



GREEN STREETS | GREEN JOBS | GREEN TOWNS INITIATIVE

The Green Streets, Green Jobs, Green Towns Partnership (G3) aims to stimulate the green jobs market and enable families to work where they live and play. Small to mid-sized communities can boost their local economies and protect water resources through the use of watershed planning, design and construction of stormwater best management practices.



CONSERVATION FOUNDATION OF LANCASTER COUNTY

Chiques Creek Watershed - Green Infrastructure Report Card

The Conservation Foundation of Lancaster County developed and implemented a Report Card, that balanced and consolidated previous and current assessment efforts to allow meaningful improvements to occur; this Report Card complemented and enhanced the "Alternative Restoration Plan" (ARP) developed by Susquehanna River Basin Commission (SRBC).

and were classified under the categories of Health, Threats, and Special. These KPIs were biodiversity, water temperature, habitat, flooding, sediment/stability, nutrients, outfall concentration, agricultural opportunities, and groundwater conditions.

As part of the assessment for the report card, the project partner, LandStudies, assessed and field verified approximately 5 priority sites that were identified as hot spot areas in an erosion heat map. 70 farms were assessed in the local area, and plans were reviewed; the data was used to identify existing and proposed BMPs. The team also visited 6 farmers to learn about their practices, needs, frustrations, and relationships with their municipalities.

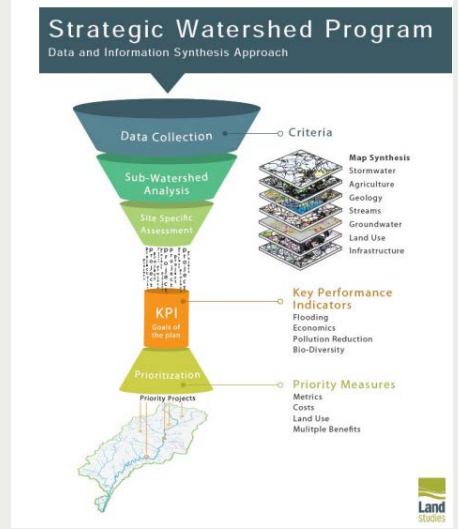
LandStudies also created an updated overview map using data sets of existing BMPs with project ID numbers that correlate to the data sets. The 3 groups of indicators were each given a visual reference with the map updates reflecting prioritization.

9 key performance indicators (KPIs), that will be used to gauge current and future health and threats for the watershed as a whole, were identified

1 report card created



Conservation Foundation of Lancaster County



PROJECT ELEMENTS

- **Key Performance Indicator (KPI) Identification and Assessments** – This task included the identification of the elements of the Chiques Watershed and how it will be divided into areas or sub-watersheds that provide the best indication of the health of the watershed. Example considerations included: flooding, nitrogen, phosphorus, sediment, and forest habitat.
- **Key Performance Indicator (KPI) Mapping** – The team utilized existing GIS mapping prepared as part of previous studies and develop an updated overview map that included references to the agreed upon KPIs. The maps provides an increased ability during decision-making processes to help ensure multiple municipal and watershed resources are allocated to appropriate areas across the watershed.
- **Smart Green Corridor (SGC) Framework** – The SGC framework is a blueprint that defines organizational structures, financing/funding mechanisms, legal framework of partnerships, and related considerations for high priority opportunities, projects, and restoration efforts. It identified the anchor elements that should reduce overall long-term efforts since an anchor element generally provides substantial improvements to the health of a watershed.
- **Chiques Watershed Report Card** – The Report Card was organized and based on the catchments noted previously; and is the representation of the tool since catchments are the interface between overall and regional watershed health and localized issues, improvements, and municipal responsibilities. This is also a suitable format for education and to assist with decision making.



Report Card and
Action Plan Update

Chiques Creek Watershed

RECOMMENDATIONS

Continuous engagement amongst the watershed’s stakeholders with the incorporation of the Report Card into the discussion matrix should lead to long-term results through data driven deployment of restoration approaches. The Report Card should be updated a maximum of every five years as part of a comprehensive evaluation process to measure level of success of previously implemented restoration alternatives, identify potentially shifting hot spots, update priority catchments, and drive adjustments or focus areas of the Action Plan element.

The Action Plan (and prioritized projects list) should be updated annually to track implementation. A comprehensive farm assessment for the entire watershed and all of the agricultural land would be a tremendous undertaking and was beyond the scope of the resources involved with this project. However, pursuit of such an undertaking should be given significant consideration in the near future. Development and implementation of watershed-based permit is recommended for the Chiques Creek Watershed. This permit should include the MS4, wastewater, agricultural, and land development/land disturbance (construction) sectors.

For additional information: visit epa.gov and cbtrust.org

Year Awarded: 2019

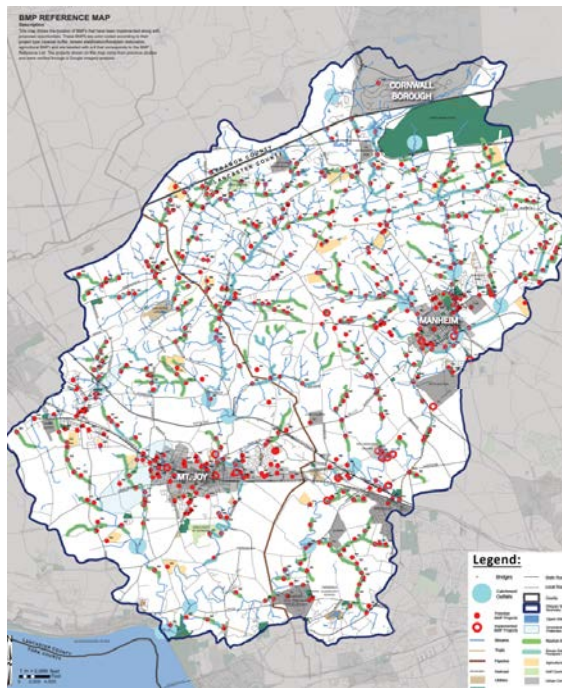
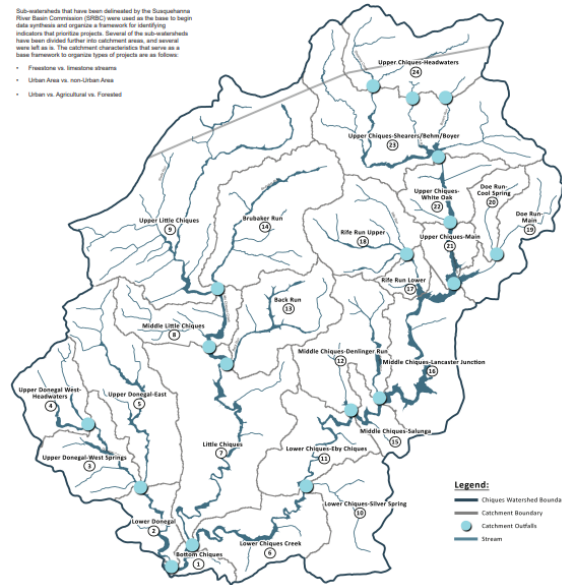
Award Amount: \$43,810

Catchment Reference Map

Description:
In an effort to determine priority hot spot areas for restoration the Chiques Creek Watershed was divided into sub-watersheds or catchment areas, that provide the best indication of the health of the watershed.

Sub-watersheds that have been delineated by the Susquehanna River Basin Commission (SRBC) were used as the base to begin site specific and organic in framework for identifying indicators that provide project. Several of the sub-watersheds have been used and further into catchment areas, with varying size and shape. The catchment characteristics are as follows:

- Freestone vs. limestone streams
- Urban Area vs. Non-Urban Area
- Urban vs. Agricultural vs. Forested



Project Partners: Chesapeake Bay Trust,
Conservation Foundation of Lancaster
County, LandStudies, U.S. Environmental
Protection Agency