partnering schools around the Tahoe Basin	Unknown...7 4 views on website		<p>Distance learning activity: "Zero Waste Lunch" shared with students, teachers, and parents to raise awareness of the plastic pollution problem and encourage solutions. Students participated by conducting a lunch waste audit to understand sources of waste in their lunch and learn about zero-waste options. Facts and resources related to plastic pollution shared.</p> <p>Link to activity and resources: https://www.4swep.org/post/zero-waste-lunch</p>
March-June 2020	All TTUSD Students as well as other students from partnering schools around the Tahoe Basin	Unknown...3 3 views on website		<p>Distance learning activity: "How Long Until it's Gone" shared with students, teachers, and parents to raise awareness of the plastic pollution problem and encourage solutions. Students participated in an online quiz to learn about decomposition rates of common waste items and learn that plastic never decomposes. Facts and resources related to plastic pollution shared.</p> <p>Link to activity and resources: https://www.4swep.org/post/how-long-until-gone</p>
March-June 2020	All TTUSD Students as well as other students from partnering schools around the Tahoe Basin	Unknown...4 0 views on website		<p>Distance learning activity: "What is Plastic" shared with students, teachers, and parents to raise awareness of the plastic pollution problem and encourage solutions. Students create their own plastic from milk and learn about history, and science of plastic as well as the recyclability of differing types of plastic. Facts and resources related to plastic pollution shared.</p>

				<p>Link to activity and resources: https://www.4swep.org/post/what-is-plastic</p>
March-June 2020	All TTUSD Students as well as other students from partnering schools around the Tahoe Basin	Unknown...41 views on website		<p>Distance learning activity: "Beach Detective" shared with students, teachers, and parents to raise awareness of the plastic pollution problem and encourage solutions. Students conduct surveys of local beaches to collect data on the presence of plastics. Facts and resources related to plastic pollution shared.</p> <p>Link to activity and resources: https://www.4swep.org/post/beach-detective</p>
April 2020	Earth Day / Earth Week Program (<i>adapted for COVID-19 & distance learning</i>)	Unknown...	9 hours	<p>UC Davis and SWEP supported Earth Week programming for LTUSD & TTUSD students and the greater Tahoe community by providing distance learning activities (accessed online and performed at home or in nearby outdoor spaces). Activities emphasized litter, plastic pollution and microplastic education amongst other energy, water and resource conservation topics. Links to Earth Week Programming:</p> <p><u>SWEP Earth Week</u></p> <p><u>Take Care Campaign Earth Week</u></p>
May-June 2020	Hosted "The Story of Plastic" film screening	141 views of the movie	1.5 hours	<p>The Story of Plastic (https://www.storyofplastic.org/about) takes a sweeping look at the man-made crisis of plastic pollution and the worldwide effect it has on the health of our planet and the people who inhabit it. This film was made available to 141 viewers.</p>
June 4, 2020	The Story of Plastic Forum and Conversation About Plastic Reduction	53 live attendees at panel; 50 YouTube views	1 hour	<p>Participants briefly discussed "The Story of Plastic" movie, plastics in general, recycling in our Region, microplastic research (in general, at Lake Tahoe, and UC Davis lab analysis, and next steps to reduce plastic pollution.</p>
June 2020	The Story of Plastic Forum and Conversation About Plastic Reduction	3 students	2 hours	<p>Envirovolution Club student leaders from North Tahoe & Truckee High School participated as panelists on the The Story of Plastic Forum. Club members provided youth voice and perspective on plastic pollution issues. Club members shared information about their advocacy work and successes with their ongoing plastic-free initiatives and campaigns in their schools and communities.</p>

June 8, 2020	Beach Detectives	120 students	1 hour	<p>8th grade students from North Tahoe Middle School participated in the Beach Detective field program as part of their final distance learning project. Students were involved in conducting beach surveys to collect data on the presence of plastics at their community beaches. Through their investigation students were exposed to research on microplastics in Tahoe region, information on the problem with plastics and given opportunities and information to help be part of the solution to the plastic problem.</p> <p>Link to Beach Detective Field Program</p>
July-September 2020	Hosted "The Story of Plastic" film screening	36 views of the movie	1.5 hours	The Story of Plastic (https://www.storyofplastic.org/about) takes a sweeping look at the man-made crisis of plastic pollution and the worldwide effect it has on the health of our planet and the people who inhabit it. This film screening was extended and made available to an additional 36 viewers including our Raley's partners. A total of 177 people watched the film through our screening access in 2020.
July 20-23, 2020; July 27-30, 2020; and August 3-6, 2020	Summer Science Camp (UC Davis TERC in collaboration with IVGID Parks & Rec)	26 participants total (11 session 1, 8 session 2, and 7 session 3)	3 hours	Participants in the Summer Science Camp had 4 half-day sessions and during one of the sessions they focused on Microplastics where they went to the beach, conducted transects, sorted plastic by size class, and discussed the reasons plastics are showing up in our beach sediment and what can be done about it.
November 18, 30, and Dec. 7 2020	Envirovolution Club project planning	52 participants total (44 on 11/30, 8 on 12/7)	1 hour (30 min each)	SWEP Envirovolution Club meeting to discuss "Plastic Reduction Project"
Jan. 25, 2021	Raley's Executive Team Presentation to Envirovolution Club	36 Live Participants	30 minutes	Raley's Executive Team presents on their company's sustainability successes and goals to Envirovolution Club
February 8, 2021	Incline High School presentation	11 Participants	45 minutes	UC Davis TERC presentation to Peter Fairley's AP Environmental Science students about microplastics and plastic reduction project
February 10, 2021	South Tahoe High School presentation	30 Participants	1 hour	UC Davis TERC presentation to Rachel Friedman's Environmental Science students about microplastics and plastic reduction project

February 22, 2021	Raley's Site Visit and video recording with Envirolution students	23 Live Participants 36 YouTube views	30 minutes	Raley's executive team hosted tour of Truckee Raley's One store and showcased sustainability activities. Recorded video available HERE
October 26, 2021	Incline High School presentation	15 Participants	120 minutes	UC Davis TERC presentation to Peter Fairley's AP Environmental Science students about microplastics and plastic reduction project including a tour of the UC Davis Tahoe Science Center and an opportunity to interact with the new Microplastics exhibit



June 4, 2020: The Story of Plastic Forum and Conversation About Plastic Reduction, with 53 live attendees at panel discussion and 50 YouTube views

Student communication with shoppers during peak shopping periods to collect baseline data about shopper behavior, survey shoppers, and attempt to convince them to purchase reusable bottles

Shopper Surveys / Water Bottle Survey. Another student program component was to create partnerships between Eco-Action Teams and local businesses, which play a key role in products available to the community. Students were slated to conduct local shopper surveys to determine why individuals are choosing single-use plastics and to promote alternatives. Students could also work with local businesses to reduce the purchase and consumption of single-use plastics in our community. The TERC staff and SWEP staff engaged Tahoe-Truckee students in the past year in a variety of ways. This program component was impacted by the Covid-19 restrictions, there was an inability to conduct in person interviews with customers. Instead, the students helped develop the online survey on water purchase /

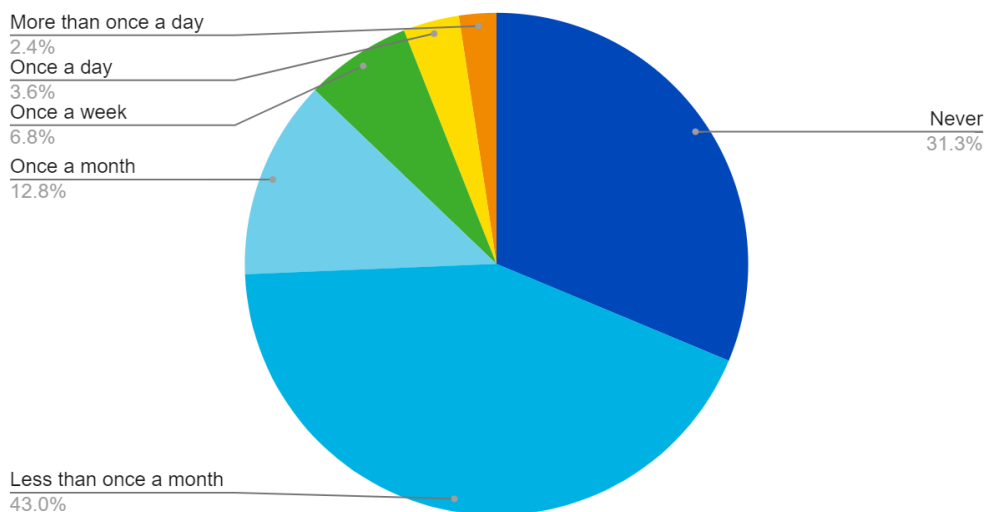
use habits; provided feedback on the water bottle and Take Care designs and copy; and created several on-line educational videos.

The team developed a [water bottle survey](#) to ask locals (currently) and visitors (in future) about their single-use water bottle usage. 830+ responses to date. Results available [here](#). Of the people surveyed, most of our audience either never use single-use (31%) or use less than once per month (43%). Only 3.7% of those surveyed indicated that they did not already own a reusable bottle. In other words, our survey audience was mostly “the choir” or already converted to reusable bottle use. However, the reason why people might choose single-use bottles included travel, convenience, or concern about the tap water. And obstacles or struggles to using reusable water bottles included forgetting, losing, travel or convenience. Most (50%) people used the metal (as Klean Kanteen) with 43% preferring medium size and 26.6% preferring large size bottles. This data was used to inform the Raley’s bottle purchase. The Survey is available at:

<https://docs.google.com/forms/d/12O3RTIDPP0VjROfU5TPX7lp42rYhCskz54Pqyk9jT9M/edit>

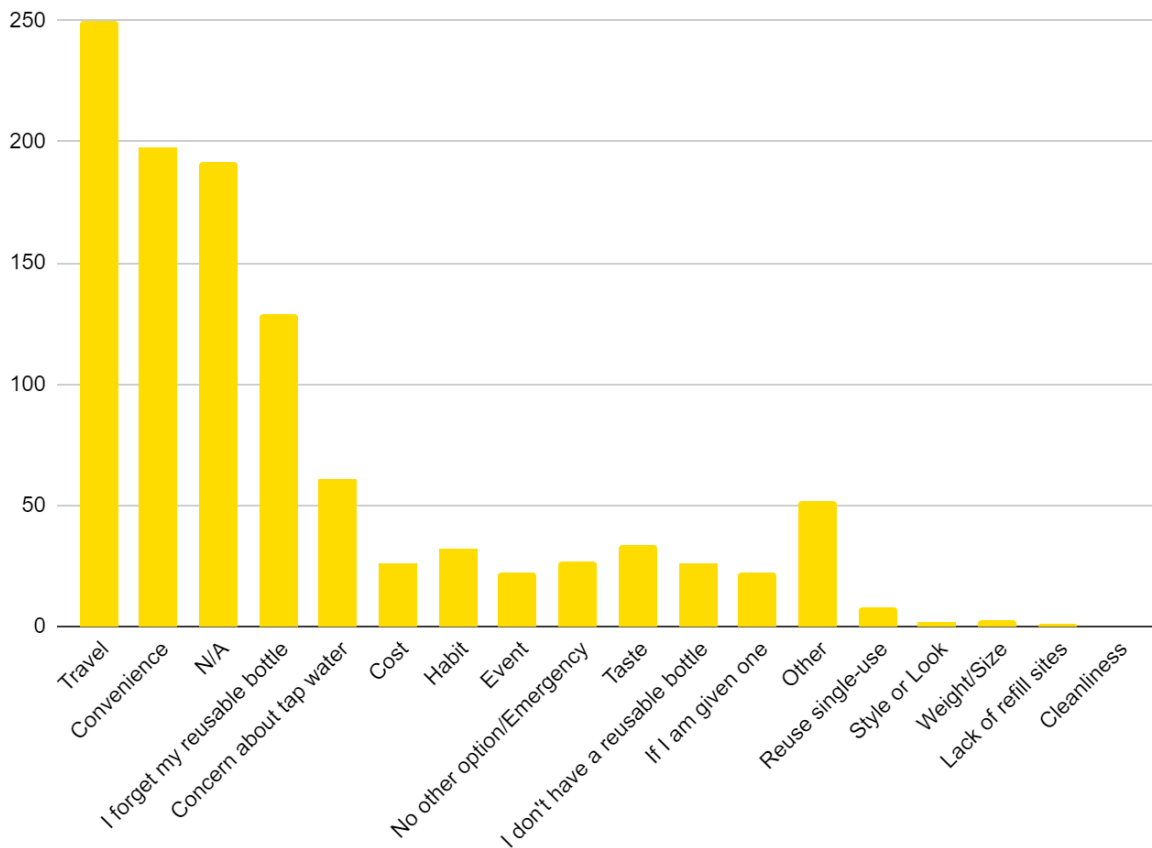
Water Bottle Use Survey Results:

How often do you use single-use plastic water bottles?



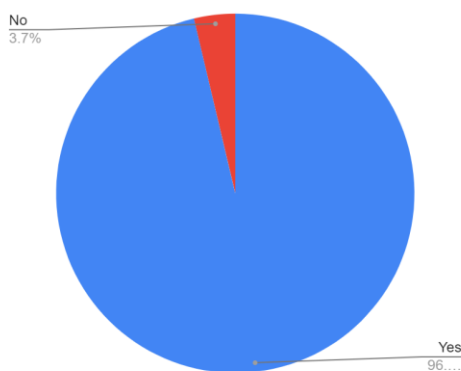
The majority of survey respondents indicated that they only used single-use plastic water bottles less than once a month (43%), Never (31.3%), or only Once a month (12.8%).

Why do you use single-use plastic water bottles?

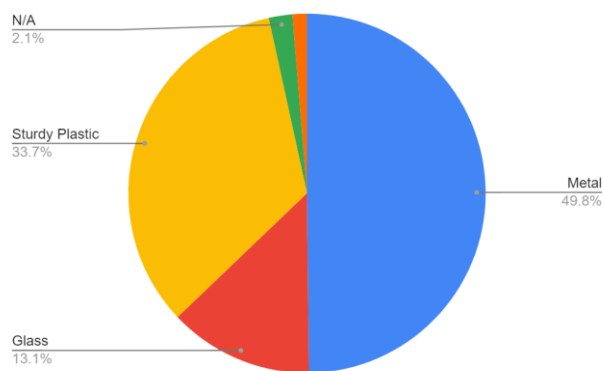


Travel, convenience, forgetting reusable bottle, and concern about tap water were the top three reasons why survey respondents indicated that they purchased single-use bottled water.

Do you own a reusable water bottle?

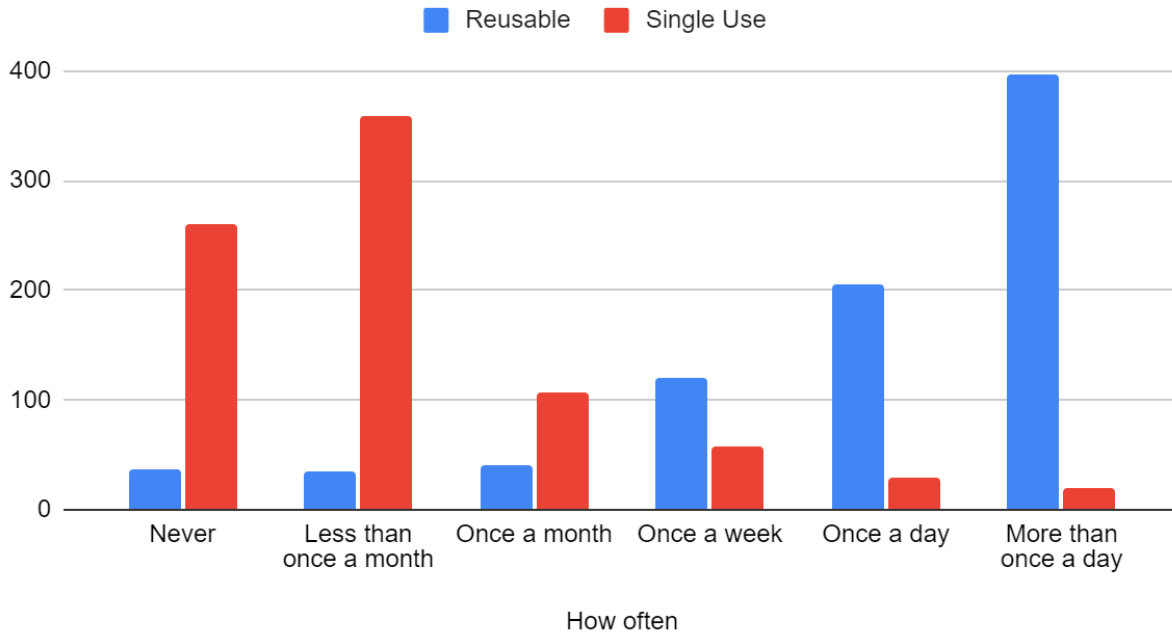


What kind of reusable bottle do you use?

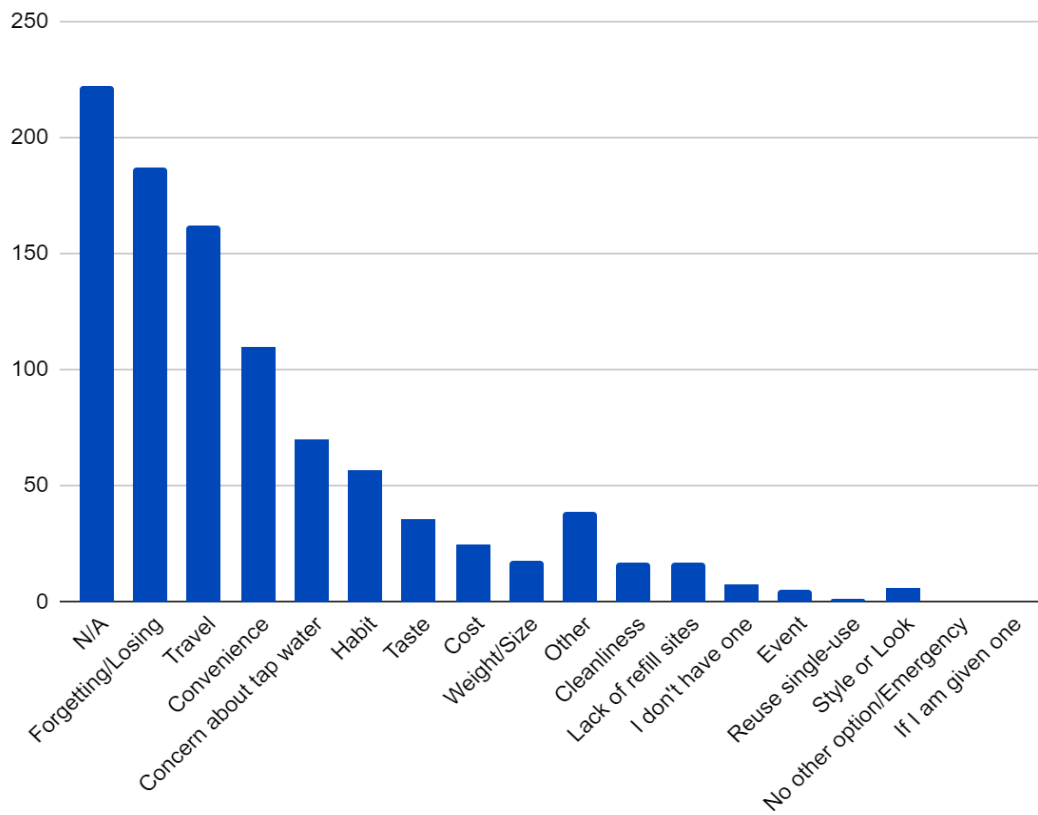


The majority of respondents indicated that they own a reusable water bottle (96.3%) and most preferred the metal (49.8%) bottles such as the Klean Kanteen chosen for this project.

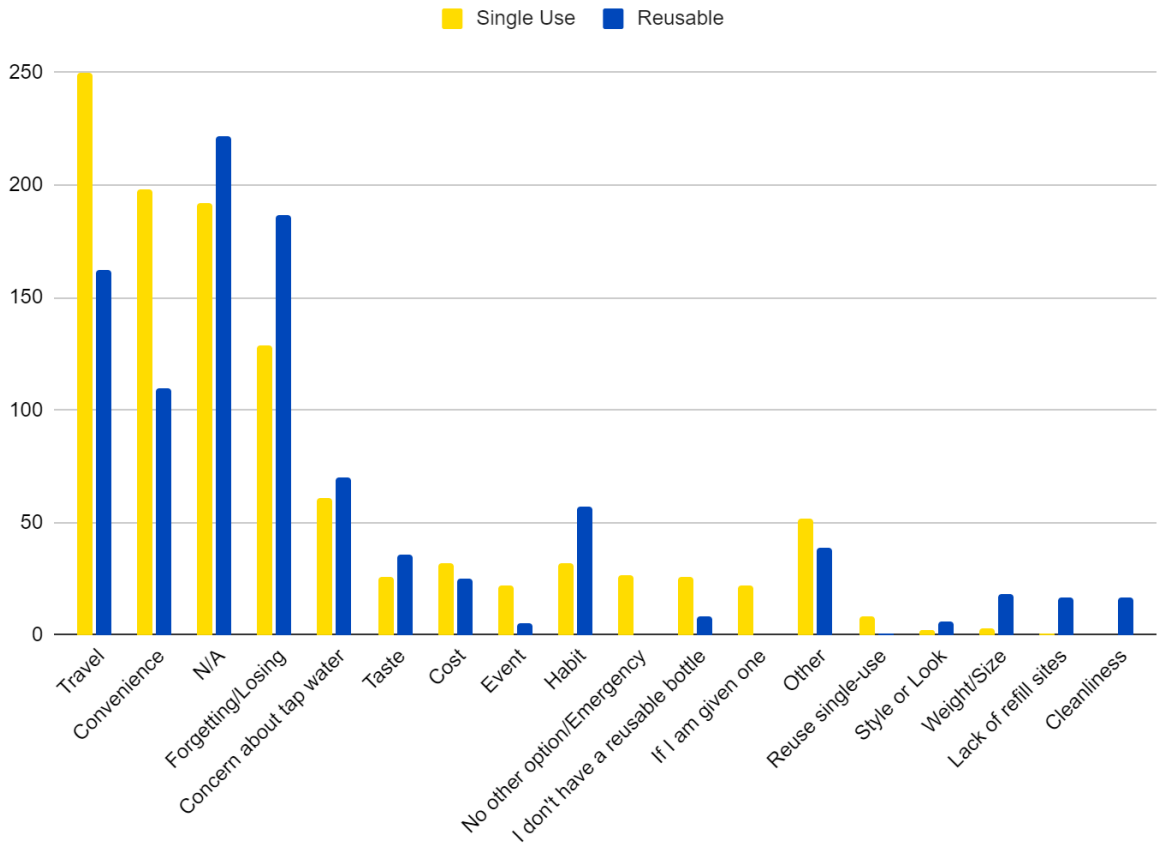
Reusable and Single Use



What are some obstacles or struggles for you when you are using reusable water bottles?



Reasons for Single-Use and Barriers to Reusable



The reasons for choosing to purchase a single-use plastic bottle and the barriers line up with travel, forgetting, convenience, and concern about tap water.