

Introduction

The Cherry Creek Stewardship Partners emerged from the first Cherry Creek watershed forum held in 1999 and have been successful in promoting active stewardship of the Cherry Creek watershed ever since. The Partners formed in response to the need for cross-jurisdictional coordination and communication on watershed issues such as open space, recreation and water quality in our streams and reservoir. The Cherry Creek Stewardship Partners enjoy the time, talent and financial support of individual citizens and representatives from land use jurisdictions, state and federal resource management agencies, conservation, recreation and historic preservation groups and the business community. The Partners have participation from agencies and individuals in both the upper and lower portions of the watershed, above and below the dam, providing regular information-sharing forums, coordination, and participation in projects and activities that enhance water resources and promote stewardship and community pride.

2023 Storms

Since the [Cherry Creek Basin Water Quality Authority](#) was created in 1985, stream protection and reclamation projects have been completed from the headwaters of Cherry Creek to the dam at Cherry Creek State Park. Below the dam, the City and County of Denver and the City of Glendale have embraced Cherry Creek as a community amenity and cooperated to manage Cherry Creek for the benefit of area residents, both human and otherwise. Partnerships with Mile High Flood District, Southeast Metro Stormwater Authority (SEMSWA), Arapahoe and Douglas Counties as well as the City of Aurora, Town of Castle Rock, City of Centennial, Town of Foxfield, City of Greenwood Village, City of Lone Tree, Town of Parker, and Castle Pines North have resulted in the planning and implementation of riparian corridor projects protecting the floodplain and reducing sediment flowing into Cherry Creek Reservoir. That work was rewarded when heavy rainfall in May and June hit the Cherry Creek Valley. Trails and roadways, particularly the perimeter road around Cherry Creek Reservoir, suffered some damages but, for the most part, the riparian corridor that has been protected with support from the Cherry Creek Basin Water Quality Authority was able to take up the intense storms and spread the flow out across an absorbent floodplain.

2023 Outings

Each year the Cherry Creek Stewardship Partners lead excursions along Cherry Creek where interested local residents can see their tax dollars at work. Annual Solstice and Equinox hikes at the Cherry Creek Valley Ecological Park add extra sets of eyes to observe and report on changing conditions in the watershed. Considerable beaver activity was noted at various locations in 2023. The Partners helped residents engage with land use agencies and build an understanding of 'tolerable adaptation' a term that refers to land managers' use of a common framework to assess beaver activity to determine when they can take a 'hands off' approach and when it is necessary to intervene and disrupt the beaver's busy routine.

Other outings include the late January **Hawk Walk on Cottonwood Creek** where Cherry Creek State Park staff, bird fans and 'friends of Cherry Creek' gather to walk the length of Cottonwood Creek for an opportunity to evaluate project benefits, learn about pollution reduction facilities and engage the community.



This photo is the intrepid Hawk Walk crew, January 28, 2023.

The **Unique to the Creek** hike south from the Broncos Parkway Trailhead was held, as planned, on June 4th. Even though it was 'raining like crazy' that morning, the sun broke through for about an hour allowing a few brave souls to see how the Creek was adapting to the major storms that arrived during the spring of 2023.



This photo shows the low water crossing in Cherry Creek Valley Ecological Park south of the Soccer Fields and Arapahoe Road.



This photo shows sand that filled in the secondary channel that is part of the 'splitter drop' at Cherry Creek Valley Ecological Park. June, 2023

Denver Metro Regional Science and Engineering Fair – downstream collaboration

The Partners work to build a constituency that supports efforts to maintain beneficial uses of Cherry Creek Reservoir and the entire Cherry Creek Watershed, both above and below the dam. As part of that collaboration, the Cherry Creek Basin Water Quality Authority has sponsored the Denver Metro Regional Science and Engineering Fair since 2003. Volunteers from Douglas and Arapahoe Counties, the City and County of Denver and the City of Aurora have worked as Display and Safety Judges, Special Awards Judges, and resource professionals able to engage with High School and Middle School scientists who display “Excellence and Outstanding Achievements in Environmental Science in the study and experimentation for the protection and preservation of life’s most important resource on earth...water!”

The 2023 Cherry Creek Basin Water Quality Authority Water Quality Award was given to Mathangi Kurup, for her project on The Effect of Microalgae Grown in Different Concentrations of Liquid Carbon on Atmospheric CO₂ Levels. The project was designed to demonstrate how “microalgae can reduce atmospheric carbon dioxide (CO₂) levels through carbon sequestration and investigate the effects of liquid carbon on algae biomass.” The entire presentation can be found by following this link:

<https://symposium.foragerone.com/2023-dmrsef/presentations/50365>

Mathangi is a multi-year award-winning young scientist who showed remarkable progress over the past several years. She is interested in the beneficial uses of algae.

Project Number: JR-PLT-004

The Effect of Microalgae Grown in Different Concentrations of Liquid Carbon on Atmospheric CO₂ Levels

Mathangi Kurup

February 2023

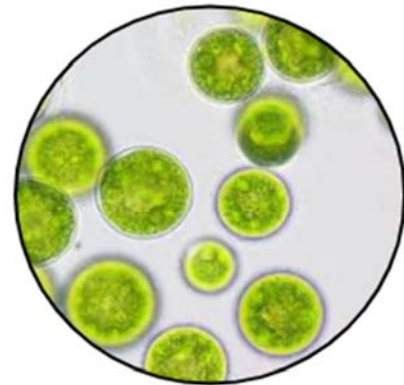


Image From: <https://www.newstrail.com/chlorella-vulgaris-market-size/>

The City and County of Denver Office of Transportation and Infrastructure presented Elizabeth Vossler, Denver School of the Arts with an award for her project Get the Lead Out. Elizabeth’s presentation addressed the effectiveness of active carbon filters for removing lead particles from drinking water. Her presentation can be found using this link:

<https://symposium.foragerone.com/2023-dmrsef/presentations/50471>

Along with Donny Roush, Stormwater Education and Outreach Specialist for the City and County of Denver, the Partners participated in the Denver Metro Regional Science and Engineering Fair Community Day by hosting a table with supplies and materials demonstrating various aspects of water quality. The Partners provided water quality testing materials and water samples to test for

Phosphorus, Nitrogen, pH and Dissolved Oxygen as well as turbidity. Donny brought macroinvertebrates to identify and learn how different species can provide indication of water quality based on different species' pollution tolerance to engage and inform students and parents who stopped by.

Colorado Water Plan

Efforts to actively engage in partnerships with other identified groups working on water related issues in the Cherry Creek Watershed include active participation on the Metro Round Table and the South Platte Round Table www.southplattebasin.com of the Inter-Basin Compact Committee. The Cherry Creek Stewardship Partners provide the matching contribution that allows the Metro and South Platte Roundtables to conduct Public Education, Participation and Outreach activities in the Cherry Creek and South Platte watersheds.

Stormwater Outreach

In 2023, Stormwater Permittees for Local Awareness of Stream Health (SPLASH) hosted three Rain Barrel Workshops. Partners facilitated registration. The Partners also support efforts to encourage local gardeners to evaluate soil needs before applying fertilizer. The Phosphorus-free campaign encourages Cherry Creek watershed residents to test their soil before they add fertilizer that includes Phosphorus, P in the NPK, ratio to make sure they don't add to Phosphorus pollution.

Douglas County Cooperative for Local Awareness and Responsibility (DC CLEAR) is another active stormwater cooperative working to actively engage residents in pollution reduction activities through print and social media publications as well as community Household Hazardous Waste (HHW) collection events.

The Cherry Creek Stewardship Partners promote stormwater outreach events and provide support as requested. The Partners attend community events to share resources with neighbors who are ready to learn more about how stormwater infrastructure works in their area. In 2023, the Partners also engaged with residents hoping to transition to more low-water, naturalized landscapes.

Provide support to Cherry Creek State Park in their education and outreach efforts.

The Partners are happy to be working with Cherry Creek State Park staff to incorporate the water quality mural onto the new Education Center building being constructed on the Swim Beach at the Park.



This photo is an artist's rendering of the yet-to-be-completed Education Center at Cherry Creek State Park.

The mural was first installed in 2020 and has been a popular attraction depicting aquatic life in the Cherry Creek Reservoir.

In 2023, the Partners arranged for a Cherry Creek State Park Campfire presentation: [Archeology of Indigenous Lives in the Cherry Creek Basin](#). The Cherry Creek watershed has revealed evidence of human habitation dating back more than 7,000 years ago. More recent native inhabitants were the Arapaho, Cheyenne, and Ute people. Timelines, history discussions and photos are available by searching the [Douglas County Virtual Museum](#) and [Colorado Encyclopedia at History Colorado](#).

2023 Conference

The 25th Annual Cherry Creek Watershed Conference: [Piece by Piece, An Urban Watershed Puzzle](#) was held at the Parker Arts & Cultural Events Center on August 24. Speakers explored topics which included: results from the Cherry Creek Reservoir monitoring program for Water Year 2022, physical and biological characteristics of the Cherry Creek Reservoir ecosystem, stormwater control efforts and challenges of Nitrogen reduction at wastewater reclamation facilities.

Changing land use priorities, turf grass and stormwater management as well as educational and recreational opportunities were brought to the discussion which included leaders and watershed managers from Cherry Creek and our fellow 'Tri-Lakes Projects'; Chatfield Reservoir and Bear Creek Lake along with representatives from the Barr-Milton Watershed Association. The value of such regional discussions is recognized and the U.S. Army Corps of Engineers' participation was appreciated as Cherry Creek, Chatfield and Bear Creek dams and lakes are all part of the [U.S. Army Corps of Engineers' Tri-Lakes Projects in Colorado](#).

The day concluded with talks about working with natural processes and partners, like beaver; an historical reflection on Cherry Creek, a look at headwaters opportunities in Douglas County and a preview of what we can look forward to from Ryan Pleune, of the Nature School Cooperative, an outdoor nature-based preschool serving southeast Denver and southwest Aurora.

With well over 100 attendees from throughout the watershed we are grateful for the sponsorship and support provided by the Cherry Creek Basin Water Quality Authority and all our Conference Partners. Everyone enjoyed networking at the PACE Center in Parker and left with a stronger commitment and understanding of our [Urban Watershed Puzzle](#).



We couldn't resist inviting our friend, the beaver, to the Conference.

Marie A. Mackenzie Legacy Award

Marie Mackenzie was a very special friend of Cherry Creek and left us way too early when she passed away in 2010. Marie was instrumental in the formation of the Cherry Creek Stewardship Partners, co-host of the first Cherry Creek Watershed Conference in 1999. Marie started her association with the Partners in these formative years and she was an inspiration to all. During that time Marie served as Arapahoe County Commissioner leaving a legacy of service on behalf of water resources throughout County. The **Marie A. Mackenzie Legacy Award** was created in 2012 and has been presented to Bill Ruzzo (2012), Lanae Raymond (2016) and Jim Wulliman (2023).

Jim Wulliman, Senior Project Manager for Stormwater with Muller Engineering, received the Award this year for his extraordinary accomplishments in the Cherry Creek Watershed. Along with a commemorative collection of Marie's memorable moments, Jim was presented with a 'Unique to the Creek' photograph by Bob Rozinski showing an interesting face-off between a Snowy Egret and an awesome Snapping Turtle, also known as a Mud Dragon. The photo was taken on our beloved Cottonwood Creek and donated by Wendy Shattil, of Shattil / Rozinski Photography.

Jim's award was also accompanied by an inspired 'stand up' routine choreographed by Joe Juergensen, also with Muller Engineering, and Jesse Clark, Principal with Stream Landscape Architecture. Together these two managed to keep the suspenseful anticipation going right up until the moment the winner was announced. Highlighting years of innovative project development and mentoring for a generation of professional engineers, Jim was recognized as an inspiring leader, generous with his time and devoted to his family.

(Insert photos here)

Bill Ruzzo and Lanae Raymond, as former recipients, also congratulated Jim Wulliman as this trio has set a very high standard for the **Marie Mackenzie Legacy Award for Stewardship of the Cherry Creek Basin**. The award is a tribute to a wonderful woman who demonstrated leadership, outstanding community service, and provided an enduring legacy that established Cherry Creek as a premier natural area to be protected, enhanced, and preserved. With this award, her smile and spirit are remembered.

What to watch for in 2024

Hawk Walk

Denver Metro Regional Science and Engineering Fair

Solstice and Equinox Hikes

U.S. Army Corps of Engineers Dam Safety Events

(May 18, 2024 – Tower Loop) (May 29, 2024 – Shoemaker School) (May 30 – Planned Release from Cherry Creek Reservoir)

Unique to the Creek

Prairie Canyon Ranch Range Management Workshop

26th Cherry Creek Watershed Conference