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Pack It Out Utah: USU Water Quality Extension leads Utah's Statewide Trails and Waterways Cleanup

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Pack It Out Utah: USU Water Quality Extension leads Utah's Statewide Trails and Waterways Cleanup

Cover Page Footnote

We would like to thank our partners that have made Pack It Out Utah a success. This is only possible because of dedicated and caring partners and volunteers. We would like to thank Swaner Preserve & EcoCenter, Save Our Canyons, Utah Water Watch, Friends of Great Salt Lake, The Trails Cache, Jordan River Commission, Seven Canyons Trust, Recycle Utah, Provo River Watershed Council, Cottonwood Canyons Foundation, Tracy Aviary, Fish for Garbage, Sunrise Movement – SLC, Aggie Blue Bikes, Central Wasatch Commission, City of Cottonwood Heights, Utah Department of Agriculture and Food, Tracy Aviary & Jordan River Nature Center, The Wildlife Society (USU Chapter), Alta Environmental Center, Color Country Anglers - Trout Unlimited Chapter 187, Backcountry Hunters and Anglers (USU Chapter), UServe Utah, Utah Conservation Corps, Piking Utah, Common Ground Outdoor Adventures, Friends of Alta, Green River Pact, Park City Municipal, American Fisheries Society (USU Chapter), and all individuals, families, and households who volunteered their time and effort to the cleanup events.

Pack It Out Utah: USU Water Quality Extension leads Utah's Statewide Trails and Waterways Cleanup

Lauren Houskeeper and Hope Braithwaite

Abstract

Utah's public lands have experienced a surge in outdoor recreation which has led to an increase in garbage on trails, parks, neighborhoods, and eventually, in our waterways. In response, Utah State University Water Quality Extension initiated an annual statewide cleanup to raise awareness and facilitate the proper disposal of litter. During the cleanup events in 2020 and 2021, over 11,000 pounds of trash were removed from our public lands and waterways.

Introduction

Visitation to Utah's public lands has increased over the past decade (Smith & Miller, 2020), while during the COVID-19 pandemic, that trend not only continued but surged nationwide (Outdoor Foundation, 2021). While outdoor recreation is beneficial to individuals' physical and mental health and the economy, it has led to an increase in garbage ending up on trails, parks, neighborhoods, and our waterways. National parks have documented more graffiti and litter during the coronavirus pandemic (Capron, 2020). In response, agencies have taken to their social media accounts asking followers for any information on transgressors. In Utah, the Division of Wildlife Resources requested public support on social media to help fight littering and encouraged reporting of license plate numbers and vehicle descriptions to track down offenders. Litter pollution is more than an aesthetic problem. Trash poses both physical threats (e.g., entanglement and gastrointestinal blockage for wildlife) and chemical threats (e.g., breakdown of toxic chemicals and bioaccumulation of chemicals in wildlife). When plastics break down, they can accumulate in rivers, lakes, oceans, and even in the atmosphere.

Brahney et al. (2020) estimate that in the western United States, over 1,000 tons of microplastics (or more than 123 million plastic water bottles) are deposited annually into protected lands. The problem of litter pollution is evident. Educating the public on litter pollution and its effects on natural ecosystems, human health, and public lands is only part of the solution. Finding ways to involve the public in hands-on remediation of litter pollution is an important step to creating long-term solutions and stewardship of our public lands.

Response and Target Audience

In 2020, Utah State University Water Quality Extension (USU WQE) spearheaded the creation of Utah's first statewide cleanup, Pack It Out Utah, to combat the increase in garbage due to a surge in visitation to recreational public lands. The cleanup was a week-long event encouraging people across the state of Utah to take initiative and be good stewards of our watersheds and public lands by collecting trash that would otherwise negatively impact our landscapes, waterways, wildlife, and public health. USU WQE created a webpage with information on the need for a statewide cleanup, a map with recommended clean-up and trash drop-off locations, registration, online and printable datasheets to record trash collection, safety considerations, and ways to get involved on social media. Clean-up sites were chosen in collaboration with state agencies, locally based partners, nonprofit organizations, and public suggestions. More

information about the cleanup is available at <https://extension.usu.edu/waterquality/annual-events/utahcleanuevent>.

Pack It Out Utah’s primary audience is the general public living within the state of Utah. This includes people of all ages who would like to volunteer their time to remove trash from public lands, waterways, and their communities. Participants of the cleanup were diverse, including concerned individuals, families, nonprofits, organizations and businesses, and entire neighborhoods.

Outcomes and Impact

During the COVID-19 pandemic in the fall of 2020, the cleanup was hosted virtually with participants signing up, selecting clean-up locations, and submitting data and photos online. Participants did not gather in large groups due to pandemic conditions. Individuals within the same household participated together, while small groups of more than one household were encouraged to socially distance and follow local health guidelines. Partner organizations, such as nonprofits and local governments, were instrumental in planning, providing feedback and resources, and advertising the cleanup. This event was held October 31 through November 8 of 2020. During its pilot year, Pack It Out Utah registered 352 individuals who contributed to the removal of more than 870 pounds of trash in seven (7) out of ten (10) major watersheds in Utah.

In 2021, with fewer COVID-19 restrictions and the ability to safely hold outdoor events, USU WQE and partner organizations were able to safely host local clean-up events for volunteers. People could also register and participate on their own or in small independent groups. There were 12 local clean-up events throughout the week of September 11 through 19 of 2021. The local events played a significant role in the increase of participation and garbage cleaned up. In 2021, Pack It Out Utah registered over 570 participants who removed more than 10,730 pounds of trash in seven (7) out of ten (10) major watersheds in Utah. Figure 1 shows the impact of Pack It Out Utah in 2021.

Figure 1: The Overall Impact of Pack It Out Utah in 2020 and 2021



To date, Pack It Out Utah volunteers have removed more than 11,000 pounds of trash from Utah's public lands and waterways. In 2021, their volunteer hours were valued at \$42,924 with 1,504 hours based a volunteer hourly rate of \$28.54 (Independent Sector, 2021). In addition, 100% ($n = 15$) of partners indicated an intention to participate in Pack It Out Utah in 2022.

Public Value and Next Steps

The Pack It Out Utah cleanup has been well-received by state, local, and nonprofit partners. The increase in participation in 2021 compared to 2020 provides an indication of residents' perceptions toward the benefit of the event as they continue to volunteer their time and energy on the cleanup. With an increase in participation and total trash removal in 2021, it appears individuals are more willing to participate in the cleanup through in-person events compared to virtual events.

Pack It Out Utah partners indicated that USU WQE resources and assistance were well-prepared and helpful. All partners indicated they would recommend to their friends and colleagues to form a partnership with USU WQE. Our current partners also indicated they plan on participating in the upcoming 2022 cleanup. Fourteen (14) out of 15 partners said that the week-long event length is appropriate, while one stated it is too short. Feedback on what worked well consistently indicated that the marketing and social media resources were well-prepared and easy to use and share on partner platforms. Feedback also consistently commended the option for participants to join the cleanup in multiple ways, including choosing sites from the location map or participating in a local event, as well as the efforts made to host events across the state. Suggestions for improvement included creating information toolkits for city councils and governments to organize and raise awareness for cleanups in their cities, as well as planning more localized events in the future. Also suggested was starting the event planning process earlier in the year to allow more time for partners to join and organize local events.

The largest challenge is trash disposal at different locations. Due to the statewide nature of Pack It Out Utah, organizing appropriate disposal methods for different individuals and events is a complicated task. The Pack It Out Utah team aims to overcome this challenge by forming relevant partnerships and acquiring additional funding to provide dumpsters during events. Another area for improvement is communication and coordination with federal land agencies to collaborate on approved sites for clean-up efforts since some site locations require agency approval. An increased effort to inform local and state news outlets to spread awareness of the event will be prioritized in upcoming years. Additionally, USU WQE plans to expand Pack It Out Utah's reach to include more southern and central Utah partners and locations and to increase the number of in-person cleanup events.

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