WETLAND REPORT

for

Joe Widmer Property

SMITHFIELD TOWNSHIP

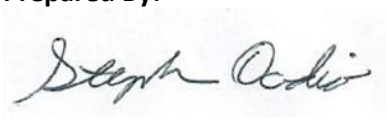
MONROE COUNTY, PENNSYLVANIA

December 15, 2023

Prepared For:

Joe Widmer
138 Smithfield Trail Court
East Stroudsburg, PA 18301

Prepared By:



Stephen Dadio, CPSS/CPSC/SEO

Value Engineering Inc

1578 State Road, Coopersburg PA 18036 www.value.engineering

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Appendices

1.0. INTRODUCTION

A Wetland Investigation was completed at the Joe Widmer Property to determine the presence or absence of wetlands or Waters of the United States. Value Engineering, Inc. was retained by Joe Widmer to complete this Wetland Investigation.

2.0 PROJECT AND SITE DESCRIPTION

The Joe Widmer Property (PAR ID: 16.7.1.52) is a 0.49-acre property is located at the intersection of Milford Road and Joel Street in Smithfield Township, Monroe County. It is proposed to redevelop this property.

As part of the land development process, a delineation of the Wetlands and/or Waters of the United States must be completed in the areas in and around the proposed grading and construction.

3.0 NATURAL FEATURES INVENTORY

3.1 Topography:

According to Google Earth, the elevation ranges from 520-ft asl at the southwestern property corner and grades to the North to an elevation of approximately 506-ft asl at the property line and grades to the East to an elevation of approximately 499-ft asl near the intersection with Joel Street.

3.2 Geology:

The site is underlain primarily by the Buttermilk Falls Limestone through Esopus Formation, undivided (Dbe), which consists of Devonian-Age sandstone, limestone, and chert. There are no documented karst features located within 1-mile of the project site and the risk of sinkholes is minimal.

3.3 Watersheds:

The project site lies within the Marshalls Creek watershed, which is classified as a High Quality Fishery (HQ-CWF) by PA-DEP.

3.4 Wetlands and Waters

According to the US Fish & Wildlife Service Wetland Mapper program, there are no wetlands or Waters identified on the property.

3.5 Soils:

According to the USDA-NRCS Web Soil Survey, the soils in this area are mapped as the following soil series:

- Benson-Rock Outcrop Complex (BeC) – These are shallow, well-drained soils that formed in glacial till on shallow bedrock. These soils are non-hydric.

3.6 Historic Land Use:

The site has historically been wooded. There is evidence of recent fill soils/wood chip deposition to create a level area to park landscaping vehicles and equipment.

4.0 INVESTIGATION :

A wetland investigation was advanced on December 11, 2023 by a Certified Professional Soil Scientist. U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps, the U.S. Geological Survey (USGS) National Hydrographic Dataset (NHD), and aerial photographs were reviewed prior to field work to determine potential locations of wetlands and/or waterbodies on the property.

Wetland delineation methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Northcentral and Northeast Regional Supplement (USACE 2012b) were used to identify and delineate wetlands. According to the 1987 Corps Manual (Environmental Laboratory, 1987), wetlands are characterized by the following three distinct environmental characteristics:

- Vegetation. The prevalent vegetation consists of macrophytes that are typically adapted to life in hydric soil conditions. These hydrophytic species, due to morphological, physiological, and/or reproductive adaptations, can and do persist in anaerobic soil conditions.
- Soils. Soils are present and have been classified as hydric, or they possess redoximorphic characteristics that are associated with anaerobic soil conditions.
- Hydrology. The area must be inundated either permanently or periodically at mean water depths less than 6.6 feet, or the soil is saturated at the surface for some time during the growing season of the prevalent vegetation.

Where potential wetland indicators were observed, data were collected at sample plot locations to determine whether a dominance of hydrophytic vegetation indicators, hydric soil indicators, and hydrology indicators were present. If each of these indicators was present within the sample plot, a wetland boundary was delineated and upland and wetland data plot locations were established.

5.0 RESULTS

Observation points were advanced across the to determine the presence/absence of wetland conditions.

For the entire property, the site consists of:

- No Primary hydrologic indicators that would be consistent with what is found in wetlands.
- Vegetation is non-hydrophytic. No morphological adaptations were observed as well.
- Much of the property was covered by buildings, pavement and gravel. Other areas had soils consistent with what was shown in the soil survey. These soils are non-hydric.

There are no wetlands present on the proposed 0.49-acre property.

Additionally, measurements were taken to determine if there were any streams within 150-ft of this property. There was no evidence of any streams within 150-ft of this property.

7.0 SUMMARY

In Summary, a wetland presence/absence investigation was completed for the Joe Widmer Property, a 0.49-acre developed property that is located in Smithfield Township, Monroe County.

There are no wetlands present on the property. There was no evidence of any streams within 150-ft of this property.

WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Joe Widmer Property City/County: Pocono/Smithfield Sampling Date: 12/11/2023

Applicant/Owner: Joe Widmer State: PA Sampling Point: 1

Investigator(s): Steve Dadio Section, Township, Range:

Landform (hillside, terrace, etc.): Upland Local relief (concave, convex, none) None Slope (%): 4

Subregion (LRR or MLRA): LRR R, MLRA 140 Lat: 41.033598 Long: -75.143299 Datum:

Soil Map Unit Name: Benson-Rock Outcrop (BeC) NWI classification: ---

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, et

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- x Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No	Depth (inches):
Water Table Present?	Yes	No x	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No x	Depth (inches):

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION– Use scientific names of plants. Sampling Point: 1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharum*	20	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	20	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Acer saccharum*	20	Yes	FACU
2. *Lindera benzoin*	15	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	35	=Total Cover	
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals	55 (A)		190 (B)

Prevalence Index = B/A = 3.45

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					Loamy/Clayey	
6-12	10YR 5/6	100					Loamy/Clayey	
12-18	10YR 5/4	90	10YR 6/2	10	D	M	Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

SITE PHOTOGRAPHS

Wooded area along northern property line.

Recent fill/woodchip deposition.

RESUME OF REPORT PREPARER

Stephen D. Dadio, CPSS/CPSC

SUMMARY OF EXPERIENCE

Mr. Dadio has twenty-five (25) years of professional experience in the environmental and soils industries. He has used his extensive technical knowledge and expertise in ecological and hydrological fields for wetland delineations, watershed studies, environmental site assessments, and nonpoint source pollution prevention programs. Specializing in urban and disturbed landscapes, his career has taken him around the globe with focus on green infrastructure solutions in built-out communities to replicate natural hydrologic conditions. A knowledgeable resource for municipal projects, he also provides experience in estimating, field management, site inspection and quality control.

PROFESSIONAL CERTIFICATIONS

Certified Professional Soil Scientist (CPSS) SSSA (ARCPACS)

Certified Professional Soil Classifier (CPSC) SSSA (ARCPACS)

Professional Soil Scientist PAPSS Registered

Delaware DNREC Licensed Class D Soil Classifier

Pennsylvania Licensed Sewage Enforcement Officer (SEO)

PROFESSIONAL EXPERIENCE

French Creek West Hydrologic Soil Group Reclassification - Phoenixville, PA

Completed a detailed soil investigation to reclassify the soil hydrologic group for this site. Completed soil profile descriptions and permeability testing to justify this reclassification. Produced report in accordance with USDA-NRCS policies and procedures and successfully submitted to DEP.

PPL Progress Substation Failing Stormwater Basin Forensic Investigation - Linglestown, PA

Completed a field investigation to determine the cause of a failing infiltration basin. Completed a detailed soil and permeability investigation, laboratory analysis of soil physical and chemical properties, and reviewed the previous testing and installation procedures. Produced report summarizing the results of this investigation and provided guidance for restoring the infiltration back to the condition for which it was designed.

U.S. Army, Fort Drum MS4 Services - Fort Drum, NY

Project Manager for Fort Drum to develop and maintain a Multi-Sector General Permit for Stormwater Discharges from Industrial Activity and MS4 Permit Program. We provide comprehensive permit administration that includes: Infrastructure assessment, illicit discharge and pollution prevention, MS4 and MSGP inspections, water sampling, construction site assessments and public education and outreach development.

U.S. Air Force, Moody Air Force Base Stormwater Compliance Services - Valdosta, Georgia

Project Manager for Moody AFB to develop and maintain Industrial Stormwater General Permit for Stormwater Discharges from Industrial Activity. We provide comprehensive permit administration that includes: Infrastructure assessment, benchmark sampling for Oil & Grease, wet weather stormwater sampling and comprehensive site evaluations

Dominica National Soil Survey - Dominica, Eastern Caribbean

Project Manager for developing a national program soil survey standards and work plan mapping strategy for an updated National Soil Survey. This program involves the completion of a Data Review and Needs Assessment, Preparation of Soil Survey Data Requirements, development of a Soil Survey Plan, Technical Specifications and Contracting, Contracting Support and Supervision, and Quality Insurance/Quality Control of the Soil Survey.

United States Environmental Protection Agency - Cincinnati, OH

Conducted detailed soil surveys and hydrologic investigations in the cities of Phoenix, AZ, Atlanta, GA, New Orleans, LA, Portland, ME, Detroit, MI, Omaha, NE, Camden, NJ, Cincinnati, OH, Cleveland, OH, San Juan, PR, and Tacoma, WA to determine the stormwater management potential for the soils in vacant lots in order to mitigate Combined Sewer Overflow (CSO) events. The urbanized soils collected from the sites were analyzed to identify feature classifications that are like native material, to develop a database of soil information on a regional basis for planning.

NPDES Program Manager - City of Coatesville, PA

Plan all stormwater activities required to maintain compliance with the MS-4; PAG Permit. This includes the development of a TMDL plan for sediments, nitrogen, and phosphorous. Also served on the Christina Basin TMDL Improvement Committee (CTIP) as a municipal representative.

NPDES Program Manager - Westtown Township, PA

Plan all stormwater activities required to maintain compliance with the MS-4; PAI Permit. This includes the development of a TMDL plan for phosphorous.

NPDES Program Manager - West Norriton Township, PA

Plan all stormwater activities required to maintain compliance with the MS-4; PAG Permit. This includes the development of a Pollutant Reduction Plan for impaired waters.

On-Lot Sewage Management Program - Newlin Township, PA

Developed a Sewage Management Program for Newlin Township. This program involves the implementation of an ordinance, resident education, and associated record documentation.

Grant Writing - City of Coatesville, PA

Successfully procured two grants for the City of Coatesville to repair aging infrastructure, particularly stormwater inlets. These grants totaled $277,500 from both the PA DCED WRPP Program ($127,500) and PA DEP Growing Greener ($150,000).

Construction Manager – PA

Supervised three construction inspectors working on various land development projects throughout southeastern Pennsylvania. Coordinated work with both municipal officials as well as private construction managers.

Timber Harvest Reviewer - West Nantmeal Township, PA

Review and inspect timber harvests in accordance with local regulations. Interact with Chester County Conservation District in the facilitation of these unique permits.

Stargazer Road Land Acquisition - Newlin Township, PA

Conducted Phase 1 Environmental Site Assessment for property that was purchased by Newlin Township.

305 Kimberton Road Phase 1 and Phase 2 - Schuylkill Township, PA

Conducted Phase 1 and Phase 2 Environmental Site Assessment for property that was purchased for a private land development. These tasks include detailed site characterization for possible contaminants.

USDA Agricultural Research Service (USDA-ARS)

Completed detailed evaluation of soils in central Pennsylvania to determine the presence of dense, brittle soil horizons (fragipans). This project involved detailed site characterization and sampling to assist with the greater research project.

Valley Forge Distribution Center, Valley Forge, PA

Supervised the design of a water line extension from an existing facility to the main several hundred feet away. This involved the design of a water meter pit and required extensive coordination with PA American.

Wetland Delineation for Giant - Lower Paxton Township, PA

Completed a wetland delineation for the construction of a supermarket. This included field delineation and submission of a completed wetland report.

Geotechnical Borings, 827 Carpenter Street - Philadelphia, PA

Completed geotechnical borings and produced soil bearing capacity calculations for the construction of a 3-story residence in South Philadelphia.

Historic Resources Evaluation, Whitehall Inn - Spring City, PA

Completed all forms and documentation as required by the PHMC for this redevelopment project.

On-Site Sewage System Testing and Design - West Bradford Township, PA

Completed detailed soil testing to determine the suitability of on-site sewage disposal. Completed a design for an inground system that was required by the Chester County Health Department to receive a permit.

Stormwater Management and Loading Rate Determination - Phoenixville, PA

Completed soil testing for a stormwater infiltration basin. Produced report with a justification of enhanced loading rates in accordance with PADEP guidance. When the basin encountered problems, completed a forensics investigation to determine the problem source (compaction); developed a remediation strategy to restore the functionality of the basin.

Stormwater Streetscape Project in Port Richmond - Philadelphia, PA

Completed detailed soil and stormwater evaluation for a PWD-funded streetscape project in the Port Richmond section of Philadelphia. This involved detailed urban soil investigation as well as permeability testing in accordance with PWD regulations.

Environmental Permitting, Brandywine Branch Distillery - Elverson, PA

Completed detailed soil and stormwater evaluation, wetland determination, PNDI clearance, and archaeological screening for the repurposing of a barn to a craft distillery. Interacted with local, state, and federal agencies to gain approvals.

PROFESSIONAL AFFILIATIONS

Pennsylvania Association of Professional Soil Scientists, *President 2009, 2010*

DEP Stormwater Loading Re-Write Workgroup, *Member*

Soil Science Society of America, *Member*

W.B. Saul Agricultural High School (Philadelphia) Natural Resources Curriculum Advisory Board, *Member*

Adjunct Faculty, Delaware Valley University, Doylestown, PA

PUBLICATIONS

Dadio S., Barkasi, A. (2015) "Urban Soils: The Foundation for Green Infrastructure." Villanova Urban Stormwater Partnership Symposium, VUSP, Villanova, PA.

Shuster, W. D., Dadio, S., Burkman, C. E., Earl, S. R., and Hall, S. J. (2015). "Hydropedological assessments of parcel-level infiltration in an arid urban ecosystem." Soil Science Society of America Journal, 79(2), 398-406.

Shuster W., Dadio, S. (2014) "Urban fingerprints on soil morphology and hydrology – a summary of field investigations in US cities, across different soil orders." Soils in the City Conference. IEWA, Chicago, Illinois.

Shuster, W. D., Dadio, S., Drohan, P., Losco, R., & Shaffer, J. (2014) "Residential demolition and its impact on vacant lot hydrology: Implications for the management of stormwater and sewer system overflows." Landscape and Urban Planning, 125, 48-56.

Shuster, W. and Dadio, S. (2014) "Soils Investigation for Infiltration-based Green Infrastructure for Sewershed Management (Omaha NE)." U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-14/063.

Dadio S., Drohan, P.J. (2012) "Utilizing Ground Penetrating Radar and EM to Supplement Deep Borings in Urban Soil Surveys." Soil Science Society of America, Cincinnati, Ohio, poster presentation and abstract. Abstract 287-1.

Barkasi, A., Dadio, S., Shuster, W., Losco, R. (2012) "Urban Soils and Vacant Land as an Urban Stormwater Re-source." ASCE-EWRI World Environmental and Water Resources Congress, Albuquerque, New Mexico, oral presentation (published). Abstract 89.

Losco, R., Dadio, S. (2012) "A Contrasting Study of Ohio Urban Soils – Cleveland Vs. Cincinnati." Soil Science Society of America, Cincinnati, Ohio, poster presentation and abstract. Abstract 287-2.

Barkasi, A., Dadio, S., Losco, R. L., & Shuster, W. D. (2012) "Urban soils and vacant land as stormwater resources." In World Environmental and Water Resources Congress 2012: Crossing Boundaries 569-579.

Shuster, W., Barkasi, A., Dadio, S., Drohan, P.J., Gerber, T., Houser, T., Losco, R., Reinhold, K., Wander, J., and Wigington, M. (2011) "Moving beyond the udorthent – a proposed protocol for surveying urban soils to service contemporary urban ecosystem management data needs." Soil Survey Horizons, 52:1-8.

EDUCATION:

Master of Science: Soil Science
Pennsylvania State University

Bachelor of Science: Soil Science
Cornell University