



## South Platte River Urban Waters Partnership

# Accomplishments as of May 2015

The following is a list of projects that Urban Waters Partnership members are working on currently, or have completed in the past. It identifies projects with Federal involvement and funding, projects that have multiple South Platte River Urban Waters Partnership (SPRUWP) members working together, projects that have been supported by the SPRUWP Leadership Team, projects led by the SPRUWP coordinator, and SPRUWP workgroup-led projects. Additional projects pursued individually by the various members of SPRUWP are not listed in this report.

Projects highlighted in green include green infrastructure and climate adaptation components.

**Green Infrastructure Virtual Tour:** EPA has found a volunteer intern to create a Google Earth green infrastructure virtual tour of sites within the partnership area.

**Sun Valley:** EPA has provided brownfields revitalization funding of \$30,000 under a technical support contract to ICF International and Van Meter Williams and Pollack. The funding is follow up support to the South Platte River brownfields area-wide planning grant/river corridor study. A scope of work was finalized in May 2015. In order to support the goal of implementing sustainable redevelopment solutions, Denver and Denver Housing Authority have requested technical assistance from EPA to identify green stormwater management alternatives that can be incorporated into the Sun Valley Homes master plan. Maximizing the utility of green infrastructure by helping to manage on- and off-site stormwater at the Sun Valley Homes site will help to reduce contaminant flow into the South Platte River and preserve/improve water quality. The stormwater management alternatives would need to meet the local Denver Urban Drainage and Flood Control District (UDFCD) requirements, complement the overall vision for the redevelopment project and the South Platte River Greenway, and improve water quality for Weir Gulch and the South Platte River. The two primary areas of interest for the project are: 1) the Old Colfax Avenue urban center, which anchors the redevelopment and has a few historic commercial retail buildings which the new construction would emulate; and 2) the surrounding residential development.

**National Western Stock Show Redevelopment and Water Resources Center:** The SPRUWP coordinator has been working with the City and County of Denver, Colorado State University, and other partners on a new master plan for the National Western Stock Show site. A Water Resources Center is included as part of the plan, which will take shape over the next several years.

[http://www.denverpost.com/headlines/ci\\_27159763/new-national-western-complex-plan-fleashes-out-site?source=infinite](http://www.denverpost.com/headlines/ci_27159763/new-national-western-complex-plan-fleashes-out-site?source=infinite)

<http://www.thedenverchannel.com/news/local-news/senate-approves-hefty-national-western-renovation-plan>

<http://www.governing.com/topics/urban/gov-denver-redevelopment.html>

**Green Infrastructure Case Studies:** The Leadership Team is working on compiling green infrastructure case studies and exploring creative and effective means of sharing this information online. They are also working on creating a Google Earth green infrastructure virtual tour.

**State and Private Forestry competitive grant:** The Leadership Team collaborated on an application for US Forest Service (USFS) State and Private Forestry Landscape Scale Restoration grant funds to craft a green infrastructure plan for the river corridor and watershed that documents high value natural resources and prioritizes investments in conservation, restoration, recreation, and education. The \$300,000 grant is expected to be awarded to the Colorado State Forest Service during FY2015.

**Environmental Learning for Kids:** With \$30,000 of National Fish and Wildlife Foundation and US Fish and Wildlife Service funding, Environmental Learning for Kids will partner with Denver Parks and Recreation, Denver Public Works, and Denver Public Schools to redevelop a degraded detention pond in an underserved Denver neighborhood into a destination natural area. This project will educate the community about the sources, fate, and threats to the water their communities depend on. Project activities include removing 1 acre of invasive plants, educating 265 community members, planting 10 trees, engaging 150 volunteers, removing 30 pounds of trash, and educating 200 students.

**Urban Waters Small Grants Round 2:**

*Denver Department of Public Works, Wastewater Management* – \$60,000 Urban Waters Small Grant from EPA. The Denver Department of Public Works, Wastewater Management, will continue and expand the Keep It Clean-Neighborhood Environmental Trios (KIC-NET) outdoor classroom model developed by environmental education nonprofit, Earth Force, in the impaired South Platte River and tributary watersheds. The program is expected to help meet pollutant source mitigation needs to protect the South Platte River and Cherry Creek watersheds while adding value to communities and schools.

*Groundwork Denver* – \$60,000 Urban Waters Small Grant from EPA.

Groundwork Denver will develop a Community Stewardship Network, which is expected to improve the water quality of and accessibility to the area surrounding Bear Creek. A key component of this project is the Master River Steward Job Training program, which will engage youth from Denver and Sheridan. These stewards will participate in water quality sampling and engage the broader community through education, outreach, stewardship activities, and recreation activities in the watershed. Outputs to be tracked include job training hours, water quality samples collected, households and businesses reached, volunteer hours, and stakeholders joining a Community Stewardship Network.

**Green Infrastructure Technical Assistance:** EPA provided \$50,000 in 2014 for green infrastructure technical assistance from EPA's contractor Tetra Tech to the City and County of Denver in conjunction with Urban Drainage and Flood Control District. EPA assistance supported the completion of green infrastructure practice criteria suited for ultra-urban environments and transportation projects including design elements, maintenance procedures, and schedules.

**BOR Cooperative Watershed Management Grant:** The Leadership Team submitted an application for funding to the Bureau of Reclamation's (BOR) Cooperative Watershed Management grant to support continued capacity-building within the partnership. The application was not funded, but the Leadership Team received positive feedback that will be useful in future proposals and intends to re-submit for funding in FY15 if funds are made available.

**CDC Foundation:** The Leadership Team submitted a request for Centers for Disease Control (CDC) Foundation Funding for water quality and public health efforts. The request was reviewed by the CDC Foundation, but has not

been funded at this time. Their response encouraged refinement of the ideas prior to resubmittal. Further work with local CDC partners is pointing toward other potential internal sources of funding.

**Organizational Development:** The SPRUWP has created its own mission statement, goals, workgroups, Leadership Team with charter, advisory committee, and logo (with design assistance from PJ Hasselbach). The workgroups are: Geomapping, water quality (active), systems mapping (work complete), education and engagement (currently not meeting), and headwaters/urban connection. The former funding workgroup has been rolled into the Leadership Team. A water connection working group is poised to take shape to continue work around the Water Resources Center and related activities. Priorities and leveraging are being expanded as an outcome of the systems mapping effort. The Partnership has developed a marketing brochure with assistance from EPA contractors and funding from EPA. Networking to expand the partners and work with other groups has been ongoing. New maps have been created by EPA GIS staff.

**Youth Urban Water Collaborative Day:** The Greenway Foundation and the SPRUWP education and engagement workgroup held a Youth Urban Water Collaborative Day March 31, 2014.

**Dry Gulch Green Infrastructure Channel Restoration:** EPA Region 8, utilizing \$30,000 in Office of Brownfields and Land Revitalization (OBLR), funded a contract with SRA International and subcontracts with HDR Engineering to create a green infrastructure channel restoration design for Dry Gulch on behalf of MetroWest Housing Solutions in Lakewood, CO. The Scope of Work was finalized in February 2014. Dry Gulch flows behind a new affordable housing complex and HeadStart near a new light rail station. Brownfield impacts and steep inclines limit accessibility for the gulch. Designs will be compatible with a future greenway along Dry Gulch. Urban Drainage and Flood Control District is a partner on this project. The design was completed in March 2015.

**Water Quality Assessment:** A water quality assessment is underway that will present a cross-jurisdictional view of water quality in the Denver metro area. This is being done by the water quality workgroup, which has participation from EPA, USGS, ATSDR, USFS, Denver Water, City and County of Denver, Colorado Department of Public Health and Environment, Metro Wastewater Reclamation District, Littleton/Englewood Wastewater Treatment Plant, Colorado Watershed Assembly, Groundwork Denver, and Jefferson Conservation District. To date, a survey has been completed and cross-jurisdictional data have been compiled and the group is preparing a draft “story line” for presentation to the Leadership Team in early 2015. EPA provided funding for a summer intern in 2014 to assist in compiling data for mapping. This will be useful for looking at emerging contaminants and traditional pollutants, the locations, and how development patterns affect water quality. An intern with the River Watch program has been creating a web interface. The water quality workgroup is working on compiling funding.

The Partnership has been developing a web-enabled, interactive tool that will make existing water quality data available to professionals and the public. The tool will have the capability to map and/or chart water quality data for the urban South Platte River basin. Users will be able to filter maps and charts by location, pollutant, or time period. The tool will initially display data for five pollutants, but more pollutants will be added as development of the tool proceeds. Publically available data will be used to build the tool. Dozens of Partners in the South Platte UWP collect water quality data from more than 160 sites though out the urban South Platte basin. Results for dozens of pollutants from thousands of samples are publically available from the State of Colorado, EPA, USGS, and the Colorado Data Sharing Network.

**HUD Choice Neighborhood Planning Grant:** The U.S. Department of Housing and Urban Development announced on November 22, 2013 that the Denver Housing Authority will receive a \$500,000 Choice Neighborhood Planning Grant. The money will allow the housing authority to draft a long-range plan to improve housing and revitalize the neighborhood. The Sun Valley project was one of nine selected from 52 applicants nationwide. The Sun Valley proposal was picked because of the work already underway in the neighborhood, including the Decatur-Federal Station Area Plan released in 2012. The grant gives the housing authority 16 months to complete a comprehensive plan. The grant was awarded and DHA has selected a contractor to start the

work.[http://www.denverpost.com/breakingnews/ci\\_24583139/500-000-grant-will-help-denver-polish-sun#ixzz2uwkGqzCy](http://www.denverpost.com/breakingnews/ci_24583139/500-000-grant-will-help-denver-polish-sun#ixzz2uwkGqzCy)

**Source Water Planning:** The Colorado Source Water Assessment and Protection (SWAP) program is designed to provide municipal water providers and public consumers with information about drinking water, as well as providing a way for water providers and community members to get involved in protecting drinking water quality. The program encourages community-based protection and preventive management strategies to ensure that all public drinking water resources are kept safe from future contamination. The Coalition for the Upper South Platte (CUSP) is serving as the facilitator for a SWAP planning project for the South Platte River watershed, which is being convened by Denver Water and funded with support from the Colorado Department of Public Health and Environment (CDPHE). EPA and USFS are participants in the process.  
<http://www.uppertsouthplatte.org/sourcewater.html>

**Systems Thinking (Mapping):** CDPHE and its Environment Water Quality Control Division requested development of a systems network diagram and systems thinking process, focused on projects and activities within the SPRUWP. The Logistics Management Institute (LMI) and Shadowcliff Associates were contracted by CDPHE to perform the work in 2013. The work was funded with \$25,000 of expiring 604b funding from EPA. Twenty SPRUWP partners participated in the effort. The project provided opportunities for leveraging and identifying partnership priority areas. EPA Region 8's sustainability coordinator provided technical assistance for the project. This activity was identified as one of the top three priorities at the first full SPRUWP meeting.

**Youth Water Quality Monitoring Investigation-to-Restoration:** Bluff Lake Nature Center received \$20,605 from the USFS and EPA through a National Fish and Wildlife Foundation 5 Star Urban Waters Grant. Bringing another \$23,771 in matching investment, Bluff Lake Nature Center will partner with Earth Force and Sand Creek Regional Greenway to monitor water quality and restore natural areas based on an initial analysis. The project partners are working with Achieve Academy of Mapleton Schools in Adams County, an underserved area.

**Denver Ecosystem Restoration Feasibility Study:** The US Army Corps of Engineers (USACE) Omaha District received \$50,000 in initial funding for a 3-year feasibility study into ecosystem restoration opportunities as well as some flood risk management on the South Platte River and its tributaries within the City and County of Denver. Federal ecosystem interest is in migratory bird habitat, wetlands, and aquatic habitat. The study is estimated to cost \$3 million and will be cost-shared between the USACE and Denver. A planning charette was held on September 23-26, 2013 with Denver and other partners. The City of Denver and USACE Omaha District signed a Feasibility Cost Sharing Agreement on May 20, 2014 initiating the study. The ecosystem evaluation will specifically assess restoration potential of riparian habitat, wetlands, and aquatic habitat. Detailed study activities were initiated in the fall of 2014. Three public meetings are being held in May 2015.  
[http://www.denverpost.com/denver/ci\\_27973627/denver-waterways-weir-gulch-harvard-gulch-s-platte-get-attention?source=infinite](http://www.denverpost.com/denver/ci_27973627/denver-waterways-weir-gulch-harvard-gulch-s-platte-get-attention?source=infinite)

**Chatfield Reservoir:** The Chatfield Feasibility Report and Environmental Impact Statement was approved and the Record of Decision (ROD) signed by Ms. Jo-Ellen Darcy, Assistant Secretary of the Army for Civil Works, on May 29, 2014. The Chatfield Reservoir Storage Reallocation Study addresses increasing water demand in the Denver Metro area, which exceeds available water supplies, by increasing the availability of water, providing an additional average year yield of up to approximately 8,539 acre-feet of municipal and industrial (M&I) water. This increase is projected to be sustainable over the 50-year period of analysis in the greater Denver Metro area so that a larger proportion of existing and future water needs can be met. The primary objective of the storage reallocation is to help enable water providers to supply water to local users, mainly for municipal, industrial, and agricultural needs, in response to rapidly increasing demand.

**Bear Creek Reservoir:** The USACE Omaha District received \$50,000 in Fiscal Year 2014 to initiate a reconnaissance study to evaluate the potential for water supply reallocation at Bear Creek Reservoir. The purpose of a

reconnaissance study is to assess at a conceptual level the initial Federal and non-Federal interest in proceeding to a more detailed evaluation.

**Natural Resource Damage Settlement Funding from Lowry Landfill:** The SPRUWP was used to facilitate a funding announcement and assistance for Lowry Landfill Natural Resource Damages Settlement funding from the State of Colorado. Three projects were funded: Bear Creek water quality \$114,500, Westerly Creek Greenway \$500,000 and \$500,000 match, and Bluff Lake Nature Center \$501,481.14.

**Survey and Assessment of Critical Urban Wetlands in Denver and Mountain Parks:** EPA provided \$237,155 in wetlands grant funding with \$104,759 in match to the Colorado Natural Heritage Program Wetland Program of Colorado State University beginning in 2012. The funding was provided to identify and assess the range and condition of wetlands in the City and County of Denver and Mountain Parks with high biodiversity significance, with an emphasis on identifying highly functioning urban wetlands. New National Wetlands Inventory maps will be generated as well as a mobile app. The project was completed in 2015.

**Hayman Burn Restoration Partnership:** The USFS and National Forest Foundation (NFF) worked with many partners from 2010-2012 through NFF's Treasured Landscape Hayman Restoration Partnership to reduce erosion and sediment flows in critical headwater areas of the South Platte River watershed burned by the Hayman Fire in 2002. Over \$2 million of non-federal funds were contributed by Vail Resorts, Aurora Water, Coca-Cola, Gates Family Foundation, John and Maureen Hendricks Foundation, Anschutz Foundation, The Nature Conservancy, Lowes, Remington Outdoor Foundation, Helen K & Arthur E Johnson Foundation, Xcel Energy, and El Pomar Foundation. Other key partners included CUSP, Mile High Youth Corps, Rocky Mountain Field Institute, Volunteers for Outdoor Colorado, and Wild Connections. On-the-ground accomplishments included planting over 55,000 trees; restoring 355 acres of wetlands and riparian areas; restoring four miles of stream channels; treating 90 acres for invasive plant species; and decommissioning, relocating, or maintaining nearly 80 miles of recreation trails and roads. This work employed or engaged 1,065 youth and 2,685 total volunteers who contributed over 19,000 volunteer hours.

**Rocky Mountain Watershed Protection Partnerships:** The USFS Rocky Mountain Region has been working with municipal water providers and corporate partners along the Front Range of Colorado to restore and foster the resiliency of forests within key watersheds. The goals are to mitigate the effects of the pine beetle epidemic, reduce the risk of severe impacts from wildfires, maintain water quality, and restore areas burned by past wildfires in critical watersheds on over 40,000 acres of National Forest System and private lands. For the Denver Water partnership, the Region will continue work to prepare and finalize the fifth annual collection agreement for FY2015 project implementation. This agreement is anticipated to secure \$5.5 million in additional funds from Denver Water in support of the partnership five-year operating plan, including approximately \$1.6 million that will be used for work on non-federal lands in priority watersheds in partnership with Colorado State Forest Service. The Region will also continue working on a project opportunity list for fiscal years 2016-2020 to inform potential renewal of the Denver Water partnership agreements in 2015 for another five years.

**Get Outdoors Colorado:** In celebration of Earth Day 2013, the USFS and Get Outdoors Colorado launched a new website called [GetOutdoorsColorado.org](http://GetOutdoorsColorado.org) to give people thousands of opportunities to explore and experience Colorado. The new website is an online springboard to all outdoor activities and events in Colorado. The website is free for organizations sharing their information and events, and for the public to search activities and to create a customized membership for outdoor interests. The interactive website is an outcome of a years' worth of collaboration between USFS, Colorado Parks and Wildlife, GP RED, Colorado Alliance for Environmental Education, Colorado Kids Outdoors, The Denver Botanic Gardens, The Colorado Parks and Recreation Association, the U.S. Department of Health and Human Services, and many others. The website now has more than 160 partners posting activities in 25 different categories throughout 20 counties across the state. The website is also fully integrated on social media platforms (Facebook, Twitter, Instagram, and Pinterest) to allow for greater connectivity statewide.

**Urban Forestry:** The Colorado State Forest Service awarded a total of \$100,000 to four projects to restore and protect Denver area waterways, while reconnecting local populations with their invaluable water resources. Projects funded involved the removal of invasive species and planting of native trees in riparian and wetland areas. Project funding was made available to the CSFS Urban and Community Forestry Program through a USFS grant resulting from the Urban Waters Federal Partnership to improve and restore crucial Denver-area waterways using urban forestry methods to involve local communities in the stewardship of these areas, and to showcase these projects for replication in other urban areas with degraded waterways. The four projects in Colorado that received funding in 2012 were: City and County of Denver Parks and Recreation (\$50,442), Institute for Environmental Solutions (\$20,000), South Suburban Parks and Recreation (\$20,000), Bluff Lake Nature Center (\$9,050). All of the projects except for Denver are complete.

**Urban Waters Partnership Coordinator:** The USFS provided funding to the Colorado State Forest Service to fund a Coordinator for the SPRUWP. Devon Buckels was hired in January 2013 to serve as the coordinator for the partnership. Funding provided was for two years. EPA provided funding for centrally located office space in the EPA Region 8 headquarters. In 2014 EPA and USFS provided additional funding for salary and EPA provided \$20,000 additional funding for space to extend the position for at least 3 years. USFS provided funding for short-term Leadership Team meeting facilitation from the Keystone Center. Starting in July 2015, the coordinator position will be hosted by The Greenway Foundation, a Denver-based non-profit organization focused on restoration and education around the South Platte River, through a contract with CSFS. Hiring a coordinator was identified as one of top three priorities identified at first full Partnership meeting.

**Wildfire Readiness and Response Workshop – Is Your Utility Prepared?:** EPA and USFS worked together with the Water Research Foundation to put together a workshop on impacts of wildfires on Water Utility Operations. EPA provided \$18,000 in funding for the workshop, which was held on April 4-5, 2013. Approximately 100 attendees came from multiple states and Canada. This meeting brought together utilities, academic researchers, regulators, NGOs and others. Key goals of the workshop included evaluating the potential for wildfire in specific source water protection areas; understanding the impacts of wildfire on water quality; identifying and characterizing strategies that are effective for preventing, mitigating, or minimizing wildfire impacts; assessing implications of land disturbance on water quality and drinking water treatability; determining the mechanisms and timeframes for watersheds to recover from wildfires; understanding challenges faced by drinking water utilities after wildfires and solutions that have been effective; improving awareness of the impacts of fire-fighting techniques on drinking source water quality; assessing strategies for managing and protecting water quality with proven restoration and management practices; and providing case studies of inter-municipal cooperation and management strategies. The workshop will result in publication of a survey of water utilities and wildfire experience, a literature review of the state of the knowledge, and a final report from the workshop with presentations and a summary of research gaps.

**Green Infrastructure Design Assistance:** EPA provided \$50,000 in a technical assistance contract to Tetra Tech, from EPA's green infrastructure program, to develop innovative green infrastructure options for a new affordable housing development at 38<sup>th</sup> and Blake – adjacent to the Blake and 38<sup>th</sup> light-rail station in downtown Denver. This project was done for the Urban Land Conservancy. The project was announced in July 2012, the work was incorporated into a design charette in October 2012 and completed in September 2013.

#### **Urban Waters Small Grants Round 1:**

*Barr Lake and Milton Reservoir Watershed Association*-\$60,000 Urban Waters Small Grant from EPA  
This May 2012 award provided funding to Barr Lake and Milton Reservoir Watershed Association (BMW) to bring together the nine watershed associations in the Denver metropolitan area, along with Metropolitan State University of Denver's One World, One Water Center for Urban Water Education and Sustainability (OWOW) and Water 2012 to develop effective, unified, and comprehensive clean water messages for a coordinated public outreach campaign (including outreach to communities of color and low-income communities) that partners can implement. Partners have developed a common messaging campaign around dog waste and phosphorus fertilizer. The City of Aurora, the City and County of Denver, and the Colorado Stormwater Council will be using the messages in their public outreach activities. The grant has been completed. Work is ongoing to expand the

messages state wide. Messages, logo, and a video on the grant and lessons learned can be found at <http://www.barr-milton.org/>

*Earth Force Inc.* - \$60,000 Urban Waters Small Grant from EPA

This 2012 award provided funding to Earth Force to work with Denver Public Works and Denver Public Schools to develop Outdoor Classrooms that reach 750 youth and result in stewardship of the South Platte River. The project, Keep It Clean: Neighborhood Trios (KIC-NET), included teacher training workshops and development of an educational toolkit for outdoor classrooms. The grant has been completed, however, the project is being continued and expanded in a new EPA Urban Waters Small Grant. This work has been selected to receive the Colorado Alliance for Environmental Education's 2014 Environmental Education Award for Excellence in the Best New Program category.

<https://www.youtube.com/watch?v=bgnx3BWWnJ0>

**River Vision Coordination Committee:** EPA is working with The Greenway Foundation, City and County of Denver, and other stakeholders to locate funding and implement the top five River Vision Implementation Plan Projects. These projects include: Grant Frontier/Overland Regional Park (Southern Platte Valley), Vanderbilt and Johnson-Habitat Parks, Sun Valley Riverfront Park, Confluence Park-Shoemaker Plaza, and Art Bridge. These projects will improve river access and water quality. EPA provided \$262,500 for contract riparian green infrastructure design work for the South Platte River at Sun Valley/Weir Gulch and Johnson-Habitat Park through a contract with DHM. This funding was used as match for a Great Outdoors Colorado grant. \$25 million has been raised so far. Construction commenced in 2014.

[http://www.denverpost.com/environment/ci\\_20438216/denvers-south-platte-projects-win-350-000-epa?IADID=Search-www.denverpost.com-www.denverpost.com](http://www.denverpost.com/environment/ci_20438216/denvers-south-platte-projects-win-350-000-epa?IADID=Search-www.denverpost.com-www.denverpost.com)

**South Platte Brownfields Area-Wide Planning Grant:** Denver and the South Platte River watershed were awarded a \$175,000 brownfields area-wide planning grant in November 2010 as one of 23 national pilots, and an additional \$75,000 to study more sites in 2012. A plan for redevelopment of five catalytic potential brownfields sites along the South Platte River in Denver was created with significant community input facilitated by The Greenway Foundation. Green infrastructure and stormwater planning were part of the plan that was completed in 2013. There has been recent development interest as a result of the plan. The City and County of Denver has applied for an EPA Brownfields assessment grant in January 2014 as followup to the plan. They applied again in December 2014 since the assessment grant was not funded. One of the catalytic sites is under construction in 2015.

[www.denvergov.org/southplatte](http://www.denvergov.org/southplatte)

**River North Green Infrastructure Design:** Urban Drainage and Flood Control District was awarded \$12,500 in hometown funding from EPA in 2012 which they matched with an additional \$12,500. Green infrastructure design options were drafted with public input for the River North area of the South Platte River. Work was completed in 2013. This project complemented the South Platte Area-Wide Plan.

**Green Infrastructure Design for Sun Valley and Johnson-Habitat Park:** EPA provided \$262,500 in hometown funding to DHM on behalf of the City and County of Denver. The funding was used for green infrastructure design for Sun Valley near Weir Gulch and the confluence with the South Platte River. Sun Valley is a Denver Housing Authority affordable housing complex. Funding was also used for a riverfront park redesign at Johnson-Habitat Park along the South Platte River. The green infrastructure design will improve habitat and water quality in a premier regional park that will allow overnight urban camping. The design includes vegetative bioswales, water quality basins, and wetland vegetation to filter stormwater runoff from roads and parking areas. \$5.25 million will be spent on construction of the park.

**Targeted Brownfields Assessment for Westerly Creek at Stapleton:** Using EPA START contractor UOS, Region 8 conducted a targeted brownfields assessment of portions of Westerly Creek at Stapleton on behalf of Sand Creek Regional Greenway and Park Creek Metro District. The Region used visual surveys and soil borings to assess the site for asbestos. Data will be used to determine that no additional cleanup was needed before a portion of the creek is realigned and a regional park is constructed. Cost was approximately \$80,000.

**Westerly Creek Green Infrastructure Stream Restoration Design:** EPA Region 8, utilizing \$30,000 in Office of Brownfields and Land Revitalization (OBLR) funds and \$20,000 in Environmental Justice funds in a contract with SRA and subcontracts with Wenk and Associates and Vision Land, created a stream restoration design for an already planned park in a mostly immigrant community. Region 8 partnered with Trust for Public Land, the City and County of Denver, Urban Drainage and Flood Control District, and Earth Force. The design used green infrastructure approaches to improve river access, safety, and water quality. Earth Force created a youth involvement piece for the community meetings. Denver applied for Natural Resource Damage Claim funds from the Lowry Landfill for the implementation of the EPA funded design and was successful in receiving \$500,000 with \$500,000 match. Additional design work began in fall 2014 and construction is anticipated to begin in fall 2015.

**Protect our Urban River Environment (PURE) trash monitoring protocols:** In order to address trash polluting the South Platte River, EPA Region 8 worked with PURE (The Greenway Foundation) and the City and County of Denver on developing trash monitoring protocols and surveys in order to quantify the trash. This effort is part of a section 319 grant, from the Colorado Department of Public Health and Environment (CDPHE), to create a public outreach campaign to reduce trash in the river. Three monitoring events have occurred. EPA staff along with CDPHE, City and County of Denver, and the Greenway Foundation participated in the design of the protocols and also the Riversweep and survey events. PURE has received a CDPHE nonpoint source grant for \$50,000 with \$33,333 match.

**Lower Bear Creek Watershed Plan – Denver, Jefferson, and Arapahoe Counties:** EPA Region 8 and the National Park Service (NPS) worked with Groundwork Denver on a \$60,000 (\$40,000 match) Section 319 grant from CDPHE to create a watershed plan for Lower Bear Creek. This plan assists the community in addressing E. Coli, as well as other water quality issues. The Region 8 lab provides support for volunteer monitoring sample analyses, which show exceedances for *E. coli*. The NPS Rivers, Trails, and Conservation Assistance (RTCA) program supported Groundwork Denver in developing a watershed plan for the last eight miles of Bear Creek, from the discharge of Bear Creek Reservoir to the confluence with the South Platte River. The plan provides information and action items to engage residents, businesses, and other stakeholders in reducing pollution in the urban Bear Creek to ultimately help remove Bear Creek from the State of Colorado's list of impaired waters. The Bureau of Land Management surveyed Lower Bear Creek through the lens of the Proper Functioning Condition Assessment. Groundwork Denver also received support from EPA's Urban Waters Learning Network. A watershed plan was submitted to CDPHE in October 2014.

**World Water Monitoring Day:** Many partners participate yearly in World Water Monitoring Day, along with CH2MHill as lead, in an effort to engage elementary and high school students on water quality issues on the South Platte River at the confluence with Cherry Creek. Events took place on September 24, 2014; September 18, 2013; September 19, 2012; and September 21, 2011. Earth Force, The Greenway Foundation, EPA, USGS, USFS, Denver Public Works, Trout Unlimited, CO Department of Transportation, Denver School of Science and Technology, and various Denver elementary schools have participated over the years.

[https://www.youtube.com/watch?v=ePXjye2\\_USg](https://www.youtube.com/watch?v=ePXjye2_USg)

**South Platte River Water Quality Monitoring:** EPA Region 8, in partnership with the City and County of Denver, is monitoring the South Platte River, Westerly Creek, and Sand Creek for pharmaceuticals, pesticides, and personal care products, as well as other contaminants. EPA Region 8's laboratory is analyzing the samples using a newly developed analytical procedure. ATSDR will help evaluate the results.

Recent studies by USGS have evaluated the water quality of storm water in the Denver area (<http://co.water.usgs.gov/projects/CO322/index.html>), selenium loading in the Toll Gate Creek watershed (Aurora, Colorado) (<http://pubs.usgs.gov/sir/2012/5280/>), and water quality at the Rocky Mountain Arsenal (Commerce City, Colorado) (<http://pubs.usgs.gov/sir/2005/5214/>). In 2013, the USGS continued long-term surface-water-quality monitoring along Cherry Creek in Denver and evaluated water quality in the headwaters of the South Platte River watershed (Park County, Colorado) in cooperation with CUSP and the Colorado Geological Survey.



**Urban Waters River Rangers:** EPA Region 8 worked with the Urban Waters Team at Headquarters and contractors to develop an urban waters green jobs pilot where at risk youth learn to sample, analyze, and map water quality and complete green jobs internships. This project was done in conjunction with The Greenway Foundation, Earth Force, and River Watch. Paid internships for the students were with the Nature Conservancy and USFS. The students worked toward a certification in environmental education and future green jobs. The Region 8 lab provided laboratory analyses, sample equipment, and training. The project took place between 2010 and 2013.

**Urban Waters Partnership Geomapping:** EPA provided funding through a contract with SAIC to create a geomapping platform for the SPRUWP. Webinars, questionnaires, and data gathering activities have been completed. Partner addition of projects to the map is ongoing. This work was identified as one of the top three priorities at the first full Partnership meeting. The platform is currently located at <http://geoplatform1.epa.gov/urbanwaters/index.html> and is accessible to all UWP members and the public.

**Aurora Brownfields Area-Wide Planning Grant:** The city of Aurora received a \$115,000 brownfields area-wide planning grant in 2010 for work encompassing part of Westerly Creek. Three public meetings were held and the plan is complete. Aurora has received additional funding from FEMA for bridge replacement at Montview Blvd. The bridge reconstruction will necessitate improvements to a park, Westerly Creek, and the Westerly Greenway. Work was completed in 2012 on the plan. <https://www.auroragov.org/cs/groups/public/documents/document/014383.pdf>

**EPA Emergency Response:** EPA's emergency response program responded to a seep of petroleum products into Sand Creek near its confluence with the South Platte River beginning in November 2011. EPA continues to provide technical support to CDPHE and the responsible party. <http://www2.epa.gov/region8/sand-creek-seep>

**South Platte River Connections:** NPS RTCA is helping the City and County of Denver and the Greenway Foundation to identify and overcome barriers that prevent residents of neighborhoods adjacent to the South Platte River in Denver from accessing the South Platte River Greenway and its many amenities and benefits. Barriers to accessing natural resources and recreational amenities in urban areas can be complex and include things like perceptions about lack of safety, inadequate physical connections, and lack of relevant programming for communities. To ensure that residents of adjacent neighborhoods are able to access and engage in the physical and psychological benefits that come with connection to natural resources and active lifestyles, RTCA will facilitate a coordinated effort with the community partners to better understand what might get in the way of access to the Greenway and then to collectively strategize on how to overcome these barriers to access. The planning effort will initially focus on the river corridor south of West Bayaud Avenue to Denver City limits.

**Rocky Mountain Greenway Trails:** On Monday, February 18, 2013, Interior Secretary Ken Salazar, Transportation Secretary Ray LaHood, Colorado Governor John Hickenlooper, and Kate Kramer from Sand Creek Regional Greenway made an important announcement on the Rocky Mountain Greenway and to celebrate the expansion of the Rocky Flats National Wildlife Refuge. The US Department of Transportation awarded \$1.735 million for seven miles of trails along the Rocky Mountain Greenway. The Greenway will connect the Rocky Mountain Arsenal and Rocky Flats National Wildlife Refuges with the Two Ponds Refuge and Rocky Mountain National Park. The Rocky Mountain Greenway is part of Department of Interior's America's Great Outdoors Initiative and also the Urban Waters Federal Partnership.