

Wayne County Agricultural Environmental Management

Strategic Plan 2021 – 2025



WAYNE COUNTY



**SOIL & WATER
CONSERVATION DISTRICT**

Wayne County Soil & Water Conservation District
Partnered with:



Cornell University
Cooperative Extension

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Mission Statement

The mission of the Wayne County Soil & Water Conservation District's AEM Strategic Plan is to bridge knowledge transfer to the agricultural community by providing updated technologies through conservation planning as part of the NYS Agriculture Environmental Management (AEM) program and encouraging AEM participation of farmers to improve and mitigate impacts on the environment, and economic sustainability.

Vision Statement

The vision of the Wayne County Soil & Water Conservation District's AEM Strategic Plan is to:

1. Partner with the farming public and stakeholders;
2. Use the AEM program template to evaluate and prioritize conservation areas of concern on farms; and
3. To ultimately implement best management practices for improvements to soil and water quality in local watersheds.

Introduction

Wayne County is located on the southern shore of Lake Ontario in North Western New York located on the banks of Lake Ontario, approximately midway between the City of Rochester and the City of Oswego, and just north of the New York State Thruway. Wayne County has access to some of the best land in New York State, as well as being situated in a moderate climate optimum for a variety of commodities but specializing in prime fruit production.

Status of Agriculture in Wayne County

According to the 2017 Census of Agriculture, Wayne County is ranked 5th in the State in dollar value of products sold and the second largest crop producing county in New York State. Products in the top five in NYS for Wayne County include: Fruits, tree, nuts, berries (#1), Cultivated Christmas trees, short rotation woody crops (#2), Poultry and eggs(#2), Hogs and pigs (#3), and Other animals and animal products (#1).

In 2017, there were 159,093 acres being farmed, roughly 41% of the County's 386,696 total acreage. Of this total, over 70% of the soils are classified as prime or of statewide importance. There are 829 farms in the county averaging 192 acres per farm. Wayne County ranks number one in New York State for apple production volume and fourth in the nation. According to the latest Census Information the total population of Wayne County is approximately 90,000 people.

Drainage

The majority of surface and ground water in Wayne County that is not intercepted for consumption through local wells eventually reaches Lake Ontario. Wayne County has two primary drainage basins: **Lake Ontario Direct Drainage** and **Seneca, Oswego River Drainage Basin (via the NYS Barge Canal)**. Lake Ontario Direct Drainage drains the northern half of Wayne County. All of the streams in the Towns of Ontario, Williamson, Sodus, Huron and Wolcott drain north into Lake Ontario. Parts of the Towns of Walworth, Marion, Arcadia, Lyons, Rose and Butler feed these tributaries. The Seneca-Oswego Drainage Basin is all water from all of the other streams originating in or passing through Wayne County must travel through the Oswego River before entering Lake Ontario. More simply, everything within the basin west of the Oswego River, not draining directly into the river, empties into the Seneca River before it joins with the Oneida River to form the Oswego River. Water from eight of the Finger Lakes, the Barge Canal and other tributaries from Monroe, Cayuga, Onondaga, Ontario, Seneca and Wayne counties travel some distance through the Seneca River. All told, the Seneca River sub-basin accounts for 3,468 square miles of the total 5,122 square miles of the Oswego River Basin. The watershed area of Wayne County makes up a small fraction of the Seneca River sub-basin, approximately (how many miles?).

Historical Perspective: The Wayne County Soil & Water Conservation District has been actively involved in assisting farmers evaluate, install and improve conservation management practices since the District formed in 1944. In conjunction with evolving state and federal funding opportunities, District and NRCS technical staff have assisted many farmers with planning and implementation of conservation practices. Cornell Cooperative Extension program staffs have also been instrumental in helping county farmers achieve agricultural conservation goals through updated technology awareness.

In 1999, a Comprehensive Watershed Management in Wayne County was published to educate the public on water quality issues. This booklet outlined water resources (with water use impairments defined by DEC's PWL lists), setting priorities, BMPs and recommendations for management. This Comprehensive Plan provided a platform for addressing a planned approach to water quality needs within the County. This plan was funded through a grant from the New York State Soil & Water Conservation Committee under Section 319 of the Environmental Protection Agency, the Finger Lakes-Lake Ontario Watershed Protection Alliance (FL-LOWPA) program, Wayne County Soil and Water Conservation District (SWCD) and the NYS Department of Environmental Conservation (DEC).

In 2005, a pilot planning project was funded through a combination of grants through the EPA and NRCS to improve the water quality of the Sodus Bay Watershed. A private consulting firm was contracted to work with the SWCD to utilize the AEM process in determining the best possible choices and practices that will have the greatest impact on improving the water quality of the Sodus Bay Watershed. This 2 year program identified 63 farms in the watershed, completed 36 Tier 1 questionnaires, conducted 36 Tier 2 assessments, completed CNMPs for 15 farms and implemented BMPs on 6 farms.

Through 2020 of the AEM Base Funding, Wayne County SWCD has obtained 370 Tier 1s, 200 Tier 2s, 73 Tier 3A's, 60 Tier 4's, 86 Tier 5A's and 66 Tier 5B's.

Since 2009, using the AEM Base Program as a guideline the District has been awarded several agricultural based cost-sharing grants mostly through New York State Ag and Markets including: Ag NPS, CRF, CAFO Storage & Transfer, Irrigation, and Specialty Crops (see attached list).

When NYS Department of Ag & Markets (NYSDAM) rolled out programs that emphasized certain types of farms or BMPs (i.e. NY Grown and Certified Specialty Crop and Irrigation grant). Per their request The District diverted from the original Strategic Plan to focus on those types of farms across the county as opposed focusing on a particular watershed. This was a benefit that got many additional farms in the AEM program as well as the NYS Grow and Certified program, several environmental opportunities and grant application have resulted from their participation.

Agricultural Advisory Committee

The Wayne County Soil and Water Conservation District has formed an Agriculture Advisory Committee that will guide the agriculture program in Wayne County. This Advisory Committee will assist the Wayne County SWCD in implementing its AEM program. This Advisory Committee will interact, complement, and address the efforts of other groups such as:

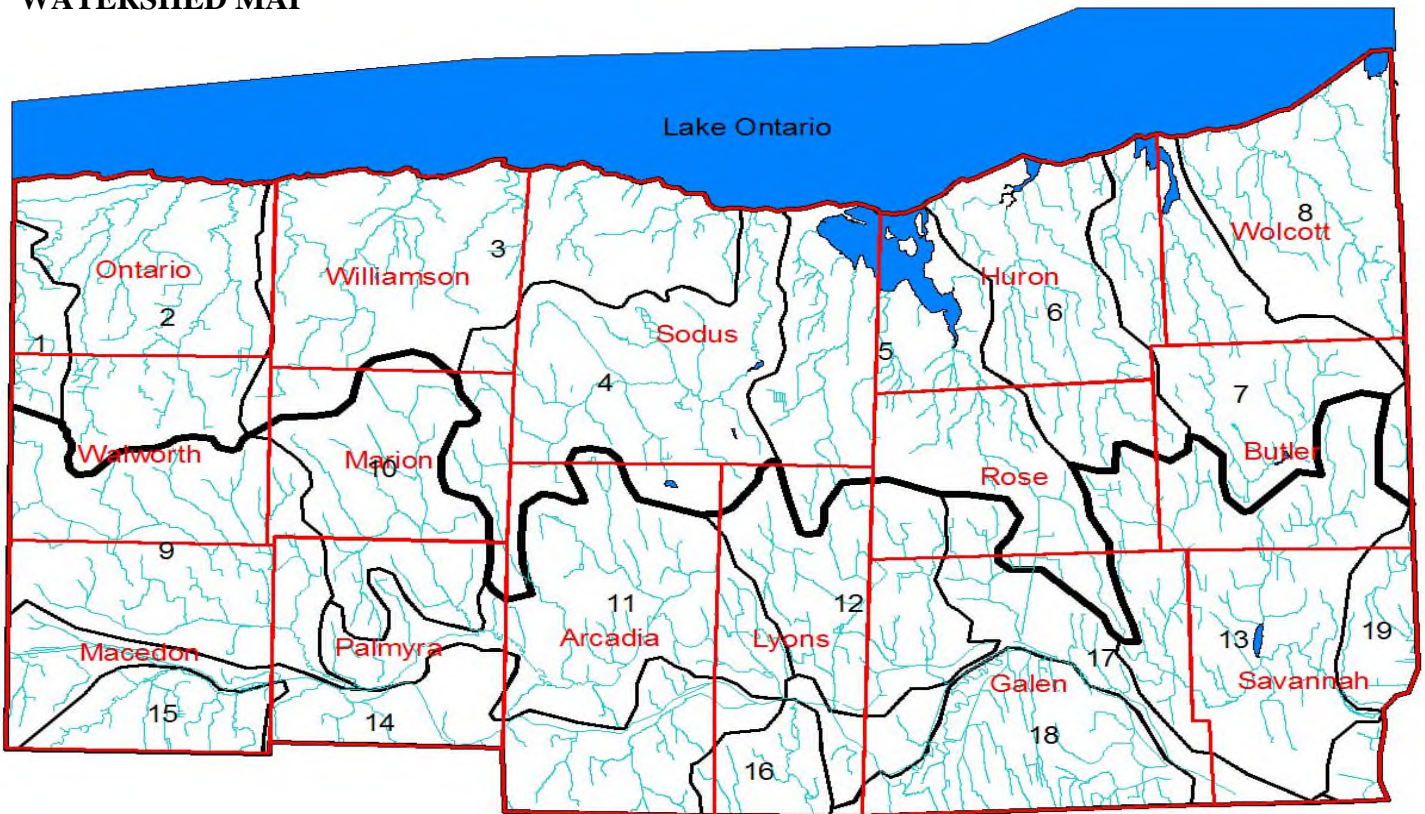
- Water Quality Coordinating Committee
- Farmland Preservation Board
- USDA Farm Bill Programs with FSA and NRCS
- Local watershed organizations (i.e. Save Our Sodus (SOS) Port Bay Improvement Association, East Bay Improvement Association, and Save Our Clyde River (SOCR).
- County Planning Department (with Agricultural Development Specialist)
- Cornell Cooperative Extension
- Lake Ontario Coastal Initiative
- NYS Ag & Markets
- private consultants and professional engineers
- NYS Department of Environmental Conservation
- other agri-business groups
- local municipalities

Wayne County's Agriculture Advisory Committee is composed of several local farmers of each commodity in Wayne County, the SWCD staff (District Manager/or District Board Member and Agriculture Technician), NRCS (District Conservationist and shared Soil Conservationist), Cornell Cooperative Extension (Field Crops Agent for NWNYS Regional Team and Grazing Specialist), Farm Bureau, Wayne County Planning Department (Agriculture Development Specialist), Farm Service Agency (CED or Conservation Specialist) and input from private consulting firms. This committee will meet regularly to review progress, provide input from designated specialties, evaluate accomplishments, and provide recommendations to improve AEM program. Wayne County SWCD will provide program status updates.

Committee members will be assigned specific responsibilities based on partnerships, skills, and capacity. Presently, members are providing peer review for agriculturally based grant opportunities and peer reviews of Tier 3a farm plans. They also bring news and commodity information to further outreach for AEM including newsletter articles, media contacts, displays/presentations at meetings and seminars, and personal contact with neighbor farmers. The committee and associated groups will actively promote this strategy by coordinating programs and initiatives that currently exist within its member agencies/organizations.

Watershed priorities are based on Assessments/PWLs/Source Water criteria including cropland, number of farms, type of farms, documented water quality impacts from agriculture, soil sampling results, farmer inputs and cooperation levels, previous and current projects and/or studies conducted by the District or other agencies, local interest groups and a need to conduct a thorough assessment of agriculture in the county. The results and severity of the in-house watershed assessments will have significant impact on which watershed to prioritize.

WATERSHED MAP



ID # Watershed

Heavy Black Line separates Lake Ontario Direct Drainage And NYS Erie Canal

Lake Ontario Watersheds	Erie Canal Watersheds
(2021)	(2022)
Fourmile Creek	Ganargua Creek Upper
Bear & Mill Creek	Red Creek (West)
Salmon Creek (West)	Red Creek (East)
Salmon Creek (East)	(2024)
(2023)	Erie Canal (West)
Sodus Bay / Sodus Creek	Ganargua Creek Lower
East Bay / Mudge Creek	Canandaigua Outlet
Port Bay / Wolcott Creek	Black Brook
Blind Sodus Bay – Red/Little/Black	(2025)
	Clyde River
	Erie Canal (East)
	Crusoe/Butler/Black Creeks
	Lower Seneca River

- 1 Fourmile Creek
- 2 Bear & Mill Creek
- 3 Salmon Creek (West)
- 4 Salmon Creek (East) Maxwell
- 5 Sodus Bay – Sodus Creek
- 6 East Bay – Mudge Creek
- 7 Port Bay – Wolcott Creek
- 8 Blind Sodus Bay –Red/Little/B
- 9 Red Creek (West)
- 10 Red Creek (East)
- 11 Ganargua Creek (Lower)
- 12 Black Brook
- 13 Crusoe/Butler/Black Creeks
- 14 Erie Canal(West)
- 15 Ganargua Creek (Upper)
- 16 Canandaigua Outlet
- 17 Erie Canal(East)
- 18 Clyde River
- 19 Lower Seneca River

In making determinations for watershed priorities for this AEM Strategic Plan, the watersheds were evaluated according to the following criteria: cropland, number of farms, type of farms, documented water quality impacts from agriculture, farmer inputs and cooperation levels, previous and current projects, studies conducted by the District or other agencies. Prior AEM participation and evaluations will weigh heavily in the process.

Watershed Descriptions, Planning Units and Water Quality Problems

Four Mile Creek Watershed (1)

Fourmile Creek – 041401010604

Thomas Creek / Irondequoit Creek - 041401010704

Four Mile Creek is unassessed by the NYSDEC but is located just west of Mill creek and carries many similar characteristics. The total watershed is 15,692 acres with 3,591 acres located in Wayne County. 1,773 acres (49%) is considered agriculture. Monroe County SWCD has done a watershed assessment on their portion of the watershed.

In 2020, Wayne Co. SWCD began a water quality assessment of sections of Fourmile Creek in the Town of Walworth. Results will be available by the fall of 2021.

Bear & Mill Creek Watershed (2)

Mill Creek / Deer Creek / Dennison Creek / Frontal Lake Ontario – 041401010603

Bear Creek / Bear Creek Harbor / Frontal Lake Ontario - 041401010602

Part of the Great Lakes Basin the Bear Creek Watershed encompasses 10,218 acres in the Towns of Walworth and Ontario, over 47% of the watershed is in agriculture. The Bear Creek watershed originates in the Town of Walworth and flows to the north through the village of Ontario and the hamlet of Furnaceville passing through many residential properties, golf courses and parks as it flows through the entire Town of Ontario before it reaches the popular town park and boat launch at Bear Creek Harbor before flowing into Lake Ontario.

The NYS DEC PWL has Bear Creek as unassessed but water monitoring and sampling done by the SWCD showed high levels of dissolved oxygen, total coliform, E. Coli and a presence of Triazine pesticides. Eutrophication resulting from phosphorus entering the lake and nitrogen loading from agriculture and atmospheric sources are a concern. A Waterbody Inventory and Priority Waterbodies List Worksheet are currently being compiled and should be submitted to the NYSDEC within a year. There is a NYS DEC PWL for the Lake Ontario Shoreline (0302-0045). Fish Consumption is a use impact at an impaired level with the pollutants being priority organics (PCB's and dioxin) and pesticides with the known source being toxic/contaminated sediment.

In 2020, SWCD began a watershed assessment of Bear Creek. The resulting evaluation will be available by the fall of 2021.

Salmon Creek West Watershed (3)

Salmon Creek / Pultneyville Harbor / Frontal Lake Ontario – 041401010601

Mink Creek / Frontal Lake Ontario - 041401010503

Part of the Great Lakes Watershed Basin the Salmon Creek West Watershed encompasses 17,963 acres mostly with in the Town of Williamson but also includes parts of the Towns of Marion, Walworth and Ontario, over 55% of the watershed is in agriculture. The main channel of Salmon Creek is located west of the Village of Williamson it flows northeast through the historic Hamlet of Pultneyville into the Pultneyville Harbor then out to Lake Ontario. Just like the creek's name indicates fishing is a popular activity throughout the watershed and watching the Salmon swim upstream to spawn is quite a sight to see.

The NYS DEC PWL lists Salmon Creek Upper as a Class C River while the Salmon Creek Lower portion is listed as a Class B River both have stressed use impacts on aquatic life with the suspected pollutant being an unknown toxicity with agriculture the suspected source. The Pultneyville embayment is plagued by high nutrient levels leading to unwanted growth of algae and bacteria. Beach closings and postings along the shoreline are common and in part caused by nuisance algae and fecal coliform bacteria. The Pultneyville Mariners Beach was cited in a Natural Resource Defense Council report in 2009 as the third worst beach in New York State in 2008. Through support from local citizens, SWCD, the Wayne County Planning Board, the Town of Williamson and the Center for Environmental Initiatives seed grant funding was achieved in 2010 from the Healing Our Waters Coalition to facilitate a watershed analysis, problem prioritization and implementation process for the Salmon Creek West Watershed. The findings of that report identified that the potential causes of elevated phosphorus levels in Salmon Creek include land application of wastes, stormwater runoff, and farm animal populations. Nitrogen loading from agriculture and atmospheric sources are a concern.

Salmon (Maxwell) Creek East Watershed (4)

Salmon (Maxwell) Creek Headwaters – 041401010501, Maxwell Bay, Salmon (Maxwell) Creek, Frontal Lake Ontario - 041401010502

The Salmon Creek East aka Maxwell Creek watershed empties to Lake Ontario at Maxwell Bay. It is immediately west of First and Second Creeks which drain to Sodus Bay, north of Ganargua Creek, and east of the Mink creek, Red Creek and Salmon Creek watersheds. The watershed covers 27,657 acres wholly within Wayne County with approximately 13,000 acres (48%) used for agricultural purposes. While Maxwell Bay and Salmon (Maxwell) Creek have been unassessed by the NYSDEC the watershed is included as part of the minor tributaries to Lake Ontario. Aquatic Life and Aesthetics are at stressed level with nutrients the main pollutant and agriculture the possible source (2007 NYSDEC PWL). A Maxwell Creek Watershed Action Plan (2013) was completed that includes valuable information on the watershed.

Sodus Bay – Sodus Creek Watershed (5)

Sodus Bay / First, Second, Third, and Clark Creeks / Frontal Lake Ontario – 041401010402 Sodus (Glenmark) Creek - 041401010401

Sodus Bay is the largest of the four bays in Wayne County with a 23 mile shoreline. It is also one of the two most heavily developed bays in the county. The associated watershed is over 46 square miles from the Towns of Sodus, Lyons, Huron, Rose and Galen (Williams 1990). The watershed is approximately 31,187 acres all of which are in Wayne County and where 40% of that is considered agriculture. The largest of the tributaries is Sodus Creek which drains approximately 40% of the watershed. Sodus Creek is also the largest contributor of nutrients and sediment into the bay. The other major tributaries in decreasing size are: Second Creek, Third Creek, Sodus Creek West, First Creek, and Clark Creek. It has been demonstrated by studies (Makarewicz and Lewis 1989, Williams 1990) that the tributaries are the primary source for the phosphorus in Sodus Bay. Of the tributaries, Sodus Creek is the major contributor of nutrients and suspended solids. It accounts for 95% of the total phosphorus, 81% of the total nitrogen, 82% of the nitrate, and 98% of the total suspended solids entering Sodus Bay (Makarewicz *et al.* 1992). Heavy development around Sodus Bay has created a situation seen throughout the Finger Lakes and wherever homes are crowded onto the shoreline: failed or inadequate septic systems. The combined inputs from all of the tributaries and shoreline homes have lead to the degradation of the Sodus Bay water quality. Frequent algal blooms and thick aquatic plant growths have interfered with the quality of recreational opportunities on the bay. The existence of pathogens and the rich “pea soup” resulting from the algae blooms can deter one’s desire to recreate in the bay.

Land use within the tributary watersheds is predominantly agricultural. Farm operations include dairy, beef, other livestock, field crops, vegetables, and several fruit orchards. This is a priority watershed with documented water quality concerns for Sodus Bay and Sodus Creek. Sodus Bay and Sodus Creek are both assessed on 2007 NYSDEC Priority Waterbodies List.

In Sodus Bay public bathing, fish consumption, and recreation are stressed from algal/weed growth, priority organics, and pesticides from known pollutants, as well as, silt/sediment as a possible pollutant (2016 NYSDEC PWL). Nutrients from on-site septic systems and agriculture are suspected sources for algal/weed growth. This waterbody is designated class B, suitable for use as a public bathing beach, general recreation and aquatic life support, but not as a water supply. The pugnose shiner, an endangered species, is located in areas of Sodus Bay. Two threatened species, box turtle and spiny softshell turtle, have protected nesting locations on Sodus Bay.

In Sodus Creek aquatic life is threatened from nutrients and silt/sediment into the waterbody with agriculture as the suspected pollutant source. Aquatic life support in Sodus Creek is thought to experience threats due to nutrient loadings from nonpoint agricultural activity in the watershed. Previous studies by the Wayne County SWCD have shown that this stream is a significant contributor of excessive nutrients to Sodus Bay (2007 NYSDEC PWL). The waters of the stream are Class C, C(T), with all tributaries classified as Class C, C(TS).

East Bay – Mudge Creek Watershed (6)

East Bay / Mudge Creek / Beaver Creek West / Frontal Lake Ontario - 041401010302

East Bay is a small body of water tucked between Sodus and Port Bays in the Town of Huron. It has only two significant tributaries, one of which is Mudge Creek. It is a shallow, eutrophic bay heavily influenced by the inputs of the two tributaries. East Bay is the least developed of the four embayments in Wayne County. East Bay Watershed is approximately 18,069 acres wholly within Wayne County of that 43% is considered agriculture. 89 acres are associated with the Bay area (Wayne County Embayments Resource Preservation and Watershed Enhancement Plan 2008).

Land use within the tributary watersheds is predominantly agricultural. Farm operations include field crops, vegetables, and several fruit orchards.

In East Bay fish consumption is stressed from priority organics and pesticides as known pollutants. Agriculture is not listed on PWL for East Bay but may be contributing nutrients, sediments, and pesticides. Currently, East Bay is listed as a Class B waterbody. As of 2006, East Bay occupies a position on the NYSDEC 305(b) list as a waterbody that is in need of verification for possible use impairments. While sharing the same class designation as Port Bay and Blind Sodus Bay, East Bay has not been officially documented as impacted by increased nutrient concentrations and excessive algae/weed growth and therefore is not currently listed on the states 303(d) list as a waterbody that may require the development of a total maximum daily load (Wayne County Embayments Resource Preservation and Watershed Enhancement Plan 2008).

Mudge Creek is the larger of two tributaries that influence East Bay, which is listed separately on NYSDEC PWL. In Mudge Creek, aquatic life is stressed and aesthetics is threatened from nutrients with agriculture as the only possible pollutant source. Aquatic life support in Mudge Creek may experience impacts due to excessive nutrient loadings and low dissolved oxygen due to nutrient loadings from nonpoint agricultural activity in the watershed (2007 NYSDEC PWL). The waters of the stream are Class C, C(T), with all tributaries classified as Class C, C(T).

Port Bay – Wolcott Creek Watershed (7)

Port Bay / Wolcott Creek / Beaver Creek East/ Frontal Lake Ontario - 041401010301

Port Bay is the second largest bay in Wayne County with a heavily developed 7.5 mile shoreline. Port Bay Watershed is approximately 23,712 acres all of which are within Wayne County and 42% of this is considered agriculture. 475 acres are associated with the Bay area (Wayne County Embayments Resource Preservation and Watershed Enhancement Plan 2008). Currently, Port Bay is listed as a Class B waterbody.

However, Port Bay is considerably more eutrophic than Sodus Bay. Algae measured in terms of chlorophyll *a*, at levels greater than 10 ug/L is considered high. Levels in Sodus Bay are around 15 ug/L while the levels in Port Bay range from 80 to 214 ug/L (Wayne County Watershed Management 1998). The levels of phosphorus are equally extreme. Each summer Port Bay suffers through an algal bloom that turns the bay a brilliant green color (Williams 1990).

The primary source for nutrients and suspended solids in Port Bay is Wolcott Creek. Wolcott Creek contributes 95% of the total phosphorus, 94% of the total nitrogen, 99% of the nitrate and 96% of the total suspended solids entering the bay. The other two small tributaries add only 7% of the total discharge and even less of the nutrients (Makarewicz *et al.* 1994). Due to the nutrient loading of Port Bay the phosphorus cycling that accompanies the formation of an anoxic zone, Port Bay is characterized by dense aquatic vegetation growth, eutrophication and algal blooms. Like Sodus Bay, the conditions compromise the utility of the water for bathing, boating, and aesthetics.

Land use within the tributary watersheds is predominantly agricultural. Farm operations include dairy, poultry, beef, other livestock, field crops, vegetables, and several fruit orchards.

Port Bay is identified in NYSDEC 2007 Section 303 (d) List of Impaired Waters requiring a TMDL development due to nutrient loading from agriculture and municipal sources. A second primary pollutant is pathogens with priority organics and pesticides as secondary pollutants (2007 NYSDEC PWL). The primary source for nutrients and suspended solids in Port Bay is Wolcott Creek, listed separately on NYSDEC PWL.

In Wolcott Creek aquatic life is stressed from nutrients (phosphorus) into the waterbody with agriculture as the known pollutant source. Aquatic life support and recreational uses in Wolcott Creek are known to experience minor impacts due to nutrient loadings from nonpoint agricultural activity in the watershed (2007 NYSDEC PWL). Manure spreading and other activities at large agricultural operations in this watershed are considered likely sources of nutrients to the stream. Previous water quality monitoring of the stream by the Wayne County SWCD found high loadings of nutrients (2007 NYSDEC PWL). The waters of the stream are Class C, with all tributaries classified as Class C.

Blind Sodus Bay – Red/Little/Black Creeks Watershed (8)

Blind Sodus Bay / Blind Sodus Creek - 041401010204

Red Creek / Little Creek / Black Creek / Frontal Lake Ontario - 041401010205

Blind Sodus Bay is small with only a 3 mile shoreline and has only one significant tributary, Blind Sodus Creek. Blind Sodus Bay Watershed is approximately 8,670 acres associated with a Bay area of 240 acres (Wayne County Embayments Resource Preservation and Watershed Enhancement Plan 2008). If the Red/Little and Black Creeks are included in the watershed it has 21,037 acres in Wayne County of which 32% is considered agriculture. Land use within the tributary watersheds is predominantly agricultural. Farm operations include field crops, vegetables, and several fruit orchards.

In Blind Sodus Bay public bathing and recreation is impaired, fish consumption is stressed from algal/weed growth, nutrients (phosphorus), priority organics, and pesticides are known pollutants, as well as, pathogens as a suspected pollutant (2007 NYSDEC PWL). Nutrients from on-site septic systems and agriculture are suspected sources for algal/weed growth. Public bathing and recreational uses in Blind Sodus Bay are though to be impaired by elevated nutrient loadings and resulting algal blooms and excessive aquatic weed growth. The nutrient loads are thought to be the result of urban/stormwater runoff, residential development, agricultural activities and other Nonpoint sources in the watershed (2007 NYSDEC PWL). The lake chubsucker, an endangered species, is located in the southeast corner of Blind Sodus Bay. DEC has a designated protective boundary around area of concern.

Blind Sodus Bay is identified in NYSDEC 2006 Section 303 (d) List of Impaired Waters requiring a TMDL development due to nutrient loading from on site septic systems and municipal sources (2007 NYSDEC PWL). Agricultural and other nonpoint runoff are also likely contributors to the bay (DEC/DOW, BWAM/Lake Services, August 2006). A TMDL has been developed for Blind Sodus Bay by The Cadmus Group, Inc. This TMDL focuses on the reduction of phosphorus to achieve in-bay concentrations of 20 ug/L as consistent with state designations for a Class B waterbody (Wayne County Embayments Resource Preservation and Watershed Enhancement Plan 2008).

Red Creek West Watershed (9)

Red Creek (West) – 041402010501

The watershed is 29,273 acres with 56% of that considered agriculture. In Red Creek aquatic life and recreation are stressed from algal/weed growth, nutrients (phosphorus) and silt/sediment as known pollutants (2007 NYSDEC PWL). Nutrients and silt/sediment from agriculture is the suspected source. Aquatic life support and recreational uses in Red Creek are known to experience minor impacts due to nonpoint nutrients and silt/sediment (2007 NYSDEC PWL). Although aquatic life is supported in the stream, nutrient biotic evaluation indicates/suggests the level of eutrophication is sufficient to stress/threaten aquatic life support (DEC/DOW, BWAM/SBU, June 2005). The waters of the stream are Class C. Tributaries to this reach/segment are also Class C, C(T).

The District completed a *Red Creek West Watershed Assessment* in 2015. Total phosphorus, total Kjeldahl nitrogen, and total suspended solids concentrations observed in Red Creek West were noticeably higher when compared to other streams analyzed in Wayne County. Water quality impacts to Red Creek West by agricultural livestock operations could be attributed to improper grazing practices and runoff from animal feeding systems. Runoff from cropland was observed as a potential source of nonpoint source pollution.

Red Creek East Watershed (10)

Red Creek (East) – Ganargua Creek - 041402010502

Red Creek runs 3.0 miles from the Hamlet of Marion in the Town of Marion to Ganargua Creek in the Town of Palmyra, but collects water from as far away as the southern portion of the Town of Williamson. Application of apple pomace to the land is the greatest threat to Red Creek. The runoff from these lands is high in nutrients and biological oxygen demand (BOD) threatens fish survival and aesthetics.

The watershed is approximately 28,560 acres of which 53% is considered agriculture. Land use within the tributary watersheds is predominantly agricultural. Farm operations include dairy, beef, other livestock, field crops, vegetables, and fruit orchards.

In Red Creek aquatic life is stressed from nutrients and BOD as suspected pollutants (2007 NYSDEC PWL). Nutrients from agriculture are the suspected source. Aquatic life support in Red Creek may experience minor impacts due to nutrients and BOD loading from agricultural activities and a food processing discharge (2007 NYSDEC PWL). The waters of the stream are Class C/D. Tributaries to this reach/segment are also Class C/D.

The District completed a *Red Creek East Watershed Assessment* in 2017. Water quality results displayed elevated phosphorus and organic nitrogen concentrations throughout the stream system. Potential agricultural NPS sources observed in this assessment include livestock and row crop operations.

Ganargua Creek Lower Watershed (11)

Ganargua Creek Lower / Butternut Run / Fairville Creek - 041402010503

The Lower Ganargua Creek Watershed encompasses 28,537 acres and stretches across the middle section of the southern tier of Wayne County. The Creek is 50.6 miles long starting from a diversion spillway (Swift's Landing) near the Village of Palmyra and meanders east through the Towns of Palmyra, Arcadia, and Lyons north of the Erie Canal to the Village of Lyons at a confluence back into the Erie Canal just east of the village of Lyons at Abbey Park. Red Creek West, Red Creek East, Butternut Run, Hydesville Creek, and the Fairville Creek flow into Ganargua. The NYSDEC PWL lists the Creek as a Class C with use impacted on aquatic life having a stressed severity. The known pollutants are nutrients (phosphorus) with silt/sediment suspected and possible D.O./Oxygen Demand. The known sources of the pollutants include construction (development), urban/storm runoff, municipal with agriculture as a suspected source.

The District completed a *Lower Ganargua Creek Watershed Assessment* in 2013. Total phosphorus, nitrate-nitrite, and total suspended solids concentrations observed in Lower Ganargua Creek were noticeably higher when compared to other streams analyzed in Wayne County. Being that a significant portion of the watershed is considered agricultural land (as much as 70%), strong emphasis should be placed on controlling stormwater pollution sources from these areas. Primary concerns associated with the watershed's agricultural operations include: erosion and sediment control, barnyard management, pasture management, manure/nutrient management, and buffers/filters.

SWCD completed a more in depth analysis of a tributary in the Lower Ganargua Creek watershed, known as Fairville Creek, in 2018. The study was titled *Fairville Creek Stressed Stream Analysis*. This tributary system was observed as one of the most significant contributors of nutrients and sediment to Lower Ganargua Creek. The mostly like sources attributed to results seen in this study were associated with various agricultural operations including row crops, muck farming, and small scale livestock production.

Black Brook Watershed (12)

Black Brook - 041402011402

The 2007 NYSDEC PWL assessment includes Black Brook as one of the minor tribs to the Clyde River, the assessment states that Aquatic Life and recreation are at a stressed severity level with dissolved oxygen demand and nutrients the suspected pollutants and agriculture the suspected source. The waters of the brook are Class C. The watershed is approximately 11,875 acres wholly within Wayne County; over 6600 acres (56%) are used for agriculture

Crusoe/Butler/Black Creek Watershed (13)

Crusoe Creek / Crusoe Lake / Butler Creek / Black Creek - 041402011408

Crusoe Creek runs from Crusoe Pond into the Seneca River within the Town of Savannah. The segment of concern is the 0.5 mile stretch east of the Route 89 bridge. There is concern that muck farming adjacent to the surface water intake for the Hamlet of Savannah water supply could result in nutrient and pesticide pollution of the water. Currently the stream is classified as C, but because the NYS DOH has identified this stream as a water supply for the Hamlet of Savannah, it should be Class A.

The watershed is approximately 26,048 acres of which 46% is considered agriculture. Farm operations include dairy, beef, other livestock, field crops, vegetables.

Erie Canal West (14) & East (17)

Erie Canal (West) / Military Run / Marbletown Creek – 041402010504

Melvin Brook (North of Erie Canal) - 041402011403

Seneca River / Kipp Island - 041402011407

Roughly 30 miles of the canal, stretching from Monroe County to Seneca County, cuts through the southern portion of Wayne County. Water quality issues of the canal are an extreme managerial challenge. Not only is the canal the receiving water body for approximately half of Wayne County, but it receives a large quantity of water from the Genesee River and drainage from Monroe, Ontario, and Seneca Counties. Opening and closing of the locks is used to regulate the flow of the canal. The water levels are also influenced by the stage of the Genesee and Oswego Rivers, the two major water bodies on either end of this section of the canal.

The watershed has approximately 25,800 acres in Wayne County with 56% of that considered agriculture. Farm operations include dairy, beef, other livestock, field crops, vegetables, and fruit orchards.

In eastern section of NYS Erie Canal aquatic life is impaired from nutrients and pathogens as suspected pollutants (2007 NYSDEC PWL). Nutrients and pathogens from agriculture is a suspected source. (2007 NYSDEC PWL). NYS Barge Canal (portion 5) is identified in NYSDEC 2008 Section 303 (d) List of Impaired Waters. The canal is currently included on Part 3a of the List as a Water Requiring Verification of Impairment. The waters of this portion of the canal are Class C.

Ganargua Creek Upper Watershed (15)

Ganargua (Mud) Creek Upper - 041402010103

The 6.6 mile stretch of Ganargua Creek that runs from the Ontario County line to the Barge Canal is in the Town of Macedon. The presence of atrazine in the creek, discovered by the Department of Fisheries, threatens fish propagation and survival. High levels of ammonia are also a problem. The watershed has approximately 12,844 in Wayne County of which 46% is considered agriculture. Farm operations include dairy, beef, other livestock, field crops, vegetables.

In Ganargua Creek aquatic life is stressed from nutrients (phosphorus) as known pollutants and silt/sediment as a suspected pollutant (2007 NYSDEC PWL). Nutrients and silt/sediment from construction, urban/storm runoff, and agriculture are the suspected sources. Aquatic life support in this portion of Ganargua Creek is known to experience minor impacts due to nutrients from primarily nonpoint sources (2007 NYSDEC PWL).

The District completed an *Upper Ganargua Creek Watershed Assessment* in 2019. Total phosphorus, nitrate + nitrite, and total suspended solids concentrations observed in Upper Ganargua Creek were noticeably elevated in the main channel of the stream system. Nitrate + nitrite concentrations were also elevated in the tributary streams. Runoff from cropland was observed as a potential source of nonpoint source pollution. Water quality impacts by agricultural livestock operations could be attributed to unsuitable grazing practices, confinement areas, and runoff from heavily used areas.

Canandaigua Outlet Watershed (16)

Canandaigua Outlet Lower – 041402011404

Canandaigua Outlet Middle - 041402010403

The watershed has approximately 10,891 acres in Wayne County of which 33% is considered agriculture. Farm operations include dairy, beef, other livestock, field crops, and vegetables.

In Canandaigua Outlet aquatic life is stressed from nutrients (phosphorus) are known pollutants, as well as, silt/sediment as a suspected pollutant (2007 NYSDEC PWL). Aquatic life support in this portion of Canandaigua Creek is known to experience minor impacts due to nutrients from nonpoint sources (2007 NYSDEC PWL). Although aquatic life is supported in the stream, nutrient biotic evaluation indicates/suggests the level of eutrophication is sufficient to stress/threaten aquatic life support (DEC/DOW, BWAM/SBU, June 2005).

The waters of this portion of the stream are Class C. Tributaries to this reach/segment are Class C, C(T).

Clyde River Watershed (18)

Clyde River (West) (south of Erie Canal) – 041402011403

Pond Brook – 041402011401

Clyde River (East) / Sleepy Hollow - 041402011405

Black Brook (Seneca County) / Montezuma Marsh - 041402011404

A 9.4 mile stretch of the Clyde River passes through the Town of Galen beginning at Pond Brook and ending at the Barge Canal. Historical uses of the river include boating, fishing, and sightseeing. Of these activities, boating is currently the most impaired. Low water levels and flows, because of a substandard diversion of water into the canal and significant log jams, make navigation difficult. The low flows combined with manure runoff and silage leachate runoff from a dairy farm in Seneca County on Dublin Brook create excellent conditions for heavy duck weed growth and algae cover. This growth makes it impossible to fish in the river at sometimes of the year. The watershed has approximately 25,801 acres in Wayne County of which 56% is considered agriculture. Farm operations include dairy, beef, other livestock, field crops, and vegetables.

In Clyde River aquatic life and recreation is stressed from nutrients are suspected pollutants, as well as, pathogens as a possible pollutant (2007 NYSDEC PWL). Nutrients from agriculture are the suspected source with on-site septic systems as a possible source. Aquatic life support and recreational uses in this portion of the NYS Barge Canal and Clyde River are known to experience impacts due to organic wastes from various nonpoint and/or discharges in this area. Previous PWL assessments noted that barnyard runoff and milkhouse wastewater discharges in the stream had impact on the fishery as well as the aesthetics of the stream (2007 NYSDEC PWL). The waters of this portion of the river/canal are Class C. In 2019 SWCD began a tributary assessment of the Clyde River. The resulting evaluation will be available by the fall of 2021.

Seneca River Lower (19)

Seneca River / Howland Island - 041402011409

The Seneca River Watershed is located in the Southeastern part of the county where it encompasses approximately 12,843 acres in the county. The Erie Canal flows into and becomes part of the Seneca River. The Montezuma Wildlife Refuge makes up a large portion of the watershed. There is concern about the impact of several acres of muck land which can be heavily fertilized and treated with pesticides. Use Impairment for Fish Survival has a Threatened Severity with Nutrients and Pesticides the Type of Pollutants with Agriculture the Suspected Source (2007 NYSDEC PWL).

Implementation of the Wayne County SWCD AEM Strategic Plan

Focal Points

- | | | |
|-----------------------|----------------------|--------------------------------|
| 1. Water Quality | 2. Soil Health | 3. Invasive Species Management |
| Clean Water Exclusion | Crop Rotation | Identification |
| Diversion | Nutrient Recycling | Control/Management |
| Separation | Conservation Tillage | |

Technical

- ❖ Evaluate current AEM program.
- ❖ Review current farms enrolled in AEM, determine Tier level, and document installed BMPs.
- ❖ Determine sub-watersheds for existing AEM farms to assist with prioritization of planning and implementation projects.
- ❖ Establish database to manage information about farms in AEM program.
- ❖ Create case file procedure for existing and new AEM enrollees.
- ❖ Utilize soil sample program to establish/further connections with new/currently enrolled farms. Using sample results, further planning with farms.
- ❖ Utilize No-Till drill program to contact new farms and create AEM opportunities.
- ❖ Follow up with production farmers from inventory of existing Tier 1s to complete Tier 2 assessments.
- ❖ Continue to advance farms in priority watersheds to complete Tier 3 conservation plans.
- ❖ Continue to solicit AEM in priority watersheds, reach out to non-traditional farms (i.e. hobby farms, nurseries/Christmas tree farms, equine and other livestock, chemical/seed/feed dealers, etc.).
- ❖ Work with partner organizations to continue to compile and analyze data to further AEM priorities.
- ❖ Work with farmers and funding sources to solicit cost-share funding to implement BMPs.

Outreach and Education

- ✓ Promote the improvement of environmental resource quality in each of the watersheds through AEM.
- ✓ Continue to seek out agencies and organizations that provide cost share assistance.
- ✓ Utilize associated programs, including NY Grown & Certified to make connections with new AEM opportunities.
- ✓ Encourage landowners to sign up and/or seek cost share assistance for installing BMPs that will improve and protect water quality and other environmental resources.
- ✓ Reach out to farming community, and agri-business in county to educate public and promote outreach about AEM.
- ✓ Provide AEM display for partners and ag related organizations to utilize at meetings and functions.
- ✓ Work with Ag Advisory Committee to establish county guidelines for AEM sign program.
- ✓ Utilize local organizations to provide grass roots support of AEM program and encourage partnerships to build skill sets of future workforce (conservation clubs, 4-H, FFA, etc.).
- ✓ Promote water quality education programs.
- ✓ Encourage partners and committee members to attend AEM media training.
- ✓ Utilize media resources to spotlight and publicize AEM accomplishments and projects.
- ✓ Award Conservation Farm of the Year and Agricultural Environmental Steward of the Year.

Evaluation

- ✓ SWCD will provide progress reports.
 - Farmers enrolled
 - Tiers 1 & 2 completion
 - Timely completion of Tier 3 plans
 - Implementation of BMP progress
 - Eventual evaluation of BMPs
 - Time spent for file management, time accounting, etc.
- ✓ Ag Advisory Committee will meet to review progress of AEM program.
- ✓ Complete AEM Report Card each year before AEM Year closes. This review will provide input and determine any changes that need to be made and how to implement the changes.
- ✓ Maintenance of database to track progress of AEM program (to include watershed, tier completion dates, implementation of BMPs, etc.).
- ✓ Evaluation of farmer and landowner involvement for progressing through AEM.
- ✓ Evaluation of programs for effectiveness of conservation program delivery and participation.
- ✓ Comparison of conservation program participation against previous years.
- ✓ Evaluation of programs being implemented versus watershed needs.

Budgeted Activities

Tier 1 and Tier 2 – Initial Contact, goals and on the farm assessments.

Tier 3A – Conservation Plan Development.

Tier 3B – Comprehensive Nutrient Management Plan (CNMP).

Tier 3C – Whole Farm Plan.

Tier 4 – Implementation of BMPs – survey, design installation, construction oversight, inspection, etc.

Tier 5A – Reevaluation on farms still at the Tier 2 level.

Tier 5B – Follow up on implemented BMPs and plan to see impact.

Education

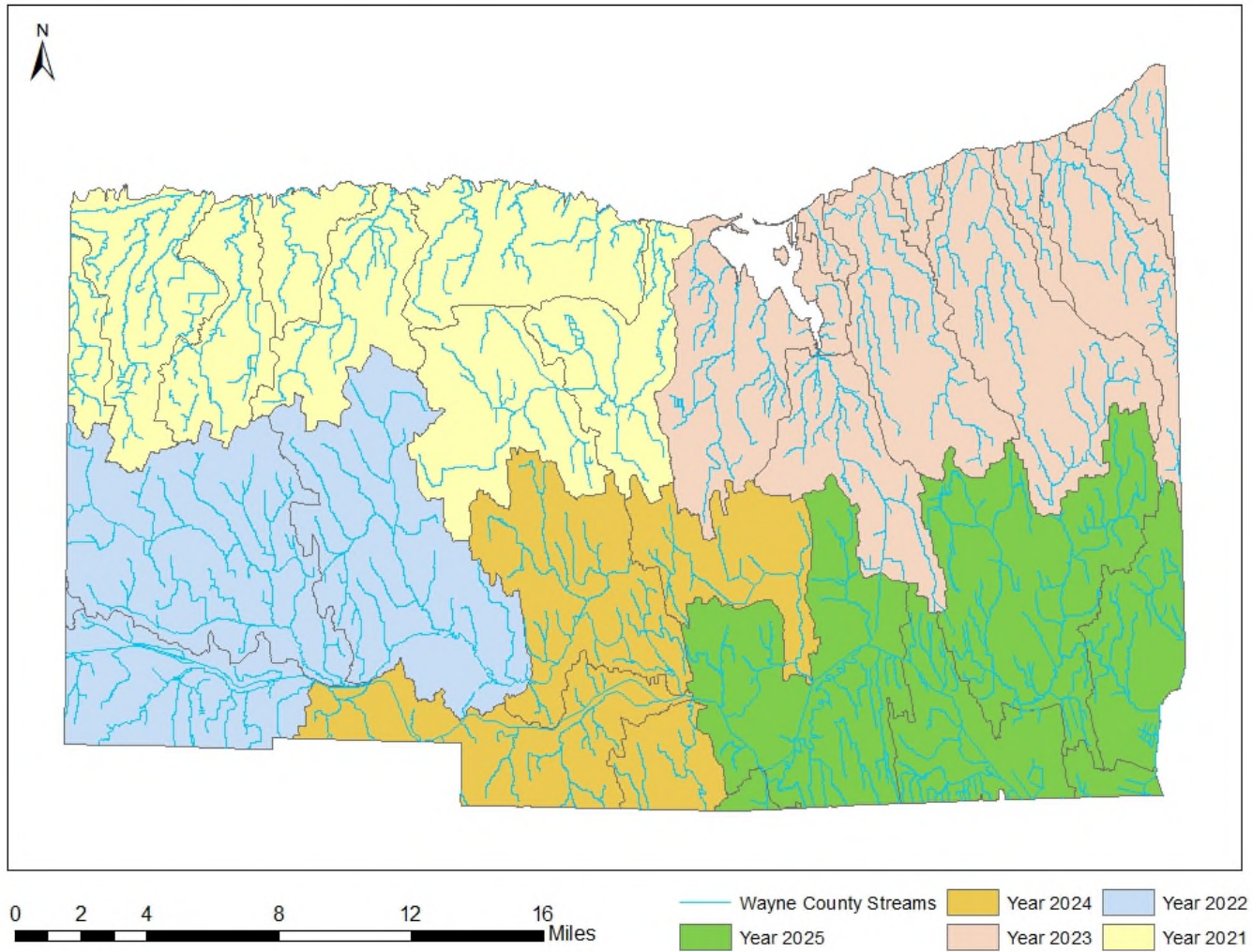
Outreach

Program Evaluation

Partnership Activities

Reporting

Wayne County Watershed AEM Plan Map



Year to Year Priorities

Much like the previous strategic plan (2015-2020), the goal over the next five years is to cover a different segment of the County each particular year so that the whole County gets covered over the five year plan. Emphasis on certain watersheds will be made within each of those segments annually based on watershed assessments, needs, and prior participation evaluations.

A goal of enrollment of 50% of the farms in each watershed with current Tier 1 information and a goal of 75% of those to a Tier 2 level. Getting already participating farms up to a tier 3A level with a goal for Ag NPS program submission.

Promoting the NYS Grown and Certified program countywide.

Reach out to the growing Amish and Mennonite communities for their input, interests and how we can address any possible concerns.

Using outreach tactics, and resources from other agencies such as USDA, CCE, and Real Property to aid in keeping updated "Ag mailing/outreach list." The ultimate goal would be to have at least a Tier 1 for every farm in the County.

General Tasks associated with each year for focus watersheds:

- Update information lists including addresses, emails and phone numbers and collect all AEM data from 3-5 previous years, which supports the County's T Average with USDA.
- Contact all landowners/farmers in the focus watershed to generate interest in the AEM program.
- Follow-up with past participants of AEM in focus watershed to update information and encourage operations to move forward in the AEM Tiered process.
- Determine the best and safest form of communication with the farms.
- Schedule outreach and education sessions and seek out new opportunities and partnerships.
- Conduct meetings with operators to complete tiered worksheets, including Tier 3 plans.
- Prepare any Tier 3's for farmers interested in pursuing funding through the AG NPS program.
- Apply for Ag NPS grants and seek additional funding to help implement BMPs.
- Staff will attend AEM and any relevant trainings or updates as scheduled.

Annual Program Evaluation

- Evaluate effectiveness of program at end of each year by soliciting feedback from interested parties, conduct assessment of program through use of New York State's AEM report card and incorporate new ideas, programs, outreach and educational efforts that complement the AEM program.
- Evaluate effective impacts of the program to identify key deliverables from the AAP and document a specific set of widgets that can be tracked or accounted for, (i.e. tons or lbs of nutrients reduced from runoff, acres of soil stabilized, and acres of soils sampled and nutrient management planned by acres.

Year 2021

Priority Watersheds: Fourmile Creek (1), Bear/ Mill Creek (2), Salmon Creek East (3), Salmon Creek West (4).

This segment is in the northwest corner of the County including all of the Towns of Ontario, Williamson and 2/3 of Sodus where all of the water flows north into Lake Ontario. Both Salmon Creek watersheds have had additional studies done through the Center for Environmental Initiatives (CEI) which have indicated opportunities for improved water quality by using Best Management Practices (BMPs). Bear, Mill and Fourmile Creeks are slated for additional monitoring through the District. Numerous studies have been done on the Lake Ontario shoreline.

These watersheds are grouped together due to their proximity to each other and the type of land use. The land use is predominantly agricultural with orchards and specialty crop muck as the main agricultural focus. The PWL for Salmon Creek lists agriculture as a suspected pollutant source for unknown toxicity. Mink Creek watershed is a sub-watershed within Salmon Creek West Watershed and is listed under minor tributaries to Lake Ontario, Central. Under this PWL listing, nutrients and dissolved oxygen/oxygen demand are listed pollutants with agriculture as the pollutant source. Water uses in this tributary experience impacts due to excessive nutrient loads and resulting low dissolved oxygen.

These areas are a high priority to address for SWCD and the Ag Advisory Committee because of the high nutrient loads with land application of apple pomace and fertilizer applications. A second concern is pesticides, considering orchards typically utilize multiple applications. Reducing the potential for nutrient loading and pesticide contamination in tributaries and Lake Ontario is a goal of the Ag Advisory Committee. Additional tributary sampling will be conducted on select tributaries to provide a larger baseline data to supplement PWL and Ag Advisory Committee concerns.

Year 2022

Priority Watersheds: Red Creek West (9), Red Creek East (10), Ganargua Creek Upper (15).

This segment is in the southwest corner of the county and includes all of the Town of Macedon and major parts of the Walworth, Marion and Palmyra area where there is increasing development pressure. The waters in these watersheds flow to the Erie Canal then head east. Based on previous experiences of staff and committee members, it was determined development pressures encroaching on agricultural areas cause public awareness and the possibilities for complaints arise. NYSDEC's PWL lists nutrient loading as its pollutant concern from agricultural activities. Combining PWL concerns with development pressure, there is a solidified need for AEM in these watersheds to be beneficial to both farms and local communities. Outreach campaigns will be conducted in watershed area (planning and/or conservation boards) to inform and educate general public about AEM. All farms will be contacted in watershed to inform and educate them of the benefits of enrolling in AEM.

Watershed Assessments compiled by the District support the concerns of high nutrient loading potential from livestock and crop farms. A second concern is pesticides, considering the number of tributaries in the watersheds and amount of land currently in cropland in these watersheds. Reducing the potential for nutrient loading and pesticide contamination in tributaries and NYS Barge Canal is a goal of the SWCD and the Ag Advisory Committee.

Year 2023

Priority Watersheds: County Embayments - Sodus Bay/Sodus Creek (5), East Bay/Mudge Creek (6), Port Bay/Wolcott Creek (7), Blind Sodus Bay/Blind Sodus-Red-Little & Black Creeks (8).

This segment includes the major bays in the County and their corresponding watersheds in the northeast part of the County. This includes all of the Towns of Huron, Wolcott and a good portion of Rose, Butler, Sodus and a small section of Galen. All of the water in these watersheds flow north towards Lake Ontario. These bays are a high priority for Wayne SWCD and the Ag Advisory Committee based on their multi-faceted community interest. The bays are prone to suffer from water quality contaminations that can and do occur. The Bays are

continuously being monitored for a multitude of water quality concerns from several entities which gives the District a bounty of information to work with. PWLs for all the Bays have a Stressed Severity level with Agriculture list as a Source of Pollutant on most of them. Reducing nutrient loading, pathogen potential, erosion and pesticide use are major goals for the SWCD and the Ag Advisor Committee.

Year 2024

Priority Watersheds: Ganargua Creek L (11), Erie Canal West (14), Canandaigua Outlet (16), Black Brook (12).

These watersheds are located in the south central portion of the County and include most of the Towns of Arcadia and Lyons and parts of Palmyra, Rose and Galen. These watersheds are grouped together due to their proximity to each other and the type of land use. The land use is predominantly agricultural with a diverse array of farm operations. Ganargua Creek intertwines with NYS Barge Canal in several places Ganargua Creek has nutrients listed as a known source with silt/sediment as a suspected pollutant with agriculture listed as a pollutant source.

These areas are a high priority to address for SWCD and the Ag Advisory Committee because of the high nutrient loading potential from livestock and crop farms. Additionally concerning is pesticides contamination considering the number of tributaries in watersheds and amount of land in cropland in these watersheds. Reducing the potential for nutrient loading and pesticide contamination in tributaries and NYS Erie Canal is a goal of the Ag Advisory Committee. Tributary sampling will continue to be conducted on select tributaries as needed to provide baseline data to supplement PWL and Ag Advisory Committee concerns.

Year 2025

Priority Watersheds: Erie Canal E (17), Clyde River (18), Crusoe/Butler/Black Creeks (13), Seneca River (19).

This segment is located in the southeast portion of the County and includes all of the Town of Savannah and parts of the Towns of Butler, Rose and Galen all of the water here drains into the Erie Canal and then flows east to the Seneca River then the Oswego River which outlets into Lake Ontario.

Clyde River originates in Ontario County and outlets into NYS Barge Canal as well. Listed on PWL for Clyde River is dissolved oxygen/oxygen demand and nutrients with agriculture as a primary pollutant source. Minor tributaries to Clyde River are listed the same with barnyard runoff and milk house wastewater concerns listed on its assessment as well. NYS Barge Canal (portion 5, from Lyons to eastern edge of Wayne County) has nutrients and pathogens as pollutants of concern with agriculture listed as a pollutant source. This segment of canal is also listed on NYSDEC's 303 (d) Part 3a list because aquatic life support is thought to be impaired by various nonpoint sources.

Overview of Wayne County AEM Strategic Plan Objectives

The SWCD will use the AEM Strategic Plan to identify and address agricultural sources of impacts to water quality concerns in identified watersheds. Completion of the AEM Tier 1, Tier 2, and Tier 3 assessments remains a high priority in the County. Although cost-share funds for implementation projects are limited and competitive in most cases, there may be many opportunities for farmers to make low, or no-cost, changes to their operation upon completion of the Tier 3A Conservation Plans that will improve soil and water quality on the farm and in the greater community.

The Ag Advisory Committee will partner with District efforts to promote the AEM program and educate farmers and the community on the benefits of farmer participation through multi-media:

Agency newsletters: SWCD, CCE, Farm Bureau, USDA including NRCS & FSA

Watershed Committee newsletters & meetings: WQCC, SOCR, various Bay Associations

Local newspapers: Wayne County Times, & The Lakeshore News

Websites: SWCD, CCE, Wayne County

Assistance Provided	Agencies Involved
Education	SWCD, CCE, NRCS, FSA, Local Municipalities
Outreach	SWCD, CCE, NRCS, FSA, Farm Bureau, WQCC, Local municipalities, County Planning Department,
Engineering	NRCS, Private Sector, SWCD, County
Existing Monitoring	SWCD, County Health Dept., NYS DEC, volunteer groups
Technical Advice	SWCD, CCE, WQCC, County Public Health Dept., EMO
Program Evaluation	SWCD, NRCS, WQCC
Program Administration	SWCD
Grant Writing	SWCD, CCE
Existing Biological Monitoring Activities	NYS DEC, CCE, SWCD
Prioritizing critical areas	SWCD, CCE, WQCC
Prioritizing BMP's on farms for implementation	SWCD, NRCS, Ag Advisory Committee, CCE, farmers, WQCC
Program Guidance	NY Ag & Markets

Objectives, Tasks Timeline, Who's responsible

OBJECTIVE 1: Conduct Inventory of Agricultural Concerns

<i>Associated Tasks</i>	<i>Timeline</i>	<i>Who's Responsible</i>
Notify local stakeholders and municipal officials about AEM program so that the word gets out to farmers about the program	January - February	SWCD staff, Ag Advisory Committee, CCE, NRCS, WQCC, FSA, municipal staff
Identify and then contact all landowner/farmers in priority watershed in county via letters and follow up phone calls to generate interest in participating in the AEM program	February- April	SWCD Staff
Set up appointments with landowners and farmers and conduct Tier 1 assessments and/or Mail Tier 1 surveys out to all farmers in watershed	April – June	SWCD Staff
Conduct Tier 2 assessments with interested farmers that have completed Tier 1 assessments	June- September	SWCD Staff

OBJECTIVE 2: Analyze Inventoried Data and Prioritize

<i>Associated Tasks</i>	<i>Timeline</i>	<i>Who's Responsible</i>
Enter Tier 2 data into GIS system to identify priority farms	September- October	SWCD Staff
Meet with local workgroups and stakeholders to review GIS data and identify critical areas and prioritize farms	October - November	SWCD Staff, Ag Advisory Committee, CCE
Identify which priority farms should complete Tier 3 plans. Contact by mail and telephone to discuss protocol for completing Tier 3 plans.	November- December	SWCD Staff

OBJECTIVE 3: Identify and Implement Appropriate Resource Management Systems (RMSs)

<i>Associated Tasks</i>	<i>Timeline</i>	<i>Who's Responsible</i>
Complete Tier 3 plans with interested farmers	January - December	SWCD Staff, CCE, NRCS, private planners
Identify funding opportunities to implement Resource Management System (Tier 4)	October - November	SWCD Staff, CCE, NRCS
Contact interested farmers who have completed Tier 3 plans that will continue on and implement Resource Management System (Tier 4). Seek funding if needed.	November - December	SWCD Staff
Once funding secured (farmer or cost-share program) work with farmer to create a schedule to implement conservation practices.	October - December	SWCD Staff, NRCS, private planners

OBJECTIVE 4: Evaluate project success in addressing water quality concerns

	Program Evaluation	Watershed Evaluation	Farm Evaluation
Evaluation Factors	Effectiveness of program delivery	Importance of agriculture within the watershed Water quality monitoring	Extent and status of nutrient management planning
Evaluation Measures	AEM farmer participation level: # Tier 1,2,3,5 completed State & Federal conservation program participation	Level of community support for agriculture Community awareness of environmental benefits of agriculture # of ag complaints compared to previous years	Soil sampling frequency Manure sampling frequency
Feedback Mechanism	Comparison to previous years participation % AEM farms that are in other conservation programs Comparison of popular programs with actual watershed needs	Watershed coalition reports and outreach materials Municipal information	Farmer satisfaction with Tier 1,2,3,5 participation Continued farmer participation in AEM
When Feedback Needed	When compiling watershed AEM data	As available throughout year	Document throughout assessment and planning process
Responsible Party	SWCD	SWCD	SWCD
Desired Results	AEM is more widely utilized by farmers for conservation planning AEM is more widely known by stakeholders and ag community	Agricultural best management practices are recognized by public as good for the community Water monitoring indicates improved local conditions	Farmer implements long term improvements to nutrient management systems

Wayne County AEM Communication Strategy

Purpose	Task	Target Audience	Timeframe	Responsible Person
Increase awareness and educate farmers on the benefits of AEM program in the County	Use contact info. from SWCD office, CCE, NRCS, and FSA to contact farmers and send letters and brochures out and then follow up with phone calls; Newsletter articles in local farming publications, radio announcements, also work with local Farm Bureau and agribusiness offices	Farmers and land owners	Ongoing effort as needed and as opportunities arise	SWCD, CCE, Farm Bureau, Ag Advisory Committee
Educate general public about AEM program	Articles in the local newspapers about AEM; multi-media; displays, brochures at outreach events; provide brochures to other conservation and farm related agencies for distribution	General public	Continue throughout the years at regularly scheduled events	SWCD, CCE, Ag Advisory Committee
Educate Municipal officials and staff about AEM program	Short PowerPoint presentations to the Wayne-Ontario Stormwater Coalition, town planning/conservation boards, WQCC	Municipal Staff, officials and members of the Wayne-Ontario Stormwater Coalition, etc.	As needed and as opportunities arise	SWCD, CCE
Educate Agri-business about AEM program. Promote mutually beneficial relationship of AEM to agri-business, farmer and SWCD	Use SWCD contacts, phone book, internet searches to obtain contact info to send initial letters about AEM and then follow up with phone calls	Agribusiness professionals	As needed and as opportunities arise	SWCD, CCE, Ag Advisory Committee, Farm Bureau, Farmers
Educate and inform DEC about AEM program to get support and get assistance with program promotion	Conduct one-on-one meetings with key SWCD regional contacts to develop this plan	DEC staff and their associates	As needed and as opportunities arise	SWCD
Educate conservation groups about the AEM program so that they can help promote it and educate others on the benefits	Contact groups with letters and brochures and then follow up with phone calls; offer short PowerPoint presentation on AEM	Wild Turkey Foundation, Nature Conservancy, Ducks Unlimited, Sierra Club, Genesee Land Trust	As needed and as opportunities arise	SWCD

Educate and increase awareness of AEM program to local colleges and universities	Use existing SWCD contacts from these institutions to make initial contact, offer students internship opportunities to get involved in program	Staff and students of SUNY Brockport, FLCC, Finger Lakes Institute, RIT, and U of R	As needed and as opportunities arise	SWCD
Increase local awareness of program among local groups i.e. Save Our Clyde River, various Bay Associations	Describe programs at monthly meetings, offer short PowerPoint presentation on AEM, develop additional ways to contact farmers	Watershed committees and other local environmental group membership	As needed and as opportunities arise	SWCD
Share AEM progress with stakeholders	Describe progress of plans, corrective or preventative actions, or types of identified concerns in watersheds	Watershed committees and AEM Work Group members	As needed and as opportunities arise	SWCD
Stakeholders will provide feedback to SWCD regarding AEM progress in watersheds	Provide additional information relating to AEM effectiveness or needs in watersheds	Watershed committees and AEM Ag Advisory Committee	As needed and as opportunities arise	SWCD will solicit feedback from stakeholders
SWCD will respond to stakeholder and AEM Ag Advisory Committee	Adapt AEM Strategic Plan based on progress and information from stakeholders and farmers	Watershed committees and AEM Ag Advisory Committee, farmers	As needed and as opportunities arise	SWCD will solicit feedback from stakeholders
Purpose	Task	Target Audience	Timeframe	Responsible Person

Reference material, maps, etc. in addendum

Resources, studies, and reports available – many on the Wayne County Soil and Water Conservation District website. waynecountynysoilandwater.org

Comprehensive Watershed Management in Wayne County (WCSWCD)
Sodus Embayment Preservation and Watershed Enhancement Plan (EPA)
Wayne County Embayments Resource Preservation and Watershed Enhancement Plan (EPA)
Agricultural and Farmland Protection Plan (Wayne County Planning)
Characterization of Eight Watersheds of Wayne County (SUNY Brockport)
Characterization of Six Watersheds of Wayne County (SUNY Brockport)
Four Bays Sanitary Sewer Study (Wayne County Water and Sewer Authority)
Rapid Watershed Assessment Profile – Irondequoit-Ninemile Watershed (USDA NRCS)
Rapid Watershed Assessment Profile – Seneca Watershed (USDA NRCS)
State of Lake Ontario Basin (FL-LOWPA)
Wetlands of the Sodus Bay to Wolcott Creek (US Fish and Wildlife)
Lower Ganargua Creek Water Assessment Plan (WCSWCD)
Salmon Creek West Watershed Action Plan (CEI)
Maxwell Creek (Salmon Creek East) Watershed Action Plan (CEI)
Red Creek West Watershed Assessment Plan (WCSWCD)
Red Creek East Watershed Assessment Plan (WCSWCD)
Fairville Creek Stressed Stream Analysis (WCSWCD)
Four Mile Watershed Assessment Plan (Monroe County SWCD)
TWDL for Phosphorus in Port Bay (NYS DEC)
Local Waterfront Revitalization Plan – Town of Huron
Local Waterfront Revitalization Plan – Village of Sodus Point
Wayne County Parks and Recreationways Master Plan (Wayne County Planning)
Pesticides in Our Nation’s Streams and Groundwater (USGA)
Groundwater Quality in Central New York (USGS)
The State of New York Lake Ontario Basin: A Report on Water Resources & Local Watershed Mgmt. Practices
The First Triennial Assessment of Progression – Great Lake Water Quality – (IJC)
Lake Ontario and Minor Tributaries Watershed (NYS DEC)
Oswego River / Finger Lakes Watershed (NYS DEC)
Watershed Inventory / Priority Waterbodies List (NYS DEC)
Scorecards (NYS DEC)
County, Town and Village Comprehensive Master Plans
Wayne County Real Property – List of farm exempt properties/soil group worksheets to establish mailing list
Wayne County Clerk/Treasurer – Monthly Deed transfer list to update mailing list

US EPA – United States Environmental Protection Agency
USDA NRCS – United States Department of Agriculture Natural Resource Conservation Service
NYS A & M – New York State Ag and Markets
NYS DEC – New York State Department of Environmental Conservation
USDA NASS –United State Department of Agriculture National Agricultural Statistic Service