

Cooks Current

"To protect, preserve and improve the quality of water, land and life in the Cooks Creek Watershed"

Volume 11, Issue 3

Newsletter of the Cooks Creek Watershed

Summer 2014

2014 Events

Regular Board Meetings:

Springtown Fire House- 7:30PM

Aug.28, Sept.25, Oct.23, Nov.20,
Dec.18

All are welcome! We appreciate your
involvement!

Special Events

Sept 27, Springfield Community Day

Oct 4, Fall Dinner

Oct 11, Durham Community Day

Nov 8, Fall Clean-Up



See back for details!

We're on the web!
www.cooks creekpa.org

**Cooks Current is a publica-
tion of the Cooks Creek
Watershed Association.**

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Ellie Scheitrum



Congratulations to *Cooks Current* on its 10th Anniversary!

This issue marks the 10th anniversary of *Cooks Current*. Ten years ago, the first issue was published with the assistance of the Heritage Conservancy and consisted of four pages. How we've grown! Average length is now sixteen pages with a recent monster weighing in at twenty-four pages.

It has been the goal of the staff to include as many areas of interest as possible while staying true to the mission of the Cooks Creek Watershed Association. *"To protect, preserve and improve the quality of water, land and life in the Cooks Creek Watershed"*.

A children's page and activity, updates on the CCWA, articles about the flora and fauna in the area, historical articles and scholarly works concerning geology, etc. have all been showcased.

With a readership that extended into Canada, a number of really nice comments about the newsletter have been received over the years.

We're always looking for new writers and articles and with continued help, we hope to make the next ten years as interesting as the last ten.

***Many thanks to all the individuals who have
made this newsletter possible!***

The *Cooks Current* newsletter has long served Cook

From Across the Board...

While I think we've done a pretty good job bringing our friends and neighbors up to speed on the importance of, and methods for, protecting our water resources, I am still surprised occasionally when I am forced to face how much more we have to do; and probably always will. This time, the issue was stormwater. Perhaps the biggest threat this Watershed faces, other than habitat loss, is stormwater. The problem stormwater presents is two-fold. Rain, and the associated stormwater, is the only way to recharge our aquifers and provide water for plants. But too much rain, coming too fast, on too hard a surface, simply runs off into the stream. On its way, it carries soils and other debris, often containing contaminants. Once there, the extra water scours the bottom and banks, often resulting in considerable resource and property damage. Eventually this sediment and debris settles out, filling in the cracks and crevices that are vital for providing the hiding places for fish, insect larvae and other invertebrates. Just how much extra water is needed to cause these impacts? Actually, the amount of reduced permeability is amazingly small. Below 10% impervious surface, the watershed is usually healthy. Above 10% impervious surface, or equivalent in reduced permeability, results in rapidly degrading water quality.

And that brings me to the issue that raised my hackles. Houses, driveways and roadways are the biggest sources of new impervious surfaces. Accessory structures, like sheds, patios, decks and pools add to the problem. To counter-act the impacts, Springfield requires that stormwater management plans be generated and approved, for existing dwellings, if new structures or features result in an increase of 1,000 square feet of impervious surface. Recently, I overheard that some of the leaders in Springfield want to exclude pools and associated decking from the regulations that require mitigation. While I am all for removing unnecessary regulations, and I also understand

that engineering and mitigation is really expensive, we cannot afford to allow ANY additional impervious surfaces to go un-mitigated. And while I agree that pools can act as a collector of stormwater, they will eventually spill over, and when they do the water is not clean rainwater, its toxic chlorinated water. This water will almost certainly run onto the lawn, which is only slightly more permeable than a gravel driveway!

Conservation is never easy or convenient, and often it's not cheap either. However, it is vital that we all stand firm to protect our collective quality of life. By being a reader of this newsletter, you are doing a huge part to help us protect our watershed. Please share what you learn here with your friends and neighbors, and be sure to keep track of what is happening at the local level with regard to ordinances and land use decisions. Springfield Township is planning to update its Comprehensive Plan in the upcoming months. We will let you know where and when you can participate. The Board of Supervisors needs to know that YOU care about the Watershed and our quality of life.

I hope you will join us for our Fall Fellowship Dinner at the Springtown Rod and Gun Club on Saturday October 4 from 5 to 9 pm. There is always a huge selection of great food to share, and this year we have Rick Makula, the Butterfly Guy, to entertain us with his antics and stories of butterflies.

Yours in conservation,

W. Scott Douglas, President

Creature Feature: Spicebush

Swallowtail Butterfly (*Papilio troilus*)

By W. Scott Douglas

Number 30 in a series on the fauna of the Watershed

Few butterflies are as large and beautiful, and readily recognized, as Swallowtails. Some of the largest butterflies in the world belong to this group. Their images adorn posters, rock album covers and t-shirts all over the world. But this insect, like many others, serves a critical role in the ecosystem. Butterflies are important pollinators, and are a critical food source for birds. One of the most common Swallowtails in Cooks Creek Watershed is the Spicebush Swallowtail, *Papilio troilus*. Spicebush Swallowtails, also known as Green-Clouded Butterflies, range throughout the eastern United States and southern Ontario. The large, mostly black butterfly is accented with a splash of light green or blue on the lower half of the rear wings with pale yellow spots on the outside and trailing edges.

The ubiquitous Spicebush, and related woody plants like Sassafras, are the primary food sources for the larvae of this species. The female swallowtail actually thumps leaves with her front legs in order to confirm that she is on the right plant to lay her eggs. Scientists believe that this thumping releases the characteristic astringic odor of these plants which is picked up by the sensory organs on her legs. Once she has found the correct plant, she lays one or two eggs at a time on a leaf. The eggs hatch after a few days and the dirt brown caterpillar eats its way to the central rib of the leaf. At this stage, the larva resembles little more than a bird dropping. Once at the rib, it secretes silk that causes the leaf to roll up, creating a shelter in which it hides from predators. The young larva stays in its ready-made tent during the day and only comes out to feed at night. As the larva grows, it changes from the dirty brown to a bright green. The front half of the caterpillar becomes enlarged, with two huge eyespots. When alarmed the lar-



va will actually rear up on its hind legs, making it look like a snake to a startled bird or other predator. After several weeks, the larva will molt into a chrysalis, which can be



either brown or green depending on the time of year. The chrysalis is very smooth skinned, angular and pointed at both ends, with a single strand of silk as a tether to hold it to the underside of a leaf or side of a twig.

Swallowtails have 2-3 generations each year, with the last generation overwintering as pupae and emerging in the spring. Birds, spiders, robber flies and dragonflies prey on Swallowtails. To ward off birds, the Spicebush Swallowtail mimics the Pipevine Swallowtail which is foul-tasting, in appearance. Adults live from two days to a couple weeks, and their only job is to find a mate and/or lay eggs. For energy, swallowtails feed on nectar from Joe pye weed, jewelweed and honeysuckle as well as a variety of ornamental bushes and flowers. Male swallowtails usually hang out in woods and margins, while females stay in the open, presumably where they can be seen by the skulking males. Males attract females with a complicated and energetic courtship dance. Females can mate with more than one male, but become less receptive with each mating. Both sexes can be found congregating at mud puddles with other butterflies where they drink and obtain mineral salts.

We will write a follow-up piece about planting, pruning and protecting against pests.

| | <u>Unrestricted</u> | <u>Restricted</u> | <u>Total</u> |
|------------------------|---------------------|-------------------|-----------------|
| Balance March 31, 2013 | \$13,252 | \$2,000 | \$15,252 |
| Decrease in net assets | <u>(864)</u> | <u>0</u> | <u>(864)</u> |
| Balance March 31, 2014 | <u>\$12,388</u> | <u>\$2,000</u> | <u>\$14,388</u> |

SAVE THE DATE!**October 4, 2014***Annual Potluck Dinner & Silent Auction Fundraiser**This year's speaker:**Rick Mikula aka**The Butterfly Guy!****Info & fun for all ages!*****Event is Free****Requires Reservations****As Seating is Limited****Reserve by Calling****610-346-1604****By September 26, 2014**

Try to attend and join us for information and socialization with the group. We would love to see you there!

***News from WIP...******Palms watershed program.***

Unfortunately, the news from WIP is that the program has been canceled for this school year. Hopefully we will see it return in future years.

Children's Backyard: Hummingbirds

By: Lois and David Oleksa

The Portuguese call it a *Beija-Flor* or "Flower Kisser". The Spanish – *Joyas Voladoras* "flying jewels". In the Caribbean area it is called *El Zunzun* or "The Hummer". We know it as a hummingbird.

Although there are 15 species of hummingbirds that breed in the United States, only one species, the Ruby Throated Hummingbird can be found here in our Watershed. Although hummingbirds are the smallest of all birds (some weigh only 2 grams, about the weight of a penny) they are fascinating creatures to study. Some interesting facts about them include:

- Although some hummingbirds can live up to ten years, their average life expectancy is 5 years.
- Compared to a human's heart rate of 60 beats per minute, a hummingbird's heart beats 1260 times per minute.
- Their tongue is grooved in the shape of a "w" and has tiny hairs on the end to help to lap up nectar, which with a few small insects for protein makes up most of the bird's diet.
- Hummingbirds can hear better than humans and they can also see better, with their range of sight entering the ultra-violet zone.
- A hummingbird will visit over 1000 flowers in a day and not only does it remember them all, it also keeps track of how long it takes each one to refill with nectar.
- To save energy, when it rests, a hummingbird goes into a strange state called torpor where many of its bodily functions slow down dramatically.
- Ruby Throated Hummingbirds migrate to Mexico every year and this includes a strenuous section where they fly non-stop across the Gulf of Mexico for 500 miles. They do this in about 20 hours without resting or eating.
- After taking these interesting facts into consideration, perhaps you'd like to study about hummingbirds a bit more. The best way to do this is by observation and a big help is a hummingbird feeder which can attract the birds to an area where it is easy to study them.

Following are directions on how to build a simple hummingbird feeder using recycled materials.

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Children's Backyard Activity: Make a hummingbird feeder from a recycled plastic bottle and container



Completed Feeder



Hummingbird waiting for nectar

1. Drill a hole in the center of a large plastic container lid that will fit over the neck opening of your plastic bottle.
2. Drill 4 holes equally spaced in this big container lid. The holes should be 7/32 inch diameter; also, drill a 7/32 inch hole in the bottle cap.



Supplies Needed



Drill holes

3. Use red tape or a red Sharpie to encircle the small holes in the lid. These holes will be the ports that the birds drink from.

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Holes drilled

4. String a wire or wrap a string around the bottom of the bottle to hang the feeder.

5. Pour the hummingbird nectar (sugar water, recipe follows) into the bottle and place the container lid on top of the opening of the bottle, through the center hole. Screw the bottle cap onto the bottle.



Screw bottle cap onto bottle

6. Pour nectar into the large plastic container. Place the bottle upside down on the large plastic container and lock the lid into place.

7. Hang the feeder in a shady area near flowers in the garden and wait for the hummingbirds to come to feed.

8. Clean the feeder every three days.

9. Hummingbird Nectar recipe: 1 part sugar to 4 parts water. Boil 1 to 2 minutes and cool and store in refrigerator. Don't use food coloring. It's bad for the birds' kidneys.



Completed Feeder

Back to the Past: A Talk With Lynne Berseth

A column highlighting items of interest concerning the historical features of the Watershed

By: Jim Orben

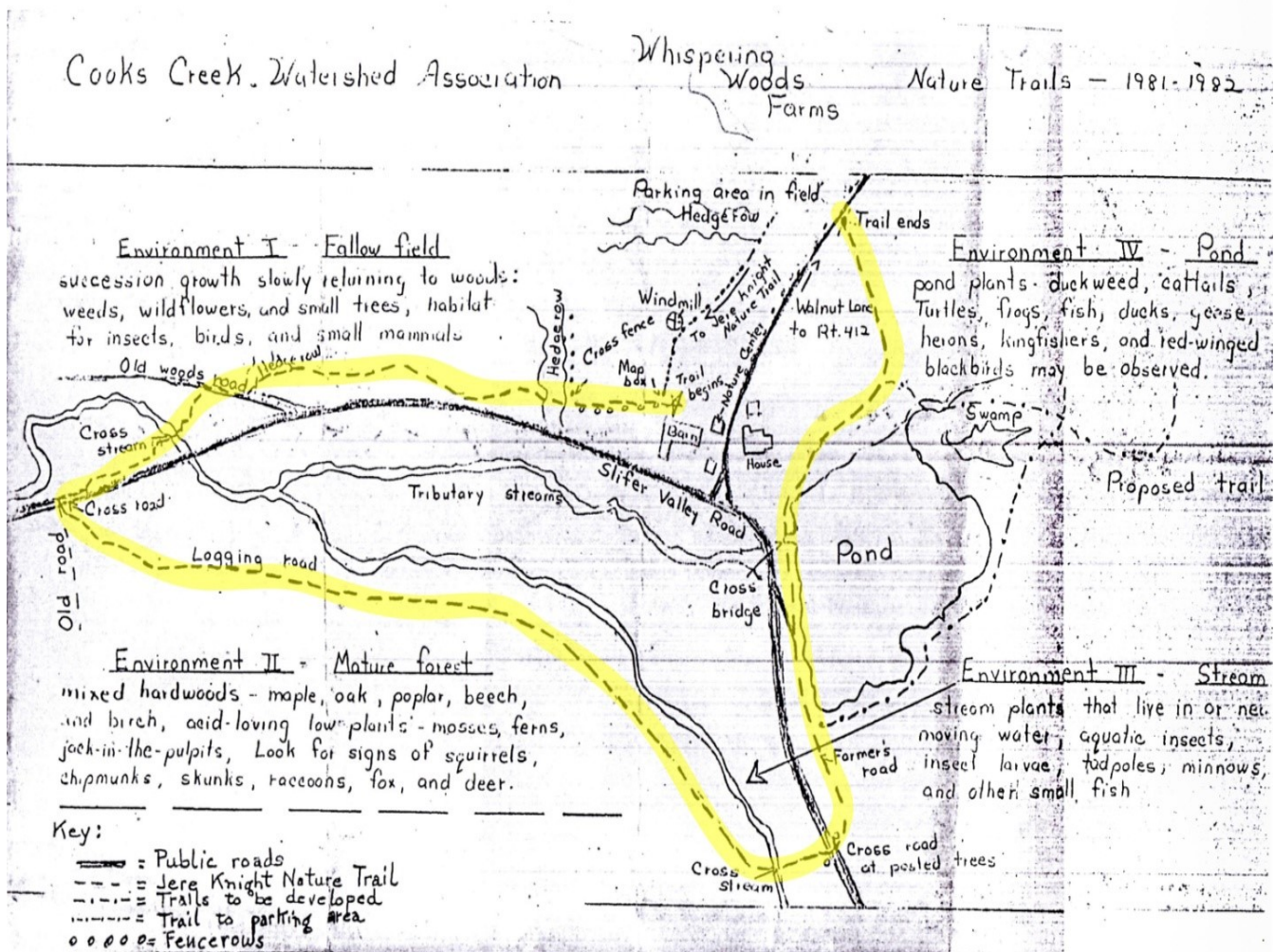
A few weeks ago, I sat down with Lynne Berseth at the table in her kitchen. We talked about the things she and the Watershed Association had done to get the Cooks Creek watershed classified as Exceptional Value. In 1988, the Association was working on two fronts to protect the quality of the watershed, the first being the Exceptional Value classification and in support of that, an upgrade of Cooks Creek's classification in Pennsylvania's Wild and Scenic Rivers program. The filling out of the applications and the pages of data that were needed seemed easy in comparison to the presentation and slide show we had to make in Harrisburg. We had a good laugh about my unclogging the carousel projector to keep the show within its thirty-minute time limit. Power Point would have made that so much easier. Steve Smith and Peter Fuller did a quick shuffle to make the talk fit into a little less time and the ride home was much more fun than it could have been.

With many thanks to Lynne's hard work and these new classifications, the creek could be protected by buffer zones and logging rules to limit the amount of sediment reaching the flowing water and to maintaining the canopy. The exceptional value classification of our Watershed has made it our job to convince property owners that what is best for Cooks Creek is what they want their properties to be. We talked a bit more about the Watershed and how it has changed since the 1980's and as I headed for the door, Lynne reminded me, "The canopy is the most important thing." And as I walked across her lawn I looked at the sky through a big ash tree nearby nodding my head in agreement.

The Jere Knight Trail

By: Bill Brodhead

In the late 1970's, Peter and Joan Fuller purchased a 240 acre farm on Slifer Valley Road that they named Whispering Woods. Both of them had a dream of making the farm part of a larger community. They were long term members of Cooks Creek Watershed and donated one of their out buildings to be used as a nature center. During that period, they preserved part of their farm property from any future development. In 1980, with the help of Cooks Creek members, they created a nature trail that wrapped around their property on both sides of Slifer Valley Road. A very pretty part of the trail included an old logging trail that wound above a Cooks Creek tributary stream that runs almost year round. The trail was named the Jere Knight Trail in honor of long time Cooks Creek associate and environmentalist, Jere Knight. The drawing below is the original trail layout from 1981-82.



This is the original trail from 1981

Trail along the pond and upper side of Slifer Valley Rd. no longer exists and is private property

Jere Knight was an amazing woman. She was a member of the 1930 Olympic fencing team. In 1932, she

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married Eric Knight, an editor and author. With a lot of editing help from Jere, Eric wrote the original "Lassie Come Home" book in 1940. When World War II began, Eric, who was English, began working for the US intelligence agency. Unfortunately, in 1943, Eric was killed in a military plane accident in Africa that was likely caused by sabotage. Jere was not to be stopped by this tragic loss. Although she was a Quaker, she made an exception for the fight against Hitler. She became a major and won a bronze star for aiding the founding of the all Woman's Auxiliary Army Corps later known as the Woman's Army Corps or WAC. During the war, she directed a team of cryptographers and reported directly to General Eisenhower himself. Eisenhower was even known to have requested Jere to dine with him while traveling through Europe. After the war, Jere was a continuous champion for the environment and world peace. In 1967, she provided the editing for a Pulitzer Prize winning volume of the history of the British Empire written by a Lehigh Professor. In 1972, she attended the United Nations' first global conference on the human environment. During that time, she helped Cooks Creek get registered as exceptional value by collecting information and writing reports. Her real love was poetry and after a 1984 trip to Nicaragua she translated poetry by Central American women. Nine years later she published her own poetry "The Uphill View". She passed away in 1996 at the age of 88. Her son, Jeff Lindtner and his wife Barbara live in the same farm she and Eric purchased here in Springfield Township.

In 1993, Peter and Joan donated 64 acres of their property to Heritage Conservancy. The property became known as the Fuller Preserve. For the next 20 years the property was mostly left undisturbed except for mowing the open field in the center of the preserve. Around 2002, the American Chestnut Foundation, Heritage Conservancy staff and the local boy scouts planted a mixture of hybrid and pure natural chestnut trees in the center of the open field. The purpose of the planting was to cross pollinate Chinese chestnut trees which are blight resistant with the American chestnut. The off spring are then cross pollinated back to American chestnut trees for at least three generations which hopefully would result in trees that are 15/16 American and 1/16 Chinese but blight resistant. At each generation when the trees are 5 years old they are purposely infected with the blight to determine which ones have inherited the Chinese genes for blight resistance. When the final hybrids are successfully blight resistant their seed will be used to re-forest chestnut trees. The cross breeding at this grove will continue for at least ten more years. A fence was placed around the grove to minimize deer damage. The plan is to repair the fence and add a gate that has a path leading up to the trail so hikers can get a close look at a tree that once dominated the Eastern US. Before 1900, chestnut trees were plentiful on the eastern coast but by 1940 they had been almost totally wiped out by the blight. Some of these majestic trees would reach a height of 100 feet and have 50 feet of branch free trunks. Many of the early American barns were constructed of chestnut.

There has been a Heritage Conservancy - Art of Preservation - fund raiser at Kirkland Farm the last two Septembers and a third one is planned for this coming September 20th to raise funds and awareness for land conservation in Springfield Township and to highlight the efforts of many individuals. Peter and Joan's gift of the Fuller Preserve has been honored at these events. At last year's event PPL presented Heritage Conservancy with a \$2,500 check of which a part was to be used for signage for the Jere Knight Trail. Since that time Heritage Conservancy staff and volunteer help have expanded the trail to a 1.8 mile loop trail. (See the trail map below.) Unfortunately, Peter and Joan are not able to see the expanded trail on their former property because they were both involved in a horrific car crash that killed Joan in 2011. The trail and the property is a way however, to forever honor what they gave to this community.

CCWA Jere Knight Trail

The Trail starts on Slifer Valley Road a few hundred feet west of Walnut Lane. There is a pull off near the start of the trail but it will only accompany one or two cars. It is suggested that multiple cars should park on the side of Walnut Lane. There is a Nature Preserve sign at the

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beginning of the trail. There are presently pink ribbons marking the trail which is easy to follow. Dogs are allowed on the trail, however, the original agreement, excludes horses.

Once you climb the steep bank, the trail heads off to the left (East) along the old logging trail that runs above the Cooks Creek tributary. At the first fork in the trail you can bear left and cross under a large fallen tree and continue down to the stream. The trail continues East beside the stream and then takes a hard right turn back up the hill. As you climb up the hill, bear left to follow the trail heading northwest until it turns inside a group of old growth trees. The trail turns 180 degrees and continues well above the creek and passes by a beautiful gorge on the Eastern side of the Fuller Preserve. From there the Trail winds up to a southern view of the neighbor's large planted field before heading north towards the top of the Chestnut Grove in the center of the Fuller Preserve. The next section is a beautiful old growth area with little underbrush to block the view. After providing another view of the neighbor's fields the trail heads north back down the hill and turns west towards another old growth area. At the far west point there is a view of a small pond down at the bottom of the hill that can be seen when the leaves are down. Heading down from this high spot you cross a runoff ditch and then head back to a view of the Chestnut field before turning north. A sharp left turn on this section of the trail provides a last overlook of the creek, at least when the leaves are down. The final loop takes you back to the start of the trail and down the steep bank to your car. Total distance is about 1.8 miles and takes about an hour of casual walking. The trail is mostly mowed but be sure to check for ticks.



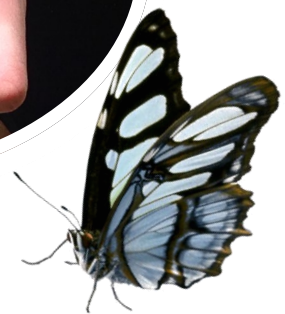
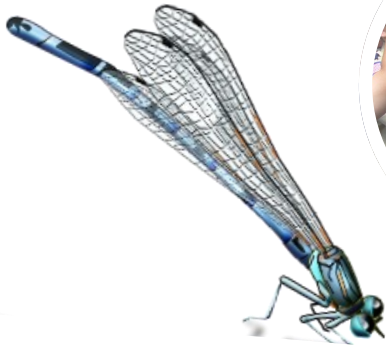
Trail Starts just West of Walnut Lane on Slifer Valley Road



(continued on page fifteen)

Photos from 14th Annual Mini Monster Mayhem

by: Joanne Graziano (from the event on June 14th)



Recycle!

Local Recycling Information

Durham Township Recycling Center

Location: Municipal Building, 215 Old Furnace Rd, Durham

1st Saturday of every month (2nd Saturday if 1st Saturday is on a holiday weekend)

Hours: 8:00AM – 12:00 noon, 1:00PM-4:00PM, (call ahead)

Accepting newspapers, magazines, junk mail, phone books, glass, tin, plastic, aluminum and cardboard, and CFL bulbs, rechargeable batteries (during office hours) .

Please note that this facility is available to all, not just Durham Township residents!

Contact Joe Kulick at the township building for more info. 610-346-8911

Springfield Township

Location: Township Building, 2320 Township Road

Paper Recycling Bin Available at Township Building.

A Recycling bin was recently placed here and is available to anyone. Cut down on trash and help the township earn extra money. You can drop off: Magazines, Shopping Catalogs, Phone Books, Newspapers, Office and School Papers, Mail.

Please do NOT include: Plastic, glass, metal, trash

Hours: Anytime ; See website: www.springfieldbucks.org or call (610) 346-6700.

Blinderman & Son

Location: 1320 Whitaker St, Hellertown. 610-838-9221

Hours:
7:30AM – 4:00 PM, Monday – Friday
7:30 AM – 11:30AM, Saturday

Accepting cardboard and most metals

City of Bethlehem Theis/Cornfeld Recycling Center

Web site: www.bethlehem-pa.gov/recycle/services/theis_cornfeld.htm

Location: 635 Illick's Mill Rd, Bethlehem

Phone: 610-865-7082 Hours: Weekdays: 10 AM to 4 PM, Saturday 9 AM to 4 PM, Sunday 11AM to 4 PM

Accepting glass, cans, plastics, newspapers, all books,

magazines, catalogs, cardboard, mixed office paper, metals, textiles (clothing, shoes, etc.), large appliances (certified freon-free). Call or go to the web site for specifics.

Bonus!! They provide FREE on site shredding services for businesses and private individuals. If you have 4 or more boxes, call 610-865-7082 to schedule an appointment.

City of Bethlehem Compost Center

Location: 1480 Schoenersville Rd., Bethlehem

Non-Bethlehem residents are not allowed to drop off materials at the composting center but the mulch and compost is available for free to anyone if loading services are not needed. They actually produce much more than what they can distribute, so they encourage anyone to take as much as they would like! Loading services are provided for a fee of \$10/cubic yard in the spring and fall. Call 610-856-7082 for hours.



Schedules of Local Government Meetings

Springfield Township:
www.springfieldbucks.org
 610-346-6700
 2320 Township Road

Supervisors: 2nd Tuesday @ 7:30 PM
Planning Commission: 1st Wed. @ 7 PM
Supervisors/Planning Commission
 Work Session: 3rd Thurs. @ 7 PM
Environmental Advisory Council:
 2nd Thurs. @ 7:30 PM
Open Space Committee:
 1st Tuesday @ 7:30 PM
Historic Commission:
 3rd Tuesday @ 7:30 PM

Durham Township:
www.durhamtownship.org
 610-346-8911
 215 Old Furnace Road

Supervisors: 2nd Tuesday @ 7:30 PM
Planning Commission:
 1st Tues. @ 7:30 PM
EAC: 3rd Tues. @ 7:30 PM

Lower Saucon:
www.lowersaucontownship.org

610-865-3291
 3700 Old Philadelphia Pike
Council: 1st and 3rd Wed. @ 7 PM
Planning Commission:
 3rd Thurs. @ 7 PM
EAC: 1st Tues. @ 7 PM

Williams Township:
www.williamstwp.org
 610-258-6060
 655 Cider Press Road

Supervisors: 2nd Wed. @ 7 PM
Planning Commission: 3rd Wed. @ 7 PM
Land Preservation Board:
 3rd Mon. @ 7 PM

Richland Township:
www.richlandtownship.org
 215-536-4066
 1328 California Road
Supervisors: 2nd and 4th Mon. @ 7 PM
Planning Commission: 3rd Tues. @ 7 PM
Preservation Board: 2nd Thurs. @ 7 PM

Community Days are coming-don't miss out on the fun!

Springfield Township Community Day is September 27 at the Silver Creek Grove.

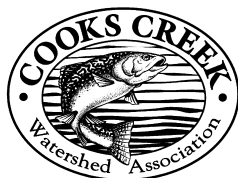
Durham Township Community Day is October 11 at Durham Mill.

(continued from page twelve) You can see color pictures of the trail by googling "Jere Knight Trail Fuller Preserve" or type www.wpb-radon.com/jere.knight.trail.html

For more information about the trail you can call Bill Brodhead at 610- 346-8484 or email at wmbrodhead@gmail.com

For Information about Heritage Conservancy events and volunteering to work on the trail or to be a part of the 3rd annual Art of Preservation event on September 20th contact: Shannon Fredebaugh at 215- 345-7020 ext. 104 or email at sfredebaugh@heritageconservancy.org

For more information on the American Chestnut Foundation and the work in the grove, you can contact Tom Prugel at 610- 346-6198 or email him at tprugel1@verizon.net. The Penn State Science Coordinator for the North Central Region is Sara Fitzsimmons at w: 814- 863- 7192 or cell: 814- 404- 6013 or email at sff3@psu.edu



Cooks Creek Watershed Association
P.O. Box 45
Springtown, PA 18081
www.cooks creekpa.org

If you hold precious the beauty that surrounds us in the Cooks Creek Watershed area and would like to be actively involved in its preservation, then consider joining our association as a member. Reach out to your community! We would love to hear from you! Please drop us a line at **info@cooks creekpa.org**

CCWA is a 501 (c) (3) non-profit organization.



Find us on Facebook

Please Join Us... Cooks Creek Watershed Association-Membership Form

All of us who reside in the area enjoy the beauty of Cooks Creek.

Those of us who are fortunate enough to live here are dependent upon this watershed not only for the beauty of the creek but our wells, the wetlands, the wildflowers and all of the beautiful landscapes in our townships.

It's up to all of us to protect this treasure. The Cooks Creek Watershed Association asks that you become a member and help in the task of protecting this special resource.

Name: _____

Other household members: _____

Address: _____

Phone: _____ E-mail: _____

Interests: (circle)

| | | | |
|------------|-------------|------------------|---------------------|
| Newsletter | Website | Roadside Cleanup | Event Planning |
| Membership | Fundraising | Stream Studies | Wherever I'm Needed |

Individual Membership Fee: \$ 15.00 per year _____

Family Membership Fee: \$ 25.00 per year _____

Student Membership Fee: \$ 10.00 per year _____

Donation: _____

Total: _____

Please detach and mail to Cooks Creek Watershed Association , (CCWA)

P.O. Box 45, Springtown, PA 18081. **THANK YOU !**

Checks can be made payable to Cooks Creek Watershed Association.

CCWA is a 501 (c) (3) non-profit organization.