

Countywide Action Plan Overview

Tioga County

Plan Highlights

The Tioga County Countywide Action Plan (CAP) provides guidance and planning to assist the county and its partners toward the shared objective to improve local water resources. Tioga County has created this plan to develop initiative and approach framework to amend existing water quality priorities and goals within the county. This plan will not only benefit the community on a local level but will also assist the goals of the Chesapeake Bay Cleanup effort.

This plan is designed to outline achievable projects to progress the clean water initiative within Tioga County while acting as a fluid document to mirror the successes and alterations in planning development through the years. This document will also prioritize the importance of educational programs and engagement within the local community to increase awareness and promote importance of the county's natural resources.

The Tioga County CAP contains four (4) priority initiative groups as well as outlined programmatic recommendations. Each priority initiative group displays tangible and quantifiable goals to benefit water quality within each sector. The programmatic recommendations within this plan highlight topics that would assist in plan success by easing existing plan implementation barriers. This would include the addition of priorities such as support, manpower, and funding. The application of these recommendations would accelerate plan success to achieve nutrient reductions through and beyond 2025.

A Tioga County Toolbox was developed and provided to the county by the PA Department of Environmental Protection to identify areas where Tioga County is seeing increased nutrient loads. This Toolbox also provides an established goal to meet nutrient reductions by 2025.

Within the Tioga County Toolbox, it was outlined that 51% of the nutrient loads are derived from Agricultural sources, 32% is derived from Natural Sources, 10% is derived from Urban and Developed, and 3% is derived from Wastewater.

Key Findings

Throughout the planning process, Tioga County has gained insight and collaboration from community members and Stakeholders to assist in identifying the county's main priorities. The continued collaboration within the county will be beneficial to carry out the implementation of this plan.

A key finding within the Tioga County plan development process was the increased amount of flooding concerns located throughout the county due to topography. It was highlighted in various development meetings that flooding is a common problem within communities and private lands. Stormwater reductions, stream stabilization, stream restoration, and flood control projects were all discussed for possible mitigation measures to alleviate the severity of these occurrences.

Within Tioga County there is also a substantial amount of agricultural production transition. These transitions include from one type of operation to another, or transfer of current production areas out of production. Tioga County has identified assistance in agricultural operation transition as an important program implementation. This priority will assist the county's producers with current production management and help plan for the long-term success of their operation.

Tioga County also contains a large amount of forested and agricultural lands. It is important to report and record on-going maintenance and management practices within these areas to gain nutrient reduction credit. Practices such as forestry management plans, agricultural practice BMPs, and dirt and gravel road maintenance are all examples of ongoing work that will need to be recorded to receive appropriate nutrient reduction credit within Tioga County. It will also be imperative for the County to report and verify new and existing projects overall to ensure the county's hard work is being appropriately captured.

Opportunities for Success

The Tioga County CAP development included the identification of appropriate collaborations, priority areas, and resources needed that would improve plan implementation success within the county while also benefiting the community and increasing local engagement.

Tioga County has many opportunities for success that will propel the implementation and further development of this plan. Within Tioga County, operation transition assistance is a great prospect to benefit the agricultural community through planning and assistance, while also helping implement different practices that were previously not accessible or did not have support. Practice implementations such as no-till planting, liming application, manure analysis, and heavy use area BMPs will benefit the farming community while also benefiting the overall nutrient reduction goals for the county.

Another opportunity for success that was identified is stormwater management of existing developed facilities that are either outdated or not functioning at full capacity. This includes stormwater runoff and management from existing parking lots, residences, roadways, and sidewalks. By implementing upgrades and maintenance to these existing features, Tioga County will be actively working toward mitigating the existing flooding issues and concerns within the County.

A key part of mitigation for flooding will also involve stream restoration projects throughout the county. These projects will restore streams to full capacity by interconnecting them with floodplains and wetlands, while placing in-stream structures to slow flow and limit erosion. The implementation of these restoration projects is imperative to restrict the progression of erosion and flooding due to increased storm event occurrences.

Challenges to Implementation

During the development of the Tioga County CAP, there has been countywide collaboration on identifying previous accomplishments, areas that would benefit from assistance, and how to complete the identified goals in a way to accurately measure Tioga County's growth.

The county has identified a few major challenges that may impair plan implementation success including the shortage of staffing, financing for plan implementation, receiving adequate credit for completed projects, and the development of a vested community.

Several opportunities for initiative achievement are also dependent on receiving necessary resources that have been outlined within the plan development process for plan success.

Plan Summary

The implementation of the Tioga County Action Plan (CAP) will center around four (4) priority initiatives, 1) Agriculture, 2) Urban and Developed Stormwater, 3) Wastewater, and 4) Natural, as well as outlined Programmatic Initiatives. Stakeholders and community members were involved in the establishment of plan initiatives, while providing oversight throughout the plan development process.

Priority Initiative 1: Agriculture

- Action 1.1 Nutrient Management Planning
 - Develop recommendations and nutrient management planning including soil samples, manure analysis, and agronomy assistance.

- Action 1.1a
 - Soil Sampling Program
 - Manure Testing Program
 - Agronomy Assistance/Analysis Program

- Action 1.2 Reporting and Verification of Existing BMPs
 - Collect data and verify existing BMPs on operations.
 - Create and deploy a Farmer Survey to collect private landowner data on existing BMPs.

- Action 1.3 Existing BMP Maintenance Program
 - Assist producers with maintenance of existing BMPs to keep them functioning, through cost-share labor or funding.

- Action 1.4 Riparian Buffer and Stream Fencing
 - Implement stream fencing and riparian buffer on crop and pasture lands.

- Action 1.5 Operation Transition Planning Assistance
 - Assist farmers that are transitioning operation types with the necessary BMP and management practices.

- Action 1.6 Cost Share Liming Program
 - Provide a cost sharing program and education to increase liming practices and increase overall pH.

- Action 1.7 Agricultural Lands Flooding Protection
 - Protect agricultural lands from extensive erosion from flooding by protecting stream banks and floodplain connection.

- Action 1.7a Floodplain Restoration and Stream Protection
 - Implement floodplain restoration and streambank stabilization and protection projects for agricultural areas.
- Action 1.8 Farm Operational Improvements
 - Overall Farm operational BMP implementation program to improve runoff, erosion, functionality, and land preservation.
- Action 1.8a Field Road Access Improvement
 - Upgrade and maintain access to fields to encourage opportunities to maintain fields and spread manure.
- Action 1.8b Heavy Use Area BMP Implementation
 - Implement heavy use area BMPs to protect from erosion and runoff.
- Action 1.9 Partnership – Tioga/Potter County Cowanesque Watershed Agricultural BMP Upgrades
 - Implement agricultural BMPs across Tioga and Potter County to assist the Cowanesque Water as a whole.

Priority Initiative 2: Urban and Developed Stormwater

- Action 2.1 Create Act 167 Plan
 - Make all Stormwater Ordinances consistent with County Stormwater Management Plan and implement.
- Action 2.2 Flood Mitigation
 - Mitigate flooding by completing proper stormwater management and managing headwaters of streams.
- Action 2.2a Parking Area Stormwater Management
 - Utilize Green basins, rain gardens, curbing, and permeable pavement to manage stormwater in developed areas.
- Action 2.2b Residential Stormwater Management
 - Develop residential and small commercial property stormwater maintenance and management BMPs for implementation.
- Action 2.2c Existing Stormwater BMP retrofit Program
 - Upgrade existing basins and drainage systems to improve function.

- Action 2.2d Stormwater Management Education
 - Education and outreach program for residential stormwater management and How-To presentations.
- Action 2.3 Nutrient and Fertilizer Planning for Turf Grass
 - Develop and implement plans and guidance for turf grass.
- Action 2.3a Turf Grass Reduction
 - Transition turf grass to no mow planting areas with trees.
- Action 2.4 Roadway Management
 - Reduce roadway runoff and the use of salt to better improve roadways and reduce sediment and nutrient runoff from entering streams.

Priority Initiative 3: Wastewater

- Action 3.1 Private Septic and Sewer Maintenance
 - Develop a program to provide maintenance to residential on-lot septic systems.
- Action 3.2 Upgrades and Maintenance on Public Sewer
 - Complete necessary upgrades and implement proper maintenance on public sewer systems.

Priority Initiative 4: Natural

- Action 4.1 Forest Land Conservation and Management
 - Preserve quality forest land surrounding quality resources.
- Action 4.1a Forest Management Planning
 - Create Forest Management Plans for private landowners.
- Action 4.1b Forestry Harvest Education and Outreach
 - Educating private landowners on the importance of proper harvesting and selecting a qualified timber harvester.
- Action 4.1c Forestry Upland Plantings
 - Converting fallow agricultural fields to forested plantings.
- Action 4.2 Stream Restoration and Streambank Stabilization
 - Restoring streambanks and stabilizing for overall water health.

- Action 4.3 AML Reclamation Planning and AMD Restoration
 - Restoring AML impacted areas and treating AMD discharges to restore water quality.
- Action 4.3a Existing AMD Facility Maintenance and Upgrades
 - Necessary maintenance and upgrades to existing AMD treatment areas.

Programmatic Recommendations

- Action 1.1 Access to DEP, EPA, DCNR, NRCS existing project information.
 - This update would create a better overview of areas that need assistance within the county and a better way to understand ongoing projects.
- Action 1.1a Create a dashboard on Practice Keeper for different entities to see previously entered BMPs from different agencies.
 - This would allow all entities the ability to see existing projects and locations within the database that were previously recorded by a different agency.
- Action 1.2 Alteration to Grant application processes to have a structured schedule for application, award, and funding dates.
 - This implementation of a structured grant schedule will assist the planning and implementation of funded projects and speed up implementation timelines.
- Action 1.3 Revisions to BMP contract terms to allow for unforeseen circumstances, such as operational closures or shutdowns, for protection to the individuals under contract.
 - This would allow contracted individuals a safeguard in the event of operational closure, sale, or transfer of business during the contract term.
- Action 1.4 Revise stormwater regulations to include 30% overdesign culvert replacements to account for increased flooding events.
 - This revision will allow for the replacement of culverts to be 30% overdesigned to account for increased flood events from climate change.
- Action 1.5 Change program standards for Chesapeake Bay Program Technician
 - This change in program would allow for no inspection requirements within the Chesapeake Bay Technician job requirements while maintaining other job aspects at the county level.
- Action 1.6 Dedicated staff from DEP or Conservation District to Verify and Report BMPs
 - Dedicated staff member at district level or state level to verify and report BMPs implemented within the county into Practice Keeper.