Module 18: Land Use and Reclamation Map
[§§77.409/77.456/77.462]

Land Use and Reclamation Map

Provide a map or plan that includes the permit area and the area within 1000 feet of the permit area. The map or plan shall be clear, accurate, easily read and on a scale of no smaller than 1 inch = 400 feet. Maps on the scale of 1 inch = 200 feet for permit areas of 100 acres or less and 1 inch = 400 feet for permit areas larger than 100 acres are preferred. Use the same scale as used for Exhibits 6.2 and 9. Identify the map plan as Exhibit 18 Land Use and Reclamation Map. Each map or plan must bear the seal or facsimile imprint of a registered professional engineer; or the seal or facsimile imprint of a registered professional land surveyor. Show all the following information within the permit area and for a distance of 1000 feet from the permit area, unless specified otherwise. Include an appropriate legend on the map. Indicate which items are present by placing a check mark in the box before the item. Please provide the permit number (if it has been assigned) or a space for it in the title block.

☒ a) reclamation contours (contour intervals of 20 feet or less);

☒ b) proposed permit area;

☒ c) surface water bodies such as streams, lakes, ponds, springs and wetlands (include restricted or variance areas, and names of streams and lakes/use a unique label for each unnamed tributary);

☒ d) property lines (key ownership to Module 5);

☐ e) buildings (include restricted or variance areas);

☒ f) man-made features such as public highways, railroads, utility lines including right-of-ways or easements and other surface and subsurface man-made features (include the name of the highway, railroad and utility and the restricted or variance areas);

☒ g) existing or previously surface-mined areas and existing areas of refuse, spoil, waste, and processing waste disposal;

☒ i) haul roads which will remain as part of postmining land use;

☒ j) erosion and sedimentation control facilities that will be used until bonds are released and those which will remain as part of postmining land use;

☐ k) dams or impoundments which will remain as part of postmining land use;

☒ l) existing land uses and proposed postmining land uses;

☐ m) areas to be restored to AOC (for areas other than AOC include sufficient cross-sections in Module 10.5 to adequately reflect final surface configurations and postmining water table);

☒ n) drainage pattern;

☒ o) permanent revegetation cover types to be established (key to seed mixture number as indicated in module 23.3, woody plant mixture number as indicated in Module 23.4, and/or cropping group number in Module 23.5). Note: if the cover type is consistent for each post-mining land use, then indicate this in lieu of providing an additional key on the map;

☐ p) facilities for protection or enhancement of fish and wildlife;

☐ q) lands classified as Primary Agricultural Land under Executive Order 1994-3 (The Agricultural Land Preservation Policy).

LEGEND

- EXISTING 5' CONTOUR
- EXISTING 25' CONTOUR
- PIERSON-RHEEMS LLC PROPERTY LINE
- ADJOINER PROPERTY LINE
- SETBACK
- TOWNSHIP LINE
- ZONING LINE
- RAILWAY
- FENCELINE
- UTILITY POLE
- LIGHT POLE
- 1,000 FOOT PERIMETER
- LIMIT OF MINING AS OF 01/01/72
- PROPOSED LIMIT OF MINING AND BONDING
- PROPOSED SURFACE MINE PERMIT
- EXISTING SURFACE MINE PERMIT
- EXISTING TREE LINE
- EXISTING EDGE OF WATER
- PROPOSED 5' CONTOUR
- PROPOSED 25' CONTOUR
- PROPOSED 25' RECLAMATION CONTOUR

PROPOSED BONDED AREA (115.95 ACRES)

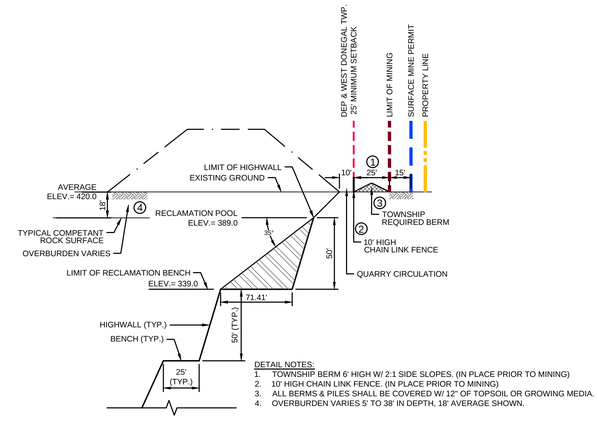
- AREA BONDED FOR MINERAL REMOVAL (70.22 ACRES)
- AREA BONDED FOR SUPPORT (45.73 ACRES)

NOTES:

1. THE DRAINAGE STRUCTURE UNDER W. HARRISBURG AVE. AT ENTRY TO THE QUARRY IS A CONCRETE BOX 8' WIDE x 4'-6" HIGH (WATERWAY OPENING). THE DRAINAGE STRUCTURE UNDER THE DRIVEWAY CONNECTING THE QUARRY & THE PENNSYLVANIA GROWERS PROPERTY IS A 72"x 44" C.M.P ARCH.
2. THE PERMITTEE IS HEREBY GRANTED A WAIVER, PER TITLE 25 SECTION 77.504(b)(2), TO CONDUCT SUPPORT ACITIVIES ONLY WITHIN 300 FEET OF COMMERCIAL BUILDINGS OWNED BY PENNSYLVANIA GROWERS, LLC, AS EXISTED UNDER PREVIOUS MDP NO. 6276SM6.
3. THE AERIAL PHOTOGRAPHY AND CONTOURS ARE ACQUIRED FROM A DRONE FLIGHT TAKEN ON AUGUST 13, 2020 CONTROLLED BY RTK GPS NAVD 88 (2011) ON THE NAD83 PENNSYLVANIA STATE PLANES SOUTH ZONE COORDINATE SYSTEM.
4. OUTSIDE THE FLIGHT, THE IMAGE IS ACQUIRED FROM A 2018 PEMA ORTHOIMAGERY FILE, AND THE CONTOURS ARE ACQUIRED FROM 2006 PAMAP PROGRAM 3.2 FT DIGITAL ELEVATION MODEL OF PENNSYLVANIA.

NOTES:

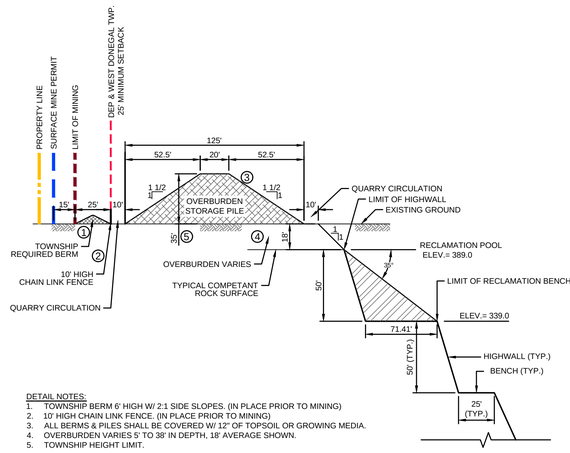
1. THE TOWNSHIP BERM AND ASSOCIATED PLANTINGS SHALL BE IN PLACE PRIOR TO BEGINNING MINING ACTIVITES.
2. THE 30-ACRE QUARRY EXPANSION AREA IS CLASSIFIED AS PRIMARY AGRICULTURAL LAND.



DETAIL NOTES:
1. TOWNSHIP BERM 6' HIGH W/ 2:1 SIDE SLOPES. (IN PLACE PRIOR TO MINING)
2. 10' HIGH CHAIN LINK FENCE. (IN PLACE PRIOR TO MINING)
3. ALL BERMS & PILES SHALL BE COVERED W/ 12" OF TOPSOIL OR GROWING MEDIA.
4. OVERBURDEN VARIES 5' TO 38' IN DEPTH, 18' AVERAGE SHOWN.

TYPICAL RECLAMATION SLOPE ADJACENT TO SWEIGART PROPERTY

SCALE: 1"=50'



DETAIL NOTES:
1. TOWNSHIP BERM 6' HIGH W/ 2:1 SIDE SLOPES. (IN PLACE PRIOR TO MINING)
2. 10' HIGH CHAIN LINK FENCE. (IN PLACE PRIOR TO MINING)
3. ALL BERMS & PILES SHALL BE COVERED W/ 12" OF TOPSOIL OR GROWING MEDIA.
4. OVERBURDEN VARIES 5' TO 38' IN DEPTH, 18' AVERAGE SHOWN.
5. TOWNSHIP HEIGHT LIMIT.

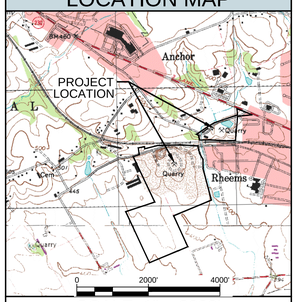
TYPICAL RECLAMATION SLOPE

SCALE: 1"=50'

Akens Engineering Associates, Inc.
219 E. Main St. Shiremanstown, Pa. 17011
(P) 717-975-9933 (F) 717-975-5507
www.akensengineering.com

"Providing Quality Engineering & Surveying Services since 1983."

LOCATION MAP

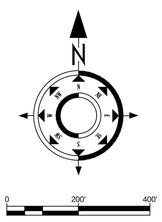


SCALE: 1" = 2000'

REGISTERED PROFESSIONAL SCOTT WILLIAM AKENS ENGINEER PE073141 COMMONWEALTH OF PENNSYLVANIA

I hereby certify that this plan is correct and accurate to the best of my knowledge.

SCOTT W. AKENS
Professional Engineer, PE073141
Submitted on this 25th day of April, 2023.



REVISIONS:

EXHIBIT 18
LAND USE, RECLAMATION, AND BONDING MAP

SURFACE MINE PERMIT NO. 36080301
NPDES PERMIT NO. PA 0224651
AUTHORIZATION TO MINE PERMIT NO. 6980-36080301-01

PIERSON RHEEMS LLC QUARRY OPERATION
115.95 ACRES

WEST DONEGAL & MT JOY TOWNSHIPS
LANCASTER COUNTY, PA

SCALE:	SHEET NUMBER:
1" = 200'	5 of 5
PLAN DATE:	
APRIL 25, 2023	
FILE NAME:	
X:\240-1-51 Expansion\Drawing\240-1-51 Base.dwg	

Module 19: Land Use / Vegetation
[§§77.408/77.409]

19.1 Land Use

a) Identify the present uses of land use areas within the permit area (Key land use(s) to Exhibit 18: "Land Use and Reclamation Map").
Existing Quarry Operation = 86 Acres

Proposed Farmland to be converted to Quarry = 30 Acres

b) For cropland, pastureland or land occasionally cut for hay, or commercial forest identify the productivity expressed as average yield of food, fiber, forage or wood products. Use yield data or estimates for similar sites based on current data from U.S. Department of Agriculture or Pennsylvania Department of Agriculture.
Proposed Farmland to be converted to Quarry = 135 Bushels Corn / Acre
27 Tons Corn Silage / Acre
2,500 Pounds Tobacco / Acre
50 Bushels Wheat / Acre
5.5 Tons Alfalfa Hay / Acre
3.5 Tons Grass/Legume Hay / Acre
7.0 Animal Units / Month

Source: Lancaster County / USDA Soil Survey - See attached Table 6

c) Identify any lands classified as Primary Agricultural Land under Executive Orders 1994-3 and 2003-2 (The Agricultural Land Preservation Policy). If there are, then indicate the alternatives to this disturbance considered and the reasons they were not deemed feasible.
Proposed Farmland to be converted to Quarry = 4.3 Acres of DbB-Duffield Silt Loam-3 to 8% slope
8.0 Acres of HaA-Hagerstown Silt Loam-0 to 3% slope
17.7 Acres of HaB-Hagerstown Silt Loam-3 to 8 % slope

Negotiations were conducted with adjoining farmland owners. All involved Primary Agricultural Land. See attached letter from the Lancaster County Planning Commission for a discussion on how this proposed farmland conversion fits into the long range Lancaster County Comprehensive Plan and the Northwest Regional Strategic Plan.

19.2 Vegetation

Identify the percent ground cover of the natural vegetation within the permit area. If the postmining land use is fish and wildlife habitat, also identify the stocking and species composition of woody plants.
74% Quarry

26% Farmland - Soy Beans, Corn, Rotated Crops as the land owner chooses.

19.3 Fish and Wildlife (Protection/Enhancement Plan)

a) Have any threatened or endangered species and/or critical habitats of these species (includes species listed or proposed and habitats listed by the U.S. Department of Interior under the Endangered Species Act of 1973) been identified within or adjacent (within 1000 feet) to the proposed permit area? ☐ Yes ☐ No

If “yes” checked, identify the species and habitat area and include within your response to c) and d) information specific to the species and habitats identified.

---

b) Have any habitats of unusually high value (e.g., wild trout streams, wetlands, riparian areas, cliffs/caves supporting raptors, areas offering special shelter or protection) been identified within or adjacent to the proposed permit area?
☐ Yes ☐ No

If “yes” checked, identify the habitat area and include within your response to c) and d) information specific to the habitats identified.

---

c) Describe the measures which will be taken to avoid or minimize adverse impacts to fish and wildlife resources.

---

d) Describe the measures which will be taken to enhance fish and wildlife resources. Any facilities proposed for protection or enhancement of fish and wildlife resources are to be identified on Exhibit 18.

---

e) If no enhancement measures are identified in d), explain why enhancement is not practicable.

Attachment to Module 19

County of Lancaster

Planning Commission

150 North Queen Street
Suite #320
Lancaster, PA 17603
Phone: 717-299-8333
Fax: 717-295-3659
www.lancastercountyplanning.org

21LU

MEMORANDUM

To: Philip Dunn, Secretary
West Donegal Township

From: Brad L. Stewart
Senior Planner

Thru: Dean S. Severson, AICP
Director for Community Planning

Date: August 24, 2021

Re: **CPF # 16-70**, Proposed Rezoning
West Donegal Township
LCPC Meeting of **August 23, 2021**

SITE INFORMATION

Owner(s): **Eric L & Rudy L Wolgemuth**
Applicant: **Pierson Rheems LLC**
Parcel ID #: **1609194100000**
Address: **Landis Road**
Location: **South side of Landis Road**

The Lancaster County Planning Commission (LCPC) has reviewed the above-referenced proposed rezoning and recommends **approval** *without modifications.* The project is effective in implementing *places2040* and moving us forward to the future we all want to see. LCPC recommends the Township review the *places2040* Priority Ag Implementation map to further assess the neighboring farms identified as priorities for future agricultural preservation.

PROPOSAL

Pierson Rheems LLC is proposing to amend the West Donegal Township zoning map by rezoning 30.00 acres of a 59.70-acre agricultural lot (Wolgemuth lot) from Agricultural (A) to Mining and Natural Extraction (MNE). Pierson Rheems LLC is the equitable owner of the subject tract and owner/operator of the R.E. Pierson Quarry, which is the property directly east of the subject tract. The quarry is zoned MNE. The 30.00-acre tract is within the agricultural preservation character zone in the *places2040* Future Land Use and Transportation map (FLUTM) and is located outside the Elizabethtown Urban Growth Area. According to the *places2040* Priority Ag Areas Implementation Map the subject

property is not considered a priority for ag preservation due to it not being contiguous with or neighboring existing preserved farmland. The 30.00-acre tract is approximately ±1400 feet from the nearest preserved farm.

The Wolgemuth lot is currently being used for agricultural purposes. The properties to the north are zoned General Industrial (GI) and are within the Urban Growth Area. The parcels to the south and west of the Property are zoned A.

The purpose of the Mining and Natural Resource Extraction (MNE) District is to designate appropriate areas of the Township for land uses dependent upon the availability of geologic resources, including open pit mining and related aggregate processing facilities and operations when satisfying specific standards, criteria and procedures administered by the commonwealth and the Township. Expanding existing quarries is a permitted by right use in this zone.

The quarry was removed from the Urban Growth Area after the *2010 Northwest Regional Strategic Plan* was adopted. In the plan, West Donegal Township expresses that if the quarry were to close in the future, the Northwest Region (Elizabethtown Borough, Mount Joy Township, West Donegal Township, and Conoy Township) would explore using the quarry property as recreational facility and would reinsert the property into the Urban Growth Area.

If the rezoning is approved, the applicant intends to seek the approvals for the expansion of the quarry onto the property which approvals would include a subdivision/lot add-on plan to subdivide the property from the balance of the Wolgemuth lands, and further consolidate the property into the quarry parcel. Petitioner further intends to comply with the requirements of the West Donegal Township Zoning Ordinance and obtain a mining permit from the Pennsylvania Department of Environmental Protection.

COMMENTARY

Connecting People, Place, and Opportunity

Intentionally cultivate, retain, and expand industry.
Maintain, attract, and retain a skilled workforce that earns a completive wage.

Taking Care of What We Have

Promote entrepreneurship and help local businesses grow.

The proposed rezoning provides the applicants an opportunity to expand the existing quarry in a manner that will suit the existing road infrastructure and will not require new points of access onto public roads. The rezoning should not alter the existing character of the neighborhood. According to *places2040*, quarries located outside of UGAs form a part of the Natural or Agriculture zones. LCPC recommends approval of the rezoning with the following conditions:

1. According to the Priority Ag Area map, the neighboring farms to the west and south of the property, are considered priorities for ag preservation. LCPC recommends that the Township work with County Planning staff to further assess if these farms should be considered for future ag preservation.

2. LCPC recommends that the Township refer to the Township Official Map for the quarry expansion subdivision plan review process. The official map indicates that there is a proposed regional trail connection along Heisey Quarry Road. The trail will be a part of a proposed bike/ped trail network that would serve the residents of West Donegal Township, Elizabethtown Borough, and Mount Joy Township.

CONSISTENCY WITH COMPREHENSIVE PLANS

Places2040 - Lancaster County Comprehensive Plan

The project is generally consistent with *places2040* in that it will help in the retention and expansion of an existing industrial use. Quarries are identified as natural-resource based industries within the Agriculture Preservation Character Zone.

Municipal Comprehensive Plan

The project is generally consistent with *Northwest Regional Strategic Plan* in that it helps regional efforts to preserve and strengthen the regional economic base and continue to contribute to the overall Lancaster County economic vitality.

* * *

DSS/BLS

Copy: Erik M. Hume, Saxton & Stump, LLC

S:\COMMUNPL\LCPC\2021\8-23-21\FINAL\CPF 16-70 - BLS.doc

Soil Map—Lancaster County, Pennsylvania
(Rheems Quarry Expansion)

Map Scale: 1:5,880 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lancaster County, Pennsylvania
Survey Area Data: Version 20, Aug 31, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2011—Jul 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DbB	Duffield silt loam, 3 to 8 percent slopes	15.9	15.1%
HaA	Hagerstown silt loam, 0 to 3 percent slopes	10.0	9.5%
HaB	Hagerstown silt loam, 3 to 8 percent slopes	34.5	32.8%
HbC	Hagerstown silty clay loam, 8 to 15 percent slopes	2.8	2.6%
Ln	Lindside silt loam	3.7	3.5%
Qu	Pits, quarry	34.0	32.3%
W	Water	4.4	4.2%
Totals for Area of Interest		**105.4**	**100.0%**

Lindside, and Nolin soils and a few areas of Urban land. Inclusions make up about 25 percent of the unit.

The permeability of this Duffield soil is moderate in the subsoil and substratum, and the available water capacity is high. Runoff is medium. Reaction is medium acid to neutral throughout.

Most areas of this soil are used for cultivated crops or are in nonfarm uses. Some small areas are in pasture or woodland.

This soil is suited to cultivated crops. Conservation tillage and using cover crops and crop residue are ways of maintaining the organic matter content and tilth.

This soil is suited to pasture. The prevention of overgrazing is the major pasture management concern. The use of proper stocking rates and rotational grazing are practices that maintain tilth and desired plant species.

This soil is suited to trees, and potential productivity is high. Machine planting is practical on large areas.

A shrink-swell potential and the depth to bedrock in areas where bedrock is at a depth of less than 60 inches are the main limitations of the soil for community development. The depth to bedrock is a limitation for septic tank absorption fields, and the shrink-swell potential is a limitation for homesites.

Capability class: I; woodland ordination symbol: 1o.

DbB—Duffield silt loam, 3 to 8 percent slopes. This soil is gently sloping, deep, and well drained. It is on broad, convex slopes. The areas of the soil are oval or irregular in shape and range from 5 to 1,000 acres.

Typically, the surface layer is dark brown silt loam 10 inches thick. The subsoil is silty clay loam to a depth of 60 inches or more. It is dark yellowish brown and yellowish brown and friable and firm to a depth of 30 inches and is strong brown and firm at a depth of more than 30 inches.

Included with this soil in mapping are small areas of rock outcrop, areas with slopes of more than 8 percent, and areas with a surface layer of silty clay loam or gravelly silt loam. Also included are areas of Hagerstown, Clarksburg, Bedington, Conestoga, Chester, Lindside, and Nolin soils and a few small areas of Urban land. Inclusions make up about 25 percent of the unit.

The permeability of this Duffield soil is moderate in the subsoil and substratum, and the available water capacity is high. Runoff is medium. Reaction is medium acid to neutral throughout.

Most areas of this soil are used for cultivated crops or are in nonfarm uses. Some small areas are in pasture or woodland.

This soil is suited to cultivated crops. Terracing, stripcropping, and using cover crops, conservation tillage, and grassed waterways are practices that help to reduce runoff and control erosion. Using crop residue and including hay and cover crops in the cropping system are ways of maintaining the organic matter content and tilth.

This soil is suited to pasture. The prevention of overgrazing is the major pasture management concern. The use of proper stocking rates and rotational grazing are practices that maintain tilth and desired plant species.

This soil is suited to trees, and potential productivity is high. Machine planting is practical on large areas.

A shrink-swell potential and the depth to bedrock in areas where bedrock is at a depth of less than 60 inches are the main limitations of the soil for community development. The depth to bedrock is a limitation for septic tank absorption fields, and the shrink-swell potential is a limitation for homesites.

Capability subclass: IIe; woodland ordination symbol: 1o.

EcA—Elk silt loam, 0 to 3 percent slopes. This soil is nearly level, deep, and well drained. Slopes are mainly less than 1,000 feet long. It is on stream terraces. The areas of the soil are irregular in shape and range from 3 to 350 acres.

Typically, the surface layer is brown silt loam about 10 inches thick. The subsoil is yellowish brown and is 38 inches thick. It is silt loam and silty clay loam. The substratum is strong brown silty clay loam to a depth of 60 inches or more.

Included with this soil in mapping are small areas of Hagerstown, Duffield, and Newark soils and Urban land. Also included are areas of moderately well drained soils and soils similar to this Elk soil but that have a redder subsoil or a surface layer of gravelly silt loam. The included areas make up about 20 percent of the unit.

The permeability of this Elk soil is moderate in the subsoil and substratum, and the available water capacity is high. Runoff is slow. Reaction is very strongly acid through neutral throughout.

Most areas of this soil are cultivated. Some large areas are in nonfarm uses.

This soil is suited to cultivated crops. Conservation tillage and using cover crops and crop residue are ways of maintaining the organic matter content and tilth.

This soil is suited to pasture. The prevention of overgrazing is the major pasture management concern. The use of proper stocking rates and rotational grazing are practices that maintain tilth and desired plant species.

This soil is suited to trees, and potential productivity is high. Machine planting is practical on large areas.

This soil has few limitations for most types of community development, but the permeability limits the soil as a site for septic tank absorption fields.

Capability class: I; woodland ordination symbol: 2o.

EcB—Elk silt loam, 3 to 8 percent slopes. This soil is gently sloping, deep, and well drained. It is on stream

This soil is suited to trees, and potential productivity is high. Machine planting is practical on large areas.

The permeability of the soil, the slope, and the depth to bedrock in areas where bedrock is at a depth of less than 60 inches are the main limitations for community development, especially for homesites and septic tank absorption fields.

Capability subclass: IIIe; woodland ordination symbol: 2o.

GbD—Glenelg silt loam, 15 to 25 percent slopes. This soil is moderately steep and well drained. It is on side slopes of hills and ridges on uplands. Slopes are convex and range from 300 to 600 feet in length. The areas of the soil are long and narrow and range from 10 to 100 acres.

Typically, the surface layer is dark brown silt loam about 8 inches thick. The subsoil is strong brown silt loam 14 inches thick. The substratum is reddish yellow loam and fine sandy loam to a depth of 60 inches or more.

Included with this soil in mapping are small areas of Chester and Manor soils and Urban land. Also included are small areas of soils similar to this Glenelg soil but that are redder or that have a sandy or clayey subsoil. Included areas make up to about 15 percent of the unit.

The permeability of this Glenelg soil is moderate in the subsoil and substratum, and the available water capacity is high. Runoff is rapid. Reaction is very strongly acid to neutral throughout.

Most areas of this soil are farmed.

This soil is suited to cultivated crops, but the erosion hazard is very severe. Stripcropping and conservation tillage help to reduce runoff and control erosion. Using crop residue and including hay and cover crops in the cropping system are ways of maintaining the organic matter content and tilth.

This soil is suited to pasture. The prevention of overgrazing is the major pasture management concern. The use of proper stocking rates and rotational grazing are practices that maintain tilth and desired plant species.

This soil is suited to trees, and potential productivity is high. Slope limits the use of planting and harvesting equipment. Erosion can be reduced by constructing logging roads on the contour.

Slope is the major limitation of this soil for community development, especially for septic tank absorption fields and building sites.

Capability subclass: IVe; woodland ordination symbol: 2r.

GdB—Glenville silt loam, 3 to 8 percent slopes. This soil is gently sloping and moderately well drained and somewhat poorly drained. It is in depressions and drainageways on uplands. The areas are long and narrow or irregular in shape and range from 3 to 300 acres.

Typically, the surface layer is dark brown silt loam about 9 inches thick. The subsoil is mottled and is 39 inches thick. It is yellowish brown silt loam in the upper 6 inches; yellowish brown, very firm and slightly brittle silt loam in the next 23 inches; and strong brown silt loam in the lower 10 inches. The substratum is strong brown loam to a depth of 60 inches or more.

Included with this soil in mapping are small areas of Baile, Chester, Glenelg, and Manor soils. Also included are areas of nearly level Glenville soils and moderately well drained soils in which the entire subsoil is friable. Included soils make up about 30 percent of the unit.

The permeability of this Glenville soil is moderate in the upper part of the subsoil and moderately slow in the lower part of the subsoil and in the substratum. The available water capacity is moderate. Runoff is medium. Reaction is strongly acid to neutral throughout. A seasonal high water table is at a depth of 6 to 36 inches.

Most areas of this soil are cultivated. Some areas are in pasture or woodland.

This soil is suited to cultivated crops, but the seasonal high water table delays cultivation and planting. Where suitable outlets are available, subsurface drainage will help to remove excess water and improve the suitability for crops. Conservation tillage, stripcropping, using cover crops, and crop residue management are practices that help to control erosion.

This soil is suited to pasture. The prevention of overgrazing and grazing when the soil is wet are major pasture management concerns. Grazing when the soil is wet will compact the surface layer. The use of proper stocking rates, deferred grazing, and rotational grazing are practices that help to maintain tilth and desired plant species.

This soil is suited to trees. Potential productivity is high. The seasonal high water table will delay harvesting, but machine planting is practical on larger areas. Seedling mortality is high, and uprooting is a hazard during windy periods.

The permeability and the seasonal high water table are the main limitations of the soil for community development. Both limit the soil as a site for homes and septic tank absorption fields.

Capability subclass: IIe; woodland ordination symbol: 2w.

HaA—Hagerstown silt loam, 0 to 3 percent slopes. This soil is nearly level, deep, and well drained. It is on low hills and in valleys. Slopes are slightly convex and are 100 to 300 feet in length. The areas of the soil are irregular in shape and range from 3 to 300 acres.

Typically, the surface layer is dark brown silt loam about 10 inches thick. The subsoil extends to a depth of 60 inches or more. It is yellowish red silty clay loam in the upper 10 inches; red, firm clay in the next 10 inches;

Attachment to Module 19

TABLE 5.--PRIME FARMLAND

[Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland]

Map symbol	Soil name
BdA	Bedington silt loam, 0 to 3 percent slopes
BdB	Bedington silt loam, 3 to 8 percent slopes
BrB	Brecknock gravelly silt loam, 3 to 8 percent slopes
BuA	Bucks silt loam, 0 to 3 percent slopes
BuB	Bucks silt loam, 3 to 8 percent slopes
CbA	Chester silt loam, 0 to 3 percent slopes
CbB	Chester silt loam, 3 to 8 percent slopes
CkA	Clarksburg silt loam, 0 to 5 percent slopes
Cm	Comus silt loam
CnA	Conestoga silt loam, 0 to 3 percent slopes
CnB	Conestoga silt loam, 3 to 8 percent slopes
DbA	Duffield silt loam, 0 to 3 percent slopes
→DbB	Duffield silt loam, 3 to 8 percent slopes
EcA	Elk silt loam, 0 to 3 percent slopes
EcB	Elk silt loam, 3 to 8 percent slopes
GbB	Glenelg silt loam, 3 to 8 percent slopes
GdB	Glenville silt loam, 3 to 8 percent slopes
→HaA	Hagerstown silt loam, 0 to 3 percent slopes
→HaB	Hagerstown silt loam, 3 to 8 percent slopes
HfA	Hollinger silt loam, 0 to 3 percent slopes
HfB	Hollinger silt loam, 3 to 8 percent slopes
LaB	Lansdale loam, 3 to 8 percent slopes
LbB	Lehigh silt loam, 3 to 8 percent slopes
LdA	Letort silt loam, 0 to 3 percent slopes
LdB	Letort silt loam, 3 to 8 percent slopes
Lg	Linden silt loam
Ln	Lindside silt loam
MaB	Manor silt loam, 3 to 8 percent slopes
MdB	Mount Lucas silt loam, 3 to 8 percent slopes
Ne	Nolin silt loam
Rd	Rowland silt loam
UaB	Ungers loam, 3 to 8 percent slopes

Attachment to Module 19

TABLE 6.--YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Soil name and map symbol	Corn	Corn silage	Tobacco	Wheat	Alfalfa hay	Grass-legume hay	Pasture
	Bu	Tons	Lbs	Bu	Tons	Tons	AUM*
ClB, ClD---- Clymer	---	---	---	---	---	---	---
ClF---- Clymer	---	---	---	---	---	---	---
Cm---- Comus	135	27	2,600	50	5.5	3.5	7.0
CnA---- Conestoga	135	27	2,500	50	5.5	3.5	7.0
CnB---- Conestoga	135	27	2,500	50	5.5	3.5	7.0
CnC---- Conestoga	125	25	2,400	45	5.0	3.5	7.0
DbA---- Duffield	135	27	2,500	50	5.0	3.5	7.0
DbB---- Duffield	130	27	2,500	50	5.0	3.5	7.0
EcA---- Elk	110	27	2,500	45	5.5	3.5	7.0
EcB---- Elk	135	27	2,500	45	5.5	3.5	7.0
EcC---- Elk	125	25	2,400	40	5.0	3.0	6.0
Eu---- Elk-Urban land	---	---	---	---	---	---	---
Ff---- Fluvaquents and Udifluvents	---	---	---	---	---	---	---
GbB---- Glenelg	130	27	2,500	50	5.5	3.5	10.5
GbC---- Glenelg	120	25	2,400	45	5.0	3.5	9.5
GbD---- Glenelg	105	22	---	40	4.5	3.0	8.5
GdB---- Glenville	100	20	1,675	40	3.5	3.0	6.5
HaA---- Hagerstown	135	27	2,500	50	5.5	3.5	7.0
HaB---- Hagerstown	135	27	2,500	50	5.5	3.5	7.0
HbC---- Hagerstown	120	24	2,400	40	4.5	3.5	7.0
HbD---- Hagerstown	110	22	---	35	4.0	3.0	6.0
Hc---- Hagerstown-Urban land	---	---	---	---	---	---	---

See footnote at end of table.

Module 20: Postmining Land Use and Reclamation
[Section 7 NSMCRA/§§77.462/77.591/77.593]

20.1 Proposed Postmining Land Use

For premining land use areas identify the postmining land use to which the land will be restored, how each land use is to be achieved and the necessary support activities which may be needed to achieve the land use. Identify the type of reclamation for each area (approximate original contour, terrace, water impoundment, etc.). (Key the postmining land use(s) to the "Land Use and Reclamation Map" Exhibit 18.)

The land area surrounding the exhausted quarry pit will be limited to a strip of land between 35' and 175' wide, located adjacent to a 35 degree reclamation slope leading down to a reclamation pool.The adjacent, existing land use to the north is a roadway, to the west is commercial activity and farming, to the south is farming, and to the east is an unnamed tributary to Donegal Creek, The proposed postmining land use for this area is an "Unmanaged Natural Habitat". The reclamation pool will be approximately 80 acres in size, and will become an "Unmanaged Water Impoundment"'

20.2 Approximate Original Contour

For postmining land use areas to be reclaimed to approximate original contour show that the reclaimed land will be capable of supporting the uses it was capable of supporting prior to mining or higher or better uses. Notes: A higher or better use is a post-mining land use where the economic value or nonmonetary benefit to the landowner or the community is greater than for the pre-mining land use. A highest or best use is where the economic value or nonmonetary benefit to the landowner or the community is maximized. If you are proposing an alternative to AOC, complete either section 20.3 or 20.4, as appropriate.

Are you proposing an alternative to AOC? ☐ No ☒ Yes
If Yes is checked fill out <u>either</u> section 20.3 or 20.4 as appropriate.

20.3 Alternative to Approximate Original Contour (AOC) Reclamation under Section 7 (c)(2)(ii) of NSMCRA/§ 77.593(1)

a) Show that the alternative to AOC is likely to be achieved and that it poses no actual or potential threat to public health or safety, or of water diminution, interruption, contamination or pollution.

The alternative to AOC is as shown on Module 18: Land Use and Reclamation Map. It is expected that there will be sufficient overburden to be stripped,stored, and used as backfill to achieve this configuration. If it becomes apparent that the amount of overburden wil not be sufficient, the upper bench will be sloped in order to require less overburden backfill. This plan is likely to be achieved, is a classic quarry reclamation plan, and will pose no actual or potential threat to public health or safety. The quarry has been in operation for 60+ years, and has had no history of causing water diminution, interruption, contamination or pollution.

b) Demonstrate that the proposed operation will be carried out over a substantial period of time; the ratio of the minerals proposed to be mined, relative to the volume of the overburden, is very large; and the overburden and other spoil material at the proposed permit area are insufficient to restore the area to AOC.

The quarry has been in operation for 60+ years, and will likely be in operation for another 30 years. The quarry depth will approach 300', with overburden averaging 18' in depth. Therefore the minerals extracted will be very large in proportion to the overburden and spoil material available to restore the area to AOC.

Show that the alternative to AOC reclamation is consistent with applicable land use policies, plans and programs and with Federal, State and Local law.

The quarry will operate as required under the Pennsylvania Code, Title 25. Environmental Protection, Chapter 77. Noncoal Mining Regulations, which were promulgated to be consistant with Federal Law, and the West Donegal Township Zoning and Land Development Ordinances, as delineated in the "Mineral and Natural Extraction (MNE) Zone".

d) Demonstrate that the restored land will be capable of supporting the highest or best use it can reasonably support and that the proposed postmining land use is compatible with adjacent land uses.

The land area available postmining, as described under Section 20.1 above, is compatible with adjacent land uses.

20.4 Alternative to Approximate Original Contour (AOC) Reclamation under Section 7 (c)(2)(iii) of NSMCRA/§ 77.593(2)

a) Show that the alternative to AOC is likely to be achieved and that it poses no actual or potential threat to public health or safety, or of water diminution, interruption, contamination or pollution.

b) Demonstrate that the proposed alternative to AOC will leave no highwalls, will improve the watershed of the area, and that the landowner has approved the alternative to AOC. (Submit a notarized statement by the landowner approving the alternative to AOC.)

c) Demonstrate that the affected land will be restored to a condition capable of supporting the uses it was capable of supporting prior to mining or to a higher or better use.

Module 21: Topsoil / Subsoil

[§77.456(4)]

21.1 Topsoil Characteristics

a) Identify the thickness of topsoil present at the site. If the thickness of the topsoil varies, key the thickness of the topsoil to Exhibit 18.

3 soil types are present on the 30 acres of farmland to be converted to quarry - DbB, HaA, and HaB, all with 10" of topsoil, or "A" Horizon. The 86 acre existing quarry area has been completely disturbed, with the overburden soil being stored in undiffentiated storage piles or buried by the storage piles.

b) Provide a 8 ½″ x 11″ copy of USDA Soil Survey Map delineating the proposed permit area.

See attached Lancaster County / USDA Soil Survey Map.

21.2 Operations Plan

a) Provide a plan for removal, storage and redistribution of topsoil and subsoil.

See attached calculations - Removal from the area to be mined will be by dozers and front loaders, stored in berms adjacent to the area to be mined, and redistributed by dozers and front loaders. See Module 9: Operations Map

b) If the B and C horizons will be segregated and replaced as subsoil, identify the thickness in inches of the B and C horizons to be removed, segregated and replaced.

See "a)" above.

c) If material other than the B and C horizons will be replaced as subsoil, identify the material and include test results demonstrating that this material will insure revegetation and soil productivity consistent with the postmining land use. Provide the name(s), address(es) and telephone number(s) of the individual(s) responsible for the collection and analysis of this data and a description of the methodologies used to collect and analyze this data

The 30 acre expansion area is a "stand alone" segment of the Pierson Rheems quarry. The material to be used for reclamation that is other than "B" and "C" horizons will be burried deeply within the 35 degree top lift backfill areas.

21.3 Previously Affected Areas

If an area has been previously affected by mining and no topsoil or subsoil is present, identify the material that will be used as the final surface layer and provide a demonstration, including chemical analysis, that the material is capable of supporting the vegetation of the postmining land use.

All areas expected to support reclamation vegetation will be covered with "A", "B", or "C" Horizon soils. Due to the length of time the soils will be stored a soils test should be conducted at the time of reclamation.

ATTACHMENT TO 5600-FM-BMP0474 "BOND CALCULATION SUMMARY – NONCOAL CONSOLIDATED

OVERBURDEN AVAILABLE TO RECLAIM THE PIERSON RHEEMS LLC QUARRY OPERATION – APRIL, 2023
SURFACE MINING PERMIT NO. 36080301C5
NPDES PERMIT NO. PA0224651
AUTHORIZATION TO MINE PERMIT NO. 22847-36080301-01
WEST DONEGAL AND MT. JOY TWPS.—LANCASTER CO.

OVERBURDEN LOCATED WITHIN THE 30 ACRE EXPANSION AREA, ASSUMING THE AREA OCCUPIED BY THE TOWNSHIP AND STORAGE BERMS AND THE CIRCULATION ROADWAYS WILL BE MAINTAINED AT THE EXISTING SURFACE - SEE EXHIBIT 9: OPERATIONS MAP =

1,125' X 825' X 18' (Average overburden depth established by 8 boreholes) = 618,750 C.Y.

OVERBURDEN REMOVED FROM THE REMAINDER OF THE QUARRY AREA AND CURRENTLY LOCATED ON THE PERMIT AREA "TAIL"– SEE EXHIBIT 9: OPERATIONS MAP =

278,200 C.Y.

TOTAL OVERBURDEN AVAILABLE FOR RECLAMATION AND TO CONSTRUCT BERMS DURING MINING ACTIVITIES = 896,950 CUBIC YARDS

OVERBURDEN REQUIRED TO CONSTRUCT THE 6' HIGH WEST DONEGAL TOWNSHIP PERMANENT BERM AROUND THE MINING SITE: = 25,300 C.Y.

OVERBURDEN REQUIRED TO COSTRUCT THE 35' HIGH MINING BERM AROUND THE 30 ACRE EXPANSION AREA = 291,350 C.Y.

OVERBURDEN REQUIRED TO BACKFILL THE PERIMETER OF THE MINING SITE TO ACHIEVE 35 DEGREE POST MINING SLOPES – SEE EXHIBIT 9: OPERATIONS MAP
7,650 L.F. @ 68.52 C.Y. / L.F. = 524,200 C.Y.

SUMMATION:

OVERBURDEN AVAILABLE FOR RECLAMATION = 896,950 C.Y. – 25,300 C.Y. = 871,650 C.Y.
OVERBURDEN REQUIRED TO RECLAIM TOP LIFT = 524,200 C.Y. + 291,350 C.Y. = 871,650 C.Y. – (524,200 C.Y. + 291,350 C.Y.) = 56,100 C.Y. - TO BE USED FOR INCIDENTAL GRADING OF THE SUPPORT AREA DURING RECLAMATION.

NOTE – IF THE 35' HIGH MINING BERM AROUND THE 30 ACRE EXPANSION AREA IS TO BE ELIMINATED DURING RECLAMATION, 347,450 C.Y. WILL BE AVAILABLE FOR INCIDENTAL GRADING.

Saved 240-1-51\documents\mine permit modules\overburden available to

ATTACHMENT TO MODULE 21: TOPSOIL / SUBSOIL
Soil Available Overlying, versus Soil Required to Reclaim, the 30 Acre Expansion Area

Quarry Expansion Area: 30 Acres.

Area to be Mined (Excavated) – 21 Acres.

Area to be covered by berms, and circulation roadways (Underlying soils to remain in place) – 10 acres.

Depth of "A" Horizon Soil – 10"

Depth of "B" Horizon Soil – 10"

Depth of "C" Horizon Soil – 40"

(See attached USDA Soils Mapping.)

Depth of Unconsolidated Material above bedrock – 18'-0" Average (See attached drilling information)

Quarry Expansion Area: Soil Quantities in 21 acres to be mined -

"A" Horizon - Topsoil – 10" depth over 21 acres = 28,233 C.Y.

"B" Horizon - Subsoil – 10" depth over 21 acres = 28,233 C.Y.

"C" Horizon Soil – 40" average depth over 21 acres = 112,958 C.Y.

Unconsolidated "soil material" below 60" to an average depth of 13' X 21 acres = 440,440 C.Y.

Historic Undifferentiated Soil in storage pile along eastern edge of the 30 acre expansion area= 278,200 C.Y.

Disposition of soil stored during mining -

Quarry Expansion Area: Material required to construct the West Donegal Twp. Berm (See Module 9: Operations Map – To be in place during mining:

6' High Berm = Say 3 C.Y. / L.F. X 4,800 L.F. = 14,400 C.Y. - Entire berm to be constructed of "A" Horizon soil.

Quarry Expansion Area: Material required to construct the Pierson-Rheems Storage Berm (See Module 9: Operations Map – To be in place above the North, West, and South area during mining:

35' High Berm = 1.0' depth Top Dressing soil = 6 C.Y. / L.F. X 3250 L.F. = 19,500 C.Y. = 12,400 C.Y. of "A" Horizon soil + 7,100 C.Y. of "B" Horizon soil

35' High Berm = 94 C.Y. / L.F. X 3250 L.F. = 305,000 C.Y. = 19,700 C.Y. of "B" Horizon soil + 107,500 C.Y. of "C" Horizon soil + 177,800 C.Y. of Unconsolidated Material.

Disposition of soil used for Reclamation -

30 Acre Expansion Area reclamation soil required (See Module 9: Operations Map)

Top Lift = 1.0' depth Top Dressing soil on the 35 degree slopes = 3.5 C.Y. / L. F. X 4,800 L.F. = 16,800 C.Y. of "A" Horizon soil over the North, South, East, and West top lifts.

Top Lift = Soil backfill to 35 degree slope = 140 C.Y. / L.F. X 4,800 L.F. = 672,000 C.Y. = 10,000 C.Y. of "A" Horizon soil + 26,800 C.Y. of "B" Horizon Soil + 107,000 C.Y. of "C" Horizon soil + 528,200 C.Y. of Unconsolidated and Undifferentiated soil.

13,600 C.Y. of Unconsolidated and Undifferentiated soil remaining from the 30 acre expansion area can be characterized as lost during construction, or used during reclamation in the adjoining quarry area.

Module 23: Revegetation

[§77.456(5)]

23.1 Soil Test Plan

Provide a soil test plan for determining plant nutrients and soil amendments required to establish vegetation and achieve the approved postmining land use.

Example: Soil samples will be collected using a soil auger. A composite sample will be obtained from individual core samples from each type of existing land use. These samples will be analyzed by Blank Laboratory using "Soil Mailing Kits", or another accredited laboratory.
Overburden Soils will be utilized for final reclamation and for establishing a growing media for vegetative cover. Prior to redistribution of overburden soils the regraded land will be scarified to eliminate slippage surfaces and to promote root penetration. Overburden soils will be redistributed to achieve a uniform thickness consistent with the plan in all respects. Wind and/or water erosion shall be avoided. A hand auger shall be used to gather samples of the redistributed overburden, and delivered to the Penn State University Soils Lab. The website that lists the procedures to complete the sampling is as follows: https://extension.psu.edu/don't-guess-soil-test. Resuts of such testing will be provided to the Department.

23.2 Temporary Cover. Provide the following information for each seed mixture to be used for temporary cover:

Example: Standard Seed Mixture

Seed Mixture No.	Seed Mixture (Species)	Rate of Appl. 100% PLS* (lbs./acre)	Seeding Dates (Months)
B	*Annual Ryegrass*	*40*	*Early spring till Late fall*
	If storage areas are to be left longer than one growing season the following will be used: Perennial Ryegrass	*10*	

a)

Seed Mixture No.	Seed Mixture (Species)	Rate of Appl. 100% PLS* (lbs./acre)	Seeding Dates (Months)
1TC	Annual Ryegrass	40	Early spring - May 30 and August 10 - September 15
	Small Grain	50	"
	Perennial Ryegrass	10	"

* PLS means pure live seed. PLS is the product of the percentage of pure seed times percentage germination divided by 100.

b) Use.
The above mixture shall be used for the temporary stabilization of constructed berms, embankments or any disturbed area that is not to be re-affected for longer than 20 days.

c) Method(s) of seeding.
Hydroseeding or broadcast seeding, depending on the weather condition.

d) How seedbed will be prepared for planting.
Soil will be loosened by discing, harrowing, or other stanfdard methods.

e) Type(s) of mulch to be used and rate(s) of application.
Example: Hay or straw at a rate of 2 ½ tons per acre.
Hydro mulch at a rate of 2 tons per acre.

23.3 Permanent Cover. [Insert standard seed mixture option(s)] Provide the following information for each seed mixture to be used for permanent cover: (Note: Key to Exhibit 18)

a)

Seed Mixture No.	Seed Mixture (Species)	Rate of Appl. 100% PLS* (lbs./acre)	Seeding Dates (Months)
A	Birdsfoot Trefoil	6	March, April, May
	Johnstone Fescue	30	Aug 10 to Sep 15
	Red Top	3	
	Clover (red, white, or alsike)	5	
	Nurse Crop:		
	Oats (spring)	3 bu/ac	spring
or	Wheat (fall)	3 bu/ac	fall
or	Rye (fall)	3 bu/ac	fall
D	Johnstone Fescue	15	March, April, May
	Birdsfoot Trefoil (low growing variety)	6	Aug 10 to Sep 15
	Red Top	3	
	Annual Ryegrass	4	
1PC	Perennial Ryegrass	10	Early spring - May 30 and August 10 - September 15
	Annual Ryegrass	5	"
	Timothy	5	"
	White Clover	3	"
2PC	Orchardgrass (Steep slopes only)	5	"
	Birdsfoot trefoil (Steep slipes only)	5	"

* PLS means pure live seed. PLS is the product of the percentage of pure seed times percentage germination divided by 100.

b) Use.
The berms required by West Donegal Township shall be planted in accordance with 23.3 immediately upon construction, No Temporary Cover required. Apply to the remainder of the quarry area as required.

c) Method(s) of seeding.
Hydroseeding or broadcast seeding, depending on the weather condition.

d) How seedbed will be prepared for planting.
Soil will be loosened by discing, harrowing or other standard methods. The soil suplements recommended by the Soil Test results will be incorporated into this activity.

e) Type(s) of mulch to be used and rate(s) of application.
Hay or straw at a rate of 2 ½ tons per acre.
Any prime farmland soil areas will be mulched with 3 tons/acre of straw or hay.
Hydro mulch at a rate of 2,500 pounds /acre.

23.4 Woody Plants. [Insert standard stocking species option(s)] For areas that will also be planted with woody plants, provide the following: (**Note**: Key to Exhibit 18)

a)

Woody Plant Mixture No.	Woody Plant Species	No./ac.
C	Oak species Maple species Ash species Red bud Crab apple	680 per acre
1WP	Crab Apple (5%) Eastern White Pine (15%) Northern Red Oak (15%) Norway Spruce (15%) Yellow Poplar (15%) European Alder (15%) Black Cherry (10%) Sugar Maple (10%)	600 plants per 1.5 acre (14' x 4600' grid)
2WP	Red Bud Crab Apple	100 plants per acre "
3WP	Black Locust (hydro seed)	0.5 lb. per acre

See 23.3 Permanent Cover – seed mixture D for grasses to be used with these woody plants.

b) Method of planting.
Black Locust shall be hydroseeded. Bareroot evergreens, hardwoods, and flowering tree seedlings will be planted by hand. 1WP, 2WP, and 3WP WOODY PLANT MIXTURES SHALL ONLY BE USED ON THE FRONT FACE OF THE WEST DONEGAL TOWNSHIP REQUIRED BERM. APPROXIMATELY 14' X 4600' OR 1.5 ACRES. Intersperse 2WP within the 1WP. Hydroseed the front face of the berm with 3WP as a final step.

c) If the area is to be planted for wildlife habitat, identify the grouping and distribution of the plants.
N/A

23.5 ***Cropland.*** For areas that will be planted to crops (agronomic or horticultural), identify the crops to be grown and the management plans to achieve the crop yield standards. (**Note**: Key to Exhibit 18: Land Use and Reclamation Map)
N / A