



# Musconetcong River News

Summer 2013

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Asbury, New Jersey

## Oil Rush Legacy; Pipelines Remain in Musky Changewater Tank Farm and Pumping Station

By Chuck Gullage

While looking at a 1943 topographical map of the Musconetcong River where it passes through Changewater, NJ, I noticed some unusual terrain features. On the north side of Changewater, Warren County, is an area labeled "Tidewater Tank Farm" and on the south (Hunterdon) side between the river and Musconetcong River Road is another area labeled "Tidewater Oil Pump Station".

A look at Changewater on Google Earth reveals large circles on the north side of the river where tanks were located. The defunct tank farm and remaining circles are part of an interesting story from the 1800's Pennsylvania "Oil Rush". The story is particularly interesting to the Musconetcong Watershed Association because the tank farm was located on the banks of the river and the site is still under remediation from years of oil leaching into the ground.

In the mid-1800s oil was discovered near Titusville, Pennsylvania. Wells were drilled and oil was pumped from the ground. Initially, teamsters shipped the oil in wooden whiskey barrels from the fields to the Oil Creek and Titusville

Railroad terminal for distribution to refineries and the market. Incidentally, this is why oil is measured in "barrels" today.

The teamster mode of transportation to the railroad was short lived due to construction of a pipeline by the Tidewater Oil Company. This was the first oil pipeline in the United States and possibly in the world. The project was a great economic success and in a short period of time the pipeline was extended beyond the railroad and additional pipelines were constructed. By the late 1800s the initial pipeline was extended across Pennsylvania and New Jersey to the Port of Bayonne, NJ.

Functional problems with the pipeline were overcome using the technology of the day. Pumping any fluid through a 6" pipeline for over 350 miles up mountains, across valleys and rivers was a challenge by any measure. Crude oil is very thick and heavy and obviously it doesn't flow up hill. By its nature, oil becomes thicker in cold weather and under some temperature conditions it doesn't flow at all. These challenges were dealt with by the construction of several pumping stations with tank

farms and heaters at various points along the pipeline. When additional throughput of oil was required the company installed another parallel pipeline.

Pipes were buried 18 inches beneath the surface wherever possible. Where pipelines crossed waterways, the pipes lay exposed on the river bottom. When the pipes occasionally broke or burst, roving crews repaired them as quickly as possible. Occasionally ships or barges in rivers would drag their anchors, catching on the pipelines. Because all this was done in a time before any environmental regulations addressed pollution, that lack of concern has resulted in environmental problems that still exist today.

However, the biggest problem remaining today is that the bottoms of the tanks were unlined. The oil company

reasoned that since the oil came up from the ground, there was no harm in allowing it to seep back into ground through the compacted dirt at the bottom of the tanks.

Over the years, through oil company mergers and consolidations, the Changewater tank farm and pumping station properties came to be owned by Chevron. The tank farm ceased operation in the late 1970s. At that point that the bottomless tanks became an issue. It is not clear exactly what happened, but an unknown quantity of oil began to seep to the surface requiring a cleanup effort. Alerted to the situation, NJDEP became involved and Chevron installed monitoring wells and oil collection equipment to prevent additional oil from getting in the Musconetcong River.

**Pipelines** *Continued on page 2*

**MWA Wine Tasting Event**  
**Saturday, October 5th**  
**2:00 p.m. - 5:00 p.m.**



**Rounds for the River**  
**Golf Outing**  
**Monday, October 14th**  
**No play, Dinner Only Option**

**See Page 5 for Details**

# Pipelines

*Continued from page 1*

In July Mr. Paul Kenney, the National Park Service's Wild and Scenic Project Manager for the Musconetcong River, and representatives of Chevron Environmental Management Company toured the site. The oil collection and skimming equipment appeared to be in good working order and the cleanup is progressing. Chevron claims that the oil plume is getting smaller although no supporting data was provided.

Although this area is contaminated with oil products it is not classified as a Superfund Site, nor is it on the National Priorities List. Chevron representatives estimate that it will take another 5 - 10 years to complete the cleanup and they

speculate that once the cleanup is complete that the property might be returned to use as farmland.

Chevron representatives stated that all of the pipelines in and around the site have either been removed or capped. This was not confirmed, however, Mr. Kenney did observe that there are two pipelines left in place on the bottom of the river crossing between the tank farm and pumping station. According to Chevron, these pipes have been filled with concrete and rendered inert. Our concern is that the pipes are close enough to the surface to

act like a low dam across the river. Mr. Kenney will request they remove the pipes. MWA will monitor the operation when this takes place.

We will keep the MWA membership informed as we learn more about the cleanup efforts and as progress is made. Is the Changewater tank farm a reason for continuing concern? We're not sure, but we are keeping an eye and nose on the site for any signs or odors of oil seeping into the river. Residents in the area served by wells should be aware of the situation with the tank farm remediation and be vigilant. ☹

## MUSCONETCONG WATERSHED ASSOCIATION

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[www.musconetcong.org](http://www.musconetcong.org)

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Photo by Bill Leavens

Aerial photo of former Changewater Tank Farm in Washington Township, Warren County.

## Congratulations to Musconetcong Watershed Association

Hello Beth -

You're probably wondering why a stranger in South Dakota is sending you congratulations. Well - I was reading through my grants.gov notices this afternoon and saw that the Musconetcong Watershed Association is being awarded a continuing cooperative agreement through the National Park Service. This caught my eye because I grew up in Warren Glen, NJ near the Musconetcong. In fact the river figured prominently in my summer bike rides and social gatherings with my friends.

Not only am I happy for you receiving this award, but want to thank you for your part in preserving such an important piece of New Jersey landscape. Certainly a piece that figured prominently in my childhood. When I tell friends here in South Dakota that I grew up in rural New Jersey, well, they are skeptical to say the least. I am now on a homesick nostalgia binge that will no doubt include web surfing to my high school alma mater (Phillipsburg) and the Pohatcong Historical Association and other scenic points around Warren Glen.

*Thank you again for your good work!*

Mickie Kreidler, Ph.D.  
Director of Sponsored Programs  
Dakota State University

# Showcasing Successes

By Beth Styler Barry

On Wednesday September 4th a group of about a dozen people set out to review river restoration projects on the Musconetcong River and beyond. I was pleased to be a part of this group, which introduced Carrie Mosley, the new State Conservationist for United States Department of Agriculture Natural Resource Conservation Services (NRCS), to the region. The NRCS is a federal agency that works with private landowners to help them conserve, maintain and improve their natural resources. NRCS emphasizes voluntary, science-based conservation; technical assistance; partnerships; incentive-based programs; and cooperative problem solving at the community level.

It was my job to present to the group a summary of the work that has been done at the Finesville Dam site by the MWA and its partners in the Musconetcong River Restoration Partnership. The work of the Partnership has been successful because each partner brings a unique set of skills to the project. Restoration projects are complex; they involve issues ranging from an understanding of hydrology and local aquatic life to having respect for local history. Together members of the Partnership have the expertise and knowledge to bring these projects to completion. My summary included a review of work with neighbors, the municipalities, the State Historic Preservation Office, and our funders over the six year span of the project.

We started our tour of Finesville by viewing the former dam site and all were impressed with conditions at the site two years after dam removal. We viewed the riparian restoration work which has, with hundreds of hours of volunteer work, held its ground against humans, beavers and invasive plants including Japanese Hops. The engineered banks installed where steep banks existed are vegetating nicely.

After our tour of the riparian area we headed upstream of the former dam to observe the recently completed streambed manipulation work. While most of the healing that follows a dam removal is taken care of by Mother Nature,



MWA members Bob Heiser and Grace Szubua Heiser describe the improvement in the fishery on their property in Warren County as a result of this Trout Unlimited led Project. Joe Urbani shows project plans to NRCS's Carrie Mosley.

sometimes she gets a "jump start" in the form of some constructed pools and riffles and bank stabilizing features. At Finesville, and each of the other sites visited, these features were installed by Urbani Fisheries.

After leaving Finesville we toured three other stream bed manipulation projects. The first project was completed on the property of MWA members Bob Heiser and Grace Szuba Heiser. Following this project, we left the Musconetcong Watershed and toured a restoration project at the Pequest Anglers Club, where owner Michael Bateman provided lunch for the group along the stream. The last stop on the tour was Raritan Inn stream restoration project. On this final tour, led by Jim Holland, the group heard about how the stream restoration at this site positively impacted two small businesses.

Evan Madlinger, NRCS-Biologist, did a great job of organizing the tour and acting as tour guide. Present on the tour were Carrie Mosley, NRCS State Conservationist, Christine Hall, NRCS State Resource Conservationist, Dan Mull, NRCS District Conservationist, Chad Cherefko, District Conservationist, Maria M. Collazo, Assistant State Conservationist for Operations, Pat Hamilton, Principal Fisheries Biologist, NJ Division of Fish and Wildlife, Brian Cowden, Trout Unlimited Musconetcong Home Rivers Initiative and Joe Urbani, President, Fisheries Biologist, Urbani Fisheries. ☺



The group takes a look at the in stream restoration work in Finesville. From left Brian Cowden, Brian Cowden, Carrie Mosley, Chad Cherefko, Evan Madlinger, Maria Collazo, Joe Urbani, Pat Hamilton and Beth Styler Barry



In this photo a constructed riffle replaces a formerly flat and homogenous stream bottom, providing habitat for aquatic insects and the fish and other animals that feed on them.



*Fly tying Freddy De Leon, a member of Ridge and Valley Chapter of Trout Unlimited, gathers fibers from a feather to create a fly. The chapter ties flies in the building the first Tuesday of every month.*



Photo by Matt Smith, Express Times  
*The MWA presented its Meet the River program at several locations in the watershed in the summer of 2013.*



*Our Camp Musky River Rangers, ages 11 and up work on their raft. It is hard to say what they like more, floating or falling in!*



*After an August dedication ceremony, a plaque acknowledging Franklin Township as the home of the renowned Plenge Site has its temporary home at the MWA's River Resource Center.*



*The Musconetcong Watershed Association held its first ever Staff and Board Retreat. It was a fantastic opportunity to brainstorm and share ideas.*



*Our fascinating Moth Night River Talk drew two dozen interested people well, like moths to a flame.*



**Are you following the Musconetcong Watershed Association on Facebook? It is a great way to find out what's going in the watershed.**

# **SAVE THESE DATES!**

**September 21-22, Highlands Festival at Waterloo** A celebration of all things local! Rediscover Waterloo Village and the natural resources of the New Jersey Highlands region. Celebrate New Jersey's home-grown music, food, art, crafts, history and entertainment! MWA will have a booth at the festival and will be offering paddling tours each day. Visit [highlandsfestivalatwaterloo.org](http://highlandsfestivalatwaterloo.org) for more information.

**Saturday, October 5th, 11th Annual Wine Tasting Event 2:00 p.m. - 5:00 p.m.** Join us for a relaxing fall afternoon at the Pavilion at Warren County Rod and Gun Club in Asbury, New Jersey. Sample a variety of imported and domestic wines with an array of delicious finger foods including smoked Musky trout near the banks of the Wild and Scenic Musconetcong River. Your good company and some foot-movin' music is all that is required to cheer on your entry in our traditional Rubber Duck Race. Online registration is available at [musconetcong.org](http://musconetcong.org) or call (908) 537-7060 or email [adrienne@musconetcong.org](mailto:adrienne@musconetcong.org) for details.

**Monday, October 14th, Annual Golf Outing "Rounds for the River"** Come experience our beautifully rustic escape! Enjoy the challenges and rewards of one of the finest courses in Northwest New Jersey. Get close to nature on Hawk Pointe's majestic 18-hole, par-72 course designed by Kelly Blake Moran. Outing includes a gourmet lunch and dinner, exciting prizes and a silent auction! **You may choose a no play, dinner only option.** All proceeds of this incredible opportunity will benefit the MWA preserving and protecting the watershed through education and outreach. Online registration is available at [musconetcong.org](http://musconetcong.org) or call (908) 537-7060 or email [adrienne@musconetcong.org](mailto:adrienne@musconetcong.org) for details.

**Tuesday, October 22nd, Septic System Basics and New Technologies River Talk 7:00 p.m. – 8:30** Tim Terry, local contractor, will share his knowledge of the basics of septic systems, including care and maintenance, and share information on new technologies. Call (908) 537-7060 or e-mail [adrienne@musconetcong.org](mailto:adrienne@musconetcong.org) for details or to register.

**Tuesday, November 12th, Build a Rain Barrel River Talk 7:00 p.m. – 8:30** Pat Rector, Rutgers Cooperative Extension Environmental Agent will provide a talk on ways to conserve rain water runoff with a focus on rain barrels. She will discuss how rain barrels help to both conserve water and reduce water pollution, while showing how simple it is to build a rain barrel. The old is made new again, and this "old concept" provides a very new use. Call (908) 537-7060 or e-mail [adrienne@musconetcong.org](mailto:adrienne@musconetcong.org) for details or to register.

**Saturday, November 9th, Lake Hopatcong Community Cleanup 8:00 a.m. – 12:00 noon** In conjunction with the five-year 60 inch drawdown, the Lake Hopatcong Foundation is coordinating a lake-wide community clean-up effort of areas that can be accessed during the lower lake level. The MWA will work on the south end of the lake. In the event of an extreme weather event, such as a hurricane or blizzard, the clean-up will be postponed one week to Saturday, November 16. Please call (908) 537-7060 or email [ambassador@musconetcong.org](mailto:ambassador@musconetcong.org) to register.

**Saturday, November 23, 2013 Hike at Point Mountain 10:00 a.m. - 12:00 p.m.(ish)** Each year MWA members and others set aside the Saturday after Thanksgiving to burn off those extra calories by hiking the trail at the Point Mountain Reserve. Hikers will use the Ridge Trail which cuts through the forests and a mountain stream. The trail is diverse and challenging at times and includes a steep and rocky incline. MWA members are free, others are asked to donate \$3 per person with an \$8 family maximum. Bring a snack, water and binoculars if you'd like. All are welcome, novice and expert alike. The meeting place for this hike is the gravel parking lot on Point Mountain Road approximately 0.3 miles from Route 57. Call (908) 537-7060 or email [adrienne@musconetcong.org](mailto:adrienne@musconetcong.org) for details or to register.

For more information on these programs visit [www.musconetcong.org](http://www.musconetcong.org) and view the calendar.  
To register for programs email [adrienne@musconetcong.org](mailto:adrienne@musconetcong.org) or call (908) 537-7060 unless otherwise indicated.

## The Musconetcong Watershed Association

The Musconetcong River Valley is rich in scenery, history, natural resources, and recreational opportunities. The river rises up in Lake Hopatcong - New Jersey's largest spring-fed lake - and is shadowed by 1,000-foot Highland ridges and slices through a deep, limestone river valley, flowing swiftly to the Delaware River. Along the way the "Musky" passes by state and county parks, bustling towns, vital industries, historic villages, and some of the most productive farmland in the state.

The Musconetcong Watershed Association (MWA) is a non-profit organization formed in 1991 to protect and enhance the Musconetcong River and its related resources through advocacy and environmental education programs, scientific research and river restoration projects. The MWA scope spans the 158 square-mile Musconetcong River Watershed, and includes portions of four counties, and all or portions of 25 municipalities. The Musconetcong River became part of the National Wild and Scenic River System in 2006.

MWA members are part of a network of individuals, families and organizations who care about the Musconetcong River and its watershed. They are kept informed about issues concerning the river and its related resources by receiving quarterly issues of the *Musconetcong River News*.

## MWA Membership Application

Please enroll me as a member of the Musconetcong Watershed Association in which I will receive membership benefits and publications. I have enclosed a check payable to **MWA** for the membership category listed below:

- |  |  |
|--|--|
| <input type="checkbox"/> \$20 Student          | <input type="checkbox"/> \$100 Sustainer |
| <input type="checkbox"/> \$30 Family           | <input type="checkbox"/> \$250 Steward   |
| <input type="checkbox"/> \$50 Supporter        | <input type="checkbox"/> \$500 Champion  |
| <input type="checkbox"/> \$1,000 + Life Member |  |

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

*Mail to:*

**Musconetcong Watershed Association**  
PO Box 113, Asbury, NJ 08802



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## Musconetcong River News

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