# South Platte River Urban Waters Partnership (SPRUWP) Full Partners Quarterly Meeting February 14, 2024, 1:00 PM - 3:00 PM Aurora Water Binney Treatment Plant Meeting Summary - FINAL

#### **ATTENDANCE**

*Participants:* Carrie Aulton, Matt Ashely, Ryan Banta, Stacey Eriksen, Luz Alejendri Lopez, Ann Malinero, Melody Macarenaz, Courtney Massey, Magotle Ndiaye, Jordan Parman, Tess Robeson, Donny Roush, Jessica Swindon, and Sabrina White

Facilitation team: Dominique Ashe and Samuel Wallace

#### **ACTION ITEMS**

<b>Matt Ashley</b>	Ask colleagues whether any post-treatment sedimentation monitoring was
	conducted for the Monarch Pass Steep Slope Logging project.

#### **PARTNER UPDATES**

## **US Geological Survey (USGS)**

- The USGS conducted its last round of manual surveys for the geomorphology study of the South Platte and is working on amalgamating results. Ryan Banta will share the results with the SPRWUP partners at a future meeting.
- The preliminary study results are a success, enabling the USGS to utilize new datasets to request for pre-construction federal funds.

# City and County of Denver

Denver is hosting the upcoming event, World Water Day, on Friday, March 22, from 10 am to 2 pm at the RiNo Art Park.

#### Metro Water Recovery (Wastewater Reclamation District)

The district is in the design phase of its in-stream habitat improvement projects. These upcoming projects are Phase 5 of Metro Water Recovery's in-stream habitat improvement effort.

# **SPRUWP AT A GLANCE & COMMITTEE UPDATES**

Samuel Wallace, Peak Facilitation and SPRUWP Ambassador, presented SPRUWP accomplishments and committee updates. His presentation is summarized below.

- The South Platte River was one of the original Urban Waters locations established in 2011.
   The Environmental Protection Agency (EPA) is the lead agency of the Urban Waters Federal.
   The SPRUWP has over 70 partner groups involved to date with a mission to collaborate across jurisdictions and disciplines to engage communities and to protect and restore the South Platte watershed.
- SPRUWP focuses on the following overarching goals:
  - o Collaborate, educate, and engage.
  - Connect people with water.
  - o Protect and restore the watershed by leveraging resources.
  - o Communicate achievements and share technical information.
- SPRUWP is comprised of a full partnership, an Advisory Committee, a Science and Data Committee, and an Education and Outreach Committee.
- SPRUWP accomplished the following in 2023:
  - o Circulated a monthly e-newsletter to share grant opportunities and events.

- Hosted quarterly full partner meetings that toured partners' projects and facilities and discussed local policies.
- Hosted a funding workshop to discuss upcoming grant opportunities, processes, and leverageable resources.
- o Developed a 10-year SPRUWP anniversary celebration video.
- o Updated the South Platte River Water Quality Assessment Tool (WQAT).
- There are several funding and project opportunities that SPRUWP partners should be aware of in 2024. Throughout the year, SPRUWP partners will receive information and updates on these funding programs and projects. These opportunities include:
  - EPA Community Change Grants, which have allocated over \$2 billion dollars for environmental and climate justice activities to benefit underserved communities,
  - USGS annual Urban Waters Funding for scientific research, which will be a topic for discussion in SPRUWP Science and Data Committee meetings.
  - o The US Army Corps of Engineers' South Platte Restoration projects.
- The Education and Outreach Committee's purpose is to provide opportunities for educators to collaborate on projects and share best practices to expand awareness and education of urban water issues and develop future water stewards and practitioners. In 2024, the Education and Outreach Committee is interested in discussing the following topics:
  - Sharing success stories on how environmental justice grants are being used by educational groups.
  - O Discussing gaps in the workforce and how education can make a difference.
  - o Identifying opportunities to promote educational efforts that help the public understand the source of their water.
  - o Expanding youth development in the Colorado Water Plan and South Platte River.
- The Science and Data Committee's purpose is to develops projects devoted to improving and expanding access to data and scientific findings related to water quality and restoration. In 2024, he Science and Data committee is interested in discussing the following topics:
  - o Discussing green infrastructure assessments and monitoring.
  - Building relationships with other scientific groups conducting research on the South
  - Discussing new approaches to monitoring and assessing risk related to harmful algal blooms.
  - Updating the 303(d)-listing methodology.
  - Hear updates about geomorphology and aquatic biota studies on the South Platte River
  - o Identify opportunities to fill gaps in the scientific research of the South Platte River
- These committees are open for any partner group to join. Any partner interested in joining one of the committees should reach out to Samuel Wallace, SPRUWP Ambassador.

## **AURORA WATER SOURCE WATER PROTECTION PLAN**

Matt Ashley and Carrie Aulton, Aurora Water, presented its forthcoming Source Water Protection Plan (SWPP). Highlights from their presentation are summarized below.

#### SWPP Overview

- Aurora Water has been developing its SWPP over the past 15 years. The plan will be published once Aurora Water's director signs the final version and Aurora's city council approves it, approximately in April 2024.
- The SWPP focuses on protecting water quality and availability in the Upper South Platte watershed through indirect and direct land stewardship.

- Aurora Water conducted its first watershed health project after the 2009 Hayman fire, where loose sediment had scoured the creek beds. The project reconstructed sediment retention ponds to slow the sedimentation moving downstream and reestablish wetland filtration systems; these systems are an ecosystem service that helps reduce utility treatment costs.
- Aurora Water developed a SWPP because wildfire is the primary threat to Aurora's water source. The utility entity also anticipates direct potable reuse and other regulatory schemes to require SWPPs in the near term.
- The Aurora Water SWPP aims to unify institutional water knowledge and provide a formal program for strategic water source protection planning, implementation, management, and recommendations. The SWPP includes three guiding aspects: communication and outreach, forest management, and ecosystem services.

#### Three Sections of the SWPP: Management Plan, Implementation, and Recommendations

- The first part of Aurora Water's SWPP process involved developing a Watershed Management Plan that focused on forested areas in the upper watershed areas.
- Implementation is the second part of Aurora's SWPP process. During this step, Auror Water prioritizes funding for projects based on rankings of sub-basins, the overall importance of each subbasin to the water supply, and potential hazards and threats. Two project highlights include Miller Gulch, which will treat 1,500 acres, connecting two fire burn scars, and Monarch Pass Steep Slope Logging, a state pilot project.
- Another aspect of implementation is upgrading culvert. They are working to replace undersized culverts to compensate for post-fire and post-rain sedimentation and improve passages for aquatic organisms.
- Aurora Water faces challenges in implementing some projects, primarily because of land ownership; in Colorado, 44% of land is privately owned, and 50% is federal. Aside from ownership, much of the watershed's land is steeply sloped or designated as special land (e.g., lynx habitat), creating fluctuations in treatment costs.
- Aurora Water recognizes that protecting its watershed prevents expensive treatment process upgrades. The last component of the SWPP is a set of recommendations, which include:
  - o Participate in planning projects in the watershed.
  - o Track relevant legislation.
  - o Promote sound management in the Aurora urban watershed.
  - o Update GIS tools and update the SWPP every four years.
- Aurora Water's next steps include conducting an analysis, education, and outreach with its constituents, continuing to partner on project planning, and increasing the plan's focus on urban watersheds.

#### **Aurora Water SWPP Presentation Questions**

Meeting participants asked Matt Ashley and Carrie Aulton clarifying questions. The questions are in italics, and the corresponding answers are in plain text.

Can SRPWUP link the Aurora Water SWPP to its website?

Once the SWPP is finalized SPRUWP can link the document to its website.

What is Aurora Water's source water make-up?

Approximately 50% of Aurora's water is from the South Platte River, 25% from the Arkansas River, and 25% from the Colorado River.

Did Aurora Water conduct any post-treatment sedimentation monitoring to the Monarch Pass Steep Slope Logging project?

Unsure. Matt Ashley will ask colleagues about the project sedimentation outcomes.

At the Monarch Pass project, were trees harvested or masticated?

Both. Around 20-30% of the wood was sold commercially, the middle sections of the trees were sold as firewood, and the remaining sections were masticated and chipped onsite.

Is the USFS Rocky Mountain Research Station studying the Monarch Pass project's post-treatment impacts?

Yes.

Does the SWPP specify any public education campaign recommendations? Not yet. Aurora Water will build campaigns during the next 2-3 years.

#### AURORA WATER BINNEY WATER PURIFICATION FACILITY TOUR

Ann Malinero, Aurora Water Treatment Process Specialist, gave meeting participants an overview of the treatment facility before the tour began. Her presentation is summarized below.

- The Binney Water Purification Facility has two treatment process "trains" to treat water: the Aurora Reservoir and the South Platte River trains.
- The Aurora Reservoir is pristine mountain water sourced. The train functions through a conventional treatment process: coagulation, flocculation, clarification, filtration, and disinfection. After the conventional treatment, water is disinfected with free chlorine and ammonia before reaching consumer taps.
- The South Platte River train is an indirect potable reuse train. This train is treated through a multi-barrier or "Swiss cheese" approach to address different contaminants. The process includes riverbank filtration, precipitative softening, ultra-violate advanced oxidation, biologically active filtration, and granular activated carbon adsorption.

# Binney Water Purification Facility related Questions

Meeting participants asked Matt Ashley and Carrie Aulton clarifying questions. Questions are in italics, and corresponding answers are in plain text.

*Does the South Platte riverbank ever need replacement?* 

The river's stages change throughout the year, which create natural washing. Additionally, the South Platte basin aquifer filters well because it is primarily made up of porous gravel rather than impervious clay.

## Facility Tour

After the presentation, Ann Malinero, led meeting participants through a tour of the purification facility.