Earth Conservancy

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

# FINAL DRAFT – PUBLIC COMMENT

# Analysis of Brownfield Cleanup Alternatives

Center Street Reclamation

Newport Township, Luzerne County, PA

Prepared by
Earth Conservancy

## INTRODUCTION AND BACKGROUND

Earth Conservancy (EC) has prepared this Analysis of Brownfield Cleanup Alternatives (ABCA) for reclamation of 24-acre site in the Wanamie Section of Newport Township in Luzerne County, Pennsylvania. Upon completion, the project will improve environmental health in the area through 1.) reclaiming mine-scarred land; 2.) repairing hydrological functioning; and 3.) reducing production of acid mine drainage (AMD). EC intends the restored area to be available for residential development.

An ABCA provides the public with information about environmental and contamination issues at a site and evaluates remediation alternatives. This evaluation will be revised, as necessary, and incorporated into the final site cleanup plan for review by the community, project partners, regulatory oversight agencies, and the US Environmental Protection Agency (USEPA).

### Organization & History

EC is a nonprofit organization dedicated to addressing the impacts of historic coal mining activity in northeastern Pennsylvania. In 1994, EC purchased the lands of the bankrupt Blue Coal Corporation. Generally located to the west of Wilkes-Barre, many of the 16,500 acres have been ignored, seen only as permanent eyesores and reminders of the past. EC, however, views the lands as an opportunity for transformation, progress, and growth. In pursuit of this, EC 1.) Develops sustainable land-use plans; 2.) Commits to provide 10,000 acres for recreation and open space; 3.) Leads reclamation efforts of mine-scarred lands and water resources and guides their reutilization; 4.) Funds its work through the sale of Conservancy land and other resources, and through public and private sector partners; 5.) Partners with local communities to achieve our mission; and 6.) Educates the community-at-large on environmental issues, the benefits of reclamation, and effective land-use planning.

As of today, 2,090 mine-scarred acres have been reclaimed, with thousands of jobs created through their redevelopment. Two constructed treatment systems mitigate acid mine drainage pollution in local watersheds. And over 9,390 acres have been conserved for recreation and greenspace. EC's work has earned EC eight Pennsylvania Governor's Awards and one USEPA Mid-Atlantic Award for Environmental Excellence. Over $69.5 million has been invested to date. All projects trace back to EC's

overarching mission, one that seeks a more livable community now, and clears the way for positive, progressive change for future generations.

## Site Description & Proposed Scope of Work

The Center Street project site is owned by EC. It is bordered to the north by property owned by a mining company; to the east by Center Street and a wooded parcel of private property; and to the south and west by additional EC land, part of which was reclaimed by PADEP in 1995. Historically, the area was both deep and strip-mined by the Glen-Nan Coal Company, which became part of the Blue Coal Corporation. Three different coal seams were mined (No. 1, Kidney, and Hillman veins). The site is characterized by a highly irregular topography comprised of multiple pits with large corresponding piles of mining waste. Elevations vary from 650' to 810'. There are several areas where illegal dumping has occurred.

The site is part of the Newport Creek watershed, a 14 square-mile subwatershed of the Susquehanna River Drainage Basin. Due to mining activity, naturally functioning hydrology in the area has been destroyed. Presently, precipitation filters down through the spoil piles into the subterranean mine pools. Excess water sits in two large, excavated pits, which discharge directly into an unnamed perennial tributary to the Newport Creek. This water – as well as resurfacing water from the mine pools – is contaminated with acid mine drainage (AMD), which flows into the Susquehanna River.

Generally, the Center Street project involves mass cut-and-fill earthwork to reduce the spoil piles and fill the pits. The full scope of work includes:

- Grading approximately 24 acres of land, including two water-filled pits, one measuring 2.3 acres / 26 feet deep, and one measuring 2.3 acres / 32 feet deep;
- Reestablishing natural drainage paths;
- Revegetation of the area.

This ABCA has been written as part of grant application requirements made by USEPA for its Brownfields Cleanup Program. A map depicting the general location of the project is included as Attachment A.

## Cleanup Objectives

The objectives of the Center Street Reclamation Project are:

1. Reduction of nonpoint source pollution (AMD) in the watershed;
2. Restoration of hydrological conditions in watershed;
3. Removal of an "attractive nuisance";
4. Improvement of habitat;
5. Recovery of the site for community benefit (e.g., safety, economics, aesthetics).

These goals are consistent with EC's mission, EC's original *Land Use Plan* (1996), its *Newport Township Master Plan* (2019), and findings in a recent housing market analysis, funded through a USEPA Technical Assistance award. Moreover, they are consistent with the goals, recommendations, and regulations of EC's frequent partners on reclamation and restoration projects, including USEPA, the US Office of Surface Mining and Reclamation Enforcement (OSMRE), US Army Corps of Engineers (USACE), the Pennsylvania Department of Environmental Protection (PADEP), and PADEP's Bureau of Abandoned Mine Reclamation (BAMR).

## SUMMARY OF PREVIOUS INVESTIGATIONS

In 1993, prior to Earth Conservancy's purchase of the Blue Coal Corporation estate, all property underwent a Phase I Environmental Site Assessment (ESA) by Resource Technologies Corporation of State College, PA, which indicated the area off of Center Street was partly strip-mined. A search on the of the US Department of Agriculture's Natural Resources Conservation Service's Web Soil Survey confirms that approximately 82% of the site is Strip Mine (Sm), including pits.[1] As described in the *Soil Survey of Luzerne County* (1981) by the US Department of Agriculture:

- 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).[2]

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

In 2024, Verdantas, LLC, completed a Phase I ESA for the Center Street site. This ESA classified the soils by hydrologic group, finding the on-site material primarily comprised by gravelly loams. These soils have a high rate of water transmission, meaning precipitation passes quickly through the strip-mined materials and into groundwater/subsurface flow. There were no ongoing or anticipated environmental enforcement actions related to the site. No recognized environmental conditions (RECs) were found to exist. The site was found not to pose a significant environmental risk. A Phase II ESA was not recommended.

According USEPA guidelines in the solicitation for Brownfields Cleanup Grants, in lieu of a Phase II ESA, an applicant may provide equivalent documentation that demonstrates "a basic understanding of what contaminants need to be cleaned up on the site." The Center Street site has been evaluated by OSMRE and is included in its Abandoned Mine Land Inventory System as Site #PA-1651. Identified features are spoil piles and strip pits.

## SITE ASSESSMENT FINDINGS

During the prior investigations, no recognized environmental conditions (RECs) were identified on-site. Consequently, this ABCA addresses environmental, safety, social, and economic concerns linked to the property, specifically those that may arise from its brownfield status. According to USEPA[3], the potential impacts include:

- **Environmental Challenges:** The health and safety of people and animals can be at risk if a property presents exposure to environmental contaminants. If not addressed, contamination can spread to nearby properties as well.
- **Economic Challenges:** When property owners and potential investors suspect a property is contaminated, they may fear they will be held liable for past contamination. [….] Until a brownfield is properly characterized, it may be passed over for redevelopment.
- **Social Challenges:** Over time, a neglected property may become an eyesore, contributing to neighborhood blight and social decline. Blighted properties can weaken local real estate markets,

[1] USDA. Web Soil Survey Soil Map. [Map]. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
[2] Bush, R.D. (1981). *Soil Survey of Luzerne County, Pennsylvania*. Washington, D.C.: U.S. Department of Agriculture Soil Conservation Service in Cooperation with The Pennsylvania State University College of Agriculture and the Pennsylvania Department of Environmental Resources State Conservation Commission.
[3] USEPA. (2021). *Brownfields and Land Revitalization Program Impacts*. https://vaswcd.org/wp-content/uploads/2021/10/EPAs-Brownfield-and-Land-Revitalization.pdf

add stress to community social ties, and make it difficult for the community to attract needed services and investment.

The land in the project area exhibits all the challenges identified above. While the environmental damage is the most apparent, it, in turn, creates safety risks and deters development, ultimately undermining the community's well-being. Reclaiming the Center Street site will directly address these issues by:

- Restoring proper hydrological functioning to the area, thereby mitigating AMD pollution and increasing resiliency against climate change-related threats;
- Eliminating stagnant water hazards, removing an attractive nuisance and reducing the risk of mosquito-borne illnesses; and
- Enabling productive land reuse, aligned with municipal planning and community needs.

## FORECASTED CLIMATE CONDITIONS

According to the U.S. Global Change Research Program, climate trends for the northeast region of the United States include "heat waves, coastal flooding, and river flooding [that] will pose a growing challenge to the region's environmental, social, and economic systems. This will increase the vulnerability of the region's residents, especially its most disadvantaged populations."[4] Some of these factors, most specifically increased precipitation that may affect stormwater runoff, are most applicable to the Center Street reclamation project.

According to the FEMA Flood Map Service Center, the Center Street site (41.180278, -76.044167) is within an area of minimal flooding (Zone X).[5] However, the changing climate has resulted in more frequent and intense precipitation events. This generates localized stormwater impacts, including 1.) accelerated erosion and sedimentation of the spoil piles; 2.) increased infiltration/percolation of water through the spoil piles; and 3.) perpetuation of standing water in the pits, all of which will exacerbate production of AMD.

## APPLICABLE REGULATIONS, LAWS, & STANDARDS

In consideration of current and future uses of the Center Street site, cleanup plans will provide for adequate protection of human health and the environment. EC and its procured engineers/contractors will adhere to all applicable local, state, and federal laws, regulations, and guidance in relation to brownfields and environmental remediation, including, but not limited to, the following:

### Laws & Regulations

- The Center Street site has not been identified on the NPL, nor is under CERCLA or RCRA orders. Furthermore, EC is not potentially liable for contamination at the site under CERCLA §107, as stated in the Deed of Sale from the Trustee in Bankruptcy for the Blue Coal Corporation. All Appropriate Inquiries (AAI) were conducted prior to sale. EC is considered an Innocent Landowner (ILO) and is not potentially liable for AMD pollution originating at the site.
- No historic sites are on or eligible for the National Register of Historic Places for the Center Street site.

[4] U.S. Global Change Research Program. (2014). Key Messages about the Northeast. *National Climate Assessment*. www.globalchange.gov/explore/northeast
[5] U.S. Department of Homeland Security. *FEMA Flood Map Service Center*. https://www.fema.gov/

- In accordance with state and federal guidelines, the project area was screened through the Pennsylvania Natural Diversity Index. No adverse impacts to species of concern were anticipated from the proposed project, as long as appropriate measures for mitigation are implemented.
- Prior to construction, all appropriate permits will be obtained. This includes receipt of a National Pollutant Discharge Elimination System (NPDES) permit from the Luzerne Conservation District (LCD), which will identify sources of erosion and sediment on the property and Best Management Practices to implement to address each (i.e., an Erosion and Sediment [E&S] Control Plan).
- Laws and regulation that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, state environmental law, and local municipality bylaws. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed.
- During construction, the contractor will adhere to all federal, state, and local rules and regulations relating to the Occupational Safety and Health Administration (OSHA), including monitoring the site for hazardous conditions during work. The construction contract will require the contractor to immediately notify EC and the project engineer if a hazardous environmental condition is encountered.
- Because no hazardous substances have been identified at the project site, institutional controls, restrictions, and/or compliances will not be required.

## Cleanup Oversight

To ensure compliance with regulatory requirements and project goals, EC will provide project management, administrative services, and technical expertise during work. The selected project engineer will also assist in these roles, including periodic site visits to monitor progress and adherence to plans. Additional inspections will be performed by LCD and PADEP to verify regulatory compliance and ensure any inconsistencies are immediately addressed.

## Documentation & Reporting

Reclamation of the Center Street site will comply with all USEPA Brownfields Program requirements (e.g., information repository, community information plan, opportunities for public comment, ABCA, cleanup oversight). EC will be responsible for all documentation and reporting. A webpage dedicated to the Center Street project has been launched.

# EVALUATION OF CLEANUP ALTERNATIVES

To address the brownfield conditions at the site, three alternatives were considered for the Phase I and II restoration projects. To satisfy USEPA requirements, the effectiveness, implementability, and cost of each alternative must be considered prior to selecting a recommended cleanup plan. Generally, all alternatives are located in the same location; only the methods of remediation differ.

### Alternative #1 | No Build

Alternative #1 leaves all issues of concern in their existing state. No mitigation of environmental damage would occur, nor would issues related to safety or AMD be addressed. Re-use of the site without remediation would be impossible. This alternative would neither meet EC's stated objectives for the project, nor conform to EC's mission.

### Alternative #2 | Reclamation Only

For Alternative #2, site topography will generally remain the same, with mass earthwork used to eliminate very steep grades and to fill in the stripping pits, in accordance with an approved E&S plan and NPDES permit. Stormwater infrastructure also will be added to restore hydrological functioning to the site. Grades will allow for placement of topsoil and revegetation with a grass meadow seed mix. This plan will 1.) reduce the velocity of stormwater runoff and, consequently, erosion; 2.) mitigate contact between precipitation and the spoil materials, which produces AMD; and 3.) eliminate the two pits filled with stagnant water. However, since the site is not completely level, only portions of the property will be readily available for future development.

The cost estimate for Alternative #2 is included as Attachment B. This alternative will improve environmental and safety conditions at the site, prepare the site for future development, and can be completed with funds available.

### Alternative #3 | Reclamation of Site & Restoration to Useable Condition

Alternative #3 follows the same general scope of work as proposed in Alternative #2, with the addition of fully levelling site and geotechnical stabilization. Together, these measures achieve the environmental and safety objectives of the project, while also maximizing the amount of readily developable land. This would also minimize the amount of disturbance required for future redevelopment and boost EC's ability to return the property to productive use more quickly.

However, at several million dollars, the cost for Alternative #3 far exceeds what is typically considered reasonable for a brownfield cleanup project of this type and scale. This significant budget increase is driven by substantial additional costs for excavation, materials, compaction, transportation, and labor.

## Recommended Cleanup Alternative

After reviewing remedial alternatives, the recommended alternative is **Alternative #2, Reclamation Only**. Alternative #1 cannot be recommended since it does not address site risks and impacts, nor does it support EC's mission. Alternative #3, while ideal for redevelopment of the property, significantly exceeds available funds, as well as what is required to address general environmental and safety impacts. Alternative #2 has the benefits of improving the environmental, economic, and social conditions of the site, and of being cost-effective. Moreover, while some acreage of the site will be available for redevelopment, other portions will remain as green space. *Note: The selected remedy may be bid with a base scope and an additive alternate for additional site regrading, subject to bid pricing and available funding.*

# ADDITIONAL CONSIDERATIONS

## Green Remediation Potential

The selected alternative employs strategies consistent with USEPA's *Principles for Greener Cleanup* policy by minimizing the environmental footprint of cleanup activities in that it achieves the desired safety, environmental, and reuse impacts with less materials/activity in a more targeted space. Consequently, less energy and resources are used, fewer emissions are released, and a smaller amount of habitat is disturbed.

## Public Participation

Public comment on the Center Street reclamation project is important to the cleanup process. A final cleanup method will be selected only after the public is given adequate time to review and comment on the ABCA and all comments have been reviewed and responded to appropriately.

EC will solicit input from the public on this final ABCA by 1.) posting a copy of the ABCA on EC's website; 2.) notifying the public of the ABCA's availability on social media; and 3.) publishing a public notice in a local newspaper inviting input on the ABCA at a public meeting. Modifications to the ABCA may be made on the proposed alternative based on new information and/or comments received from the public. A *Community Involvement Plan* has been posted on EC's website on its Center Street project page and will be updated as community involvement activities occur.

## Limitations & Contact

The contents and format of this report are based upon information available and are comparable to cleanup planning documents developed and approved in connection with previous USEPA Region 3 Brownfields Grant programs. This report is a work of opinion; therefore, we cannot offer any warranty regarding our conclusions, advice, or recommendations.

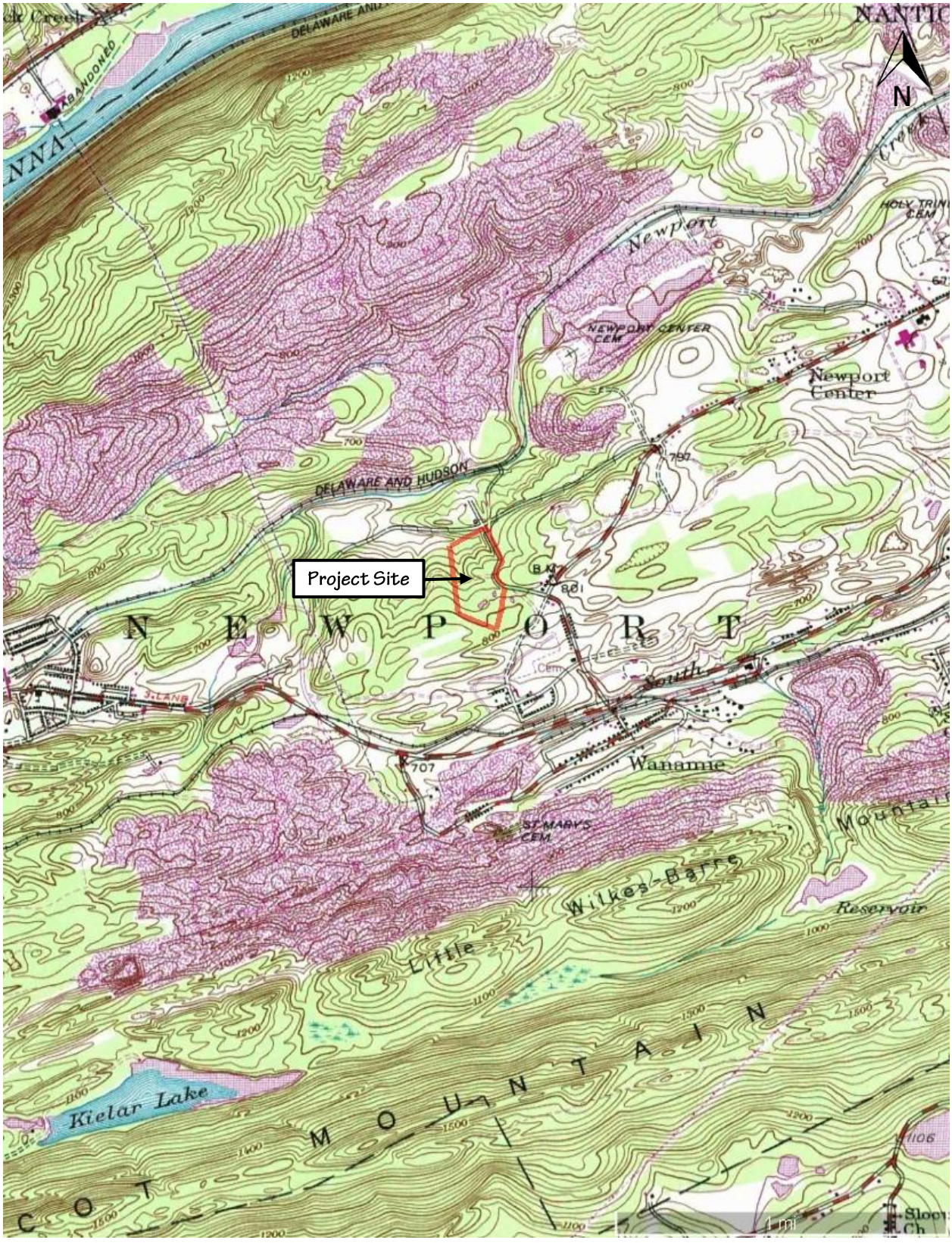
For questions or further information regarding this document, please contact the undersigned at 570.823.3445 or admin@earthconservancy.org with the subject line "ABCA Public Comment - Center Street."

EARTH CONSERVANCY

Terence J. Ostrowski, PE
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# Project Location Map

Center Street | Newport Township, Luzerne County, PA



# Cost Estimate: Alternative #2

Reclamation Only - Center Street Reclamation
Newport Township, Luzerne County, PA

| Item No. | Item | Qty. | Unit | Unit Price | Total Price |
|---|---|---|---|---|---|
| **Engineering Services** | | | | | |
| 1 | Engineering Design & Permitting | 1 | lump sum | $110,000.00 | $110,000.00 |
| 2 | Project Inspection / Testing | 1 | lump sum | 50,000.00 | 50,000.00 |
| | | | | **Subtotal:** | **$160,000.00** |
| **Construction Services** | | | | | |
| 3 | Mobilization / Demobilization | 30 | pieces | 720.00 | 21,600.00 |
| 4 | Performance / Payment Bonds | 1 | lump sum | 85,000.00 | 85,000.00 |
| 5 | Project Supervision | 1 | lump sum | 29,800.00 | 29,800.00 |
| 6 | Construction Layout | 10 | days | 2,600.00 | 26,000.00 |
| 7 | Clear & Grub Site | 24 | acres | 5,300.00 | 127,200.00 |
| 8 | Strip & Stockpile Topsoil | 12,000 | cy | 3.15 | 37,800.00 |
| 9 | 12” Silt Soxx | 600 | lf | 13.00 | 7,800.00 |
| 10 | 18” Silt Soxx | 800 | lf | 21.00 | 16,800.00 |
| 11 | 24” Silt Soxx | 400 | lf | 29.00 | 11,600.00 |
| 12 | Rock Construction Entrance | 230 | sy | 30.00 | 6,900.00 |
| 13 | Sediment Basin / Outlet Structure | 1 | lump sum | 83,000.00 | 83,000.00 |
| 14 | Clean Water Diversion Swale | 1,600 | sy | 19.00 | 30,400.00 |
| 15 | Rip-Rap Lined Swale | 720 | sy | 58.00 | 41,760.00 |
| 16 | 24” HDPE Storm Pipe | 250 | lf | 50.00 | 12,500.00 |
| 17 | R-6 Outlet Protection | 100 | sy | 68.00 | 6,800.00 |
| 18 | Mass Earthwork: Cut/Fill | 180,000 | cy | 5.25 | 945,000.00 |
| 19 | Spread Existing Topsoil | 12,000 | cy | 3.70 | 44,400.00 |
| 20 | Import & Place Topsoil | 6,000 | tons | 19.00 | 114,000.00 |
| 21 | Tree Planting | 200 | each | 210.00 | 42,000.00 |
| 22 | Seed & Mulch | 24 | acres | 2,500.00 | 60,000.00 |
| | | | | **Subtotal:** | **$1,750,360.00** |
| | | | | **Total Project Estimate:** | **$1,910,360.00** |

*Note: The selected remedy may be bid with a base scope and an additive alternate for additional site regrading, subject to bid pricing and available funding.*