



## *Environmental Conditions*

An inventory of existing environmental conditions was conducted to gather all appropriate pre-project data of the project study area (**Figure 3**), including USGS topographic maps, National Wetlands Inventory maps, soil surveys, natural area inventory maps, Geographic Information System (GIS) data provided by East Whiteland Township and Malvern Borough, the Chester County Planning Commission, and the Delaware Valley Regional Planning Commission (DVRPC). A field view was conducted on March 24, 2010 with representatives from East Whiteland Township and Malvern Borough to field verify the environmental data collected, to collect photographic documentation, and to discuss existing conditions of the proposed corridor extension study area. The findings of the existing conditions and scoping field view are summarized below.

### Environmental-Land Use Inventory

As previously noted, the study area is surrounded by a mix of industrial, residential, and transportation uses. In addition to overhead utility lines, underground utility lines, including a fiber optic line, were also observed in the study area during site reconnaissance. It will be necessary to coordinate the actual location of these facilities with all utility companies during planning and construction of the road extensions. In terms of environmental considerations, additional land uses and characteristics include:

- No agricultural land is located within the study area.
- No Superfund, RCRA, or Brownfields sites are located in the vicinity according to EPA's *Cleanups in My Community* website (<http://iaspub.epa.gov/Cleanups>).
- A PA eMap data base search was conducted to identify any DEP permitted sites located within or in close proximity to the study area (see Technical Appendices). Sites within the actual study area include:
  - Discharge Points - WPCF
    - Buckeye Term LLC





**Stell Environmental Enterprises, Inc.**  
*...The Difference!*  
 25 East Main Street (610) 286-0100  
 Elverson, PA 19520 www.stell.com

**Figure 3: Site Aerial**  
**MALIN ROADWAY EXTENSION PROJECT**  
**EAST WHITELAND TOWNSHIP & MALVERN BOROUGH**  
**CHESTER COUNTY, PENNSYLVANIA**

Immediate Study Area  
 Surface Water

1 inch = 1,250 feet  
 0 500 1,000 1,500 2,000 Feet



- Mobil Oil Corp. (inactive)
- Ground Water Withdrawal
  - Damascus Bishop Tube Co.
- Water Resource Interconnection
  - Damascus Bishop Tube Co.
- Water Resource Discharge
  - Damascus Bishop Tube Co. (2 sites)
- Land Recycling Cleanup Locations
  - Foshy LP, Chambers Group
- Storage Tanks
  - Bullen Co Inc. (removed)
  - Jack Pemberton, Chemgo Co.
- Interconnection and Groundwater Withdrawal
  - Pennsylvania Hardware Mfg. co. (PENNWARE)

Sites within close proximity to the study area include:

- EPA Toxic Release Inventory Sites
  - Whitford Corp.
- Erosion and Sediment Control Facilities
  - Chester County Fund Inc.
  - What A Good Dog Training Facility
  - Three Tun Developers
  - Atwin Investments
  - Southeastern PA Transportation Authority
  - Nazirides Retail Store
  - Vet Referral Center
  - 271 LP
  - Mainline 1 & 2 Assoc. LP
  - O'Neill Property Group
  - Residence Inn
  - Malvern Parcel Dev.
  - Peoples Light & Theater Company
  - Commerce Bank
  - Greenstone Development II subdivision
  - Sugartown Ridge Development
  - D'Agostina Builders (Summit Hill) Development
- Land Recycling Cleanup Locations
  - Two (2) Whitford Corporations sites
  - O'Neill Property Group, Bishop Tube
  - Croda Inks Corp, Croda Soil
- Residual Waste
  - Wyeth Pharmaceuticals, Wyeth Laboratories
- Storage Tanks
  - Buckeye Pipe Line Transportation LLC, nine (9) tanks with petroleum
  - Croda Inks Corp. eight (8) tanks not in use
  - 101 Lancaster Ave Malvern LLC, EXXON Mobil Station

- VISHAY Resistors (removed)
- SELVAN INC, Malvern Sunoco
- Storage Unit
  - Sunoco Partners MKT & Term LP
- Treatment Plants - WPCF
  - Buckeye Term LLC/Mobil Oil
  - Mobil Oil Corp. recovery well
- Discharge Points - WPCF
  - Sun Pipe Line CO (proposed)

## Soils

Approximately 31% of the project study area is very limited for the construction of local roads and streets, while 38.2% is rated "somewhat limited" (Figure 4). Approximately 15.4% of the study area is comprised of prime farmland soils, while 26.1% contain farmland soils of statewide importance (Figure 5). There are no hydric soils within the actual road extension corridors, but wetland soils are located across existing Three Tun Road, comprising 1.8% of the study area (Figure 6). Over three-quarters of the study area is rated "partially hydric" (Figure 6). Partially hydric means that at least one component of the map unit is rated as hydric and at least one component is rated as not hydric.

## Streams

There are two perennial tributaries to Valley Creek present within the project study area (Figure 7). Little Valley Creek is located between Malin Road and Village Way approximately 600 feet east of Malin Road. It flows north towards US Routes 30 and 202 and merges downstream with Valley Creek. An unnamed tributary to Little Valley Creek (CCPC has this mapped as the West Branch Warren Run) is situated approximately 400 feet west of the Pennsylvania Avenue cul-de-sac and flows north to Little Valley Creek just south of US Rt. 202 at PA Rt. 29. Little Valley Creek is classified as an Exceptional Value (EV) and Migratory Fishes (MF) stream according to Chapter 93 Water Quality Standards.

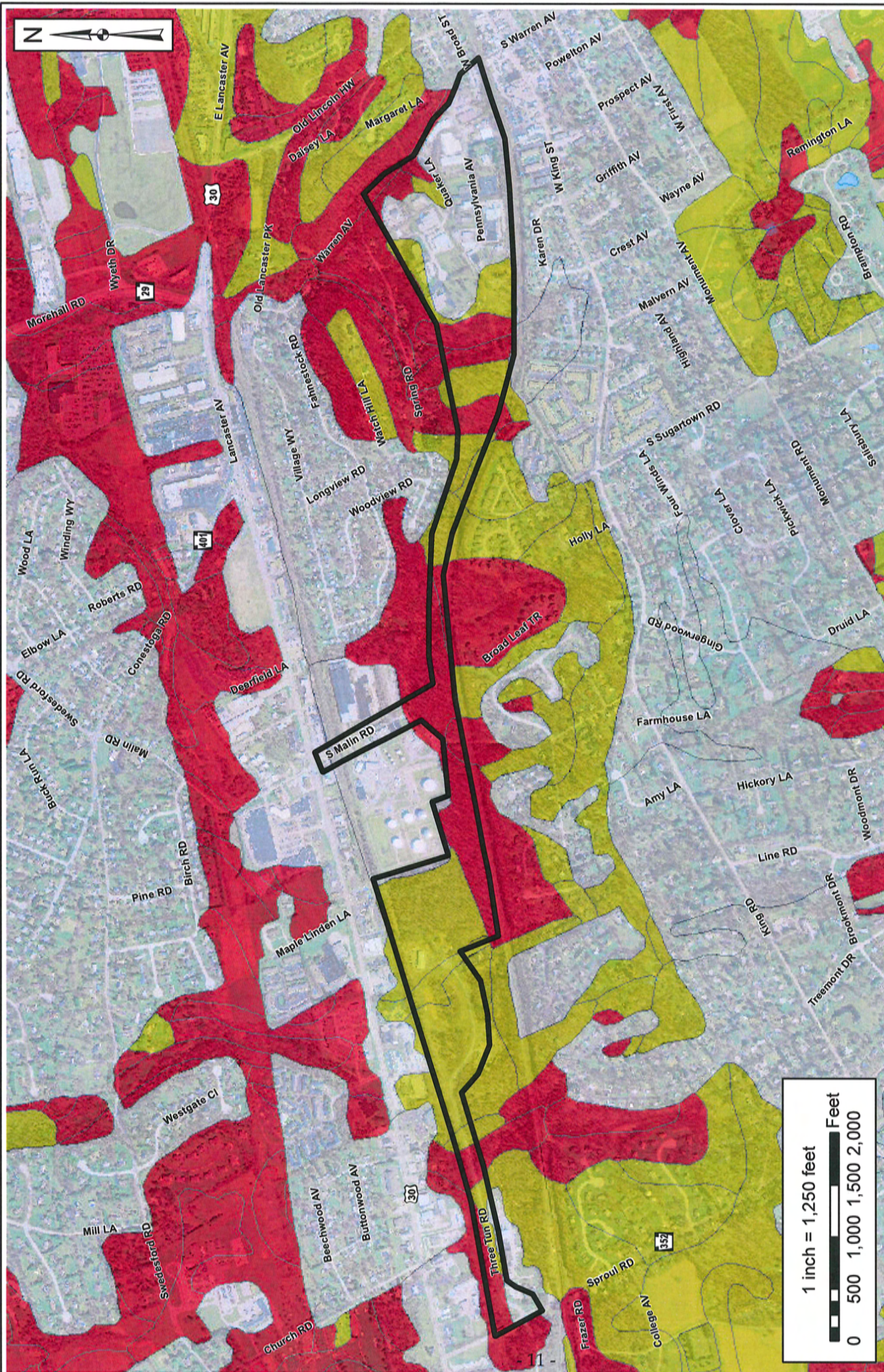
At least two (2) drainage culverts were observed during site reconnaissance under the AMTRAK/SEPTA R-5 rail lines directing flow during stormwater events through the study area.

Little Valley Creek is also classified as a Natural Reproduction and Class A Trout Stream by the Pennsylvania Fish and Boat Commission. Little Valley Creek is not designated as a Federal Wild and Scenic River or a State Scenic River. There are no coastal zones located within Chester County, Pennsylvania.

## Floodplains

According to the Federal Emergency Management Agency (FEMA), there are no 100-year floodplains within the project study area (Figure 7).





**Stell Environmental Enterprises, Inc.**  
*...The Difference!*  
 25 East Main Street (610) 286-0100  
 Elverson, PA 19520 www.stell.com

**Figure 4:**  
**Soil Limitations for Local Streets and Roadways**  
 MALIN ROADWAY EXTENSION PROJECT  
 EAST WHITELAND TOWNSHIP & MALVERN BOROUGH  
 CHESTER COUNTY, PENNSYLVANIA

1 inch = 1,250 feet  
 0 500 1,000 1,500 2,000 Feet

	Not Rated
	Somewhat Limited
	Very Limited
	Immediate Study Area

Source: DVRPC, Chester County DCIS, USDA NRCS SSURGO Database for Chester County, PA 2008  
 Completed by: JDD on 12/7/2010

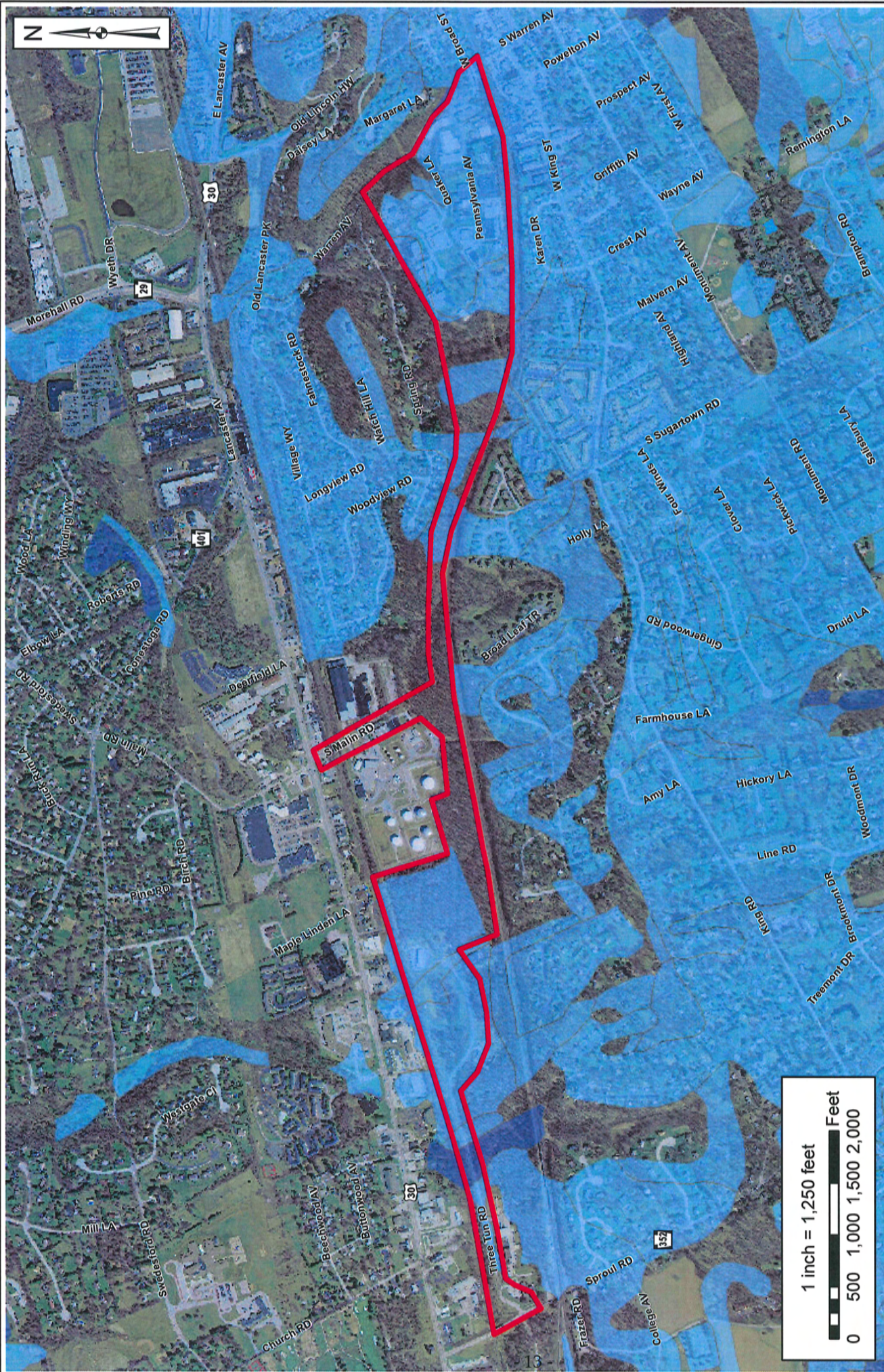




**Figure 5: Important Farmland Soils**  
**MALIN ROADWAY EXTENSION PROJECT**  
**EAST WHITELAND TOWNSHIP & MALVERN BOROUGH**  
**CHESTER COUNTY, PENNSYLVANIA**

- Prime Farmland Soil
- Farmland Soil of Statewide Importance
- Immediate Study Area





**Figure 6: Hydric Soils**  
**MALIN ROADWAY EXTENSION PROJECT**  
**EAST WHITELAND TOWNSHIP & MALVERN BOROUGH**  
**CHESTER COUNTY, PENNSYLVANIA**

**Stell Environmental Enterprises, Inc.**  
*...The Difference!*

25 East Main Street (610) 286-0100  
 Elverson, PA 19520 www.stell.com

- Partially Hydric Soil
- Hydric Soil
- Immediate Study Area





**Stell Environmental Enterprises, Inc.**

*...The Difference!*

25 East Main Street (610) 286-0100  
Elverson, PA 19520 [www.stell.com](http://www.stell.com)

**Figure 7: Water Resources**

**Streams, Wetlands, & Floodplains**

**MALIN ROADWAY EXTENSION PROJECT**

**EAST WHITELAND TOWNSHIP & MALVERN BOROUGH**

**CHESTER COUNTY, PENNSYLVANIA**

Completed by: JDD on 12/7/2010 Source: DVRPC, Chester County DCIS, FEMA National Flood Hazard Layer 2010



## Wetlands

No wetlands are present in the project study area according to the National Wetlands Inventory (NWI) maps, Malvern quadrangle (Figure 7). Since some soils along the proposed road extension alignments are rated "partially hydric" (Figure 4), a wetlands delineation will be required to determine the presence and extent of any wetlands.

## Open Space

Although currently comprised of undeveloped open space, the project study area does not contain any protected open space, park or recreation areas. According to the USGS topographic map and PennDOT Type 10 county road maps, there are no State Game Lands or State Forests within the study area.

The East Whiteland Township Park and Recreation Plan does include a proposed high priority trail link along Malin Road to the western boundary of General Warren Village (Figure 8). An additional trail link is proposed from the southern edge of the development through the study area to the high priority trail.

## Steep Slopes

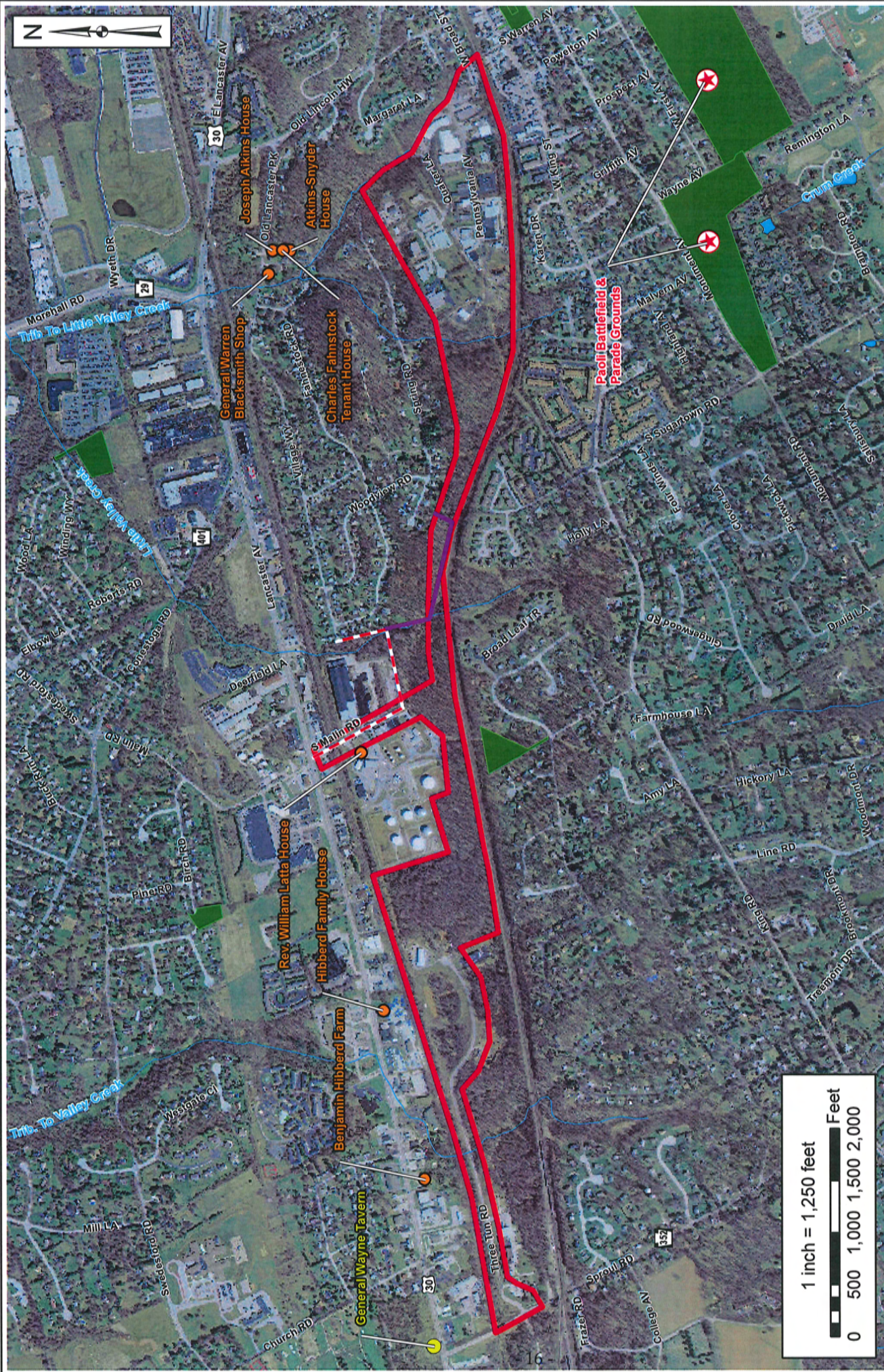
Extensive areas of steep slopes (15% and over) are located along the stream valleys of Little Valley Creek and the unnamed tributary to Little Valley Creek (Figure 9). Steep slopes are also located along Warren Avenue north of Quaker Lane and west of Malin Road along the AMTRAK/SEPTA railroad line.

## Important Natural Areas and Habitats

The study found the following related to important natural areas and habitats:

- No unique or important natural areas are within the project study area according to the 1994 Natural Areas Inventory of Chester County, Pennsylvania.
- No Important Bird Areas are located within the study area according to the National Audubon Society, Inc.
- No Important Mammal Areas are situated within the study area according to the Important Mammal Areas Project (IMAP).
- A Pennsylvania Natural Diversity Index (PNDI) project environmental review request was forwarded to the PA DCNR, PA Game Commission, PA Fish and Boat Commission, and the US Fish and Wildlife Service to determine the presence or absence of threatened or endangered species in the study area. Only the U.S. Fish and Wildlife Service reported a potential impact to threatened and endangered and/or special concern species and





## Figure 8: Recreation, Open Space & Cultural Resources

MALIN ROADWAY EXTENSION PROJECT  
EAST WHITELAND TOWNSHIP & MALVERN BOROUGH  
CHESTER COUNTY, PENNSYLVANIA

**Stell Environmental Enterprises, Inc.**  
*...The Difference!*

25 East Main Street (610) 286-0100  
Elverson, PA 19520 www.stell.com

**1 inch = 1,250 feet**

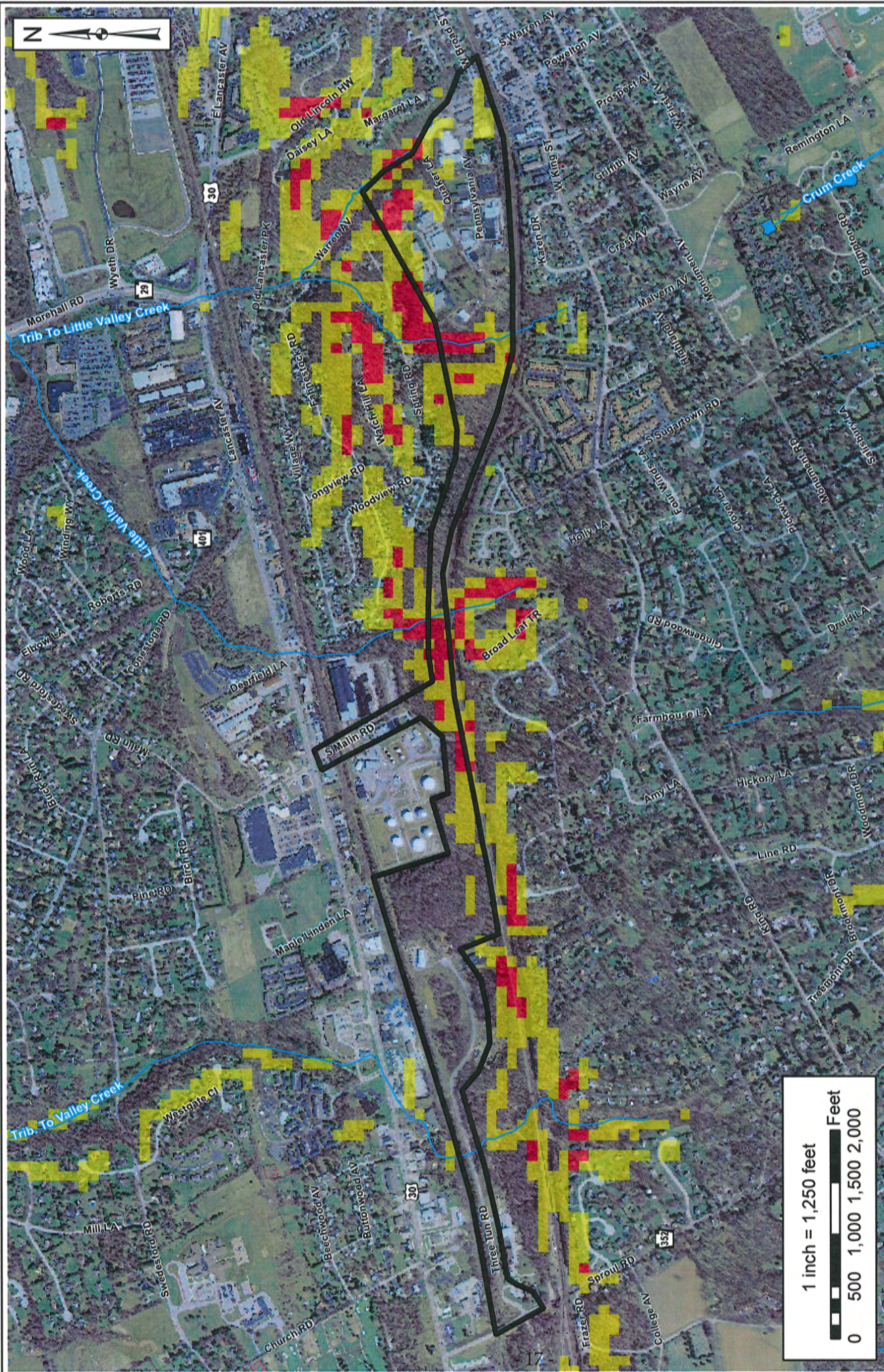
0 500 1,000 1,500 2,000 Feet

Undetermined Resource	Priority Trail
Eligible Resource	Other Trail
Listed Resource	Park/ Recreation Area
	Immediate Study Area

Completed by: JDD on 12/9/2010 Source: DVRPC, Chester County DCIS

N:\Projects\04204 Malin Road Extension\Background Info\Maping





**Figure 9: Steep Slopes**  
MALIN ROADWAY EXTENSION PROJECT  
EAST WHITELAND TOWNSHIP & MALVERN BOROUGH  
CHESTER COUNTY, PENNSYLVANIA

# MALIN ROADWAY EXTENSION PROJECT

EAST WHITELAND TOWNSHIP &amp; MALVERN BOROUGH

CHESTER COUNTY, PENNSYLVANIA

**Stell Environmental Enterprises, Inc.**  
**SEE**...The Difference!

25 East Main Street  
Elverson, PA 19520  
(610) 286-0100  
[www.stelllee.com](http://www.stelllee.com)

(610) 286-0100

www.stellee.com

Completed by: JDD on 12/7/2010 Source: DVRPC, Chester County DCIS

N:\Projects\04204 McMahan Malin Road Extension\Background Info\Mapping



resources (agency correspondence is included in the **Appendix A**). For example, the study area is located within a bog turtle habitat.

- There are no Outstanding Scenic Geologic Features, Heritage Geology Sites, or Natural Areas within the study area based on a review of data from the Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Geological Survey.
- No wilderness areas are located within the study area according to the U.S. National Wilderness Preservation System Map ([www.wilderness.net](http://www.wilderness.net)).
- There are no National Natural Landmarks present in the study area according to the National Park Service.
- CCPC, in its open space mapping, has identified a biodiversity corridor that extends across the northern portion of Malvern, including much of the study area for this project.

### Historic and Cultural Resources

There are no local, state, or national listed historic structures or resources within the actual study area (Figure 8). Located within close proximity to the project area are the following historic sites:

- Benjamin Hibberd Farm, NR status is undetermined, Key # 098223.
- Benjamin Hibberd House, NR status is undetermined, Key # 098224.
- Rev. William Latta House, NR status is undetermined, Key # 098230.

Numerous other historic sites are located outside the study area according to the Cultural Resources GIS (CRGIS) database (see Appendix A). Four (4) other sites listed as undetermined for the national Register are located in the vicinity of the Warren Avenue and Old Lancaster Road intersection, including the General Warren Inn Blacksmith Shop. The presence of these potential historic resources is one reason why improvements to Warren Avenue (e.g. road widening) are not considered feasible or desirable to address the purpose and goals of the study.

Portions of the AMTRAK rail line, which serves as the southern boundary of the study area, have been evaluated as eligible by the State Historic Preservation Office. Although this section was not found in the data search of historic resources, it may need to be considered as a potentially eligible resource. Much of the rail line through Malvern is considered to be a locally significant historic resource (*Borough of Malvern Historic Resource Atlas*, 2008). There are also additional locally significant historic resources identified along King Street and North Warren Avenue.

### Air Quality

This project is exempt from regional ozone conformity analysis and a CO, PM10 and PM 2.5 Hot-Spot analysis because no construction activities are being planned at this time. Once construction activities are determined this will have to be reevaluated according to Table 2.1



of the Air Quality Handbook, Pub #231. The project area is located within an air quality nonattainment area for PM 2.5 and ozone.

## Noise

This feasibility study falls within the classification as "Other" for the type of project according to PennDOT Publication #24. Once construction activities are determined this classification will need to be re-evaluated.

## Environmental Justice

DVRPC has indicated that the study area is located within an environmental justice area for the degree of elderly population concentration.

In summary, an environmental inventory was completed for the project and revealed several possible environmental issues that will need to be furthered addressed as the project evolves, which include:

- 31% of the soils in the project study area are very limited for the construction of local roads and streets, indicating that the soils have one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures.
- Another 38.2% of the soils are rated "somewhat limited", indicating that the soils have features that are moderately favorable for the construction of roads and streets. The limitations can be overcome or minimized by special planning, design, or installation.
- Although no active agricultural operations occur within the study area, over 15% of the study area is comprised of prime agricultural soils and over 26% are soils of statewide importance.
- Little Valley Creek and an unnamed tributary are present within the project area. Little Valley Creek is classified as an Exceptional Value (EV) and Migratory Fishes (MF). Extensive areas of steep slopes are located along the stream valleys. The impact of all work within the area of the creeks will need to be determined and mitigated.
- Steep slopes are also located west of Malin Road within the eastern portion of the proposed Three Tun Road extension alignment.
- Although no wetlands are present in the project study area according to the NWI maps, over three-quarters of the study area contains soils that are rated "partially hydric". Hydric soils are located across the existing alignment of Three Tun Road. A wetlands delineation will be required to determine the presence and extent of any wetlands.
- The East Whiteland Township Park and Recreation Plan does include a proposed high priority trail link along Malin Road to the western boundary of General Warren Village. An additional trail link is proposed from the southern edge of the development through



the study area to the high priority trail. The design of any road extension project should incorporate sidewalks to accommodate these trail links.

- Much of the rail line through Malvern is considered to be a locally significant historic resource (*Borough of Malvern Historic Resource Atlas*, 2008). There are also additional locally significant historic resources identified along King Street and North Warren Avenue.
- In response to a PNDI search, the U.S. Fish and Wildlife Service reported a potential impact to threatened and endangered and/or special concern species and resources. As part of the planning and design of any road extension project, additional information from the U.S. Fish and Wildlife Service will need to be obtained to determine the extent of any impact. The study area is within a bog turtle habitat.