Earth Conservancy

Dedicated to Mine Land Reclamation, Conservation, & Economic Development in the Wyoming Valley

Community Involvement Plan

Nanticoke Creek Watershed Restoration, Phases I & II
Hanover Township, Luzerne County, PA

Prepared by
Earth Conservancy

1.0 OVERVIEW OF THE COMMUNITY INVOLVEMENT PLAN

In 2023, Earth Conservancy (EC) was awarded a $1.96 million cooperative agreement from the US Environmental Protection Agency (USEPA) through its Brownfields Cleanup Program to restore a section of the Nanticoke Creek watershed. As part of the project's approved Work Plan, EC is to develop and implement a Community Involvement Plan (CIP). The CIP describes how EC will increase public awareness of and encourage community participation in the project as it unfolds. As the CIP is a living document, it will be amended as necessary to meet its objectives.

2.0 SITE BACKGROUND

The Nanticoke Creek watershed (NCW) is an 8mi^2 sub-watershed of the Susquehanna River Drainage Basin. It extends into four municipalities: Hanover Township, Newport Township, Warrior Run Borough, and the City of Nanticoke. There are three main tributaries: 1.) Nanticoke Creek, 2.) Leuder Creek, and 3.) Espy Run. Nanticoke Creek is the longest of the three tributaries. Water quality in the headwaters, located in the Wilkes-Barre Mountains, is generally good. However, after the streams meander north, they encounter land extensively littered with mine spoils and refuse piles from historic anthracite coal mining operations. A significant portion of runoff and surface water infiltrates into deep abandoned underground mine workings, primarily located at the former Truesdale Colliery. As a result, nearly 40% of Nanticoke Creek and its tributaries are dry and devoid of aquatic life. There is no discernible riparian buffer zone in the middle portion. When the water eventually resurfaces downstream, it is severely contaminated with acid mine drainage (AMD), then making its way to the Susquehanna River.

3.0 SITE INVESTIGATION

In 1993, prior to Earth Conservancy's purchase of the Blue Coal Corporation estate, all property underwent a field assessment by Resource Technologies Corporation. Many of the tracts along the Nanticoke Creek and its tributaries were identified as strip-mined or containing mine dumps or overburden piles. As described in the *Soil Survey of Luzerne County* (1981) by the US Department of Agriculture (USDA):

- Strip mine (Sm) soils are a "nearly level to very steep mixture of the bedrock and unconsolidated soil and rock material through surface mining to expose anthracite coal. Runoff is slow to very rapid, and the hazard of erosion is moderate to severe. Most areas are

extremely acid" (p. 89).[1]

- Mine dump (Mg) soils consist of low-quality coal and rock discarded during coal processing, usually placed in roughly-graded piles near former breakers (p. 31).
- Overburden is the unneeded soil and rock that is excavated during the strip-mining process. It is usually placed in piles (p. 49).

Strip mine and mine dump areas are not considered to be comprised of a hazardous material.

In 2005, a comprehensive evaluation of the NCW was completed by the US Army Corps of Engineers (USACE) in collaboration with the PA Department of Environmental Protection, PADEP's Bureau of Abandoned Mine Reclamation (BAMR), and EC, resulting in *Section 206 – Ecosystem Restoration: Detailed Project Report and Integrated Environmental Assessment of the Nanticoke Creek Watershed*, under. While the report indicated upper reaches of the watershed were healthy, it documented the damage to the streams when they encountered the Sm-Mg soils. Despite the physical impairments to the streams, no recognized environmental conditions (RECs) were identified that would limit potential future uses.

In 2018, LaBella Associates, Inc., completed a Phase I Environmental Site Assessment (ESA) for the Truesdale Bank. This ESA confirmed the majority of the area is covered by Sm-Mg soils. There were no ongoing or anticipated environmental enforcement actions related to the site. No RECs were found to exist. The site was found not to pose a significant environmental risk. A Phase II ESA was not recommended.

In October 2022, in lieu of a Phase II ESA, USACE provided a written statement reaffirming its analysis of and guidance for restoration of the Nanticoke Creek watershed from its 2005 *Detailed Project Report*. Recommended actions included reevaluation of historic stream alignments, reconstruction of stream channels, reclamation of mine-scarred lands, and use of natural stream design. The US Office of Surface Mining and Reclamation Enforcement (OSMRE) issued a letter of concurrence with the USACE's statement regarding these recommendations on November 7, 2022.

4.0 SCOPE OF WORK

Generally, the NCW Restoration project proposes restoring the historic alignment of Nanticoke Creek, beginning at Clarks Cross Road (Hanover Township), near the southern end of the project, upstream to Holly Street (Warrior Run), in the mountains. The full scope of work includes:

- A new alignment for the Nanticoke Creek west of Clarks Cross Road;
- Grading to generally contain the 2-year flow within the main channel of the new alignment, and allow larger flows to flow onto overbanks;
- Use of impermeable clay liner on the main channel to minimize seepage into the mine voids and reduce AMD downstream;
- Removal of a small, unregistered dam and reservoir located on Leuder Creek;
- Construction/replacement of several new and existing stream crossings.

The first two phases of the NCW Restoration begins upstream of EC's Askam Borehole AMD treatment system, near Clarks Cross Road. This project sets the stage for all future work in the watershed. Currently, the Nanticoke Creek flows under Clarks Cross Road. Hydraulic analysis indicates that the Clarks Cross Road bridge will be overtopped by a 10-year event. Furthermore, downstream of the bridge,

[1] Bush, R.D. (1981). *Soil Survey of Luzerne County, Pennsylvania*. Washington, DC: USDA Soil Conservation Service in cooperation with Pennsylvania State University College of Agriculture & the PA Department of Environmental Resources State Conservation Commission.

the Nanticoke Creek runs between several residential areas, some of which are within the existing 100-year floodplain.

Since the entire restoration project will reconnect the upstream Nanticoke Creek watershed to the downstream watershed, flows lost to the subsurface geology will be reduced. As a result, streamflow will increase in the lower segments of the creek. Due to the low conveyance capacity of the Clarks Cross Road bridge and the shallow channel between Clarks Cross Road and South Main Street, this existing reach of Nanticoke Creek should be expected to experience increased flooding with a no build alternative. A map depicting the general location of the projects is included as Appendix A.

The grant-funded cleanup of the Phase I & II areas is anticipated to take four years, ending in Fall 2027. On-site remediation activity is expected to begin in the spring of 2024.

5.0 COMMUNITY BACKGROUND

Communities within northeastern Pennsylvania flourished with the rise of anthracite coal mining. However, when the coal companies closed, the environmental and economic landscape that remained was grim. According to PADEP, there are 840 abandoned minelands in the northeast region,[2] and thousands of miles of damaged waterways. Furthermore, the economy has yet to fully rebound. Luzerne County's unemployment rate is 4.4%, above the state average of 3.8%.[3] It also coincides with poor performance on measures of income, education, and health.

The Phase I/II project is located in Census Tract 2180, a 5.2mi^2-parcel, with a population of 4,146.[4] It is designated as an EJ community.[5] Two additional EJ tracts abut its western side, with another three EJ tracts within 2 miles. The current, undersized channel of the Phase II project flows alongside a subsidized apartment complex. The area embodies many of the challenges faced by communities living amid legacy minelands. Its topography is unnatural. Mountainous piles of cast-off rock are juxtaposed against gigantic pits and bright orange ponds and streams. The material is unstable, inviting injury; prone to subsidence and fire; and an impediment to a functioning watershed. Within a ½-mile radius of the Phase II site, PADEP BAMR has responded four times to reported damage from mine water, twice due to AML hazards, and once for a subsidence.[6]

6.0 COMMUNITY INVOLVEMENT ACTIVITIES

The CIP sets out a variety of opportunities for the public to learn about and participate in the NCW restoration project, with the goals of establishing communication channels, increasing public awareness, and identifying priorities and concerns. The CIP will ensure that the communication process is ongoing and evolves as the project moves forward.

6.1 Hanover Township Council Meeting

A presentation on the NCW project was given during the monthly public meeting of the Hanover Township Commissioners on February 14, 2024, at the Hanover Township Municipal Building located at 1267 Sans Souci Parkway, Hanover Township, PA 18706.

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[2] The Institute. (2019). *Appalachian Regional Commission Study: Economic Impacts and Effects of Coal Mining in Northeastern Pennsylvania*.
[3] PA Department of Labor & Industry. (2023, July). *Luzerne County Profile*. https://www.workstats.dli.pa.gov/Documents/County%20Profiles/Luzerne%20County.pdf
[4] US Census Bureau. (2021). *2020: American Community Survey (ACS) 5-Year Estimates Data Profile*. https://data.census.gov/
[5] PADEP. *EJ Areas Viewer*. https://padep-1.maps.arcgis.com/apps/webappviewer/index.html?id=f31a188de122467691cae93c3339469c
[6] PADEP. (n.d.) *AML Inquiries and Complaints* [map]. eMapPA. http://www.depgis.state.pa.us/emappa/

6.2 Public Participation Meeting

A presentation on the NCW project and the Phase I/II ABCA will be given during an open public meeting on [TBD] at [TBD] in EC's Conference Room located at 101 South Main Street, Ashley, PA. This meeting will be advertised online one week prior to the presentation. All members of the public are welcome and invited to attend.

6.3 ABCA Public Comment

The draft (and eventually final) ABCA will be posted on EC's website on the NCW restoration project page where it will remain until cleanup is complete. The public may provide comments via email at e.hughes@earthconservancy.org or by calling 570.823.3445. Written responses to significant and appropriate comments, and documentation of any changes to the cleanup plan will be prepared. The ABCA will also be available in the Information Repository at EC's offices.

6.4 Project Webpage

Information about this project and relevant documentation will be posted on EC's website (www.earthconservancy.org) on a page dedicated to NCW restoration project.

6.5 Other Communications

EC may use social media posts, newspaper ads, and press releases to reach target communities and notify stakeholders about project events and activities.

6.6 Signage

An informational sign will be posted on the project site before the start of construction, and will remain until the cleanup is complete. The sign will read: "USEPA Brownfields Cleanup in Process. Reclamation of Mine-Scarred Lands. For more information visit www.earthconservancy.org or call 570.823.3445." A sign indicating the project has been funded by the Bipartisan Infrastructure Law also will be displayed.

6.7 Accessibility

Inclusiveness is a goal, and while English is the dominant language spoken in the target area, EC will take steps to secure translation, as needed.

7.0 INFORMATION REPOSITORY & ADMINISTRATIVE RECORDS

USEPA requires the establishment of an information repository, which will contain the documents used to select and implement of the cleanup plan. Documents will include the ABCA, site investigation reports, the cleanup plan, cleanup standards used, responses to public comments, and verification when the project is complete. The Administrative Record will be available to local residents in-person at EC's offices, located at 101 South Main Street, Ashley, PA 18706. Supplementary repository of documents will be available online to provide remote public access.

8.0 POINTS OF CONTACT

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Appendix A | Map of Project Area

NCW Restoration, Phases I & II | Hanover Township, Luzerne County, PA