Water Quality Improvement - Maplelawn Farms – Waste Storage

This medium CAFO dairy operation (450 mature animals) is operated by Nancy, Dan, John and Roberta Wolf. The farm has cropland on both sides of the Canandaigua Outlet. As part of the farm’s CNMP (Comprehensive Nutrient Management Plan), it was determined that additional manure storage was needed.

Better Control of nutrient, pathogen, and sediment runoff is the primary concern of the AgNPS program

The additional storage would allow better control of nutrient, pathogen, and sediment runoff to the Canandaigua Outlet. Specifically, the additional storage would allow: increased control of spreading on fields that are in the floodplain or have a high risk of runoff during inclement weather, better timing of the application of nutrients to cropland, better timing of spreading on areas shallow to bedrock, and more effective spreading on fields where the water table is close to the surface.

As part of a grant proposal, cost-sharing for the project was applied for under The NYS Agricultural Nonpoint Source Abatement and Control Program (AgNPS). Funding was obtained and the Wolfs met with a private engineer to design a 160,000 gallon below-ground concrete storage. Bids were received for construction and the landowner was actually the low bidder on the project. The project was completed and is now in use. John Wolf says “The completed storage now allows us to better adjust our manure application schedule to weather and field conditions. This has the benefit of getting the best return for the amount of manure applied and has the additional benefit of reducing nutrient loss.”

This project is the most recent of many projects completed by Maplelawn Farms to protect the environment and improve water quality for all residents in Wayne County. The farm has also been active in the community promoting good watershed management and Best Management Practices to help improve water quality in other areas of Wayne County and surrounding areas. In 2013, the farm was awarded “Conservation Farm of the Year.”

Our Agricultural implementation program is overseen by Terry Reynolds

Ag Non-Point Source Grant Program - The Farmer’s Perspective

Ag Non-Point Source Grant Program through NYS Agricultural Environmental Management Program: Mark and Ethan Humbert, Humbert Farms, Rose NY

“The New York State Ag Non-Point Source Grant Program is an excellent way for farmers to address on farm environmental concerns, and fix them using technical and financial assistance from local Soil and Water Districts. The program seeks to mitigate, if not eliminate, the risk of pollution and contamination that animal waste and chemicals present during farm operations,” says Mark Humbert, Owner and Operator of the Farm.

“As agriculture is a major part of the Upstate New York economy, it is crucial that farmers respect the soil and water we use to produce our products. As stewards of the land; considering the needs of the community and the next generation of farmers; we must all strive to protect and preserve these valuable resources,” says Ethan Humbert. (continued on page 2)
Conservation Cornerstones for 2014
Lindsey M. Gerstenslager, District Manager

2014 has flown by with many milestones for success for the District. We are very fortunate to have the dedication from the District Board, Staff and County support. Within the last several years, the District has been able to answer the call from the local communities to offer programs that have helped individual landowners develop their own techniques for water quality and soil health.

It is my pleasure to be a part of the ever changing climate we have in Wayne County. With over 36 programs being offered by the District, we can offer technical assistance to almost any conservation concern. Some of our greatest successes in 2014 are due to partnership. Conservation truly is not an opportunity unless there are multiple minds that support it.

Some of our partners that have been a great support in 2014 include:
- Wayne County Board of Supervisors
- Wayne County Water Quality Coordinating Committee
- Wayne County Planning Department
- Wayne County Public Works including Highway, and Central Garage
- Wayne County Printing
- Cornell Cooperative Extension of Wayne County
- Ontario-Wayne Stormwater Coalition
- Save Our Sodus Inc.
- Port Bay Improvement Association
- Wayne County Agricultural Economic Planning Committee
- USDA Natural Resource Conservation Service
- USDA Farm Service Agency
- Williamson Watershed Management Council
- Town of Sodus
- Village of Sodus Point

This year was a transition for water quality and agriculture in Wayne County. With the intensity of the weather and ever changing climate, many of the municipalities and farms spent time deciding a strategy for fixing some problems long term. Because of this attention to detail, the District has been fortunate this year to receive 7 new contracts for conservation work through funding from New York State’s Environmental Protection Funding, Federal EPA and several agencies that represent them for funding to support local environmental needs. Because of the excellent planning conducted by the staff of this Team, the District had an 80% success rate for applications submitted for funding. All these grant funds could not be made possible if it was not for the County dollars used to leverage these other projects.

In the 2015 year because of these new funding opportunities there will be several stream maintenance and habitat projects completed in the Towns of Williamson, Sodus, Huron & Rose along with three in the Village of Sodus Point, and Hamlet of North Rose which will include projects for the improvement of bank stabilization, restoration, protection, invasive species control and fisheries habitat development. In addition, the District will continue to implement the Critical Area Stabilization control for any properties that have erosion control issues as part of a cost share program with the Great Lakes Basin Commission and several special projects that will include drainage and stream channel clean up for environmental conservation and recreation. Also, the over whelming need for soil health improvements has allowed the District to apply and successfully receive funding for purchase of a new no-till grain drill for rental this coming spring.

Overall, the 2014 year has been a continuous success. The technical staff has been very busy this year and in the following pages you will see some of the projects that own and operate on a daily basis. Please take a few minutes and look through the annual report to see the opportunities that are out there. But remember to ask yourself, what can I do to conserve this small piece of the planet that I am responsible for? I bet you can come up with a good list! To a new year! Bring it on!

The Wayne County Soil & Water Conservation District was chartered back in 1944 in Wayne County by the State of New York. The mission and purpose of our existence is to help to reduce human and natural impacts on Wayne County’s natural resources through implementation and education of conservation practices.

Records Management:

In 2014, Records Management Officer Cathy Comfort initiated a start on the task of reviewing District records from inception from 1952 to the present. This is a slow process as each individual record needs to be viewed for historic content; asset; and permanent record keeping. New York State provides schedules of record keeping and purging. In order to follow these procedures adequately, the Records Management Officer and the District Manager must both participate in this process.

A log is created for any record that will be disposed of (shredded). Once permanent and essential records have been established, they are properly stored, labeled and maintained annually as part of the annual review audit.

As a New York State Agency we follow the schedule put out by the New York State Education Department, Record Archive Schedules, which is the official format for State Agencies. Cathy has attended several classes as the Records Management Officer for Wayne County Soil & Water and continues to update her education with the Archival Office thru seminars and on-line training.

The NYS Agricultural Environmental Management Program Grant Program helps farmers implement practices and structures which may not be financially viable otherwise. The program offers incentive to operate in a way that is not only environmentally friendly, but econom ical as well. The innovations in agriculture are changing the way we grow and produce, and the NPS program allows us to grow and develop while still managing and retaining the nutrients we apply. The practical planning and design performed by the Soil and Water District allows us to prevent water pollution while continuing to farm and conduct business as we decide.

“The Ag NPS funding is an excellent example of using public dollars to solve today’s local problems to improve New York’s future,” Humberts.

Understanding Cornerstones to 2014 through implementation and education of Wayne County’s natural resources

Please visit us on the www.waynecountyNYsoilandwater.org
Red Creek West Watershed Assessment

Wayne County Soil and Water Conservation District is in the process of performing a watershed assessment on Red Creek West and its tributaries, which is located in the towns of Walworth, Macedon, Marion, Palmyra and Penfield. The Red Creek West watershed is approximately 30,750 acres in size and has 78.85 linear miles of streams. This assessment includes field surveys, water quality sampling and analysis, resource evaluation, and various mapping to help identify causes and sources of pollution that need to be controlled. Sixteen sites on Red Creek West are being sampled monthly from June 1, 2014 to May 31, 2015. Water samples are being analyzed for nutrient and sediment concentrations that are most often associated with human land use practices. This Watershed Assessment will serve as a framework for finding appropriate funding opportunities to address potential and actual sources of pollution that are identified.

The resulting document can be used to promote and protect water quality by environmental advocates, municipal officials, and private citizens. The results of this assessment will expectantly serve as a guideline for restoration efforts and improvements within the watershed, which will ultimately improve the water quality and ecology. Management efforts will most likely include implementation of best management practices for both agriculture and suburban stormwater as well as public education of homeowner water quality issues.

Water Quality Coordinating Committee (WQCC) 2014 Accomplishments

Updates to the Wayne County Water Quality Strategy – still in progress

- Aided in the distribution of Wayne Co. SWCD 2014
- Supported the Town of Williamson Stream Maintenance
- Planning Project – in progress, the Lower Ganargua Creek Watershed Assessment - completed, the Red Creek West Watershed / In progress, and the Maxell Bay/Creek Aquatic Vegetative Control (AVC) Access Site.
- Sponsored the construction and installation of Aquatic Weed Disposal Bins for five boat launch sites.
- Support water chestnut hand pull events and Invasive species reconnaissance efforts in Wayne County’s embayments.

The Water Quality Coordinating Committee (WQCC) is responsible for defining county water quality priorities and strategies. Membership includes representatives from county planning and health agencies, Environmental Management Councils (EMCs), regional planning councils, Farm Service Agencies (FSAs), Cornell Cooperative Extension, municipalities, environmental organizations, citizens groups, and lake associations. Representatives of regional DEC, NYS Department of Transportation (DOT), USGS, NYSARC, and NRCS offices often participate.

Town of Williamson Stream Maintenance Program

Wayne County SWCD and the Town of Williamson amended an agreement assess Salmon Creek for preventative maintenance related to water quality and drainage. The District provided reconnaissance of the stream over a 6 month period to establish a maintenance plan. The assessment would include: GPS/GIS tagging and tracking, mapping, division of the stream and tributaries into workable sections for implementation, work estimates for each section, and full review of each stream assessment report with the town. Four sections of the main channel of Salmon Creek were assessed this year. Eighteen Blockages were identified along with 31 Potential Tree Issues, 2 (Pipe) Outfalls, 1 area devoid of vegetation due to herbicide use and 1 streambank erosion issue threatening a building structure. The District has received an estimate of cost to remove the blockages in Section I and is currently planning to start removal in December.

Looking for the Weed Harvester Location? Call the Hotline 315-759-3097 or visit the calendar on our website
2014 Weed Harvesting Season

Harvesting operations for the 2014 season were carried out for 76 days between June and October. The annual goal of the program is to capture and remove 500 harvester loads of nuisance aquatic plant material from all five bays serviced over the length of the season. The mechanical harvesting component is evaluated by comparing time spent on respective activities to the amount or tonnage removed and assistance provided to the public.

Preparation for each season begins in May while harvesting operations are performed, on average, from early June to mid-September, and continues through a planned period of maintenance into November. The annual startup and end dates are dependent on seasonal growth variations that are reliant on numerous environmental factors as well as access for the equipment to the waterbody. Final determination of when and where the harvesting operation will begin is made based on observations by District staff and is described in the Aquatic Plant Mechanical Harvesting Policy (see attached at end of report). A member of the District technical staff has day to day responsibility for coordination and implementation of the program and seasonal crew are hired to operate the harvesters and the associated equipment.

2014 Weed Harvesting Results

Harvesting operations for the 2014 season were carried out for 53 days between June and October. The final removal amounts for each bay are as follows: Sodus Bay – 797 loads, East Bay – 15 loads, Port Bay – 36 loads, Maxwell Bay – 9 loads, Blind Sodus Bay – 6 loads. Total amount removed from the five (5) embayments was 863 loads. The general rule in previous years has been that one (1) harvester load is equal to two (2) tons of wet plant material. With the advancements in the equipment that SWCD deploys, it has come to attention that two (2) tons may be a drastic under-estimation for the capacity of a single harvester. For this reason, this year’s report will differ from previous years’ in that amounts removed will be recorded in harvester loads. Previous years’ amounts, for comparative reasons, have been converted to loads by dividing the tons removed in half.

Variations in the amount of vegetation removed and time spent between the 5 bays are due to the physical characteristics of each waterbody. Sodus Bay being the largest (3,150 acres and 20 miles of shoreline) will annually have the potential to grow more ‘weeds.’ Another important characteristic is the size of each bay’s Littoral Zone; the portion of the water body where adequate sunlight penetrates to promote photosynthetic activity in plants and is usually defined by a certain depth. In Wayne County’s bays, the littoral depth is approximately 10-12 feet. The area of littoral zone of each bay is as follows: Sodus Bay – 1,575 acres (50%); Port Bay – 132 acres of 475 total acres (28%); East Bay – 174 acres of 189 total acres (92%); Blind Sodus Bay – 46 acres of 235 acres (21%); and Maxwell Bay – 7 acres (100%). With nutrients entering the waterbody. This is in addition to the extensive watershed projects being done to provide nutrient control. The Wayne County Soil & Water Conservation District has administered an Aquatic Vegetation Control (AVC) program in Wayne County’s Lake Ontario embayments since 1988.

2014 Weed Harvesting Results

Comparing 2013 and 2014, total operating time increased from 1907 hours in 2013 to 1510 hours in 2013. This is due to the 2014 program operating only 53 days compared to 76 days in 2013. In 2013, the operating season lasted 76 days while proceeding to October 11th. As stated above, the 2014 operating season was 53 days taking place from June 16th to September 18th. The operating season for 2014 was shorter.

Non-harvesting down time due to mechanical issues and repairs was significantly reduced this season. Maintenance issues arose.

The AVC program had a strong year, operating (3) mechanical aquatic vegetation harvesters. Figure 1 represents the annual removal totals since 2000. Wayne County SWCD has annual removal amounts since the programs beginning available upon request. The annual goal of 500 harvester loads in 2014 and harvested the third highest amount since the beginning of the program.

Acknowledgment

The success of this program depends greatly on numerous groups and individuals: Wayne County Board of Supervisors, Town of Sodus, Town of Huron, Town of Wolcott, Wayne County SWCD Board of Directors, FLOWPA, US Fish & Wildlife Service and the numerous private landowners who provided access for equipment at off-loading and compost sites.

(The complete 2014 AVC report can be found on our website)
The most important factor that influenced plant density in 2014 was the seasonal Lake Ontario water level fluctuations. Historically water levels peak in June. This year, water levels were higher than the long-term average since April 2014. This limited aquatic plants growth in the early season like Curly-leaf pondweed (Potamogeton crispus) and Eurasian Milfoil (Myriophyllum spicatum). The particularly cold winter allowed a thick ice surface to form over all the bays. The longer the ice remains on the water surface into the spring, the less resources available to aquatic plants for growth. This year, the direct input of rain throughout the summer and the subsequent stream event contributions caused turbidity in the bays to increase. This prevented UV light from reaching plants further out in the littoral zone, thus limiting availability for photosynthesis. When water levels began to subside later in the season, plant biomass began to increase.

Creation of 2015 Calendar Summary of NYS Top 12 Invasive Species Offenders

In 2014 the Wayne County Soil & Water Conservation District (WCSWCD) decided to create and conduct invasive species outreach utilizing a daily review with tools such as a calendar. 1500 copies of the 28 page full colored calendar were distributed to every legislative office in the Capital Building in Albany, NY. 25 copies were given to every sponsoring partner for outreach to 21 other counties, and distributed to all the municipal highway departments, school districts and libraries in Wayne County for local outreach in addition to our local PRISM of the Finger Lakes region.

The feedback from this project was tremendous! From distribution of this information the District was contacted by two (2) legislative aides for additional information in relation to specific species for articles in the Legislative Gazette; four (4) science department chairs contacted the District for additional support for laboratory exercises related to local invasive issues and several of the partners would like a repeat of this every year because of the questions and comments the calendar inspired; several highway departments asked if we would have additional information which gave the District the opportunity to give them pocket ID guidebooks for when they are in the field.

Because this was such a huge success, a 2015 version is being put out but to various audiences in addition to last year. If you are interested in receiving a calendar please contact our office or stop by and pick one up.

Village of Sodus Point Superintendent Angus Hopkins talking about storm water management

Ontario - Wayne Stormwater Coalition intern Ashley Miller led students through the Village and along the pathways storm water takes as it makes its way into Sodus Bay.

Why we care? Stormwater drains are designed to carry clean rainwater into our waterways. They are not a dumping ground for waste liquids and materials. Pollutants get into our streams and bays because people have allowed their wastes, contaminated water, and rubbish to enter the stormwater drains. These drains might be right outside your front gate, in your own back yard or on your farm.
Best Management Practices (BMPs) completed under the New York State Agricultural Non Point Source (AgNPS) grant funding program have resulted in cleaner water for all Wayne County residents. To date nearly $2 million of agricultural Best Management Practices (BMPs) have been applied under the AgNPS program in Wayne County.

Applications for the program are competitive and are for specific watersheds identified by the Wayne County Agricultural Advisory Committee as high priority watersheds. The SWCD has been successful in obtaining AgNPS funding for several grants. The watersheds include the following:

Round 15 – Canandaigua Outlet
Round 16 – Great Sodus Bay
Round 17 – Black Brook, Port Bay and Seneca River
Round 19 – Ganargua Creek
Round 20 – Port Bay and Ganargua Creek

The Wayne County Water Quality Committee (WQCC) and the Wayne County Agricultural Advisory Committee identified that runoff from manure and silage juices and high nutrient levels of phosphorus, nitrogen, and total suspended solids along with sections of highly erodible lands detected in water quality assessments are contributing to the degradation of water quality in several branches of the tributaries.

Through farm planning, BMPs that will improve water quality are identified for specific farms in the identified watershed. Through a volunteer program, farms that agree to install BMPs sign up for the grant program and are required to cost-share for the projects. Projects include barnyard improvement, heavy use area protection, silage leachate management, soil and residue management, cover crops, waste storage, and exclusion fencing. Also, roof water management, water and sediment control structures (WASCOBs), agrichemical mixing facilities, diversions and waterways, prescribed grazing, compost facilities, and access road stabilization.

The projects address the two most important goals identified by the Wayne County Soil & Water Conservation District (SWCD). First and foremost, the SWCD mission is to protect and improve water quality for all residents in Wayne County. Second is to support the county’s primary industry (agriculture) by assisting farmers with environmental stewardship, while at the same time keeping them economically viable. Installed projects reduce and abate nonpoint source pollutants in the watershed thereby improving surface and ground water quality as well as reducing the loss of prime farmland. Completed projects result in a reduction of nutrient, silt/sediment, and pesticide loading to the waters of Wayne County.

How you can get involved?
Contact: Ron Thorn, Agricultural Planner
10 Leach Road, Lyons, NY 14489
Office Phone: 315.946.4136
www.waynecountyNYsoilandwater.org
rdtswcd@rochester.rr.com

Certified Water Testing Results
The Wayne County Soil and Water Conservation District offers the Well Water Testing Program to residents and seasonal visitors. Water samples are taken to a certified laboratory (ELAP ID: 10461) for analysis for total coliforms, E. coli, and Heterotrophic Plate Count (HPC). Results supplied by the laboratory may be used as a legal document. The most common we see are house-buying and/or selling, organic farming certification, and child care services.

As of October 31st, 48 samples have been analyzed in 2014. Twenty-seven samples have failed New York State standards for drinking water consumption, while 21 samples have passed.

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2013 Annual Budget Number Justification Approval
Every year Wayne County Soil & Water has an outside auditing agency do a review of its accounts and procedures. On the even years a full audit is done and on the odd a Budget Justification is performed. A Budget Justification Report ensures that the District has no discrepancies from the last audit; the payables and receivables have no exceptions; the assets have been properly recorded and verified cancelled checks and bank statements and if needed Journal Entries are prepared for recording. A report is then submitted to the Board of Directors with recommendations and findings. This is an essential tool for the bi-annual audit and also enables the District access to CPA’s for financial questions that arise throughout daily business.

2014 FISH SALE
In 2014 WCSWCD held its first sale. Fish could be pre-ordered and then picked up at the Alton location. Species included grass carp, largemouth bass, bluegill and fathead minnows. Sold were almost 1500 minnows and more than 400 of the larger fish species. Due to demand more fish sales are planned for 2015.

Please visit us on the Web!
www.waynecountyNYsoilandwater.org
The agricultural group drainage program is responsible for the maintenance of 66 projects throughout Wayne County. There is now over 80 miles of streams and drainage channels that the program maintains on a five year cycle. This year we completed maintenance work on 11 projects in the towns of Arcadia, Galen, Macedon, Ontario, Palmyra, Rose, Sodus, Walworth and Williamson. These projects totaled over 15 miles of drainage course, encompassing more than 10,000 acres of watershed area, about half of which is in agricultural production. We also replaced three culvert crossings that were failing, and installed one new crossing for improved access. We completed work directly through or along 73 landowners properties, and indirectly affected many more properties. Seven of the county’s major watersheds were impacted by the drainage projects completed, including Black Creek, Sodus Bay, Maxwell Bay/Salmon Creek East, Jack Creek, Bear & Mill Creek, Red Creek East, Red Creek West and Lower Ganargua Creek.

**Hydesville Project**

This is a 2.5 mile project located in the town of Arcadia. This project was not due for maintenance this year, but a 72” pipe failed unexpectedly that was the main access for a residence. We replaced this pipe with a 84” x 54” arch pipe as quickly as we could. However, there are seven other crossings on this project that the Soil & Water originally installed in 1980-1981. All of the pipes are in poor condition and in need of replacement soon. The pipes range in size from 72” at the low end to 36” at the upper end of the project.

**Brick Church Road**

This is a one mile long project in the town of Sodus. The project has not been completed yet, but is scheduled to be done in the next week or two. The project goes through four properties. The entire project will be mowed and about half of it dipped. We are also going to install a new crossing for improved farm access. Project has a 600 acres watershed, about one third in agricultural production.

**Mill Creek**

The Mill Creek Project is 2.4 miles long and goes through 12 landowners in the towns of Walworth and Ontario. The project has a watershed of 3200 acres, about half of which is currently in agricultural production. The entire project was moved and about half of it was dipped.

**Sodus Center**

This is a 3.25 mile long maintenance project that goes directly through 13 properties in the town of Sodus. This project has a watershed area of about 1260 acres, about half of which is currently in agricultural production. We mowed the entire length of the project, dipped about one third, and replaced a culvert crossing that was failing. There are four other crossing on this project that the Soil & Water installed in the 80’s, all of which are in poor condition and will need replacement soon.

Wayne County Fair Grounds Culvert: The Wayne County Fair Grounds contacted us to assist with a culvert design project. A major culvert adjacent to Hathaway Brook that had become extremely deteriorated and had begun to collapse. The collapsing pipe was restricting water flow to the brook, causing water to back up during rain events and potential for a major washout. Extreme weather events of this past stressed the need for action as the culvert’s condition continued to degrade. Using watershed delineation programs, knowledge of the stream, and observed flow patterns, we were able to come up with a calculated water flow for the brook. Knowing the flow value during rain events, it is simply a matter of sizing the appropriate culvert pipe that will handle the storm water volumes.

The replacement pipe's sizing was based off NRCS specifications and DEC General Permit requirements. Also included in the design was an angular stone riprap lining for the end banks and the outlet area to stabilize the waterway and prevent erosion during future extreme rain events. The new culvert crossing should provide a major improvement for the Fair Grounds as well as the community by eliminating the public safety concern and allowing Hathaway Brook to flow without restriction.

**Sodus Point, Sodus Bay North**

The Village of Sodus Point has been dealing with a problematic area at the end of South Ontario Street and adjacent to Sodus Bay. Identified in their UWRP as public access, but due to its condition was unusable. Phase 1 was the clean up: removal of trees and grading by the Village’s landscape crew. Existing was an old storm water drain pipe leaving a bed of rust and discoloration across the property from the discharge point to the Bay. The Village asked us to assist with a design to help filter the water before sending it into the Bay. The storm pipe carries large amounts of water during storm events, so quickly treating the water before discharging into the bay required an efficient design. The pipe out fall is approximately 30’ from the shoreline, which prevented the use of a storm water detention basin.

The best option was to use a vegetated treatment strip to screen and filter contaminants, including corroded metal, from the storm pipe effluent. Due to high level of discharge from the pipe, erosion control was a concern. Based on the flow volume and velocity, using an erosion control lining was the best solution. The final design includes a synthetic scour mat lining, laid over seeded soil, to provide soil stabilization and to hold the seed during germination. The scour mats will only be visible during the early vegetative growth stages. Also included in the project is the clean-up along the shoreline including any debris that has come ashore, and then lining the entire shoreline of the property with small riprap to prevent further erosion. This Green Infrastructure project is both functional and environmentally friendly and when completed will be an asset to the Sodus Point community.
Are You On Facebook?
Like our page at Wayne County Soil & Water Conservation District for continued updates and notifications about local opportunities.