

June 2015

Volume 11

Issue 1



Inside this issue:

President's Message 1

Ralph & Linda 2

Critters on Drugs: Pharmaceuticals in our environment

Treasurer's Report 3

Joe Messineo Memorial

2014 Water Quality Monitoring Report for Walker Lake, Twin Lake and Little Twin Lake 4

Board of Directors

Chet Dawson President

Vacant, Vice-President

Pat Messineo, Secretary

Irene DeVito Treasurer

Shirley Masuo, Past-President

Kirk Mackey,

Pat Dawson

Peter Wulfhorst

Glyn Eisenbauer

Scott Rando

John Hahn,

Paul Palladino

President's Message - Chet Dawson

They say that a successful volunteer organization is one that has regular changes in its Board and Officers. Sometimes though you lose people that have been the pillars of your organization. In the past 12 months, TWCWC has lost three of its founding, strongest and most opinionated members. Joseph Messineo passed away this past March and I still look for him at our meetings. His wife Pat is still on our Board and will be a constant reminder of Joe's contributions. This year's Twin & Walker Creeks Watershed Conservancy's DVHS Scholarship will be given in honor of Joseph Messineo. In last year's newsletter, I mentioned of the intended move of Ralph and Linda Cioppa. We gave them a sendoff this past November and they are now relocated to Southern California. In addition to all that they did for TWCWC and the community, Ralph and Linda also opened their home for our Board Meetings. We thank the Walker Lake Landowners Association for letting us now use their clubhouse. To learn more about Joe's, Linda's and Ralph's contributions to the community, please read elsewhere in this newsletter.

TWCWC's main objective is the protection, understanding and education of our watershed. Towards those ends we produced a new educational booklet, expanded our water testing program and hosted a talk on well testing in Pike County. Our booklet provides information for Twin and Walker Lake area residents on "How to Preserve Our Lakes and Streams." It can be picked up at the Walker Lake Clubhouse or from Kirk Mackey at Big and Little Twin Lakes. Phyto and Zooplankton sit at the bottom of the lake food chain and their health is important for the overall health of our lakes. We had no record of ever testing for these at Walker Lake and had not tested for them since the 90's at the two Twin Lakes. We tested for both last August and are now interpreting the findings. Last October we took advantage of the beautiful new Pike County Library to host Vincent Cordova of the Pike County Conservation District in a presentation "What Do You Know About the Quality of the Water You Drink in Pike County." Mr. Cordova presented early findings from the ongoing PCCD/USGS Baseline Groundwater Drinking Well Assessment.

Our volunteers spend many hours in support of our objectives but we also have expenses to cover: maintenance of test equipment, lake water analysis, our educational efforts, publications and mailings and other ongoing activities. You can help by donating to or joining TWCWC. A membership form is included with this newsletter. To learn more, view our website at (www.twcwc.com).

The mission of the Conservancy is to promote a better understanding of the Twin/Walker Creeks Watershed and its ecosystems and to protect, restore and enhance the watershed through proper management and watershed stewardship.

Ralph & Linda Cioppa - Chet Dawson



Whether it is in business, education, a volunteer organization or just among friends, most of us learn that to get something done and done well ask someone who is already overloaded. For the Twin & Walker Creeks Watershed Conservancy, that meant asking Linda and Ralph Cioppa. With children and grandchildren living in the four corners of the United States, the Cioppa's recently decided that a move to Temecula in Southern California to be near a daughter and her children there was what they wanted. We are sure that while Ralph and Linda say they won't become overly involved in their new community, we won't be surprised if they do.

The Cioppa's were original Board Members when TWCWC first organized in 2000. During the past 15 years they served in every capacity on that Board and participated or lead just about every activity from

lake testing to school environmental days to hosting speakers. They opened their home for meetings and fed us as well. Linda became our window into what was happening at the State and County levels and recently was recognized by the Pike County Conservation District on whose Board she also sat. Ralph served as chair for a number of years on the Lake Committee of the Walker Lake Landowners Association and remained an active member until they moved. Both Linda and Ralph served on the Board of the Walker Lake Landowners Association on which Linda also served as Treasurer for a time. Most importantly though the Cioppa's were friends that all of us will miss. Ralph and Linda have lead an exciting life, hop scotching across the globe. They have climbed Kilimanjaro, become locked in ice when kayaking in the arctic and most recently spent several weeks touring Japan. Their home was a museum of their travels. We want to thank them for their service to TWCWC and the community at large but most importantly for being just great people and friends.

Critters on Drugs: Pharmaceuticals in our environment - Scott Rando



This is a wood frog that was found in a vernal pond near Walker Lake this spring. Frogs have permeable skin, and scientists believe that this trait makes them particularly susceptible to exposure to contaminants such as trace pharmaceutical compounds in the environment.

You may have an old prescription bottle of drugs that has expired or you do not need to take anymore. Not wanting to risk your dog or cat getting into the trash and consuming these old prescription pills, you take them to the bathroom and flush them down the toilet. Until recently, this method seemed safe enough.

Studies in recent years have shown that trace amounts of pharmaceutical compounds have been making their way into waterways and aquifers throughout the country. Discarded pharmaceuticals carried by wastewater eventually reach sewage treatment plants. The water gets processed and the treated water is discharged into a waterway, free from bacteria and any organic waste products. Any pharmaceutical compounds do not get retained or treated however, and they pass back into the environment intact; treatment plants are not designed to treat or mitigate the myriad of pharmaceutical compounds that may pass through the treatment plant process.

Septic systems, widely used in our watershed, share the same concern. A properly working septic system drainage field will screen out organic material, and the non contaminated water may eventually find itself in a waterway after much ground filtering. Much of the pharmaceutical waste is water soluble however, and it will pass through the septic system drainage field and eventually make it to a waterway intact, even after being transported with water for long distances through the ground.

The concern with these trace chemical compounds is, if they are left unchecked to flow freely into watersheds, that the concentration of assorted trace compounds will be sufficient to adversely affect wildlife in the habitat. Once in the environment, many drug compounds are very stable, maintaining their ability to affect the habitat for a long time.

Fish and amphibians are especially susceptible to the effects from being exposed to trace contaminants, and they are prey species for other animals.

Awareness of trace levels of pharmaceuticals in aquifers and watersheds has grown, and there are things you do. Many municipalities have "drug drop off" points, where old pharmaceuticals can be dropped off and safely disposed of. Avoid flushing them or dumping down the sink; particularly strong drugs such as chemotherapy or concentrated antibiotic drugs may do harm to your septic system in addition to winding up in the environment. Our watershed is pristine and plays host to many species of fauna and flora, and is a main source of recreation in the form of swimming, fishing and other activities.

Bald eagle foraging takes place on Twin and Walker Lakes, as well as the Delaware River. The effects of trace pharmaceutical bioaccumulation in bald eagles has not been well studied, but sufficient quantities of pharmaceutical contaminants can adversely affect this species just as pesticides have.



Please use drug drop off points and protect ourselves and the lake critters. By properly disposing of the old pill bottles, as well as any other chemical stuff we may have collected, we can keep our watershed pristine for future generations to come.

In Pike County, drop off points are at the Eastern Pike Regional Police Dept. 10 Avenue I, Matamoras, PA 18336 (570) 491-4700 Monday - Friday from 8-4 pm. or the Pike County Sheriff's Office at 500 Broad Street Milford, PA 18337 (570) 296-6459 from 8:30 - 4 pm. .

Treasurer's Report - Irene DeVito

I write to you as the new treasurer of the TWCWC. I have served on the board for seven years which surprised me - I thought it was only two or three years!

I have inherited a sound fiscal condition for which I owe thanks to you and to Linda Cioppa, the former treasurer. She has left the position because she and her husband, Ralph have moved to California. They were a driving force in the TWCWC and will be greatly missed.

You responded generously to her plea last year for an increase in donations and I hope that you will do the same this year. You might be interested in knowing that the winner of last years' scholarship was Kristen DeVilliers. This year we will be awarding The Twin & Walker Creeks Scholarship in Memory of Joseph Messineo to a senior from Delaware Valley High School

In anticipation of your always generous response to our annual plea for funds, I have shifted \$5,000 from the checking account which is used for day to day expenses to the money market account which is used for larger expenses. Therefore we now have \$16,466.47 in the money market account and \$1,780.95 in the checking account.

Joe Messineo Memorial - Shirley Masuo

Sadly, this year, the Conservancy has lost one of its founding members, Joe Messineo. He was resident of Twin Lakes for 45 years, and served on the Board of Directors of the TWCWC from its inception in 2000.

The Conservancy benefitted for 15 years from Joe's expert understanding of the nature of how things work. Among his accomplishments and with his experience as a mechanical engineer, Joe designed and engineered a remediation for a serious storm water problem on Twin Lakes which is still working satisfactorily today.

With his extraordinary patience and his love of the beauty of Twin Lakes, he was always there to lend a helping hand and to solve a problem. He will be sorely missed as we continue our mission to promote a better understanding of the Twin/Walker Creeks Watershed and to protect it through proper management and stewardship.

2014 Water Quality Monitoring Report for Walker Lake, Twin Lake and Little Twin Lake - Kirk C. Mackey

We continue to do our lake testing with the help of the volunteers from Walker Lake, Little Twin Lake and Big Twin Lake. On May 30th we conducted our annual workshop to help refresh our volunteers on lake testing protocol. The 2014 season testing results are available for all to see on the Twin Walker Creek Watershed Conservancy website <http://www.twcwc.com/>, and I encourage all to read the results. The analysis is the result from the testing samples we gather in June, July, August and September and is supplied to us by our friends FX Browne. Below is the conclusion and recommendations as seen in the report.

“In general, Walker Lake had the worst water quality in 2014 while Little Twin Lake had the best water quality in 2014. In general, water quality has remained stable over the past 4 years. However, year to year variability indicates the lakes are sensitive to any increase in nutrient inputs. Evidence of higher conductivities during increased periods of lake usage and lower conductivities during decreased lake usage suggests that septic systems and runoff from lawns may be a factor in affecting the water quality of these lakes. Dissolved oxygen and temperature profiles have indicated that Big Twin Lake and Walker Lake experience oxygen depletion in the bottom waters, while Little Twin Lake does not and may be capable of supporting a cold-water fishery.

Nutrient reduction strategies that reduce the introduction of nutrients into the lakes should be implemented to maintain or reestablish mesotrophic conditions in the Walker Lake watershed. Such strategies include septic systems upgrades, diversion and/or treatment of storm water, and the control of Canada Geese populations. An educational program for lakefront property owners should be put in place in order to instruct those homeowners on proper lakefront best management practices for protecting and restoring good water quality. This program can include lectures and educational materials on lakefront landscaping, proper use of fertilizers, pest waste management, runoff control, and the identification and management of invasive species, aquatic plants and algae.”

As we start enjoying our lakes this summer we would do well to keep in mind that we are the stewards of our lakes. The better informed we are now will help to insure we pass this valuable resource on to future generations in the same, if not better, condition than those did who came before us.

The Twin/Walker Creeks Watershed Conservancy will be hosting a public meeting at the Walker Lake Clubhouse on October 24 at 10 am. The topic of the meeting will be:

Lyme Disease - What is Lyme Disease and What is being done to address Lyme Disease

The speaker will be a representative from the Pike County Lyme Disease Task Force

**Twin & Walker Creeks
Watershed Conservancy**

102 Warpath Place
Shohola, PA 18458
www.twcwc.com

NON-PROFIT ORG.
U.S. POSTAGE
PAID
PERMIT #15
MILFORD, PA 18337

**Resident
RR 5
Shohola, PA 18458**

Twin & Walker Creeks Watershed Conservancy
C/O Irene DeVito
102 Warpath Pl.
Shohola, PA 18458
www.twcwc.com (president@twcwc.com)

Name _____ Phone _____

Address _____ City _____

State _____ Zip _____ Email _____

Memberships: (Circle One)

Individual (\$15) Family (\$25) or Student/Senior (\$10) \$ _____

Additional Donation: \$ _____

Volunteer Opportunities (please circle any areas that are of interest)

Lake monitoring Education (Children, Brochures, Other)

New programs (please note if you would like to participate or just learn more through our education program)

Invasive plant identification & control Macro-invertebrate stream testing Other interests _____

Suggestions for TWCWC _____

**Twin & Walker Creeks
Watershed Conservancy**

102 Warpath Place
Shohola, PA 18458
www.twcwc.com

NON-PROFIT ORG.
U.S. POSTAGE
PAID
PERMIT #15
MILFORD PA 18337

Resident
RR 4
Shohola, PA 18458

Twin & Walker Creeks Watershed Conservancy
C/O Irene DeVito
102 Warpath Pl.
Shohola, PA 18458
www.twcwc.com (president@twcwc.com)

Name _____ Phone _____

Address _____ City _____

State _____ Zip _____ Email _____

Memberships: (Circle One)

Individual (\$15) Family (\$25) or Student/Senior (\$10) \$ _____

Additional Donation: \$ _____

Volunteer Opportunities (please circle any areas that are of interest)

Lake monitoring Education (Children, Brochures, Other)

New programs (please note if you would like to participate or just learn more through our education program)

Invasive plant identification & control Macro-invertebrate stream testing Other interests _____

Suggestions for TWCWC _____

**Twin & Walker Creeks
Watershed Conservancy**

*102 Warpath Place
Shohola, PA 18458
www.twcwc.com*

**NON-PROFIT ORG.
U.S. POSTAGE
PAID
PERMIT #15
MILFORD, PA 18337**

**Twin & Walker Creeks Watershed Conservancy
C/O Irene DeVito
102 Warpath Pl.
Shohola, PA 18458
www.twcwc.com (president@twcwc.com)**

Name _____ Phone _____

Address _____ City _____

State _____ Zip _____ Email _____

Memberships: (Circle One)

Individual (\$15) Family (\$25) or Student/Senior (\$10) \$ _____

Additional Donation: \$ _____

Volunteer Opportunities (please circle any areas that are of interest)

Lake monitoring Education (Children, Brochures, Other)

New programs (please note if you would like to participate or just learn more through our education program)

Invasive plant identification & control Macro-invertebrate stream testing Other interests _____

Suggestions for TWCWC _____