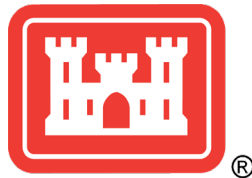


APPENDIX A
PROJECT SCOPING REPORT

**SECTION 510, CHESAPEAKE BAY ENVIRONMENTAL
RESTORATION AND PROTECTION PROGRAM**

**PLUM CREEK STREAM RESTORATION, ADAMS COUNTY,
PENNSYLVANIA**

PROJECT SCOPING REPORT



**U.S. Army Corps of Engineers
Baltimore District
January 2020**

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SECTION 510, CHESAPEAKE BAY ENVIRONMENTAL RESTORATION
AND PROTECTION PROGRAM

FACT SHEET
Plum Creek Stream Restoration Project

Conewago Township, Adams County, Pennsylvania
January 2020

SPONSOR: Conewago Township, Adams County, Pennsylvania

LOCATION AND DESCRIPTION: This fact sheet describes a stream restoration project of Plum Creek, located in Conewago Township, Adams County, Pennsylvania. The project is located within Plum Creek Community Park, which is owned by Conewago Township. Plum Creek Community Park is a 99-acre property, formerly the Hanover Airport, centrally located in Conewago Township (Figures 1 and 2).

Plum Creek has a drainage area of roughly 4,000 acres that receives runoff from residential, forest, and agricultural land. The project site contains three 400-foot long segments of pipe that had previously diverted the stream underneath the airport runway (Figure 3). The airport is no longer in use, and the pipes, which transported water under the runway, are no longer necessary. The pipes are failing structurally, which is causing erosion, flooding, and increased sediment transport within the creek (Figure 4). The downstream traffic bridge has three 50 foot pipes to transport water under the roadway (Figures 5 & 6). These pipes are in poor condition, and can also act as large debris dams, which further clogs and degrades the aquatic and terrestrial ecosystem in the area.

PROPOSED PROJECT: The Plum Creek stream restoration project would daylight the creek by removing the six pipes, and restoring the stream to a more natural state. This would involve restoring roughly 1,500 linear feet of stream, ranging from upstream of the pipes at the woods edge in the south, to the road leading to the airport hangar. The project would reconnect the stream to the floodplain, add

sinuosity, construct an environmentally friendly and sustainable traffic bridge, and plant native riparian vegetation.

ENVIRONMENTAL NEEDS: Section 510 of the Water Resources Development Act (WRDA) of 1996, further amended by Section 4010(a) of the Water Resources Reform and Development Act (WRRDA) of 2014 authorizes USACE to provide assistance to non-federal entities for water-related resource protection and restoration projects affecting the Chesapeake Bay estuary. Specifically, this assistance shall be in the form of design and construction assistance for water-related resource protection and restoration projects affecting the Chesapeake Bay estuary, including projects for sediment and erosion control.

Plum Creek is a headwater stream that ties into the Conewago River, the Susquehanna River, and eventually the Chesapeake Bay. Restoration of headwater streams is vital to the health of the Chesapeake Bay. Headwater streams provide the basis for water quality, nutrient input, and sediment movement within a watershed. The impacts of degraded headwater streams are felt throughout the entire downstream area, and so it is fundamental to the health of the watershed that headwater streams are as healthy and natural as possible.

Restoration of this section of Plum Creek will reconnect the stream to the floodplain, allowing the stream to better handle high water events in a natural and sustainable way. The project will also plant and maintain a riparian buffer, which will provide stream bank stabilization, flood management, and wildlife habitat.

SPONSOR INTEREST: Conewago Township has prepared a letter of assistance request for the Plum Creek stream restoration project. Conewago Township and the surrounding community are working toward the construction of the Plum Creek Community Park, which is a much needed feature in the township. Conewago Township does not currently have any parks of this size, and it plans to incorporate environmental programs into the park such as educational kiosks, walking paths, county sponsored riparian buffer planting, and expansion of the forest. Restoration of the stream is a key factor to the construction of the park, as the stream bisects the park and is a central focal point.

ASSESSMENT OF SPONSOR'S ABILITY TO PAY: Conewago Township has prepared a letter of intent to cooperate on the project. The Township acknowledges that they would be responsible for 25% of the cost for the project.

SCOPE OF ASSISTANCE: Conewago Township has prepared preliminary designs for the restoration of Plum Creek around the current stream configuration. The designs contain erosion and sediment control, a site plan, and a planting plan.

COST AND TIME FRAME OF STUDY: The cost is estimated to be roughly \$1,000,000. Cost-sharing for design and construction would be 75% federal, 25% non-federal. The duration of the project is estimated to be 3 years and 10 months (Table 1).

Table 1: Schedule

Task	Estimated time for completion
Scoping	3 months
Feasibility Assessment and NEPA	9 months
Design and Construction	1 year
Total Project Time	2 years



Figure 1: The proposed project is located west of Hanover, Pennsylvania.



Figure 2: Proposed project location of Plum Creek.



Figure 3: Photographs of the upstream end of the pipes. Note the structural condition of the pipes.



Figure 4: Photographs of the central area of the failing pipes.



Figure 5: Outfall pipes and downstream area between the pipes and the bridge.



Figure 6: Inflow (left photograph) and outfall of pipes going under the bridge. Note poor condition of pipes (left picture).

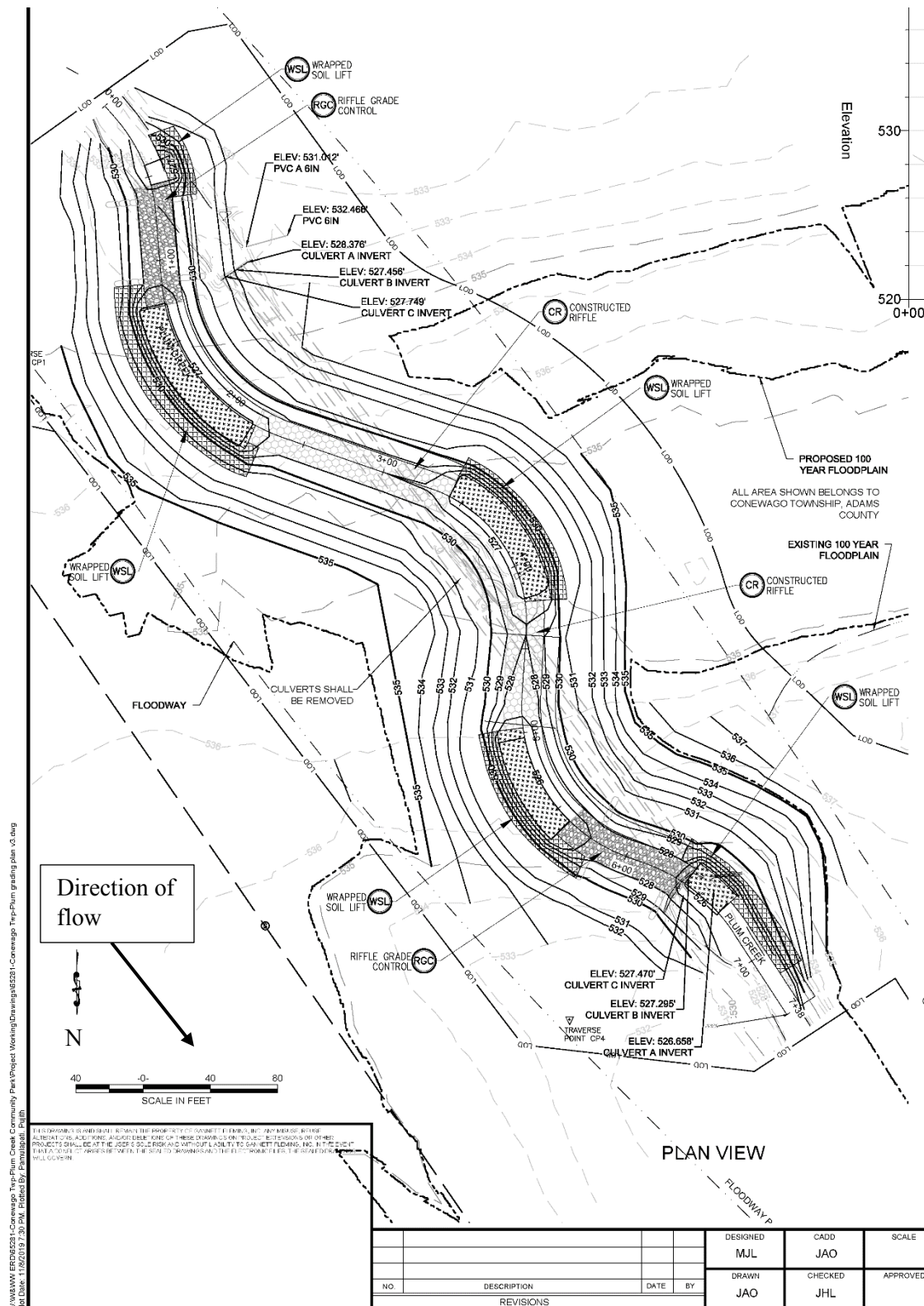


Figure 7: Plan view of a proposed stream restoration, showing constructed stream sinuosity.