

SALT LAKE COUNTY STORMWATER COALITION

2021-2022 ANNUAL
REPORT



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1. EXECUTIVE SUMMARY

The purpose of the Salt Lake County (SLCo) Stormwater Coalition Annual Report is to communicate required information and details regarding the status of compliance of permit conditions, as well as to provide a review of Coalition programs, activities, and functions within the Jordan Valley MS4 UPDES permits working toward the achievement of measurable goals for Minimum Control Measures 1) public education and outreach, and 2) public participation and involvement. This report covers the period of July 1, 2021 to June 30, 2022.

The Stormwater Coalition was established in 1994. This cohesive group works together with a specific set of objectives to coordinate and combine resources to expand the reach of the municipalities/entities to support MS4's in meeting requirements. Stormwater Coalition members contribute to and engage in implementation of evidence-based methods (such as Best Management Practices), outreach practices, shared financial resources, and ideas to address common/shared problems. The Stormwater Coalition engages in partnerships that require stakeholders to adopt specific practices in their work together to accomplish a common purpose. The Coalition has 21 stakeholder municipalities and entities located within the Jordan River Watershed.

2021-22 SLCo Stormwater Coalition Roster

The Stormwater Coalition is composed of 21 stakeholder municipalities and entities located within the Jordan River Watershed. The group is represented by:

- Salt Lake County Public Works Engineering and Flood Control- Robert Thompson, Joshua Mikel, Greta Hamilton***
- Bluffdale- Addison Mitton, Michael Fazio***
- Cottonwood Heights- Michael Mirabella***
- Draper- Lucas Fowler***
- Herriman- Jonathan Bowers***
- Holladay- Jared Bunch, Gina Chamness***
- Midvale- David Clark***
- Millcreek- Aaron Roberts, Dan Drumiler, DeeJay Allen***
- Murray- Lynn Potter, Josh Hill***
- Riverton- Tom Beesley***
- Salt Lake City- Greg Archultea, Shaunna Mills, Matthew Hendrix***
- Sandy- Dawn Barbee***
- South Jordan- Carl Schweizer***
- South Salt Lake- Dennis Pay, Corby Talbot***
- Taylorsville- Ben White, Deven Higgins***
- West Jordan- Richard Ramirez***
- West Valley City- Dan Johnson, Hilary Venable***
- Utah Department of Transportation (UDOT)- Stephanie McGinnis***
- Greater Salt Lake Municipal Services District- Mike George, Tiffany Bork, Brianna Ariotti***
- Salt Lake County Health Department- Jessica Antezano, Paul Crosbie, Dan Moore, Taylor Francis***

Salt Lake County Public Works Flood Control Engineering is the Administrator and Coordinator of the shared UPDES Countywide MS4 permit education, outreach, participation, and involvement (PIE). The Stormwater Coalition is the main entity in convening, combining assets, and creating/developing initiatives, which are crucial for compliance with the MS4 permits.

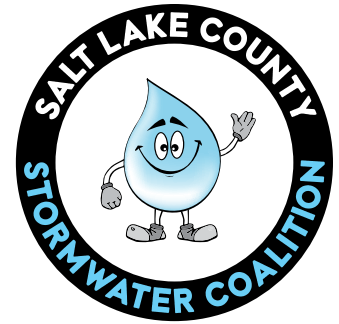
The primary goals of the Stormwater Coalition:

- Increase awareness regarding the significance of nonpoint source stormwater pollution
- Raise public consciousness about keeping stormwater pollutants such as sediments, oil and greases, surfactants, fertilizers, pet waste, industry byproducts, and other contaminants from entering the storm drain system through polluted runoff that discharges untreated to water bodies throughout Salt Lake County and the State of Utah
- Support MS4s in their efforts to affect positive behavior changes among specific audiences in specific neighborhoods and communities where waterways or stream segments are impaired
- Align efforts with and meet requirements for Minimum Control Measures 1) public education and outreach, and 2) public participation and involvement within the Utah General Stormwater Permit Jordan Valley Co-Permit UTS 000001, issued February 26, 2020.



Coalition Branding and Messaging

As a hallmark of its branding, the Coalition's spokes-character, Droplet, acts as the logo and icon of SLCo stormwater pollution prevention messaging along with the slogan "We All Live Downstream" and hashtags #WeAllLiveDownstream, #Stormwater, #ScoopThePoop, #KeepTheWaterMoving, #DontTrashOurStormwater, #DoALittleHelpALot #Drought, #WaterQuality, etc. pertaining to a specific message or BMP which is the subject of a specific campaign, directed to a specific audience or behavior in order to maintain SLCo Stormwater Coalition recognition and identity over the reporting period and throughout its outreach, education, engagement and messaging efforts, which include:



STORMWATERCOALITION.ORG

- Implementation of non-technical information programs and messaging to educate the public including residents, homeowners, and businesses about aspects of stormwater pollution and its abatement and control in simple, easy to understand language, including actions that are "doable" for the average SLCo resident.
- Development of and/or providing resources to SLCo municipalities to support implementation of technical education programs for residents, institutions, industrial and commercial facilities, developers, and contractors and MS4-owned or operated facilities on the water quality aspects of stormwater runoff and methods for improvement.
- Development of and/or providing resources for SLCo municipalities to support implementation of training programs for public sector personnel for the protection of stormwater quality.
- Development and/or production of materials and events to engage and educate teachers and students, such as the development of a Stormwater Curriculum aligned to the Utah Core Education Standards and specific to the Upper Jordan River Watershed and delivery of an annual Virtual Water Quality Fair and Water Science and Engineering Competition for 6, 7, and 8th graders in SL County
- Outreach and engagement through social media platforms, including the Stormwater Coalition website, Facebook, Twitter, Instagram, YouTube, and a Podcast.
- Development of and/or providing resources to SLCo municipalities to support distribution of guidance documents and other items that promote best stormwater management practices for residents and businesses.
- Development of and/or providing resources to SLCo municipalities to support presentations and/or activities to various community and civic events, including community leaders.
- Delivery of Public Service Ads/Television Commercials.
- BMP messaging on Bus banners.
- Engagement of municipal stormwater representatives in monthly stormwater coalition meetings.
- Supporting efforts of the Salt Lake County Health Department and municipal follow up on Illicit Discharge Detection and Elimination (IDDE) and supporting collection and disposal efforts of entities that collect Household Hazardous Waste, Recycling and Used Oil.
- Recognition that stormwater public information, outreach and education does not happen in a vacuum. Stormwater initiatives must integrate and incorporate overlapping/dominating environmental, health and social conditions.
- Participation in activities other than those named above, that are aligned with the intent and goals of Salt Lake County and Stormwater Coalition members in complying with the UPDES Stormwater Discharge permits.



Through approaches described above, the Salt Lake County Stormwater Coalition will continue to make strides in reaching its prescribed target audiences and the general public with critical stormwater quality and pollution prevention messages. The Coalition will persist in expanding its engagement and outreach along with execution of its strategy to educate the students and residents of Salt Lake County.

Through delivery of non-technical information initiatives; training programs; coalition website and other social media platforms; traditional media and nontraditional media messaging; production/distribution of regulatory and guidance documents; distribution of information and promotional products that enhance the coalition's purpose and messaging; engagement of teachers and students; and continuous improvements in coalition function and efficacy, the Salt Lake County Stormwater Coalition will continue to meet the Jordan Valley MS4 UPDES permits requirements.



**SALT LAKE COUNTY
STORMWATER COALITION**
**WE ALL LIVE
DOWNSTREAM**
www.stormwatercoalition.org



2. STORMWATER EDUCATION AND INFORMATION PROMOTION IN EXTREME DROUGHT CONDITIONS

In response to drought conditions in Salt Lake County, the Stormwater Coalition is incorporating elements in its messaging to include water conservation and enhanced personal responsibility as the drought relates to stormwater.

Key messages include:

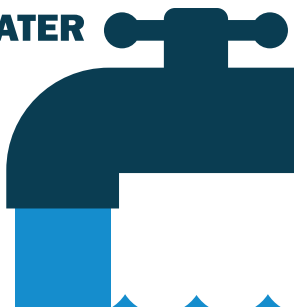
- 1) The current drought, which began in 2000, is extreme and causes problems for both the quantity and quality of water, requiring action on the part of everyone to minimize consequences.
- 2) Practices that slow and divert stormwater into permeable surfaces and installing green infrastructure features, such as rain gardens and green park strips can help replenish local groundwater reserves and can keep trees and underground aquifers vital. Infiltration-based practices near buildings can allow rainwater to slowly soak into the ground as it would in a natural setting.
- 3) The drought, when combined with the ever-growing population of Salt Lake County, has an even greater impact on stormwater, and in fact, on every aspect of our lives.
- 4) Just as with other stormwater BMP's, it is possible to adopt behaviors that, if adopted by most people, can improve our water supply and our water quality.





By incorporating drought conditions into stormwater messaging SLCo residents can better understand and take appropriate action when there are periods of little or no precipitation. During such periods, pollutants that are not picked up or cleaned up remain on the ground until the next storm comes along that is strong enough to carry them down the gutters and into storm drains. The longer the period between storms (if pollutants are distributed at a similar rate/frequency) the more concentrated the pollutants become. Even if the pollutants break down and even if you cannot see them, such as pet waste, the harmful elements of the pollutant are still there, waiting for the next storm to wash them into the storm drains.

To make matters worse, SLCo is becoming more and more crowded with housing developments and other urban

SIMPLE WAYS TO SAVE WATER IN YOUR HOME

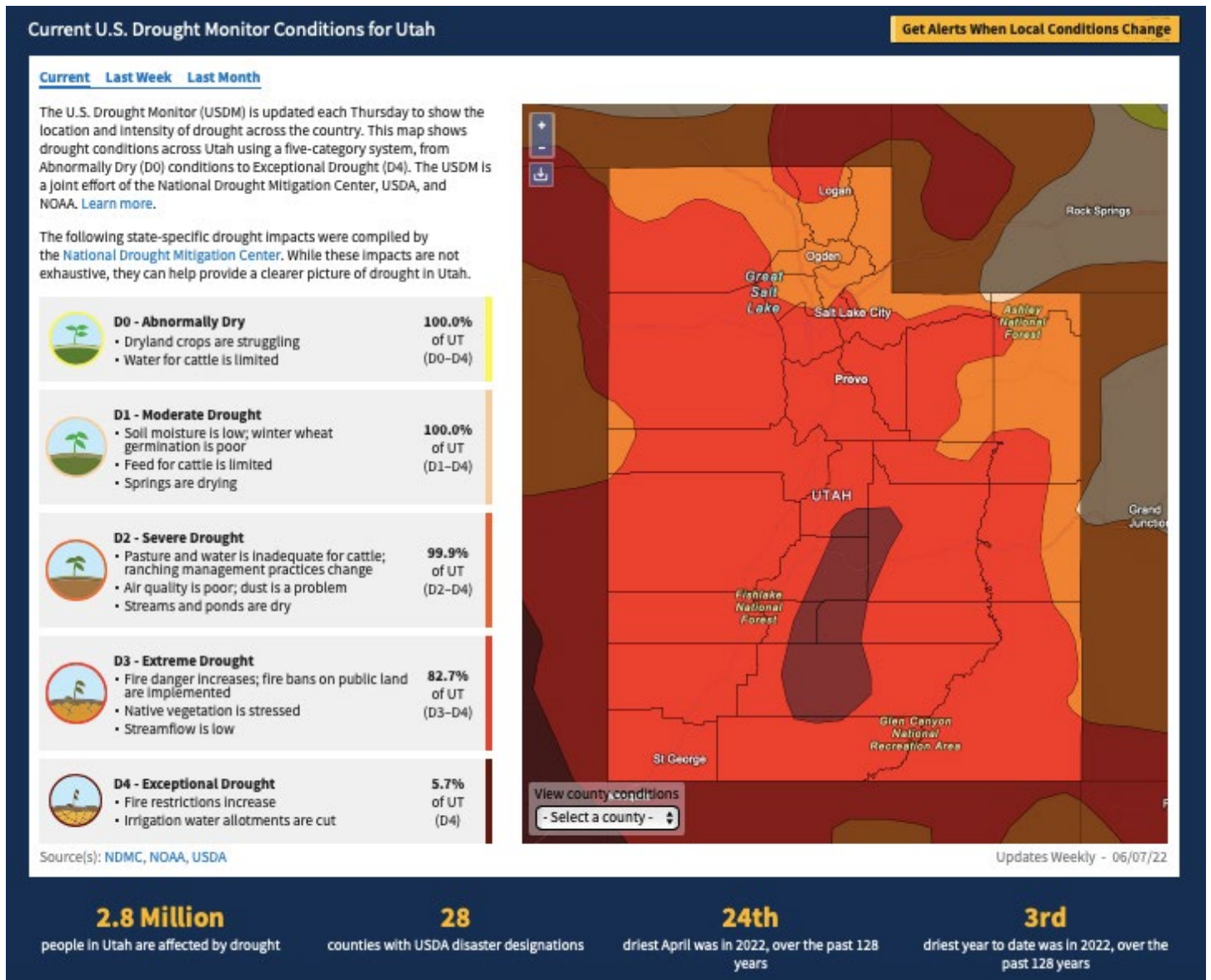
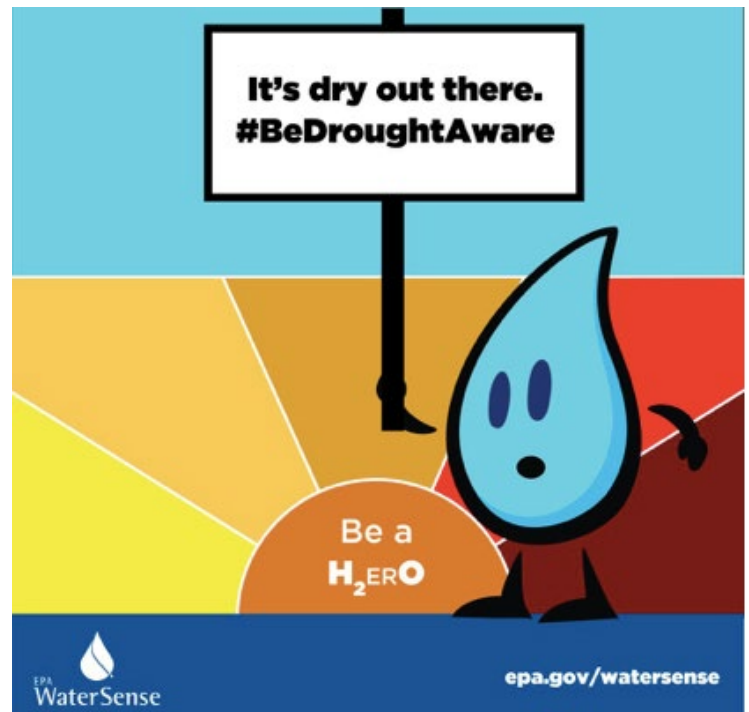
It's easy to save water around the house, and if we make a habit of conserving water here and there, it really adds up! Using water efficiently will help ensure reliable water supplies today and for future generations. Best of all, everyone can play their part in preserving our water resources. With the simple steps and informational tools below, you'll find that it's easier than ever.



<p>BRUSHING YOUR TEETH</p>  <p>5,700</p> <p>Turning off the tap while brushing your teeth can save 8 gallons of water and, while shaving, can save 10 gallons of water. Assuming you brush your teeth twice daily and shave 5 times per week, you could save about 5,700 gallons per year!</p>	<p>By replacing old, inefficient toilets with newer water-saving models, the average family can reduce water used for toilets by 20 to 60 percent—that's nearly 13,000 gallons of water savings for your home every year!</p> <p>20-60% INSTALL A FLUSH TOILET</p> 	<p>WASHING MACHINE</p>  <p>1,600</p> <p>Eliminating one load of laundry per week by washing only full loads can save the average family more than 1,600 gallons of water per year.</p>	<p>You save up to 5 gallons a minute when you use a watering can to water your plants. This precise method also limits weed growth by delivering water only to the intended plant or tree.</p> <p>5 gal/min WATERING A TREE</p> 
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structures, each with rooftops, sidewalks, parking structures, and other impervious surfaces, resulting in less water infiltrating into the ground and more water running across all those surfaces on its way to gutters and storm drains. When it does rain, the stormwater runoff mobilizes these pollutants, which include heavy metals, oils, pet waste, fertilizers, trash, and many other substances. The storm event carries the now densely concentrated runoff, untreated, through the storm drains into our streams, canals, rivers, and lakes, creating potentially deadly consequences for fish and other aquatic life, hampering recreation opportunities and potentially harming human health and setting up conditions for eutrophication.

Through overlapping stormwater pollution prevention and drought messaging, SLCo residents are encouraged to implement simple practices to conserve water, become stewards of our watersheds, and to capture, divert, and slow stormwater from homes and businesses when it does rain. The Coalition is promoting low-impact development practices and projects most anyone can do on or around their property, such as proper management of lawns (if a resident must have one), alternatives to a lawn-based gardens, disconnecting downspouts, adding bioswales and rain gardens, and converting paved areas to more permeable surfaces.



3. NON-TECHNICAL INFORMATION PROGRAMS FOR THE GENERAL PUBLIC

The SLCo Stormwater Coalition utilizes its branded resources and materials to provide Best Management Practices (BMP) information and distributes via various outlets, such as in its television broadcast PSA's, on banners and displays at community events, printed on distributed reusable grocery bags and refrigerator magnets, in newsletters and social media. The branded materials are easy to recognize, and provide suggestions for easy to adopt behaviors that address nonpoint source stormwater pollution and that meet stormwater permit requirements. Coalition member communities target specific behaviors related to the pollutants that impact the impaired stream segments in their municipality. A universally promoted BMPs for residents and homeowners is to pick up pet waste or, as we say, "Scoop The Poop" to address stream segments that are polluted with E.coli, as a result of canine feces.

WE ALL LIVE DOWNSTREAM



**BAG AND TRASH
PET WASTE**



**MULCH OR COMPOST
MOWED GRASS.
CONSIDER XERISCAPING**



**PICK UP AND THROW
AWAY TRASH. RECYCLE
GLASS AND PLASTICS**



**RECYCLE OIL &
USE COMMERCIAL
CAR WASH**



**USE HOUSEHOLD
CHEMICALS SPARINGLY
& SAFELY DISPOSE**



The Homeowner's Guide to Stormwater
How to develop and implement a stormwater management plan for your property

The Homeowner's Guide to Stormwater
If you are simply looking for a way to help your watershed or you are doing a small project that creates new impervious area manage the stormwater that is generated.

Start Your Plan

Download the guide (5.8)(6.8)

soak up the rain
created by U.S. EPA

Learn more. Take action. Share your story.

www.epa.gov/soakuptherain



The Stormwater Coalition also consistently uses EPA and Utah DWQ guidance for Best Management Practices as a focus for information, education, involvement and outreach efforts.

EPA's Soak Up the Rain campaign, for example, is a stormwater public outreach campaign to raise awareness about the problem of polluted stormwater runoff and to encourage action by citizens, municipalities, and others to help soak up the rain to reduce runoff.

<https://www.epa.gov/soakuptherain>

4. IMPLEMENTATION OF MESSAGING FOR EDUCATION AND OUTREACH EFFORTS FOR SPECIFIC AUDIENCES (1) RESIDENTS; (2) INSTITUTIONS, INDUSTRIAL, AND COMMERCIAL FACILITIES; (3) DEVELOPERS AND CONTRACTORS; AND (4) MS4 OWNED OR OPERATED FACILITIES

The Stormwater Coalition has tailored messaging for each of the audiences as prescribed in the Utah General Stormwater Permit Jordan Valley Co-Permit. The segmentation of groups to whom education and outreach is delivered as the first basic step in the implementation of this objective, but if we expect these audiences to adopt the behaviors and practices that will collectively make a difference in stormwater quality, we must also consider the "why" and "what it will take" for individuals to change what they are currently doing. Research has documented an effect called the status quo bias, a general tendency for people to keep doing what they have previously done, even when it is not in their best interest. (Kahneman et al., 1991) This can act as an impediment to implementing and sustaining new behaviors. Additionally, as you can imagine, expecting several audiences to adopt several behaviors and practices, gets rather complicated. In the interest of keeping it simple enough to achieve success, SLCo Stormwater Coalition has targeted between two and four desired Best Management Practices (BMPs) (i.e. behaviors) for each of the four specific audiences.

“What links nearly all present environmental problems is their root cause: human behavior (Foley et al., 2005; IPCC, 2018). Yet this cause also presents a solution: to address these challenges, humans must act differently (Schultz, 2011). In other words, environmental problems are behavioral problems, and environmental solutions must also be behavioral solutions. Whenever one approaches developing an environmental program, what they are doing is developing a behavior change program (Cowling, 2014).”

--Center for Behavior and the Environment: The Science of Changing Behavior for Environmental Outcomes



The criteria for the selected BMPs includes:

1. The BMP is correlated to the specific audience's typical interaction with stormwater
2. The BMP is correlated to one or more pollutants of concern that the specific audience would collectively be able to impact, if the BMP was adopted by a large enough segment of that audience (“most people” in the specific audience)
3. The BMP is one that is recommended by a reputable source, shown to impact the pollutant of concern if adopted by a large enough segment of that audience (ex: EPA, Utah DWQ, etc.)
4. The BMP is “doable” by the audience to which it is targeted, as defined by:
 - a. The BMP is singular—behavior change works best when adopting one specific action at a time
 - b. The BMP is simple, easy to understand what is expected
 - c. There is no or little financial expense or cost related to the BMP (maybe even a cost savings)
 - d. The BMP is convenient for the adopter (not too difficult) and does not require any specialized knowledge on the part of the typical adopter



The current SLCo Stormwater Coalition BMP's selected for each of the audiences are:

(1) Residents:

1. **Bag and trash pet waste- pet waste carries E.coli and other harmful coliform bacteria.** Washed into the ground and left on sidewalks, gutters, stream banks, and streets, it is THE main contributor to contamination of the Jordan River. Bag and trash pet waste every time.
2. **Pick up and throw away trash from sidewalks, parking lots, streets and gutters.** In addition to blocking waterways, trash carries harmful bacteria, oils, and chemicals directly into our waterways
3. **Compost, mulch, or sweep and throw away grass clippings, fallen leaves, and other garden waste from sidewalks, gutters and keep away from storm drains.** Excess nutrients in our water bodies caused by this “natural” waste adds nutrients that lead to algae blooms, and that are very bad news to fish and other aquatic life, and through a process called Eutrophication, can make humans very sick.
4. **In your yard and garden, if you must use fertilizer, use it VERY sparingly.** Any fertilizer not absorbed by plants or grass carries the excess nutrients through the ground, then into the aquifers, and finally into our waterways. Any dry or pellet fertilizer that gets onto a hard surface, such as sidewalks or driveways needs to be swept back onto the lawn or garden or thrown into the trash. When added to excess nutrients resulting from pet and wild animal waste, decomposing leaves and grass clippings, excess fertilizer causes impaired waterbodies, algae blooms, fish kills, and eutrophication (a cycle of dark, slimy, decaying, putrid water).

(2) Institutions, Industrial and Commercial facilities:







1. Significantly reduce water waste through water-efficient fixtures, technologies and techniques by adopting “WaterSense” practices, such as assessing water-intensive equipment for proper operation and efficiency can help to eliminate water waste. <https://www.epa.gov/watersense/best-management-practices>

2. Develop An Illicit Discharge Detection and Elimination Program that features both responsive and pro-active approaches to IDDE incidents, that addresses comprehensive sources including dry-weather flows, sanitary wastewater or industrial and commercial pollutant entries, failing septic tank systems, vehicle maintenance activities, and others as applicable.
3. Create a company/institutional culture of environmental awareness and stewardship, such as sustainability offices and initiatives on college and corporate campuses; encouraging and incentivizing the development of clubs, volunteer opportunities, community events, etc.; promote and adopt company-wide behaviors through physical/structural, such as company-wide HHW bins, additional trash bins where litter has been a problem, and pet waste bag stations in appropriate locations.

(3) Developers and Contractors (construction):

1. Obtain and comply with General Construction Permit (Utah DWQ) <https://deq.utah.gov/water-quality/general-construction-storm-water-updes-permits>
2. Develop a daily practice of Controlling Construction Stormwater Discharges. Everyone on the job can help to prevent stormwater pollution by adopting these practices:
 - Design, install, and maintain effective erosion and sediment controls, and pollution prevention measures, to minimize the discharge of pollutants;
 - Stabilize disturbed areas immediately when construction has ceased and will not resume for more than 14 days;
 - Prohibit the dewatering discharges unless managed by appropriate controls;
 - Prohibit the discharge of: Wastewater from concrete washout or washout/cleanout of stucco, paint, form release oils, other wastewater materials; Fuels, oils, or other pollutants used for vehicles; and soaps or solvents to wash vehicles and equipment.



PERMEABLE PAVING	CONSTRUCTED WETLANDS	INFILTRATION & UNDERDRAINS	GREEN ROOF	RAINWATER HARVESTING	LANDSCAPE
Stabilized Aggregate	Constructed Wetlands	Infiltration & Underdrains	Rooftop Garden	Cisterns Above Ground	Tree Preservation
Porous Asphalt			Downspout Disconnection	Cisterns Below Ground	Soil Amendment
Porous Concrete					Impervious Surface Reduction
Structural Grids					Plant Selection
Permeable Pavers					
					



(4) MS4 owned or operated facilities:

1. Utilize Low Impact Development Principles to conserve natural areas; minimize development impacts; maintain site runoff rate and control small storms, implement integrated management practices (control volume and pollutant loads), and ensure pollution prevention, proper maintenance, and public education programs.
2. Practice Stormwater Pollution Prevention and Good Housekeeping in Municipal Operations and Facilities to assess potential stormwater impacts; to inform the development, implement, and train on a Stormwater Pollution Prevention Plan
3. Emphasize Nutrient Pollution prevention as a critical element to addressing stormwater pollution prevention at MS4 owned and operated facilities, including eliminating or minimizing fertilizer usage, avoiding fertilizer application before or during storms, planting native plants, avoiding overwatering, installing pet waste bagging stations.

5. TARGETED LAND USES AND TARGET AUDIENCES FOUND WITHIN THE COMMUNITY, INCLUDING SPECIFIC POLLUTANTS AND POLLUTANT SOURCES, POTENTIAL IMPACTS, AND RECOMMENDED APPROPRIATE ACTIONS FOR STORMWATER POLLUTION

The stormwater coalition is in development and acquisition of information, tools and educational materials for municipal leaders, engineers, planners, and private developers to aid in stormwater management in land use planning and adoption of green infrastructure practices, such as stormwater modeling and low impact development (LID) controls to improve their effectiveness in managing runoff and achieving significant pollutant reduction benefits. Scholarly articles, tips and online tools are listed on the coalition's Land Use webpage at: stormwatercoalition.org/landuse



6. PROMOTION OF TRAINING PROGRAMS FOR PUBLIC SECTOR PERSONNEL

In order to support coalition member municipalities with resources for training programs for public sector personnel—municipal operations and public works/utilities departments—the Stormwater Coalition promotes online training programs such as the Municipal Online Stormwater Training Center, housed at the University of Maryland, which offers free relevant courses to enhance understanding of stormwater management. Each course is broken into several short modules to enable participants to learn at their own pace. The courses are presented via short presentations and videos, with interactive quizzes and connections with fellow learners and instructors online. Individuals who complete a course receive recognition with an optional Course Certificate.

most Municipal Online Stormwater Training Center

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Select one of the available courses below.

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Create a user account by clicking on the green "Join for Free" button.

COMPLETE THE COURSE
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ACHIEVE RECOGNITION
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Introduction to Local Government Stormwater Financing

The Building Blocks of an Effective Stormwater Management Program

Stormwater Financing 101

Erosion and Sediment Control for Construction Sites

Asset Management for Stormwater

Green Infrastructure and Low Impact Development 101

Educational opportunities for stormwater personnel are also promoted via the Utah Chapter of the American Public Works Association. One of the largest public works conferences in the west, there are 9 tracks with educational opportunities for all facets of public works Municipal Stormwater Management, Construction, Maintenance, and Operations, Safety, Emergency Management, Technology in Public Works, Water, Sewer and Utilities, and Transportation. Many of these programs are presented by appointed officials from state and local government experts, who have hands-on experience.

The Coalition also announces and posts trainings available from the APWA-Utah Chapter, Certified Inspector of Sediment and Erosion Control (CISEC), and others as they become available.



7. PUBLIC ENGAGEMENT THROUGH COMMUNITY EVENTS AND VOLUNTEER OPPORTUNITIES

COMMUNITY EVENTS, ADOPT A STORM DRAIN, AND CROWDSOURCING

Community and Civic Events

The Salt Lake County Stormwater Coalition provides informational and educational booths, BMP and stormwater pollution prevention materials and presentations, usually during the summer and fall, at community events. In late summer and fall of 2021 and spring of 2022, public events where the Coalition participated included the Salt Lake County Watershed Symposium, Salt Lake City community events, Millcreek Venture Out Program, Murray City's Earth Day and Health and Safety Fair, Segó Lily Gardens and Water Week Spring Fair, Fort Herriman Towne Days, South Salt Lake Night Out, and other various community events.

Due to Covid ongoing concerns, some annual events in which the Coalition is traditionally represented, such as What's Up In Riverton, were canceled. However, Riverton is a good example of how cities are finding "work arounds" to provide live outreach, for example Riverton opted to join in on smaller events, such as the JTEC 7th grade Agriculture Days.

Salt Lake County Watershed Symposium

The Salt Lake County Stormwater Coalition participated in the Salt Lake County Watershed Symposium, to promote stormwater best management practices and raise awareness about the importance of managing stormwater at homes. In November 2021, the Stormwater Coalition provided an informational "break" between education sessions for attendees of the virtual event, hosting conversations and answering specific stormwater questions. The live WebEx event had approximately 275 participants.



Millcreek Venture Out Program

Every Friday night in July 2021 and June 2022, Millcreek provided outdoor activities, recreation, clinics, live music, food trucks, community vendors, and outdoor movies. All of the activities are free admission. Millcreek used the events to promote Salt Lake County Stormwater Coalition, by handing out pet waste and fertilizer information from their website. In addition, Coalition promotional lip balm, dog waste bag holders, pens and reusable bags were handed out to those interested in the Coalition and Millcreek Stormwater programs.

Murray City's Earth Day and Health and Safety Fair

Held annually in conjunction with the Murray Police, Fire, Swat Team, Code enforcement, and City Council, a Health and Safety Fair is utilized to educate and emphasize the importance of clean stormwater to 3,000 + residents. To celebrate Earth day in Murray City, approximately 300 3rd grade elementary school students participated with the Murray Stormwater Team in April to do the "urban stew" presentation.

Segó Lily Gardens and Water Week Spring Fair

Sandy City participated in two fairs, the Water Week Spring Fair and Fall Fair at, both held at Sandy's demonstration rain garden, Segó Lily Gardens. Stormwater Quality Coordinator, Dawn Barbee, utilized a watershed model to educate about stormwater. Paul Evans used a backflow display to educate about cross contamination.

Fort Herriman Towne Days

Herriman City Annual Fort Herriman Towne Days were held June 24th and 25th. Along with games, shows and activities, the city provided a booth set up for the Engineering

and Public Works Department where they distributed Stormwater promotional items, presented general stormwater and storm drain information and answered questions relating to individuals' specific stormwater concerns.



South Salt Lake Night Out

SSL Public Works utilized an interactive model of the water cycle at a community gathering at Central Park Community Center on August 2nd as a venue to deliver information about stormwater BMP's and to provide "seeing-is-believing" proof that soaking up is better than running off.



Salt Lake City Public Events

Salt Lake City hosted several community events during the reporting period, including: Westpoint Community Night Out on August 3, 2021, where stormwater pamphlets, handouts, and promotional leave behinds were distributed and stormwater issues were discussed with 150 SLC residents; a Wetlands School Event (900 South), on May 4, 2022, where 142 3rd and 4th grade students participated in the "Urban Stew" Activity and received a storm drain hand out; STEM Fair at Emerson Elementary on May 7, 2022, where 164 students participated in an activity with a nonpoint source pollution model and discussion; and a SLC Public Utilities meeting where 32 Salt Lake City residents received a presentation about the City's MS4 Permit and Storm Water Program.



Other Public Events

Salt Lake County Stormwater Coalition members participated in a variety of other public events at the city level, which addressed and promoted stormwater education for residents, public, and city and county employees.

Adopt A Storm Drain

During the reporting period, the stormwater coalition supported member cities in developing an Adopt A Storm Drain program. In August 2021, a committee was formed to pinpoint potential assets within the coalition, identify potential barriers, examine successful programs in other cities around the U.S., and to create a template that would help jumpstart any cities that were interested in developing a program. Six coalition member cities participated in the committee. Two cities, South Jordan and Salt Lake City moved into development. Salt Lake City has launched a program. Salt Lake City residents can sign up at www.slcc.gov/utilities/adoptastormdrain/



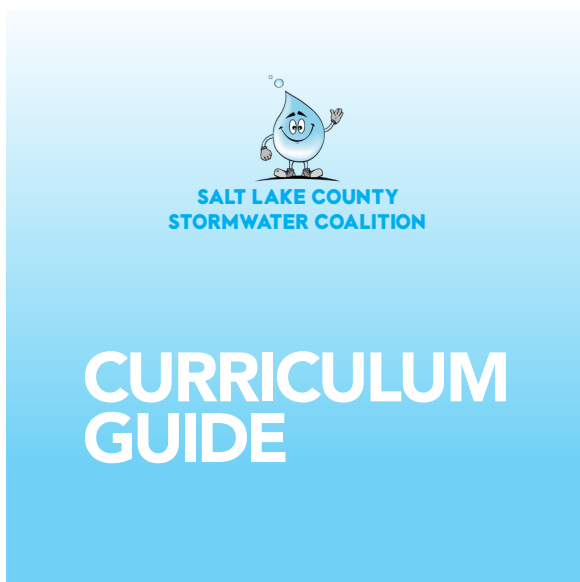


Water Monitoring and Sampling- GIS Data and Crowdsourcing

An innovative approach has been utilized by Salt Lake County Watershed Scientist, Lynn Berni. In order to obtain photos to help with the ongoing monitoring of our stream restoration projects on the Jordan River, Berni and her team at Salt Lake County Watershed Planning & Restoration put up a sign inviting people to set their phone or camera in an angle bracket, take a photo, and post it to Twitter with a site-specific hashtag. They harvest the photos to create slideshows that show change over time. The crowdsourced slideshows, are available on the SLCo Watershed website. The end result is slideshows that simulate time-lapse photography.

Stream restoration projects designed by Salt Lake County Watershed use natural channel design to repair damaged streambanks, restore natural function to the river, and improve habitat for wildlife above and below the water. Much of the Jordan River's banks and historic floodplain have been negatively impacted in one way or another due to development and stream alterations. Reconstructed floodplains and banks at all of the SLCo restoration projects are revegetated with native riparian plants. Photos taken during high water show how the floodplains are handling the flows. During winter, when foliage is off and water levels are typically lower, the photos will provide a clear view of how the reconstructed streambanks are holding up. The network of citizen monitors creates a year-round photographic record.

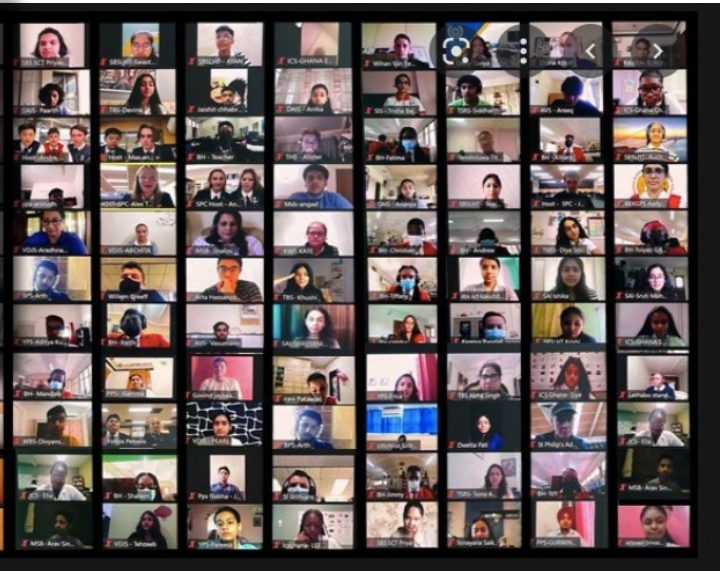
8. EDUCATIONAL ENGAGEMENT: SLCO STORMWATER COALITION CURRICULUM EXPANSION- DROUGHT AND NUTRIENT POLLUTION LESSONS



In 2020, Salt Lake County Stormwater Coalition worked with Utah Society for Environmental Education to develop a stormwater curriculum aligned with the Utah Core Science Standards and Utah Science and Engineering Education (SEEd) standards. The curriculum contains lesson plans and activity ideas, lesson extensions, and environmental education best practices, along with SEEd specific strands, pre and post lesson evaluations for 6th grade students. The 2020 version explores four topics: Understanding Stormwater; We All Live in the Watershed; What's in the Water? Learning about Water Quality, and; Designing Stormwater Solutions. In 2021, adaptations were made in developmentally appropriate progressions for learning that is age-appropriate and enduring to include 7th and 8th graders. Currently in development, two additional topics are being added: Stormwater and Drought Conditions and Nutrient Pollution Impact on Stormwater. Certified teachers will review the updated curriculum, and final edits/graphics will be completed fall of 2022, when the updated curriculum will be officially launched. Additional information can be found at stormwatercoalition.org/storm-water-education.

9. EDUCATIONAL ENGAGEMENT: SLCO STORMWATER COALITION VIRTUAL 6, 7, & 8TH GRADE WATER QUALITY FAIR

The Stormwater Coalition hosted its annual Virtual Water Quality Fair on Thursday, May 5th, 2022. The event was expanded this year to include students in the 6, 7, and 8th grades. The online event featured watershed, water quality, and water science learning activities, and virtual exhibits. 2,685 students participated from Salt Lake, Jordan, Canyons, Granite and Murray School Districts .



Participating classes were provided with activity supplies, so that students had everything they needed to participate alongside the presenters' activities. The sessions included:

- Opening comments and overview by Bob Thompson
- What is a watershed and what is stormwater (and why should we care)-- Michelle Martinez
- Water Quality (includes macros and testing water for pH) – Hannah Murphy and Sam Taylor
- Stormwater Solutions (The 5 BMP's we focus on and other things kids can do to prevent stormwater pollution)-- Greta Hamilton
- Wrap up, review and call to action – Josh Mikel

The event archive video contains 3 pre-recorded sessions, so that teachers who did not participate in the event can put on a water quality fair in their classrooms at any time. [Stormwatercoalition.org/fair](https://stormwatercoalition.org/fair)

2022 Virtual Water Quality Fair Participants

City	School	Lead Teacher	AM or PM	# of Students	# of classrooms	# of teachers
West Jordan	Fox Hollow Elem	Carlton	AM	57	2	2
South Jordan	Jordan Ridge Elem	McIntyre	AM	125	5	5
Salt Lake City	Emerson Elem	Jensen	AM	19	1	1
Salt Lake City	L.M. Bennion Elem	Coffey	AM	27	1	1
Murray	McMillian Elem	Van Beekum	PM	100	3	3
West Jordan	Columbia Elem	Bodenhofer	PM	45	2	2
West Jordan	Westland Elem	Howell	PM	21	1	1
West Jordan	Copper Canyon Elem	Ruiz	PM	28	1	1
South Jordan	Daybreak Elem	Oconnor	VID	111	5	5
South Jordan	Monte Vista Elem	McFarland	VID	43	2	2
West Valley City	Valley Jr. High	Moses	VID	90	3	1
Taylorsville	Bennion Jr. High	Ramsey	VID	100	4	1
West Valley City	JF Kennedy, Jr	Chicardini	VID	200	6	1
Kearns	Thomas Jefferson Jr.	Tafili	VID	170	6	1
Holladay	Olympus Jr. High	Eisert	VID	180	6	1
Holladay	Olympus Jr. High	Brown	VID	110	5	1
Magna	Matheson Jr High	Nielsen	VID	170	6	1
Salt Lake City	Churchill Jr. High	Blumel-Wilson	VID	151	6	1
Salt Lake City	Cosgriff School	Newman	VID	28	1	1
West Jordan	Heartland Elem	Passi	VID	63	3	3
South Jordan	Golden Fields Elem	Falcon	VID	150	5	5
West Jordan	Oakcrest Elem	Sirois	VID	94	4	4
Salt Lake City	Hillside Middle	O'Connell-Were	VID	258	8	2
Kearns	Kearns Jr.	Pevzner	VID	135	5	1
Salt Lake City	Bonneville Jr.	Kendall	VID	210	6	1
				2685	97	48

10. EDUCATIONAL ENGAGEMENT: SLCO STORMWATER COALITION 6, 7, & 8TH GRADE WATER SCIENCE AND ENGINEERING COMPETITION

In October 2021, Salt Lake County Stormwater Coalition launched a 6, 7, and 8th Grade Water Science & Engineering Competition. With parent permission, students were invited to compete by:

- Selecting a water challenge to address. Some suggestions included: Climate change impact on water availability and quality; Extreme weather events like flooding and droughts; Impaired/polluted waterways; Widespread eutrophication; Lack of access to clean drinking water, washing and toilet facilities; Nonpoint source or polluted runoff, including trash/plastics, pet waste, yard debris; Rising water demand against a backdrop of growing scarcity
- Selecting a presentation category:
 1. Big Idea- Present a detailed persuasive narrative. Name the challenge selected and presenting a plan to address it
 2. Prototype- Name the challenge selected and designing, building, and demonstrating a model of the solution
 3. Experiment- Name the challenge selected and presenting results for at least 2 attempts to mitigate the challenge.
 4. Nature as a Solution- Name the challenge selected. Explaining and demonstrating (via a poster or use of natural materials) how nature itself can act as a solution to water crisis challenges.
- Writing an overview of their project



- Creating a bibliography for their project, citing books, periodicals, non-print/electronic and digital sources of the information that informed their project development
- Completing and submitting an online entry form
- Creating and submitting a 3-6 minute amateur video (2GB or less—phone videos preferred) addressing the water challenge they identified.

Winners were selected in December 2021 by a panel of judges and included students from across SL County. Winning submission topics included a water-saving auto shut-off shower timer, stormwater cleanup (“Get Your Trash Out of the Gutter!”), thermal desalination, and an experiment that examined if water temperature impacts the duration of a hurricane. The 2021 winning videos can be viewed online at: stormwatercoalition.org/wsec

11. MAINSTREAM MEDIA: TELEVISION PSAS AND UTA BUS BANNERS

The stormwater coalition utilizes television PSAs that run during morning and evening news segments on local broadcast television networks in order to reach the largest possible audience with stormwater messaging and promotion of adoption of BMPs.

On KUTV Channel 2, a stormwater coalition campaign ran from September 20 to and October 17, 2021, and April 18 to May 15, 2022. A 30-second commercial featuring Sterling Paulson was shown a total of 307 times with an estimated 2,145,500 views. Additionally, the Sterling Paulson commercial was also shown on KJZZ, KMYU, Apple TV, Roku, Amazon FireStick, and other devices with an estimated 500,000 views over the campaign in the fall of 2021 and spring 2022. Key BMP messages were presented on the KUTV2 Chime-In App, with approximately 645,500 views and 1,500 click throughs (engagements).

SLCo Watershed Scientist, Hannah Murphy had a guest appearance on the KUTV2 Fresh Living Lifestyle Show on May 19, 2022 with approximately 34,000 views.

The dashboard shows a grid of social media posts. The first column contains Facebook posts from 'We All Live Downstream' and 'SLCo Stormwater Coalition' dated May 3, featuring a photo of stormwater runoff with debris. The second column shows a Twitter post from 'Stormwater Coalition @MrDroplet' with the same text and photo. The third column shows a 'Scheduled' post for the same content, set for 9:00am.

FOX 13 ran a campaign during the weeks of October 4-30, 2021, and March 28- April 24, 2022. Over the course of the campaign, the 30-second PSA was shown 73 times in each the spring and fall, reaching approximately 1,928,600 viewers an average of 1.8 times/viewer. The FOX 13 campaign included PSA's during Good Day Utah 7-8AM, and FOX news at 9, snipes (superimposed snippets at bottom of screen during newscast). Facebook sponsored posts and display ads on FOX13 social media during the campaign period posted to the pages of its more than 780,000 followers.

SLCo Stormwater Coalition consultant, Jack Wilbur, had a guest appearance on the FOX13 The PLACE Lifestyle Show on May 19, 2022 with approximately 28,500 views.

The PSA/TV Ad campaign spots from the 2021-22 combined Stormwater TV ad campaign can be viewed at: stormwatercoalition.org/videos

SLCo Stormwater Coalition Bus Banners



During the 2020-21 reporting period, the SLCo Stormwater Coalition delivered a campaign utilizing side banners on UTA buses for a 4-week period, from November 8- December 19, 2021, and March 10- April 24, 2022. The campaign material utilized stormwater BMP messaging on a 30” x 216” banner featuring Droplet, the “We All Live Downstream Slogan” and icons and brief messages promoting stormwater pollution prevention, including: yard care, pet waste, household chemical disposal, vehicle maintenance, and proper disposal of trash.

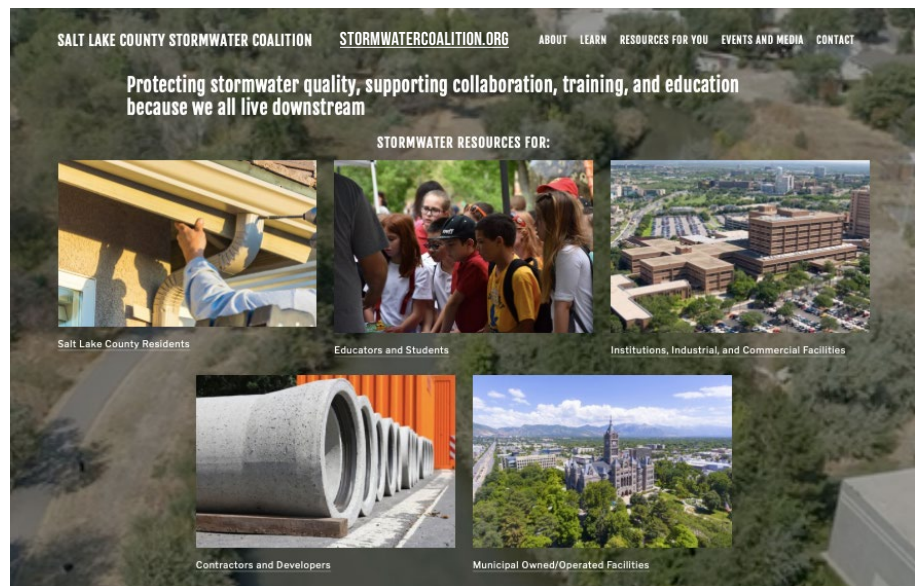
Lamar Advertising, who facilitates all the UTA bus advertising indicates that 83.1% of the population along a given route saw the ads at a frequency over the 4-week period of 4.6 times for a total of 2,726,842 impressions.

12. OUTREACH AND ENGAGEMENT TO TARGETED AUDIENCES THROUGH SOCIAL MEDIA PLATFORMS

Stormwatercoalition.org website

The Stormwater Coalition hosts a website, stormwatercoalition.org, which includes a site intended for public viewing and an internal site for coalition members and partners (<https://stormwatercoalition.org/coalitionmembers>). The site has continued to develop over the last year, adding and refining resources that support the coalition goals and resources requested and needed by Coalition members. The site uses Squarespace as its host platform, which allows for easy editing and additional page creation and customization as needed. The website features specific resources for the general public and target stormwater permit prescribed audiences (listed on the dropdown menu of the site’s homepage), and has logical navigation for page visitors.

The website is updated weekly, and presents a cadre of the latest updates and new resources. The updates are reviewed by those in attendance at monthly coalition meetings. The site is also reviewed for timeliness and accuracy and any expired content is deleted. New content and/or links that coalition members have identified as quality resources that may be needed by other coalition member cities are posted along with resources, videos, ideas, and training opportunities that meet or exceed the requirements of MCM’s 1 and 2.



Also, during the reporting period, a webpage was added as a resource to public information specialists, municipal web content managers, and newsletter editors. The stormwatercoalition.org/communications page features stormwater pollution prevention and BMP campaign ideas and materials addressing a wide variety of pollutants, pre-written articles, photos and graphics. New content is added to this page and an email is sent to the designated individuals in coalition member cities to keep this information “top of mind” when newsletter content is being created.

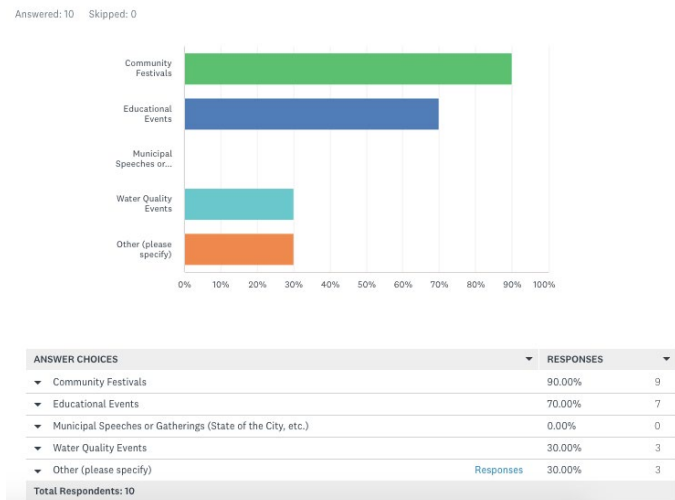
Because the stormwatercoalition.org website is the most visible and accessible medium of all coalition communication, we strive to maintain a holistic approach that both interacts with and supports all aspects of the coalition’s branding, marketing, social media, videos, written materials and other outreach efforts. We work to ensure that the site reflects the same vision, strategies, and tactics, and that it can be easily identified as a SLCo Stormwater Coalition effort. We strive to ensure that the site is a vehicle for delivery of clear messaging that is achievable, hopeful and (where appropriate) enforceable. The coalition commits, whether in a marketing/messaging effort, outreach campaign, or with items as displays or take-aways at a coalition city event, that all will reflect the unified approach.

Website Posting and Updates of Regulatory Content – As is required in the current stormwater permit, the permit document is posted clearly and prominently on the website home page. Stormwater/UPDES information is regularly posted and updated on the stormwater coalition website. There is a specific page where all regulatory information is posted, and then specific links appear throughout the website, as appropriate. The regulatory content site can be found under the “Learn” section of the website, at: <https://stormwatercoalition.org/stormwater-regulatory-information>. As older documents expire, they are replaced by new ones, and since the page is text-heavy, the most relevant and recent information is listed toward the top of the page.

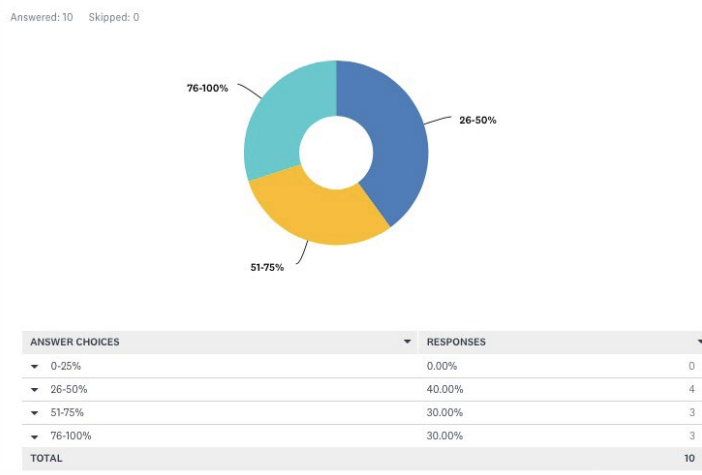
Social Media Management and Content Creation

The Stormwater Coalition uses Hootsuite Social Media Management to coordinate, pre-schedule SLCo Stormwater Coalition posts. All components are developed in an editorial calendar (planning document) and posted all together for coordination and analytics. The Coalition has Facebook (“We All Live Downstream”), Twitter (@MrDroplet) and Instagram (“Weallivedownstream”) accounts that post 4-5 days/week. The Social Media platforms also feature hashtags #WeAllLiveDownstream, #WaterSense #Drought #Yardcare, #DontTrashOurStormwater, #DoALittleHelpALot, #KeepTheWaterMoving, #RakeEmUp, #ReduceRunoff, #StormwaterCarCare, #ScoopThePoop, and #SLCoStormwaterCoalition.

For the period July 1, 2021 to June 30, 2022, how did your municipality distribute stormwater pollution prevention promotional materials?



What percentage of the individuals who received Stormwater Promotional Items (SWAG) in 2021-22 also received information or education regarding stormwater?



Specific Social Media Campaigns:

During the 2021-22 reporting year, the SLCo Stormwater Coalition delivered social media campaigns on Facebook, Twitter, and Instagram, designed to act as integrated outreach. Campaigns during the period included:

- Basic Stormwater education for residents – actions for stormwater pollution prevention
- Nutrient pollution and eutrophication
- Dangers and causes of E.coli and other bacteria and parasites
- Love your dog and want to help keep stormwater clean?—scoop the poop every time
- Water conservation/drought awareness and actions, harvesting rain water
- Keeping trash and debris picked up and out of storm drains/adopt a storm drain
- Green infrastructure and xeriscaping, flip your parking strip
- Yard care, including composting leaves and grass clippings
- Auto maintenance- fix oil and other fluid leaks
- Proper disposal of Household Hazardous Waste

The Stormwater Coalition also maintains a YouTube channel, We All Live Downstream SLCo Stormwater Coalition. The Coalition has its video files posted on its YouTube Channel, We All Live Downstream SLCo Stormwater Coalition, as well as on the stormwatercoalition.org website, and uses them in social media posts, presentations, trainings and for other occasions, as needed.

Social Media Reporting

Monitoring the stormwater coalition social media activity for the reporting period was accomplished through utilization of Hootsuite Analytics. The Stormwater Coalition uses the data to recruit more followers—seeing what posts had “click throughs” (a proxy indicator for engagement) and make adjustments as needed. Using thematic and overlapping interests will help future campaigns to be successful.

Note: Stormwater Coalition social media platform reports are available at <https://stormwatercoalition.org/coalitionmembers>

SLCo Stormwater Coalition Podcast, Untreated

UNTREATED, a Podcast of the Salt Lake County Stormwater Coalition, seeks to provide insight and expertise about stormwater issues that impact all of us. The podcast has seven episodes to date. The episodes include: Why We Care About Stormwater, Pet Waste and Our Waterways, Power Washing Without Polluting, and Macroinvertebrates Can Tell Us a Lot About the Health of Our Waterways. These and future podcast episodes are posted to the Coalition website and Buzzsprout (its host <http://www.buzzsprout.com/404863>) and are searchable on Apple Podcasts, Spotify, Google Podcasts, Stitcher, I Heart Radio and Google + Alexa.



13. ENGAGEMENT IN MONTHLY STORMWATER COALITION MEETINGS

The Salt Lake County Stormwater Coalition works together to meet Minimum Control Measures (MCMs) 1) public education and outreach, and 2) public participation and involvement. Members meet monthly, and via Zoom online video conferencing. The group works together with a specific set of objectives to coordinate and combine resources in order to expand the capacity and bandwidth of the municipalities/entities to meet MCMs 1 & 2. The group coordinates and combines resources in order to:

- Strengthen stormwater BMP messaging to targeted audiences
- Gain collective attention and affect change (as in TV PSA's and other media)
- Share expertise, skills, trainings and resources in order to achieve MCMs 1 & 2.
- Review Salt Lake County IDDE incidents, as the SLCo Health Department presents noteworthy calls/complaints, to provide each other with ideas and knowledge from similar situations/incidents
- Ensure that Coalition and individual municipal stormwater pollution prevention approaches and materials are effective, culturally sensitive and appropriately tailored for targeted audiences
- Provide a forum for open discussion and mutual support of common best practices, with a ripple effect for the organizations that the coalition members represent. This broadens the base of support and trust.
- Reduce the chance of duplicating efforts where it is unnecessary
- Improve communication across the watershed
- Act as one voice to advocate for environmental policies and regulations that support clean stormwater and education and outreach efforts for the following four audiences: (1) residents, (2) institutions, industrial and commercial facilities, (3) developers and contractors (construction), and (4) MS4-owned or operated facilities.
- Provide evidence-based solutions to address local and individual behaviors that impact stormwater with a singular purpose, working to spread the key message that “We all live downstream”.



Salt Lake County Stormwater Coalition
Zoom Meeting NOTES

<https://us02web.zoom.us/j/3859464290?pwd=TDdwZWkySFNLSnl4Q3ZNRk5zbE0rUT09>

Meeting ID: 385 946 4290

Passcode: 962716

Wednesday, March 16, 2022 10:30 AM

Greetings and check-ins

1. Salt Lake County business and announcements
 - a. Coalition media agreements expire this spring. County is working on new population figures for stormwater fee totals for coming year. Invoices will be sent out in spring/summer.
 - b. New contact information for Kari kari@socialmarketingconsultants.co and Jack jack@socialmarketingconsultants.co
Emails used to be ".com"
2. Stormwater Pollution Prevention Promotional Items (SWAG)
 - a. Spring is here! If you still need to arrange for SWAG pick up, please reach out to Josh to schedule a pick up time. Jmikel@slco.org
 - b. Education/Outreach- See Coalition Member's webpage for ideas
 - c. Please reply to SWAG survey coming to you on Monday 3/21
3. 2022 6, 7, and 8th Grade Water Quality Fair
 - a. Live event- Thursday, May 5th. Archive available afterward.
 - b. Activity-based- total event time 45 minutes
 - c. Outreach to teachers, flyers, etc.- Reach out to the teachers in your city!
 - d. Registration is open. <https://forms.gle/www7NR8yrDuhcZHx7>
 - e. See email or contact Kari for more information
4. 2022 SLCo Stormwater Coalition 6, 7, & 8th Grade Water Science & Engineering Competition (WSEC)
 - a. Important dates for the 2022 competition- entries due Thursday, Nov 18. Awards announced December 1.
 - b. Outreach to begin at the Virtual Water Quality Fair in May
5. Mainstream Media update
 - a. Campaigns running now!
6. SLCo Stream Inventory Reminder- Greta
 - a. Due now! Please email Greta with any updates. g.hamilton@slco.org ©
https://docs.google.com/spreadsheets/d/1ysrR3EZ4tjG1Tj9bukVk3_HGZVry8ySLXEZGWHQNE/edit?usp=sharing
7. Member roundtable-comments
 - a. DWQ received funding for messaging and public outreach for nutrient pollution—more to come
 - b. Dawn B. Localscapes partnership w/Sandy—Localscapes is adding stormwater info to their presentation. Check out their website at <https://localscapes.com>
 - c. Greg A. It's the time of year that fire lines are being flushed and tested. You may want to check with municipal fire dept's to make sure the waste is not being sent into the gutters or storm drains. The state is working with SLC—should see some BMP's on the state website soon.

Adjourn

Next meeting via Zoom- Wednesday, April 20, 2022-- 10:30 AM

<https://us02web.zoom.us/j/3859464290?pwd=TDdwZWkySFNLSnl4Q3ZNRk5zbE0rUT09>

Meeting ID: 385 946 4290

Passcode: 962716

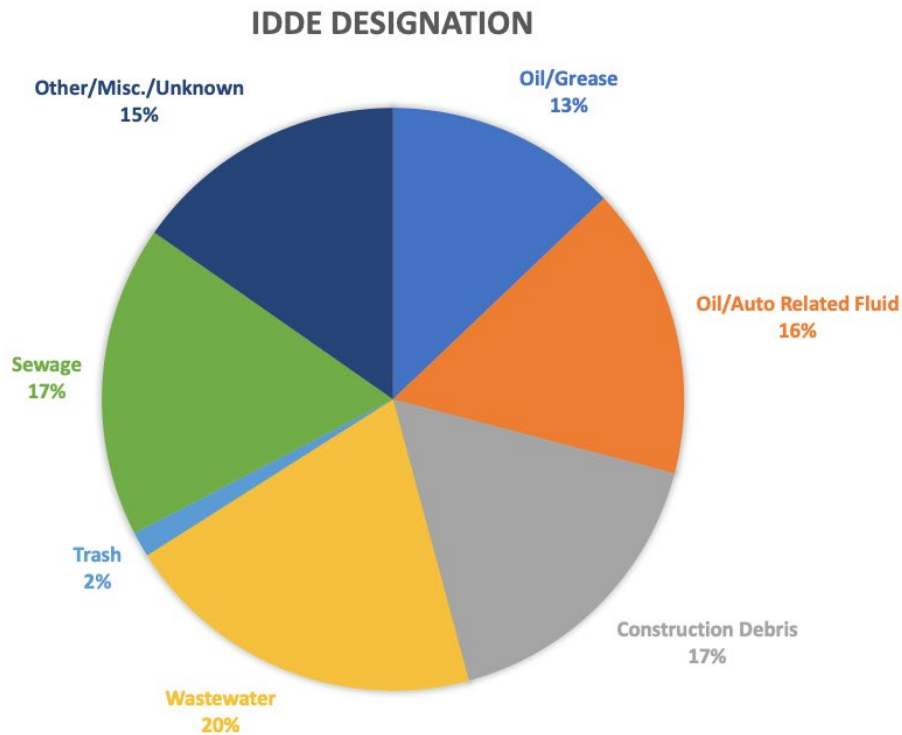
Actions/Notes:

April Meeting- 30 min information session with the DWQ regarding the Jordan River Basin E.coli TMDL.



14. ILLICIT DISCHARGE DETECTION AND ELIMINATION, HOUSEHOLD HAZARDOUS WASTE, RECYCLING AND USED OIL

Salt Lake County Health Department Illicit Discharge Detection and Elimination (IDDE) and collection and disposal efforts of Household Hazardous Waste, Recycling and Used Oil



The pie chart above shows SLCo Health Department reporting for 2021-22 IDDE incidents by type. The total number of incidents reported during the reporting period was 182. Incident details and locations can be found online at stormwatercoalition.org/members under the section header, Data, Reports, and Surveys.

Household Hazardous Waste Collection 2017-2022

Salt Lake County Health Department collects and reports household hazardous waste data which includes:

Item (measured in pounds)	2021-22	2020-21	2019-20	2018-19	2017-18
Paint	660,918	694,000	1,172,239	756,000	807,820
Labpack	17,982	24,371	449,232	29,856	28,438
Used Oil	109,082	48,098	41,521	135,082	182,784
Antifreeze	56,447	28,333	66,350	63,835	58,140
Fuel	107,960	132,497	55,927	126,086	117,339
Fertilizer, Herbicide, Pesticide	71,999	67,788	66,971	61,840	56,832
Aerosols	34,778	34,011	60,506	31,060	30,402
T-OX	86,503	69,625	41,824	72,408	74,081
Electronics	171,316	217,584	134,637	1,330,320	1,453,528
Fluorescent Bulbs	4,648	5,341	254,069	6,673	8,084

Recycling Tours

Salt Lake County recycling information regarding outreach and materials programs includes: 2 tours with 30 attendees for the period of July 2021-June 2022. Tours have recently resumed after being closed due to ongoing concerns regarding the spread of Covid.

Green Waste/Compost – The Salt Lake Valley Landfill reported 20,332 tons of curbside collected green waste was processed for the compost process and 5,133 tons of compost was sold.

Used-Oil Collection Program

Supporting Utah Department of Environmental Quality, Waste Management and Radiation Control, Salt Lake County Stormwater Coalition, works to inform residents in Salt Lake Valley of where to take used oil and educate business owners on how to dispose of used oil in a safe manner that is safe for the environment. More information about the program can be found at <https://deq.utah.gov/communication/news/used-oil>

Leaf Collection

Wasatch Front Waste and Recycling District provided information regarding the results of its Leaf Collection Service for the reporting period. The entity picks up fall leaves annually October-December. Over the 2021-22 period, a total of 1,370.16 tons of leaves were collected.

The information for the report covering the period from July 1, 2021 to June 30, 2022 is below.

	Herriman	Copperton	Magna	Valley	South Ridge	Canyon Rim	Cottonwood	Cottonwood	Bywater	Big Bear	Vista	Emigration cyn	other	
Oct Tons	1.25	1.75	4.38	26.08	0.00	8.11	73.05	0.00	16.85	5.56	4.70	1.25	0.00	142.98
Nov Tons	15.98	5.48	11.51	168.19	28.20	129.84	459.21	0.00	200.76	96.91	25.04	6.43	0.00	1147.55
Dec Tons	0.74	1.25	2.25	13.00	2.78	19.76	29.07	0.00	8.26	0.00	1.25	1.27	0.00	79.63
														1370.16

15. USE OF DATA AND OTHER EXISTING STORMWATER REPORTS

The coalition utilizes data that is readily available to quantify the critical conditions linked to stormwater runoff and to identify pollutants of concern to more closely link impairments with needed behavior changes or best management practices that would likely result in improved conditions in impaired waterbodies or stream segments. The list below is representative of the data sources that inform coalition efforts that help to link water quality to targeted and specific neighborhood and community behaviors.

- a. [Jordan River E.coli TMDL Presentation 2022- Utah DWQ \(YouTube Video\)*](#)
- b. [Jordan River Dissolved Oxygen TMDL: Watershed Management Program*](#)
- c. [Nutrient Pollution \(Includes link to Utah's Approach to Nutrient Pollution\)](#)
- d. [SLCo GIS open data- Stream Stability- in stream Macros](#)
- e. [SLCo GIS open data- Stream Stability- E.coli](#)
- f. [Stream Water Quality Dashboard- Salt Lake County](#)
- g. [EPA's How's my Waterway?](#)
- h. [Stormwater Coalition Public Information Survey Report \(from December 2020\)](#)
- i. [Stormwater Coalition Public Information Discussion Groups Report \(from June 2021\)](#)
- j. [A Call to Action on Combating Nonpoint Source and Stormwater Pollution - Center for American Progress \(2020\)](#)
- k. [Influence of recreation activity on Water Quality Perceptions and Concerns in Utah \(2018\)](#)
- l. [2021-22 SLCo Health Dept. Illicit Discharge Detection and Elimination \(IDDE\) Incidents by Municipality](#) (download excel file under Data, Surveys, Reports on right side of page)



Stream Water Quality Dashboard | Salt Lake County

Ongoing water quality monitoring by Salt Lake County Watershed Planning & Restoration Program

Start here. Filter the data.

When you first open this dashboard (or refresh the page) the graphs display a composite of all water quality samples collected at our stream monitoring locations in Salt Lake County.

Filter **"by Stream"** and the graphs will update to show a composite of all samples collected in that stream.

To see the data collected at a *specific sampling location*, use the **"by Sample Site"** filter.

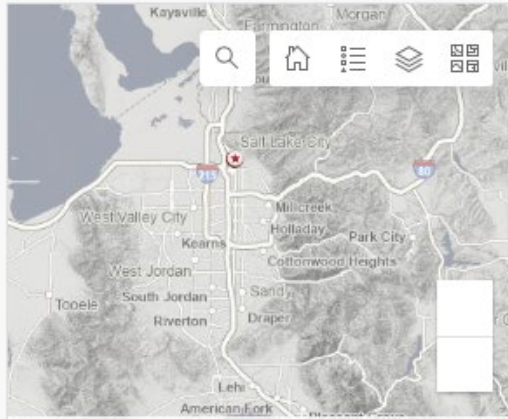
by Date

Predefined Custom Date Range

[Download the data](#)

[Learn more about our data collection](#)

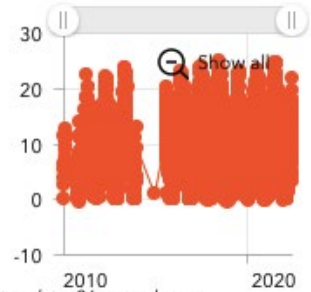
Questions? Contact Sam Taylor, sgtaylor@slco.org



Salt Lake County Surveyor's Office... Powered by Esri

Temperature (C) Data

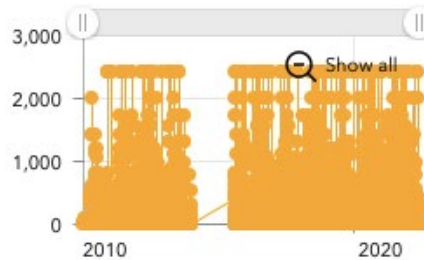
Source: [Field Parameters table](#)



Last update: 26 seconds ago

Total MPN E.coli Data Source:

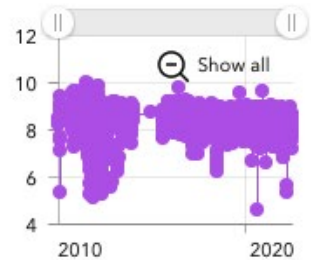
[Bacteria Samples table](#)



Last update: 38 seconds ago

pH Data Source:

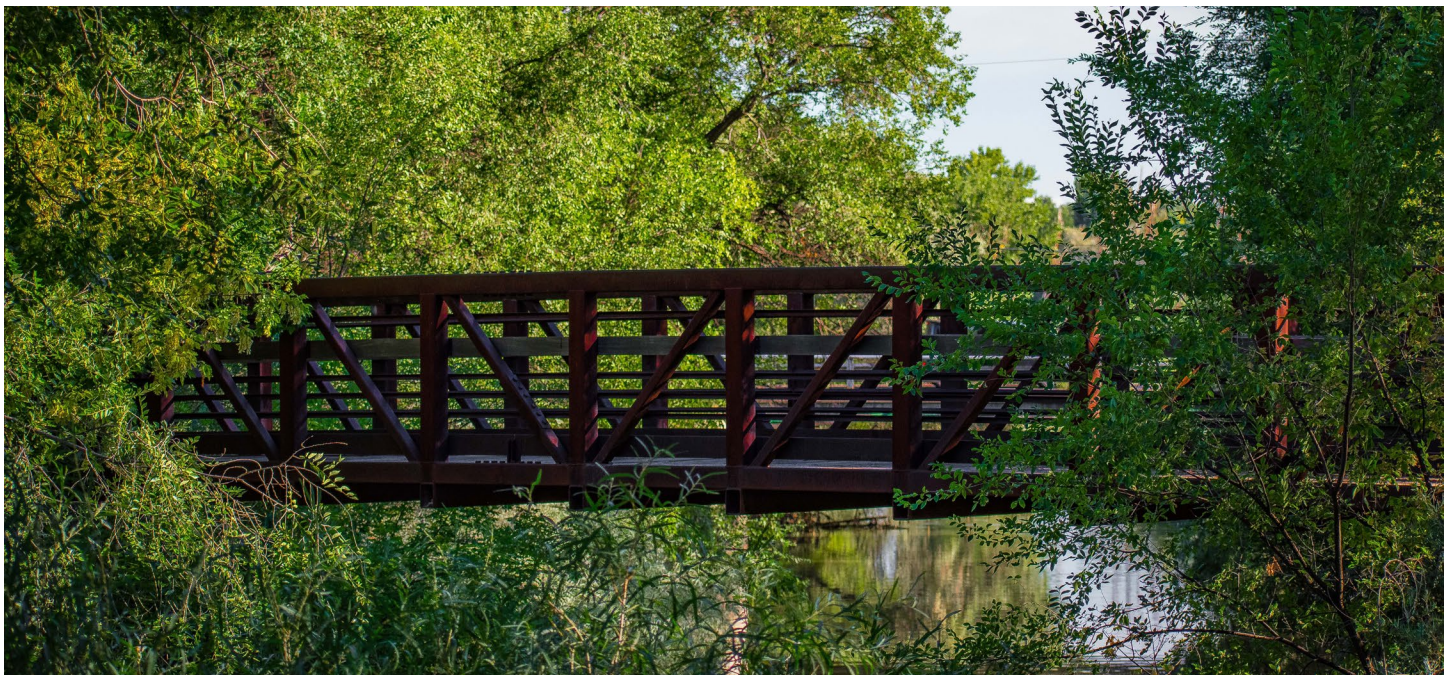
[Field Parameters table](#)



Last update: 26 seconds ago

Note: Examples of additional sources can be found at the end of this document under the listing 2021-22 Salt Lake County Stormwater Annual Report Reference Links.

*TMDL=Total Daily Maximum Load



16. STORMWATER COALITION 2021-2022 BUDGET

The Salt Lake County Stormwater Coalition budget figures below for 2021-22 represent the entire budget, for which the fiscal year runs from January 1 – December 31. Municipalities and other entities contributed to the overall revenue of the Stormwater Coalition, supporting common goals and activities, such as mainstream media (i.e. TV), which reaches within Salt Lake County and beyond. .

All expenses support the requirements, education and information, annual water quality fair in partnerships for outreach, website, and other social media accounts/management. The total income and expenses for the 2021-22 Stormwater Coalition fiscal year were \$177,000 leaving a balance of \$0.00.

2021/2022 Stormwater Coalition Expenses

Contract	Provider	Account	Cost	Notes
TBD	TBD	613020	\$70,500.00	Television Advertisement
TBD	Lamar Advertising	613020	\$21,000.00	Bus Banners
N/A	Varies Hogle Zoo/Wheeler	613020	\$10,000.00	Developmental AD Leave behinds
N/A	Farm	613020	\$10,000.00	Stormwater Quality Fair/Fall WQ Fair
N/A	Squarespace	615020	\$500.00	Website hosting and maintenance Social Marketing and Social Media
PT18100C	SMC Consultants	639010	\$65,000.00	advertising
			\$177,000.00	Total Budget



SLCo Stormwater Coalition 2021-22 Annual Report Reference Links

The following are links to resources used in the writing of this report that are not listed within the sections of the document.

Center for Behavior and the Environment: The Science of Changing Behavior for Environmental Outcomes (RARE)
https://behavior.rare.org/wp-content/uploads/2020/12/Rare-GEF_Science-of-changing-behavior-introduction.pdf

EPA: Build Resiliency to Drought
<https://www.epa.gov/green-infrastructure/build-resiliency-drought>

National Academies of Sciences, Engineering and Medicine Webinar: How Are We, and How Should We Be, Adapting to Climate Change (video link)
https://vimeo.com/734768598?embedded=true&source=vimeo_logo&owner=2718555

Nutrients in Urban Stormwater Runoff: Current State of the Science and Potential Mitigation Options
<https://link.springer.com/article/10.1007/s40726-018-0087-7>

Study: Lawn fertilizers and pet waste are the major sources of nitrogen and phosphorus pollution in urban waters
<https://environment.umn.edu/news/nitrogen-and-phosphorus-pollution-in-urban-watersheds/>

Planning For Rain: Why Storm Water Management Matters during the Drought
Pacific Institute, July 2014
<https://pacinst.org/planning-for-rain-why-storm-water-management-matters-during-the-drought/>

Contrasting nitrogen and phosphorus budgets in urban watersheds and implications for managing urban water pollution
<https://www.pnas.org/doi/abs/10.1073/pnas.1618536114>