ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

Produced by the Lackawanna Valley Conservancy

As part of the requirements for the United States Environmental Protection Agency

Brownfields Cleanup Grant Program Project to be conducted at the

Misty Ridge Site

Old Forge Borough, Lackawanna County, Pennsylvania

April 2011

Draft Document

MISTY RIDGE ANALYSIS OF BROWNFIELDS CLEAN UP ALTERNATIVES

The Lackawanna Valley Conservancy and Lackawanna River Corridor Association, in conjunction with JMG Construction, have prepared this Analysis of Brownfields Clean up Alternatives (ABCA) for the Misty Ridge Development and Riverbank Stabilization Project, Old Forge Borough, Lackawanna County, Pennsylvania. The ABCA is prepared according to requirements set forth by the United States Environmental Protection Agency (US EPA) Brownfield Cleanup Grant Program guidelines.

PROJECT BACKGROUND

The Lackawanna Valley Conservancy (LVC) and The Lackawanna River Corridor Association (LRCA) are affiliated community based non- profit conservation organizations with collaborative missions to involve the community with the stewardship of natural resources in the Lackawanna River Watershed in Northeast Pennsylvania. LRCA and LVC initiated a further collaboration with JMG Construction a residential developer to reclaim and redevelop approximately 30 acres of abandoned mine land in Old Forge Borough, Lackawanna County. The first stage of this restoration, served as a demonstration project to re contour 975 feet of the badly eroded north bank of the Lackawanna River. In this area, silt/culm is washing into the river at a rapid rate, adding to sediment deposition both at that site, and downstream. It will take several phases to finish the project. Local private investment, a municipal tax incremental finance district, state and federal funding have been designated for various phases and aspects of the overall Project.

After completion, JMG construction will develop “Misty Ridge,” an age preferred 55 plus housing complex on an upland portion of the site. The area along the riverbank and flood plane will feature an environmentally responsive link to the Lackawanna Greenway. The community will consist of 64 town homes for sale, and eighty -four rental apartments, with permanent “green space” which has been deeded to the Lackawanna Valley Conservancy. This project will serve as an example of innovative reuse of an abandoned coal mine site involving the Brownfields Clean Up program and the creation of a “Conservation Subdivision” whereby natural resource values are enhanced while community and economic development goals are addressed.

Through this development, an old Anthracite Colliery “brown field” site, which has been problematic for many years, will again become an environmental and economic asset for the community. The LVC and LRCA are pleased to collaborate with local government and a private developer who is venturing to reclaim the project site for productive purposes. The LVC and LRCA are overseeing the Clean Up aspects of the project, providing community involvement, technical expertise, and knowledge of best management practices. Because of the long-term degradation of this site, it will be expensive to restore.

The LVC, as property owner, is functioning as lead agency for the US EPA Brownfields Clean Up program-funded portion of the Project. LVC and its project partners have conducted an “ABCA” alternatives analysis and a community involvement program. This document reports on the alternatives that were analyzed, the procedures used to conduct that analysis, the involvement of the community with the ABCA process and the recommended actions resulting from the analysis.

EXECUTIVE ABCA SUMMARY

The LVC has developed three alternative Clean Up scenarios as alternatives to be considered in the context of the National Environmental Policy Act (NEPA) for this US EPA funded project. The alternatives were analyzed on the basis of environmental and cultural appropriateness to the site, economic feasibility, and community support.

The alternatives are analyzed further in this document. Briefly they are as follows:

A) No Build alternative: leave the site alone allow natural succession of soil accretion and vegetation to occur over time.

B) Conduct a complete removal of ALL mining waste materials, regrade the topography to meet drainage and erosion control requirements, import new soils and hydroseed.

C) Collaborate with neighboring property owner and conduct the Clean Up project jointly as part of a planned conservation / residential sub-division development.

Alternative A was rejected since it did not meet community or landowner objectives for the site. Alternative B was rejected because it was not feasible on an economic or environmental basis. Alternative C was selected because it is feasible from an economic basis; it meets community and landowner objectives and is consistent with best management practice for reclamation and redevelopment of AML sites in Pennsylvania.

SITE CHARACTERIZATION

Anthracite Mining Impact, Acid Mine Drainage (AMD)

The impact of the anthracite mining industry is readily seen at this site. Because the this project will greatly reduce the amount of sediment deposited in the river at this location; vegetate the site with native plant species, and reduce acid mine drainage (AMD), the LVC and LRCA consider that the project will provide significant environmental benefits for the Lackawanna River and the surrounding communities.

According to the US EPA, AMD is water that is "polluted from contact with mining activity, and normally associated with coal mining. AMD is a common form of water pollution in Pennsylvania. AMD is the formation and movement of highly acidic water through the chemical reaction of surface water and shallow subsurface water with rocks that contain sulfur -bearing minerals, resulting in sulfuric acid. Heavy metals can be leached from rocks that come in contact with the acid, a process that may be substantially enhanced by bacterial action. The resulting fluids may be highly toxic when mixed groundwater, surface water and soil, may have a harmful effect on humans, animals and plants."

AMD is a pollutant that can impede a stream's ability to support aquatic life. Pyrite (iron disulfide), the primary agent responsible for AMD, is often found in underground anthracite mines, and is prevalent in the numerous slag heaps and culm banks that line the Lackawanna Valley. Pyrite contaminated water, either from underground mine operations, or above ground culm banks, drains into the Lackawanna River. When this pollutant-laden water comes into contact with oxygen, it forms an iron oxide. After undergoing chemical changes, it precipitates out of solution, forming orange deposits along rivers and streams that receive mine water. Such occurrences are numerous along the Lackawanna River, especially in the Old Forge area. This pyritic solution, after reacting with water and oxygen, forms sulfuric acid, a major pollutant, which results in AMD.

This abandoned anthracite mine area has long contributed to the Lackawanna River's sediment overload. The river flows in close proximity to embankments of culm and silt on the property. Drainage of stormwater across the site generates significant amounts of sedimentary load of coal waste material that is readily transported into the river. This site is three quarters of a mile upstream from the Old Forge Lackawanna mine outfall, which discharges nearly 100 million gallons of underground mine drainage into the Lackawanna each day. This discharge pollutes the river with iron oxides and other metals that stain the watercourse with a bright orange oxide precipitate. Due to the long history of environmental degradation and the volume of coal mining waste materials on site, the reclamation will be expensive and require several years to complete.

Located along the Lackawanna River, in the Upper Susquehanna River watershed, this site, features coal waste materials that are eroding readily into the river. This situation compromises water quality by introducing heavy metals, nutrients, sediments, and other harmful substances the into waterway. The EPA and PA DEP have recently established a Total Maximum Daily Load (TMDL) assessment for iron along this reach of the Lackawanna. The Commonwealth of Pennsylvania's State Water Plan also seeks to reduce sediment and nutrient loading for the goal of improving water quality to meet the Chesapeake Bay Tributary Strategy goals.

The Pennsylvania DEP estimates that in the Commonwealth alone, an estimated 5,000 miles of waterways are AMD impacted, many of which are located in the Northeastern part of the state. Although many of the culm banks and coal piles may look harmless, they are a ready and constant source of pollution, contributing to the AMD problem. One of the largest sources of AMD are from boreholes, the largest in the Northern Anthracite field is located in Old Forge. Boreholes, or vertical shafts drilled to relieve pressure built within mine pools, often prevented flooding in homes and other structures, but directed water flow into nearly streams, causing many waterways to become degraded by AMD.

Research conducted by various universities (University of Sydney, University of Ottawa, and Rutgers University along with several others) shows that heavy metals are bound and transported downstream by sediments, so the work completed under this grant will improve water quality in the Lackawanna River. The LRCA's Lackawanna River Conservation Plan also states similarly "soil particles eroded upstream and carried in suspension become a matrix for nutrient pollution as nitrogen and phosphorus molecules become attached to suspended solids."(Chapter 5, Water Quality and Quantity, page 5). Reducing sediment overload will help improve water quality. This project, therefore, will have many environmental benefits, *including improving water quality, restoring abandoned mine land to productive use, and reducing flooding downstream through decreasing bank erosion and sediment overload.*

The Lehigh Electric Superfund site (PAD9807123731) is immediately adjacent to this project site. Located in the Lackawanna River's flood plain, the Lehigh Electric site was subdivided from the Old Forge Colliery in the 1960's. It was once part of the colliery operations hosting the colliery's steam electric power plant. The Lehigh Electric and Engineering Company conducted repair and scraping of electrical equipment. It operated between the mid-1970s until 1981, Toxic and hazardous pollutant conditions were created by this operation. There were over 4,000 transformers and capacitors stored at the facility. Poor handling and disposal of dielectric fluids containing PCBs resulted in contamination of on-site soil, and pollution in the surrounding area. This parcel is under EPA /PA DEP jurisdiction. Current status information is attached in the appendix to this ABCA Report.

The Lehigh Electric and Engineering Company superfund site, near Forge, Bridge and Howard Streets, had been remediated the US EPA cleanup in 1986, At that time the site was deleted the from the most hazardous sites list. Reviews are conducted every five years, with the most recent completed in February 2010. Results from this review recommend that an additional ground water well should be installed, and additional soil sampling should be conducted to continually reassess conditions. EPA plans to conduct follow up monitoring work during 2011. The Conservancy will consult with EPA project staff during the monitoring work. Previous test wells, however, have not shown any contamination on the Misty Ridge property or the property conveyed to the Lackawanna Valley Conservancy.

The 2010 review report indicated that the "Site remedy is protective of human health in the short term because no current exposure pathway or receptors exist for either the groundwater or the soil at the Site." The Conservancy, The LRCA and JMG Construction will maintain communications with US EPA and PA DEP as the Site Review addendum work proceeds. It is not anticipated that any actions or activities

conducted or proposed to be conducted on Conservancy or JMG property will be adversely affected by conditions at the Lehigh Site.

SITE LOCATION, ACREAGE DIMENSIONS AND BOUNDARIES

The site is located in the Borough of Old Forge in Lackawanna County in northeastern Pennsylvania. It is situated along the Lackawanna River approximately three miles upstream from the confluence of the Lackawanna River with the North Branch of the Susquehanna River in the Susquehanna River Basin/ Chesapeake Bay Watershed. The site coordinates are Latitude: 41 21”30”’ Longitude 75 44’ 36.”

The site is approximately 30 acres in size. It is bounded to the north and west by the residential neighborhood along Forge and Howard streets and the Reading and Northern Railroad’s Pittston to Taylor line. The Lackawanna River forms the easterly and southerly boundary forming an arc from the north to the southwest along a 3300-foot length of the westerly shoreline of the Lackawanna River. The Lehigh Electric site forms a wedge shaped in holding on 5 acres at the southwest portion of the overall former colliery site. The topography of the site rises from the flood plain of the river at an elevation of 600 feet above sea level to a terrace ridgeline at 660 feet elevation along the rail corridor at the western boundary of the site.

The Misty Ridge is located a few blocks from the busy Main Street corridor, near the many restaurants, pizzarias, and small businesses located in the borough. It is in walking distance to local recreational facilities such as parks, the local football field, schools, churches, and situated near a well-traveled bus route. The Lackawanna County area has a higher than average proportion of older population. This demographic plus the sites’ location are well suited for the proposed residential development.

The surrounding land use patterns are varied including additional unused lands owned by JMG Construction, Incorporated to the north; the Lackawanna River and Lehigh Electric Superfund site to the south; the Lackawanna River to the east; and Bridge Street to the west.

VEGETATION, SOILS, GEOLOGY, AND WATER RESOURCES

There are no wetlands on site or in the immediate area. The site is located above the Lackawanna River flood plain, so there is no danger from flooding.

According to the Pennsylvania Geological Survey (PGS): Landforms of PA, the project is located in the Ridge and Valley Province, Anthracite Valley Section, in Old Forge Borough, lower Lackawanna County. The Anthracite Valley is a crescent shaped valley, surrounded by a steep sloped mountain rim. According to the PGS, the structure of the valley is a broad, doubly plunging syncline and smaller folds. The underlying rocks are composed of sedimentary rocks such sandstone, shales, siltstone, and conglomerate, along with a predominance of anthracite coal. The larger of the underlying coal veins in the area are named: Marcy, Clark, New County and the Red Ash #1 and #2 veins. The bedrock geological characteristic of the property is the Pennsylvania Age Llewellyn formation (PGS, Berg, 1980). Coal beds are the most prevalent feature of the Llewellyn formation.

Marcellus, Utica and other shale formations underlie the Llewellyn at seven to fifteen thousand feet. Natural gas productivity of these shales has not yet been proven under the Anthracite Valley due to supposition that the tectonic pressures that forced the volatiles out of the coals may have also depleted the methanes from the shales in proximity to the anthracite synclorum.

The Llewellyn formation has been extensively mined in the Lackawanna Valley, including the Old Forge area, resulting in poor groundwater quality in the region, due to the effects of AMD. Mining was practiced using the so-called "Room and Pillar" method. This has resulted in an abandoned subterranean labyrinth of tunnels and voids that penetrated the coal measures to a depth of one thousand feet from the surface. This mine void system is flooded with ground water and infiltration from the riverbed and tributary streams that loose flow to the underground mine complex. This mine pool complex is known as the Metropolitan Scranton Mine Pool (MSMP). The surface elevation of the MSMP is located approximately 80 feet below the project site. It reaches in extent 20 miles from Archbald in the north to Old Forge in the south and extends about a mile and a half on either side of the Lackawanna River.

The Soil Survey of Lackawanna and Wyoming Counties (U.S. Department of Agriculture), and the Pennsylvania State University Soil Map, indicate that the site is comprised of Dumps, mine (Da), UR and US (Urban), and UA strip mined soils (Udothents) indicative of strip mined, highly built lands. This very poor quality soil has been strip-mined, with rock fragments comprising up to fifty percent of the land, with the remaining portion consisting of mixed, materials. It is both poorly drained to very well drained, sometimes with channery or channery silt loam bands as much as four inches thick. This is not a true soil, needing organic material and topsoil as a growing medium for vegetation. Radon readings in Lackawanna County above the 4pCi/l level are 20 – 40 percent, which, although high, are nowhere near the highest levels measured in the state.

The site contains minimal ground cover, and large areas of anthracite coal refuse covering many acres. The small amounts of ground cover and spotty vegetation are due to the extremely poor soil conditions, with very little to no topsoil present at the site. Reaction of the soil is extremely acidic to acidic throughout. The majority of trees at the site are immature, small caliper gray birch, quacking aspen, and similar species, unable to grow to maturity due to poor soil conditions. The invasive Japanese Knotweed may be seen along the Lackawanna River's edge. The addition of several inches of sub soils and topsoil for the Misty Ridge project will improve soil quality and allow for the establishment of more vegetation.

There are a few higher quality, native trees on site, which will be transplanted and used later. Volunteers under the direction of the Lackawanna River Corridor Association will salvage and later transplant native grasses including Little Blue Stem after the project's completion. Also noted on site are a few red and white oak, and red pine. The LVC and JMG will conserve these species and add other native trees and shrubs after amending the soil. This is intended to help reestablish a community of native flora and fauna as one might have found at the site prior to mining activity.

Because the site is located near the Lackawanna River, all water flowing from the property enters the Susquehanna River watershed. Water flows into the Lackawanna River in a southerly direction, with the

river forming the southern and eastern site boundaries. A visual inspection as well as a review of the National Wetlands Inventory Map (NWI) indicates no wetlands at this location.

RARE, THREATENED AND ENDANGERED SPECIES, OTHER WILDLIFE

Few wildlife species were noted at the site. The poor soil conditions and lack of tree canopy do not favor establishment of any significant wildlife populations. Some occasional mammals and birds may be seen passing through such as eastern cottontail rabbits, gray squirrels, along with skunks and opossums during evening hours. Occasional deer and coyote have been noted at the site, along with woodchuck, raccoon and some mink along the river's edge. Bird species seen in the vicinity include crows, starlings, robins, osprey, ducks including mallards and mergansers, Canada geese, kingfisher, blue heron, and green hooded night heron. There have been some sittings of American bald eagle along the Lackawanna River in nearby areas.

A Pennsylvania Natural Diversity Index search at this location yielded no species of concern at the site. A copy of the search request is attached.

CLEAN UP OBJECTIVES

The objectives for the Clean Up project ate the removal of coal waste and the reclamation of the overall 30 acre site to support installation of a residential development on approximately 20 acres of upland and restoration of gradients, soils and drainage to support creation of a river greenway along the riparian portion of the site owned by the Conservancy.

Phase 1-

To restore 30 acres of abandoned anthracite mine land in Old Forge Borough, Lackawanna County. Work done on Phase 1 will recontour approximately one acre along the badly eroded north river bank where silt/culm are washing into the river at a rapid rate, adding to sediment deposition both at that site and downstream. In collaboration with JMG Construction, the LVC will remove several thousand cubic yards of anthracite coal silts that have been found to have value as cogeneration fuel. The area where the silt is removed will have fill materials imported. This area will then be regraded to serve as the storm water management pond for the overall site redevelopment.

Phase 2 –

This phase will grade and recontour two acres on the property's northern upstream end so that drainage flows south, away from the river, toward a retention basin. This phase will include further development of rock lined drainage swales to serve both LVC property and the residential site. Following the drainage work and grading, subsoil and topsoil will be imported, raked and spread to a 6 – 8 inch depth over the entire site. This area will then be hydro seeded.

Phase 3-

EPA funding will be used on the eight acre LVC site to continue the remaining re-grading work and then revegetate the area using native plant species as may be salvaged on site. Additional work will re introduce native species as oak, red pine, maple, hybrid chestnut, and others to provide a suitable habitat for the re establishment of the riparian corridor and up land communities. Access pathways will be installed to open the rivers edge and riparian corridor for regular access by neighbors and visitors to the Lackawanna River Greenway.

After completion of Conservancy directed project work, JMG construction plans to develop Misty Ridge, an age preferred 55 plus housing complex, featuring a link to the Lackawanna River Greenway. Plans for the development include "green space," that integrates the walking trails, and access points along the river on the Conservancy's property.

The project will apply US EPA funds to the eight-acre parcel owned by the LVC. This work will be matched by work funded with PA DEP Growing Greener Grants and private funding through JMG Construction Inc.

APPLICABLE LAWS AND REGULATIONS

In October 2009, Pennsylvania Techtonics working for the LVC completed a Phase 1 and limited Phase 11 Environmental Assessment, on that portion of the Misty Ridge property that was conveyed to LVC by JMG. The PA Tectonics report concluded that no recognized environmental conditions are related to the property other than cognizance of the need to maintain communication with US EPA and PA DEP on the ongoing status of the adjacent Lehigh Electric Site. Pennsylvania Tectonics covered the standard investigations required of due diligence in Phase 1 and 2 investigations including examination of Lackawanna County property cards, aerial photographs, Sanborn maps, and USGS topographic maps, file review from the PA DEP, along with maps from the US Department on the Interior Office of Surface Mines. A local agency file review (Old Forge Borough) shows no police, emergency management, fire, or zoning violations at this location.

Historical sources also show that the property has been used for anthracite coal mining since the late 1800s. The mine's power plant was located on adjacent Lehigh Electric and Engineering superfund property, not on the Misty Ridge site, which mitigates a possible sources of contamination. Since 1974 the Misty Ridge site has been idle with the only activity being the presence of dirt bike and ATV enthusiasts using the site for recreation. The only evidence of potential (not actual or observed) surrounding land use contamination is the proximity of the Lehigh Electric property. Telephone interviews with PA DEP as part of the Environmental Assessment indicated that residential development at this site should not be a concern.

Old Forge Borough has written a letter of support indicating that the project conforms to all applicable zoning and planning commission requirements. They are in full support of the project. The Lackawanna County Conservation District had given approval to the E & S control plan, and grading plan. JMG has an "incidental mining permit" from PA DEP Bureau of Mining and Reclamation to remove recoverable coal fuels.

The Borough Planning Commission has granted a special exception variance for signage both at the development's entrance and for a sign along Bridge and S. Main Street.

The Old Forge Borough Planning Commission has granted preliminary approval for the subdivision, and information has been sent to the Lackawanna County Planning Commission (letter included in appendix).

ANALYSIS OF ALTERNATIVES

Alternative -A – No building on site

Alternative -A is offered as the no build alternative. No thing would be done on the site. It would be left vacant in its current condition. Coal wastes would continue to erode into the river. The property would remain available for trespass and other undesirable activities including illegal dumping of household wastes and litter. The property would continue to detract from the community's economic development. It would continue to have a negative affect on adjacent property values and neighborhood aesthetics.

Doing nothing on or with the property would not meet the stated objectives of the LVC and LRCA to engender a restoration of environmental and economic values along the river corridor in Old Forge. It would not meet the interests or objectives of the adjacent property owners including JMG Construction, which intends to construct a townhouse community along its adjacent portion of the site. It would not meet the interests of Old Forge Borough, School District or County governments as indicated in the community comprehensive plans to see this and similar properties restored and redeveloped to meet community economic development objectives.

Alternative-A, the No build alternative is not acceptable to any segments of the project community.

Alternative -B – Remove all coal waste down to the native soils. Several hundred thousand cubic yards of coal silts and culm materials are on site. We estimate this converts to approximately 50,000 tons. At a cost of $138.00 per ton it would be prohibitively expensive. This cost figure is derived by averaging the costs per yard of $68.00 for reclamation and removal of similar materials on PA DEP Bureau of Abandoned Mine Reclamation (BAMR) projects at other similar sized project sites in the Lackawanna Watershed that have been conducted during 2008 through 2010. Additional costs factored in to this assumption are landfill disposal costs of up to $70.00 per ton for municipal waste tonnage at nearby landfills. We estimate that it would cost $6,900,000.00 to conduct a total removal reclamation on this site. This prohibitive cost alone warrants the close attention to other alternatives.

This removal of all coal waste is not a common practice in Northeast PA. In addition, the prohibitive costs of this alternative indicated that it would not be an acceptable or feasible choice.

Alternative -C – This is the preferred alternative. This alternative looks to community public –private partnerships, collaborative economies and adaptive common best practices for reclamation and redevelopment as conducted in the Anthracite region of Pennsylvania. This alternative has evolved

through a collaboration of local government with a non-profit conservation agency and a small business entrepreneur. Several sources of revenue have been programmed to support various aspects of work with an overall goal of site reclamation and reuse.

This alternative proposes to achieve its objectives via a synergy to multiply the capacity of the individual partners and phases of work. The Conservancy and its affiliate LRCA have secured two PA DEP Growing Greener Grants to conduct work with JMG Construction Inc. As a basis for the work we are using grading plans approved as part of a larger subdivision and redevelopment of the upland portions of the site for residential use. JMG has donated title to an eight-acre portion of the site immediately along the Lackawanna River to the Conservancy. This area contains the silt basin a sedimentary deposition from the coal processing that was part of the Colliery operation from the 1880's through the 1950's. The plans entail the removal of all culms and silt for which there is a fuel market through the anthracite cogeneration industry. This will offset some costs, and prove a more financially acceptable alternative, along with providing some energy value for the high fuel value silts and coal waste material.

Alternative -C will regrade the remaining coal waste materials on site to establish the drainage plans developed for overall project site redevelopment. The plan will then install rock drainage swales and a portion of the stormwater management pond for the adjacent planned residential development, Misty Ridge. The grading plan then installs topsoils and hydroseeds the balance of the regraded area on the Conservancy parcel. The plan, with guidance from the Lackawanna River Corridor Association, will establish a gradient for a river access trail just at the 100-year flood plain line along the established E & S control silt fence.

Alternative -C work on the LVC Parcel will be conducted simultaneous with work on the adjacent property, with funding from PA Growing Greener grants. At the conclusion of hydro seeding and establishment of the grassy vegetative cover, LVC and LRCA will follow with a series of volunteer based tree and native shrub plantings over the next several years, Part of this work will include a pre-construction native plant salvage which will save and replant clumps of Little Blue Stem (Scripsus Andropogon) a xeric native grass along with several on site trees and shrubs.

The LVC and JMG will remove some of the useable coal waste for fuel value. Regrade the other coal waste material away from the river flood plain, to establish a new gradient from the upland areas to the flood plain. Some of the grading will be done to establish drainage away from the river embankment areas to the stormwater pond on the adjacent JMG property. Fill materials and soils will be imported to amend the existing inferior soils, and install rock drainage swales where needed.

As part of the Brownfield Cleanup, the LVC and developer will reestablish a diverse number of species of various sizes from small half-inch caliper to some larger trees. These will include hybrid chestnut, red pine, sugar and silver maple, red and white oak, tulip poplar, and sycamore. With substantial soil amendment, these native species should flourish at the site. We estimate that it will take a decade to re establish and restore these species to the area.

Alternative -C is the preferred alternative.

PUBLIC INVOLVEMENT

LVC held a public meeting in Old Forge Borough on April 27 2011 to invite public input on the Alternatives Analysis and selection. A copy of the meeting notice, minutes, sign in sheet and public comments are included in the appendix to this report. During the application process for the Brownfields Grant, LVC held a public input meting at Old Forge in September 2009. That meeting indicted diverse interest in the restoration and development plans for the Misty Ridge site. LVC and LRCA staff have attended several Planning commission meetings and Borough Council meetings to discuss this project and exchange information with borough officials. Several volunteer stewardship days have been conducted at the site to salvage native plants. Outreach to other community organizations, local schools and scout groups will continue to involve additional members of the community with the project site in the long term.

PROJECT OVERSIGHT

The Lackawanna Valley Conservancy through its affiliate, Lackawanna River Corridor Association is providing project management and administrative services, technical expertise, knowledge of environmental regulations, and best management practices. LVC will oversee the project to insure that it complies with regulatory requirements, and that it meets both community and landowner objectives, while providing an environmentally sound approach to economic development.

SUMMARY

The establishment of the conservation sub-division, Misty Ridge Housing development, is desirable for all parties involved: local government, regional businesses, residents living in the vicinity, age 55 plus residents, as well as the environmental community. The LVC, LRCA and our community partners feel that the best alternative is “Alternative C”. We believe that this alternative will provide an environmentally sound, economically feasible course for the project. Any coal waste on site will be sold for fuel value, which will pay for transportation costs, thereby reducing costs associated with the project. The remaining waste, along with imported soils will provide a base for the re-introduction of native plant species on site, and restore the area to a usable property. The green space on site, and establishment of a continuation of the river trail, will provide an environmentally sensitive link to the natural community in an area suffering from environmental degradation for many decades. The borough and neighbors are pleased since the resulting housing development will provide a needed service for local residents desiring affordable housing, who will in turn provide an economic boost to local small businesses. The project is both environmentally responsible, and economically desirable. Alternative C will provide the most realistic means to make this possible.

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Project Management

This document has been developed for the Lackawanna Valley Conservancy by:

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Maps and drawings have been prepared by John Coleman, P.E. with the Pennsylvania Association of Conservation Districts adapted from engineering and grading plans and specifications developed by J Connolly Engineers for JMG Construction Inc.

Appendix

Documents or electronic links to documents referenced in the text.