Franklin County Soil and Water Conservation District

Agricultural Environmental Management (AEM) Strategy

AEM YR. 16-18
2020-2025

Contact Information

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Franklin County Soil and Water Mission:

The mission of the Franklin County Soil and Water Conservation District is to promote wise management of our natural resources through a wide variety of quality conservation and educational programs to the landowners, land-users and municipalities of Franklin County.

AGRICULTURAL ENVIRONMENTAL MANAGEMENT
AEM

Background Information

What is AEM?

AEM is a voluntary, incentive-base program that helps farmers make common-sense, cost-effective and science-based decisions to help meet business objectives while protecting and conserving the State's natural resources. Farmers work with local AEM resource professionals (soil and water districts) to develop comprehensive farm plans using a tiered process:

- Tier 1- Inventory current activities, future plans, and potential environmental concerns.
- Tier 2- Document current land stewardship; assess and prioritize areas of concern.
- Tier 3- Develop conservation plans addressing concerns and opportunities tailored to farm goals.
- Tier 4- Implement plans utilizing available financial, educational, and technical assistance.
- Tier 5- Evaluate to ensure the protection of the environment and farm viability.

Funding through AEM:

In 2019 Ag and Markets changed the AEM Program from a one-year program to a two-year program and added a financial assistance cost share component. The change in this program allowed for the opportunity of funding smaller scale projects at a district level. This represents a significant opportunity for Districts to further partner with farmers toward the common goals of environmental conservation and farm viability according to local AEM Strategic Plans. The technical assistance and implementation projects supported by the AEM Base Program will continue to put boots and projects on the ground, while still working toward its core objective of water quality while also improving soil health, greenhouse gas mitigation, and resiliency.

Franklin County Mission Statement:

The mission of the Franklin County Agricultural Environmental Management program is to inventory and develop a plan to improve ag land by implementing environmentally sound practices through education and outreach, best management practices and strategies to improve water quality, soil health, and other natural resources.

Vision Statement:

The long-term vision of the Franklin county AEM program is to raise awareness county wide about potential agricultural impacts on our water quality and natural resources within the county and beyond. While raising awareness, we also strive to advance our environmental and stewardship practices on the ag land within the county and work with as many producers as possible to reduce resource concerns and improve water quality. Our intent is that this will improve the quality of our farmlands as well as improve the integrity of our lakes, streams, and other water bodies in the county.

Groups Involved:

Franklin County Soil and Water Conservation District
Clinton County Soil and Water Conservation District
Cornell Cooperative Extension
Franklin County Legislature
New York State Department of Environmental Conservation
New England Interstate Water Pollution Control Commission (NEWIPCC)
United States Department of Agriculture- Natural Resources Conservation Service
United States Department of Agriculture- Farm Service Agency
Franklin County Water Quality Coordinating Committee
Lake Champlain Basin Program
Franklin County Farmers
Franklin County Ag Land Protection
St. Regis Mohawk Tribe
Soil and Water Conservation Committee (SWCC)

Outreach Meeting:

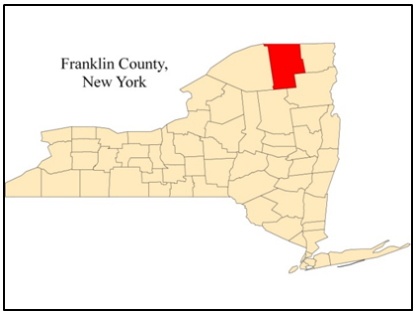
On August 12, 2020 Franklin County held two AEM Local working group meetings, at 12:30pm and 6:30pm at the Franklin County Fair Grounds. This meeting was held to review and collect information for this strategy. Our meeting provided insight and direction in developing the AEM Strategic Plan. During the meeting members voiced the need to study the data to discuss it further, a third meeting was held via zoom chat on September 22, 2020.

Additional Countywide Plans/Data Utilized:

- FC Agricultural and Farmland Protection Plan – (AFPP)
- FC Water Quality Strategy- (WQS)
- FC Comprehensive Economic Development Strategy- (CEDS)
- NYS Agricultural Census Data- 2017
- St. Lawrence Watershed Restoration Plan- 2020

Franklin County Narrative

Franklin County is located in the northeast quadrant of New York State and is the Northeast boundary of the St Lawrence River Watershed. It borders the Province of Quebec on the north, Clinton County on the east, Essex and Hamilton Counties on the south, and St. Lawrence County on the west. It is the fourth largest county in New York, with approximately 1,087,500 acres. The county is broken up by two different geographical areas. In the northern third of the county agriculture is the dominant land use and the southern two-thirds are located within the Adirondack Park which are predominantly woodland. The agricultural land is relatively flat and ranges from ancient beach front to lake laid sediments and plains, while the southern



portion, within the Adirondacks, are mostly made up of glacial outwash and tills. Soils vary in Franklin County due to the topographical changes from the mountainous regions to the Lake Plains of the St. Lawrence River valley. Soils in the lake plains tend to be very heavy with clay, the midsection has soils that are silt and sand mixtures, and the mountainous regions has soils that are gravel and sand mixtures. All farms drain into, for the most part, the St. Lawrence River basin, with some draining into the Lake Champlain basin. Specifically, erosion is a concern on some of the livestock and all of the vegetable production operations. Nitrogen in the ground water is a concern in over 50% of the watersheds that support vegetables and livestock, based on a Cornell University study.

Eighty percent of the county drains to the northwest and the St. Lawrence River, while twenty percent drains to the southeast to Lake Champlain. There are five major watersheds that drain to the St. Lawrence: Salmon, Trout, Chateaugay, Raquette and St. Regis; the Great Chazy- Saranac watershed is one major watershed that drains to Lake Champlain. There are hundreds of ponds and lakes and thousands of miles of rivers and streams throughout Franklin County. A substantial number of these water bodies have some form of dwelling on them, ranging from a small camp to hundreds of summer cottages along their shores. Almost all of these water bodies have been affected by some form of degradation from non-point sources of pollution - some from development, some from acid rain, and some from natural occurrences. Municipal water supplies serve residents in the Burke, Chateaugay, Tupper Lake and Villages of Malone, the Hamlets of Bangor, Brainardsville and St. Regis Falls, as well as the territory of Akwesasne. These are mostly surface water sources which are very susceptible to non-point pollution problems. Approximately forty-five percent of households in the county are on municipal waste water treatment systems. The remaining population is served by individual wells, a majority of which are drywells, and on-site waste disposal systems.

In Franklin County there are 6 large sub-region watershed areas (See attached map- HUC 8s). Within the larger watershed areas there are 20 hydrologic unit codes (HUC) 10s (watersheds), and 75 HUC 12s (sub-watershed). According to the DEC's Priority Waterbodies List, the County's water quality is being impacted in many different ways including but not limited to; nutrient run-off, non-point and point source contaminates, erosion, wetland degradation and elimination, stormwater, ground water contamination, fecal coli-form, siltation, sewage contamination, and poor economic planning.

Agricultural Statistics:

According to the 2017 NYS Agricultural Census data, Franklin County has 636 farms comprising 140,717 acres of land, which is a 12.94% of the land base in the county and is a (decrease) of about 0.36% since the 2012 Census. There was a decrease in the number of agricultural operations in the county from 688 in 2012 to 636 in 2017. The average size of farms has increase slightly by +5% since 2012 (211ac in 2012 to 221ac in 2017).
The farm land breakdown is as follows:

- 53% Cropland – as compared to 2012 (+51.6%)
- 9% Pasture – as compared to 2012 (-9.8%)
- 30% Woodland – as compared to 2012 (+29.6%)
- 8% Other – as compared to 2012 (-9%)

Livestock production remains as one of the largest agricultural uses of land in the county.

	2017	2012	Percent Change
Market Value of Products Sold	$83,384,000	$84,166,000	- 0.9%
Crop Sales	$16,077,000	$19,540,000	- 17.7%
Livestock Sales	$70,306,000	$64,626,000	+ 8.8%

Franklin County Crops Inventory:

Type	Quantity	State Rank
Grains, oilseeds, dry beans, dry peas	3,469	38
Tobacco	--	--
Cotton and Cottonseed	--	--
Vegetables, melons, potatoes, sweet potatoes	2,733	28
Fruits, tree nuts, berries	119	49
Nursery, Greenhouse, floriculture, sod	426	48
Cultivated Christmas trees, short rotation woody crops	228	13
Other crops and hay	9,102	16

Franklin County Livestock, Poultry, and Products Inventory:

Animal	Quantity	State Rank
Poultry and eggs	1,230	16
Cattle and Calves	6,024	26
Milk from cows	62,191	15
Hogs and pigs	194	10
Sheep, goats, wool, mohair, milk	124	43
Horses, ponies, mules, burros, donkeys	228	29
Aquaculture	279	9
Other animals and animal products	36	46

According to the Franklin County CEDs document agriculture accounts for 571 jobs in Franklin County, 3% of the employment industries. The employers above this are government, and hospitals/medical/health services. In Franklin County and in the North Country Agriculture is considered one of the larger employers. Agriculture related industries are clearly important to Franklin County and drives a large part of the economy.

Important Natural Resources:

Franklin County has a mixture of different landscapes ranging from open farmlands in the St. Lawrence River valley in the north to the rugged terrain of the Adirondack Mountains in the south. Many of the communities in the county are dependent on agriculture. The farmland in Franklin County is subjected to a relatively short growing season (May-September). A majority of the land in Franklin County is good for growing field and vegetable crops. Including but not limited to corn, alfalfa, soybeans, cool season grasses, small grains, seed and table stock potatoes, vegetable crops, small berries, and Christmas trees.

The county is home to over 350 ponds, lakes and hundreds of creeks, streams and rivers. Many of these lakes and streams in Franklin County are identified on the PWL as unassessed, this is a concern for our county because we have no baseline, meaning we have no way to see if our lakes or streams have issues and water quality concerns. The other half of the waterbodies in Franklin County are in good health, however it is important to note that these resources need to be protected from contamination and to not wait until they are in poor health to address issues and implement best management practices (BMPs). Very few lakes and streams are deemed as Impaired, Minor Impaired, and Threatened, as stated above this is a concern because keeping water clean is less expensive than cleaning it after it is contaminated. Surface water contamination from livestock production (nutrients from the manure), silage, erosion and other wastes produced from housing these animals are a concern for Franklin County.

Water resources to be protected:

Priority Waterbodies
Streams, Rivers, Lakes, and Ponds
Floodplains
Ground Water
Surface Water
Recreational Opportunities and Special habitats

From 1994-1995 the District, in collaboration with the WQCC and Paul Smith's College, conducted a water testing study to observe ground water contamination through leaching of nutrients in highly permeable soils (the levels of nitrates in local wells (i.e. wells, aquifers, karsts, underground springs). The study focused on agricultural areas in northern Franklin County. This project was funded through a grant from the NYSDEC. Wells with high levels of nitrates were found near heavily cropped areas. Through the AEM program, these farms have been educated on the importance of ground water contamination and Nutrient Management Plans, which have been completed on some of the farms.

From 2017-2018 the District revisited this testing method (especially of the high nitrate areas) within the northern part of the county to see if there have been any significant changes in the nitrate levels of these wells. Over 41 households within agricultural areas in the northern half of the county were all completely voluntarily tested. The samples were tested for nitrate, chloride and bacteria (*Total Coliform, and E. Coli*). The results of these tests found a majority of the homes tested came back with 0-2 mg/L nitrate, the rest of the results fell between 2-9 mg/L

nitrate, only one test came back as a high of 16 mg/L nitrate; this high result is currently being addressed through an Ag NPS grant. An attached map shows all plots tested and which HUC 10 they fall into; the hot spot found can also be seen on provided map (Labeled Franklin County AEM Nitrate mg/L). A graphic of the result table is also attached. The information collected will be used to better plan and develop the AEM Annual Action Plans, as well as current and further strategies. This information will also be able to assist with the submission of future Ag Non-Point Source Grants, CAFO, AEM Cost-Share Grants, and Climate Resilient Farming (CRF) Grants. Future activities will be based on this database and ranking. In the future, to track trends and hotspots, the district will be conducting this test annually as long as funding is available. The testing will be a county wide comprehensive program to assess the county's needs as a whole.

From the fall of 2015 to the spring of 2018 the district conducted bi-annual river sampling, maps can be seen in appendix. 25 samples are collected across the county in the spring and fall of each year at the outlet of each of the subregions (10-digit HUCs across Franklin County). Additional samples were collected at areas with high intensity agriculture. The samples were tested for dissolved oxygen, pH, salinity, conductivity, temperature, nitrate, total phosphorous, ammonia, nitrogen, turbidity, calcium/magnesium, and total Coliform. The tests were conducted at Life Science Laboratories (a certified lab) in Waddington, NY and in the field with a water quality probe purchased in 2015. The results from the sampling indicated: the general health of the water in Franklin County is good, there were however a few hot spots; these results aided in the submission and funding of a Waste Storage and Transfer system at this hotspot location. The information collected will be used to better plan and develop the AEM strategy and to assist with the submission of agricultural non-point grant, CAFO, AEM Cost-share, and CRF applications. The District will also continue testing when funding is available. Data from this sampling has been analyzed to develop maps and showcase high bacteria and nitrate levels within HUC 10 watersheds.

Past accomplishments in Agriculture Conservation through Agricultural Environmental Management (AEM) Program:

AEM began in 2004, over the last 16 years 261 producers have been assisted with planning and/or implementation projects. During the AEM program in Franklin County many Tiers have been completed, farmers were educated about the program and many outreach activities spread the word about AEM. Grazing Plans, Forest Conservation Plans, Farmstead Plans, as well as Crop Management (Soil Health) Plans have been implemented to address priority pollutants that have threatened water quality throughout the county. The county objective is to use the AEM process to update original information of past participating individuals, attract more individuals to participate, and to use this information to assist producers in identifying and mitigating resource concerns either with or without outside funding. Other local committees will also be able to use the gathered information to continue to assess existing and projected planning of watersheds based on residents own concerns.

Within the last 5 years there was an increase of 66% in participation in the AEM program. The number of Tier 1 and Tier 2s being completed have remained the same, however there has been a significant increase in the Tier 3 & 5. 82% of AEM participants have been interviewed by the

District to accomplish Tier 2. Of those participants, 37% have advanced to Tier 3 for conservation planning and 10% advanced to Tier 4 implementation of said conservation plans. Over 40 grazing plans have been compiled and completed within the last 5 years. Some grazing plans and systems have even been installed for beef cattle, pigs and horses. Forest management planning has significantly increase in the last 5 years. Over 40 plans have been completed, and many participants have spoken with NRCS to help receive funding to implement these plans or are working with district staff outside of funding to implement these plans. The District has had an increase in the number of Tier 5s that have been completed, 25% of participants have been interviewed by the District in the last 5 years.

The information from the AEM Program in Franklin County was used to justify federal, state and local sources of funding and technical assistance to many of these original participants. Privacy was of the up most importance to the individuals that participated. Federal, State and local programs were, and continue to be, dependent on internal directions delivered to the county by outside influences of national and state priorities.

The District has also been very successful in recent years in applying for and receiving cost share funding from the New York State Agricultural Nonpoint Source Abatement & Control Grant Program. This grant program was established in 1994 by the State of New York to assist farmers in preventing water pollution from agricultural activities by providing technical assistance and financial incentives. County Soil & Water Conservation Districts apply for the competitive grants on behalf of farmers and coordinate funded conservation projects. Grants can cost-share up to 75% of project costs or more if farmers contribute in the following two areas: planning- funds awarded to conduct environmental planning, and implementation- funds awarded to construct or apply management practices. The district received funding to implement best management practices on farms in round 18,19,20 and 23 through the Ag Non-Point Source Grant. Since 2015 the district has received 5 Ag NPS Grants. The District has active Ag Non-Point Source grants that are currently being implemented as of December 2018:

- Round 24: (two grants funded) Two farms implementing Waste Storage and Transfer Systems
- Round 25: (two grants funded) Two farms implementing Soil Conservation System, another farm implementing Silage Leachate Control and Treatment System
- Round 26: (four applications submitted) Currently waiting on official funded list

In 2018, the New York State Department of Agriculture and Markets invited Soil and Water Conservation Districts to submit proposals for funding under the CAFO Waste Storage and Transfer System Program. Program funds are available for the implementation of Waste Storage and Transfer Systems and associated practices on facilities regulated by one of the New York State Department of Environmental Conservation SPDES CAFO General Permits (GP-0-16-001 or GP 0-16-002) ("CAFO General Permits") that do not currently have a minimum storage capacity of six months for all their livestock covered by their CAFO General Permit. The goal of the CAFO Waste Storage and Transfer System Program is to provide cost-share funds through Soil and Water Conservation Districts to concentrated animal feeding operations (CAFOs) for the implementation of water quality protection projects that will establish manure storage capacity and/or reduce/prevent the nonpoint source contribution from agricultural activities. The District has received funding for 5 CAFO grants applications:

- CAFO Round 1: 4 Waste Storage and Transfer Systems throughout 4 different watersheds
- CAFO Round 3: 1 Waste Storage and Transfer System within the Chateaugay-English Watershed

In 2017, the New York State Governor created a voluntary program to help farmers take advantage of a growing market for high-quality foods. The New York State Grown and Certified Program promotes NYS producers who are meeting growing market demands for food that is safely handled and grown in an environmentally responsible manner. To aid farmers in meeting the food safety standards necessary for participation in the NYS Grown and Certified program, the North County received $500,000 from New York State Agriculture and Markets in 2018. This funding was available to participants located in Jefferson, Lewis, St. Lawrence, Clinton, Essex, Franklin, and Hamilton counties. The district aided 10 producers in applying for this funding; 8 of the 10 farms that applied were funded in Franklin County. 12 applications were funded throughout the region.

- 5 Maple Food Safety
- 2 Beef Food Safety
- 1 Swine Food Safety

In 2019, Ag and Markets changed the AEM Program from a one-year program to a two-year program and added a financial assistance cost share component. The change in this program allowed for the opportunity of funding smaller scale projects at a district level. This represents a significant opportunity for Districts to further partner with farmers toward the common goals of environmental conservation and farm viability according to local AEM Strategic Plans. The technical assistance and implementation projects supported by the AEM Base Program will continue to put boots and projects on the ground while still working toward its core objective of water quality while also improving soil health, greenhouse gas mitigation, and resiliency. The AEM Round 16 Tier 4 Cost-Share Program brought quite a bit of interest. The district funded four applications, and they are all currently active:

- Grant 1: Prescribed Rotational Grazing System within the Salmon River Watershed
- Grant 2: Pathogen Management System within the Salmon River Watershed
- Grant 3: Prescribed Rotational Grazing System within the Great Chazy-Saranac Watershed
- Grant 4: Prescribed Rotational Grazing System within the St. Regis Watershed

It is our intention to continue this work on Tier's 3 & 4 over the next 5 years of AEM. We are continuing to update our inventory and prioritization of each farm; it is necessary to continue to get projects on the ground.

Current AEM Data Indications:

All of the current participants of the AEM Program (since 2010) have been added to a database and mapped in GIS. The practices were ranked by priority and by watershed. This ranking has pointed out that the most needed practices in the county are manure management, pasture management, barnyard management, stream and floodplain management, soil management and petroleum storage management (see attached graphics). In summary:

- 28% of AEM participants have a priority level concern of 3 or higher regarding **Manure Management**
- 34% of AEM participants have a priority level concern of 3 or higher regarding **Pasture Management**. 34% have concern level of 1.
- 35% of AEM participants have a priority level 2 or higher concern regarding **Stream and Floodplain Management.**
- 36% of AEM participants have a priority concern level of 1 with **Barnyard Management,** while 32% have a priority concern of 3 or higher.
- The majority of AEM participants, 74%, have no concern about **Milk Center Wash Water**. However, 11% have major concerns.
- 46% of AEM participants have a no concern with **Soil Management**. However, 25%, almost half as many, have a high priority concern.
- There is no major concern with **Petroleum Storage Management**. However, more participants are becoming aware of the potential hazards associated with storing bulk petroleum products and 35% of participants have some concern of petroleum storage management.
- With 7% of farms in franklin county being Organic, the concern for **Fertilizer Management** is low, as seen by a majority of participants, 62% not having any concern. This is projected to only decrease as more AEM participants are looking to farm organically.
- **Feed Management** is of no concern to 57% of AEM Participants.
- A majority of AEM participants are interested in **Forest Management**, of those 81% do not have any concern with this practice.
- As is the same with fertilizer, 77% of AEM participants have no concern or not identified as a resource concern with **Pesticide Use and Storage Management**.
- 30% of AEM participants have a priority 2 or higher concern with **Waste Disposal management.**

A majority of the need for implementation of best management practices, listed as most needed, were within the **Salmon River watershed** followed by **Trout River watershed** and lastly the **Chateaugay- English Watershed.** (see attached maps, labeled as Franklin County AEM BMPs per Watershed)

Priority Natural Resource:

1) Water quality contamination of surface and ground water (including public drinking sources and recreational opportunities).
2) Erosion from some of the dairy and all of the vegetable crop operations.
3) Air quality from 10 CAFO sized operations**.**
4) Wildlife habitat degradation.
5) Forest management and best management practices.

Pest Management is another resource concern; insects, disease and invasive species have been on the rise in the past few years. This has become increasingly important to timber harvesters, forest

landowners, homeowners, municipalities, and local tribal groups. The Emerald Ash Borer is presently threatening the forests of Franklin County. Emerald Ash Borer was found on the Akwesasne Territory in 2018; Franklin County Soil and Water has been monitoring the spread since then and have found it has spread to the towns of Bombay and Fort Covington this is a spread of over 1.5 miles in one year. Another location was found, an outlier in the town of Malone. Our office is continuing this monitoring in the future and is currently working with APHIS to start biocontrol for EAB in 2021.

Japanese Knotweed is also an invasive species that is increasingly becoming important to our municipalities and farmers. Since 2018 FCSW has been monitoring this plant, documenting its location and size and creating maps for each town. Monitoring has encompassed the entire southern portion of the county and currently the towns of Brandon, Dickenson, parts of Bangor and parts of Moira have been completed. Aquatic invasive species have also made their way into the county and are threatening the habitat of many indigenous species. Franklin County SWCD will be working with the WQCC to apply for grants in order to monitor and slow the spread of these invasive species.

Franklin County Soil & Water Conservation District
AEM Yr. 16-18
AEM Strategic Plan 2021-2025

Local AEM Team Capacity

Expertise	**SWCD**	**NRCS**	**WQCC**	**FSA**	**Franklin County Legislature**	**CCE**	**NYS DEC**	**St. Regis Mohawk Tribe- Ag& Enviro. Division**
CCA						X		
Certified Planner		X						
Engineering Job Approval		X						
Biologic Monitoring	X	X				X	X	X
Outreach	X	X	X	X	X	X	X	X
Education	X	X	X			X	X	X
Program Evaluation	X	X	X	X	X	X	X	X
Program Administration	X							
Grant Writing	X							

Current Soil and Water District Staff:

District Manager: Chastity Miller
District Technician: Allycia Leach- Primary AEM Contact
District Forester: Kristin Ballou- Secondary AEM Contact

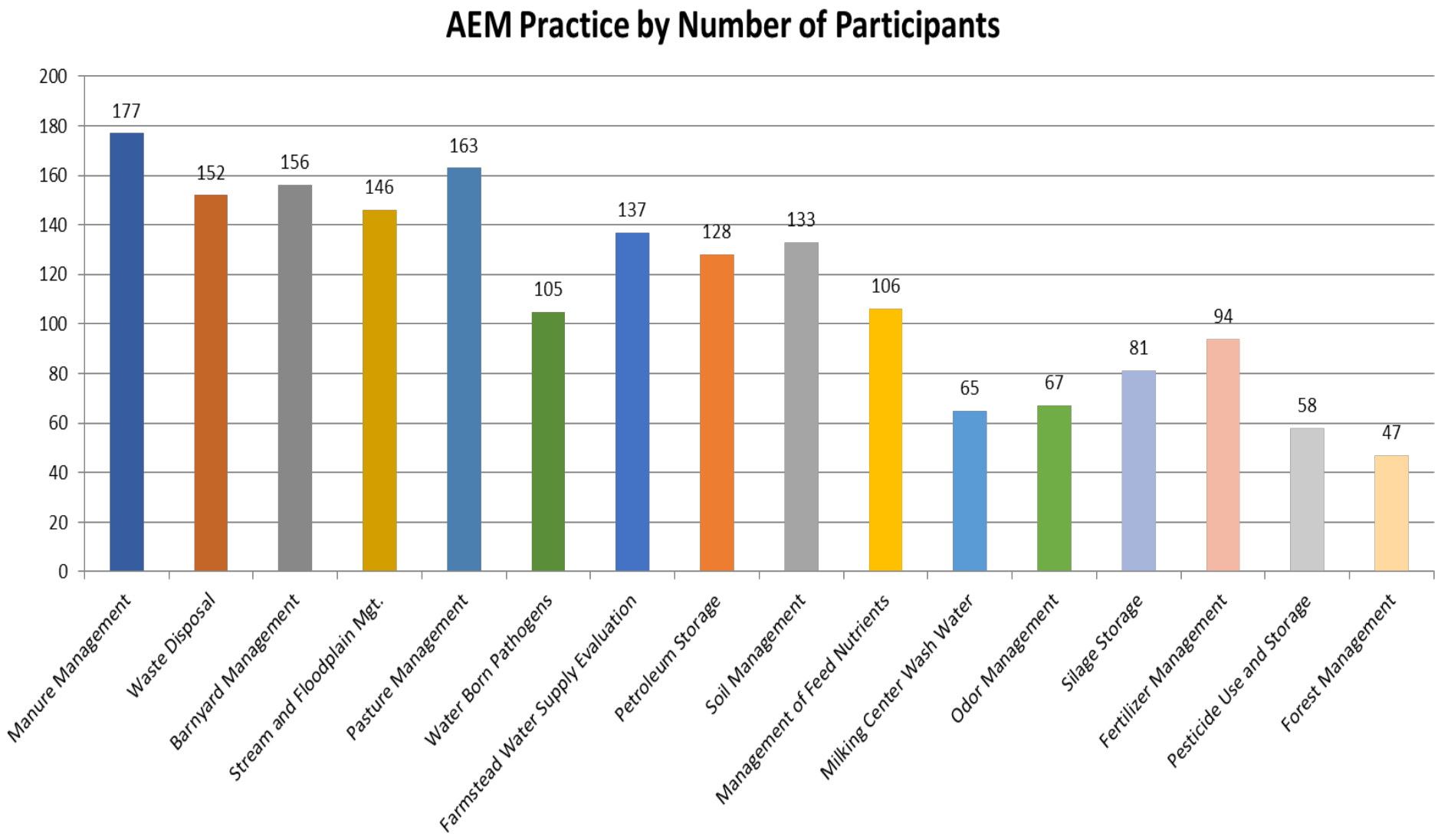
Franklin County AEM Program

SWOT Analysis

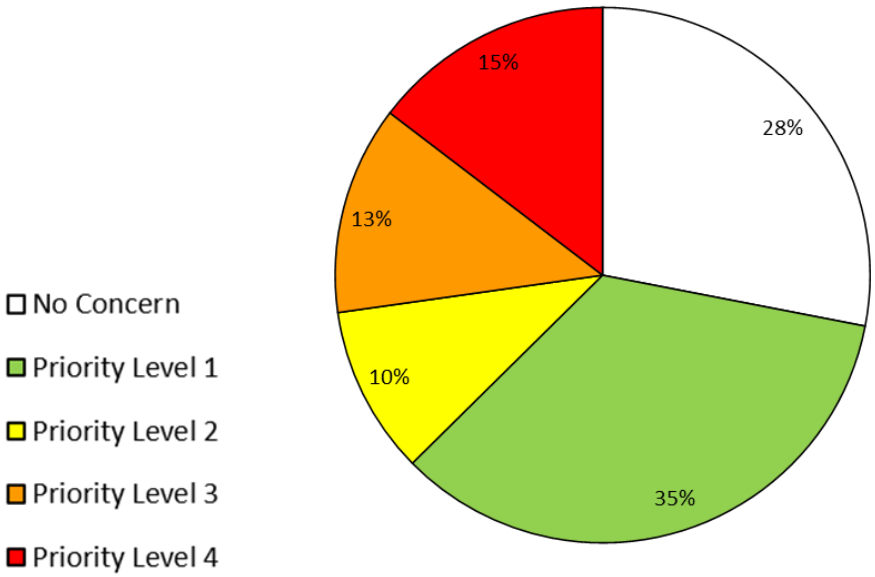
Strengths	Weaknesses
Active/Engaged SWCD and Farmers County Support Diversifying Farms Water Quality-Clean Water Variety/Availability of Funding Water testing Interaction/Interest from Plain Sect. Social Media outreach	Water Quality- Unassessed Streams and Lakes Clean Water Lack/ Decrease in staffing at state level Outreach to beginning farmers Workshops- need more Geographic Location Ag Education in School/Community
Opportunities	**Threats**
Agency Support Creativity in Communication (COVID) Plain Sect Newsletter Workshops/Education Ag Education in School/Community Southern end interest Farmer/Municipality/Farmers working together DAP- dairy acceleration program Soil health- No-till drill Water Sampling- River and Nitrate testing TMDL- Lake Champlain	Lack/Decrease in staffing at State level Small farms- selling out Large farms- increasing numbers Regulations Lack of Animal Processing Facilities Stakeholder priorities COVID→ Unstable markets Budgets (local, state, federal) Funding Availability Economic stability of farms

Data collected from two meetings August 12, 2020 and from a review meeting with local producers and legislatures

AEM Practices are ranked by priority; future activities will be based on this database and ranking. In compiling the AEM participation data and ranking the priority practices, we have determined the locations and the highest priority resource concerns. (2015-2019).

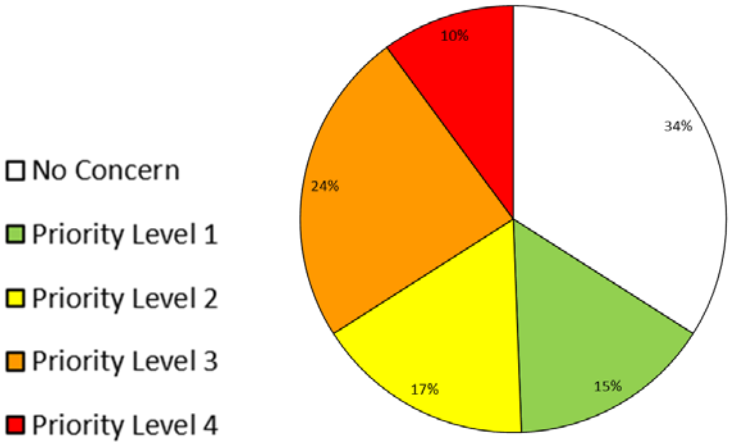


Manure Management

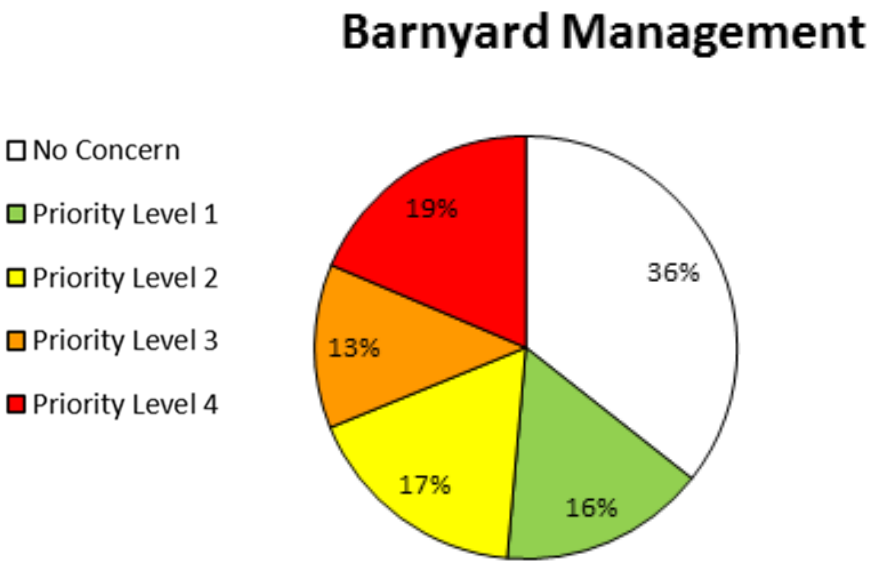


28% of AEM participants have a priority level concern of 3 or higher regarding Manure Management

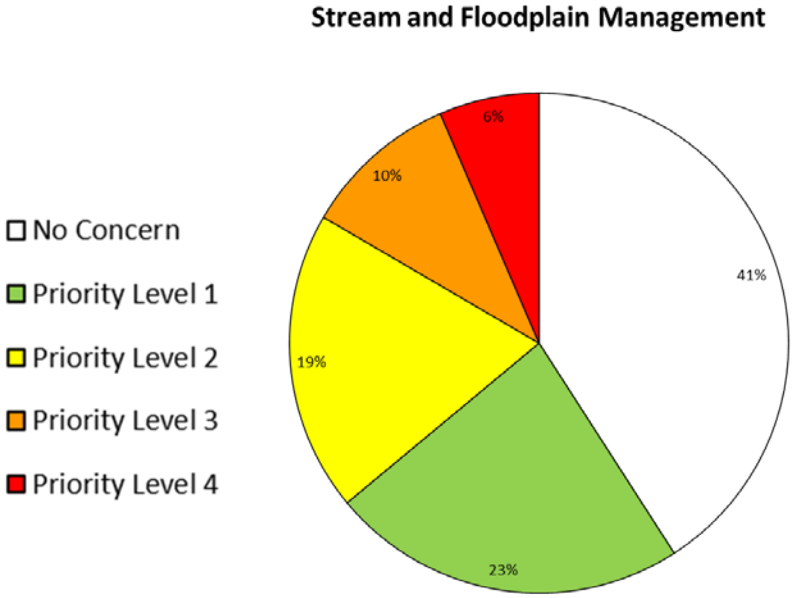
Pasture Management



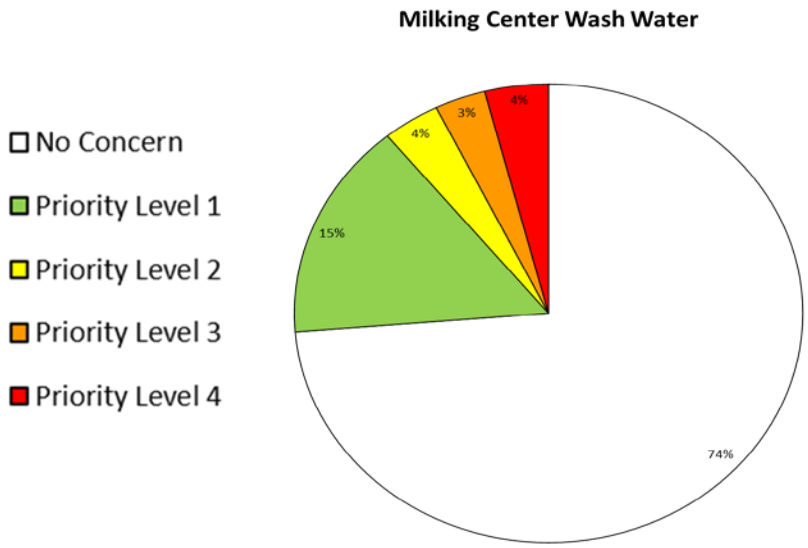
34% of AEM participants have a Priority level concern of 3 or higher regarding Pasture Management and % have a priority Level 1 concern.



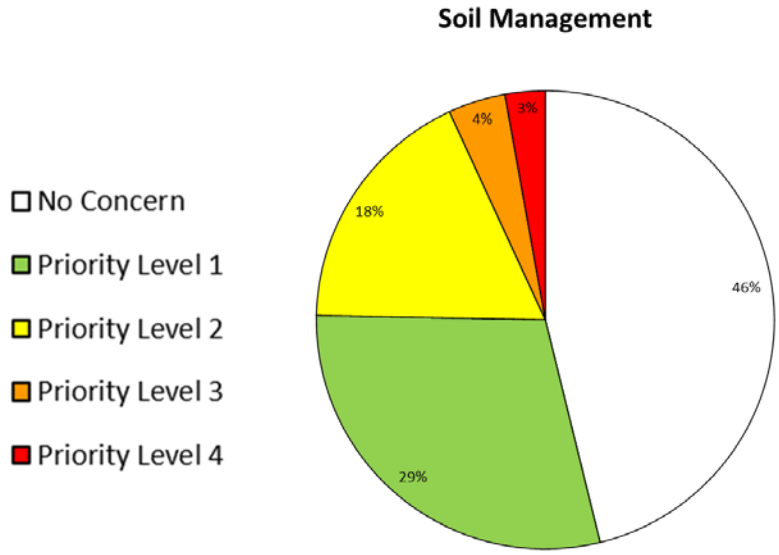
36% of AEM participants have no concern with barnyard management, however, 32% have a priority concern of 3 or higher.



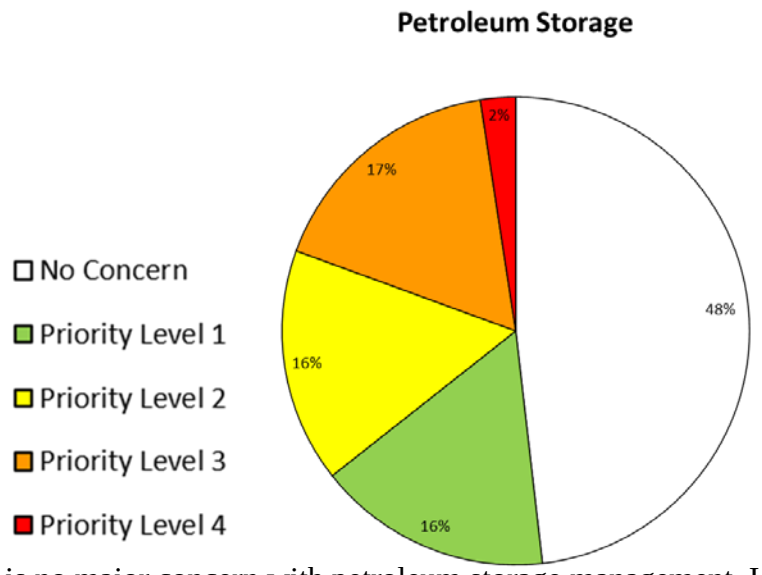
35% of AEM participants have a priority level 2 or higher concern regarding Stream and Floodplain Management.



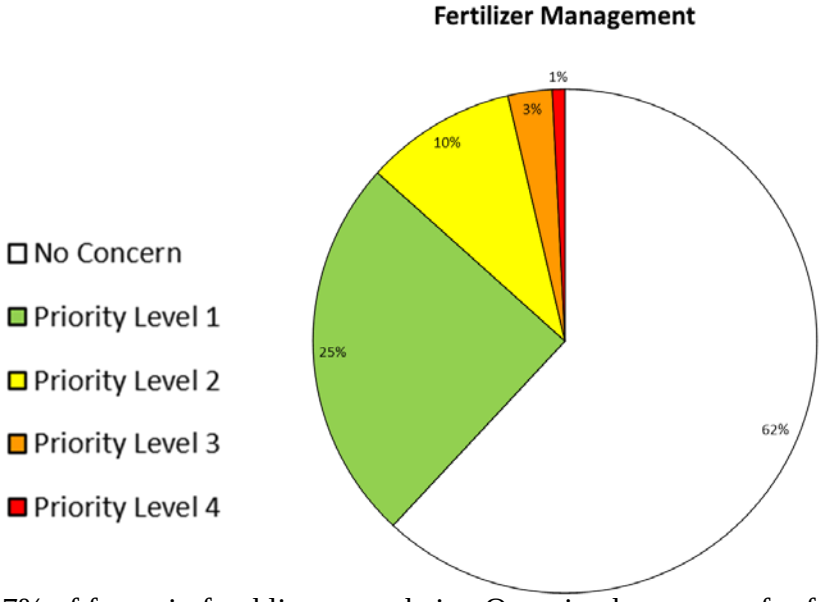
The majority of AEM participants, 74%, have no concern about milk center wash water. However, 11% have major concerns.



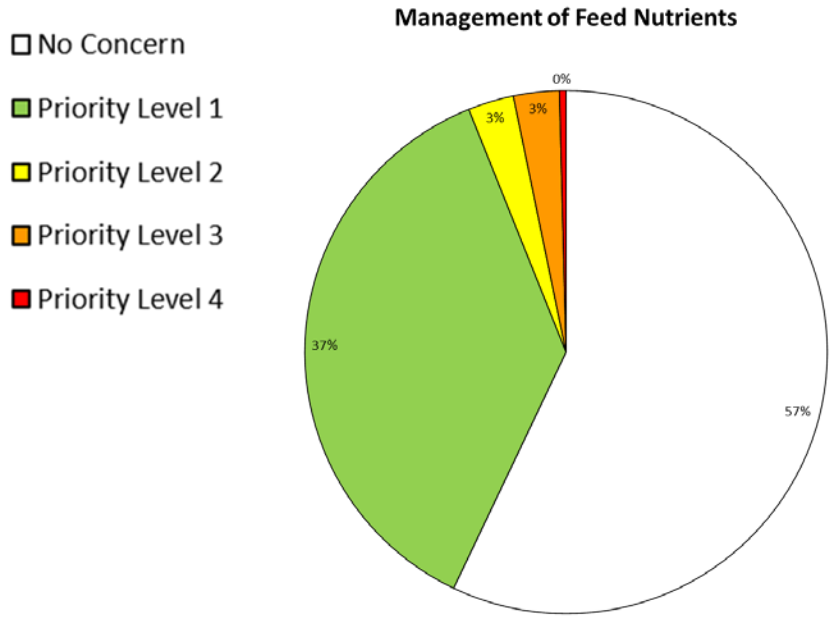
46% of AEM participants have a no concern with soil management. However, 25%, almost half as many, have a high priority concern.



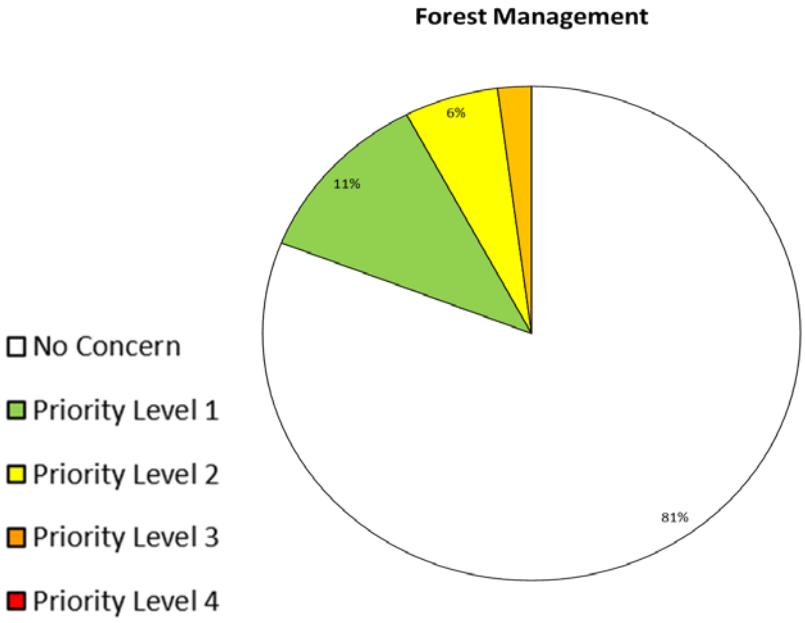
There is no major concern with petroleum storage management. However, more participants are becoming aware of the potential hazards associated with storing bulk petroleum products and 35% of participants have some concern of petroleum storage management.



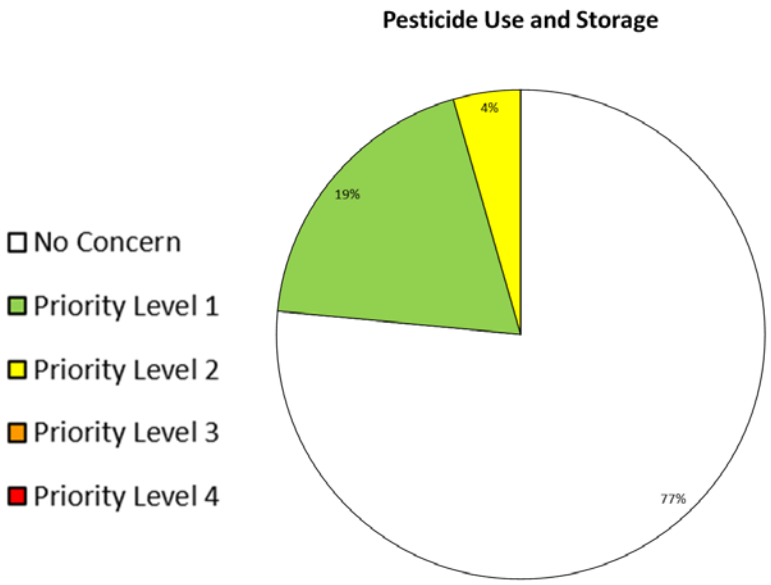
With 7% of farms in franklin county being Organic, the concern for fertilizer management is low, as seen by a majority of participants, 62% not having any concern. This is projected to only decrease as more AEM participants are looking to farm organically.



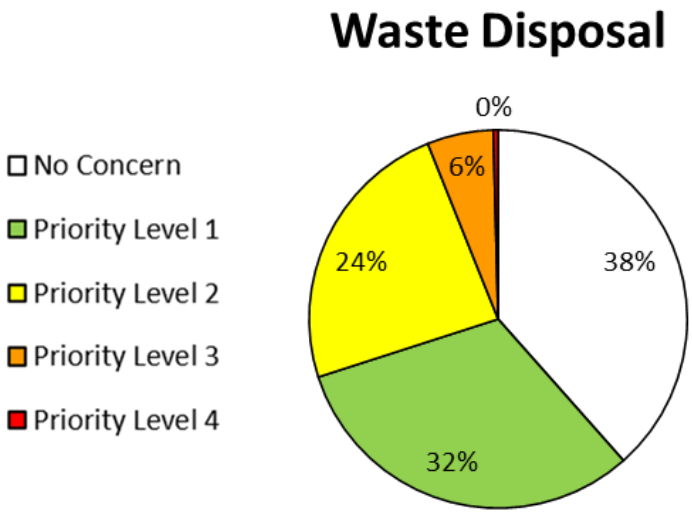
Feed Management is of no concern to 57% of AEM Participants.



A majority of AEM participants are interested in Forest Management, of those 81% do not have any concern with this practice.



As is the same with fertilizer, 77% of AEM participants have no concern with pesticide use and storage.



30% of AEM participants have a priority 2 or higher concern with Waste Disposal management.

Franklin County Soil and Water Conservation District
AEM Strategic Plan 2020-2025

The Agricultural Coordinating Committee will meet annually to assess the progress of AEM within each watershed. FCSW will track the data collected annually to better assess the AEM Program and what needs to be changed to increase participation and better assess our farms. Data from the years AEM visits will be recorded and an annual report will be generated. These annual data reports will serve as yearly "strategies" to aid in the AEM Annual Action Plans (AAP). The strategy will be used as a tool to weigh the accomplishments as we review what has been accomplished and what needs to be accomplished. Another important tool will be a GIS map showing where Tier 2's and 3's have been completed within the county. A map has already been established for all Tier 2 priorities completed in 2005-2020. This will help us in deciding where the most farms are and where the highest priorities lie. The map for 2015-2020 has been included in this strategy. The last map that has been included shows that watersheds in Franklin County that have participated in AEM to date. The southern portion of the county has increased AEM Participation in the last 5 years, we hope this trend continues, FCSW has seen more interest in the southern end in forestry and small farms.

Planning Unit Strategies:

I. Planning Unit Strategy for the Salmon River Watershed & Little Salmon River Watershed

Water Quality Problem Statement:

The Salmon River has received the majority of attention through government programs in past years. The river is classified as a C(T) trout stream with sections that are considered trophy fishing waters. Segments of the Salmon River are listed on the NYS DEC PWL and impairments such as fish consumption, propagation and survival are stressed or threatened with silt and sedimentation being the cause. Further studies concurred that ground water within the watershed was being contaminated by nitrates, leading to the theory that high fertilizer and manure applications were to blame because of the diversity of vegetable cropping and dairy farming in the watershed. This watershed has the highest number of and the largest farms in the county. Thousands of acres are cropped and farmed in this planning area. The ranking of best management practices has pointed out that the most needed practices in the county are Manure management, Pasture Management, Barnyard Management, Stream and Floodplain Management, Soil Management, and Petroleum Storage Management; the most need was within the Salmon River Watershed.

In 2011 Paul Smiths College conducted a project- Identifying Water Quality Degradation along the Length of the Salmon River, Franklin County, NY, using Macroinvertebrates and Rapid Bioassessment Techniques. This study identified 3 locations that were moderately degraded along the Salmon River. The first area is located in the Village of Malone, there is one in Constable and the last in Fort Covington. This study was preliminary to study the health of a major river in Franklin County, and additional parameters and studies are recommended. In 2011, the dam on Salmon River in Fort Covington was removed. The removal of this impoundment has caused some erosion and sediment issues upstream and we will continue to monitor these areas. The removal of this dam has also caused severe flooding problems in the Village of Fort Covington causing the installation of booms to help hold back the ice.

Suspected Sources of Problem:
Agriculture, road bank erosion, streambed and bank erosion and landfill contamination

Desired Future Condition:
Since the Salmon River has received the greatest attention from local working groups and programs, targeting AEM efforts will evaluate many existing projects as well as gather more information from farming operations that have not participated in the Tier 1 and 2 assessment. Evaluation will also assess success or failure of existing BMP's and be used as a tool to change planning strategy if needed. Outreach and education for farmers regarding activities such as cover cropping will also be important because runoff from farmland into the Salmon River has been a major concern.

Education and Outreach
The District is actively working with municipalities to address erosion runoff through the Area Rural Roads Assessment Program (AARA) report. This assessment is still on going, this assessment looks at water quality impairments based on our local roads and the impact they have on water quality. We utilize the data collected to write grants to implement erosion control practices in these areas. The District purchased a no-till drill and had a soil health program to address soil erosion and soil health issues. Since the purchase of this machine the district has had an increase interest in soil conservation, due to this we have had multiple workshops and have aided in the planting of 789 acres of cover crops. In 2020 Franklin County had planned on hosting a soil health workshop. To be more interactive the district created a "competition" called "Soil Your Undies"; Commercial farmers, High Tunnel Growers, and Home gardeners would bury a pair of cotton underwear for 6-8 weeks and bring their results to the workshop. The farmer with the healthiest soil in each category would win a prize. We also would have all participants interested enter their name for a FREE 50 acres of no-till use. Due to the pandemic the workshop was cancelled. The district hopes to revive the workshop in 2021.

Objective 1: Prioritize critical areas of the watershed needing treatment:

Tasks: Start 09/20 end 9/25 SWCD

*This is an on-going project that is constantly being reassessed each year.
Use the original Tier 2 assessments, Watershed Site Evaluation Worksheets and the database with the prioritized issues that need to be addressed to contact farmers and landowners about conducting Tier 3 or Tier 4 projects. Also conduct any Tier 1's and Tier 2's that may have been missed in 2010-2020. These will be added to the existing database.

Objective 2: Develop and implement plans for critical areas within the watershed:

Tasks: Start 09/20 end 09/25 SWCD

Conduct Tier 3 and Tier 4 on farms that have the most critical issues. This watershed is also in need of CNMP's on many farms as they are located on or near the Salmon, Little Salmon, and Pike Creek watercourses. Pasture management plans will also be a key component in fencing cattle out of these waterbodies to prevent streambank erosion and contamination.

Objective 3: Evaluate project success in addressing water quality concerns:

Tasks: Start 09/20 end 09/25 SWCD

Conduct Tier 5's in order to evaluate the success of the projects that have been implemented. Evaluate accomplishments of educational efforts put forth and re-plan if necessary.

II. Planning Unit Strategy for the Chateaugay & Trout River Watershed
Water Quality Problem Statement:
The main problem with the Trout River watershed is very little assessment has been completed to assess the water quality. There is no NYS DEC PWL sheet on this watershed. There have been, however, numerous water quality concerns based on site specific problems brought to the districts' attention by individual complaints, through NYSDEC regulatory affairs, and through the District's Tier 2 AEM assessments. Sections of the Chateaugay River are noted on the NYS DEC PWL and likewise has a history of individual and village-oriented complaints. Both Rivers are classified as C(T) trout streams. The village of Chateaugay has had hazardous contamination of their water supply from the taste and smell of manure during spring runoff events. This has been a yearly event recorded over a series of time. The NYS DEC PWL has sections of the Chateaugay listed as agriculture impairing the water supply with suspected pathogenic and nutrient contamination.

Documented Sources of Problem:
Agriculture

The existing Tier 1's and 2's that have been completed in the past 5 years, indicate that this watershed most needed implementation of BMP's is for barnyards and pasture management.

Desired Future Condition:
The AEM Process has verified and assessed the existing conditions of the farms and documented any other unknown concerns within the watersheds. This duel objective to document known and unknown problems was accomplished with Tiers 1 and 2. Further documentation will be gathered as we accomplish Tiers 3 and 4 through planning. The results will be a plan to rectify existing problems and a preventive of future problems. In 2018 one Manure Waste Storage and Transfer System was funded through Round 24 Ag Non-Point Source, in this watershed; it is currently being constructed. In 2019 one Soil Conservation project encompassing two farms was funded through Round 25 Ag non-point source, one of those farms is within this watershed and is implementing this project on 100 acres.

Objective 1: Prioritize critical areas of the watershed needing treatment:
Tasks: Start 09/20 end 09/25 SWCD

Use the original Tier 2 assessments, Watershed Site Evaluation Worksheets and the database with prioritized issues that need to be addressed to contact farmers and landowners about conducting Tier 3 or Tier 4 projects. Also conduct any Tier 1's and Tier 2's that may have been missed in 2010-2015. These will be added to the existing database.

Objective 2: Develop and implement plans for critical areas within the watershed:
Tasks: Start 09/20 end 09/25 SWCD

Conduct Tier 3 and Tier 4 projects on farms that have the most critical issues. Group farms with common issues in order to acquire grant money for critical issues. CNMP's should be conducted on many of the farms because many have expressed the need for manure storage and barnyard rectification.

Objective 3: Evaluate project success in addressing water quality concerns:

Tasks: Start 07/15 end 07/20 SWCD

Conduct Tier 5's in order to evaluate the success of the projects that have been implemented. Evaluate accomplishments of educational efforts put forth and re-plan if necessary.

III. Planning Unit Strategy for the Great Chazy- Saranac River Watershed

Water Quality Problem Statement:

The Great Chazy-Saranac River watershed lies completely in the jurisdiction of the Adirondack Park Agency within Franklin County. It is classified as a C(T) trout stream and the watershed is subject to higher standards for land use regulation because of being within the park. The NYS DEC PWL has the sections within the county as being stressed by siltation causing precluded fish propagation. Vegetable production is one of the main agricultural land uses in the area, along with forestry and an increase number of small farms. Erosion from practices such as clearcutting is also of concern. Within the Adirondack Park it is illegal to clear-cut more than 25 contiguous acres without acquiring a permit from the Adirondack Park Agency. For every 25 acres of clear-cut forest, there should be a 300-foot buffer between it and the next area harvested. There are no specific buffer requirements for buffering streams unless they are wild, scenic and recreational where there is a ¼ mile corridor along the river with limited harvesting. This is especially important for certain wildlife habitats. Forestry practices have not been properly monitored in the past, so education is the key in the future.

Suspected Sources of Problem:

Forestry, septic systems, agriculture, road bank, streambed and bank. Road sanding and salting may also contribute.

Desired Future Condition:

The Great Chazy-Saranac River is Franklin County's only contribution to the greater Lake Champlain watershed. The information collected through AEM will serve as to educate farmers and foresters as to the Best Management Practices. Vegetable crop producers will also gain the insight to Nutrient Management and Pest Management standards. We would also like to continue to reach out to smaller farmers in the area and educate them on farming BMPs, as well as how properly managing their woodlots can provide a diversified income for the landowner. Landowners can manage their forestland to generate a specific "crop" such as timber and other wood products, maple syrup, wildlife and recreation, or firewood. Farmers can gain more income from the farm by including forest-related activities as part of their production strategy.

Objective 1: Prioritize critical areas of the watershed needing treatment:

Tasks: Start 09/20 end 09/25 SWCD

Use the original Tier 2 assessments, Watershed Site Evaluation Worksheets and the database with prioritized issues that need to be addressed to contact farmers and landowners about conducting Tier 3 or Tier 4 projects. Also conduct any Tier 1's and Tier 2's that may have been missed in 2010-2015. These will add to existing database.

Objective 2: Develop and implement plans for critical areas within the watershed:

Tasks: Start 09/20 end 09/25 SWCD

Conduct Tier 3 and Tier 4 projects on farms that have the most critical issues. Group farms with common issues in order to acquire grant money for projects that are the most critical.

Objective 3: Evaluate project success in addressing water quality concerns:

Tasks: Start 09/20 end 09/25 SWCD

Conduct Tier 5's in order to evaluate the success of the projects that have been implemented. Evaluate accomplishments of educational efforts put forth and re-plan if necessary.

IV. Planning Unit Strategy for the St. Regis & Raquette River Watersheds

Water Quality Problem Statement:

The St. Regis and Raquette River watersheds are both shared by Franklin and St. Lawrence Counties. Parts of them are in the Adirondack Park jurisdiction and also run through the Akwesasne Native American Reservation. There are also parts in the watershed with the major land use being agriculture. As with many of the other watersheds these have segments that are listed on the NYS DEC PWL with impairment of fish consumption from heavy metals. They are also classified as C(T) trout streams. Agricultural areas add possible nutrients and other pollutants to segments of these watersheds.

Suspected Sources of Problem:

Agriculture, road bank, streambed and bank and silvicultural erosion. Road sanding and salting may also contribute. Air depositions of acid rain is also a major factor.

Desired Future Condition:

Assessments based on gathered information through Tier 1, 2, 3, 4 and 5 will serve as preventative action to educate farmers and foresters as to the Best Management Practice to ensure erosion control while fully using the land. Dairy producers will also gain the insight to nutrient management standards.

Objective 1: Prioritize critical areas of the watershed needing treatment:

Tasks: Start 09/20 end 09/25 SWCD

Use the original Tier 2 assessments, Watershed Site Evaluation Worksheets and the database with prioritized issues that need to be addressed to contact farmers and landowners about conducting Tier 3 or Tier 4 projects. Also conduct any Tier 1's and Tier 2's that may have been missed in 2010-2015. These will be added to the existing database.

Objective 2: Develop and implement plans for critical areas within the watershed:

Tasks: Start 07/15 end 07/20 SWCD

Conduct Tier 3 and Tier 4 projects on farms that have the most critical issues. Group farms with common issues in order to acquire grant money for projects that are the most critical.

Objective 3: Evaluate project success in addressing water quality concerns:

Tasks: Start 07/15 end 07/20 SWCD

Conduct Tier 5's in order to evaluate the success of the projects that have been implemented. Evaluate accomplishments of educational efforts put forth and re-plan if necessary.

Ideas for Including Education in AEM Communication Plan
Outreach, Education and Public Participation

Priority Audience	Message	Possible Activities	Who	When	Desired Results
Local Farm Organizations	1) Farming with environmentally sound methods can increase production and decrease costs. 2) Work with SWCD/NRCS/CCE to develop AEM in Franklin County.	1) Send letter, follow by phone call 2) Presentation at organizations' meeting- AEM past and present 3) newsletters 4) workshops	NRCS/ SWCD FSA/ CCE	At start of AEM contract During the first year AEM contract All the time as needed/requested	Inform local groups about program availability and benefits and encourage participation through their organizations
Conservation District Cooperating Farmers, owners and renters	AEM can advance stewardship on your farm AEM Tier 1&2 can help ID of potential concerns Tier 3 & 4 can address the concerns Tier 5 follow-up to make sure project was a success.	Farm Visits conducting Tier 1&2 for those that have not been completed Plans established/ implemented on high priority farms Presentation for farmers Brochure Newsletters/Workshops	NRCS/ SWCD FSA/ CCE	During the first year AEM contract At start of AEM contract	Farmers are aware of environmental issues on their farms Farmers are aware of assistance available and wish to complete Tier 1&2, as well as Tier 3 Farmers take initiative to improve high areas of concern on their farms
All Activities that support efforts aimed at Priority Audiences	Explain how AEM is working to help farms address environmental issues in Franklin County & how it has helped in the past AEM local effort helps farms, protects the environment and benefits the community watershed	Brochure Article in local paper at kick off explaining AEM with contact information Results in yearend report and County presentation Newsletters	NRCS/ SWCD FSA/ CCE	At start of AEM contract	Explain AEM and give contact information Assess success of efforts and present to local officials

AEM Evaluation Strategy

Evaluation Level	Evaluation Factors	Evaluation Measures	Feedback Mechanism	When Feedback Needed	Responsible Party	Desired Results
Program	Effectiveness of conservation program	Federal & State conservation program education, attendance of meetings, inquiry and participation levels Tier 1 & 2 assessments completed. Tier 3's are underway	Comparison of conservation program participation levels this year vs. last year % AEM farms participating in conservation programs Review of programs being	On going	NRCS/SWCD FSA/CCE	AEM assessment tool used to educate, assess and make changes in farming practices and local conservation needs

			implemented vs. watershed needs			
Watershed	Agriculture's importance to a community	Level of community support for Ag Level of community awareness of the environmental benefits of Ag Number of Ag related complaints	Number of participating producers from each watershed Number of plans being implemented	On going	NRCS/SWCD FSA/CCE	Community supports and encourages local agricultural enterprises Community perceives farms as good neighbors
Farm	Extent best management practices implemented	Sampling and physical observation of sediment and nutrients in nearby water bodies. Soil sampling & manure sampling	N/A	N/A	N/A	Improved nutrient management for reduced potential for nutrient runoff and soil loss to nearby waterbodies

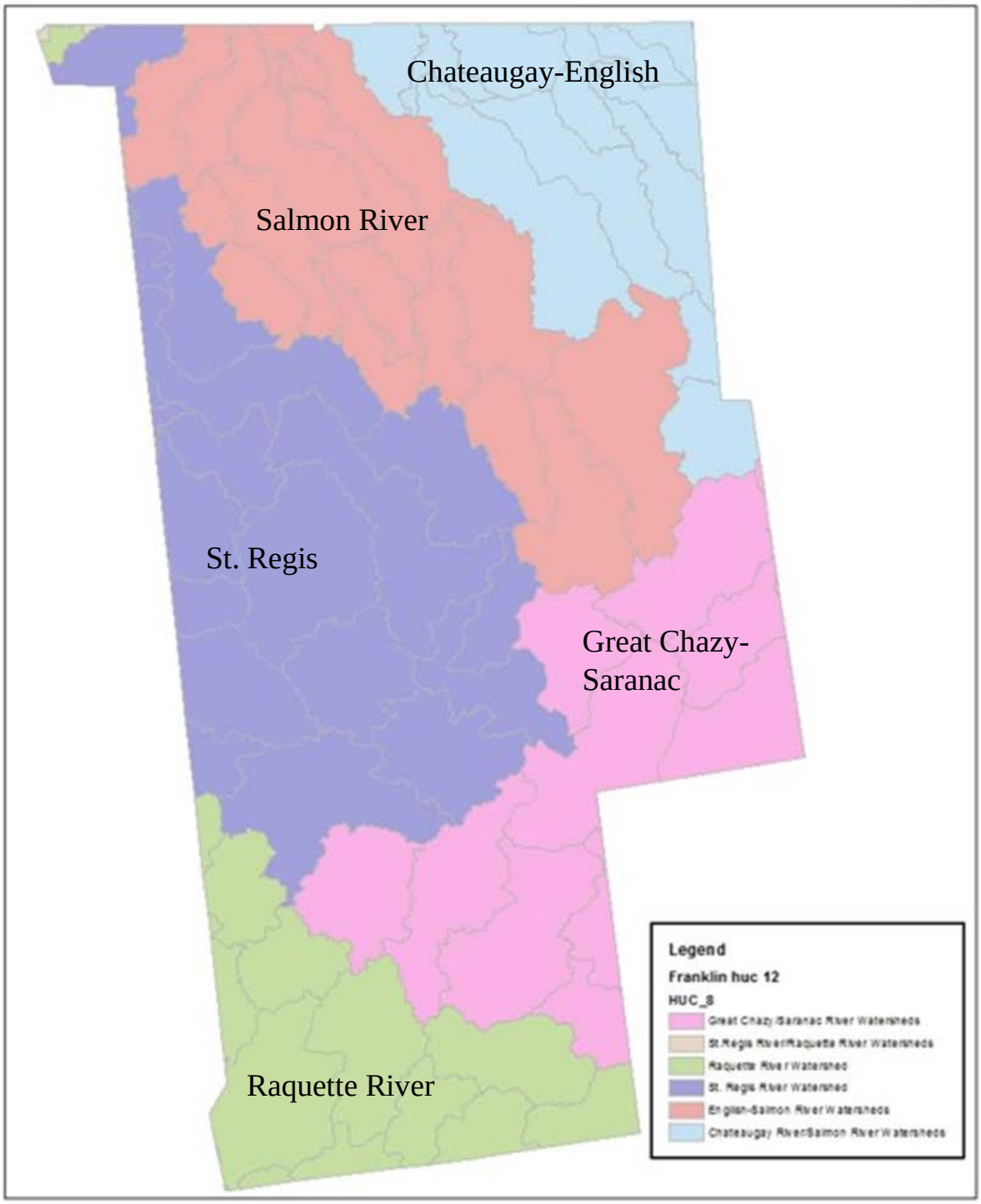
Sub-Watersheds: 12 HUCs

Priority #	Planning Area (Watershed)	12 – Digit HUC (s)	Water Quality Issue(s) from AEM Strategy, PWL, WQCC, etc.
1	Chateaugay-Salmon	041503080101 041503080103 041503080104 041503080503 041503080303 041503080304 041503080301 041503080302 041503080202 041503080203 041503080204 041503080205 041503080201	AEM Strategy identifies this watershed as a high priority because of surface and ground water contamination from agriculture. Lower Chateaugay Lake and Narrows are suspected to be stressed due to nutrients and pathogens from agriculture. Upper Chateaugay Lake is listed as impaired due to metals from atmospheric deposition and there is also the possibility of nutrient and pathogen contamination from agriculture. Lack of assessment of this watershed is a main concern.
2	English-Salmon	041503070103 041503070102 041503070104 041503070101 041503070201 041503070202 041503070204 041503070203 041503070205 041503070301 041503070305 041503070306 041503070304 041503070302 041503070303	PWL identifies this watershed as threatened due to silt/sediment from hydro modification. There are also a number of farms located on the banks of the Salmon River that are contributing to surface and ground water contamination. East Branch Deer River has minor impacts due to nutrients from agriculture. Branch Brook/ Titus Stream also has pathogen impacts from agriculture and urban/stormwater runoff. Pike Creek has minor impacts due to nutrients from agriculture. Lack of assessment of this watershed is a main concern.
3	Great Chazy-Saranac	020100060301 020100060302 020100060303 020100060304 020100060103 020100060101 020100060104 020100060102 020100060202 020100060203	PWL lists segments of this watershed as impaired because of metals due to atmospheric deposition.

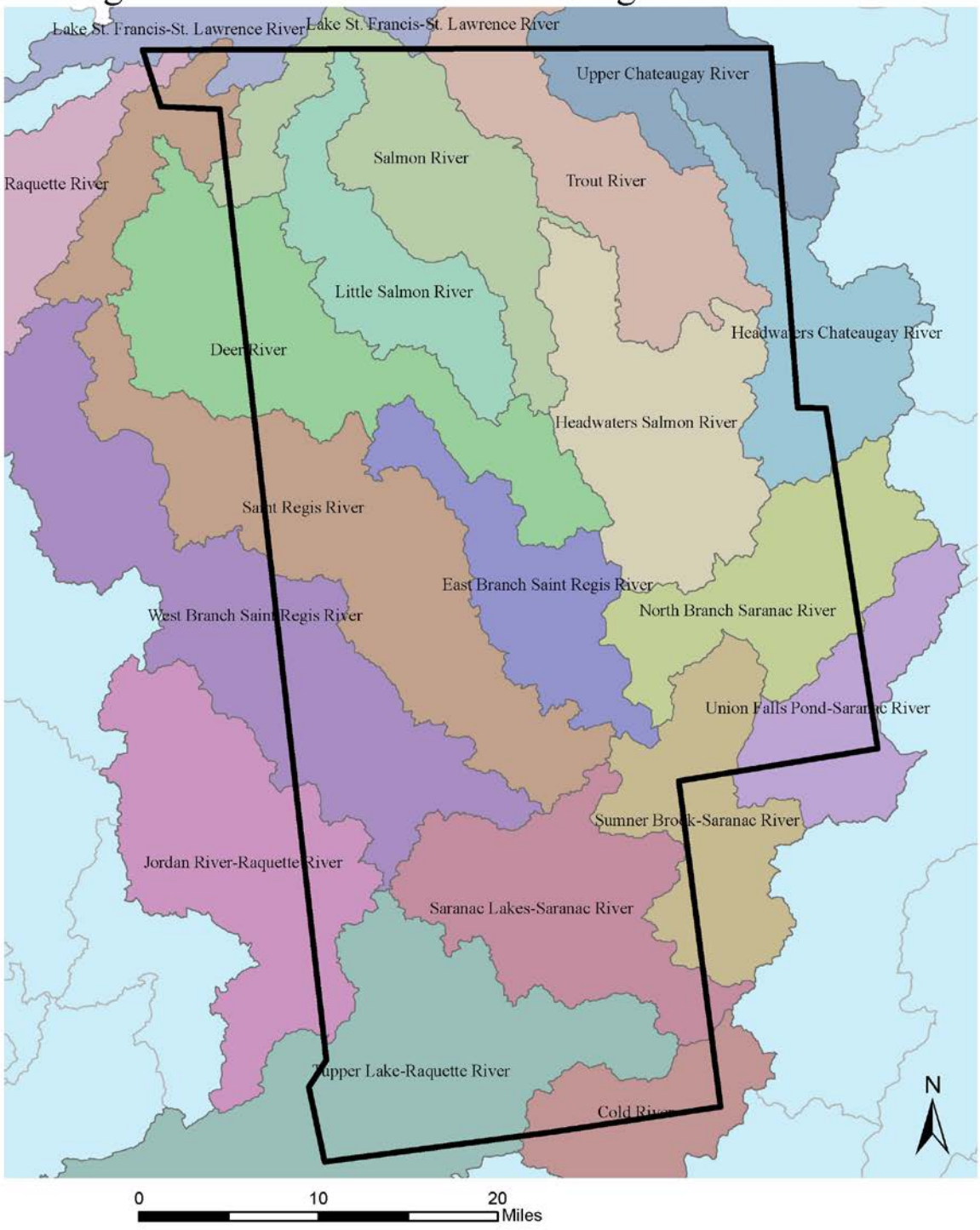
		020100060401	
4	St. Regis	041503060301 041503060302 041503060303 041503060304 041503060305 041503060102 041503060103 041503060101 041503060402 041503060407 041503060409 041503060405 041503060401 041503060403 041503060404 041503060202 041503060204 041503060201 041503060203	PWL lists segments of this watershed as impaired because of pH issues due to atmospheric deposition. Much of this data was collected more than 20 years ago.
5	Raquette	041503050203 041503050201 041503050502 041503050503 041503050504 041503050706 041503050401 041503050407 041503050406 041503050405 041503050403 041503050402 041503050409 041503050404 041503050408	PWL lists segments of this watershed as impaired because of metals and pH issues due to atmospheric deposition.

Franklin County
AEM Strategy
2020-2025
Appendix

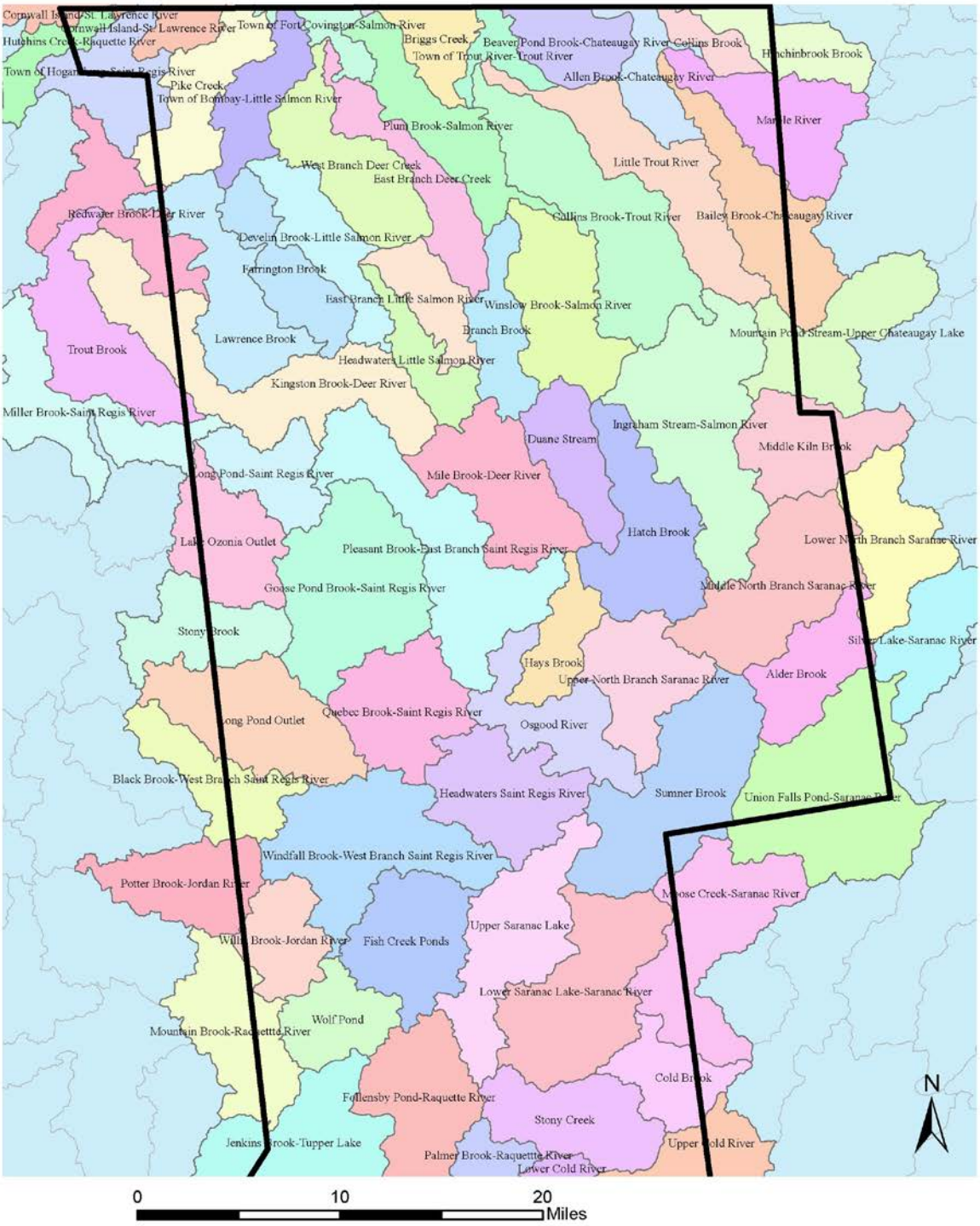
HUC - 8 Watershed Map



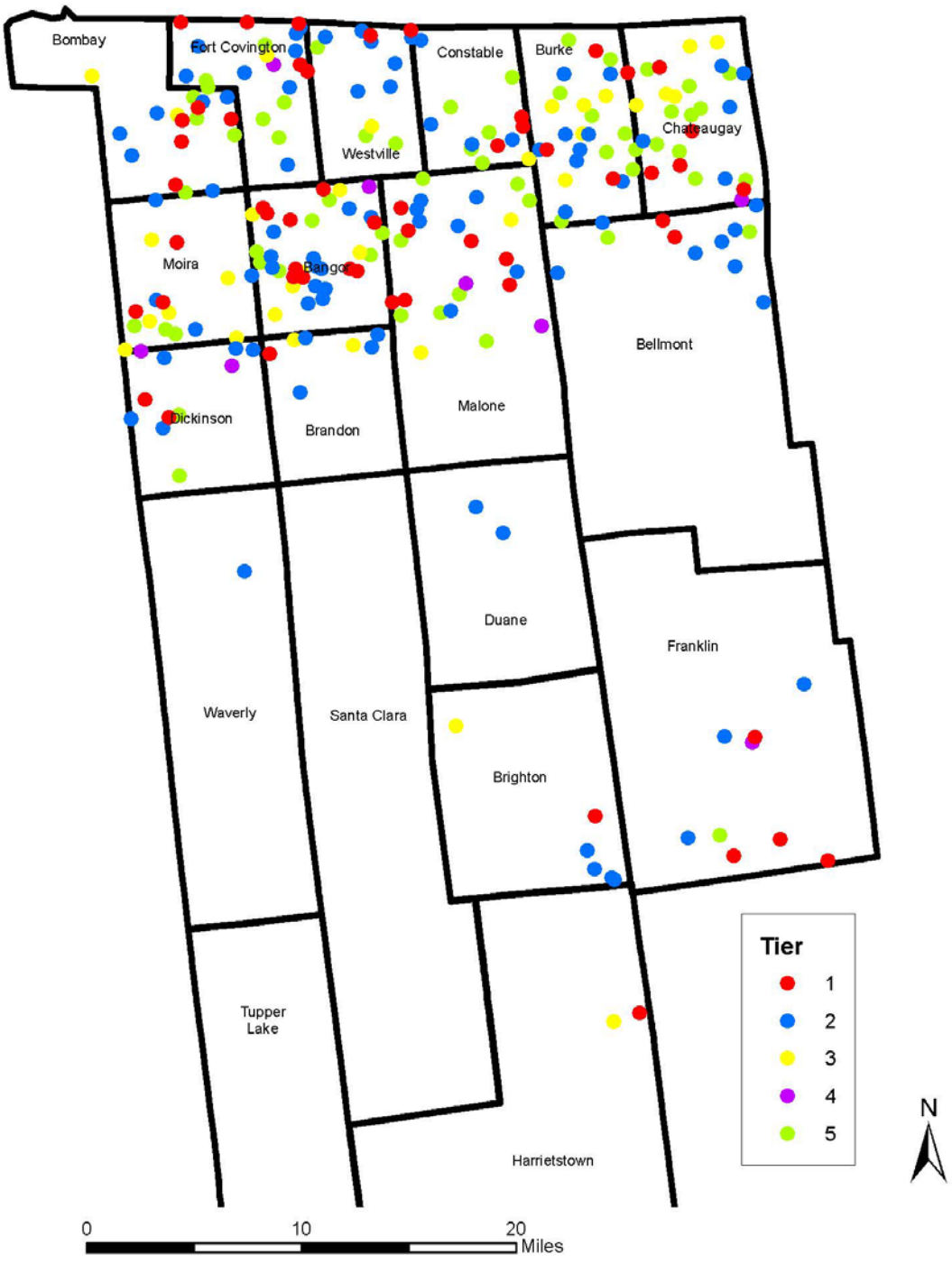
Franklin County
Agricultural Environmental Management - HUC 10



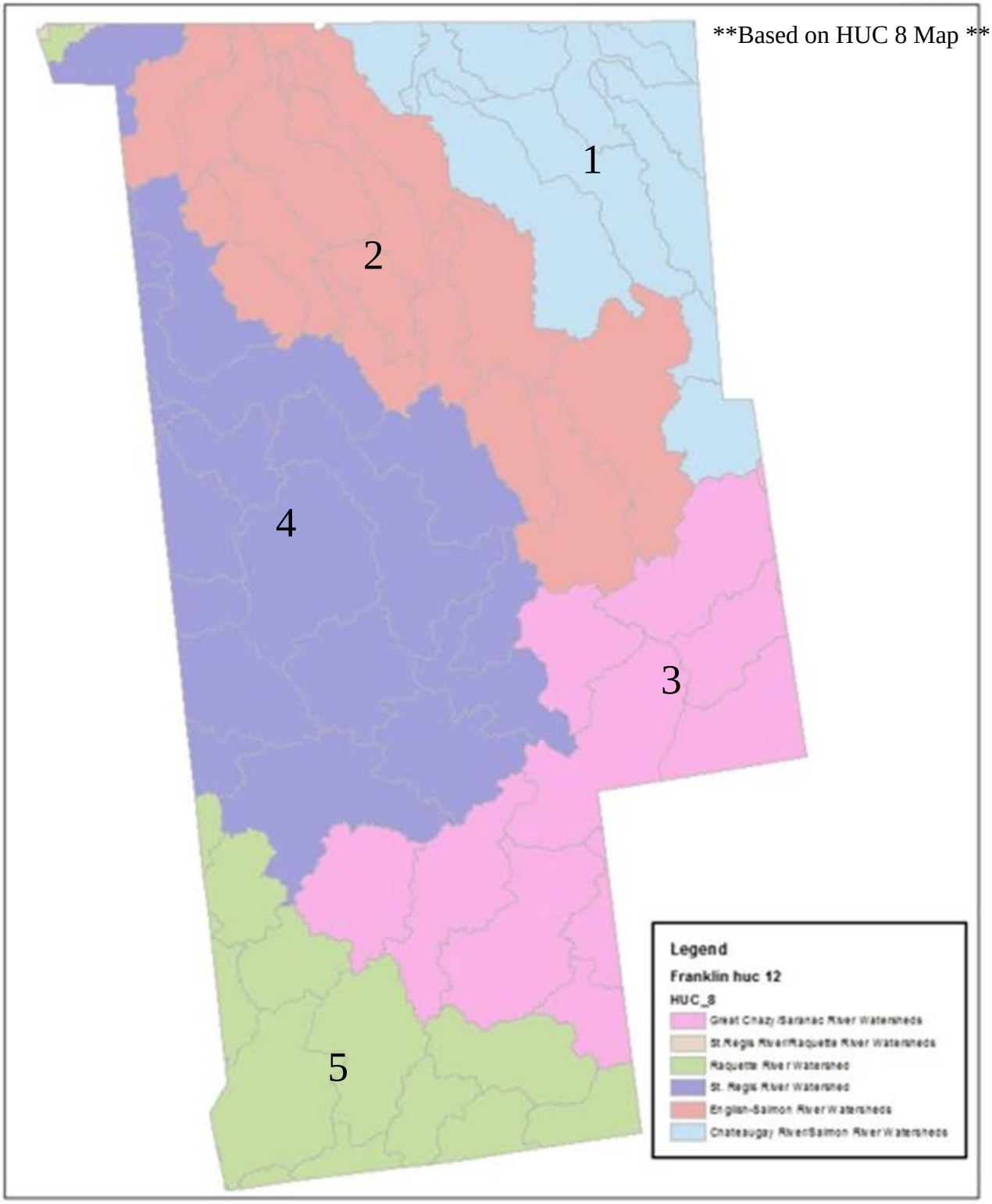
Franklin County
Agricultural Environmental Management - HUC 12

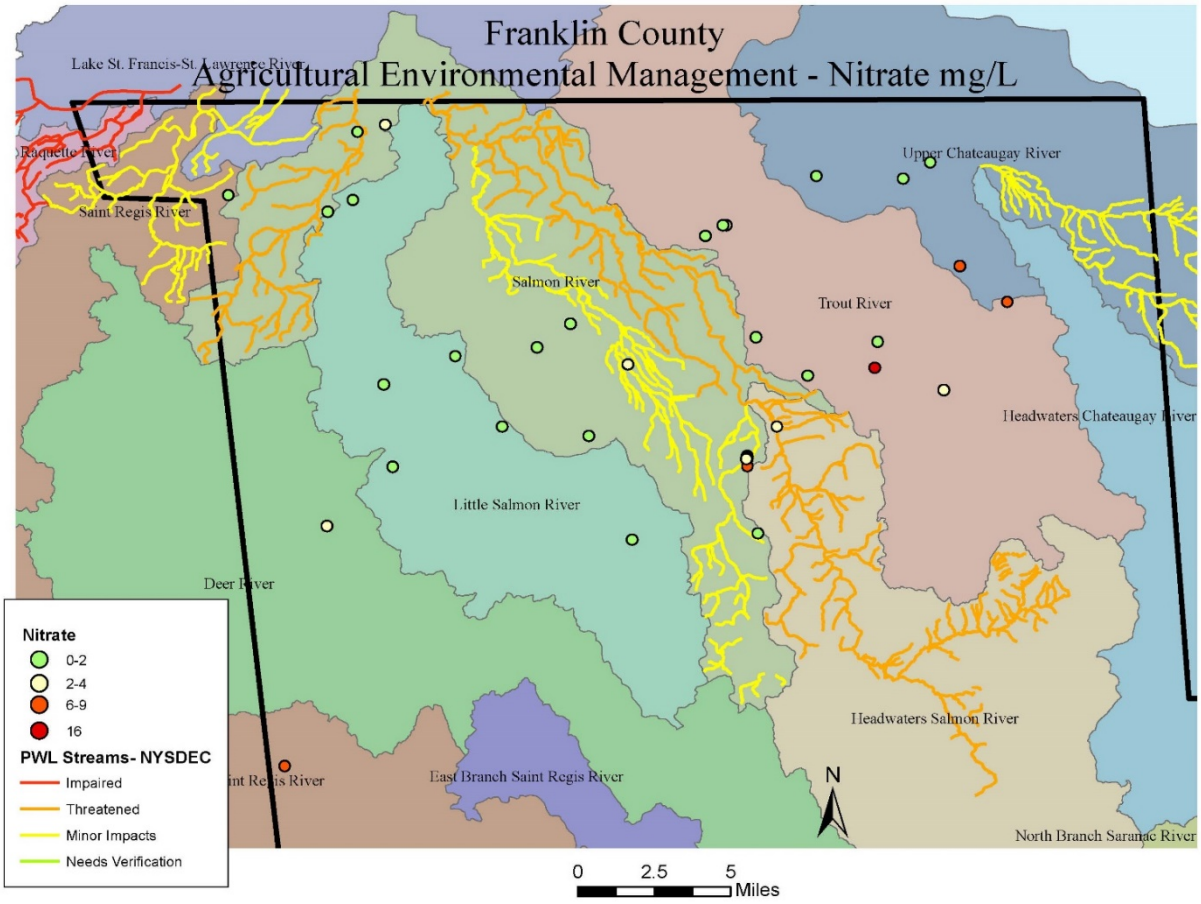


Franklin County
Agricultural Environmental Management - TIERs



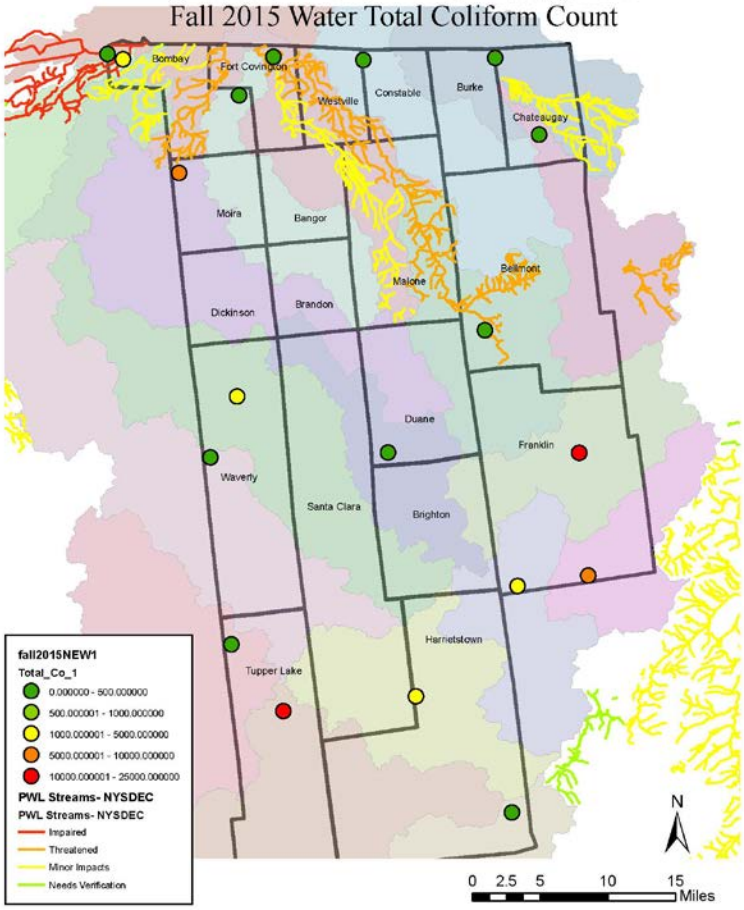
Franklin County
Priority Watersheds



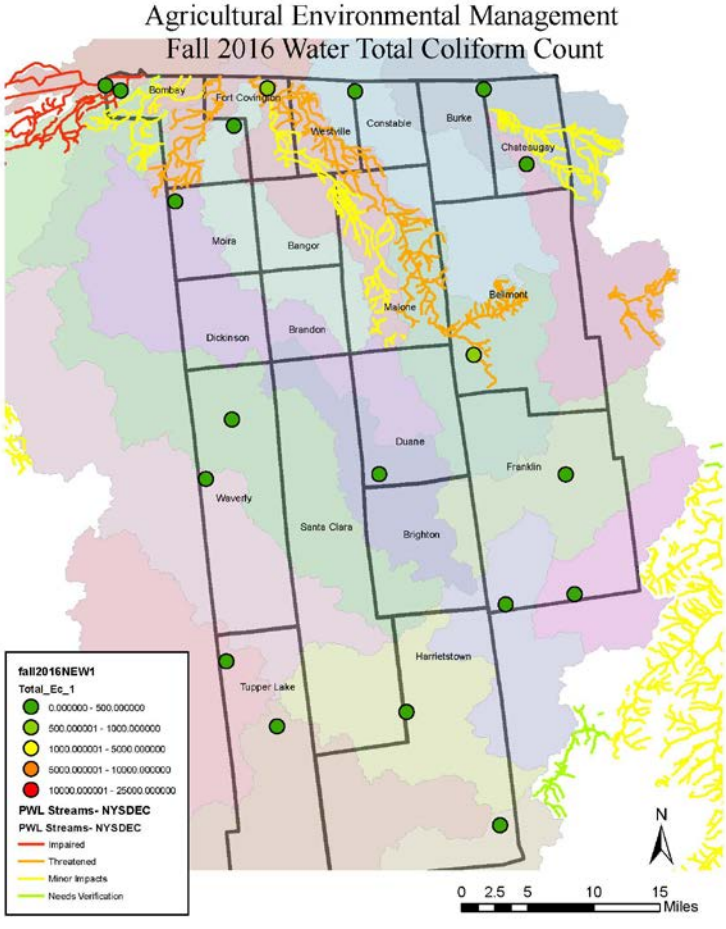


Number	First Name	Last Name	Address	Town	State	Zip	CL	Nitrate
135						12953	17.00	16
153						12966	32.00	0
79						12966	0.00	0
141						12953	5.00	2.1
7						12953	5.90	1.3
162						12953	4.20	2.9
165						12916	12.00	1.4
8						12953	22.00	9.7
151						12953	14.00	2.4
150						12953	22.00	2.3
110						12953	18.00	3.6
149						12953	18.00	2
163						12916	86.00	2.2
24						12966	3.20	1.5
54						12953	6.50	0
154						12937	93.00	0
155						12937	260.00	3
164						12980	70.00	6.1
38						12914	220.00	0
66						12914	130.00	0
66B						12915	4.50	6.6
156						12914	48.00	0
158						12926	1.50	0
57						12917	4.60	0
166							24.00	0
120						12926	17.00	0.53
152							49.00	3.4
157						12926	8.80	0.14
160						12920	8.20	8.6
161						12920	6.90	4.3
39						12920	8.20	6.7
49						12966	22.00	1.6
96						12953	8.90	0
29						12953	27.00	0
131						12916	3.00	0
147						12916	4.50	0
56						12966	28.00	0
159						12966	26.00	2.5
148						12953	0.00	0.97
148A						12953	2.20	0

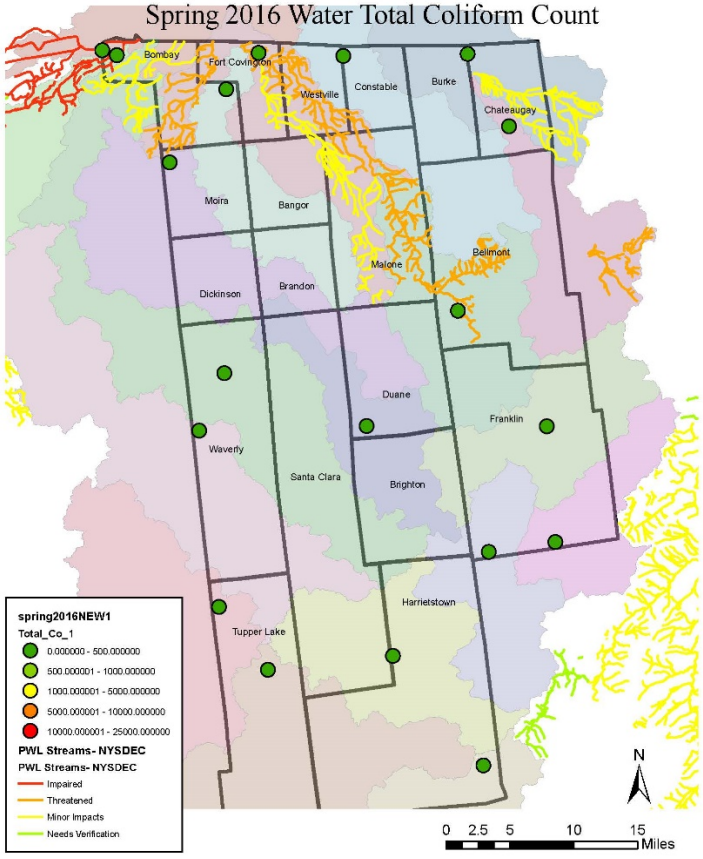
Franklin County
Agricultural Environmental Management
Fall 2015 Water Total Coliform Count



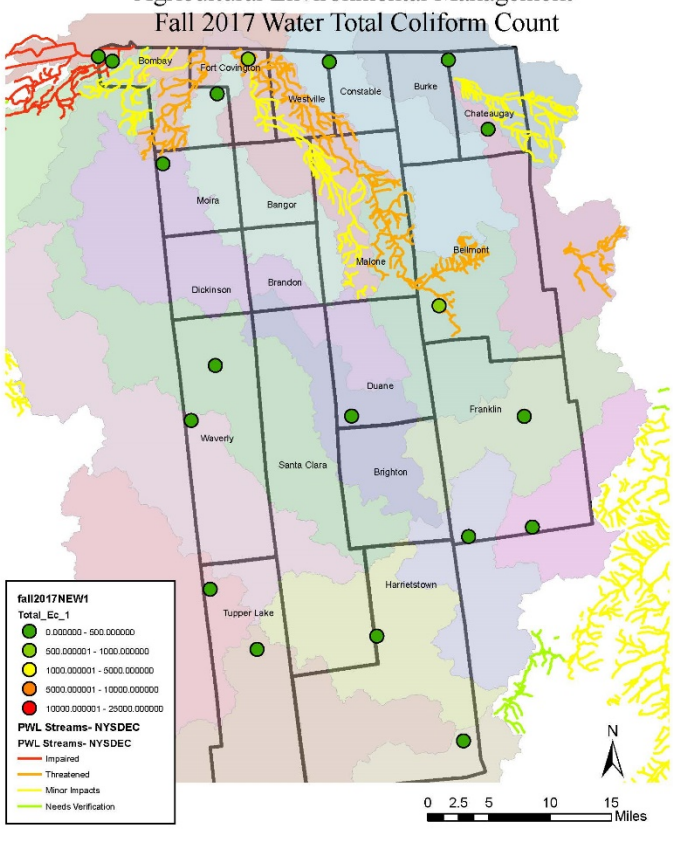
Franklin County
Agricultural Environmental Management
Fall 2016 Water Total Coliform Count



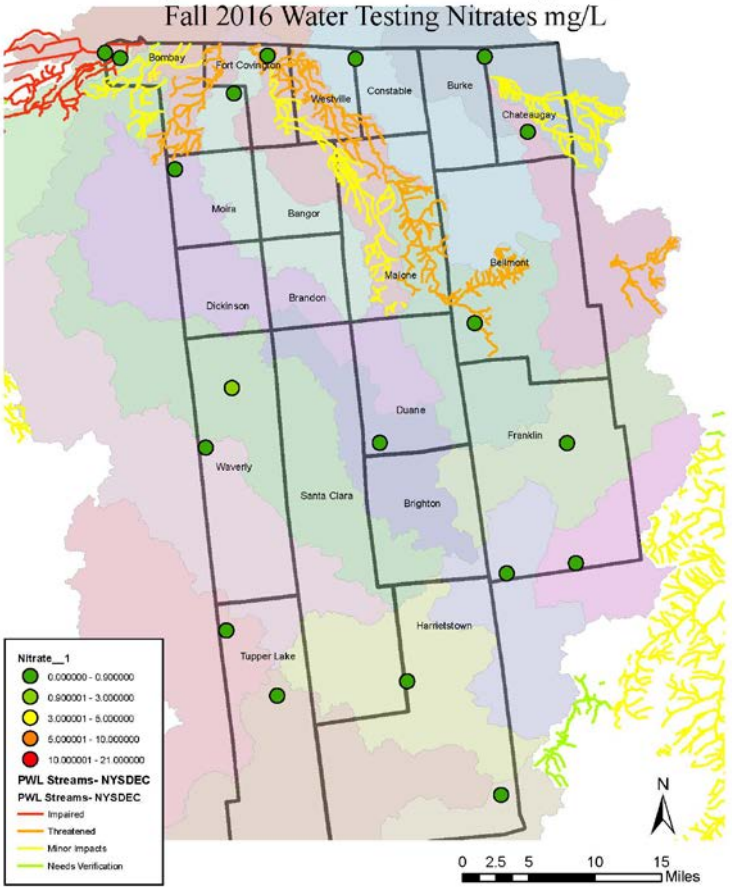
Franklin County
Agricultural Environmental Management
Spring 2016 Water Total Coliform Count



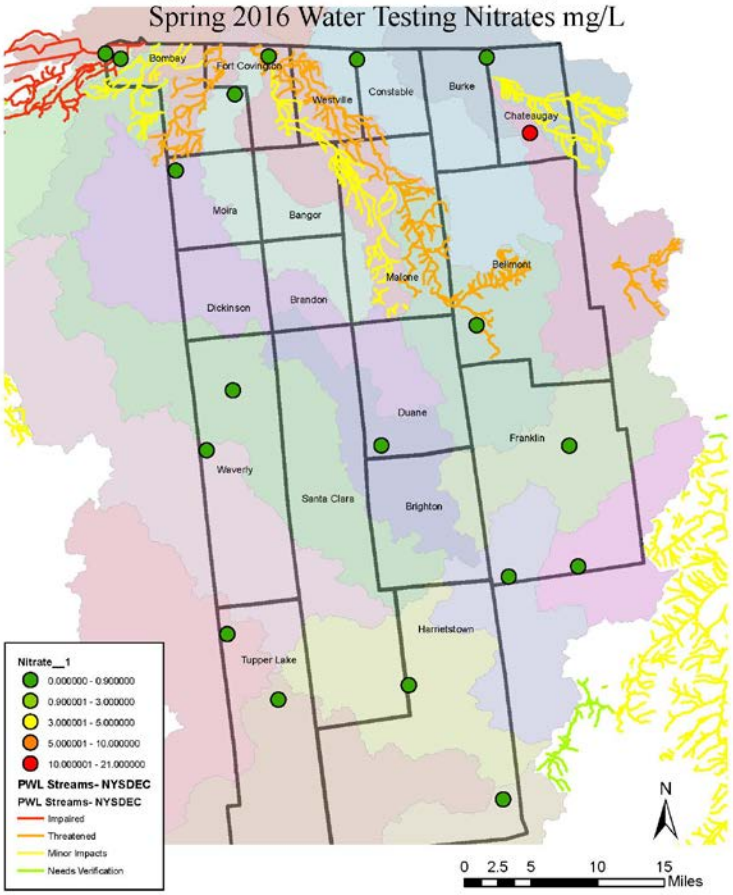
Franklin County
Agricultural Environmental Management
Fall 2017 Water Total Coliform Count



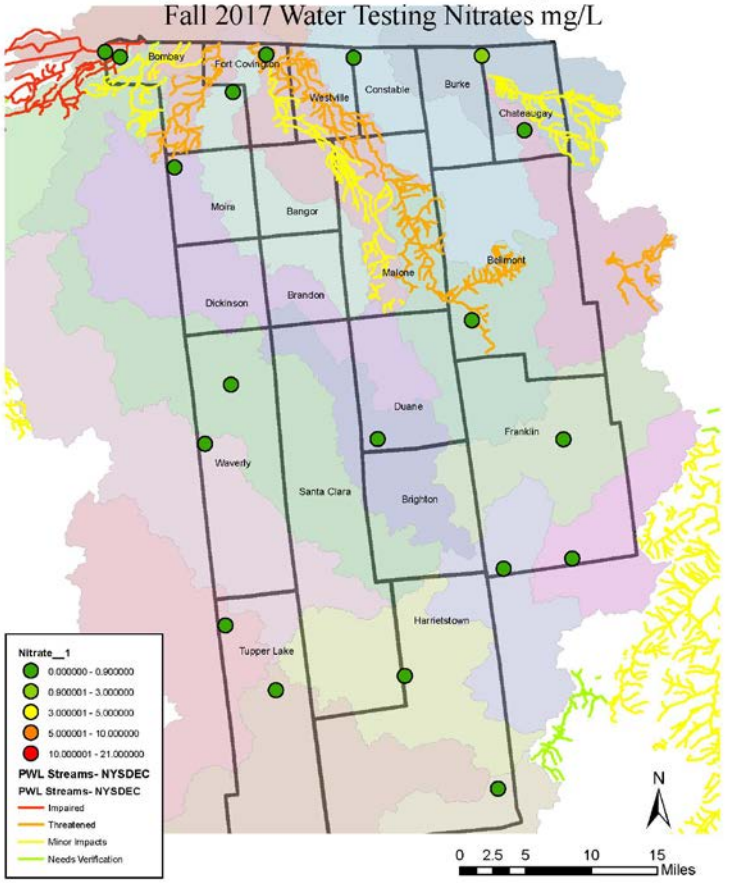
Franklin County
Agricultural Environmental Management
Fall 2016 Water Testing Nitrates mg/L



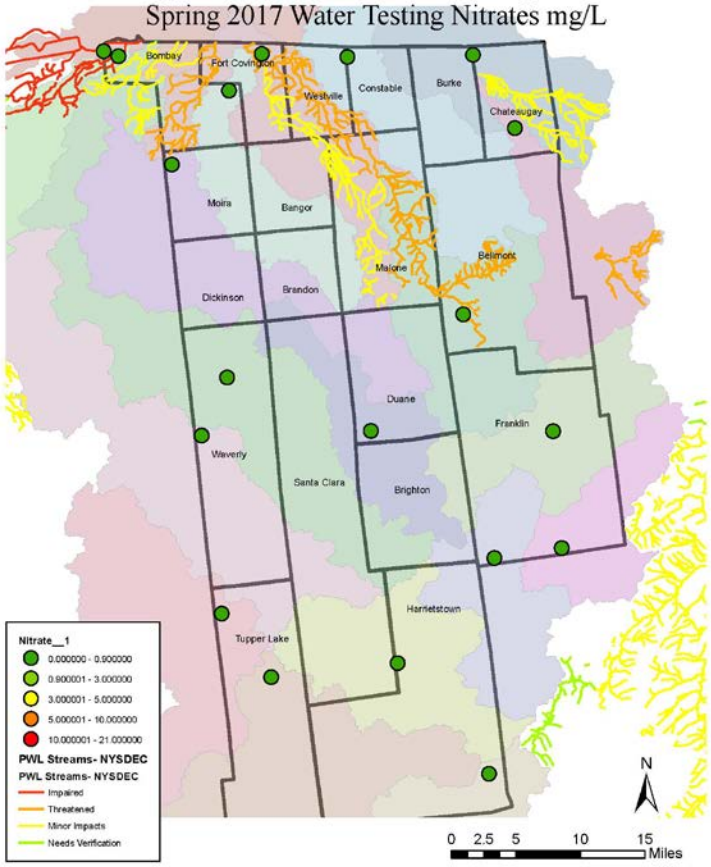
Franklin County
Agricultural Environmental Management
Spring 2016 Water Testing Nitrates mg/L



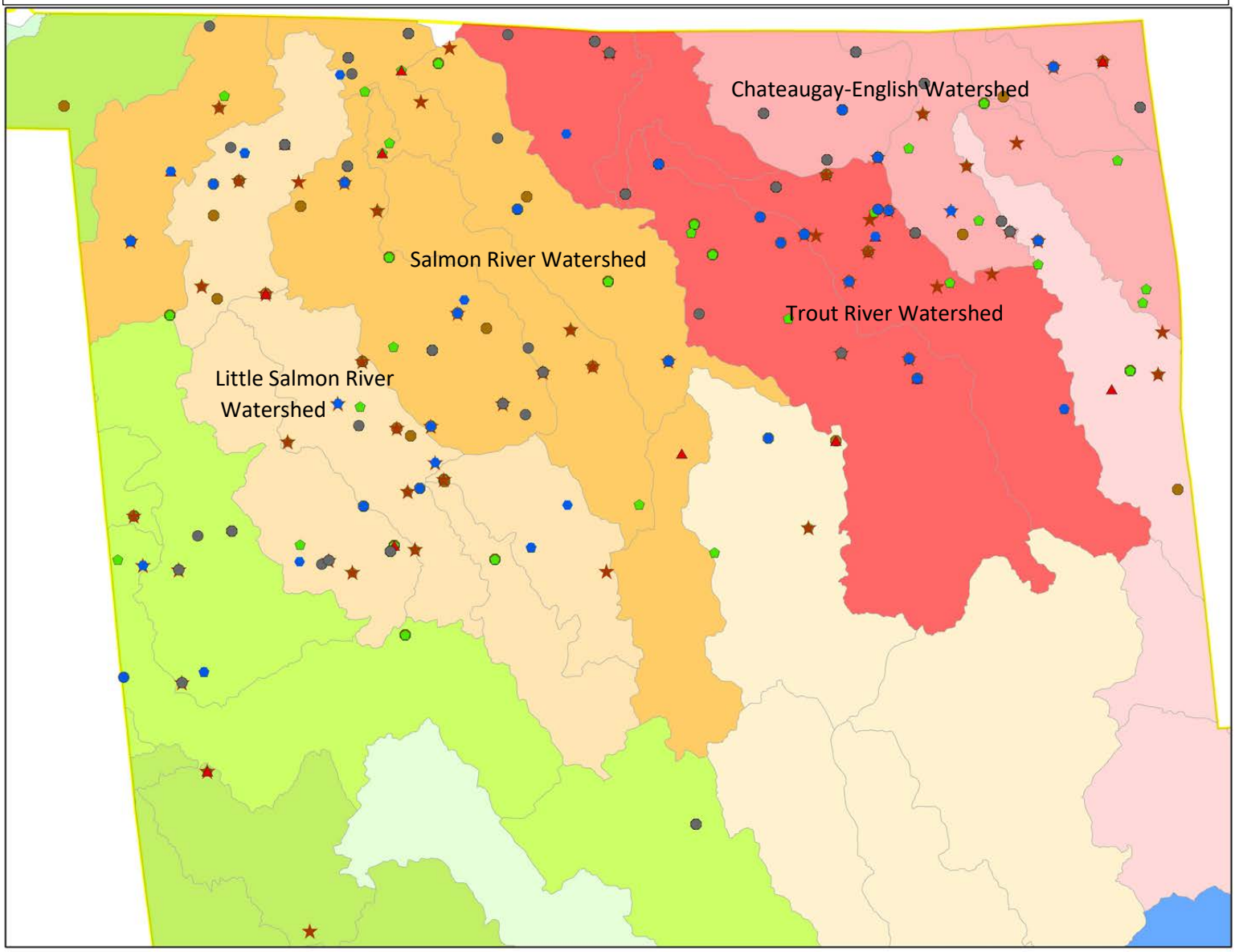
Franklin County
Agricultural Environmental Management
Fall 2017 Water Testing Nitrates mg/L

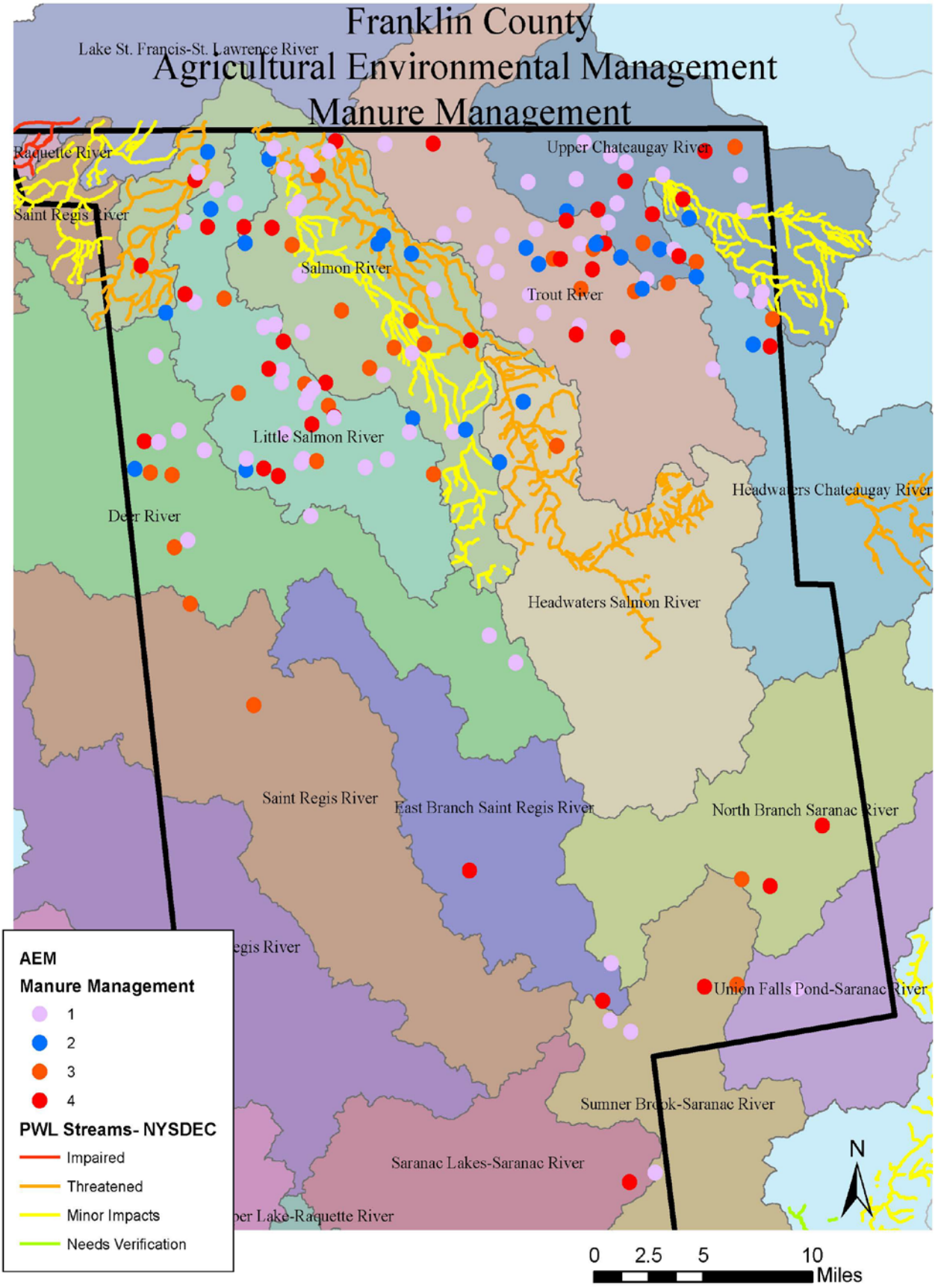


Franklin County
Agricultural Environmental Management
Spring 2017 Water Testing Nitrates mg/L



Franklin County
Agricultural Environmental Management
Priority BMPs per Watershed




Franklin County
Agricultural Environmental Management
Manure Management
Lake St. Francis-St. Lawrence River
Raquette River
Saint Regis River
Upper Chateaugay River
Salmon River
Trout River
Little Salmon River
Deer River
Headwaters Chateaugay River
Headwaters Salmon River
Saint Regis River
East Branch Saint Regis River
North Branch Saranac River
Union Falls Pond-Saranac River
Sumner Brook-Saranac River
Saranac Lakes-Saranac River
AEM
Manure Management
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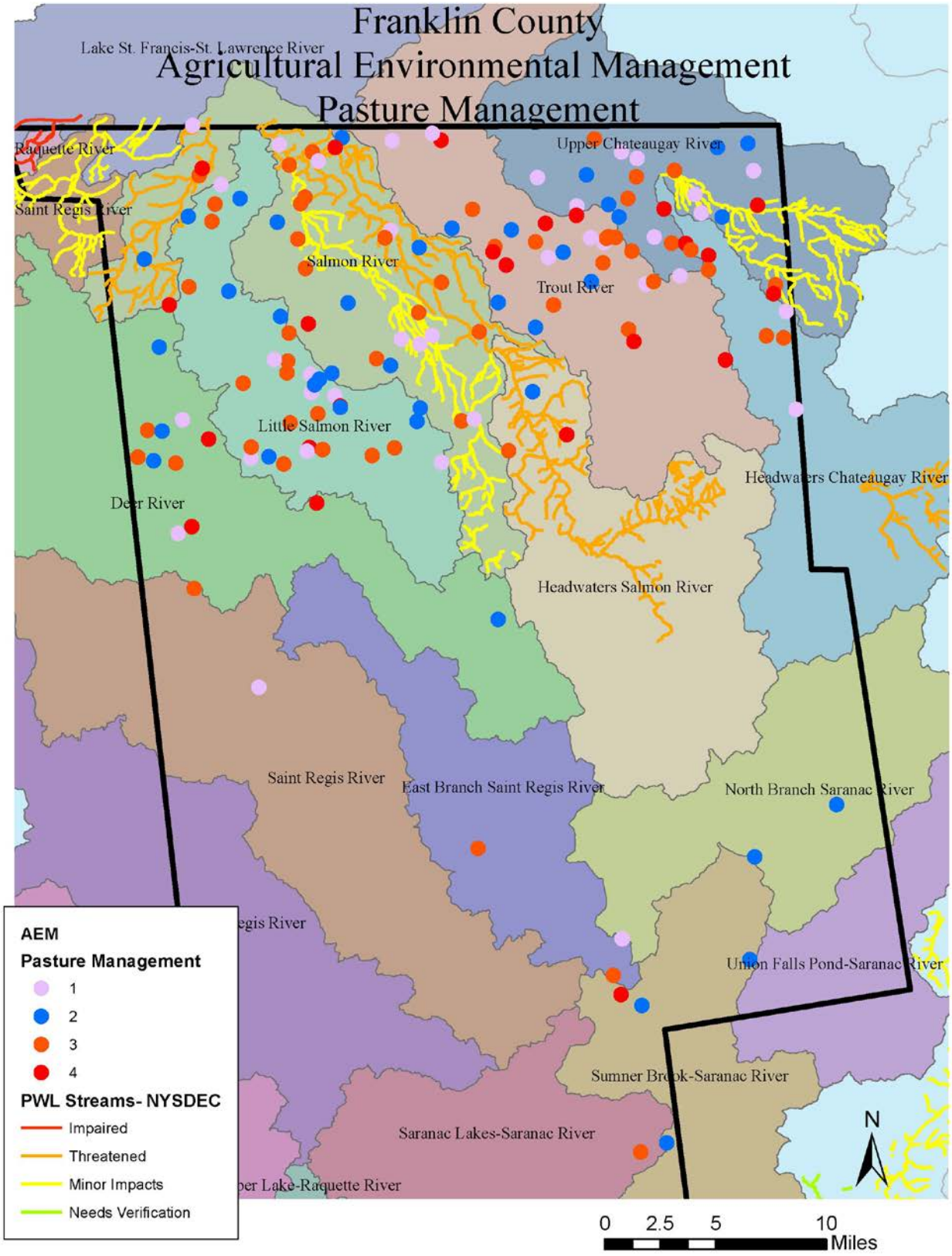
4
PWL Streams- NYSDEC
Impaired
Threatened
Minor Impacts
Needs Verification
N
0 2.5 5 10
Miles


Franklin County
Agricultural Environmental Management
Pasture Management
Lake St. Francis-St. Lawrence River
Raquette River
Saint Regis River
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AEM
Pasture Management
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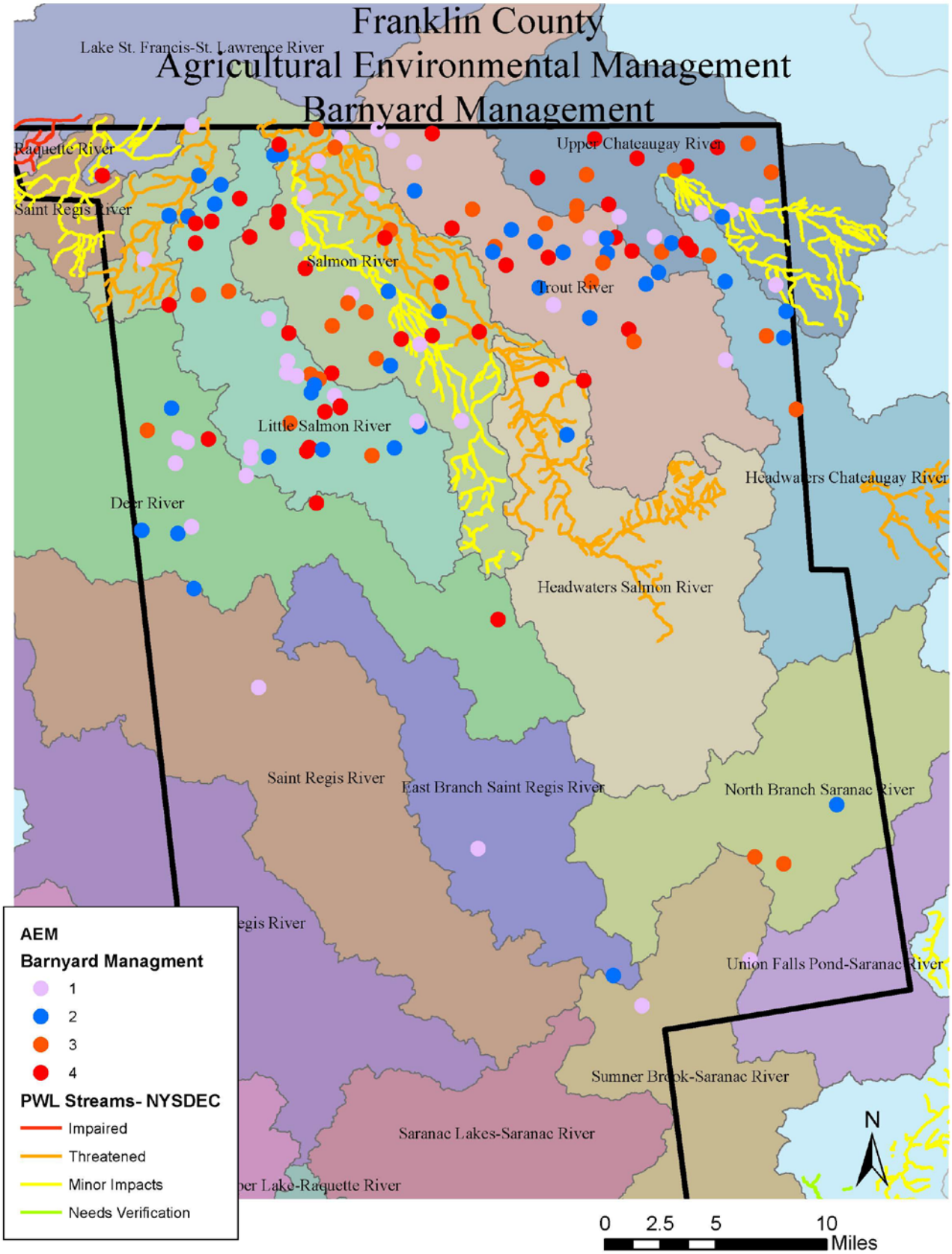
Franklin County
Agricultural Environmental Management
Barnyard Management
Lake St. Francis-St. Lawrence River
Raquette River
Saint Regis River
Upper Chateaugay River
Salmon River
Trout River
Little Salmon River
Deer River
Headwaters Chateaugay River
Headwaters Salmon River
Saint Regis River
East Branch Saint Regis River
North Branch Saranac River
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Sumner Brook-Saranac River
Saranac Lakes-Saranac River
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PWL Streams- NYSDEC
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Threatened
Minor Impacts
Needs Verification
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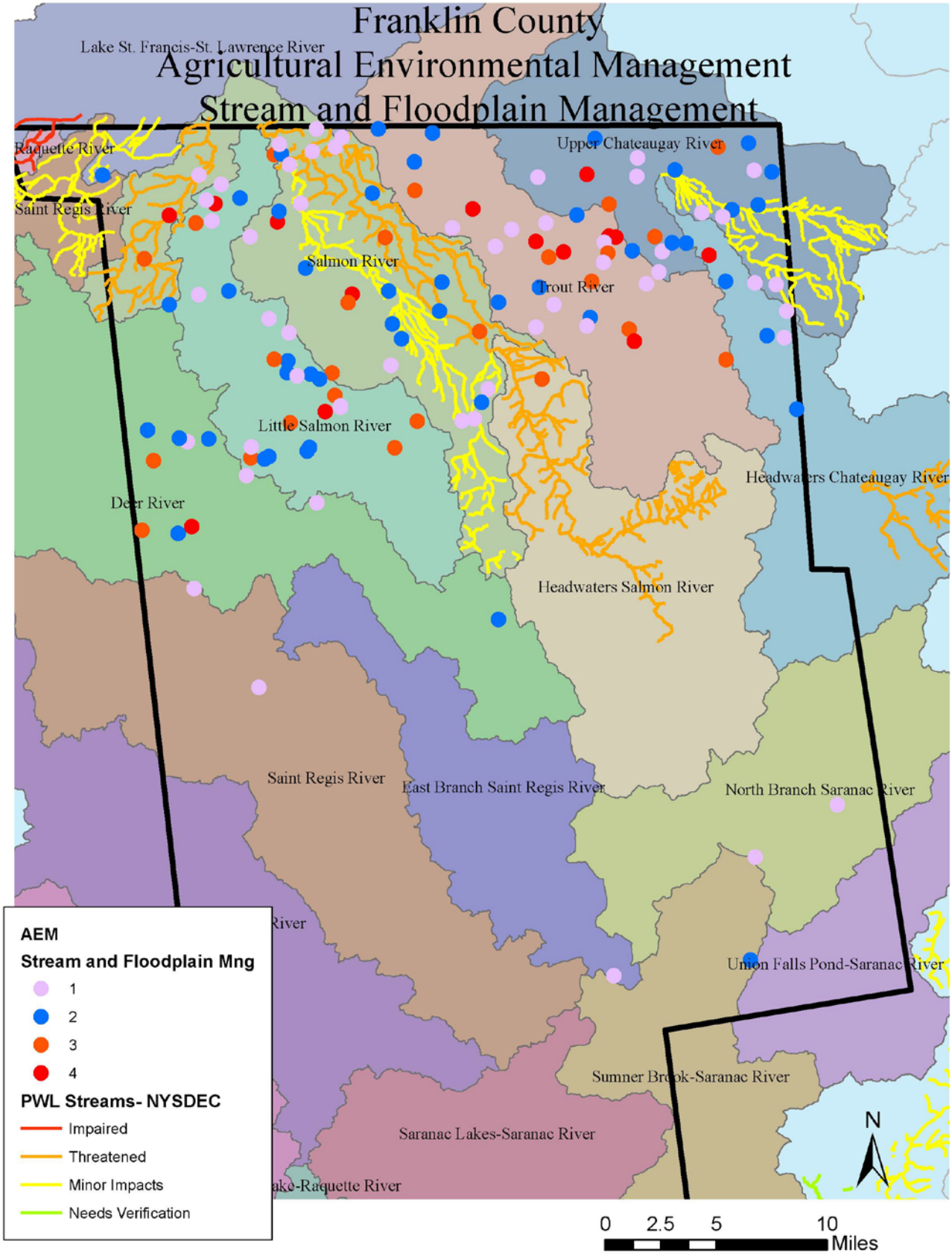
Miles


Franklin County
Agricultural Environmental Management
Stream and Floodplain Management
Lake St. Francis-St. Lawrence River
Raquette River
Saint Regis River
Upper Chateaugay River
Salmon River
Trout River
Little Salmon River
Deer River
Headwaters Chateaugay River
Headwaters Salmon River
Saint Regis River
East Branch Saint Regis River
North Branch Saranac River
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Sumner Brook-Saranac River
Saranac Lakes-Saranac River
AEM
Stream and Floodplain Mng
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PWL Streams- NYSDEC
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Threatened
Minor Impacts
Needs Verification
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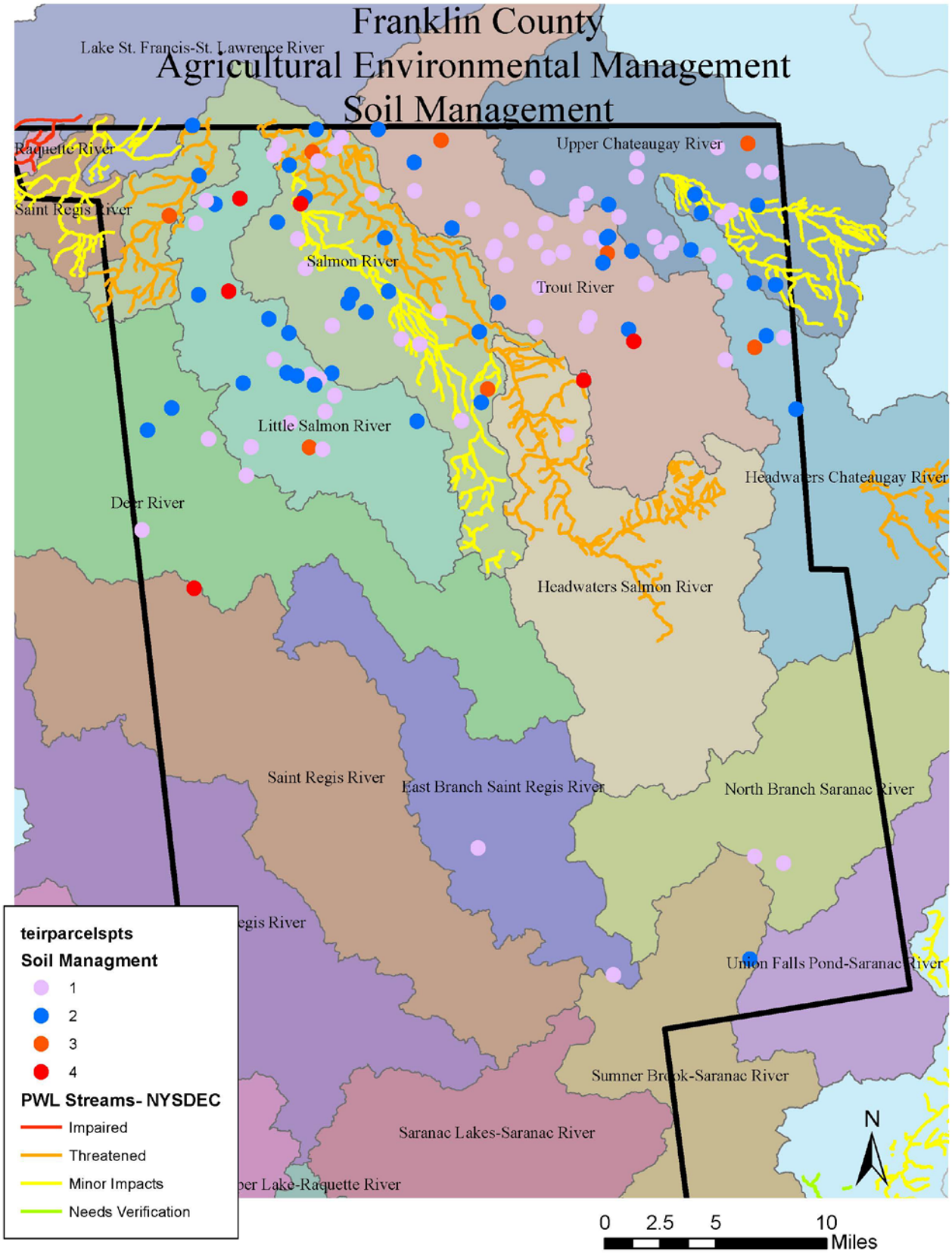
Franklin County
Agricultural Environmental Management
Soil Management
Lake St. Francis-St. Lawrence River
Raquette River
Saint Regis River
Upper Chateaugay River
Salmon River
Trout River
Little Salmon River
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Headwaters Salmon River
Saint Regis River
East Branch Saint Regis River
North Branch Saranac River
Union Falls Pond-Saranac River
Sumner Brook-Saranac River
Saranac Lakes-Saranac River
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Soil Managment
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PWL Streams- NYSDEC
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Threatened
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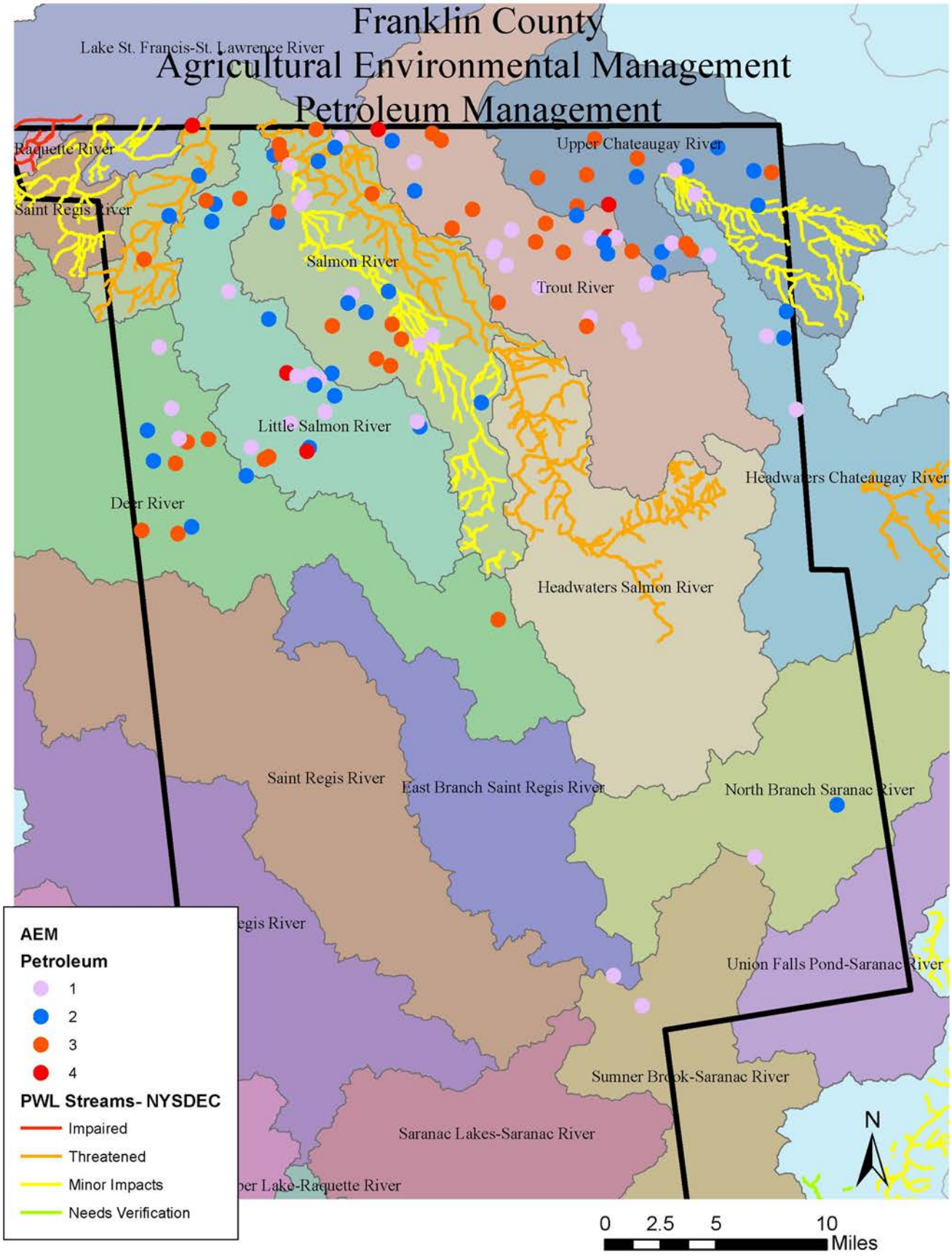
Miles


Franklin County
Agricultural Environmental Management
Petroleum Management
Lake St. Francis-St. Lawrence River
Raquette River
Saint Regis River
Upper Chateaugay River
Salmon River
Trout River
Little Salmon River
Deer River
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AEM
Petroleum
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Miles