



SPECIAL FWWIC EVENTS AND PROGRAMS

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Join us for our Science Saturdays and Sunday Science Cinema.
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Two fun, active, family events!



Newsletter for the Fairmount Water Works Interpretive Center



New Tours Program at the FWWIC!



The FWWIC is adding an exciting new program of regularly-scheduled and pre-arranged group walking tours, focusing on the Fairmount Water Works Interpretive Center (FWWIC) mission. Ken Hinde, an expert in developing and leading tours, is creating our tour series.

Ken brings a wide knowledge of the City and the area through his work at the Foundation for Architecture and Fonthill Museum. "With my background in the museum field and strong interest in Philadelphia, as expressed through its architecture and urban planning history, I have much experience in successfully interpreting these themes to the general visiting public through my tours and lectures," Ken notes.

"I enjoy sharing the information I have accumulated as an enthusiast to other enthusiasts who come to Philadelphia as tourists," Ken adds. "I am especially interested in promoting Philadelphia as a 'complete US metropolis' from its colonial origins through its industrial past to its present status as a modern commercial city."



At the Foundation for Architecture, Ken was responsible for overseeing a new program of walking tours that showcased downtown Philadelphia and its region's more than three centuries of American architecture. This also included Philadelphia's rich urban planning history from its founding in 1682 to the present.

(continued on page 3)

FAIRMOUNT WATER WORKS INTERPRETIVE CENTER

640 Water Works Drive • Philadelphia, PA 19130 • 215-685-0723 • www.fairmountwaterworks.org

Hours

Tuesdays – Saturdays: 10:00 AM to 5:00 PM

Sundays: 1:00 PM to 5:00 PM

Closed on Mondays and City Holidays

The Interpretive Center is ADA accessible.

We invite you to Friend us on Facebook at "Fairmount Water Works" and follow us on Twitter at @FWWIC!

Donations to the FWWIC can be made on line at our website, or with a check to "The Fund for the Waterworks – IC."

Newsletter for the Fairmount Water Works Interpretive Center



Tours

(continued from page 2)



After serving as associate curator of the Mercer Museum at the Bucks County Historical Society for five years, Ken became the first site administrator of Henry C. Mercer's home, 'Fonthill' when the historical society assumed responsibility for its management. This gave him a chance to research the contents of the entire building

and to create a plan to open it to the public on a regular basis for the first time by creating a volunteer program and interpretive tour themes for its first ten years of operation.

The new Tour Program kicked off at our July Schuylkill Soundings event. Participants walked the Schuylkill Banks Trail from the FWWIC towards Center City, enjoying the beautiful summer evening and savoring the view from the water's edge.

Proposed Tours:

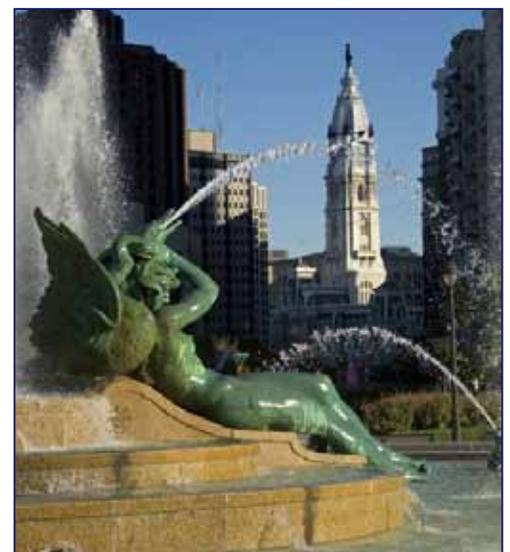
Milling Around: a tour that will concentrate on the old and new Mill Houses of the FWWIC site. The tour will take visitors to parts of the site not normally open to the public.

Schuylkill River Trail: a tour that will cover the Center City portion of the trail from the FWWIC to the Market Street bridge.

From the Water Works to Logan Square: a tour that will interpret Philadelphia's contribution to the 'City Beautiful Movement' which created the Benjamin Franklin Parkway in order to connect its commercial core to the Schuylkill River and the open space of Fairmount Park.

Fairmount Park Bus Tour: a tour that will cover the East and West Park sections, discussing the history and creation of the Park, the historic houses, recreational facilities, sculptures, and more.

An Urban Adventure: an active walking tour, focusing on Philadelphia being situated between two rivers and beginning near the Penn's Landing area and continuing through Center City with a lunch stop, before ending at the FWWIC.



Newsletter for the Fairmount Water Works Interpretive Center



Survey Mussels! Fun and Educational Summer Volunteer Opportunity!



The Delaware River Basin was once home to over a dozen species of freshwater mussels. However, only one species is readily found today, and only in a few areas. These animals are valuable because each one filters up to 10 gallons of water per day, removing pollutants that would otherwise necessitate expensive water treatments. They also protect streambeds from washing away and provide food and increase the Delaware River Basin's habitat value.

The Partnership for the Delaware Estuary (PDE) is spearheading a project to determine where once abundant mussel beds still exist in order to facilitate the restoration efforts for these important animals.

As part of this project, the Tookany/Tacony-Frankford Watershed Partnership (TTF) will survey five miles of stream in our watershed during the summer of 2012 to determine the presence or absence of mussels. Please contact them if you are interested in volunteering to support this effort.

Visit http://www.delawareestuary.org/activities_volunteer_mussels.asp for more information.



On Tuesday, August 14th, Saint Joseph's University will bring a group of K-8th grade teachers as part of their Science in the Summer Workshop Teacher Training to Fairmount Waterworks.



This year's theme, "Water in the City: from Rooftops to Rivers," will focus on how to bring important urban water issues, such as storm water, into the classroom.

The annual Science in the Summer

workshop is made possible through the GeoKids LINKS program (Learning Integrating Nature and Kids with Science), which is a collaboration between the Wagner Free Institute of Science, Saint Joseph's University and several Philadelphia elementary schools. The program places graduate and advanced undergraduate Fellows into Philadelphia K-6 classrooms as a part of their training in science. Fellows work with the teachers and education experts from the Wagner Free Institute to develop and implement hands-on science learning activities.

The workshop is funded by the Howard Hughes Medical Institute, Saint Joseph's University and the U.S. Department of Energy. For more information on the GeoKids LINKS program, visit www.sju.edu/gk12.



Educators Come to Learn at the FWWIC!



Math and Science Teachers calculate stormwater runoff during a workshop exploring "Green Cities, Clean Waters" at the FWWIC

Kensington HS CAPA, 1901 North Front Street (Front and Berks Street). Talk by Jane Rath, SMP Architects



Participants in a two-week Summer Teacher Training project organized by Bryn Mawr College on Math and Sustainability spent two days at the FWWIC. The focus of the workshop is to help teachers and facilities managers dedicate the next school year to becoming a Green Ribbon School. We led one day at the FWWIC exploring our history, and our *Green City, Clean Waters* lesson in particular, using math calculations to determine the best stormwater tool to use on a site.

For the second day's activity, FWWIC created and led a bus tour of green infrastructure projects that demonstrated the concepts explored on day one: Friends Central, Penn Alexander, UPENN Penn Park, Greenfield Elementary, and Kensington CAPA.

For more about the program, please see pages 2 and 3 of our July newsletter, or visit <http://www.greenribbonschools.org>.



Greenfield Elementary School, 22nd and Chestnut Streets. Suzanna Fabry from viridian landscape designs and David Ade from SMP Architects

Friends Central. Doug Ross, middle school science teacher, talking to teachers at the Stacy Levy piece titled "Watermap"





Partner Update: Schuylkill Action Network



PROTECTING Schuylkill Waters

Protecting and restoring Schuylkill Waters through partnerships with organizations, businesses and governments.

The Schuylkill River and its tributaries provide drinking water to 1.5 million people who live in the 11 counties and 232 municipalities included in the watershed.

The Schuylkill Action Network (SAN) was formed in 2003 to create a team approach to cleaning up and protecting the Schuylkill River and its tributaries. Members include EPA, Pennsylvania Department of Environmental Protection, Philadelphia Water Department, Delaware River Basin Commission, the Partnership for the Delaware Estuary; conservation districts, local, state and federal agencies, watershed organizations and other non-governmental organizations.

Source water is untreated water from streams, lakes or underground aquifers which supplies water for public drinking water. The Schuylkill River and its tributaries are an important source of drinking water and fish habitat. For more information on the SAN, visit: www.schuylkillwaters.org.

Some of the SAN's activities include:

Abandoned Mine Drainage

Abandoned Mine Drainage (AMD) is the primary cause of pollution in the Schuylkill River headwaters, producing

metal-laden and sometimes highly acidic discharges in telltale orange and silver plumes, easily visible in the surface waters. Acidity and metals interfere with vegetative growth, aquatic life, and both ground and surface drinking water resources.

Agricultural Projects

According to a federal report, agricultural runoff is now considered the primary source of pollutants in streams and rivers in the U.S. Approximately 37% of land use in the Schuylkill Watershed is agricultural, and 258 miles of streams are considered agriculture-impaired.

Education and Outreach

An educated public can be the most valuable resource tool in restoring the health of an entire watershed. Ideally, education efforts foster an appreciation and awareness of local water resources, inspiring stewardship and meaningful changes in daily actions.

Watershed Land Protection

Schuylkill Priority Lands website is designed to make the data, methodology, results and maps of the Schuylkill Watershed Priority Lands Strategy easily accessible to open space planners, land trust staff, municipal officials, funders and others for use in making strategic open space protection decisions.



Newsletter for the Fairmount Water Works Interpretive Center



It's YOUR Turn! Learn About Your Urban Watershed

What is a WATERSHED?

A watershed is an area of land within which water from rain or snow drains into a body of water, such as a river, lake or ocean.

Philadelphia is part of the Delaware River Watershed. Its seven main subwatersheds are the Delaware Direct, Schuylkill, Pennypack, Tookany/Tacony-Frankford, Darby-Cobbs, Poquessing and Wissahickon.

The Delaware River Basin extends to the Catskill Mountains in New York State and stretches more than 330 miles through four states and 42 counties before draining through the Delaware Estuary to the Atlantic Ocean. Philadelphia's entire land surface ultimately drains to one of seven watersheds that are tributaries to the Delaware River. The main stem of the Delaware River is the longest free-flowing (undammed) river in the eastern United States, and it serves a variety of important residential and industrial functions, including fishing, transportation, power cooling, and recreational purposes, but most important as a source of drinking water.

While watersheds can include rural, suburban, and urban areas, Philadelphia is located in a very urban section of our watershed. Our focus is on the urban watershed and its special challenges.

Our Philadelphia water resources – the Schuylkill and Delaware Rivers – are cleaner than they had been for many decades. We are excited to see aquatic life thriving in the rivers, and increased recreational use of the rivers and riverfronts. Cleaning up the rivers, and keeping them clean, means more than focusing only on the water. In the 20th century, industrial pollution took a terrible toll on the health of our rivers. That source of pollution is now regulated and controlled. The major threats to our rivers now come from us: what we do on the land impacts the health of our rivers and watershed.

Everything you do impacts your watershed. Runoff from garden fertilizers, hazardous substances like used motor oil and trash dumped into one area of a river bank can pollute water many miles downstream. Protecting and preserving our watersheds helps protect our water resources.

In an urban watershed, such as the one where Philly is located, our major challenges include stormwater management, aging infrastructure and degraded waterways. We're taking a revolutionary approach to solving some of these issues with our unique *Green City, Clean Waters*



program. *Green City, Clean Waters* is Philadelphia's 25-year plan to protect and enhance our watersheds by managing stormwater with innovative green infrastructure. The Philadelphia Water Department developed *Green City, Clean Waters* to provide a clear pathway to a sustainable future while strengthening the utility, broadening its mission, and complying with environmental laws and regulations. To learn more about this exciting program, please visit http://phillywatersheds.org/what_were_doing/documents_and_data/cso_long_term_control_plan.

If you'd like to find your watershed, learn about watershed protection, and see our calendar of events, please visit http://phillywatersheds.org/your_watershed.

The Philadelphia Water Department Hotline is 215-685-6300. Open 24 hours/daily, the hotline is for reporting water and sewer emergencies, such as water main breaks, water and sewer and other inquiries, water quality information, taste and odor complaints, open hydrants, inlet cleaning, water conservation programs (CAP), automatic meter reading installations and inquiries. This hotline takes calls and dispatches crews to investigate and/or fix problems.

Visit our website at: www.phila.gov/water and www.phillywatersheds.org



Newsletter for the Fairmount Water Works Interpretive Center



Lectures Worth Checking Out!

The College of Physicians of Philadelphia, founded in 1787, is the oldest professional medical organization in the country. The College of Physicians of Philadelphia advances the cause of health while upholding the ideals and heritage of medicine.

The FWWIC is a program partner with the College; and we are delighted to welcome doctor and photographer Andrea Baldeck to present our September Schuylkill Soundings (see page 10, *Upcoming Events*).

The College offers a range of lectures, several of which are highlighted below as being of special interest to our community.

Friday, September 21 • 9:00am - 12:00noon *The Health Effects of Hydraulic Fracturing Symposium*

Pennsylvania sits on top of exceptional shale gas reserves that are being tapped using unconventional gas drilling through hydraulic fracturing. However, early results from gas drilling suggest environmental contamination of air and groundwater sources has occurred and the health consequences may be serious. This symposium will examine ways that such contamination can occur and the health effects seen in humans and animals.

Sponsored by The College of Physicians of Philadelphia, its Section on Public Health & Preventive Medicine, and The Claneil Foundation.



Wednesday, October 17 • 12:00noon - 1:00pm

Food & Thought: "Just Add Water: A Guide to Water-Drinking Myths"

The Internet is filled with commentary on requirements for water drinking, hydration, fluid intake and all such matters. In this talk, we will review how water is handled by the body and discuss four specific claims for incremental water intake:

1. It clears the body of toxins;
2. It leads to weight loss by suppressing appetite;
3. It enhances the appearance of facial skin;
4. It ameliorates headaches.

Speaker: Stanley Goldfarb, MD, FCPP, nephrologist and Professor of Medicine and Associate Dean for Curriculum, the Perelman School of Medicine, the University of Pennsylvania, President of the College of Physicians of Philadelphia

Wednesday, December 19 • 12:00noon - 1:00pm

Food & Thought: "To Frack or Not to Frack"

Hydraulic fracturing is a hot topic in Pennsylvania and elsewhere along the Marcellus Shale. Gas companies claim that this technology produces good jobs, taxable income for municipalities, and wealth to individual leaseholders. Fractivists contend that the technology is irredeemably atrocious, producing contaminated groundwater, local air pollution, and global warming methane releases. The talk will review the facts, set forth the pros and cons, and set responsible bounds on how policies should be implemented to reach the best outcome for the future of fracking.

Speaker: Carr Everbach, PhD, Professor of Engineering, Swarthmore College

For more information regarding College events, e-mail info@collegeofphysicians.org or call 215-563-3737. The College Of Physicians of Philadelphia is located at 19 South Twenty-Second Street, Philadelphia PA 19103.



Newsletter for the Fairmount Water Works Interpretive Center



2012 Bicentennial Scavenger Hunt

Saturday, September 8, 2012 from 10:00 AM to 2:00 PM (ET)



Explore the past, present and future of the City of Philadelphia as a participant in the Academy of Natural Sciences' celebratory scavenger hunt! Win prizes, see the City, visit other noble institutions, and have fun! The FWWIC is proud to share its bicentennial year with the Academy of Natural Sciences, and happy to be a partner in this fun family event. The hunt will take you to many different sections of the city to play games, solve clues, do physical challenges, visit new places, and have fun.



Add a level of fun by wearing a costume! Costumes from your favorite time period between 1812 and today are encouraged.

A prize will be given to the audience's favorite costume (based on applause).

The scavenger hunt will involve the use of cameras and cellphones--phone a friend for questions, for example.

Register in teams of two to four people

At least one member of all teams must be 18 years of age (Families can participate). Tickets are \$25 per person plus a small service charge. Registration is online at 2012scavengerhunt.eventbrite.com.

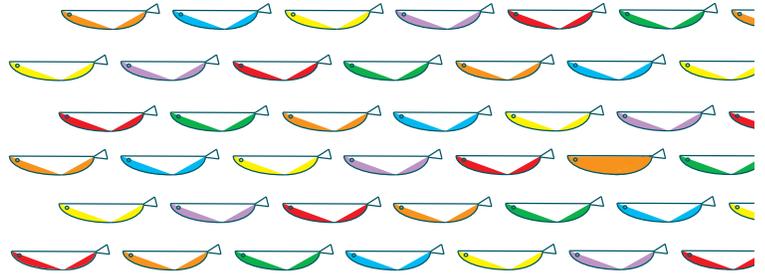
Prizes

- Top three teams get a prize
• All teams entered into a raffle to win one additional prize (must be present to win)
• Best Costume (determined by crowd approval) wins a prize

For More Information and to Register:

http://www.ansp.org/Visit/Events/Details/?eid=1675&iid=5217

2012scavengerhunt.eventbrite.com



2012 PHILLY FUN FISHING FEST

Saturday, September 8, 2012
7am-11am
Awards Ceremony: 11:30 am
Rain Date: September 15, 2012
On Schuylkill Banks

- NO fishing license required
• FREE to the public
• Catch and release
• Bring a lunch and refreshments or purchase food at the solar powered food cart
• Deadline to register: September 5, 2012

Register at www.phillywatersheds.org/fishingfest or call 215.685.6300

- NO fishing license required
• FREE to the public

After the Fishing Fest, continue the fun and take a shuttle bus from 25th and Chestnut St. to Coast Day events at Penn's Landing on the Delaware River.

- Prizes awarded in various categories (Must be present to claim prize)
• We encourage you to walk, bike, use public transportation, or car pool to the Fish Fest. See map on back for details.
• Fishing gear will be available for loan, on a first come, first serve basis



Newsletter for the Fairmount Water Works Interpretive Center



Schuylkill Soundings: Thursday, August 16, 5:30-7:00pm

Milling Around

Join us for an Open House and hard-hat tours of some of the un-renovated areas of the FWW. This tour is part of our new Tours Series offered by Ken Hinde.

Schuylkill Soundings take place on the third Thursday of the month from 5:30 to 7:00 pm (presentations begin at 6:00).

Science Saturday: August 4, 11, 18, 25, from 2:00pm to 4:00pm, starting every half hour.

Rocking It!

Identifying the minerals and geology of our area, we'll look at how different rock formations underlie the Delaware and Schuylkill rivers and how that makes them two very different waterways to treat.

Movie Time! "Rango" August 5, 12, 19, 26 at 1:30pm and 3:30pm. Free!



Rated PG Running time: 107 minutes

In the back of a small car, in a small aquarium, resides a small, chameleon. The only living creature in his 'environment,' Rango has fancied himself as an actor, with several inanimate objects as his friends.

His world goes awry when something in the road causes the car to jolt, and the chameleon and his aquarium fly out the back of the vehicle, shattering to the ground.

He finds himself in a town suffering through a drought because the villains are hoarding the water. Rango is the hero as he saves the town!

Save the Dates!

Coming in September: (subject to change)

Exhibit: Photography

Schuylkill Soundings, September 20 5:30 to 7:00 pm

Behind the Scenes: Images through the Artist's Lens.

Black and white photographs by doctor and photographer Andrea Baldeck.

Science Saturdays:

Travel Destination – East Park Reservoir

Special Advisor: Audubon

Learn what species have made the East Park Reservoir a travel destination of choice. Find out about the history of the site and join us in an activity that highlights water-loving birds from ducks to divers like the Cormorant.

Sunday Film Series:

September

National Geographic: Six Degrees Could Change the World - 2008

Talk about an inconvenient truth: National Geographic explores the startling theory that the average global temperature could rise by as much as six degrees by the year 2100. It might not seem like much, but the consequences could be devastating to the planet. Can we prevent global warming...before it's too late? Narrated by Alec Baldwin.