



Monroe County Soil and Water Conservation District

1200A Scottsville Road, Suite 160, Rochester, NY 14624

Phone: (585) 473-2120 x3 • Fax: (585) 473-2124

Monroe County Soil and Water Conservation District Agricultural Environmental Management (AEM) Strategic Plan 2009-2014

Developed November, 2008; Revised April 2011

I.) Introduction

Mission Statement: The mission of the Monroe County AEM program is to promote the awareness and adoption of agricultural conservation practices on local farms, increase environmental stewardship among agricultural producers while enhancing the economic viability of agriculture in Monroe County. The AEM program also seeks to improve awareness of the benefits of agriculture throughout the County, assist agricultural producers with achieving their farm's objectives, and protect and improve local water quality and natural resources.

Status of Agriculture in the County: 2002 Census of Agriculture New York State and County Data **Acres of Farmland**

106,600 acres of farmland

84,592 acres in cropland

3,157 acres in permanent pasture

9,486 acres in woodland

1,479 acres in Conservation Reserve or Wetlands Reserve Programs

9,326 acres in other use (house lots, ponds, roads, wasteland, etc.)

Number and type of farms

631 total farms 23 dairy farms (3 Medium CAFO farms)

42 Equine

105 Vegetable

104 Nursery/Greenhouse (28 commercial operations)

200 Field Crops / Forage

Remainder includes beef, specialty crops, other livestock, poultry

II.) Background Information

Historical Perspective: The Monroe County Soil & Water Conservation District has been actively involved in assisting farmers evaluate, install and improve conservation management practices since the District formed in 1954. 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.

The AEM program in Monroe County was established in 1998 in Northrup Creek watershed, a priority watershed of local importance, and continues to expand based on determinations of watershed priorities today.

Previous and Current Agricultural Projects in Monroe County

Monroe County Water Quality Coordinating Committee Mini-Grant

1998 9 AEM Tier 1 and 2 assessments were collected on farms in Northrup Creek watershed

Agricultural Nonpoint Source (Ag NPS) Grant Program

Round VI 1998 – 2002: 21 AEM Tier 1 and 13 Tier 2 assessments were completed on farms in Oatka Creek watershed.

Round VII 2000 – 2003: 97 AEM Tier 1, 13 Tier 2 assessments and 4 AEM Tier 3 plans were completed on farms in Braddock Bay watershed, which includes Salmon Creek and Buttonwood Creek.

Round VIII 2001-2005: Tier 3B Certified Nutrient Management Plans were completed for Concentrated Animal Feeding Operations in the entire Oatka Creek watershed involving Monroe, Genesee and Wyoming counties, with one Monroe County dairy farm participating.

Round IX 2003 – 2006: AEM Tier 1 and Tier 2 assessments were collected in Sandy Creek watershed in Orleans and Monroe counties. There were 11 Tier 1 and 9 Tier 2 assessments completed, although 8 of these are on farms with operations in both Braddock Bay watershed and Sandy Creek watershed.

Round XI Genesee River Implementation 2005-2009 (AEM Tier 4 grant): 17 BMPs are being implemented on 13 priority farms in the Black, Oatka and Salmon Creek watersheds in Monroe, Genesee and Wyoming counties. In Monroe County there are two dairy farms and 1 dairy replacement (heifer) operation representing 1 Concentrated Animal Feeding Operation (CAFO) dairy in Oatka Creek watershed, 1 CAFO dairy in Salmon Creek watershed, and 1 CAFO dairy farm in Little Black Creek watershed. A total of 6 conservation practices are proposed for these farms.

Round XIII Lake Ontario Implementation 2007-2010 (AEM Tier 4 grant): 6 BMPS are being implemented on 3 CAFO's. There are 3 BMPS being implemented in Salmon Creek Watershed, 1 BMP in the Black Creek watershed and 1 BMP in the Oatka Creek watershed.

Round XIV Sandy Creek chemical mixing facility grant 2007-2010 (AEM Tier 4 Implementation): 2 agricultural chemical mixing facilities were implemented on 2 farms in the Sandy Creek watershed.

Round XV 2008: Three grants were submitted, one each for the Honeoye Creek, Irondequoit Creek and Hamlin-Parma Beach area watersheds for a total of 10 farms with a total of 17 conservation practices.

III.) Evaluation and Prioritization of Planning Units

The District solicited input on developing priorities for the strategic plan by requesting participation in the Monroe County AEM advisory committee. Invitations were extended to Farm Service Agency, local municipalities, the Farmland Protection Board, the Monroe County Department's of Health, Environmental Services and Planning, the NRCS, the Water Quality Coordinating Committee, Environmental Management Council, Farmers representing different agricultural interests watersheds of the County, DEC, Black Creek Watershed Coalition, and Farm Bureau. The list of parties who chose to participate on this committee are listed below.

The group met and evaluated a variety of information to determine the priorities for the County. The information reviewed included; the NYSDEC Priority Waterbodies Lists (PWL), local county water quality priorities, the estimated number of agricultural operations in each watershed, and the level of current and past farmer interest in AEM participation. Figure 1 illustrates water impairments that are known to be caused by agriculture in Monroe County; Figure 2 shows the waterbodies listed on the PWL and the location of agricultural districts in Monroe County. Figure 3 shows the County's watersheds that have agricultural as "Known" or "Suspected" source. These maps were helpful in identifying the priority areas.

Table 1 incorporates all AEM data that has been collected by each watershed through March 2011 and identifies any waterbodies in a watershed that is "Stressed", "Impaired" or "Threatened" with agriculture listed as a "Suspected" or "Known" source. Table 1 also serves as an indicator of AEM participation in each watershed.

Priority Watershed Region Ranking – Watershed regions were selected based on the position of the watersheds around the county. Each region was then ranked according to total agricultural land, known water quality impacts from agriculture, and current farmer participation in AEM.

- 1) Lower Genesee River
 - a. Genesee River- Direct Drainage
 - b. Black Creek
 - c. Little Black Creek
 - d. Oatka Creek
 - e. Red Creek
 - f. Honeoye Creek
- 2) Lake Ontario Shoreline - Rochester West (West of Genesee River Outlet)
 - a. Round Pond
 - b. Buck Pond
 - c. Long Pond
 - d. Buttonwood Creek
 - e. Salmon Creek
 - f. Hamlin Parma Beach
 - g. Sandy Creek
 - h. Yanty Creek
- 3) Lake Ontario Shoreline Area- Rochester East (East of Genesee River Outlet)
 - a. Irondequoit Creek
 - b. Four mile Creek

YEAR 1: 2009-2010. (*Each AEM planning year goes from May-April)
Priority Watershed Region 1

1) **Black Creek Watershed** was identified in NYSDEC 2004 Section 303 (d) List of Impaired Waters Requiring a Total Maximum Daily Load (TMDL) development due to Phosphorus loading from agriculture and municipal sources. Also, nutrients from agriculture are known to have impaired aquatic life and stressed recreation and aesthetics (2001 Genesee River Basin NYSDEC PWL).

2) **Little Black Creek Watershed** has significant agricultural activity, including manure spreading from dairy and replacement operations, are suspected of contributing to aquatic life impairment (2001 Genesee River Basin NYSDEC PWL). These were considered high priority watersheds because of the documented water quality impacts, and the number of farms. Black Creek and Little Black Creek were the focus of the first AEM strategic plan in 2005-2006, many farms participated and completed Tier 1's and some Tier 2's. The focus for this strategic plan will be to get the farms that have participated in the past to move forward with the progressive planning to Tier 3's, and 4's.

YEAR 2: 2010-2011.
Priority Watershed Regions – 1 & 2

1) **Salmon Creek Watershed**, Priority Organics and Silt Sediment are known Pollutants, with Agriculture as a known source. (2001 Genesee River Basin NYSDEC PWL) Land use in the watershed is estimated to be 80% agricultural. There are over 20,000 acres of active agricultural land in the watershed. There is high interest in AEM from farmers in this watershed, with several farms moving into the Tier 3A level.

2) **Oatka Creek Watershed**, Nutrients, silt/sediment and algal/weed growth are known pollutants with agriculture a known source (2001 Genesee River Basin NYSDEC PWL). Land spreading of manure is indicated as the cause of agricultural nutrient loading.

3) **Black Creek Watershed**, Continue working with farms from Year 5 due to number of farms in watershed, continued interest in the watershed from other environmental groups, and planning for possible grant opportunity for watershed.

YEAR 3: 2011-2012

Priority Watershed Region- 3

1) Irondequoit Creek Watershed, the PWL lists Irondequoit Creek as having Nutrients as “Known” pollutants and agriculture as being a “Suspected” source (2004 Lake Ontario Basin NYSDEC PWL). Irondequoit Creek drains to Irondequoit Bay and Irondequoit Bay is listed for having pesticides as a “Known” pollutant and Nutrients and silt/sediment as being “Suspected” and agriculture as being a “Suspected” source (2004 Lake Ontario Basin NYSDEC PWL). Irondequoit Creek watershed has not been a focus of AEM before but due to a growing interest in AEM among farmers in this watershed it was included as a priority.

1) Four Mile Creek Watershed, Four Mile Creek was listed in the 1996 Genesee River Basin NYSDEC PWL for fish propagation and fish survival as “Threatened”, and agriculture was listed as a source that may be contributing nutrients and sediments. Also, the creek supports a seasonal salmonid run. Four Mile Creek was not listed in the 2001 Genesee River Basin NYSDEC PWL, however there has been an expressed interest from farmers in this watershed to get involved in the AEM process and apply for ag. non point source grants to obtain funds to implement high priority BMPs.

YEAR 4: 2012-2013

Priority Watershed Region - 2

1) Hamlin-Parma Beach Areas Watershed, this watershed drains directly into Lake Ontario and this section of the Western shoreline of Lake Ontario has pesticides listed as a “Known” pollutant with contaminated sediment as a “Known” source of the pollutant. Total cropland in the watershed is estimated by the District to be approximately 13,000 acres. Farming operations in the watershed include orchards, grain, cabbage (8000 acres), and green manure crops. There are four NYSDEC "blue line" streams and one marsh in the watershed that outlet into Lake Ontario: Payne Beach marsh, NYSDEC class "B"; East Creek, Brush Creek, Cowsucker Creek and one unnamed creek are listed as class "C" although the deep, wide channels are suitable for fisheries activities for Lake Ontario Salmon, Trout, and other species.

2) Buck pond, Long Pond and Round Pond watersheds have significant documented water quality impacts. The PWL lists both Buck Pond and Round Pond as having Nutrients as a “Known” pollutant and Agriculture is listed as a “Suspected” cause (2004 Lake Ontario Basin NYSDEC PWL). The PWL lists the following waterway impairments for the Long Pond watershed: Long Pond is listed as having Nutrients as being “Known” and Agriculture is listed as a “Suspected” cause (2004 Lake Ontario Basin NYSDEC PWL). Northrup Creek lists Nutrients as being “known” and agriculture as being a “Known” cause. Cranberry pond is listed as having Nutrients as a “Known” pollutant and agriculture as being “Suspected”.

YEAR 4: 2012-2013-CONTINUED

Priority Watershed Region – 2

3) Buttonwood Creek, the PWL lists aquatic life in Buttonwood Creek as “stressed” with agriculture as a “suspected” source. (2007 Lake Ontario Basin NYSDEC PWL). The watershed is estimated to have over 3000 acres of active agland. Concerns have been raised over the Impact of agriculture in the watershed.

4) Sandy Creek, Yanty Creek Watersheds, the PWL lists Sandy Creek, its East and West Branches as have Nutrients as “Suspected” and agriculture as a “Suspected” source (2004 Lake Ontario Basin NYSDEC PWL). The Monroe County portion of Yanty Creek is unassessed for water quality impacts, but land use in the watershed is estimated to be over 75% agricultural, and there is farmer interest in AEM in the watershed

YEAR 5: 2013-2014

Priority Watershed Region - 1

1) Honeoye Creek Watershed, there are no documented water quality impacts however 80% agricultural land use in watershed has the potential to pose a threat to water quality. Honeoye Creek is a fishing area for county residents. This watershed has also been considered a local priority due to a recent increase in interest level in farmers in the watershed for participation in AEM and the agricultural non point source grant program.

2) Genesee River Watershed, the Aquatic life is impaired in one segment, and in each segment aesthetics and recreation are stressed. Agriculture is a suspected source of pollutants including silt/sediment and nutrients. The Genesee River sub-watersheds have at least 50% of their land base in agricultural districts.

2) Red Creek Watershed, agricultural land uses in the watershed may contribute to silt/sediment loading and nutrients (2001 Genesee River Basin NYSDEC PWL). Stressed public bathing, aquatic life, recreation and habitat/hydrology may be partially due to agricultural activities in the watershed, although other pollutant sources such as hydro-modification and urban runoff have been identified. Grains and vegetable crops dominate the production acreage.

Monroe County AEM Advisory Committee members:

Monroe County Health Department, Department of Environmental Services, and Planning Department, Water Quality Coordinating Committee representative, The Water Education Collaborative (WEC), Black Creek Watershed Coalition, Environmental Management Council, Monroe County Farm Bureau, Monroe County Farmland Protection Board and 6 farmers representing different watersheds of the County and different agricultural interests.

IV). Outreach efforts:

The District will work to set up education and outreach presentations in the community. A list of some of the groups that the District will conduct presentations and educational outreach to include: the Monroe County Legislature, the CCE agricultural advisory committee, the Environmental Management Council, the Towns of Mendon, Rush, Hamlin and Parma, the Black Creek Watershed Coalition, the Oatka Creek Watershed Committee, Irondequoit Bay Technical Staff, Conservation Boards of agricultural communities, and Farm Bureau. Quarterly updates on AEM will be provided to the Water Quality Coordinating Committee. As new groups, agencies or other interested parties are identified additional presentations will be scheduled. The Local AEM 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 including:

Agency newsletters: SWCD, FSA, NRCS, Farm Bureau, G/FLRPC

Watershed Committee newsletters & meetings: Black Creek Watershed Coalition, Oatka Creek Watershed Committee, Water Education Collaborative (WEC)

Local newspapers: Democrat & Chronicle, Greece Post, Gates-Chili Post, Henrietta Post, Webster Post, Suburban News

Radio: AM 1180 WHAM News Radio, AM 1370 WXXI Public Broadcasting Station, FM 105.9 WJZR

Websites: SWCD, Black Creek Watershed Coalition, Oatka Creek Watershed Committee, municipal

V.) Overview of Monroe County AEM Strategic Plan Objectives:

The District will use the AEM Strategic Plan to identify and address agricultural sources of impacts to water quality concerns in these identified high-priority watersheds. Until recently the primary focus of the Monroe County AEM program has been to get farmers to participate in the program through Tier 1's and 2's, while there are opportunities for farmers to make low, or no-cost, changes to their operation upon completion of the Tier 2 assessment that will improve soil and water quality on the farm and in the greater community, the District would like to place more emphasis on progressive planning and encourage more farms to proceed beyond the Tier 1 and 2 level and move to the Tier 3 planning phase and Tier 4 implementation phase.

General Tasks associated with each year for focus watersheds:

- Notify local stakeholders and municipal officials about AEM program so that the word gets out to farmers about program.
- Update mailing lists and collect all AEM data from previous years for focus watershed year.
- Contact all landowner/farmers in focus watersheds in Monroe County via letters and follow up phone calls to generate interest in participating in the AEM program.
- Follow-up with past participants of AEM in focus watershed to update information and encourage farms to move forward in Tiered process.
- Schedule outreach and education presentations and look for new opportunities to collaborate and form new partnerships.
- Conduct meetings with farmers as requested to complete tiered worksheets, including Tier 3 conservation plans.
- Prepare any Tier 3's for farmers interested in pursuing funding through agricultural non point source grant program.
- Apply for agricultural non point source grants and seek additional funding through other programs such as EQIP to implement high priority practices on farms in priority watersheds.
- Staff will attend AEM and any relevant trainings or updates as scheduled.

Annual Program Evaluation

- Evaluate effectiveness of program at the end of each year by soliciting feedback from interested parties and AEM advisory group, conduct assessment of program through use of New York State's AEM report card and incorporating new ideas, programs, outreach and educational efforts that compliment AEM program.

Impairments Known to be Caused by Agriculture

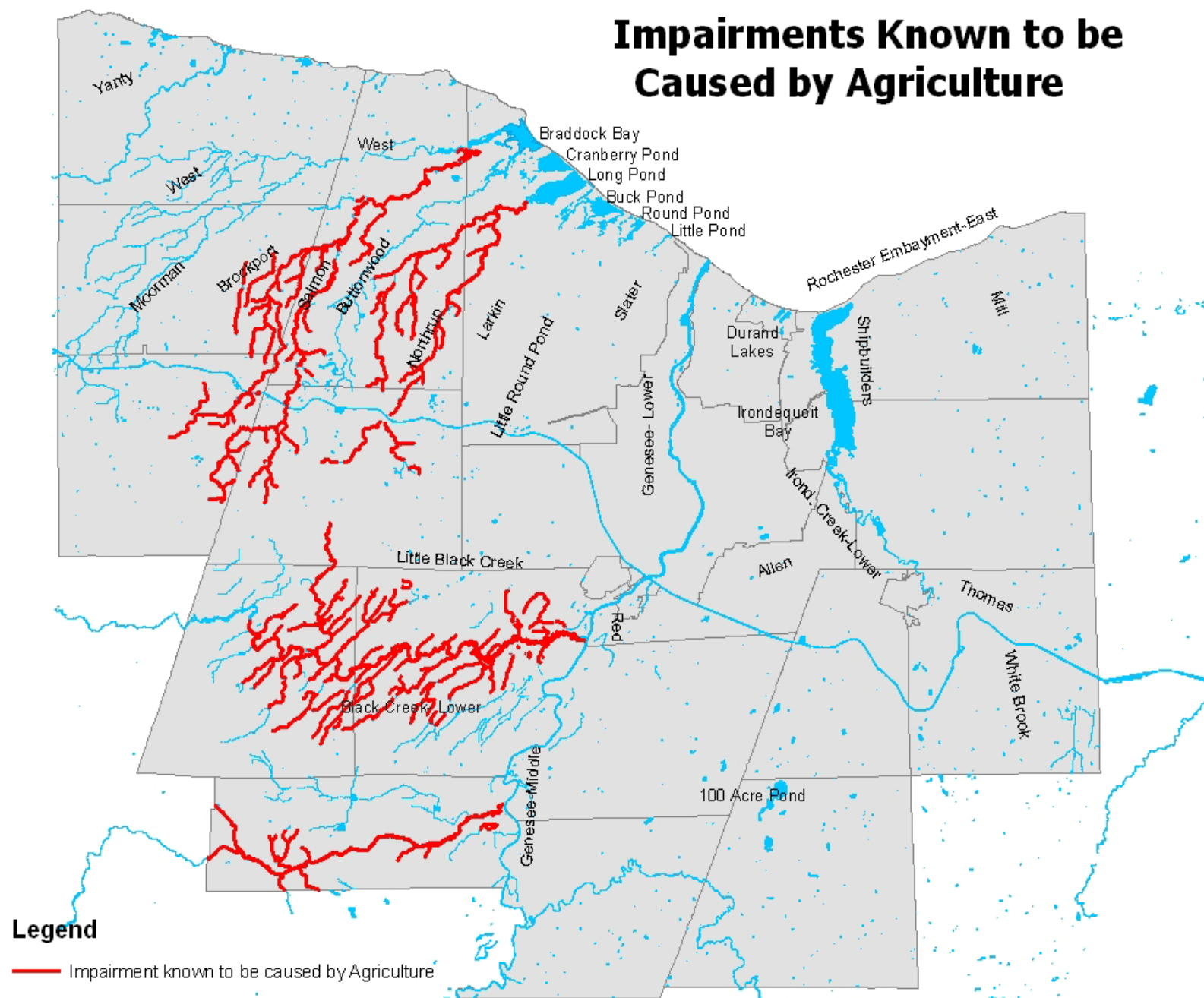


FIGURE 1: Impairments Known to be Caused by Agriculture in Monroe County
MAP SOURCE: Monroe County Department of Environmental Services, (All data from NYSDEC Priority Waterbodies List. Monroe County watersheds with non-Ag impairments or unknown pollutant source may have been excluded from Figure 1)

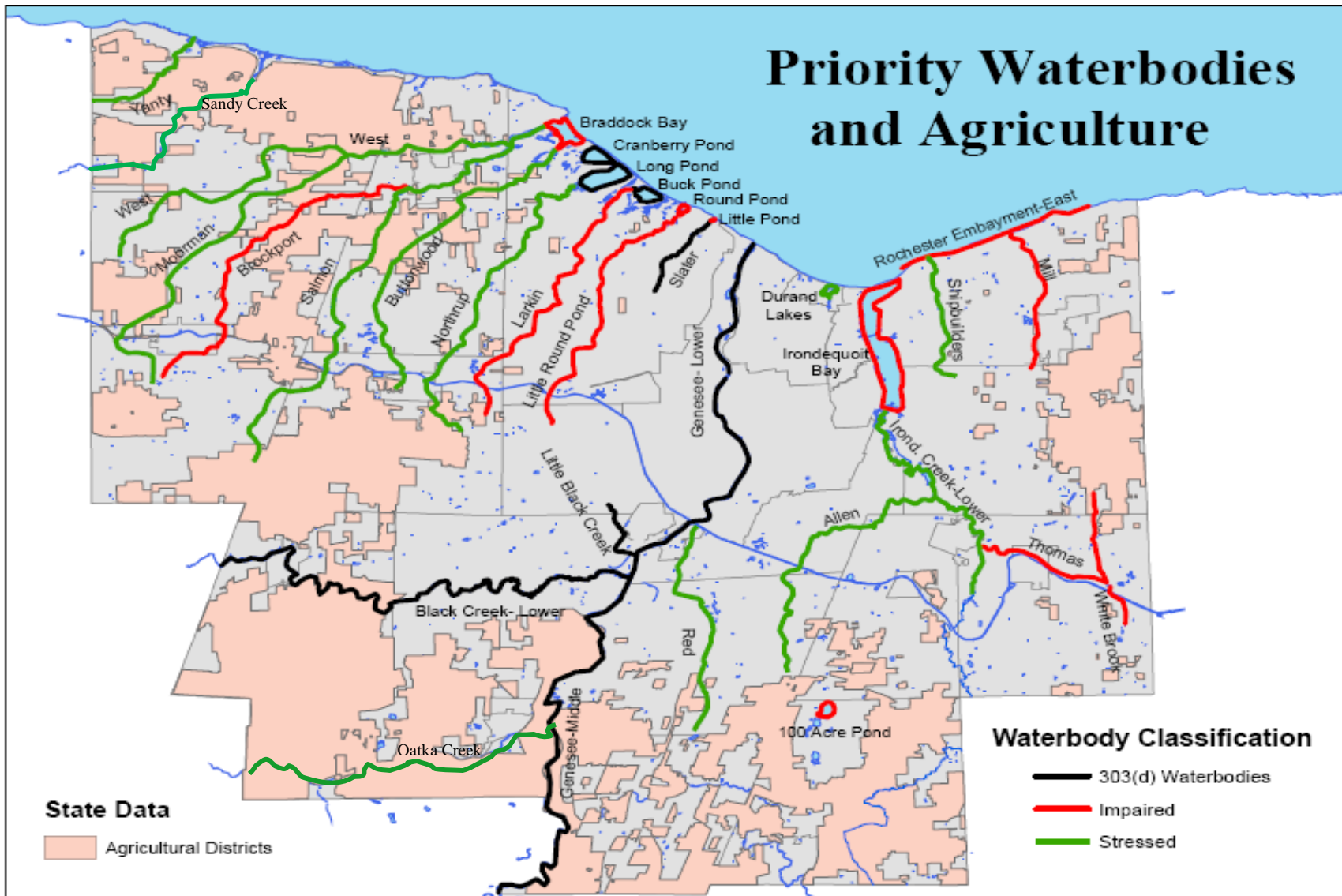


FIGURE 2. Monroe County Priority Waterbodies and Agriculture
 MAP SOURCE: Monroe County Department of Environmental Services (Data from NYSDEC Priority Waterbodies List)

Watersheds with Water Quality Impairments Caused by Agriculture

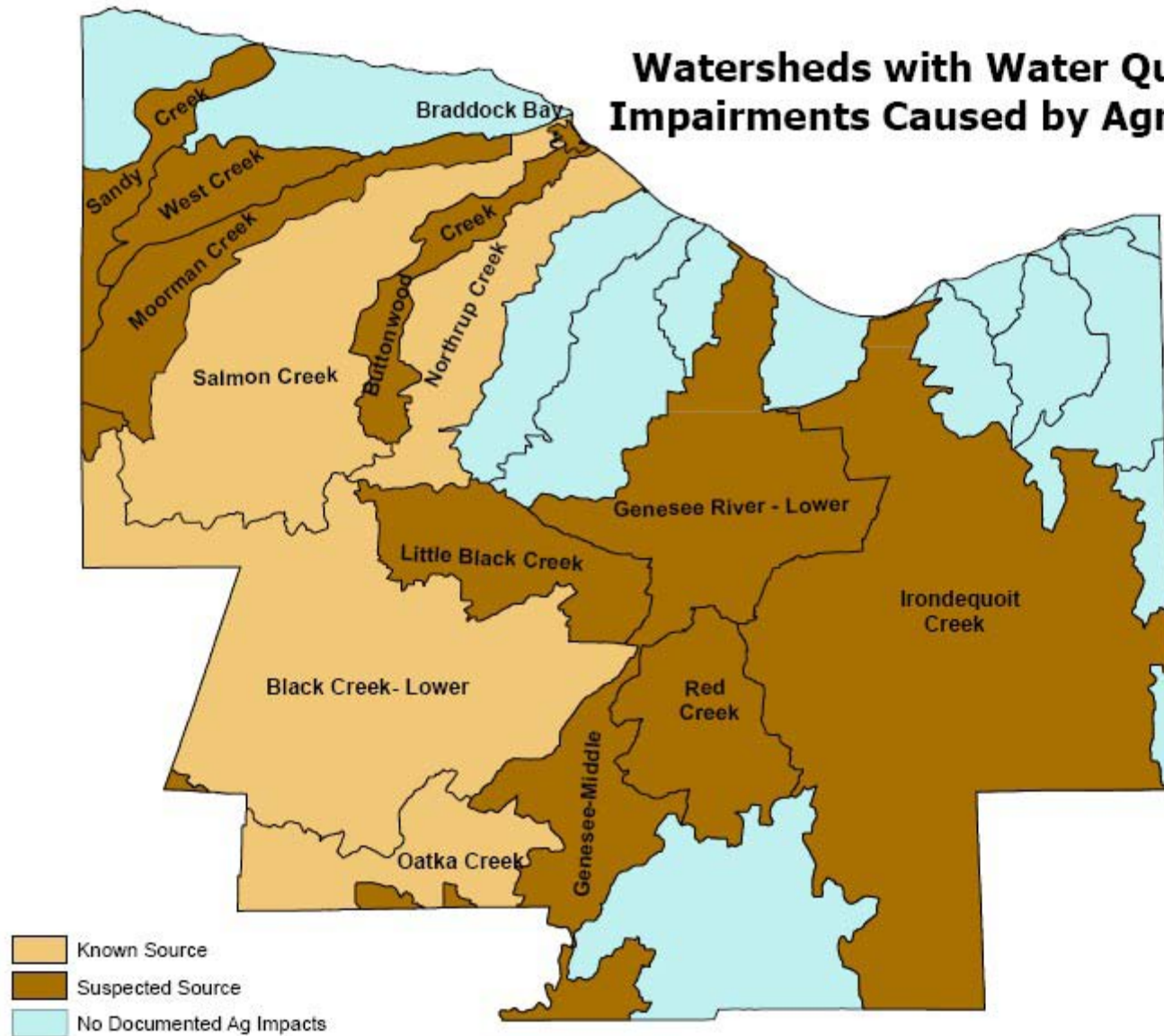


FIGURE 3. Monroe County Watersheds with water quality Impairments Caused by Agriculture

MAP SOURCE: Monroe County Department of Environmental Services (All Data from NYSDEC Priority Waterbodies List. Watersheds with no documented Ag impacts may still need to be assessed)

Table 1 - Summary of Monroe County Ag PWL and AEM Data collected through March 2011

Monroe County Watershed	PWL Water Quality Impacts	PWL Ag Source	AEM Priority Region	Ag District Acres	AEM Interest*	Tier 1	Tier 2	Tier 3A	Tier 4	Tier 5A	Tier 5B
Black Creek	Impaired	Known	1	31,563	High	77	14	8	2	26	1
Salmon Creek	Stressed	Known	2	19,455	High	90	14	6	0	10	0
Irondequoit Creek	Stressed	Suspected	3	17,513	Medium	17	12	8	0	1	0
Honeoye Creek	No known impact	No known Impact	1	12,624	Medium	16	6	4	0	0	1
Oatka Creek	Stressed	Known	1	10,931	High	32	17	2	1	3	0
Genesee River	Impaired	Suspected	1	10,673	Medium	14	1	0	0	2	0
Hamlin-Parma Beach(Lake Ont West)	Impaired	Contaminated Sediment	2	8,469	High	25	10	7	1	5	0
Yanty Creek	Unassessed	UnKnown	2	4,960	Medium	7	3	1	1	3	0
Four Mile Creek	Unassessed	UnKnown	3	4,957	Medium	20	3	2	0	0	0
Sandy Creek	Stressed	Suspected	2	3,769	Medium	16	4	0	0	2	0
Long Pond	Threatened	Known	2	2,904	Medium	22	4	1	1	2	0
Little Black Creek	Stressed	Suspected	1	2,530	Medium	16	4	1	0	4	0
Buttonwood Creek	Stressed	Suspected	2	1,865	Medium	10	1	0	0	2	0
Finger Lakes	Unassessed	UnKnown	3	1,809	Low	0	0	0	0	0	0
Red Creek	Stressed	Suspected	1	1,806	medium	2	0	0	0	0	0
Buck Pond	Impaired	Suspected	2	732	Low	2	0	0	0	0	0
Webster(Roch Embayment E)	Stressed	Possible	3	189	Low	0	0	0	0	0	0
Mill Creek	Impaired	Non-Ag	3	138	Low	0	0	0	0	0	0
Shipbuilders Creek	Impaired	Non-Ag	3	86	Low	0	0	0	0	0	0
Round Pond	Stressed	Suspected	2	83	Low	0	0	0	0	0	0
Little Pond	Non-Ag	Non-Ag	2	0	N/A	0	0	0	0	0	0
Durand	Non-Ag	Non-Ag	3	0	N/A	0	0	0	0	0	0

*As perceived through SWCD AEM outreach and planning efforts