

On the Water Front

Rocky Mountain Water Quality Analysts Association

Fourth Quarter 2012

Leave No Trash Behind

By Michelle Ryerson, MWRD

We all know trash thrown on the ground is an eyesore and a nuisance, but we don't often think of it as a river pollutant. In 2009, however, Jeff Shoemaker of the Greenway Foundation did.

Shoemaker and a group of business leaders, residents, and non-profits joined together to create PURE – Protect our Urban River Environment. PURE's mission is to establish long-lasting improvements along the South Platte River by improving awareness of how trash negatively impacts water quality. PURE wants to change the mindset of those who litter.

The South Platte River emerges from the foothills of the Rocky Mountains southwest of Denver, CO, and fills Chatfield Reservoir, a major flood control and water storage facility for the Denver metro area. The river flows north through central Denver, which has an estimated population of 610,000. More than 3,000,000 people live in the Denver-metro area.

Denver, located next to the banks of the South Platte, has the tenth largest central business district in the United States. The river is enjoyed by kayakers, rafters, fisherman, walkers, runners, and bicyclists. To improve the water quality of this urban amenity, one of PURE's first initiatives was to develop a zero tolerance for trash in and along the banks of the river. Shoemaker and others even explored the possibility having the Colorado Water Quality Control Commission list trash as a pollutant. The commission rejected the request, but they agreed to follow the issue.

Just because Colorado decided against naming trash a pollutant now doesn't mean it won't be named as a pollutant in the future.

The Los Angeles River Watershed has had a trash TMDL (total maximum daily load) since 2008. This TMDL describes the maximum amount of trash



Example of trash accumulation in river structures.

allowed in the Los Angeles River and allowed only 60% of that baseline by the second year. Maryland followed in 2010 with an approved trash TMDL established in the Anacostia Watershed.

To reach their trash reduction goal, the Greenway Foundation decided a voluntary and collaborative approach would work best for the South Platte River. The challenges associated with implementation include defining what trash is, establishing a baseline, controlling the source(s), and accounting for natural debris like tree limbs.

To help fund the volunteer effort, the Greenway Foundation and its partners pursued a grant from the Colorado Department of Public Health and Environment's (CDPHE) Nonpoint Source Management Program. They proposed to develop an outreach and

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Quagmire's

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I'm short and get really tired jumping up to see all the great displays at the Science Fair when I volunteer to judge. What can I do?

Dear Quagmire,

You are certainly in a quagmire and the Science Fair organizers will provide appropriate accommodations for their judges of modest height.

But you can't judge all of the projects alone! We need more Science Fair Judges to help.

Also, consider volunteering for a local fair at the Zoo on January 26th. You'd fit in that animal scene.

Call for Judges

If you enjoy science and working with students to help them develop their interest and skill in science, consider judging at the **2013 Denver Metropolitan Regional Science and Engineering Fair** or a local Science Fair. New judges are encouraged and always welcome! There are water-focused projects, and one of the past judges will show you the ropes!

Judges will receive a FREE lunch followed by judging from noon to 5pm on **Wednesday, February 27, 2013** at the **Denver Museum of Nature & Science**. To learn more visit <http://ahec.ucdenver.edu/sciencefair/>. Click on the judges tab to register.

For **judging** information, contact Meredith at meredith.tennis@ucdenver.edu ; 720-226-7817.

For **fair** information, please contact Kris Wenzel at kriswenzel@centralahec.org; 303-481-8686.

2012-2013 Science Fairs in Denver Public Schools

December 13, 2012	Skinner Middle School 3435 W. 40 th Avenue Denver, CO 80211-1921 720-424-1420	8:45 - 1:00pm
January 11, 2013	Amesse Elementary School 5440 Scranton Denver, CO 80239 720-424-9988	8:45 - 12:00
January 15, 2013	Martin Luther King, Jr. Early College Middle School 19535 E. 46 th Avenue Denver, CO 80249	8:45 - 12:00
January 17, 2013	Farrell B. Howell K-8 14250 E. Albrook Dr. Denver, CO 80239 720-424-2740	8:45 - 12:00
January 26, 2013	DPS District Science Fair Denver Zoo 2300 Steele Street Denver, CO 80205	9:00 - 3:00
February 7, 2013	Grant Middle School 1751 S. Washington Denver, CO 80210 720-423-9360	8:45 - 12:00
April (exact date TBD)	Wyatt Edison Charter 3620 Franklin Denver, CO 80205	8:45 - 12:00

To sign up to be a judge contact:
Debbie Turner, CRI, Associate Director
720-424-2300 CRI, 303-257-0409 (cell)
debbie_turner@dpsk12.org

To find other local science fairs, use the Society for Science & the Public's app.

It's online at http://apps.societyforscience.org/find_a_fair/



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RMWQAA Lab Academy

- When:** Thursday, January 24th, 2013
9:00 a.m to 3:30 p.m.
- Where:** Broomfield City Hall (1 DesCombes Drive Broomfield, CO 80020)
- Participants:** Limited to first 40 paid registrants
- Cost:** \$60 for RMWQAA and RMWEA members
- Registration:** Online registration at www.rmwwqa.org

Description: One-day training for water and wastewater laboratory employees. Presentations will be 30 minutes each and deal with various topics pertinent to laboratory operations. All sessions will be presented by members of the RMWQAA. TUs will be available.

Presenter	Topic	Time
Adele Rucker City of Aurora	Improving Your Public Speaking and Presenting Techniques	9:30 – 10:00
Al Baker Centennial W&S	“MDL’s, PQL’s and Nutrients – Any Questions?”	10:00 – 10:40
Blair Corning South Adams County W&S	Water’s a Ball	10:40 – 11:20
Natalie Love GEI Consultants, Inc.	WET Testing...What the Heck Do They Do With Our Water?	11:20 – 12:00
LUNCH	Included in Registration	12:00 – 12:40
Stephen Ellis South Adams County W&S	Ammonia Testing Using Micro-distillation & High Performance ISE Probe	12:40 – 1:20
Phil Russell Littleton-Englewood WWTP	Littleton/Englewood’s Bidding Process for Acquiring New Lab Instruments	1:20 - 2:00
Dawn Cowell City of Broomfield	Teaching BOD’s to Non-lab Personnel	2:00 – 2:40
Hope Dalton Tri-County Health Dept.	Water Regulations, Design Criteria, and You	2:40 - 3:20
WRAP UP		3:20 – 3:30

**Don't forget to Save the Date for the 2013 Annual Symposium
April 26, 2013 in Estes Park**

If you or someone you know wants to give a water related presentation or recommend someone to give a presentation please contact Adele Rucker at arucker@auroragov.org

RMWQAA Lab Academy

the agenda can be found on page 3 of this RMWQAA newsletter

Thursday, January 24, 2013

Training will be held at Broomfield City Hall
(1 DesCombes Drive Broomfield, CO 80020)

Online registration at www.rmwwqaa.org

RMWQAA
PO BOX 29407
Thornton, CO 80229-0407



Date: _____

Attendee Name: _____

Employer: _____

Address: _____

E-mail Address: _____

Phone Number: _____ Title: _____

Check the Appropriate Registration:

- \$60 Sampling training (member)
- \$75 Non-member
(includes membership or renewal)
- Request Vegetarian Lunch

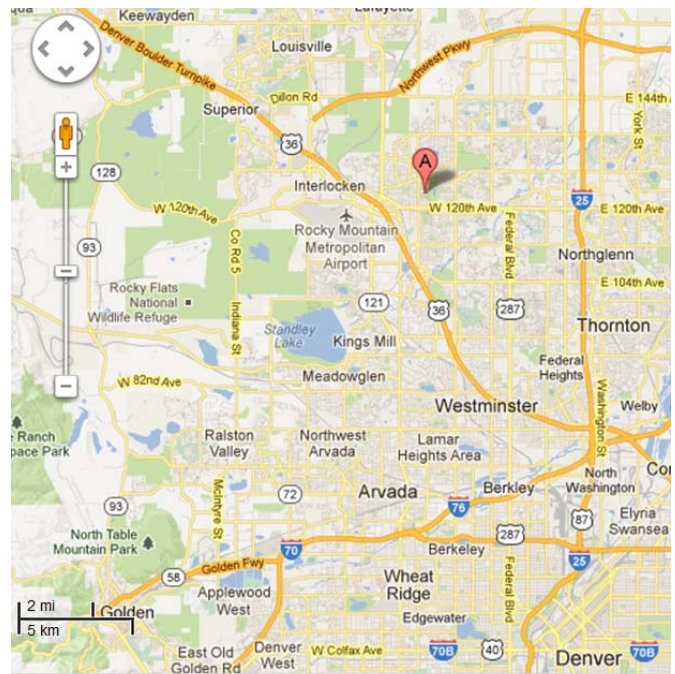
Please use a separate registration sheet for each attendee.

Registrations due **January 1, 2013**

Class sizes are limited, so please register early.

To reserve your space contact Blair Corning at
720-206-0491 or BCorning@sacwdsd.org

The costs include all materials, lunch, and snacks.



Changing Phases - Liz Myers

Metro Wastewater Reclamation District



Liz Myers, recent Colorado School of Mines graduate and a new face at Metro Wastewater Reclamation District.

Welcome Liz Myers to the Rocky Mountain Water Quality Analysts Association! She is one of two new Lab Analysts at Metro Wastewater Reclamation District (Metro). In case you may be wondering what does a Lab Analyst I do at Metro, she is currently doing all of the plant sampling pick-up and most of the sample receiving preparation. This may not sound like a lot, but on a daily basis, Metro collects 35 liquid treatment samples and 20 sludge samples from the plant site. They run a total of 200,000 samples per year including QC. They also have 20 contract clients they do analyses for, which makes for a pretty big job just getting the samples prepared and where they need to go.

This means that you may soon be seeing Liz's smiling face if you drop off samples at Metro. As with any new analyst, she is learning all the basics and is looking forward to learning a variety of analyses performed at the lab.

Before joining Metro's lab team, Liz was studying hard in Golden, Colorado. She just graduated with a Chemistry degree from the Colorado School of Mines (CSM) in August. Who knew that CSM produced more than just engineers? While attending school, Liz worked as a server at The Golden Hotel. She wants to tell all the other RMWQAA members that working with wastewater is way better than working in customer service, and that's saying something.

Liz still doesn't know what she wants to be when she grows up. Don't we all know this feeling! She says her chemistry background could have taken her in many different directions, but she's really enjoying working in the wastewater industry. Although wastewater isn't a super glamorous job, Liz thinks wastewater is pretty important in the grand scheme of things. Right now she gets a lot of good, hands-on experience in the laboratory environment and is sure that experience will help her transition to the next step of her career, whatever and whenever that may be.

So what does Liz do in her spare time? Her favorite thing in the world to do is read. Finding time to just relax and read now that she's working full time is hard and she misses it! On her weekends and days off, she enjoys getting out and exploring the Colorado wilderness. She loves anything and everything about the mountains; hiking, snowshoeing, fly fishing, snowboarding, and even just driving through them. Liz also loves the craft beer brewing culture in Colorado. She likes to try as many new microbrews as she can get and enjoys visiting the local breweries. Maybe she'll even get to go on the next behind-the-scenes tour of a microbrewery with RMWQAA.

RMWQAA members need to meet Liz as unfortunately her family is spread pretty far and wide. She moved here from Austin, Texas and her mom still lives there. She has grandparents and extended family live in Southern California, but her dad and younger sister are further away—in the United Kingdom (not the Kingdom of Boulder). You may think the UK is far away, but they are closer than Beijing where they used to live. So she's pretty much on her own here in Colorado except for her boyfriend and their dog, Jet, a redheaded lab and love of her life. . Luckily, Jet enjoys mountain adventures as much as Liz! The three share a home in Highlands Ranch and wouldn't leave Colorado for anything. We're glad to have you here, Liz!

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Congratulations!!

to all of the Analysts who passed lab certification exams in Fall 2012

- Three people passed Level I
- One person passed Level II

You Rock!!

RMWQAA

Annual Scholarship Recipient

2012/2013 Winner



Lindie Hepburn is the 2012/2013 RMWQAA Scholarship Recipient. Lindie is studying for a Master's in Environmental Science at the University of Idaho while working a full-time schedule at GEI Consultants. She wants to research better ways to do cost-effective testing/sampling that meet permit needs.

Certification Exam Update

RMWQAA Needs Your Help!!

The RMWQAA Board and Members are in the process of updating some of the outdated questions in all levels of the RMWQAA Certification Exams. I know many of you are saying FINALLY!!! You may be thinking that when you took that exam, the questions seemed ridiculously outdated or not at all related to your work at all.

Since methods have changed, sometimes significantly over the years, RMWQAA needs help with the revamping of the exams. What methods are you and your co-workers and running in your labs?

Hopefully the methods your lab uses are the most current methods, but maybe your lab prefers some of the old methods too. Let us know what you think should be on the Certification Exams so that we may serve you better.

Please send a list of the methods used in your lab now along with a list of methods your lab would like to use in the future for drinking water and wastewater water analysis.

Send list and suggestions to RMWQAA Vice President Adele Rucker at

arucker@auroragov.org.



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...Trash

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education effort called the Greenway PURE Trash Reduction Campaign. Partners in the effort include the CDPHE, the City of Denver's Departments of Environmental Health and Parks and Recreation, Metro Wastewater Reclamation District, Urban Drainage and Flood Control District, EPA, and Confluence Kayaks. The formal start date for the three-year program was January 2012.

First on the agenda was planning. To gain a different perspective of the river, Jon Kahn of Confluence Kayaks arranged a float trip for those involved in the PURE Trash Reduction Campaign. Volunteers rafted down the South Platte River from Overland Park to the South Platte River Environmental Education headquarters at Jason Street. Much of this portion of the river sits below the bike path, so trouble spots like whirlpools that collect trash and homeless camps became more visible than from the path or roads. The float trip not only provided the group with a true view of the river, it highlighted the challenges of an urban project like this.

Next, the group conducted trash surveys to determine



Above: Six Volunteers from Pikes Peak Community College Sustainability Club drove from Colorado Springs to help out.



Right: Volunteers make their way through thick willows in section C in September.

types, volumes, and patterns of existing trash along the river. The trash survey focused on three assessment areas in the 10½ mile river corridor. The assessment sites are one kilometer long and are divided into 10 area subplots of 100 meters. They include areas where Bear Creek and Cherry Creek connect to the South Platte River.

The group did three separate trash surveys in 2012: one during the spring runoff, one in mid-summer, and one in the fall. Volunteer teams were assigned to each of the three assessment sites on both sides of the river, either on the bank or the terrace. They collected trash, identified and logged it within sample areas, and Urban Drainage and Flood Control District (UDFCD) personnel recycled or properly disposed of the collected trash. Another crew rafted down the river identifying floating debris. The information they collected provided baseline data for future analysis and developing educational matter.

On a parallel track, the public education and information piece of the project involves social marketing and survey work facilitated by an independent firm. Information from mail-in and phone surveys will provide a pre-campaign attitude and knowledge baseline.

After the social marketing campaign is implemented, a post-implementation survey will be conducted to measure changes in understanding and behavior. The idea is that people will learn that throwing trash into the street will lead to trash in our waterways, and that contributes to poor water quality. The idea is to make the connection between litter and water quality and reduce the amount of trash reaching the river.

To volunteer for The Greenway Foundation or to find out how to organize a river clean up event in your area, go to www.greenwayfoundation.org or email jon@greenwayfoundation.org

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