

Countywide Action Plan Overview

Columbia County



Plan Highlights

The Columbia County Countywide Action Plan (CAP) is a roadmap to reduce pollution in county waters. Our 2025 targets are to:

- Reduce annual nitrogen pollution by 1,327,000 pounds
- Reduce phosphorus pollution by 38,000 pounds.

We will hit our targets by helping landowners install Best Management Practices (BMPs). The county is currently on track to reduce nitrogen by ~338,000 lbs and phosphorous by ~176,000 lbs, so we have more work to do. As an added benefit, the proposed BMPs will significantly lower the amount of sediment in local waters (22% of county streams have high sediment levels).

We intend for the Columbia CAP to serve as a long-term blueprint for local clean water efforts beyond the 2025 target date. It's a living document that summarizes approaches and tracks implementation efforts for local clean water activities. The plan is aspirational, but realistic. We will update the document each year, and report on our progress to local leaders and the Pennsylvania Department of Environmental Protection (PADEP). Each report will summarize progress towards long-term goals and any revisions we need to make to reach our goals.

Key goals and objectives of the Columbia CAP are:

- Form a Steering Committee including experts and leaders from multiple sectors.
- Organize Action Teams focused on preservation of natural areas, agriculture, riparian buffers, point source pollution, stormwater, and education.
- Track and recognize collaborative clean water efforts in Columbia County.
- Outline scenarios for BMP implementation that balance expected improvements with actual on-the-ground conditions.
- Include all county land use types in the CAP (developed, agricultural, and forested/natural areas).

Key Findings

The CAP development team covered a lot of ground during planning meetings. As it turns out, success of the CAP will depend upon many factors: funding, regulatory flexibility, innovative BMPs, staffing resources, and political will. Across these topics a few key considerations and needs stood out:

- Formation of a steering committee and action teams is critical to guide CAP development and monitor implementation efforts.
- Plan success hinges on creative funding strategies and long-term funding streams.
- There is a need for a clearly laid out long-term monitoring and verification plan for BMPs.
- All existing agricultural and stormwater BMPs need to be accounted for in nutrient reduction modeling.
- Natural and agricultural areas account for a significant portion of land use in Columbia County. CAP implementation requires an elevated effort to preserve and/or expand these areas.
- There are 4 MS4 permitted municipalities located in Columbia County.
- Success of the CAP depends on the availability of adequate financial and staff resources and buy-in from county landowners.

Opportunities for Success

Good news! There are many opportunities for success in Columbia County. We recognized early that clean water efforts benefit the community in many ways. As we put the CAP together, we found many partners who were happy to help. They also helped us identify opportunities to secure funding.

Some opportunities for success identified during CAP development include:

- Collaboration with the established groups currently leading initiatives in the county (e.g. North Central Pennsylvania Conservancy, Trout Unlimited, USFWS, local watershed groups, NRCS, DCNR, DEP, PACD, SCC, PAFBC, Farm Service Agency).
- Continued use of existing funding sources such as Growing Greener, DCED, etc.
- Partnerships with other county agencies to maximize matching funds for various projects.
- Use of interns to assist in BMP verification. A role that will give them valuable workplace experience.
- Development of block grant funding sources to allow for faster conservation project implementation.
- Capturing existing BMPs in nutrient reduction models.
- Connecting stream delisting efforts with CAP implementation efforts.
- Re-imagined education and outreach approaches to increase public knowledge and buy-in.
- Partnership with private landscape contractor to implement forested buffers.
- Willing groups of volunteers to assist with tree plantings and the implementation of other conservation practices.
- Opportunities exist to expand conservation practices that are already in place.

Challenges to Implementation

As we move from planning to action, we will encounter challenges. These include:

- Funding for BMP implementation and limited resources in general.
- Efficient and effective long-term verification processes.
- Increased workload for staff in addition to existing responsibilities.
- Public buy-in and local landowner willingness to participate.
- Conflicting and/or inconsistent regulatory requirements.
- Short time frame for BMP implementation and to achieve significant nutrient reductions.
- Inadequate resources for the capture of ag-related plans into PracticeKeeper.

Plan Summary

The Columbia CAP is divided into four priority initiatives: 1) agriculture, 2) developed storm water, 3) stream restoration, and 4) preservation of natural areas.

The Columbia CAP lays out a clear path for implementation. It is best described as a living document. The plan's structure makes it easy to adapt to new opportunities,

funding streams, and changing conditions. The CAP Steering Committee and Action Teams will work together to track successes and challenges under each initiative. In this way, the CAP will continue to serve the needs of Columbia County through 2025 and beyond.

Priority Initiative 1: Agriculture

- Action 1: Fertilizer Management
 - Activity 1: Implement conservation and nutrient management plans (2,000 additional acres)
 - Activity 2: Expand soil testing (1,000 acres)
 - Activity 3: Increased adoption of no-till & conservation tillage (60,000 acres)
 - Activity 4: Education to homeowners on residential fertilizer use
 - Activity 5: Streambank Buffers
- Action 2: Herbicide Management & IPM
 - Activity 1: Cover crops as natural weed suppressant (15,000 acres)
 - Activity 2: Expanded adoption of green planting and rolling covers (5,000 acres)
 - Activity 3: Pesticide education for farmers and residential applicators
- Action 3: Manure Management
 - Activity 1: Manure storage facilities (13,000 animal units)
 - Activity 2: Stream buffers near animal feeding areas (510 new acres)
 - Activity 3: Off stream watering for livestock (500 acres)
 - Activity 4: Manure management plans
 - Activity 5: Cover crops with fall nutrients (20,000 acres)
 - Activity 6: Prescribed grazing (3,000 acres)

Priority Initiative 2: Developed Stormwater

- Action 1: Identify runoff reduction areas
 - Activity 1: Inventory / improvements for point source pollution such as WWTP, industry, septic (3 systems & 2 acres of infiltration basins)
 - Activity 2 and 3: Inventory/ improvements for non-point source pollution such as DGLVR roads (55,000+ ft.), buffer plantings (50 acres), wetland restorations, forest connectivity (20 acres)
 - Activity 4: Consider existing plan recommendations/ policies such as MS4 pollution reduction plans (60 acres), road salt & herbicide use
 - Activity 5: Promote green infrastructure- bioretention, rain gardens, pervious pavement (100 acres)
 - Activity 6: Education and outreach materials and events

- Action 2: Revise ordinance requirements
 - Activity 1: Develop model ordinance template to improve water quality and storm water management
 - Activity 2: Promote low impact development & greywater use (2200 acres)
 - Activity 3: Promote CAP practices and goals
 - Education and outreach

Priority Initiative 3: Stream Restoration

- Action 1: Wetland restoration and floodplain conservation (40 acres)
- Action 2: Riparian buffers
 - Activity 1: Establish new riparian buffers (60 acres)
 - Activity 2: Develop residential no mow zones
 - Activity 3: Japanese Knotweed removal and invasive species treatment
- Action 3: Streambank Stabilization
 - Activity 1: Grading banks to restore floodplain access (20,000 linear ft.)
 - Activity 2: In-stream habitat structures
 - Activity 3: Livestock exclusion fencing
- Action 4: Education and Outreach
 - Activity 1: Increase landowner outreach and develop outreach handouts
 - Activity 2: StoryMapping tours on district website
 - Activity 3: Stream redesignation studies

Priority Initiative 4: Preservation of Natural Areas

- Action 1: Limit development in Ag & Natural Areas
 - Activity 1: Preserve agricultural lands through the farmland preservation program (2,200 acres)
 - Activity 2: Partner with conservancies to establish conservation easements (1,000 acres)
 - Activity 3: Promote open space and recreation through trail development/ maintenance, public stream access
 - Activity 4: Limit sprawl through planning and zoning
 - Activity 5: Education and Outreach
- Action 2: Promote Implementation of Woodland and Pollinator Habitat
 - Activity 1: Assist landowners with habitat implementation (field borders, pollinator strips, bird boxes, wetland restoration)
 - Activity 2: Incentivize invasive species management & removal as well as native replacements
 - Activity 3: Education and outreach materials/ events