



**The Water Connection / UWP**  
**March 15, 2016**  
Meeting Notes

*Welcome/Introduction*

**Devon Buckels** provided introductory remarks and thanked the advisory committee and Leadership Team members. The next meeting will be June 7 featuring a presentation by the Metro Wastewater Reclamation District.

*Presentations*

**Patti Wells**, General Council at Denver Water: Denver Water's Operations Complex Redevelopment Plan and One Water Strategy

- New plans and diagrams for the Denver Water complex were presented along with a description of the One Water Strategy. The project is an integrated and sustainable approach which will emphasize green infrastructure and resource recovery. Plans include integration of drinking water, wastewater, greywater, and rain water to minimize the use of potable water. Water will be recycled on-site for non-potable purposes. A central part of the plan revolves around the use of an Eco Machine (<http://www.toddecological.com/>), which would function as an on-site natural wastewater treatment plant. Some Colorado regulations were cited as potential barriers to the design, which developers are hoping can be amended. Other cities in the United States now require water recycling for new buildings or have initiatives to encourage them.
- Question/Answer Session
  - Q: How much water will be saved? A: Patti could make an estimate but was unsure and could check with the planners.
  - Q: Is building proceeding with the anticipation that current water regulations will be amended? A: Yes, building is moving forward with dual flushing capability. They are hopeful that regulations will be amended and have some comfort knowing what other states do.
  - Q: Are you concerned that the project's use of rainwater will set a precedent for others, i.e. rain barrels? A: No. This project's scope is 1000's of gallons and they will be augmenting river input 100%. Patti is also hoping that current rain barrel legislation passes to allow two 55-gallon drums.
  - Q: How much phosphorous comes out? A: Enough to meet the nutrient standard, it should be used by the Eco Machine.
  - Q: Looking at big picture water quality impacts, would this project concentrate pollutants like emerging contaminants? A: It's not anticipated that this would happen, but a possibility. All effluent would be filtered through the plants before reaching the river.
  - Q: Why are we changing Regulation 84? A: It's been modified in the past to expand available uses, and they'd like to add toilet flushing to this list.
  - Q: Will this effort be used for educational purposes? A: Yes, both on-campus and through a partnership with CSU. There are talks to co-locate a water quality laboratory.



- Q: Are engineers basing their plans and sizes on 100 / 500 year storms? A: The project will be storing rainwater but not stormwater. When there's too much rainwater, it will overflow to stormwater.
- Q: Undeveloped land retains water whereas impervious surfaces result in 90% runoff. Is this project meant to mimic pre-development hydrology? A: The project will feature pervious pavement and rain gardens to minimize storm drain discharge and maximize re-use through irrigation.
- Q: Will you close the loop with blackwater; where do biosolids go? A: There is still a sanitary sewer connection. Case studies with existing Eco Machine systems are present on the John Todd website (see link above).

**Sarah Dominick**, Water Resource Engineer at Denver Water: Source Water Protection for Denver – Cheaper than Membranes

- Maps of collection and service areas were presented along with some historical information and statistics for the system. Integrated Resource Planning was discussed. In 2011 it was determined that the system would need 1-2 billion to upgrade plants and infrastructure; so a focus on protection could be cost-saving and effective. Denver Water looked at data from the Upper South Platte watershed and found either flat or improving water quality with low nutrient levels. Some of this improvement may have been due to changes following a fire. Mapping impaired reaches along with land use allowed them to track local sources of contamination, like an E. coli impairment immediately downstream of a ranch. The efforts also function as a roadmap for future watershed analyses.

**Carol Ekarius**, Executive Director at Coalition for the Upper South Platte

- The CO Source Water Assessment and Protection (SWAP) program had previously been done in mostly small towns. They've identified actions for the next 5-10 years to maintain water quality. Best management practices have been identified, such as concentrating monitoring in areas of high septic tank concentrations. Priority topics include on-site waste water treatment systems, agricultural practices, oil and gas exploration, transportation, forest health, mine drainage, and uranium development. In the area of transportation, a BMP example was given where outreach was conducted with local emergency responders regarding spills. Spill kits were provided allowing an inventory to be created, and disposal and recycling programs were encouraged.
- Time did not allow for questions from the presenters until after the meeting conclusion, but their contact information was provided: [Sarah.Dominick@denverwater.org](mailto:Sarah.Dominick@denverwater.org); [Carol@uppersouthplatte.org](mailto:Carol@uppersouthplatte.org).

### *Introductions*

The meeting was well-attended, and time did not allow for individual introductions. Attendees included a diverse group of federal, state and local government partners, nonprofit and private sector businesses, and utilities.



#### *Partner Updates*

**Ben Tyler** – The Water Quality Assessment Tool went live this week and can be accessed at [www.thewaterconnection.org](http://www.thewaterconnection.org). It is meant to be a robust web-based water quality tool, where data can be retrieved and evaluated centrally. Output options include maps, graphs, and data downloads.

**Donny Roush, Earth Force** – They are hiring a new partner at the early/mid-career level.

**Rachel, Greenway Foundation** – Several positions are available for summer camp staff, college students focusing on environmental education would be most valuable.

**Jeff Shoemaker, Greenway Foundation** – An update was provided regarding the merge of the Urban Waters Partnership, The Water Connection, and the Greenway Foundation. TWC should be fully integrated into The Greenway Foundation by July 1. EPA would like the UWP to continue separately for the time being. Members of the advisory committee (Stacey Eriksen, Keith Wood and Dana Coelho) can provide more information.

#### *Conclusion*

**Devon Buckels** provided closing remarks and opened the floor for post-meeting discussions.