

Plan Highlights

The Bedford Countywide Action Plan (Bedford CAP) is a summary of approaches, initiatives, and considerations for existing and proposed water quality improvements in the county. The initiatives are intended to protect the future of Bedford County's natural resources while preserving other community goals and focus areas. Local improvements will benefit the community while assisting the state with meeting its Chesapeake Bay obligations. The Bedford CAP is designed to provide a guiding framework for implementation tasks and activities to achieve meaningful local water quality improvements.

The Bedford CAP in conjunction with state efforts aims to reduce nearly 1.8 million pounds of nitrogen and 111,000 pounds of phosphorus annually to local streams and water resources through BMPs implemented by 2025. Current efforts and opportunities have identified approaches that will result in approximately 1.185 million pounds of Nitrogen reductions and 98,000 pounds of Phosphorus reductions; so, there is more work to do over the next few years to ensure Bedford County identifies a pathway to full reductions. Additionally, the proposed BMPs will provide significant reductions in sediment (over 182 million pounds reduced annually). Despite the short time frame for BMP implementation, the Bedford CAP is also intended to serve as a long-term blueprint for improved local water quality beyond 2025.

The Bedford CAP is a dynamic and adaptive plan summarizing approaches and tracking implementation efforts for local water quality improvements. The plan is aspirational but realistic. The CAP will be updated on an annual basis and reports will be provided to both local stakeholders and PADEP through 2025 summarizing progress towards identified long-term goals or adjustments to overall approaches. Key goals and objectives of the Bedford CAP are:

- Capturing and memorializing collaborative and cooperative efforts of the many existing entities that have been working towards water quality improvements in Bedford County.
- Outlining realistic scenarios of Best Management Practices (BMPs) implementation balancing theoretical improvements with actual on-the-ground conditions.
- Development of a Catchment Management Database (CMD) to help guide targeting of BMP types and resources within priority small drainage basins.
- CAP encompasses and considers all areas of the county (developed, agricultural, and forested/natural areas).

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- Formation of a Steering Committee with experts and leaders across multiple sectors to help guide CAP development and implementation efforts through Action Teams.
- Organization of Action Teams focused on preservation of natural areas, agriculture, riparian buffers, point source pollution, stormwater, and education.

Key Findings

Success of the Bedford CAP implementation process will be dependent upon a combination of funding, regulatory flexibility, innovative techniques, and political will coming together. Key actions and considerations that led CAP development and proposed for successful implementation include:

- Formation of a steering committee and action teams to guide CAP development and monitor implementation efforts.
- Creative and long-term funding streams.
- Well-organized and monitored set of long-term verification processes ensuring implemented BMPs continue to perform.
- A significant amount of both agricultural and stormwater BMPs currently implemented have not been captured in reductions.
- A significant portion of land use in Bedford County is natural and forested areas, and CAP implementation requires an elevated effort to preserve and/or expand these areas.
- There are no MS4 permitted municipalities located in Bedford County.

Opportunities for Success

CAP development included the identification of appropriate collaborations, priority areas, and funding needs specific to Bedford County that would improve implementation success while providing extended benefits to the community. Opportunities and considerations that will improve success of CAP implementation include:

- Collaboration with the established groups currently leading strong initiatives in the county (e.g. Western Pennsylvania Conservancy, Trout Unlimited, Ridge Valley Streamkeepers, and so on).
- Potential National Fish and Wildlife Foundation (NFWF) grant program specific to Bedford County for project implementation.
- Coordinated and county-wide riparian buffers implementation and maintenance program.
- Tie stream de-listing efforts to overall CAP implementation efforts.

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- Additional reductions immediately realized due to uncaptured implemented BMPs.
- New and innovative stormwater management approaches that achieve both economic development improvements and protect local natural resources.
- Re-imagined education and outreach approach to increase public knowledge and buy-in.
- Foster collaborative arenas focusing on agricultural and urban area boundaries.
- Focus on wastewater treatment facilities, small package systems, and on-lot septic systems across the county.
- Alignment of data management platforms to ensure decision points and approaches by multiple groups complement each other in lieu of competing with one another or duplicating efforts.
- Combine considerations for aquifer protection, source water protection, and sinkhole remediation along with economic development opportunities, transportation initiatives, and agricultural preservation for a more fully integrated approach.
- Alignment of CAP implementation efforts with the Strategic Plan's goals and objectives of the Interstate Commission of the Potomac River Basin.

Challenges to Implementation

Several opportunities for success and overall Bedford CAP implementation will inherently encounter challenges. How these challenges unfold will determine the level of successful implementation by 2025. Primary hurdles and challenges anticipated or known include:

- Funding for BMP implementation and limited resources in general.
- Continued engagement restrictions as a result of COVID-19.
- Efficient and effective long-term verification processes.
- Adoption of the fertilizer legislation at the state level.
- Public buy-in and extent of local landowner willingness to participate.
- Conflicting and/or inconsistent regulatory requirements.
- Relative short timeframe for BMP implementation to achieve significant nutrient reductions.
- Significant number of on-lot septic systems and/or small flow facilities.
- Enough resources for the capture of ag-related plans into PracticeKeeper.

Plan Summary

The implementation of the Bedford Countywide Action Plan (Bedford CAP) will center around six (6) priority initiatives: 1) preservation of natural areas, 2) agriculture, 3) riparian buffers, 4) point source pollution, 5) stormwater, and 6) education & outreach. Working groups were established with the purpose of organizing fully functioning Action Teams responsible for oversight of focus points under each Priority Initiative.

Bedford CAP development focused on establishing a framework to follow and help guide implementation efforts. Implementation of the Bedford CAP is best described as an iterative process as the plan and structure provides an ability to adequately respond to new opportunities, funding streams, and changing conditions.

Priority Initiative 1: Preservation of Natural Areas

- Action 1.1 Limit future development in current natural areas.
- Action 1.2 Promote and assist implementation of Wood and Pollinator habitat in priority areas
 - Conservation Landscaping – 150 new acres
 - Urban Forest Planting – 200 new acres
- Action 1.3 Promote and assist implementation of Urban Tree Canopy in priority areas
 - Urban Tree Canopy – 5 new acres
- Action 1.4 Promote and assist implementation of Forest, Farm, and Wetland Conservation BMPs in priority areas
 - Farmland Conservation – 3,900 total acres
 - Forest Conservation – 4,000 total acres
 - Wetland Conservation – 160 total acres
- Action 1.5 Explore potential for Bedford-county based preservation and conservation program

Priority Initiative 2: Agriculture

- Action 2.1 Develop a game plan for potential increased efficiencies or nutrient reductions with fertilizer applications
- Action 2.2 Implement and/or capture developed conservation plans into PracticeKeeper
- Action 2.3 Promote and assist implementation of Agricultural Compliance practices in priority areas
 - Soil Conservation and Water Quality Plans (90,000 total acres)
 - Core Nitrogen Nutrient Management (76,000 total acres)
 - Core Phosphorus Nutrient Management (22,000 total acres)

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- Barnyard Runoff Controls (9 new acres)
- Action 2.4 Promote and assist implementation of Soil Health practices in priority areas
 - High Residue Tillage Management (26,000 acres/year)
 - Conservation Tillage Management (10,000 acres/year)
 - Traditional Cover Crops (13,000 acres/year)
 - Traditional Cover Crops with Fall Nutrients (17,000 acres/year)
 - Commodity Cover Crops (1,200 acres/year)
 - Prescribed Grazing (12,000 total acres)
- Action 2.5 Promote and assist implementation of expanded nutrient management practices in priority areas
 - Core Nitrogen Nutrient Management (13,000 acres)
 - Core Phosphorus Nutrient Management (3,500 acres)
 - Nutrient Management-Nitrogen Rate (10,000 acres)
 - Nutrient Management-Phosphorus Rate (10,000 acres)
 - Nutrient Management-Nitrogen Placement (13,000 acres)
 - Nutrient Management-Phosphorus Placement (10,000 acres)
 - Nutrient Management-Nitrogen Timing (14,000 acres)
 - Nutrient Management-Phosphorus Timing (10,000 acres)
- Action 2.6 Promote and assist implementation of improved animal unit practices in priority areas
 - Manure Storage Facilities – 30,000 AUs
 - Dairy Precision Feeding – 14,000 Dairy Cow AUs
 - Manure Transport out of Bedford County – 2,000 dry tons/year
- Action 2.7 Promote and assist implementation of land retirement BMPs
 - Retirement to Ag Open Space – 1,200 acres
- Action 2.8 Assist Riparian Buffers AT with implementation of buffers in agricultural riparian zones in priority areas
- Action 2.9 Expand implementation of cover crops (specific focus on alternative approaches that may count as reductions)

Priority Initiative 3: Riparian Buffers

- Action 3.1 Promote and assist implementation of buffers in agricultural riparian zones in priority areas
 - Forest Buffer (2,300 new acres)
 - Forest Buffer with Streamside Exclusion Fencing (2,000 new acres)
 - Grass Buffer (1,400 new acres)
 - Grass Buffer with Streamside Exclusion Fencing (900 new acres)
- Action 3.2 Promote and assist implementation of buffers in non-agricultural riparian zones in priority areas

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- MS4 Riparian Forest Buffers (40 new acres)
- Non-MS4 Forest Buffers (140 new acres)
- Action 3.3 Explore model ordinance language for requiring buffers in development projects

Priority Initiative 4: Point Source Pollution

- Action 4.1 Develop or acquire more comprehensive inventory of septic systems in the county
- Action 4.2 Ascertain status of wastewater treatment facilities (including small treatment plants) and corresponding needs for improvements
- Action 4.3 Promote and assist the implementation of septic system improvements
 - Septic Denitrification, Conventional – 100 systems

Priority Initiative 5 Developed/Urban Stormwater

- Action 5.1 Develop model ordinances focused on water quality and stormwater management
- Action 5.2 Develop model ordinances focused on water quality and stormwater management
- Action 5.3 Identify regional project opportunities in select watersheds
- Action 5.4 Fertilizer legislation
- Action 5.5 Pursue regional stream and wetland restoration projects that provide significant additional benefits and reductions
 - Urban Stream Restoration (30,000 new linear feet)
 - Non-urban Stream Restoration (48,000 new linear feet)
 - Wetland Restoration (150 acres)
- Action 5.6 Promote and assist implementation of urban/suburban sector controls for nutrient and sediment reductions
 - Advanced Grey Infrastructure for IDD&E Control (250 acres treated)
 - Impervious Surface Reduction (1 acre)
 - Urban Nutrient Management (3,400 acres)
- Action 5.7 Promote and assist implementation of stormwater control measures that incorporate Low Impact Development (LID) approaches
 - Wet Ponds and Wetlands (40 acres treated)
 - Stormwater Performance Standards-Runoff Reduction (350 acres treated)
 - Bioretention/Raingardens (15 acres treated)
 - Vegetated Open Channels (10 acres treated)
 - Filtering Practices (5 acres treated)
- Action 5.8 Promote and assist implementation BMPs tied to the Dirt & Gravel Road program

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- Outlets only – 5,500 linear feet
- Driving Surface + Outlets – 8,000 linear feet
- Driving Surface + Raising the Roadbed – 54,000 linear feet

Priority Initiative 6: Education and Outreach

- Action 6.1 Provide support to other action teams with development of supporting education and outreach materials
- Action 6.2 Develop, implement, and manage a website with CAP supporting information specific to Bedford County
- Action 6.3 Provide oversight and guidance for the Bedford CAP Communications Plan

Programmatic/Policy Recommendations: Bedford County

- Action 1.1 Expand the definition for cover crops to include other successful approaches accepted and working in Bedford County
- Action 1.2 Act 537 Plan funding
- Action 1.3 Watershed/regional permitting approaches