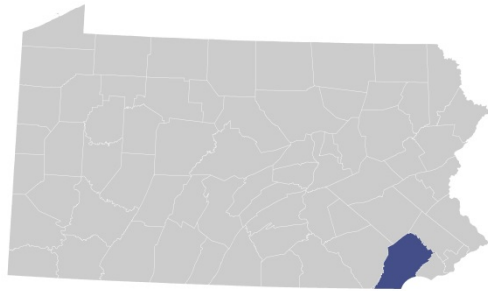


# FLOOD INSURANCE STUDY

## FEDERAL EMERGENCY MANAGEMENT AGENCY

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VOLUME 1 OF 6



## CHESTER COUNTY, PENNSYLVANIA

(ALL JURISDICTIONS)

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\*See [Table 1: Listing of NFIP Jurisdictions](#) for a complete listing of the communities represented in this Flood Insurance Study Report

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SEPTEMBER 29, 2017

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**Published Separately**

Flood Insurance Rate Map (FIRM)

# FLOOD INSURANCE STUDY REPORT CHESTER COUNTY, PENNSYLVANIA

## SECTION 1.0 – INTRODUCTION

### 1.1 The National Flood Insurance Program

The National Flood Insurance Program (NFIP) is a voluntary Federal program that enables property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

For decades, the national response to flood disasters was generally limited to constructing flood-control works such as dams, levees, sea-walls, and the like, and providing disaster relief to flood victims. This approach did not reduce losses nor did it discourage unwise development. In some instances, it may have actually encouraged additional development. To compound the problem, the public generally could not buy flood coverage from insurance companies, and building techniques to reduce flood damage were often overlooked.

In the face of mounting flood losses and escalating costs of disaster relief to the general taxpayers, the U.S. Congress created the NFIP. The intent was to reduce future flood damage through community floodplain management ordinances, and provide protection for property owners against potential losses through an insurance mechanism that requires a premium to be paid for the protection.

The U.S. Congress established the NFIP on August 1, 1968, with the passage of the National Flood Insurance Act of 1968. The NFIP was broadened and modified with the passage of the Flood Disaster Protection Act of 1973 and other legislative measures. It was further modified by the National Flood Insurance Reform Act of 1994 and the Flood Insurance Reform Act of 2004. The NFIP is administered by the Federal Emergency Management Agency (FEMA), which is a component of the Department of Homeland Security (DHS).

Participation in the NFIP is based on an agreement between local communities and the Federal Government. If a community adopts and enforces floodplain management regulations to reduce future flood risks to new construction and substantially improved structures in Special Flood Hazard Areas (SFHAs), the Federal Government will make flood insurance available within the community as a financial protection against flood losses. The community's floodplain management regulations must meet or exceed criteria established in accordance with Title 44 Code of Federal Regulations (CFR) Part 60.3, *Criteria for Land Management and Use*.

SFHAs are delineated on the community's Flood Insurance Rate Maps (FIRMs). Under the NFIP, buildings that were built before the flood hazard was identified on the community's FIRMs are generally referred to as "Pre-FIRM" buildings. When the NFIP was created, the U.S. Congress recognized that insurance for Pre-FIRM buildings would be prohibitively expensive if the premiums were not subsidized by the Federal Government. Congress also recognized that most of these floodprone buildings were built by individuals who did not have sufficient knowledge of the flood hazard to make informed decisions. The NFIP requires that full actuarial rates reflecting the complete flood risk be charged on all buildings constructed or substantially improved on or after

the effective date of the initial FIRM for the community or after December 31, 1974, whichever is later. These buildings are generally referred to as “Post-FIRM” buildings.

## 1.2 Purpose of this Flood Insurance Study Report

This Flood Insurance Study (FIS) Report revises and updates information on the existence and severity of flood hazards for the study area. The studies described in this report developed flood hazard data that will be used to establish actuarial flood insurance rates and to assist communities in efforts to implement sound floodplain management.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive than the minimum Federal requirements. Contact your State NFIP Coordinator to ensure that any higher State standards are included in the community’s regulations.

## 1.3 Jurisdictions Included in the Flood Insurance Study Project

This FIS Report covers the entire geographic area of Chester County, Pennsylvania.

The jurisdictions that are included in this project area, along with the Community Identification Number (CID) for each community and the 8-digit Hydrologic Unit Codes (HUC-8) sub-basins affecting each, are shown in Table 1. The Flood Insurance Rate Map (FIRM) panel numbers that affect each community are listed. If the flood hazard data for the community is not included in this FIS Report, the location of that data is identified.

Jurisdictions that have no identified SFHAs as of the effective date of this study are indicated in the table. Changed conditions in these communities (such as urbanization or annexation) or the availability of new scientific or technical data about flood hazards could make it necessary to determine SFHAs in these jurisdictions in the future.

**Table 1: Listing of NFIP Jurisdictions**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Atglen, Borough of	420273	02050306	42029C0180G	
Avondale, Borough of	421473	02040205	42029C0290G	
Birmingham, Township of	421474	02040205, 02040202	42029C0255G, 42029C0260G, 42029C0305G	
Caln, Township of	422247	02040205	42029C0135G, 42029C0140G, 42029C0145G, 42029C0190G, 42029C0195G, 42029C0200G	
Charlestown, Township of	421475	02040205, 02040203	42029C0100G, 42029C0105G, 42029C0110G, 42029C0155G	

**Table 1: Listing of NFIP Jurisdictions - continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Coatesville, City of	420274	02040205	42029C0135G, 42029C0190G, 42029C0195G	
Downingtown, Borough of	420275	02040205	42029C0145G, 42029C0150G, 42029C0200G	
East Bradford, Township of	420276	02040205	42029C0150G, 42029C0200G, 42029C0205G, 42029C0210G, 42029C0255G, 42029C0260G	
East Brandywine, Township of	421476	02040205	42029C0085G, 42029C0090G, 42029C0140G, 42029C0145G	
East Caln, Township of	421477	02040205	42029C0145G, 42029C0150G, 42029C0200G, 42029C0205G	
East Coventry, Township of	421478	02040203	42029C0015G, 42029C0020G, 42029C0050G, 42029C0055G	
East Fallowfield, Township of	421479	02040205	42029C0185G, 42029C0190G, 42029C0195G, 42029C0240G, 42029C0245G	
East Goshen, Township of	420277	02040202	42029C0155G, 42029C0160G, 42029C0210G, 42029C0215G	
East Marlborough, Township of	421480	02040205	42029C0245G, 42029C0250G, 42029C0255G, 42029C0290G, 42029C0295G, 42029C0300G	
East Nantmeal, Township of	421481	02040205, 02040203	42029C0040G, 42029C0045G, 42029C0050G, 42029C0085G, 42029C0090G	
East Nottingham, Township of	421482	02060002, 02050306	42029C0315G, 42029C0320G, 42029C0325G, 42029C0360G, 42029C0365G, 42029C0370G	

**Table 1: Listing of NFIP Jurisdictions - continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
East Pikeland, Township of	421483	02040203	42029C0055G, 42029C0060G, 42029C0100G, 42029C0105G	
East Vincent, Township of	420278	02040203	42029C0020G, 42029C0025G, 42029C0050G, 42029C0055G, 42029C0060G	
East Whiteland, Township of	420279	02040205, 02040202, 02040203	42029C0100G, 42029C0105G, 42029C0155G, 42029C0160G	
Easttown, Township of	422600	02040202, 02040203	42029C0165G, 42029C0170G, 42029C0220G	
Elk, Township of	422286	02060002	42029C0325G, 42029C0365G, 42029C0370G, 42029C0375G	
Elverson, Borough of	422287	02040203, 02050306	42029C0035G	
Franklin, Township of	422288	02040205, 02060002	42029C0330G, 42029C0335G, 42029C0375G, 42029C0380G	
Highland, Township of	422289	02040205, 02050306	42029C0180G, 42029C0185G, 42029C0190G, 42029C0230G, 42029C0235G, 42029C0240G	
Honey Brook, Borough of <sup>1</sup>	422692	02040205	42029C0075G	
Honey Brook, Township of	422290	02040205, 02050306	42029C0030G <sup>2</sup> , 42029C0035G, 42029C0070G, 42029C0075G, 42029C0080G, 42029C0130G, 42029C0135G	
Kennett, Township of	422586	02040205	42029C0255G, 42029C0295G, 42029C0300G, 42029C0340G, 42029C0345G <sup>2</sup>	
Kennett Square, Borough of	420280	02040205	42029C0295G	

<sup>1</sup>No Special Flood Hazard Areas Identified

<sup>2</sup> Panel Not Printed

**Table 1: Listing of NFIP Jurisdictions - continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
London Britain, Township of	422273	02040205	42029C0335G, 42029C0375G, 42029C0380G	
London Grove, Township of	422274	02040205	42029C0285G, 42029C0290G, 42029C0330G, 42029C0335G	
Londonderry, Township of	421484	02040205, 02060002, 02050306	42029C0235G, 42029C0240G, 42029C0280G, 42029C0285G	
Lower Oxford, Township of	421485	02060002, 02050306	42029C0270G, 42029C0275G, 42029C0280G, 42029C0310G, 42029C0315G, 42029C0320G, 42029C0325G	
Malvern, Borough of	420281	02040202, 02040203	42029C0160G	
Modena, Borough of	420282	02040205	42029C0195G	
New Garden, Township of	422275	02040205	42029C0290G, 42029C0295G, 42029C0335G, 42029C0340G	
New London, Township of	422276	02040205, 02060002	42029C0325G, 42029C0330G, 42029C0370G, 42029C0375G	
Newlin, Township of	421486	02040205	42029C0195G, 42029C0200G, 42029C0245G, 42029C0250G	
North Coventry, Township of	420283	02040203	42029C0010G, 42029C0015G, 42029C0020G	
Oxford, Borough of	420284	02060002, 02050306	42029C0315G, 42029C0320G	
Parquesburg, Borough of	422277	02040205, 02050306	42029C0185G	
Penn, Township of	421487	02040205, 02060002	42029C0280G, 42029C0285G, 42029C0325G, 42029C0330G	
Pennsbury, Township of	420285	02040205	42029C0255G, 42029C0260G, 42029C0300G, 42029C0305G	

<sup>1</sup> Panel Not Printed

**Table 1: Listing of NFIP Jurisdictions - continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Phoenixville, Borough of	420287	02040203	42029C0060G, 42029C0105G	
Pocopson, Township of	420286	02040205	42029C0250G, 42029C0255G, 42029C0260G	
Sadsbury, Township of	421488	02040205, 02050306	42029C0125G, 42029C0130G, 42029C0185G	
Schuylkill, Township of	421489	02040203	42029C0060G, 42029C0065G, 42029C0105G, 42029C0110G	
South Coatesville, Borough of	420288	02040205	42029C0190G, 42029C0195G	
South Coventry, Township of	421490	02040203	42029C0010G, 42029C0015G, 42029C0045G, 42029C0050G	
Spring City, Borough of	420289	02040203	42029C0060G	
Thornbury, Township of	420290	02040205, 02040202	42029C0215G, 42029C0260G, 42029C0265G	
Tredyffrin, Township of	420291	02040202, 02040203	42029C0105G, 42029C0110G, 42029C0115G, 42029C0120G <sup>1</sup> , 42029C0160G, 42029C0165G, 42029C0170G, 42029C0175G <sup>1</sup>	
Upper Oxford, Township of	422278	02060002, 02050306	42029C0270G, 42029C0275G, 42029C0280G, 42029C0325G	
Upper Uwchlan, Township of	421491	02040205, 02040203	42029C0090G, 42029C0095G, 42029C0145G	
Uwchlan, Township of	421492	02040205, 02040203	42029C0090G, 42029C0095G, 42029C0145G, 42029C0150G, 42029C0155G	
Valley, Township of	421206	02040205	42029C0135G, 42029C0185G, 42029C0190G, 42029C0195G	

<sup>1</sup>Panel Not Printed

**Table 1: Listing of NFIP Jurisdictions - continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Wallace, Township of	421493	02040205	42029C0080G, 42029C0085G, 42029C0090G, 42029C0140G	
Warwick, Township of	421494	02040203	42029C0005G, 42029C0010G, 42029C0035G, 42029C0040G, 42029C0045G	
West Bradford, Township of	421495	02040205	42029C0195G, 42029C0200G, 42029C0205G, 42029C0250G, 42029C0255G	
West Brandywine, Township of	421496	02040205	42029C0080G, 42029C0085G, 42029C0135G, 42029C0140G	
West Caln, Township of	421497	02040205, 02050306	42029C0125G, 42029C0130G, 42029C0135G, 42029C0185G, 42029C0190G	
West Chester, Borough of	420292	02040205, 02040202	42029C0210G	
West Fallowfield, Township of	422602	02040205, 02060002, 02050306	42029C0180G, 42029C0230G, 42029C0235G, 42029C0275G, 42029C0280G	
West Goshen, Township of	420293	02040205, 02040202	42029C0155G, 42029C0205G, 42029C0210G, 42029C0215G, 42029C0260G	
West Grove, Borough of <sup>1</sup>	422691	02040205	42029C0285G	
West Marlborough, Township of	422279	02040205	42029C0240G, 42029C0245G, 42029C0285G, 42029C0290G	
West Nantmeal, Township of	421498	02040205, 02040203, 02050306	42029C0035G, 42029C0040G, 42029C0080G, 42029C0085G	

<sup>1</sup> No Special Flood Hazard Areas Identified

**Table 1: Listing of NFIP Jurisdictions - continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
West Nottingham, Township of	422280	02060002, 02050306	42029C0310G, 42029C0315G, 42029C0350G, 42029C0355G, 42029C0360G, 42029C0365G	
West Pikeland, Township of	421151	02040203	42029C0095G, 42029C0100G, 42029C0150G, 42029C0155G	
West Sadsbury, Township of	422281	02040205, 02050306	42029C0125G, 42029C0130G, 42029C0180G, 42029C0185G	
West Vincent, Township of	421499	02040205, 02040203	42029C0045G, 42029C0050G, 42029C0055G, 42029C0090G, 42029C0095G, 42029C0100G	
West Whiteland, Township of	420295	02040205, 02040202, 02040203	42029C0150G, 42029C0155G, 42029C0205G, 42029C0210G	
Westtown, Township of	420294	02040205, 02040202	42029C0210G, 42029C0215G, 42029C0260G, 42029C0265G	
Willistown, Township of	422282	02040202, 02040203	42029C0160G, 42029C0165G, 42029C0215G, 42029C0220G, 42029C0225G	

**1.4 Considerations for using this Flood Insurance Study Report**

The NFIP encourages State and local governments to implement sound floodplain management programs. To assist in this endeavor, each FIS Report provides floodplain data, which may include a combination of the following: 10-, 4-, 2-, 1-, and 0.2-percent annual chance flood elevations (the 1% annual chance flood elevation is also referred to as the Base Flood Elevation (BFE)); delineations of the 1% annual chance and 0.2% annual chance floodplains; and 1% annual chance floodway. This information is presented on the FIRM and/or in many components of the FIS Report, including Flood Profiles, Floodway Data tables, Summary of Non-Coastal Stillwater Elevations tables, and Coastal Transect Parameters tables (not all components may be provided for a specific FIS).

This section presents important considerations for using the information contained in this FIS Report and the FIRM, including changes in format and content. Figures 1, 2, and 3 present information that applies to using the FIRM with the FIS Report.

- Part or all of this FIS Report may be revised and republished at any time. In addition, part of this FIS Report may be revised by a Letter of Map Revision (LOMR), which does not involve republication or redistribution of the FIS Report. Refer to Section 6.5 of this FIS Report for information about the process to revise the FIS Report and/or FIRM.

It is, therefore, the responsibility of the user to consult with community officials by contacting the community repository to obtain the most current FIS Report components. Communities participating in the NFIP have established repositories of flood hazard data for floodplain management and flood insurance purposes. Community map repository addresses are provided in Table 31, “Map Repositories,” within this FIS Report.

- New FIS Reports are frequently developed for multiple communities, such as entire counties. A countywide FIS Report incorporates previous FIS Reports for individual communities and the unincorporated area of the county (if not jurisdictional) into a single document and supersedes those documents for the purposes of the NFIP.

The initial Countywide FIS Report for Chester County became effective on November 20, 1996. Refer to Table 28 for information about subsequent revisions to the FIRM.

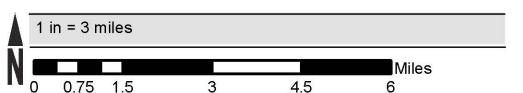
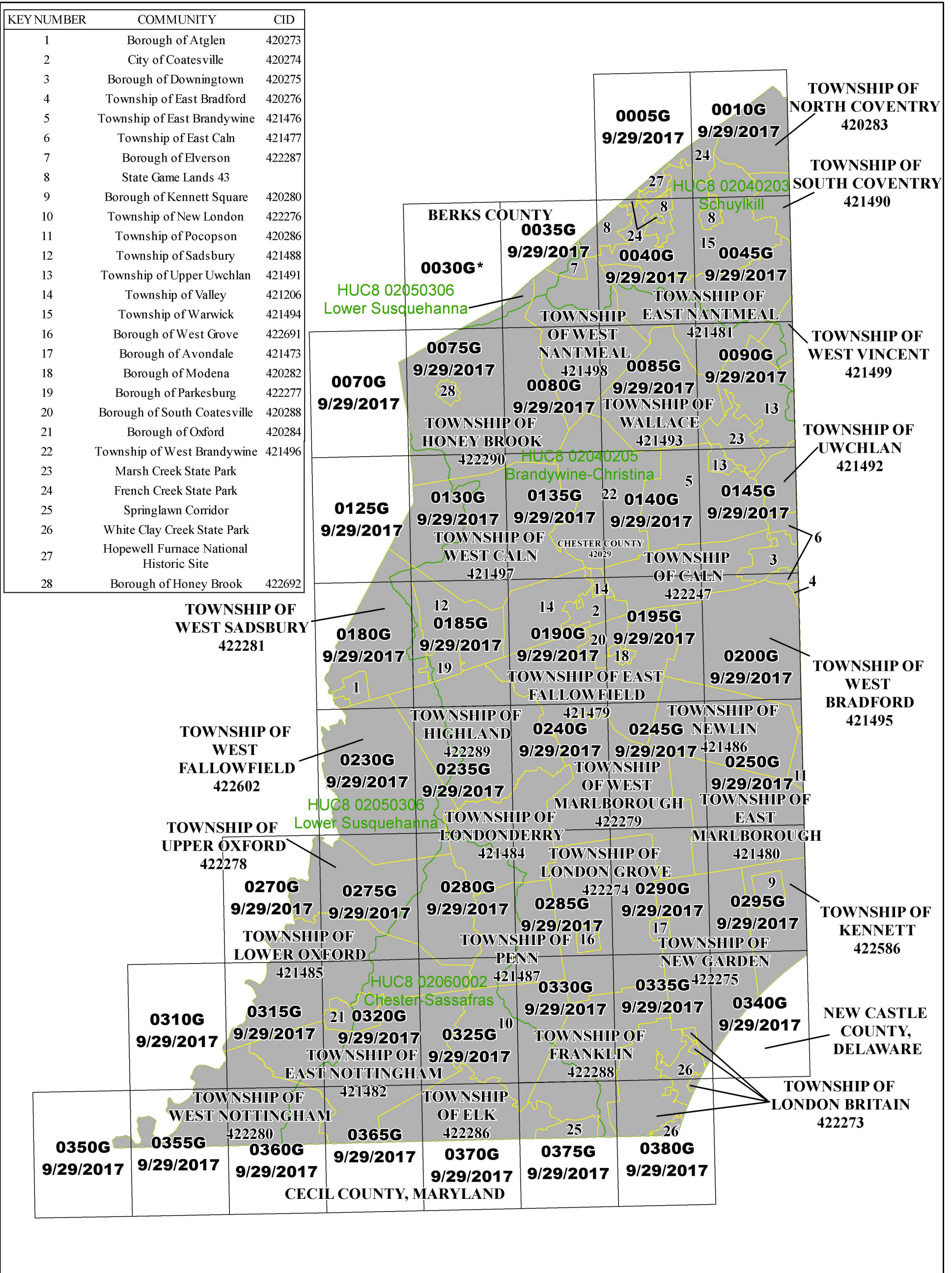
- Previous FIS Reports and FIRMs may have included levees that were accredited as reducing the risk associated with the 1% annual chance flood based on the information available and the mapping standards of the NFIP at that time. For FEMA to continue to accredit the identified levees, the levees must meet the criteria of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10), titled “Mapping of Areas Protected by Levee Systems.”

Since the status of levees is subject to change at any time, the user should contact the appropriate agency for the latest information regarding levees presented in Table 9 of this FIS Report. For levees owned or operated by the U.S. Army Corps of Engineers (USACE), information may be obtained from the USACE national levee database ([nld.usace.army.mil](http://nld.usace.army.mil)). For all other levees, the user is encouraged to contact the appropriate local community.

- FEMA has developed a *Guide to Flood Maps* (FEMA 258) and online tutorials to assist users in accessing the information contained on the FIRM. These include how to read panels and step-by-step instructions to obtain specific information. To obtain this guide and other assistance in using the FIRM, visit the FEMA Web site at <http://www.fema.gov/online-tutorials>.

The FIRM Index in Figure 1 shows the overall FIRM panel layout within Chester County, and also displays the panel number and effective date for each FIRM panel in the county. Other information shown on the FIRM Index includes community boundaries, flooding sources, watershed boundaries, and United States Geological Survey (USGS) Hydrologic Unit Code – 8 (HUC-8) codes.

Figure 1: FIRM Index



Map Projection:  
Universal Transverse Mercator Zone 18N  
North American Datum 1983

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

[HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION



**NATIONAL FLOOD INSURANCE PROGRAM**  
FLOOD INSURANCE RATE MAP INDEX (Sheet 1 of 2)

CHESTER COUNTY, PENNSYLVANIA (All Jurisdictions)  
PANELS PRINTED:

0005, 0010, 0035, 0040, 0045, 0070, 0075, 0080, 0085, 0090, 0125, 0130, 0135, 0140, 0145, 0180, 0185, 0190, 0195, 0200, 0230, 0235, 0240, 0245, 0250, 0270, 0275, 0280, 0285, 0290, 0295, 0310, 0315, 0320, 0325, 0330, 0335, 0340, 0350, 0355, 0360, 0365, 0370, 0375, 0380



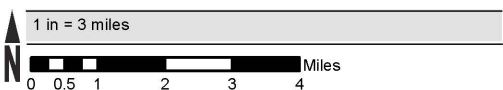
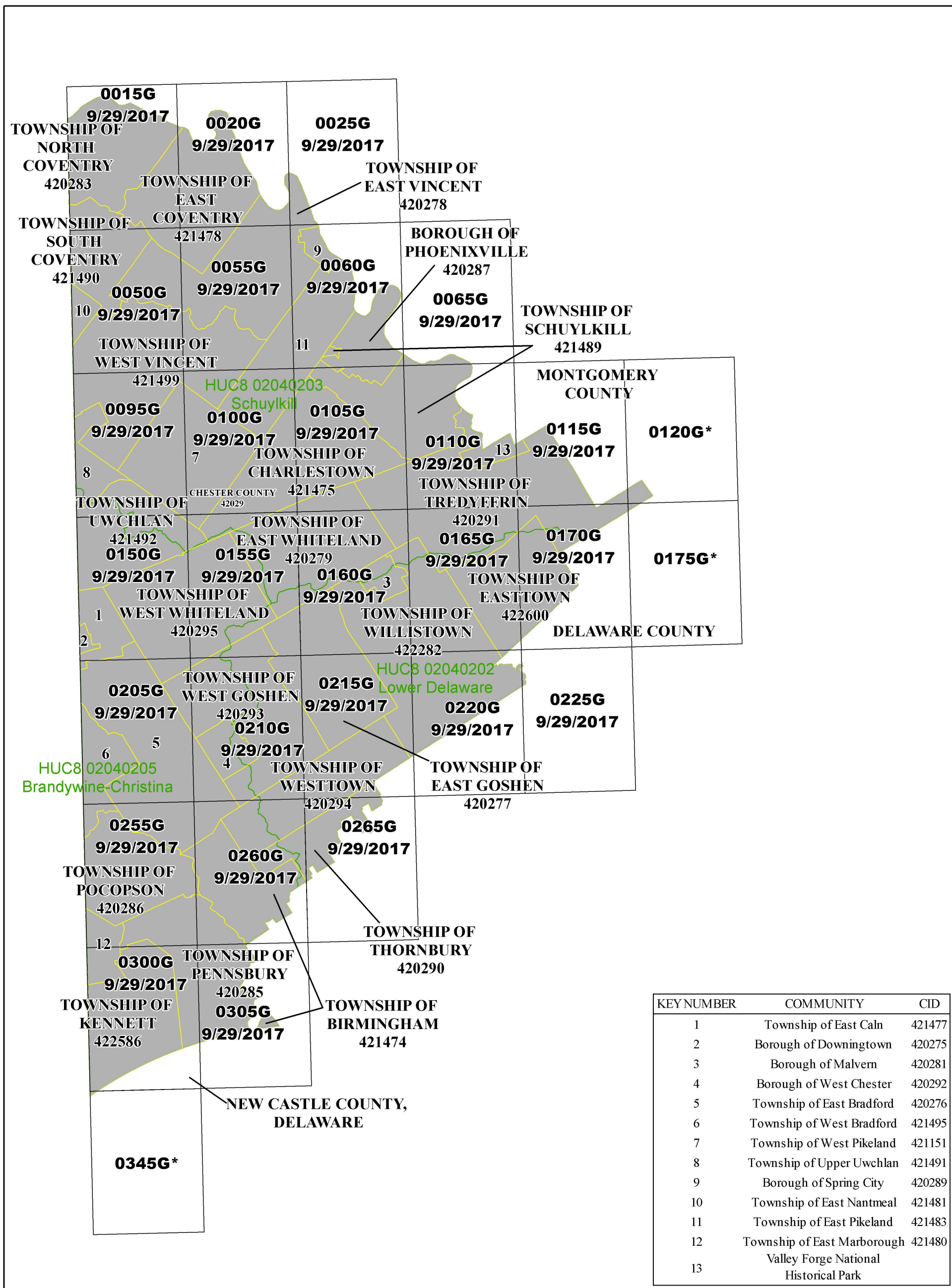
FEMA

MAP NUMBER  
42029CIND1C

MAP REVISED  
SEPTEMBER 29, 2017

\*PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS

Figure 1: FIRM Index



Map Projection:  
Universal Transverse Mercator Zone 18N  
North American Datum 1983

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

[HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

\*PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS



**NATIONAL FLOOD INSURANCE PROGRAM**  
FLOOD INSURANCE RATE MAP INDEX (Sheet 2 of 2)

CHESTER COUNTY, PENNSYLVANIA (All Jurisdictions)  
PANELS PRINTED:

0015, 0020, 0025, 0050, 0055, 0060, 0065, 0095, 0100, 0105, 0110, 0115, 0150, 0155, 0160, 0165, 0170, 0205, 0210, 0215, 0220, 0225, 0255, 0260, 0265, 0300, 0305



FEMA

MAP NUMBER  
42029CIND2C

MAP REVISED  
SEPTEMBER 29, 2017

Each FIRM panel may contain specific notes to the user that provide additional information regarding the flood hazard data shown on the map. However, the FIRM panel does not contain enough space to show all the notes that may be relevant in helping to better understand the information on the panel. Figure 2 contains the full list of these notes.

**Figure 2: FIRM Notes to Users**

<p style="text-align: center;"><b>NOTES TO USERS</b></p> <p>For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <a href="http://msc.fema.gov">http://msc.fema.gov</a>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.</p> <p>Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.</p> <p>For community and countywide map dates, refer to Table 28 in this FIS Report.</p> <p>To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.</p>
<p>The map is for use in administering the NFIP. It may not identify all areas subject to flooding, particularly from local drainage sources of small size. Consult the community map repository to find updated or additional flood hazard information.</p> <p><b>BASE FLOOD ELEVATIONS:</b> For more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables within this FIS Report. Use the flood elevation data within the FIS Report in conjunction with the FIRM for construction and/or floodplain management.</p> <p><b>FLOODWAY INFORMATION:</b> Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the FIS Report for this jurisdiction.</p> <p><b>FLOOD CONTROL STRUCTURE INFORMATION:</b> Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 4.3 "Non-Levee Flood Protection Measures" of this FIS Report for information on flood control structures for this jurisdiction.</p>

## Figure 2: FIRM Notes to Users – continued

**PROJECTION INFORMATION:** The projection used in the preparation of the map was Universal Transverse Mercator (UTM) Zone 18N. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

**ELEVATION DATUM:** Flood elevations on the FIRM are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

*NGS Information Services  
NOAA, N/NGS12  
National Geodetic Survey  
SSMC-3, #9202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242*

Local vertical monuments may have been used to create the map. To obtain current monument information, please contact the appropriate local community listed in Table 31 of this FIS Report.

**BASE MAP INFORMATION:** Base map information shown on the FIRM was provided by Chester County GIS Department. The digital ortho imagery was compiled by the PAMAP Program at a scale of 1:2,400 and published by the Pennsylvania Department of Conservation and Natural Resources. For information about base maps, refer to Section 6.2 “Base Map” in this FIS Report.

The map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables may reflect stream channel distances that differ from what is shown on the map.

Corporate limits shown on the map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after the map was published, map users should contact appropriate community officials to verify current corporate limit locations.

**Figure 2: FIRM Notes to Users – continued**

**NOTES FOR FIRM INDEX**

REVISIONS TO INDEX: As new studies are performed and FIRM panels are updated within Chester County, Pennsylvania, corresponding revisions to the FIRM Index will be incorporated within the FIS Report to reflect the effective dates of those panels. Please refer to Table 28 of this FIS Report to determine the most recent FIRM revision date for each community. The most recent FIRM panel effective date will correspond to the most recent index date.

**SPECIAL NOTES FOR SPECIFIC FIRM PANELS**

This Notes to Users section was created specifically for Chester County, Pennsylvania, effective September 29, 2017.

FLOOD RISK REPORT: A Flood Risk Report (FRR) may be available for many of the flooding sources and communities referenced in this FIS Report. The FRR is provided to increase public awareness of flood risk by helping communities identify the areas within their jurisdictions that have the greatest risks. Although non-regulatory, the information provided within the FRR can assist communities in assessing and evaluating mitigation opportunities to reduce these risks. It can also be used by communities developing or updating flood risk mitigation plans. These plans allow communities to identify and evaluate opportunities to reduce potential loss of life and property. However, the FRR is not intended to be the final authoritative source of all flood risk data for a project area; rather, it should be used with other data sources to paint a comprehensive picture of flood risk.

Each FIRM panel contains an abbreviated legend for the features shown on the maps. However, the FIRM panel does not contain enough space to show the legend for all map features. Figure 3 shows the full legend of all map features. Note that not all of these features may appear on the FIRM panels in Chester County.

**Figure 3: Map Legend for FIRM**

**SPECIAL FLOOD HAZARD AREAS:** *The 1% annual chance flood, also known as the base flood or 100-year flood, has a 1% chance of happening or being exceeded each year. Special Flood Hazard Areas are subject to flooding by the 1% annual chance flood. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. See note for specific types. If the floodway is too narrow to be shown, a note is shown.*




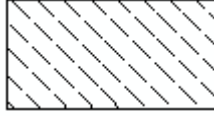

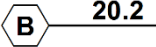

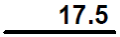
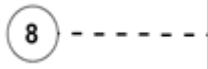


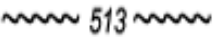
Special Flood Hazard Areas subject to inundation by the 1% annual chance flood (Zones A, AE, AH, AO, AR, A99, V and VE)

- Zone A The flood insurance rate zone that corresponds to the 1% annual chance floodplains. No base (1% annual chance) flood elevations (BFEs) or depths are shown within this zone.
- Zone AE The flood insurance rate zone that corresponds to the 1% annual chance floodplains. Base flood elevations derived from the hydraulic analyses are shown within this zone.
- Zone AH The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the hydraulic analyses are shown at selected intervals within this zone.
- Zone AO The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the hydraulic analyses are shown within this zone.
- Zone AR The flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- Zone A99 The flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or flood depths are shown within this zone.
- Zone V The flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations are not shown within this zone.
- Zone VE Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations derived from the coastal analyses are shown within this zone as static whole-foot elevations that apply throughout the zone.







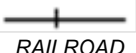



**Figure 3: Map Legend for FIRM – continued**

	<p>Regulatory Floodway determined in Zone AE.</p>
<p><b>OTHER AREAS OF FLOOD HAZARD</b></p>	
	<p>Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile.</p>
	<p>Future Conditions 1% Annual Chance Flood Hazard – Zone X: The flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined based on future-conditions hydrology. No base flood elevations or flood depths are shown within this zone.</p>
	<p>Area with Reduced Flood Risk due to Levee: Areas where an accredited levee, dike, or other flood control structure has reduced the flood risk from the 1% annual chance flood.</p>
<p><b>OTHER AREAS</b></p>	
	<p>Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.</p>
	<p>Unshaded Zone X: Areas of minimal flood hazard.</p>
<p><b>FLOOD HAZARD AND OTHER BOUNDARY LINES</b></p>	
	<p>Flood Zone Boundary (white line on ortho-photography-based mapping; gray line on vector-based mapping)</p>
	<p>Limit of Study</p>
	<p>Jurisdiction Boundary</p>
	<p>Limit of Moderate Wave Action (LiMWA): Indicates the inland limit of the area affected by waves greater than 1.5 feet</p>
<p><b>GENERAL STRUCTURES</b></p>	
<p><i>Aqueduct Channel Culvert Storm Sewer</i></p>	<p>Channel, Culvert, Aqueduct, or Storm Sewer</p>
<p><i>Dam Jetty Weir</i></p>	<p>Dam, Jetty, Weir</p>
	<p>Levee, Dike, or Floodwall</p>
<p><i>Bridge</i></p>	<p>Bridge</p>

**Figure 3: Map Legend for FIRM – continued**

<p><b>COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA):</b> <i>CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.</i></p>	
 <p><b>CBRS AREA</b> 09/30/2009</p>	<p>Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway.</p>
 <p><b>OTHERWISE PROTECTED AREA</b> 09/30/2009</p>	<p>Otherwise Protected Area</p>
<p><b>REFERENCE MARKERS</b></p>	
	<p>River mile Markers</p>
<p><b>CROSS SECTION &amp; TRANSECT INFORMATION</b></p>	
	<p>Lettered Cross Section with Regulatory Water Surface Elevation (BFE)</p>
	<p>Numbered Cross Section with Regulatory Water Surface Elevation (BFE)</p>
	<p>Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)</p>
	<p>Coastal Transect</p>
  	<p>Profile Baseline: Indicates the modeled flow path of a stream and is shown on FIRM panels for all valid studies with profiles or otherwise established base flood elevation.</p> <p>Coastal Transect Baseline: Used in the coastal flood hazard model to represent the 0.0-foot elevation contour and the starting point for the transect and the measuring point for the coastal mapping.</p>
	<p>Base Flood Elevation Line</p>
<p><b>ZONE AE</b> (EL 16)</p>	<p>Static Base Flood Elevation value (shown under zone label)</p>
<p><b>ZONE AO</b> (DEPTH 2)</p>	<p>Zone designation with Depth</p>
<p><b>ZONE AO</b> (DEPTH 2) (VEL 15 FPS)</p>	<p>Zone designation with Depth and Velocity</p>

**Figure 3: Map Legend for FIRM – continued**

<b>BASE MAP FEATURES</b>	
 <i>Missouri Creek</i>	River, Stream or Other Hydrographic Feature
	Interstate Highway
	U.S. Highway
	State Highway
	County Highway
	Street, Road, Avenue Name, or Private Drive if shown on Flood Profile
	Railroad
	Horizontal Reference Grid Line
	Horizontal Reference Grid Ticks
	Secondary Grid Crosshairs
<b>Land Grant</b>	Name of Land Grant
<b>7</b>	Section Number
<b>R. 43 W. T. 22 N.</b>	Range, Township Number
<b>4276<sup>000m</sup>E</b>	Horizontal Reference Grid Coordinates (UTM)
<b>365000 FT</b>	Horizontal Reference Grid Coordinates (State Plane)
<b>80° 16' 52.5"</b>	Corner Coordinates (Latitude, Longitude)

## SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS

### 2.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1% annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2% annual chance (500-year) flood is employed to indicate additional areas of flood hazard in the community.

Each flooding source included in the project scope has been studied and mapped using professional engineering and mapping methodologies that were agreed upon by FEMA and Chester County as appropriate to the risk level. Flood risk is evaluated based on factors such as known flood hazards and projected impact on the built environment. Engineering analyses were performed for each studied flooding source to calculate its 1% annual chance flood elevations; elevations corresponding to other floods (e.g. 10-, 4-, 2-, 0.2-percent annual chance, etc.) may have also been computed for certain flooding sources. Engineering models and methods are described in detail in Section 5.0 of this FIS Report. The modeled elevations at cross sections were used to delineate the floodplain boundaries on the FIRM; between cross sections, the boundaries were interpolated using elevation data from various sources. More information on specific mapping methods is provided in Section 6.0 of this FIS Report.

Depending on the accuracy of available topographic data (Table 23), study methodologies employed (Section 5.0), and flood risk, certain flooding sources may be mapped to show both the 1% and 0.2% annual chance floodplain boundaries, regulatory water surface elevations (BFEs), and/or a regulatory floodway. Similarly, other flooding sources may be mapped to show only the 1% annual chance floodplain boundary on the FIRM, without published water surface elevations. In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% annual chance floodplain boundary is shown on the FIRM.

Table 2, “Flooding Sources Included in this FIS Report,” lists each flooding source, including its study limits, affected communities, mapped zone on the FIRM, and the completion date of its engineering analysis from which the flood elevations on the FIRM and in the FIS Report were derived. Descriptions and dates for the latest hydrologic and hydraulic analyses of the flooding sources are shown in Table 13. Floodplain boundaries for these flooding sources are shown on the FIRM (published separately) using the symbology described in Figure 3, “Map Legend for FIRM”, describes the flood zones that are used on the FIRMs to account for the varying levels of flood risk that exist along flooding sources within the project area. Table 2 and Table 3 indicate the flood zone designations for each flooding source and each community within Chester County, PA, respectively.

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

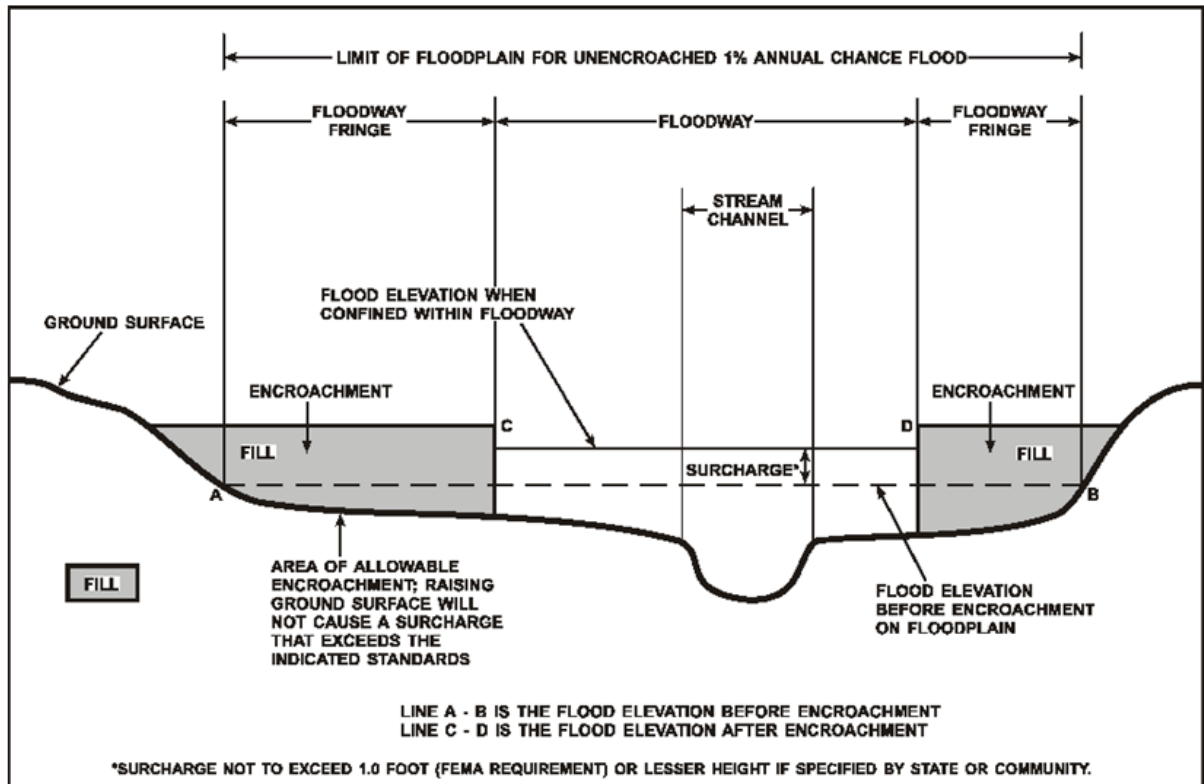
## 2.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard.

For purposes of the NFIP, a floodway is used as a tool to assist local communities in balancing floodplain development against increasing flood hazard. With this approach, the area of the 1% annual chance floodplain on a river is divided into a floodway and a floodway fringe based on hydraulic modeling. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment in order to carry the 1% annual chance flood. The floodway fringe is the area between the floodway and the 1% annual chance floodplain boundaries where encroachment is permitted. The floodway must be wide enough so that the floodway fringe could be completely obstructed without increasing the water surface elevation of the 1% annual chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 4.

To participate in the NFIP, Federal regulations require communities to limit increases caused by encroachment to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this project are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway projects.

**Figure 4: Floodway Schematic**



Floodway widths presented in this FIS Report and on the FIRM were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. For certain stream segments, floodways were adjusted so that the amount of floodwaters conveyed on each side of the floodplain would be reduced equally. The results of the floodway computations have been tabulated for selected cross sections and are shown in Table 24, "Floodway Data."

**Table 2: Flooding Sources Included in this FIS Report**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Beaver Creek (Lower Reach) Zone AE	Chester County	At the confluence with East Branch Brandywine Creek	Approximately 200 feet downstream of U.S. Route 30	02040205	3		Y	AE	8/10/2015
Beaver Creek (Upper Reach) Zone AE	Chester County	At the confluence of Tributary 3 of Beaver Creek	Approximately 1,050 feet upstream of the confluence of Tributary 7 of Beaver Creek	02040205	3.84		Y	AE	8/10/2015
Beaver Creek (US)	Chester County	At a point 7.15 mi upstream of the confluence with East Branch Brandywine Creek	At a point 1.32 mi upstream of the limit of detailed study	02040205	1.32		N	A	9/1/2004
Beaver Creek and Zone A Tributaries	Chester County	At a point 2.98 mi upstream of the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	2.64		N	A	9/1/2004
Beaver Run (DS) and Zone A Tributaries	Chester County	At the confluence with French Creek	1 square mile drainage area of all Zone A streams	02040203	3.15		N	A	9/1/2004
Beaver Run (US)	Chester County	At a point 3.31 mi upstream of the confluence with French Creek	At a point 1.63 mi upstream of the limit of detailed study	02040203	1.63		N	A	9/1/2004
Beaver Run Zone AE	Chester County	Approximately 500 feet downstream from Fairview Road	Approximately 200 feet downstream of Nantmeal Road	02040203	1.25		Y	AE	12/1/1980

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bennetts Run Zone A	Chester County	At a point 2.47 mi upstream of the confluence with Brandywine Creek	At a point 0.19 mi upstream of the confluence	02040205	0.19		N	A	9/1/2004
Bennetts Run	Chester County	At the confluence with Brandywine Creek	Downstream of Brayman Dam (Dam No. 4)	02040205	2.47		Y	AE	8/10/2015
Bickels Run	Chester County	At the confluence with Pigeon Creek	At a point 2.68 mi upstream of the confluence	02040203	2.68		N	A	9/1/2004
Big Elk Creek and Zone A Tributaries	Chester County	At the county boundary	1 square mile drainage area of all Zone A streams	02060002	44.53		N	A	9/1/2004
Birch Run (US WBBC) and Zone A Tributaries	Chester County	At a point 2.01 mi upstream of the confluence with West Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	1.34		N	A	9/1/2004
Birch Run and Zone A Tributaries	Chester County	At the confluence with Buck Run	1 square mile drainage area of all Zone A streams	02040205	4.4		N	A	9/1/2004
Birch Run No. 1	Chester County	Hibernia Dam	Martins Corner Road	02040205	0.78		Y	AE	8/10/2015
Birch Run No. 2	Chester County	Approximately 700 feet downstream of Flowing Springs Road	Approximately 550 feet upstream of Birch Run No. 2 Dam	02040203	0.84		N	AE	6/1/1986
Birch Run No. 2 (DS)	Chester County	At the confluence with French Creek	At a point 1.63 mi upstream of the confluence	02040203	1.63		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Birch Run No. 2 (US)	Chester County	At a point 1.73 mi upstream of the confluence with French Creek	At a point 0.11 mi upstream of the limit of detailed study	02040203	0.11		N	A	9/1/2004
Black Horse Run Zone AE	Chester County	Approximately 1,580 feet downstream of State Route 842	Approximately 180 feet downstream of State Route 842	02040205	0.29		N	AE	8/10/2015
Black Run and Zone A Tributaries	Chester County	At the confluence with Octoraro Creek	1 square mile drainage area of all Zone A streams	02050306	7.93		N	A	9/1/2004
Blackburn Run and Zone A Tributaries	Chester County	At the confluence with Octoraro Creek	1 square mile drainage area of all Zone A streams	02050306	4.93		N	A	9/1/2004
Blackhorse Run (DS) and Zone A Tributaries	Chester County	At the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	1.67		N	A	9/1/2004
Blackhorse Run (US) Zone A	Chester County	At a point 1.8 mi upstream of the confluence with East Branch Brandywine Creek	At a point 0.09 mi upstream of the limit of detailed study	02040205	0.09		N	A	9/1/2004
Boot Road Run Zone A	Chester County	At a point 1.06 mi upstream of the confluence with West Branch Ridley Creek	At a point 0.11 mi upstream of the limit of detailed study	02040202	0.11		N	A	9/1/2004
Boot Road Run Zone AE	Chester County	Confluence with West Branch Ridley Creek	Approximately 150 feet upstream from Greenhill Road	02040202	1.02		Y	AE	2/1/2003
Brandywine Creek (Chester County Reach)	Chester County	At the county boundary	At the confluence of East Branch Brandywine Creek	02040205	9.7		Y	AE	8/10/2015

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Brinton Run and Zone A Tributaries	Chester County	At the confluence with Brandywine Creek	At a point 1.84 mi upstream of the confluence	02040205	1.84		N	A	9/1/2004
Broad Run No. 1	Chester County	At the confluence with West Branch Brandywine Creek	At a point 5.69 mi upstream of the confluence	02040205	5.69		N	A	9/1/2004
Buck Run (downstream) Zone AE	Chester County	Approximately 350 feet downstream of Doe Run Church Road	Approximately 1,300 feet upstream of Doe Run Church Road	02040205	0.31		N	AE	8/10/2015
Buck Run (DS) and Zone A Tributaries	Chester County	At the confluence with West Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	3.65		N	A	9/1/2004
Buck Run (Mid Section) Zone A	Chester County	At a point 3.76 mi upstream of the confluence with West Branch Brandywine Creek	At a point 2.09 mi upstream of the limit of detailed study	02040205	2.09		N	A	9/1/2004
Buck Run (upstream) Zone AE	Chester County	Just downstream of State Route 82	Approximately 400 feet upstream from confluence of Little Buck Run	02040205	6.5		Y	AE	8/10/2015
Buck Run (US) and Zone A Tributaries	Chester County	At a point 12.33 mi upstream of the confluence with West Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	5.74		N	A	9/1/2004
Bucktoe Creek and Zone A Tributaries	Chester County	At the confluence with West Branch Red Clay Creek	1 square mile drainage area of all Zone A streams	02040205	2.67		N	A	9/1/2004
Burrows Run and Zone A Tributaries	Chester County	At the confluence with Tributary No. 1 to Red Clay Creek	1 square mile drainage area of all Zone A streams	02040205	4.86		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
By-Pass Run	Chester County	South Matlack Street	Approximately 150 feet downstream of US Highway 322	02040202	0.38		N	AE	2/21/2008
Chatham Run	Chester County	At the confluence with East Branch White Clay Creek	Approximately 350 feet upstream of N Mosquito Lane	02040205	6.95		Y	AE	8/10/2015
Chatham Run Zone A	Chester County	At a point 6.93 mi upstream of the confluence with East Branch White Clay Creek	At a point 0.25 mi upstream of the limit of detailed study	02040205	0.25		N	A	9/1/2004
Cheyney Run	Chester County	At the county boundary	At a point 0.65 mi upstream of the county boundary	02040202	0.65		N	A	9/1/2004
Cheyney Woods Road Tributary	Chester County	At the confluence with East Branch Chester Creek	At a point 0.2 mi upstream of the confluence	02040202	0.2		N	A	9/1/2004
Clarks Creek	Chester County	Confluence with East Branch Chester Creek	Approximately 100 feet upstream of Wilson Drive	02040202	1.45		Y	AE	1/1/1977
Colebrook Run	Chester County	Confluence with Valley Creek No. 2	Just upstream of Colebrook Road	02040205	1.53		Y	AE	8/10/2015
Colebrook Run Zone A	Chester County	At a point 1.53 mi upstream of the confluence with Valley Creek No. 2	At a point 0.67 mi upstream of the limit of detailed study	02040205	0.67		N	A	9/1/2004
Copeland Run	Chester County	At the confluence with Beaver Creek	Approximately 500 feet upstream of W Prospect Avenue	02040205	0.61		Y	AE, AO	11/06/2015
Cossart Run	Chester County	Confluence with Brandywine Creek	Approximately 800 feet upstream of Dam No. 3	02040205	0.62		Y	AE	8/10/2015

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Cossart Run Zone A	Chester County	At a point 0.62 mi upstream of the confluence with Brandywine Creek	At a point 0.16 mi upstream of the limit of detailed study	02040205	0.16		N	A	9/1/2004
Craig Run	Chester County	At the confluence with Brandywine Creek	Just upstream of Fairville Road	02040205	0.64		Y	AE	8/10/2015
Craigs Mill Run and Zone A Tributaries	Chester County	At the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	0.62		N	A	9/1/2004
Crum Creek	Chester County	Approximately 1,800 feet downstream from Goshen Road	Approximately 100 feet downstream from Paoli Pike	02040202	7.2		Y	AE	10/1/1979
Crum Creek Zone A	Chester County	At a point 7.78 mi upstream of the county boundary	At a point 0.33 mi upstream of the limit of detailed study	02040202	0.33		N	A	9/1/2004
Culvertson Run and Zone A Tributaries	Chester County	At the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	5.94		N	A	9/1/2004
Darby Creek and Zone A Tributaries	Chester County	At the county boundary	1 square mile drainage area of all Zone A streams	02040202	3.21		N	A	9/1/2004
Dennis Run	Chester County	At the confluence with West Branch Brandywine Creek	At a point 1.99 mi upstream of the confluence	02040205	1.99		N	A	9/1/2004
Doe Run	Chester County	Approximately 1,000 feet upstream of confluence with Buck Run	Approximately 1,650 feet upstream of the upstream crossing of Creek Road	02040205	6.26		Y	AE	8/10/2015

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Doe Run (US) and Zone A Tributaries	Chester County	At a point 6.25 mi upstream of the confluence with Buck Run	1 square mile drainage area of all Zone A streams	02040205	8.81		N	A	9/1/2004
East Branch Brandywine Creek	Chester County	At the confluence with Brandywine Creek	Just downstream of Struble Dam	02040205	26.29		Y	AE	8/10/2015
East Branch Brandywine Creek and Zone A Tributaries	Chester County	At a point 26.23 mi upstream of the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	3.51		N	A	9/1/2004
East Branch Chester Creek	Chester County	Approximately 1,500 feet downstream from Dilworthtown Road	Approximately 1,100 feet upstream of State Route 100	02040202	8.52		Y	AE	*
East Branch Chester Creek Zone A	Chester County	At a point 9.56 mi upstream of the county boundary	At a point 1.37 mi upstream of the limit of detailed study	02040202	1.37		N	A	9/1/2004
East Branch Conestoga River	Chester County	At the county boundary	At a point 0.34 mi upstream of the county boundary	02050306	0.34		N	A	9/1/2004
East Branch Goose Creek	Chester County	Confluence with Goose creek	Approximately 1,660 feet upstream of US Highway 322	02040202	0.6		Y	AE	*
East Branch Goose Creek and Zone A Tributaries	Chester County	At a point 0.34 mi upstream of the confluence with Goose Creek	1 square mile drainage area of all Zone A streams	02040202	0.97		N	A	9/1/2004

\* Information not available

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
East Branch Octoraro Creek (DS)	Chester County	At the confluence with Octoraro Creek	At a point 12.59 mi upstream of the confluence	02050306	12.59		N	A	1/31/2013
East Branch Octoraro Creek	Chester County	State Route 372	Approximately 600 feet upstream of Zion Hill Road	02050306	0.98		Y	AE	1/10/1980
East Branch Octoraro Creek (US)	Chester County	At a point 13.31 mi upstream of the confluence with Octoraro Creek	At a point 0.37 mi upstream of the limit of detailed study	02050306	0.37		N	A	1/31/2013
East Branch Red Clay Creek	Chester County	At the confluence with Red Clay Creek	Just downstream of Locust Lane	02040205	5.67		Y	AE	8/10/2015
East Branch Red Clay Creek and Zone A Tributaries	Chester County	At a point 5.67 mi upstream of the confluence with Red Clay Creek	1 square mile drainage area of all Zone A streams	02040205	2.1		N	A	9/1/2004
East Branch Ridley Creek	Chester County	Confluence with Ridley Creek	Approximately 1,200 feet upstream of Sorrel Hill Drive	02040202	2.47		Y	AE	1/1/1977
East Branch Ridley Creek	Chester County	At a point 0.32 mi upstream of the confluence with East Branch Ridley Creek	At a point 0.43 mi upstream of the confluence	02040202	0.43		N	A	9/1/2004
East Branch White Clay Creek	Chester County	Approximately 2,100 feet upstream of Auburn Road	Approximately 1,400 feet upstream of 3rd Avenue	02040205	3.84		Y	AE	8/10/2015
East Branch White Clay Creek (US) and Zone A Tributaries	Chester County	At a point 8.77 mi upstream of the confluence with White Clay Creek	1 square mile drainage area of all Zone A streams	02040205	15.43		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
East Tributary	Chester County	Confluence with Pigeon Creek	Approximately 30 feet downstream from South Keim Street	02040203	1.42		Y	AE	10/1/1979
East Tributary to Buck Run	Chester County	Approximately 140 feet upstream of the confluence with Buck Run	Just downstream of Old Wilmington Road	02040205	0.52		N	AE	8/10/2015
East Tributary to Crum Creek	Chester County	At the confluence with Crum Creek	Approximately 850 feet upstream of Devon Road	02040202	1.31		Y	AE	10/1/1979
East Tributary to Darby Creek	Chester County	Approximately 430 feet upstream of the confluence with Darby Creek	Approximately 50 feet upstream of Woodside Avenue	02040202	1.31		Y	AE	10/1/1979
French Creek	Chester County	Confluence with Schuylkill River	Just downstream of Trythall Road	02040203	14.64		Y	AE	9/1/2004
French Creek (DS)	Chester County	At a point 11.89 mi upstream of the confluence with Schuylkill River	At a point 0.92 mi upstream of the limit of detailed study	02040203	0.92		N	A	9/1/2004
French Creek (Mid Section) And Zone A Tributaries	Chester County	At a point 13.19 mi upstream of the confluence with Schuylkill River	1 square mile drainage area of all Zone A streams	02040203	24.65		N	A	9/1/2004
French Creek (US) and Zone A Tributaries	Chester County	At a point 19.67 mi upstream of the confluence with Schuylkill River	1 square mile drainage area of all Zone A streams	02040203	5.12		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Goose Creek	Chester County	Confluence with West Fork of East Branch Chester Creek	Approximately 900 feet upstream of Garfield Avenue	02040202	4.63		Y	AE	*
Goose Creek	Chester County	At a point 4.69 mi upstream of the confluence with West Fork of East Branch Chester Creek	At a point 0.27 mi upstream of the limit of detailed study	02040202	0.27		N	A	9/1/2004
Heffer Run	Chester County	At the confluence with Sucker Run	At a point 0.11 mi upstream of the confluence	02040205	0.11		N	A	9/1/2004
Hog Run	Chester County	At the confluence with Octoraro Creek	At a point 1.59 mi upstream of the confluence	02050306	1.59		N	A	9/1/2004
Hunters Run	Chester County	Approximately 450 downstream of Manley Road	Approximately 250 feet upstream of Fox Xing Road	02040202	0.46		Y	AE	1/1/1977
Hunters Run (US)	Chester County	At a point 1.67 mi upstream of the confluence of the confluence with Ridley Creek	At a point 0.37 mi upstream of the limit of detailed study	02040202	0.37		N	A	9/1/2004
Indian King Run	Chester County	At the confluence with Valley Creek No. 2	Approximately 300 feet upstream of Conrail Bridge	02040205	1.54		Y	AE	8/10/2015
Indian King Run	Chester County	At a point 1.53 mi upstream of the confluence with Valley Creek No. 2	At a point 0.76 mi upstream of the confluence	02040205	0.76		N	A	9/1/2004

\* Information not available

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Indian Run and Zone A Tributaries	Chester County	At the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	6.82		N	A	9/1/2004
Indian Spring Run	Chester County	Approximately 1,500 feet downstream of State Route 10	Approximately 200 feet downstream of Telegraph Road	02050306	1.14		Y	AE	7/17/1984
Indian Spring Run	Chester County	At a point 1.34 mi upstream of the county boundary	At a point 0.52 mi upstream of the limit of detailed study	02050306	0.52		N	A	9/1/2004
King James Run	Chester County	At the confluence with West Branch Ridley Creek	Approximately 1,700 feet upstream of Millstream Drive	02040202	0.54		Y	AE	1/1/1977
King James Run	Chester County	At a point 0.58 mi upstream of the confluence with West Branch Ridley Creek	At a point 0.26 mi upstream of the limit of detailed study	02040202	0.26		N	A	9/1/2004
Knight Run and Zone A Tributaries	Chester County	At the confluence with East Branch Octoraro Creek	1 square mile drainage area of all Zone A streams	02050306	6.06		N	A	9/1/2004
Laurel Creek	Chester County	At the confluence with Schuylkill River	At a point 2.02 mi upstream of the confluence	02040203	2.02		N	A	9/1/2004
Leech Run and Zone A Tributaries	Chester County	At the confluence with Octoraro Creek	1 square mile drainage area of all Zone A streams	02050306	7		N	A	9/1/2004
Lionville Run	Chester County	At the confluence with Valley Creek No. 2	Approximately 275 feet upstream of Township Line Road	02040205	1.63		Y	AE	8/10/2015

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Little Buck Run	Chester County	Approximately 1,000 feet upstream of Western Avenue	Approximately 550 feet upstream of N Church Street	02040205	1.74		Y	AE	8/10/2015
Little Buck Run (US)	Chester County	At a point 2.69 mi upstream of the confluence with Buck Run	At a point 1.06 mi upstream of the limit of detailed study	02040205	1.06		N	A	9/1/2004
Little Elk Creek and Zone A Tributaries	Chester County	At the county boundary	1 square mile drainage area of all Zone A streams	02060002	12.22		N	A	9/1/2004
Little Valley Creek	Chester County	At the confluence with Valley Creek No. 1	Approximately 1,000 feet upstream of Vanguard Boulevard	02040203	3		Y	AE	12/1/1974
Little Valley Creek	Chester County	At a point 3.18 mi upstream of the confluence with Valley Creek No. 1	At a point 1.41 mi upstream of the confluence	02040203	1.41		N	A	9/1/2004
Marsh Creek and Zone A Tributaries	Chester County	At the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	25.31		N	A	9/1/2004
Marshall Manor Tributary	Chester County	Just downstream of Goshen Road	Approximately 55 feet downstream of Hillside Drive	02040205	0.45		N	AE	8/10/2015
Middle Branch	Chester County	At the confluence with Middle Branch White Clay Creek	At a point 0.6 mi upstream of the confluence	02040205	0.6		N	A	9/1/2004
Middle Branch White Clay Creek	Chester County	Approximately 1,200 feet downstream of the confluence of Tributary 7 of Middle Branch White Clay Creek	Approximately 0.7 mile upstream of Hilton Road	02040205	7.12		Y	AE	8/10/2015

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Middle Branch White Clay Creek (US) and Zone A Tributaries	Chester County	At a point 10.7 mi upstream of the confluence with White Clay Creek	1 square mile drainage area of all Zone A streams	02040205	1.74		N	A	9/1/2004
Mill Creek	Chester County	At the county boundary	At a point 0.45 mi upstream of the county boundary	02040205	0.45		N	A	9/1/2004
Muddy Run and Zone A Tributaries	Chester County	At the confluence with East Branch Octoraro Creek	1 square mile drainage area of all Zone A streams	02050306	11.05		N	A	9/1/2004
Northeast Branch Ridley Creek	Chester County	At the confluence with East Branch Ridley Creek	Approximately 2,000 feet upstream of Monument Road	02040202	0.97		Y	AE	10/1/1979
Northeast Branch Ridley Creek	Chester County	At a point 0.99 mi upstream of the confluence with East Branch Ridley Creek	At a point 0.02 mi upstream of the confluence	02040202	0.99		N	A	9/1/2004
Northeast Creek and Zone A Tributaries	Chester County	At the county boundary	1 square mile drainage area of all Zone A streams	02060002	5.35		N	A	9/1/2004
Octoraro Creek and Zone A Tributaries	Chester County	At the county boundary	1 square mile drainage area of all Zone A streams	02050306	21.07		N	A	1/31/2013
Officers Run	Chester County	At the confluence with Valley Creek No. 3	Approximately 1,600 feet upstream of Upper Valley Road	02050306	1.08		Y	AE	12/1/1980
Officers Run and Zone A Tributaries	Chester County	At a point 1.05 mi upstream of the confluence with Valley Creek No. 3	1 square mile drainage area of all Zone A streams	02050306	8.45		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Parke Run	Chester County	Confluence with East Branch Brandywine Creek	Approximately 800 feet upstream of Woodbine Road	02040205	1.57		Y	AE	8/10/2015
Pickering Creek	Chester County	At the confluence with Schuylkill River	Approximately 1,500 feet upstream of Byers Road	02040203	11.19		Y	AE	11/1/1989
Pickering Creek (DS) and Zone A Tributaries	Chester County	At a point 5.8 mi upstream of the confluence with Schuylkill River	1 square mile drainage area of all Zone A streams	02040203	2.25		N	A	9/1/2004
Pickering Creek (Mid Section)	Chester County	At a point 8.98 mi upstream of the confluence with Schuylkill River	At a point 0.72 mi upstream of the limit of detailed study	02040203	0.72		N	A	9/1/2004
Pickering Creek (US) and Zone A Tributaries	Chester County	At a point 14.34 upstream of the confluence with Schuylkill River	1 square mile drainage area of all Zone A streams	02040203	2.67		N	A	9/1/2004
Pigeon Creek	Chester County	At the confluence with Schuylkill River	Approximately 300 feet downstream of Porters Mill Road	02040203	5.28		Y	AE	10/1/1979
Pigeon Creek	Chester County	At a point 5.63 mi upstream of the confluence with Schuylkill River	At a point 5.13 mi upstream of the limit of detailed study	02040203	5.13		N	A	9/1/2004
Pigeon Run and Zone A Tributaries	Chester County	At the confluence with Pickering Creek	1 square mile drainage area of all Zone A streams	02040203	3.53		N	A	9/1/2004
Pine Creek and Zone A Tributaries	Chester County	At the confluence with Pickering Creek	1 square mile drainage area of all Zone A streams	02040203	2.35		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Pine Creek No. 1	Chester County	Approximately 80 feet downstream of State Road 401	Approximately 300 feet downstream of Davis Road	02040203	0.89		Y	AE	12/1/1980
Pine Creek No. 1	Chester County	Approximately 80 feet downstream of State Road 401	Approximately 300 feet downstream of Davis Road	02040203	0.06		N	A	9/1/2004
Pine Creek No. 2	Chester County	At the confluence with East Branch Octoraro Creek	Approximately 600 feet upstream of Zion Hill Road	02050306	0.62		Y	AE	11/20/1996
Pine Creek No. 2	Chester County	At a point 0.66 mi upstream of the county boundary	At a point 0.71 mi upstream of the confluence	02050306	0.71		N	A	1/31/2013
Plum Run and Zone A Tributaries	Chester County	At the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	6.46		N	A	9/1/2004
Pocopson Creek	Chester County	At the confluence with Brandywine Creek	Approximately 180 feet upstream of State Route 926	02040205	0.77		Y	AE	8/10/2015
Pocopson Creek and Zone A Tributaries	Chester County	At a point 0.76 mi upstream of the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	15.82		N	A	9/1/2004
Radley Run	Chester County	Approximately 2,500 feet downstream of Sumner Way	Approximately 800 feet upstream of Knolls Road	02040205	0.77		N	AE	11/06/2015
Radley Run	Chester County	At the confluence with Brandywine Creek	At a point 5.66 mi upstream of the confluence	02040205	5.66		N	A	9/1/2004
Red Clay Creek	Chester County	Approximately 80 feet downstream of County Boundary	At the confluence with East Branch Red Clay Creek	02040205	0.77		Y	AE	8/10/2015

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Ridley Creek	Chester County	Approximately 900 feet downstream of Dutton Mill Rd	At the confluence with West Branch Ridley Creek	02040202	2.51		Y	AE	10/1/1979
Ridley Creek and Zone A Tributaries	Chester County	At a point 0.95 mi upstream of the county boundary	1 square mile drainage area of all Zone A streams	02040202	4.18		N	A	9/1/2004
Ring Run	Chester County	At the confluence with Brandywine Creek	Approximately 200 feet upstream of Constitution Drive	02040205	0.98		Y	AE	8/10/2015
Ring Run	Chester County	At a point 0.98 mi upstream of the confluence with Brandywine Creek	At a point 2.72 mi upstream of the limit of detailed study	02040205	2.72		N	A	9/1/2004
Rock Run	Chester County	Confluence with West Branch Brandywine Creek	Approximately 2,112 feet upstream of U.S. Route 30	02040205	1.08		Y	AE	8/10/2015
Rock Run and Zone A Tributaries	Chester County	At a point 1.06 mi upstream of the confluence with West Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	5.1		N	A	9/1/2004
Saw Mill Run	Chester County	At the confluence with East Branch Brandywine Creek	At a point 1.21 mi upstream of the confluence	02040205	1.21		N	A	9/1/2004
Schuylkill River	Chester County	Chester-Montgomery County Boundary	Chester-Berks County Boundary	02040203	25.9		Y	AE	2/1/1994
Shadygrove Way Run	Chester County	At the confluence with East Branch Chester Creek	Approximately 500 feet upstream from Lees Link Lane	02040202	1.16		Y	AE	12/1/1976

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Shamona Creek	Chester County	At the confluence with East Branch Brandywine Creek	Approximately 1,530 feet upstream of Dowlin Forge Road	02040205	0.34		Y	AE	8/10/2015
Shamona Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 1.29 mi upstream of the confluence	02040205	1.29		N	A	9/1/2004
Shiloh Road Run	Chester County	At the confluence with Goose Creek	Approximately 400 feet upstream of Conrail Bridge	02040202	0.25		Y	AE	12/1/1976
Shiloh Road Run	Chester County	At the confluence with Goose Creek	At a point 0.35 mi upstream of the confluence	02040202	0.35		N	A	9/1/2004
Ship Road Run	Chester County	At the confluence with Valley Creek No. 2	Approximately 150 feet upstream of U.S. Route 30	02040205	1.16		Y	AE	8/10/2015
Ship Road Run	Chester County	At a point 1.16 mi upstream of the confluence with Valley Creek No. 2	At a point 0.86 mi upstream of the limit of detailed study	02040205	0.86		N	A	9/1/2004
South Brook	Chester County	At the confluence with West Branch Red Clay Creek	At a point 3.08 mi upstream of the confluence	02040205	3.08		N	A	9/1/2004
Stackhouse Mill Run	Chester County	At the confluence with Ridley Creek	At the County Boundary	02040202	0.13		Y	AE	9/1/1977
Stony Brook Run	Chester County	At the confluence with East Branch Chester Creek	Approximately 600 feet upstream of Mallard Road	02040202	0.76		Y	AE	11/1/1977

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Stony Brook Run	Chester County	At a point 0.79 mi upstream of the confluence with East Branch Chester Creek	At a point 0.55 mi upstream of the limit of detailed study	02040202	0.55		N	A	9/1/2004
Stony Run	Chester County	Approximately 1,450 feet upstream of Buckwalter Road	Approximately 1,700 feet downstream of West Bridge Street	02040203	1.04		N	AE	4/9/1998
Stony Run (DS) and Zone A Tributaries	Chester County	At a point 0.57 mi upstream of the confluence with Schuylkill River	At a point 3.36 mi upstream of the limit of detailed study	02040203	3.36		N	A	9/1/2004
Stony Run (US)	Chester County	At a point 5.08 mi upstream of the confluence with Schuylkill River	At a point 1.1 mi upstream of the confluence	02040203	1.1		N	A	9/1/2004
Street Road Tributary	Chester County	At the confluence with East Branch Chester Creek	State Route 926	02040202	0.77		Y	AE	9/1/1976
Sucker Run	Chester County	At the confluence with West Branch Brandywine Creek	Just upstream of Red Road	02040205	2.59		Y	AE	8/10/2015
Sucker Run	Chester County	At the confluence with West Branch Brandywine Creek	Just upstream of Red Road	02040205	0.62		N	A	9/1/2004
Swedesford Road Run	Chester County	At the confluence with Valley Creek No. 2	Just upstream of East Swedesford Road	02040205	0.42		Y	AE	8/10/2015
Swedesford Road Run	Chester County	At a point 0.42 mi upstream of the confluence with Valley Creek No. 2	At a point 0.52 mi upstream of the limit of detailed study	02040205	0.52		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Taylor Run	Chester County	Just downstream of U.S. Route 322	Approximately 2,000 feet upstream of Highland Road	02040205	0.42		Y	AE	8/10/2015
Taylor Run (DS) and Zone A Tributaries	Chester County	At the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	3.83		N	A	9/1/2004
Taylor Run (US) and Zone A Tributaries	Chester County	At the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	9.88		N	A	9/1/2004
Tributary 1 (Brandywine Creek)	Chester County	At the confluence with Brandywine Creek	At a point 1.01 mi upstream of the confluence	02040205	1.01		N	A	9/1/2004
Tributary 1 (East Branch Chester Creek) and Zone A Tributaries	Chester County	At the confluence with East Branch Chester Creek	1 square mile drainage area of all Zone A streams	02040202	1.61		N	A	9/1/2004
Tributary 1 of Beaver Creek	Chester County	At the confluence with Beaver Creek	At a point 2.25 mi upstream of the confluence	02040205	2.25		N	A	9/1/2004
Tributary 1 of Doe Run and Zone A Tributaries	Chester County	At the confluence with Doe Run	1 square mile drainage area of all Zone A streams	02040205	5.03		N	A	9/1/2004
Tributary 1 of Radley Run	Chester County	At the confluence with Radley Run	At a point 0.62 mi upstream of the confluence	02040205	0.62		N	A	9/1/2004
Tributary 1 of Ridley Creek	Chester County	At the confluence with Ridley Creek	At a point 2.03 mi upstream of the confluence	02040202	2.03		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 1 of Tributary to East Branch Brandywine Creek	Chester County	At the confluence with Tributary to East Branch Brandywine Creek	At a point 0.59 mi upstream of the confluence	02040205	0.59		N	A	9/1/2004
Tributary 1 of Valley Run	Chester County	At the confluence with Valley Run	At a point 0.2 mi upstream of the confluence	02040205	0.2		N	A	9/1/2004
Tributary 1 of West Branch Red Clay Creek	Chester County	At the confluence with West Branch Red Clay Creek	At a point 0.82 mi upstream of the confluence	02040205	0.82		N	A	9/1/2004
Tributary 1 to Beaver Creek	Chester County	At the Confluence with Beaver Creek	Approximately 0.24 mile upstream of the Confluence with Beaver Creek	02040205	0.24		N	AE	9/25/2014
Tributary 1 to Crum Creek	Chester County	At the confluence with Crum Creek	At a point 0.56 mi upstream of the confluence	02040202	0.56		N	A	9/1/2004
Tributary 1 to Pigeon Creek	Chester County	At the confluence with Pigeon Creek	At a point 0.8 mi upstream of the confluence	02040203	0.8		N	A	9/1/2004
Tributary 1 to Red Clay Creek	Chester County	Pennsylvania - Delaware State Boundary	Approximately 200 feet downstream of Spring Mill Road	02040205	1		Y	AE	8/10/2015
Tributary 10 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.37 mi upstream of the confluence	02040205	0.37		N	A	9/1/2004
Tributary 10 of Buck Run	Chester County	At the confluence with Buck Run	At a point 0.76 mi upstream of the confluence	02040205	0.76		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 10 of Doe Run	Chester County	At the confluence with Doe Run	At a point 0.23 mi upstream of the confluence	02040205	0.23		N	A	9/1/2004
Tributary 10 of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.51 mi upstream of the confluence	02040205	0.51		N	A	9/1/2004
Tributary 11 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.53 mi upstream of the confluence	02040205	0.53		N	A	9/1/2004
Tributary 12 (Brandywine Creek)	Chester County	At the confluence with Brandywine Creek	At a point 0.52 mi upstream of the confluence	02040205	0.52		N	A	9/1/2004
Tributary 12 of Brandywine Creek	Chester County	At the confluence with Brandywine Creek	At a point 0.8 mi upstream of the confluence	02040205	0.8		N	A	9/1/2004
Tributary 12 to Pickering Creek and Zone A Tributaries	Chester County	At the confluence with Pickering Creek	1 square mile drainage area of all Zone A streams	02040203	5.41		N	A	9/1/2004
Tributary 13 (Brandywine Creek) and Zone A Tributaries	Chester County	At the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	1.49		N	A	9/1/2004
Tributary 13 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.24 mi upstream of the confluence	02040205	0.24		N	A	9/1/2004
Tributary 14 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.87 mi upstream of the confluence	02040205	0.87		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 14 to Pickering Creek	Chester County	At the confluence with Pickering Creek	At a point 0.76 mi upstream of the confluence	02040203	0.76		N	A	9/1/2004
Tributary 15 (West Branch Brandywine Creek)	Chester County	At the confluence with West Branch Brandywine Creek	At a point 1.24 mi upstream of the confluence	02040205	1.24		N	A	9/1/2004
Tributary 15 to Pickering Creek	Chester County	At the confluence with Pickering Creek	At a point 0.85 mi upstream of the confluence	02040203	0.85		N	A	9/1/2004
Tributary 16 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.77 mi upstream of the confluence	02040205	0.77		N	A	9/1/2004
Tributary 16 (West Branch Brandywine Creek)	Chester County	At the confluence with West Branch Brandywine Creek	At a point 0.58 mi upstream of the confluence	02040205	0.58		N	A	9/1/2004
Tributary 16 of French Creek	Chester County	At the confluence with French Creek	At a point 1.49 mi upstream of the confluence	02040203	1.49		N	A	9/1/2004
Tributary 16 of Pickering Creek	Chester County	At the confluence with Pickering Creek	At a point 0.38 mi upstream of the confluence	02040203	0.38		N	A	9/1/2004
Tributary 18 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.31 mi upstream of the confluence	02040205	0.31		N	A	9/1/2004
Tributary 18 of French Creek	Chester County	At the confluence with French Creek	At a point 3.03 mi upstream of the confluence	02040203	3.03		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 18 of West Branch Brandywine Creek and Zone A Tributaries	Chester County	At the confluence with West Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	1.22		N	A	9/1/2004
Tributary 19 of French Creek	Chester County	At the confluence with French Creek	At a point 0.89 mi upstream of the confluence	02040203	0.89		N	A	9/1/2004
Tributary 2 (Brandywine Creek)	Chester County	At the confluence with Brandywine Creek	At a point 0.81 mi upstream of the confluence	02040205	0.81		N	A	9/1/2004
Tributary 2 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.46 mi upstream of the confluence	02040205	0.46		N	A	9/1/2004
Tributary 2 (Taylor Run) and Zone A Tributaries	Chester County	At the confluence with Taylor Run	1 square mile drainage area of all Zone A streams	02040205	1.16		N	A	9/1/2004
Tributary 2 of Doe Run	Chester County	At the confluence with Doe Run	At a point 0.75 mi upstream of the confluence	02040205	0.75		N	A	9/1/2004
Tributary 2 of West Branch Red Clay Creek and Zone A Tributaries	Chester County	At the confluence with West Branch Red Clay Creek	1 square mile drainage area of all Zone A streams	02040205	2.39		N	A	9/1/2004
Tributary 2 to East Branch Red Clay Creek	Chester County	Approximately 830 feet downstream of N Walnut Road	Approximately 500 feet upstream of US Highway 1	02040205	0.7		Y	AE	8/10/2015
Tributary 2 to Little Buck Run	Chester County	At the confluence with Little Buck Run	At a point 0.47 mi upstream of the confluence	02040205	0.47		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 2 to Pickering Creek and Zone A Tributaries	Chester County	At the confluence with Pickering Creek	1 square mile drainage area of all Zone A streams	02040203	2.53		N	A	9/1/2004
Tributary 2 to Pigeon Creek	Chester County	At the confluence with Pigeon Creek	At a point 1.34 mi upstream of the confluence	02040203	1.34		N	A	9/1/2004
Tributary 2 to West Tributary Crum Creek	Chester County	At the confluence with West Tributary Crum Creek	At a point 0.27 mi upstream of the confluence	02040202	0.27		N	A	9/1/2004
Tributary 20 of West Branch Brandywine Creek and Zone A Tributaries	Chester County	At the confluence with West Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	4.13		N	A	9/1/2004
Tributary 21 of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 1.05 mi upstream of the confluence	02040205	1.05		N	A	9/1/2004
Tributary 21 of West Branch Brandywine Creek	Chester County	At the confluence with West Branch Brandywine Creek	At a point 1.01 mi upstream of the confluence	02040205	1.01		N	A	9/1/2004
Tributary 23 of West Branch Brandywine Creek	Chester County	At the confluence with West Branch Brandywine Creek	At a point 0.31 mi upstream of the confluence	02040205	0.31		N	A	9/1/2004
Tributary 24 of West Branch Brandywine Creek	Chester County	At the confluence with West Branch Brandywine Creek	At a point 1.45 mi upstream of the confluence	02040205	1.45		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 29 of West Branch Brandywine Creek	Chester County	At the confluence with West Branch Brandywine Creek	At a point 0.48 mi upstream of the confluence	02040205	0.48		N	A	9/1/2004
Tributary 3 of Beaver Run	Chester County	At the confluence with Beaver Run	At a point 0.2 mi upstream of the confluence	02040203	0.2		N	A	9/1/2004
Tributary 3 of Doe Run	Chester County	At the confluence with Doe Run	At a point 1.16 mi upstream of the confluence	02040205	1.16		N	A	9/1/2004
Tributary 3 of East Branch Red Clay Creek and Zone A Tributaries	Chester County	At the confluence with East Branch Red Clay Creek	1 square mile drainage area of all Zone A streams	02040205	5.82		N	A	9/1/2004
Tributary 3 of French Creek	Chester County	At the confluence with French Creek	At a point 1.06 mi upstream of the confluence	02040203	1.06		N	A	9/1/2004
Tributary 3 to Pigeon Creek	Chester County	At the confluence with Pigeon Creek	At a point 1.45 mi upstream of the confluence	02040203	1.45		N	A	9/1/2004
Tributary 3 to West Branch Ridley Creek and Zone A Tributaries	Chester County	At the confluence with West Branch Ridley Creek	1 square mile drainage area of all Zone A streams	02040202	0.99		N	A	9/1/2004
Tributary 35 of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 1.71 mi upstream of the confluence	02040205	1.71		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 36 of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 1.29 mi upstream of the confluence	02040205	1.29		N	A	9/1/2004
Tributary 37 of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.89 mi upstream of the confluence	02040205	0.89		N	A	9/1/2004
Tributary 4 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.37 mi upstream of the confluence	02040205	0.37		N	A	9/1/2004
Tributary 4 of Beaver Creek	Chester County	At the confluence with Beaver Creek	At a point 0.53 mi upstream of the confluence	02040205	0.53		N	A	9/1/2004
Tributary 4 to Schuylkill River and Zone A Tributaries	Chester County	At a point 0.33 mi upstream of the confluence with Schuylkill River	1 square mile drainage area of all Zone A streams	02040203	1.75		N	A	9/1/2004
Tributary 40 of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.52 mi upstream of the confluence	02040205	0.52		N	A	9/1/2004
Tributary 41 of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 1.11 mi upstream of the confluence	02040205	1.11		N	A	9/1/2004
Tributary 5 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.16 mi upstream of the confluence	02040205	0.16		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 5 of East Branch Red Clay Creek	Chester County	At the confluence with East Branch Red Clay Creek	At a point 0.11 mi upstream of the confluence	02040205	0.11		N	A	9/1/2004
Tributary 5 of East Branch White Clay Creek	Chester County	At the confluence with East Branch White Clay Creek	At a point 0.6 mi upstream of the confluence	02040205	0.6		N	A	9/1/2004
Tributary 5 of West Branch Red Clay Creek	Chester County	At the confluence with West Branch Red Clay Creek	At a point 0.26 mi upstream of the confluence	02040205	0.26		N	A	9/1/2004
Tributary 5 to East Branch Ridley Creek	Chester County	At the confluence with East Branch Ridley Creek	At a point 0.19 mi upstream of the confluence	02040202	0.19		N	A	9/1/2004
Tributary 5 to Ridley Creek and Zone A Tributaries	Chester County	At the confluence with Ridley Creek	1 square mile drainage area of all Zone A streams	02040202	2.01		N	A	9/1/2004
Tributary 6 (East Branch Brandywine Creek)	Chester County	At the confluence with Brandywine Creek	At a point 0.41 mi upstream of the confluence	02040205	0.41		N	A	9/1/2004
Tributary 6 of Doe Run and Zone A Tributaries	Chester County	At the confluence with Doe Run	1 square mile drainage area of all Zone A streams	02040205	5.54		N	A	9/1/2004
Tributary 6 of East Branch White Clay Creek	Chester County	At the confluence with East Branch White Clay Creek	At a point 0.69 mi upstream of the confluence	02040205	0.69		N	A	9/1/2004
Tributary 6 of Valley Run	Chester County	Confluence with Valley Run	0.21 miles upstream of Confluence with Valley Run	02040205	0.21		N	AE	1/3/2012

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 6 of West Branch Brandywine Creek	Chester County	At the confluence with West Branch Brandywine Creek	At a point 0.77 mi upstream of the confluence	02040205	0.77		N	A	9/1/2004
Tributary 6 of West Branch Red Clay Creek	Chester County	At the confluence with West Branch Red Clay Creek	At a point 0.95 mi upstream of the confluence	02040205	0.95		N	A	9/1/2004
Tributary 6 to East Branch Ridley Creek	Chester County	At the confluence with East Branch Ridley Creek	At a point 0.16 mi upstream of the confluence	02040202	0.16		N	A	9/1/2004
Tributary 6A of French Creek	Chester County	At the confluence with French Creek	At a point 1.33 mi upstream of the confluence	02040203	1.33		N	A	9/1/2004
Tributary 7 of Beaver Creek	Chester County	At the confluence with Beaver Creek	At a point 0.66 mi upstream of the confluence	02040205	0.66		N	A	9/1/2004
Tributary 7 of Buck Run	Chester County	At the confluence with Buck Run	At a point 0.49 mi upstream of the confluence	02040205	0.49		N	A	9/1/2004
Tributary 7 of Doe Run and Zone A Tributaries	Chester County	At the confluence with Doe Run	1 square mile drainage area of all Zone A streams	02040205	1.01		N	A	9/1/2004
Tributary 7 of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.32 mi upstream of the confluence	02040205	0.32		N	A	9/1/2004
Tributary 7 of East Branch White Clay Creek	Chester County	At the confluence with East Branch White Clay Creek	At a point 1.11 mi upstream of the confluence	02040205	1.11		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 7 of Ridley Creek	Chester County	At the confluence with Ridley Creek	At a point 0.5 mi upstream of the confluence	02040202	0.5		N	A	9/1/2004
Tributary 7 of West Branch Red Clay Creek	Chester County	At the confluence with West Branch Red Clay Creek	At a point 0.62 mi upstream of the confluence	02040205	0.62		N	A	9/1/2004
Tributary 7 to East Branch Ridley Creek	Chester County	At the confluence with East Branch Ridley Creek	At a point 0.16 mi upstream of the confluence	02040202	0.16		N	A	9/1/2004
Tributary 7A of French Creek	Chester County	At the confluence with French Creek	At a point 0.51 mi upstream of the confluence	02040203	0.51		N	A	9/1/2004
Tributary 8 of Buck Run	Chester County	At the confluence with Buck Run	At a point 0.31 mi upstream of the confluence	02040205	0.31		N	A	9/1/2004
Tributary 8 of Doe Run	Chester County	At the confluence with Doe Run	At a point 0.87 mi upstream of the confluence	02040205	0.87		N	A	9/1/2004
Tributary 8 of East Branch Brandywine Creek and Zone A Tributaries	Chester County	At the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	1.79		N	A	9/1/2004
Tributary 8 of East Branch Chester Creek	Chester County	At the confluence with East Branch Chester Creek	At a point 0.58 mi upstream of the confluence	02040202	0.58		N	A	9/1/2004
Tributary 8 of West Branch Brandywine Creek	Chester County	At the confluence with West Branch Brandywine Creek	At a point 2.82 mi upstream of the confluence	02040205	2.82		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 8 of West Branch Red Clay Creek	Chester County	At the confluence with West Branch Red Clay Creek	At a point 0.61 mi upstream of the confluence	02040205	0.61		N	A	9/1/2004
Tributary 8A of French Creek	Chester County	At the confluence with French Creek	At a point 0.68 mi upstream of the confluence	02040203	0.68		N	A	9/1/2004
Tributary 9 (East Branch Brandywine Creek)	Chester County	At the confluence with East Branch Brandywine Creek	At a point 0.35 mi upstream of the confluence	02040205	0.35		N	A	9/1/2004
Tributary 9 of Brandywine Creek	Chester County	At the confluence with Brandywine Creek	At a point 1.39 mi upstream of the confluence	02040205	1.39		N	A	9/1/2004
Tributary 9 of Doe Run	Chester County	At the confluence with Doe Run	At a point 1.13 mi upstream of the confluence	02040205	1.13		N	A	9/1/2004
Tributary 9 of East Branch White Clay Creek	Chester County	At the confluence with East Branch White Clay Creek	At a point 0.6 mi upstream of the confluence	02040205	0.6		N	A	9/1/2004
Tributary 9 of French Creek	Chester County	At the confluence with French Creek	At a point 0.33 mi upstream of the confluence	02040203	0.33		N	A	9/1/2004
Tributary A of French Creek	Chester County	At the confluence with French Creek	At a point 0.28 mi upstream of the confluence	02040203	0.28		N	A	9/1/2004
Tributary A to Crum Creek	Chester County	At the Confluence with Crum Creek	Paoli Pike	02040202	0.18		Y	AE	10/1/1979
Tributary A to Crum Creek	Chester County	At the confluence with Crum Creek	At a point 0.42 mi upstream of the confluence	02040202	0.42		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary A to East Tributary to Darby Creek	Chester County	At the confluence with East Tributary to Darby Creek	Approximately 50 feet downstream of Arlington Road	02040202	0.33		Y	AE	10/1/1979
Tributary A to East Tributary to Darby Creek	Chester County	At a point 0.37 mi upstream of the confluence with East Tributary to Darby Creek	At a point 0.25 mi upstream of the confluence	02040202	0.25		N	A	9/1/2004
Tributary B (Crum Creek)	Chester County	At the confluence with Crum Creek	At a point 1.75 mi upstream of the confluence	02040202	1.75		N	A	9/1/2004
Tributary B (Valley Creek No. 2)	Chester County	At the confluence with Valley Creek No. 2	At a point 1.23 mi upstream of the confluence	02040205	1.23		N	A	9/1/2004
Tributary B to East Tributary to Crum Creek	Chester County	At the confluence with East Tributary to Crum Creek	Approximately 1,900 feet upstream of Devon Road	02040202	1.06		Y	AE	10/1/1979
Tributary B to East Tributary to Crum Creek	Chester County	At a point 1.03 mi upstream of the confluence with East Tributary to Crum Creek	At a point 0.06 mi upstream of the confluence	02040202	0.06		N	A	9/1/2004
Tributary C (Crum Creek)	Chester County	At the confluence with Crum Creek	At a point 1.26 mi upstream of the confluence	02040202	1.26		N	A	9/1/2004
Tributary E (Lionville Run)	Chester County	At the confluence with Lionville Run	At a point 0.85 mi upstream of the confluence	02040205	0.85		N	A	9/1/2004
Tributary F to Valley Creek	Chester County	Approximately 70 feet upstream of Waterloo Boulevard	Just downstream of West Swedesford Road	02040205	0.25		N	AE	11/06/2015

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary H	Chester County	At the confluence with Valley Creek No. 2	At a point 0.77 mi upstream of the confluence	02040205	0.77		N	A	9/1/2004
Tributary I (Valley Creek No. 2)	Chester County	At the confluence with Valley Creek No. 2	At a point 0.58 mi upstream of the confluence	02040205	0.58		N	A	9/1/2004
Tributary L (Valley Creek No. 2)	Chester County	At the confluence with Valley Creek No. 2	At a point 1.06 mi upstream of the confluence	02040205	1.06		N	A	9/1/2004
Tributary No. 1 (Schuylkill River)	Chester County	At the confluence with Schuylkill River	At a point 1.4 mi upstream of the confluence	02040203	1.4		N	A	9/1/2004
Tributary No. 1 of Trout Creek	Chester County	At the confluence with Trout Creek	Approximately 500 feet upstream of Pennsylvania Turnpike	02040203	0.23		Y	AE	12/1/1974
Tributary No. 1 of Trout Creek	Chester County	At a point 0.2 mi upstream of the confluence with Trout Creek	At a point 0.16 mi upstream of the confluence	02040203	0.16		N	A	9/1/2004
Tributary No. 1 to French Creek	Chester County	At the confluence with French Creek	At a point 2.27 mi upstream of the confluence	02040203	2.27		N	A	9/1/2004
Tributary No. 1A (Schuylkill River) and Zone A Tributaries	Chester County	At the confluence with Schuylkill River	1 square mile drainage area of all Zone A streams	02040203	2.11		N	A	9/1/2004
Tributary No. 2 (French Creek) and Zone A Tributaries	Chester County	At the confluence with French Creek	1 square mile drainage area of all Zone A streams	02040203	1.87		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary No. 2 (Pickering Creek) and Zone A Tributaries	Chester County	At the confluence with Pickering Creek	1 square mile drainage area of all Zone A streams	02040203	2.21		N	A	9/1/2004
Tributary No. 2 (Schuylkill River)	Chester County	At the confluence with Schuylkill River	At a point 0.73 mi upstream of the confluence	02040203	0.73		N	A	9/1/2004
Tributary No. 2 of Trout Creek	Chester County	At a point 0.16 mi upstream of the confluence with Trout Creek	At a point 0.21 mi upstream of the limit of detailed study	02040203	0.21		N	A	9/1/2004
Tributary No. 2 to East Branch Red Clay Creek (DS)	Chester County	At the confluence with East Branch Red Clay Creek	At a point 0.26 mi upstream of the confluence	02040205	0.26		N	A	9/1/2004
Tributary No. 2 to East Branch Red Clay Creek (US)	Chester County	At a point 0.95 mi upstream of the confluence with East Branch Red Clay Creek	At a point 0.36 mi upstream of the limit of detailed study	02040205	0.36		N	A	9/1/2004
Tributary No. 3 (French Creek)	Chester County	At the confluence with French Creek	At a point 0.93 mi upstream of the confluence	02040203	0.93		N	A	9/1/2004
Tributary No. 3 (Pickering Creek) and Zone A Tributaries	Chester County	At the confluence with Pickering Creek	1 square mile drainage area of all Zone A streams	02040203	1.67		N	A	9/1/2004
Tributary No. 4 (French Creek) and Zone A Tributaries	Chester County	At the confluence with French Creek	1 square mile drainage area of all Zone A streams	02040203	3.03		N	A	9/1/2004
Tributary No. 5 (French Creek)	Chester County	At the confluence with French Creek	At a point 0.77 mi upstream of the confluence	02040203	0.77		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary No. 6 (French Creek)	Chester County	At the confluence with French Creek	At a point 0.8 mi upstream of the confluence	02040203	0.8		N	A	9/1/2004
Tributary No. 7 (French Creek)	Chester County	At the confluence with French Creek	At a point 0.82 mi upstream of the confluence	02040203	0.82		N	A	9/1/2004
Tributary No.2 of Trout Creek	Chester County	At the confluence with Trout Creek	Approximately 200 feet downstream of E Swedesford Road	02040203	0.15		Y	AE	12/1/1974
Tributary of East Branch Brandywine Creek	Chester County	At the confluence with East Branch Brandywine Creek	At a point 1.38 mi upstream of the confluence	02040205	1.38		N	A	9/1/2004
Tributary of Valley Creek No. 2	Chester County	At the confluence with Valley Creek No. 2	At a point 0.89 mi upstream of the confluence	02040205	0.89		N	A	9/1/2004
Tributary of Valley Creek No. 3	Chester County	At the confluence with Valley Creek No. 3	At a point 0.16 mi upstream of the confluence	02050306	0.16		N	A	9/1/2004
Tributary to (US) West Branch Brandywine Creek and Zone A Tributaries	Chester County	At the confluence with West Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	6.66		N	A	9/1/2004
Tributary to East Branch Brandywine Creek	Chester County	Confluence with East Branch Brandywine Creek	Approximately 1,637 feet upstream of Creek Road	02040205	0.51		Y	AE	8/10/2015

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary to East Branch Brandywine Creek and Zone A Tributaries	Chester County	At a point 0.51 mi upstream of the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	3.77		N	A	9/1/2004
Tributary to Indian Spring Run	Chester County	Chester County Boundary	Approximately 100 feet downstream of Leary Road	02050306	0.68		Y	AE	12/1/1980
Tributary to Indian Spring Run and Zone A Tributaries	Chester County	At a point 0.81 mi upstream of the county boundary	1 square mile drainage area of all Zone A streams	02050306	1.08		N	A	9/1/2004
Tributary to Pickering Creek and Zone A Tributaries	Chester County	At the confluence with Pickering Creek	1 square mile drainage area of all Zone A streams	02040203	3.31		N	A	9/1/2004
Tributary to West Branch Brandywine Creek	Chester County	Approximately 3,000 feet upstream of confluence with West Branch Brandywine Creek	Approximately 800 feet upstream of Telegraph Road	02040205	0.78		Y	AE	8/10/2015
Tributary to West Branch Brandywine Creek (US)	Chester County	At a point 1.33 mi upstream of the confluence with West Branch Brandywine Creek	At a point 0.73 mi upstream of the limit of detailed study	02040205	0.73		N	A	9/1/2004
Trout Creek	Chester County	Chester County Boundary	Contention Lane	02040203	2.97		Y	AE	12/1/1974
Trout Creek	Chester County	At a point 3 mi upstream of the county boundary	At a point 0.09 mi upstream of the confluence	02040203	0.09		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Trout Run	Chester County	At the confluence with East Branch White Clay Creek	Approximately 930 feet upstream of the confluence of Tributary 2 of Trout Run	02040205	0.57		Y	AE	8/10/2015
Trout Run and Zone A Tributaries	Chester County	At a point 0.58 mi upstream of the confluence with East Branch White Clay Creek	1 square mile drainage area of all Zone A streams	02040205	1.17		N	A	9/1/2004
Tweed Creek and Zone A Tributaries	Chester County	At the confluence with Octoraro Creek	1 square mile drainage area of all Zone A streams	02050306	7.49		N	A	9/1/2004
Two Log Run	Chester County	At the confluence with West Branch Brandywine Creek	Approximately 150 feet upstream of Beaver Dam Road	02040205	0.68		Y	AE	8/10/2015
Two Log Run	Chester County	At a point 0.67 mi upstream of the confluence with West Branch Brandywine Creek	At a point 2.05 mi upstream of the confluence	02040205	2.05		N	A	9/1/2004
Valley Creek and Zone A Tributaries	Chester County	At the confluence with East Branch Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	14.22		N	A	9/1/2004
Valley Creek No. 1	Chester County	At the County Boundary	Approximately 900 feet upstream of Church Road	02040203	6.49		Y	AE	12/5/1990
Valley Creek No. 1 and Zone A Tributaries	Chester County	At the county boundary	1 square mile drainage area of all Zone A streams	02040203	8.61		N	A	9/1/2004

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Valley Creek No. 2	Chester County	Approximately 600 feet downstream of Confluence of Colebrook Run	Approximately 2,480 feet upstream of Valley Creek Blvd.	02040205	5.1		Y	AE	8/10/2015
Valley Creek No. 2 and Zone A Tributaries	Chester County	At a point 5.08 mi upstream of the confluence with Valley Creek	1 square mile drainage area of all Zone A streams	02040205	1.43		N	A	9/1/2004
Valley Creek No. 3 and Zone A Tributaries	Chester County	At a point 1.45 mi upstream of the confluence with East Branch Octoraro Creek	At a point 2.25 mi upstream of the limit of detailed study	02050306	2.25		N	A	9/1/2004
Valley Creek No.3	Chester County	Approximately 2,600 feet downstream of Main Street	Approximately 150 feet upstream of State Route 41	02050306	1.18		Y	AE	*
Valley Run	Chester County	At the confluence with Beaver Creek	Just downstream of North Caln Road	02040205	3.16		Y	AE	1/3/2012
Waln Run	Chester County	At the confluence with West Fork of East Branch Chester Creek	Approximately 4,000 feet upstream of confluence with West Fork of East Branch Chester Creek	02040202	0.77		Y	AE	9/1/1976
Waln Run and Zone A Tributaries	Chester County	At a point 0.66 mi upstream of the confluence with East Branch Chester Creek	1 square mile drainage area of all Zone A streams	02040202	1.43		N	A	9/1/2004

\* Information not available

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
West Branch Brandywine Creek (DS) and Zone A Tributaries	Chester County	At a point 20.31 mi upstream of the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	8.2		N	A	9/1/2004
West Branch Brandywine Creek (Lower Reach)	Chester County	At the confluence with Brandywine Creek	Approximately 250 feet upstream of Wagontown Road	02040205	20.32		Y	AE	8/10/2015
West Branch Brandywine Creek (Upper Reach)	Chester County	Approximately 3,850 feet downstream of South Birdell Road	Just downstream of US Highway 322	02040205	2.04		Y	AE	8/10/2015
West Branch Brandywine Creek (US) and Zone A Tributaries	Chester County	At a point 29 mi upstream of the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	5.86		N	A	9/1/2004
West Branch Red Clay Creek	Chester County	At the confluence with Red Clay Creek	Just upstream of State Route 926	02040205	7.62		Y	AE	8/10/2015
West Branch Red Clay Creek and Zone A Tributaries	Chester County	At a point 7.62 mi upstream of the confluence with West Branch Red Clay Creek	1 square mile drainage area of all Zone A streams	02040205	6.97		N	A	9/1/2004
West Branch Ridley Creek	Chester County	At the confluence with Ridley Creek	Approximately 350 feet upstream of Hershey Mill Road	02040202	2.8		Y	AE	1/1/1977
West Fork of East Branch Chester Creek	Chester County	At the confluence of East Branch Chester Creek	Approximately 700 feet downstream of Piedmont Road	02040202	2.63		Y	AE	*

**Table 2: Flooding Sources include in this FIS Report – continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
West Town Road Run	Chester County	At the confluence with Goose Creek	Approximately 350 feet upstream of the confluence with Goose Creek	02040202	0.38		N	AE	12/28/2006
West Town Road Run and Zone A Tributaries	Chester County	Limit of detail study	1 square mile drainage area of all Zone A streams	02040202	1.22		N	A	9/1/2004
West Tributary to Buck Run	Chester County	At the confluence with Buck Run	Approximately 350 feet downstream of Lincoln Highway	02040205	0.53		N	AE	8/10/2015
West Tributary to Crum Creek	Chester County	At the confluence with Crum Creek	Just downstream of Paoli Pike	02040202	4		Y	AE	10/1/1979
White Clay Creek and Zone A Tributaries	Chester County	At the county boundary	1 square mile drainage area of all Zone A streams	02040205	29.48		N	A	9/1/2004
Wylie Run North and Zone A Tributaries	Chester County	At the confluence with Brandywine Creek	1 square mile drainage area of all Zone A streams	02040205	3.07		N	A	9/1/2004

\* Information not available

All floodways that were developed for this Flood Risk Project are shown on the FIRM using the symbology described in Figure 3. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown on the FIRM. For information about the delineation of floodways on the FIRM, refer to Section 6.3.

### **2.3 Base Flood Elevations**

The hydraulic characteristics of flooding sources were analyzed to provide estimates of the elevations of floods of the selected recurrence intervals. The Base Flood Elevation (BFE) is the elevation of the 1% annual chance flood. These BFEs are most commonly rounded to the whole foot, as shown on the FIRM, but in certain circumstances or locations they may be rounded to 0.1 foot. Cross section lines shown on the FIRM may also be labeled with the BFE rounded to 0.1 foot. Whole-foot BFEs derived from engineering analyses that apply to coastal areas, areas of ponding, or other static areas with little elevation change may also be shown at selected intervals on the FIRM.

Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. BFEs are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM.

### **2.4 Non-Encroachment Zones**

Some States and communities use non-encroachment zones to manage floodplain development. For flooding sources with medium flood risk, field surveys are often not collected and surveyed bridge and culvert geometry is not developed. Standard hydrologic and hydraulic analyses are still performed to determine BFEs in these areas. However, floodways are not typically determined, since specific channel profiles are not developed. To assist communities with managing floodplain development in these areas, a “non-encroachment zone” may be provided. While not a FEMA designated floodway, the non-encroachment zone represents that area around the stream that should be reserved to convey the 1% annual chance flood event. As with the floodway, all surcharges must fall within the acceptable range in the non-encroachment zone.

General setbacks can be used in areas of lower risk (e.g. unnumbered Zone A), but these are not considered sufficient where unnumbered Zone A is replaced by Zone AE. The NFIP requires communities to ensure that any development in a non-encroachment area causes no increase in BFEs. Communities must generally prohibit development within the area defined by the non-encroachment width to meet the NFIP requirement.

Non-encroachment determinations may be delineated where it is not possible to delineate floodways because specific channel profiles with bridge and culvert geometry were not developed. Any non-encroachment determinations for this Flood Risk Project have been tabulated for selected cross sections and are shown in Table 25, “Flood Hazard and Non-Encroachment Data for Selected Streams.” Areas for which non-encroachment zones are provided show BFEs and the 1% annual chance floodplain boundaries mapped as zone AE on the FIRM but no floodways.

## **2.5 Coastal Flood Hazard Areas**

This section is not applicable to this Flood Risk Project.

### **2.5.1 Water Elevations and the Effects of Waves**

This section is not applicable to this Flood Risk Project.

#### **Figure 5: Wave Runup Transect Schematic**

[Not Applicable to this Flood Risk Project]

### **2.5.2 Floodplain Boundaries and BFEs for Coastal Areas**

This section is not applicable to this Flood Risk Project.

### **2.5.3 Coastal High Hazard Areas**

This section is not applicable to this Flood Risk Project.

#### **Figure 6: Coastal Transect Schematic**

[Not Applicable to this Flood Risk Project]

### **2.5.4 Limit of Moderate Wave Action**

This section is not applicable to this Flood Risk Project.

## **SECTION 3.0 – INSURANCE APPLICATIONS**

### **3.1 National Flood Insurance Program Insurance Zones**

For flood insurance applications, the FIRM designates flood insurance rate zones as described in Figure 3, “Map Legend for FIRM.” Each FIRM panel contains an abbreviated legend for the features shown on the maps. However, the FIRM panel does not contain enough space to show the legend for all map features. Figure 3 shows the full legend of all map features. Note that not all of these features may appear on the FIRM panels in Chester County. Flood insurance zone designations are assigned to flooding sources based on the results of the hydraulic or coastal analyses. Insurance agents use the zones shown on the FIRM and depths and base flood elevations in this FIS Report in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

The 1% annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (e.g. Zones A, AE, V, VE, etc.), and the 0.2% annual chance floodplain boundary corresponds to the boundary of areas of additional flood hazards.

Table 3 lists the flood insurance zones in the unincorporated and incorporated areas of Chester County.

**Table 3: Flood Zone Designations by Community**

Community	Flood Zone(s)
Atglen, Borough of	AE, A, X
Avondale, Borough of	AE, X
Birmingham, Township of	AE, A, X
Caln, Township of	AE, AO, A, X
Charlestown, Township of	AE, A, X
Coatesville, City of	AE, A, X
Downingtown, Borough of	AE, AO, A, X
East Bradford, Township of	AE, A, X
East Brandywine, Township of	AE, A, X
East Caln, Township of	AE, A, X
East Coventry, Township of	AE, A, X
East Fallowfield, Township of	AE, A, X
East Goshen, Township of	AE, A, X
East Marlborough, Township of	AE, A, X
East Nantmeal, Township of	AE, A, X
East Nottingham, Township of	A, X
East Pikeland, Township of	AE, A, X
East Vincent, Township of	AE, A, X
East Whiteland, Township of	AE, A, X
Easttown, Township of	AE, A, X
Elk, Township of	A, X
Elverson, Borough of	A, X
Franklin, Township of	AE, A, X
Highland, Township of	AE, A, X
Honey Brook, Borough of	X
Honey Brook, Township of	AE, A, X
Kennett, Township of	AE, A, X
Kennett Square, Borough of	AE, A, X
London Britain, Township of	A, X
London Grove, Township of	AE, A, X
Londonderry, Township of	AE, A, X
Lower Oxford, Township of	A, X
Malvern, Borough of	A, X

**Table 3: Flood Zone Designations by Community - continued**

Community	Flood Zone(s)
Modena, Borough of	AE, A, X
New Garden, Township of	AE, A, X
New London, Township of	A, X
Newlin, Township of	AE, A, X
North Coventry, Township of	AE, A, X
Oxford, Borough of	A, X
Parkesburg, Borough of	AE, A, X
Penn, Township of	AE, A, X
Pennsbury, Township of	AE, A, X
Phoenixville, Borough of	AE, X
Pocopson, Township of	AE, A, X
Sadsbury, Township of	AE, A, X
Schuylkill, Township of	AE, A, X
South Coatesville, Borough of	AE, A, X
South Coventry, Township of	AE, A, X
Spring City, Borough of	AE, X
Thornbury, Township of	AE, A, X
Tredyffrin, Township of	AE, A, X
Upper Oxford, Township of	A, X
Upper Uwchlan, Township of	AE, A, X
Uwchlan, Township of	AE, A, X
Valley, Township of	AE, A, X
Wallace, Township of	AE, A, X
Warwick, Township of	AE, A, X
West Bradford, Township of	AE, A, X
West Brandywine, Township of	AE, A, X
West Caln, Township of	AE, A, X
West Chester, Borough of	AE, A, X
West Fallowfield, Township of	AE, A, X
West Goshen, Township of	AE, A, X
West Grove, Borough of	X
West Marlborough, Township of	AE, A, X
West Nantmeal, Township of	AE, A, X
West Nottingham, Township of	A, X

**Table 3: Flood Zone Designations by Community - continued**

Community	Flood Zone(s)
West Pikeland, Township of	AE, A, X
West Sadsbury, Township of	AE, A, X
West Vincent, Township of	AE, A, X
West Whiteland, Township of	AE, A, X
Westtown, Township of	AE, A, X
Willistown, Township of	AE, A, X

**3.2 Coastal Barrier Resources System**

This section is not applicable to this Flood Risk Project.

**Table 4: Coastal Barrier Resources System Information**

[Not Applicable to this Flood Risk Project]

**SECTION 4.0 – AREA STUDIED**

**4.1 Basin Description**

Table 5 contains a description of the characteristics of the HUC-8 sub-basins within which each community falls. The table includes the main flooding sources within each basin, a brief description of the basin, and its drainage area.

**Table 5: Basin Characteristics**

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
Brandywine-Christina	02040205	Brandywine Creek and Christina River	Largest watershed within Chester County, encompassing central half of the county	756
Chester-Sassafras	02060002	Chester River-Sassafras River	The watershed covers small area in the southern portion of Chester County	1,302
Lower Delaware	02040202	Lower Delaware River	The watershed covers small area in the southeast corner of Chester County	1,151
Lower Susquehanna	02050306	Lower Susquehanna River	The watershed covers small area along the western boundary of Chester County	2,486

**Table 5: Basin Characteristics - continued**

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
Schuylkill	02040203	Schuylkill River	Second largest watershed within Chester County, encompassing northeastern quarter of the county	1,912

**4.2 Principal Flood Problems**

Table 6 contains a description of the principal flood problems that have been noted for Chester County by flooding source.

**Table 6: Principal Flood Problems**

Flooding Source	Description of Flood Problems
All sources	Flooding in Chester County occurs during all seasons of the year, with the main flood season in the spring. Spring floods are generally the result of a combination of heavy rains and snowmelt. Major floods have occurred during the spring and summer and are usually associated with tropical storms moving up the Atlantic coastline. Summer and fall floods are generally the result of widespread heavy rainfall.
All sources - continued	<p>Past storms that caused significant damage have occurred in July 1970, September 1971, and June 1972. The worst flooding readily recalled by residents resulted from Tropical Storm Agnes, which produced approximately seven inches of rain on the area between June 20-25, 1972.</p> <p>Spring and Summer are the main storm seasons for the area. During these times, intense rainfall may occur for short periods of time causing quick rise in water depth of a stream. This situation may cause some road flooding.</p> <p>Flooding levels are increased at some locations due to the limited carrying capacity of stream culverts. Trees, trash and other debris can be washed away during floods and carried downstream where it can collect on bridges and obstruct streamflow. The accumulation of debris greatly reduces the limited capacity of bridges and culverts. This increases the velocity of flow immediately downstream and causes erosion at culvert entrances and bridge approach embankments. Because the occurrence and amount of debris are indeterminate factors, only the physical characteristics of the stream and its structures were considered in this study.</p> <p>According to the Chester County Multi-Hazard Mitigation Plan (Jan 2010), significant flooding was experienced in the Chester County on September 15, 2003 due to rain from Tropical Storms Henri and Isabel. The worst flood damage occurred in the boroughs of Avondale, Downingtown and Kenneth Square. During the flooding there were 2,600 emergency calls to the county 911 center - roughly half of these calls required emergency dispatches. There were 100 water rescues from vehicles and homes. Twelve homes were destroyed. One hundred eighty homes in Chester County suffered major</p>

**Table 6: Principal Flood Problems -continued**

Flooding Source	Description of Flood Problems
All sources - continued	<p>damage and 156 suffered minor damages. PECO Energy reported about 109,000 of its customers lost power due to downed trees (from loosened soil) and flooding. Twenty-two bridges in the County were damaged. Overall, damage to private homes and businesses and public infrastructure was estimated at \$3.5 million dollars.</p> <p>In the recent past, Hurricane Sandy in October 2012, Tropical Storm Lee and remnants of Tropical Storm Lee in September 2011, Hurricane Irene in August 2011, severe storms in June 2006, Hurricane Katrina in September 2005, severe storms and flooding associated with Tropical Depression Frances in September 2004, Tropical Depression Ivan in September 2004, Tropical Storm Henri in September 2003, and severe storms in July 2003 caused major flooding in Chester County.</p> <p>Additional details for some communities are as follows:</p> <p>Avondale Borough, Chester County: A substantial portion of the Borough is inundated by flood waters due to confluence of the East Branch of the White Clay Creek, Trout Run and Chatham Run. The bridges and culverts at Route 41 (Gap Network Pike) and the Rail Road crossing are undersized. The apartments at 1<sup>st</sup> Street and Route 41, located adjacent to the East Branch of the White Clay Creek, are most notable for being subject to serious flooding, primarily due to the bridge culvert cells downstream being blocked by sediment.</p> <p>Caln Township, Chester County: There are some areas of the township that flood during high intensity storm events. The predominant reason for the flooding is insufficient storm drainage systems to handle the runoff. Areas adjacent to E. Lincoln Highway are susceptible to flooding.</p> <p>Charlestown Township, Chester County: The Valley Creek Act 167 Plan included data on undersized drainage systems, and areas of localized flooding.</p> <p>East Fallowfield Township, Chester County: A tributary to the West Branch of the Brandywine Creek floods homes along S. Caln Road-Mortonville Road, east of Misty Patch Road.</p> <p>East Goshen Township, Chester County: Flooding problems result from short-duration, high-intensity storms, which generate large volumes of stormwater runoff. Because the township is situated at the headwaters of the drainage basins, short duration localized storms cause majority of the flooding problems.</p> <p>Malvern Borough, Chester County: The borough lies within the headwaters of Crum Creek and East Valley Creek watersheds. Localized flooding due to storm runoff rate exceeding the capacity of the storm drainage system is reported to occur annually; however, these problems are localized.</p> <p>West Whiteland Township, Chester County: Meadowbrook Manor floods often, specifically south section of the neighborhood at Lincoln Hwy and Route 100</p>

**Table 6: Principal Flood Problems -continued**

Flooding Source	Description of Flood Problems
	culvert crossing where there is a pond and the county library parking lot. The community was built before FIRMs and there are now effective floodplains in this neighborhood. The flooding source is West Valley Creek and tributaries that come from the north and east.
Beaver Creek	In the Borough of Downingtown and Township of Caln, Beaver Creek exceeds the bank elevation every three to five years. However, most of the land adjacent to Beaver Creek is open and, therefore, the flooding does not produce significant damage.
Birch Run No. 2	In the Township of West Vincent, flooding occurs along the entire length of Birch Run No.2.
Brandywine Creek Tributaries  Brandywine Creek Tributaries - continued	<p>The Brandywine Valley has a flood history dating back to 1843, with the highest flood of record, recorded prior to the first countywide FIS report, occurring on June 22, 1972. Tropical Storm Agnes produced over seven inches of rain and a flood crest elevation of 167.0 feet on Brandywine Creek at Chadds Ford, PA. The previous flood of record at that location was a flood crest elevation of 165.5 feet on March 5, 1920. Large floods also occurred in August 1915, August 1933, August 1942, August 1955 (Hurricanes Connie and Diane), and September 1971. There is little data or history of past floods available for the tributaries of Brandywine Creek. The tributaries to Brandywine Creek have experienced flooding approximately every three to five years. Most of the flooding on the tributaries is localized and usually does not result in significant damage. As a result of localized high intensity storms, which cause flooding on all local tributaries to Brandywine Creek, minor flooding occurs annually within the Township of East Caln.</p> <p>In the Township of Pocopson, the Brandywine Creek and West Branch Brandywine Creek are broad, flat, and occupied. Several homes, an amusement park, and major industry are concentrated on the valley floor near Lenape and this community has suffered severe flood damages. Near Wawaset, a few homes have been constructed in the valley and are subject to occasional flooding.</p> <p>Although the floodplains of the streams in the Townships of Uwchlan and West Bradford are developed only to a limited extent, this development has probably been the greatest factor contributing to past flood damage. However, most bridges located in the townships have low steel elevations below the high-water elevations of the 1-percent annual chance flood. Minor flooding occurs annually from localized high-intensity storms.</p>
Buck Run	Sadsbury Township, Chester County: Buck Run at Greenbelt Drive and Route 372 has flooded repeatedly. The Buck Run flooding had damaged bridges during Hurricane Lee and Hurricane Irene.
Chatham Run	In the Borough of Avondale, flooding along Chatham Run results in localized inundation of structures.
Copeland Run	In the Borough of Downingtown, the area upstream of the railroad (formerly CONRAIL) releases flows through a combination of the culvert on Copeland Run and the underpass of Lloyd Avenue. Lloyd Avenue functions as a significant overland flowpath during large storms and conveys large portion of floodway waters from Copeland Run.
Crum Creek	Significant floods were reported in 1843, 1968, 1971, and 1972. Flood waters were reported to have inundated Goshen Road with four feet of water on June



**Table 6: Principal Flood Problems -continued**

Flooding Source	Description of Flood Problems
Creek	Inundation frequently occurs at points where Sugartown Road, Arlington Road and Daventry Road cross the tributaries. Significant flood was reported during Tropical Storm Agnes in June 1972.
French Creek	<p>In the Township of East Pikeland, Tropical Storm Agnes was responsible for extreme flooding along much of French Creek. At a USGS gaging station on French Creek, approximately 7.3 miles upstream from the mouth, the peak discharge for the June 1972 flood was 11,200 cfs. This was the largest discharge since 1968 when the gage was established, and is approximately 60 percent higher than the next largest discharge, which occurred in June 1973 (USGS, Date Not Available).</p> <p>In the Township of East Vincent, the estimated 1-percent annual chance flood discharge for French Creek is 17,000 cfs.</p> <p>In the Township of West Vincent, flooding occurs along the entire length of French Creek.</p>
Goose Creek  Goose Creek - continued	<p>In the Borough of West Chester, Goose Creek has flat slope, which limits stream's ability to carry flood flows. In addition, numerous bridges and culverts along Goose Creek are too small to convey flows from minor storms (Borough of West Chester, 1973). One of these bridges, at Union Street where Goose Creek flows under Union Street and the railroad, has been reported to act as a dam during periods of heavy rain (Borough of West Chester, 1973). Water has reportedly risen to a depth of two feet in the vicinity of Miner and Franklin Streets. The railroad (formerly CONRAIL) in the southeast section of the Borough of West Chester also causes flooding problems along Goose Creek (Borough of West Chester, 1973). The embankment acts as a dam, which prohibits flood water from the area of the borough to the east of the railroad from entering Goose Creek. These flood waters, which originate in the adjacent Township of West Goshen (East Branch Goose Creek and Tributary C) must travel over swampy land along the embankment before they can enter Goose Creek.</p> <p>In the Township of West Goshen, Goose Creek and East Branch of Goose Creek are the major flood problem areas. This condition is the result of industrial and commercial development.</p>
Hersey Mill Pond	Township of East Goshen experiences flood problems in the vicinity of Hershey Mill Pond near Greenhill Road and Hershey Mill Road (Smith, 1975). Development upstream of Hershey Mill Pond has aggravated the flooding problem by increasing peak flows.
Parke Run	In the Borough of Downingtown, Parke Run often overflows its banks in the vicinity of Green Street during storms. The flooding problem may be compounded due to numerous storm sewer inflows in the area.
Plum Run and Tributaries	<p>In the Borough of West Chester, Plum Run present flooding problems due to hydraulic characteristics of the stream. Flooding occurs due to storm water back-up caused by insufficient carrying capacities of culverts and conduits (Smith, Chatman-Royce Associates, 1972).</p> <p>In the Township of West Goshen, minor flooding occurs along a tributary to Plum Run in the southern corner of the township.</p>

**Table 6: Principal Flood Problems -continued**

Flooding Source	Description of Flood Problems
Red Clay Creek and Tributaries	The Borough of Kennett Square and Township of Kennett lie within the upper portion of the Red Clay watershed and intense development in the floodplain has resulted in flooding. Significant floods occurred in 1938, 1955, 1960, 1969, and 1972. Many homes and industrial establishments report inundation of several feet during Tropical Storm Agnes in June 1972. The floodwaters reportedly inundated South Street and east South Street to a depth of three feet.
Schuylkill River  Schuylkill River continued	<p>Flood records extend back to 1757 for the Schuylkill River at Reading, PA. As compiled from precountywide FIS reports, the flood associated with Tropical Storm Agnes was the worst flooding along the Schuylkill River since 1757. A flood in September 1850 was second. Other major floods occurred in October 1869, February 1902, August 1933, and May 1942. A record of annual flood peaks, beginning in 1928, is available for the USGS gage at Pottstown where the drainage area is approximately four percent less than that at East Pikeland (USGS, 1976). Discharges for the seven highest floods recorded prior to the first countywide FIS for unregulated conditions are: 95,900 cfs (1972); 50,800 cfs (1942); 47,800 cfs (1933); 43,300 cfs (1955); 42,000 cfs (1950); 41,800 cfs (1976); and 38,100 cfs (1971). At the Philadelphia gaging station, located 30 miles downstream of East Coventry, the Schuylkill River discharge was 96,200 cfs for the 1933 flood (USGS, Date Not Available). For the 1955 flood, the peak discharge for the Philadelphia station was 90,100 cfs. During the flood associated with Tropical Storm Agnes the discharge was 103,000 cfs at the Philadelphia station.</p> <p>The 1933, 1955, and 1972 floods caused damage to private and public properties adjacent to the Schuylkill River in the Townships of East Coventry and East Vincent and the Borough of Spring City. Several industrial plants and commercial establishments within Spring City were flooded during Tropical Storm Agnes.</p>
Stony Brook Run	In the Township of West Goshen, flooding along Stony Brook Run occurs as a result of construction of the Stony Brook Planned Residential Development.
Sucker Run	<p>Prior to the first countywide FIS report, the greatest flood on Sucker Run occurred on July 21, 1979. The flood resulted from 8.1 inches of rainfall within a six-hour duration. The high intensity rainfall caused floodwaters to rise to a depth of approximately 5 feet on Strode Avenue. The Westwood area along Sucker Run has a history of serious flooding.</p> <p>City of Coatesville is subject to significant flooding and localized flooding resulting from storm runoff throughout the city.</p>
Taylor Run and Tributaries	<p>In the Borough of West Chester, Plum Run presents flooding problems due to hydraulic characteristics of the stream. Flooding occurs due to storm water back-up caused by insufficient carrying capacities of culverts and conduits (Smith, Chatman-Royce Associates, 1972).</p> <p>In the Borough of West Chester, Marshall Manor Tributary (tributary of Taylor Run), forms a 90-degree bend between Hillside Drive South and Marshall Drive. The floodwaters at the bend overtop the stream banks and flow overland in a northern direction. Floodwaters also overtop the stream banks south of East Goshen Road. These instances of overtopping combined with the insufficient carrying capacities of culverts and conduits, cause significant flooding at the intersections of Marshall Drive with Hillside Drive North and Hillside Drive South in the backyards of several residential lots at the east side</p>

**Table 6: Principal Flood Problems -continued**

Flooding Source	Description of Flood Problems
	of the intersection of Marshall Drive and East Goshen Road.
Tributary A to East Tributary to Darby Creek	In the Township of Easttown, East Tributary to Darby Creek and Tributary A to East Tributary to Darby Creek are subject to flooding at least once every year. Inundation frequently occurs at points where Sugartown Road, Arlington Road and Daventry Road cross the tributaries. Significant flood was reported during Tropical Storm Agnes in June 1972. Though floodwaters were reported to be several feet deep, very little damage to residential or commercial properties within the Township of Easttown were reported.
Trout Creek Watershed	In the Township of Tredyffrin, the Trout Creek watershed experiences serious flooding that has been aggravated by construction of imperious surfaces and storm sewer systems. Inadequate bridge structures may worsen the flooding problem.
Trout Run	In the Borough of Avondale flooding along Trout Run results in localized inundation of structures.
West Branch Brandywine Creek  West Branch Brandywine Creek - continued	<p>Prior to the first countywide FIS report, the greatest flood on record occurred on August 9, 1942, with a peak discharge of 8,600 cfs. The floodwaters reached a height of 9.7 feet at the upstream city limit of Coatesville. Other significant floods occurred in 1920, 1933, and 1955.</p> <p>The Lukens Steel plant suffered serious damage in 1920, 1933, 1942 and 1955. The steel production facilities were severely damaged and were inoperable for several months.</p> <p>In the Boroughs of Modena and South Coatesville, major floods cause localized inundation of structures along West Branch Brandywine Creek.</p> <p>The City of Coatesville is subject to significant flooding and localized flooding resulting from storm runoff throughout the city.</p>
West Branch Red Clay Creek	The Borough of Kennett Square and Townships of East Marlborough and Kennett are subject to flooding from this stream. The stream exceeds its banks at least once every three to five years, which produces localized flooding in the area.
Valley Creek Watershed	<p>In the Township of Tredyffrin, few flooding problems currently exist; however, inadequate bridge structures may worsen the flooding problem.</p> <p>In the Township of West Whiteland annual flooding occurs in the development known as Meadowbrook Manor, portions of which are situated on the floodplain of Valley Creek. Flood depths up to 36 inches are common during these annuals floods with the resultant washed-out road crossings and stream banks (Department of Housing and Urban Development, Date Not Available).</p>
Valley Creek No. 2	In the Township of West Whiteland, Valley Creek No.2 drains a relatively small basin covering 13.4 square miles. For this reason, the stream is subject to flooding from both local and regional storms.
Valley Run	The Borough of Downingtown and Township of Caln are vulnerable to flooding from Valley Run. Several homes on Loomis and Miller Roads have been subject to flooding, damage has been reported as minimal.

Table 7 contains information about historic flood elevations in the communities within Chester County.

**Table 7: Historic Flooding Elevations**

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
White Clay Creek near Strickersville, PA	0.1 mi downstream from West Branch White Clay Creek	132.46	2011	*	USGS gage
White Clay Creek near Strickersville, PA	0.1 mi downstream from West Branch White Clay Creek	131.03	2014	*	USGS gage
East branch Brandywine Creek below Downingtown, PA	2,000 ft. upstream from Valley Creek	207.76	2011	10	USGS gage
East Branch Brandywine Creek below Downingtown, PA	2,000 ft. upstream from Valley Creek	207.53	2014	10	USGS gage

\*Not Calculated for this Flood Risk Project

### 4.3 Non-Levee Flood Protection Measures

Table 8 contains information about non-levee flood protection measures within Chester County such as dams, jetties, and or dikes. Levees are addressed in Section 4.4 of this FIS Report.

**Table 8: Non-Levee Flood Protection Measures**

Flooding Source	Structure Name	Type of Measure	Location (Latitude, Longitude)	Description of Measure
Adjacent to Northeast Creek	Herr Foods Lagoon	Dam	-76.0181,-39.7414	Dam was constructed in 1996 for other purpose
Beaver Creek	Beaver Creek Dam (PA-433)	Dam	-75.78,-40.03	Dam was constructed in 1975 for Flood Control purpose
Bennetts Run	Savery Mill Dam	Dam	-75.6467,-39.8817	Dam was constructed in 1960 for Recreation purpose
Birch Run	Hibernia Dam (PA-436F)	Dam	-75.8494,-40.0286	Dam was constructed in 1994 for Flood Control and Recreation purpose

**Table 8: Non-Levee Flood Protection Measures – continued**

Flooding Source	Structure Name	Type of Measure	Location (Latitude, Longitude)	Description of Measure
Broad Run	Lake Somerset	Dam	-75.7417,-39.7833	Dam was constructed in 1969 for Recreation purpose
East Branch Brandywine Creek	Barneston Dam (PA 432)	Dam	-75.7911,-40.1011	Dam was constructed in 1983 for Flood Control purpose
East Branch Brandywine Creek	R G Struble Lake (PA-431)	Dam	-75.8633,-40.1083	Dam was constructed in 1971 for Flood Control and Recreation purpose
East Branch Chester Creek	Milltown	Dam	-75.545,-39.9817	Dam was constructed in 1924 for Water Supply purpose
East Branch Chester Creek	Township Line Dam	Dam	-75.5717,-39.985	Dam was constructed in 1935 for Water Supply and Recreation purpose
Marsh Creek	Marsh Creek Reservoir (PA-437)	Dam	-75.7183,-40.0567	Dam was constructed in 1973 for Flood Control, Recreation purpose
Octoraro Creek	Pine Grove - Octoraro Dam	Dam	-76.0433,-39.7983	Dam was constructed in 1949 for Water Supply and Recreation purpose
Pickering Creek	Pickering Creek	Dam	-75.54,-40.1017	Dam was constructed in 1928 for Water Supply, purpose
Ridley Creek	Pond View Farm	Dam	-75.5383,-40.0183	Dam was constructed in 1960 for Recreation purpose
Rock Run	Rock Run - Coatesville Reservoir	Dam	-75.855,-40.005	Dam was constructed in 1917 for Water Supply and Recreation purpose
Shamona Creek	Hankin	Dam	-75.6775,-40.0617	Dam was constructed in 1989 for Flood Control purpose
Shamona Creek	Wharton Boulevard Stormwater Dam	Dam	-75.6839,-40.06	Dam was constructed in 1999 for Flood Control purpose
Tributary Beaver Run	Welkinweir	Dam	-75.68,-40.1517	Dam was constructed in 1937 for Recreation purpose
Tributary Broad Run	Somerset Lakes Basin No. 2	Dam	-75.7408,-39.7872	Dam was constructed in 1991 for Flood Control purpose
Tributary Culbertson Run	Timber Dam	Dam	-75.7728,-40.0464	Dam was constructed in 1986 for Flood Control and Recreation purpose
Tributary to Darby Creek	Devon Detention Dam	Dam	-75.4439,-40.0322	Dam was constructed for Flood Control purpose

**Table 8: Non-Levee Flood Protection Measures – continued**

Flooding Source	Structure Name	Type of Measure	Location (Latitude, Longitude)	Description of Measure
Tributary to Dennis Run	Brook Crossing Detention Dam	Dam	-75.8397,-39.9558	Dam was constructed for Flood Control purpose
Tributary to Little Valley Creek	Linpro Detention Dam	Dam	-75.4614,-40.0611	Dam was constructed in 1987 for Flood Control purpose
Tributary to Valley Creek	Pond No. 1	Dam	-75.6608,-40.0092	Dam was constructed in 1970 for Tailings purpose
Tributary to Valley Creek	Pond No. 2	Dam	-75.6597,-40.0095	Dam was constructed for Tailings purpose
Tributary to Valley Creek	Pond No. 3	Dam	-75.6619,-40.0081	Dam was constructed for Tailings purpose
Tributary Tweed Creek	Wastewater Treatment	Dam	-76.0033,-39.7808	Dam was constructed in 1985 for Other purpose
Tributary Valley Creek	Thomas Detention Dam	Dam	-75.6419,-40.0278	Dam was constructed in 1990 for Flood Control purpose
Tributary Valley Creek	West Whiteland Business Park Dam	Dam	-75.6019,-40.0289	Dam was constructed for Flood Control purpose
Tributary Valley Creek	Whitford Ridge Detention Basin	Dam	-75.6417,-40.0364	Dam was constructed in 1992 for Flood Control purpose
Trout Run	Green Valley Farms	Dam	-75.7647,-39.8239	Dam was constructed in 1963 for Fire Protection purpose
West Branch Brandywine Creek	John Stoltzfus Dam	Dam	-75.8978,-40.0956	Dam was constructed in 2001 for Fire Protection purpose

**4.4 Levees**

This section is not applicable to this Flood Risk Project.

**Table 9: Levees**

[Not applicable to this Flood Risk Project]

## SECTION 5.0 – ENGINEERING METHODS

For the flooding sources in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded at least once on the average during any 10-, 25-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 25-, 50-, 100-, and 500-year floods, have a 10-, 4-, 2-, 1-, and 0.2% annual chance, respectively, of being equaled or exceeded during any year.

Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedance) during the term of a 30-year mortgage is approximately 26 percent (about 3 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

The engineering analyses described here incorporate the results of previously issued Letters of Map Change (LOMCs) listed in Table 27, “Incorporated Letters of Map Change”, which include Letters of Map Revision (LOMRs). For more information about LOMRs, refer to Section 6.5, “FIRM Revisions.”

### 5.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak elevation-frequency relationships for floods of the selected recurrence intervals for each flooding source studied. Hydrologic analyses are typically performed at the watershed level. Depending on factors such as watershed size and shape, land use and urbanization, and natural or man-made storage, various models or methodologies may be applied. A summary of the hydrologic methods applied to develop the discharges used in the hydraulic analyses for each stream is provided in Table 13. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

A summary of the discharges is provided in Table 10. Frequency Discharge-Drainage Area Curves used to develop the hydrologic models may also be shown in Figure 7 for selected flooding sources. A summary of stillwater elevations developed for non-coastal flooding sources is provided in Table 11. Stream gage information is provided in Table 12.

**Table 10: Summary of Discharges**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Beaver Creek	Approximately 100 feet upstream from the confluence with East Branch Brandywine Creek	18.2	2,528	*	3,952	4,645	6,494
Beaver Creek	Approximately 550 feet downstream of South Lloyd Avenue	13.6	2,374	*	3,730	4,391	6,161
Beaver Creek	Approximately 4,480 feet downstream of the confluence of Valley Run (at the confluence with Unnamed	11.5	2,121	*	3,330	3,919	5,494
Beaver Creek	Approximately 100 feet upstream of the confluence with Valley Run	8.9	1,510	*	2,535	3,059	4,579
Beaver Creek	At the Township of East Brandywine downstream corporate limits	6.5	1133	*	1977	2411	3642
Beaver Creek	At Bondsville Road	4.7	701	*	1253	1541	2371
Beaver Creek	Approximately 350 feet downstream of East Reeceville Road	3.2	179	*	334	417	660

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Beaver Run	At a point approximately 3,800 feet upstream of the Township of East Nantmeal corporate limits	2.89	860	*	1,290	1,500	1,890
Bennetts Run	Approximately 100 feet upstream from the confluence with Brandywine Creek	2.8	989	*	1,740	2,129	3,236
Bennetts Run	Approximately 80 feet downstream from Chandler Road	1.9	775	*	1,367	1,674	2,548
Bennetts Run	Approximately 490 feet downstream from Pocopson Road	1.6	677	*	1,196	1,464	2,231
Bennetts Run	Approximately 60 feet downstream from Parkersville Road	1.5	664	*	1,173	1,437	2,191
Birch Run No. 1	Approximately 2,850 feet upstream of its confluence with West Branch Brandywine Creek	4.6	1,700	*	2,905	3,480	4,870

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Birch Run No. 1	Approximately 2,840 feet downstream from Martins Corner	3	959	*	1,756	2,179	3,418
Birch Run No. 1	At Martins Comer Road	2.5	854	*	1,572	1,954	3,078
Birch Run No. 2	At a point approximately 750 feet downstream of Flowing Springs Road	5.63	*	*	*	3,700	*
Birch Run No. 2	Above Unnamed Tributary approximately 400 feet upstream from Birch Run Road	4.4	*	*	*	3,000	*
Blackhorse Run	Approximately 8,166 feet upstream of its confluence with East Branch Brandywine Creek	0.3	246	*	407	486	701
Boot Road Run	*	*	*	*	*	*	*
Brandywine Creek	At the Delaware- Pennsylvania State boundary	299.8	17,137	*	27,593	32,711	46,325

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Brandywine Creek	At a point approximately 100 feet upstream of its confluence with Cossart Run	295.2	16,872	*	27,166	32,205	45,609
Brandywine Creek	Approximately 90 feet upstream of the confluence with Craig Run	292.4	16,710	*	26,904	31,895	45,169
Brandywine Creek	Approximately 90 feet upstream of its confluence with Harvey Run	288	16,459	*	26,501	31,417	44,492
Brandywine Creek	At USGS gaging station No. 01481000	288	16,440	*	26,470	31,380	44,440
Brandywine Creek	At a point approximately 100 feet upstream of its confluence with Ring Run	285.3	16,306	*	26,254	31,123	44,077
Brandywine Creek	Approximately 100 feet upstream of its confluence with Brinton Run	283.7	16,214	*	26,107	30,949	43,830
Brandywine Creek	Approximately 90 feet upstream of its confluence with Bennetts Run	278.6	15,922	*	25,636	30,391	43,039

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Brandywine Creek	Approximately 140 feet upstream of its confluence with Pocopson Creek	268.7	15,356	*	24,725	29,311	41,510
Brandywine Creek	At State Route 926	264.6	15,118	*	24,342	28,857	40,867
Brandywine Creek	Approximately 90 feet upstream of its confluence with Plum Run	260.2	14,865	*	23,935	28,375	40,184
Brandywine Creek	Approximately 110 feet upstream of its confluence with Unnamed 575	258.2	14,754	*	23,756	28,163	39,884
Buck Run	Upstream of Dupont Road	24.4	3,750	*	6,302	7,595	11,200
Buck Run	At Doe Run Road	21.9	3,494	*	5,870	7,074	10,429
Buck Run	Approximately 3030 feet upstream from Doe Run	21	3,401	*	5,713	6,885	10,149
Buck Run	Approximately 90 feet downstream from Buck Run Rd	20	3,285	*	5,516	6,646	9,794
Buck Run	At the Conrail bridge	14	2,598	*	4,328	5,200	7,615
Buck Run	Approximately 120 feet downstream of Glenrose Rd	12.5	2,383	*	3,978	4,782	7,015

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Buck Run	Approximately 90 feet upstream from the confluence with Unnamed 717	11.4	2,242	*	3,736	4,489	6,576
Buck Run	Approximately 9050 feet upstream from Buck Run Rd	10.9	2,160	*	3,598	4,322	6,328
Buck Run	Approximately 12880 feet upstream from Buck Run Rd	6.8	1,636	*	2,772	3,349	4,962
By-Pass Run	At South Matlock Street and West Chester By-Pass	0.26	*	*	*	470	*
Chatham Run	Approximately 250 feet upstream of Confluence with East Branch White Clay Creek	6.03	1,485	*	2,447	2,928	4,250
Chatham Run	Approximately 310 feet upstream of Pomeroy Avenue	5.71	1,430	*	2,361	2,826	4,107
Chatham Run	Approximately 730 feet downstream of Lake Road	5.27	1,363	*	2,265	2,717	3,966
Chatham Run	Approximately 400 feet downstream of East Baltimore Pike	4.08	1,092	*	1,854	2,243	3,332

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Chatham Run	Approximately 235 feet downstream of Kennett Oxford Bypass	3.6	1,009	*	1,738	2,114	3,175
Chatham Run	Approximately 505 feet downstream of Woodview Road	2.92	910	*	1,608	1,972	3,014
Chatham Run	Approximately 1200 feet downstream of State Route 841	2.44	821	*	1,462	1,797	2,763
Chatham Run	Approximately 1850 feet upstream of Chatham Road	2.19	802	*	1,445	1,783	2,761
Chatham Run	Approximately 125 feet downstream of Lloyd Road	1.47	633	*	1,142	1,410	2,184
Chatham Run	Approximately 285 feet downstream of Gap Newport Pike	1.24	564	*	1,029	1,274	1,988
Chatham Run	Approximately 1525 feet downstream of Mosquito Lane	0.84	436	*	801	995	1,562
Clarks Creek	*	*	*	*	*	*	*
Colebrook Run	Approximately 110 feet upstream from the confluence with Valley Creek No.2	1.7	565	*	881	1,035	1,443
Colebrook Run	At Lincoln Highway	0.8	422	*	716	863	1,274

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Colebrook Run	Approximately 1400 feet upstream of Lincoln Hwy	0.7	402	*	692	839	1,252
Copeland Run	Approximately 90 feet upstream from the confluence with Beaver Creek	1.0	470	*	819	999	1,560
Copeland Run	Approximately 70 feet downstream of the Philadelphia-Pittsburgh Main Line Railroad	0.9	436	*	800	992	1,560
Cossart Run	Approximately 100 feet upstream from the confluence with Brandywine Creek	2	776	*	1,402	1,732	2,689
Craig Run	Approximately 100 feet upstream from the confluence with Brandywine Creek	1.8	671	*	1,198	1,474	2,271
Crum Creek	At county boundary	11.5	2,100	*	3,500	4,300	5,800
Doe Run	Confluence with Buck Run	21.7	3,236.33	*	5,527	6,702	10,019
Doe Run	At McCorkles Road	17.6	2,883	*	4,962	6,032	9,065
Doe Run	Approximately 1,980 feet downstream of Doe Run Road	16.9	2,826	*	4,875	5,931	8,927
Doe Run	Approximately 1040 feet upstream of Doe Run Road	15.8	2,752	*	4,770	5,812	8,776
Doe Run	At State Route 841	11.8	2,330	*	4,076	4,982	7,568

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Doe Run	Approximately 350 feet upstream of North Chatham Road	11.3	2,302	*	4,050	4,959	7,561
Doe Run	Approximately 1,410 feet downstream of Saint Malachi Road	10.2	2,169	*	3,825	4,688	7,160
Doe Run	At Runnymede Road	9.5	2,066	*	3,646	4,469	6,829
Doe Run	Approximately 3,935 feet downstream of the Creek Road Bridge	8.9	1,980	*	3,499	4,290	6,560
Doe Run	Approximately 1,400 feet upstream of the Creek Road Bridge	8.1	1,876	*	3,319	4,072	6,232
East Branch Brandywine Creek	At confluence with Brandywine Creek	123	8,417	*	11,403	12,605	15,287
East Branch Brandywine Creek	Approximately 8,170 feet upstream of Brandywine Creek	120.6	8,252	*	11,180	12,359	14,988
East Branch Brandywine Creek	Approximately 3,050 feet downstream of West Strasburg Road	119	8,142	*	11,031	12,194	14,788

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
East Branch Brandywine Creek	Approximately 2,270 feet downstream of West Strasburg Road	113.3	7,750	*	10,500	11,607	14,076
East Branch Brandywine Creek	Approximately 230 feet upstream of West Strasburg Road	113	7,730	*	10,473	11,577	14,040
East Branch Brandywine Creek	Approximately 90 feet upstream of the confluence with Valley Creek	90.3	6,209	*	8,412	9,298	11,276
East Branch Brandywine Creek	At gage 01480870	89.5	6,183	*	8,377	9,260	11,230
East Branch Brandywine Creek	Approximately 350 feet upstream of Harmony Hill Road	86.1	5,920	*	8,021	8,867	10,753
East Branch Brandywine Creek	Approximately 3,770 feet upstream of Harmony Hill Road	85.5	5,878	*	7,964	8,803	10,676
East Branch Brandywine Creek	Approximately 100 feet upstream from the confluence with Parke Run	81.6	5,611	*	7,602	8,404	10,191

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
East Branch Brandywine Creek	Approximately 100 feet upstream from the confluence with Beaver Creek	63.2	4,599	*	6,274	6,924	10,126
East Branch Brandywine Creek	At gage 01480700	59.8	2,672	*	5,271	6,549	10,126
East Branch Brandywine Creek	Approximately 110 feet upstream of Dowlin Forge Road	58.7	2,609	*	5,144	6,389	9,861
East Branch Brandywine Creek	Approximately 100 feet upstream of the confluence with Shamona Creek	54.5	2,251	*	4,439	5,520	8,478
East Branch Brandywine Creek	Approximately 60 feet upstream of Marsh Creek	33.4	2,328	*	4,543	5,677	8,620
East Branch Brandywine Creek	Approximately 320 feet downstream of Lyndell Road	27	1,741	*	3,347	4,155	6,256
East Branch Brandywine Creek	Downstream of Indian Run	24.5	1,572	*	2,998	3,700	5,494
East Branch Brandywine Creek	Approximately 100 feet upstream of the confluence with Indian Run	17.9	643	*	1,166	1,420	3,091
East Branch Brandywine Creek	Approximately 90 feet upstream of the confluence with Unnamed 398	15.1	345	*	398	762	2,655

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
East Branch Brandywine Creek	Upstream of Barneston Dam	15.1	2,123	*	4,321	5,422	8,215
East Branch Brandywine Creek	Approximately 100 feet upstream of the confluence with Unnamed 475	13.3	2,011	*	3,998	4,979	7,443
East Branch Brandywine Creek	At a point approximately 90 feet upstream of the confluence with Unnamed 638	12.5	1,921	*	3,778	4,694	6,983
East Branch Brandywine Creek	Approximately 100 feet upstream of the confluence with Tributary to East Branch Brandywine Creek	8.3	1,110	*	2,180	2,706	4,040
East Branch Brandywine Creek	Approximately 90 feet upstream of Unnamed 920	6.3	741	*	1,430	1,764	2,615
East Branch Brandywine Creek	At Cupola Road	5.9	713	*	1,370	1,687	2,485
East Branch Brandywine Creek	Approximately 100 feet upstream of the confluence with Unnamed 528	4.7	453	*	861	1,058	1,558

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
East Branch Brandywine Creek	Downstream of Struble Lake and 100 feet upstream of the confluence with Unnamed 447	3	76	*	101	104	332
East Branch Chester Creek	*	*	*	*	*	*	*
East Branch Goose Creek	At West Chester By Pass (US Route 202/322)	0.13	*	*	*	381	*
East Branch Octoraro Creek	At Valley Bridge Road	12.7	3,120	*	4,680	5,460	6,860
East Branch Red Clay Creek	Approximately 95 feet upstream of Confluence with West Branch Red Clay Creek	10.02	2,170	*	3,508	4,168	5,957
East Branch Red Clay Creek	Approximately 110 feet downstream of Old Kennett Road	9.4	2,075	*	3,352	3,981	5,688
East Branch Red Clay Creek	Approximately 125 feet downstream of McFarland Road	5.3	1,387	*	2,212	2,616	3,703
East Branch Red Clay Creek	Approximately 130 feet downstream of East Hillendale Road	4.88	1,304	*	2,074	2,450	3,460
East Branch Red Clay Creek	Approximately 170 feet downstream of Birch Street	4.28	1,191	*	1,916	2,274	3,254

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
East Branch Red Clay Creek	Approximately 495 feet downstream of East State Street	4.11	1,171	*	1,900	2,260	3,239
East Branch Red Clay Creek	Approximately 1,110 feet downstream of Kennett Oxford Bypass	3.3	974	*	1,595	1,904	2,749
East Branch Red Clay Creek	Approximately 1,900 feet upstream of Kennett Oxford Bypass	2.62	802	*	1,317	1,575	2,282
East Branch Red Clay Creek	Approximately 215 feet downstream of East Locust Lane	2.35	727	*	1,199	1,435	2,086
East Branch Ridley Creek	*	*	*	*	*	*	*
East Branch White Clay Creek	Approximately 1,830 feet upstream of Confluence with Egypt Run	23.39	3,540	*	5,725	6,808	9,760
East Branch White Clay Creek	Approximately 100 feet upstream of confluence with Unnamed 854	22.38	3,421	*	5,536	6,585	9,444
East Branch White Clay Creek	Approximately 205 feet downstream of Garden Station Road	22.23	3,402	*	5,508	6,553	9,401

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
East Branch White Clay Creek	Approximately 670 feet upstream of Garden State Road	20.29	3,170	*	5,137	6,113	8,779
East Branch White Clay Creek	Approximately 3,335 feet upstream of Unnamed 850	19.4	3,046	*	4,954	5,904	8,503
East Branch White Clay Creek	Approximately 145 feet upstream of confluence with Trout Run	17.69	2,849	*	4,682	5,601	8,132
East Branch White Clay Creek	Approximately 295 feet downstream of Gap Newport Pike	11.63	2,116	*	3,554	4,284	6,322
East Branch White Clay Creek	Approximately 1,560 feet upstream of East Third Street	11.21	2,070	*	3,499	4,227	6,268
East Tributary	At the confluence with Pigeon Creek	0.97	820	*	1,180	1,550	1,900
East Tributary	At South Keim Street	0.25	365	*	460	625	730
East Tributary of Buck Run	At the confluence with Buck Run	0.5	533	*	938	1,146	1,717
East Tributary to Crum Creek	At the confluence with Crum Creek	1	745	*	1,000	1,140	1,560
East Tributary to Darby Creek	At the confluence with Darby Creek	1.5	820	*	1,150	1,400	2,250
French Creek	At the confluence with Schuylkill River	70.2	9,740	*	13,200	14,800	18,600

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
French Creek	At the Borough of Phoenixville upstream corporate limits	67.1	9,440	*	12,700	14,300	18,000
French Creek	Upstream from the tributary above Rapps Dam	64.1	9,100	*	12,200	13,800	17,300
French Creek	At the Township of East Vincent downstream corporate limits	62.6	8,960	*	12,000	13,500	17,000
French Creek	At cross section AT	54.9	7,760	*	10,500	12,000	15,400
French Creek	At the Township of West Vincent upstream corporate limits	44.8	*	*	*	10,240	*
French Creek	At State Route 100 Bridge	43.72	5,340	*	8,675	10,380	13,700
French Creek	At a point approximately 270 feet upstream of State Route 100 Bridge	38.72	4,875	*	7,920	9,475	12,505
French Creek	At County Park Road	17.11	3,435	*	6,125	7,630	10,500
French Creek	At a point approximately 5,660 feet downstream of Trythall Road	13.29	3,210	*	5,930	7,500	10,400
Goose Creek	*	*	*	*	*	*	*

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Hunters Run	*	*	*	*	*	*	*
Indian King Run	Approximately 90 feet upstream from the confluence with Valley Creek No.2	1	484	*	771	915	1,302
Indian Spring Run	At the Township of West Caln downstream corporate limit	1.73	292	*	472	596	776
King James Run	*	*	*	*	*	*	*
Lionville Run	Approximately 110 feet upstream from the confluence with Valley Creek No.2	2.6	943	*	1,479	1,738	2,423
Lionville Run	Approximately 380 feet upstream from Waterloo Boulevard	1.6	743	*	1,197	1,418	2,012
Lionville Run	Approximately 80 feet downstream from Shoen Road	1.2	656	*	1,070	1,273	1,821
Little Buck Run	At the Borough of Parkesburg downstream corporate limits	2.6	827	*	1,383	1,663	2,439
Little Buck Run	Approximately 1,620 feet downstream from South Church Street	1.7	612	*	1,003	1,198	1,811

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Little Buck Run	Approximately 160 feet downstream from North Church Street	1.1	530	*	953	1,174	1,811
Little Buck Run	Approximately 120 feet downstream from Octoraro Avenue	1	501	*	903	1,113	1,719
Little Valley Creek	*	*	*	*	*	*	*
Marshall Manor Tributary	At Goshen Road	0.2	221	*	367	439	635
Middle Branch White Clay Creek	Approximately 155 feet downstream of East Avondale Road	9.94	2,165	*	3,618	4,349	6,374
Middle Branch White Clay Creek	Approximately 2,400 feet downstream of South Guernsey Road	8.59	1,955	*	3,274	3,939	5,783
Middle Branch White Clay Creek	Approximately 165 feet downstream of South Guernsey Road	8.03	1,860	*	3,123	3,760	5,530
Middle Branch White Clay Creek	Approximately 2,675 feet downstream of West State Road	7.56	1,789	*	2,998	3,607	5,297
Middle Branch White Clay Creek	Approximately 30 feet downstream of West State Road	7.25	1,735	*	2,911	3,505	5,152

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Middle Branch White Clay Creek	Approximately 1,300 feet downstream of Valley Road	6.07	1,510	*	2,561	3,096	4,591
Middle Branch White Clay Creek	Approximately 120 feet downstream of West Baltimore Pike	5.82	1,459	*	2,493	3,021	4,505
Middle Branch White Clay Creek	Approximately 100 feet downstream of Paschall Mill Road	5.34	1,377	*	2,383	2,900	4,367
Middle Branch White Clay Creek	Approximately 805 feet upstream of Ewing Road	4.05	1,137	*	1,992	2,436	3,703
Middle Branch White Clay Creek	Approximately 385 feet downstream of Tice Road	2.79	872	*	1,539	1,886	2,882
Middle Branch White Clay Creek	Approximately 1,500 feet upstream of Hilton Road	1.65	685	*	1,233	1,520	2,350
Northeast Branch Ridley Creek	At the Township of Willistown downstream corporate limits	0.6	360	*	440	480	560
Officers Run	At the confluence with Valley Creek No. 3	5.84	670	*	1,010	1,180	1,480

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Parke Run	Approximately 140 feet upstream from the confluence with East Branch Brandywine Creek	1.8	529	*	765	876	1,157
Parke Run	Approximately 80 feet downstream from Chestnut Street	1.4	446	*	656	754	1,008
Parke Run	Approximately 180 feet downstream from Woodbine Road	0.8	312	*	466	538	726
Pickering Creek	At the confluence with Schuylkill River	38.8	4,900	*	8,400	9,600	13,800
Pickering Creek	At the Township of Schuylkill upstream corporate limits	31.4	4,250	*	7,280	8,300	11,950
Pickering Creek	At the Township of East Pikeland downstream corporate limits	26	4,100	*	7,300	8,600	12,500
Pickering Creek	Upstream of confluence of Pigeon Run	22	3,900	*	6,900	8,300	12,100
Pickering Creek	At Pikeland Road	18.6	2,900	*	4,314	5,321	8,700
Pickering Creek	At the Township of East Pikeland upstream corporate limits	17.7	3,600	*	6,400	7,800	11,500

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Pickering Creek	Upstream of the confluence of Pine Creek	11.2	2,050	*	3,696	4,816	8,288
Pickering Creek	At Yellow Springs Road	6.5	1,365	*	3,017	4,081	7,300
Pigeon Creek	At the confluence with Schuylkill River	14.48	4,100	*	7,400	9,300	13,000
Pigeon Creek	At Ellis Woods Road	12	3,680	*	6,500	8,300	11,400
Pine Creek No. 1	At Conestoga Road	2.62	725	*	1,115	1,365	1,725
Pine Creek No. 1	At a point approximately 625 feet downstream of upstream corporate limits of West Pikeland	1.1	375	*	577	707	894
Pine Creek No. 2	At confluence with Williams Run and East Branch Octoraro Creek	2.76	940	*	1,410	1,640	2,070
Plum Run	At Bradford Avenue	0.3	*	*	*	707	*
Pocopson Creek	Approximately 100 feet upstream from the confluence with Brandywine Creek	9.1	2,082	*	3,599	4,378	6,580
Radley Run	Approximately 0.4 mile downstream of Sumner Way	0.4	295	*	449	538	820

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Red Clay Creek	Approximately 3,095 feet downstream of USGS Gage 01479820	28.26	4,301	*	7,453	9,182	14,354
Red Clay Creek	Approximately 30 feet upstream of USGS Gage 01479820	27.52	4,230	*	7,356	9,077	14,245
Ridley Creek	At the county boundary	19	2,800	*	4,700	5,700	8,600
Ring Run	Approximately 90 feet upstream from the confluence with Brandywine Creek	2.1	859	*	1,474	1,786	2,662
Ring Run	Approximately 150 feet downstream of Baltimore Pike	2	814	*	1,396	1,692	2,521
Ring Run	Approximately 40 feet downstream of Constitution Drive	1.7	748	*	1,287	1,562	2,331
Rock Run	At its confluence with West Branch Brandywine Creek	8.1	2,005	*	3,382	4,078	6,011
Rock Run	Approximately 210 feet downstream from US Highway 30 By-Pass	7.9	1,964	*	3,319	4,003	5,909

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Rock Run	Approximately 1,270 feet downstream of Wagontown Road	6.5	1,708	*	2,924	3,543	5,279
Schuylkill River	Upstream of the confluence of Wissahickon Creek	1,690	62,900	*	93,700	109,000	146,000
Schuylkill River	Upstream of the confluence of Perkionmen Creek	1,280	42,300	*	63,300	73,900	100,000
Schuylkill River	Upstream of the confluence of French Creek	1,147	36,200	*	54,200	63,400	86,000
Schuylkill River	Upstream of the confluence of Manatawny Creek	880	32,300	*	47,900	55,500	74,300
Shadygrove Way Run	*	*	*	*	*	*	*
Shamona Creek	Approximately 300 feet downstream of Dowlin Forge Road	4	815	*	1,516	1,854	2,701
Shiloh Road Run	*	*	*	*	*	*	*
Ship Road Run	Approximately 100 feet upstream of the confluence with Valley Creek No.2	0.9	444	*	715	848	1,213

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Ship Road Run	Approximately 140 feet downstream of South Ship Road	0.7	419	*	696	834	1,213
Stackhouse Mill Run	At the County Boundary	2.4	863	*	1,440	1,775	2,339
Stony Brook Run	*	*	*	*	*	*	*
Stony Run	Approximately 1,500 feet upstream of Buckwalter Road	2.32	970	*	1,700	2,100	3,200
Stony Run	Approximately feet upstream of Seven Stars Road	1.64	755	*	1,300	1,600	2,500
Street Road Tributary	*	*	*	*	*	*	*
Sucker Run	Approximately 70 feet upstream of the confluence with West Branch Brandywine Creek	4.8	1,246	*	2,004	2,378	3,391
Sucker Run	At Strode Avenue	4.2	1,126	*	1,815	2,155	3,081
Sucker Run	Approximately 30 feet upstream of Bradley Avenue	2.7	725	*	1,196	1,429	2,046
Sucker Run	Approximately 30 feet downstream of Grove Avenue	2.1	636	*	1,051	1,259	1,821
Sucker Run	Approximately 80 feet upstream of Valley Road	2	622	*	1,036	1,243	1,806

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Sucker Run	Approximately 2,770 feet upstream of Valley Road	1.5	507	*	827	983	1,399
Swedesford Road Run	Approximately 100 feet upstream of the confluence with Valley Creek No.2	0.6	248	*	427	519	780
Taylor Run	Approximately 425 feet downstream of Highland Road	3.6	1,257	*	2,058	2,453	3,525
Tributary 1 to Beaver Creek	At confluence with Beaver Creek	1.81	*	*	*	1,550	*
Tributary 1 Red Clay Creek	At State Boundary	4.63	1,259	*	2,310	2,870	4,514
Tributary 1 Red Clay Creek	Approximately 590 feet upstream of State Boundary	3.91	1,237	*	2,133	2,592	3,882
Tributary 1 Red Clay Creek	Approximately 75 feet downstream of Burnt Mill Road	3.12	1,077	*	1,856	2,253	3,370
Tributary 1 Red Clay Creek	Approximately 1,090 feet downstream of Spring Mill Road	2.92	1,036	*	1,784	2,166	3,238

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Tributary 2 East Branch Red Clay Creek	Approximately 1,330 feet upstream of Confluence with East Branch Red Clay Creek	0.52	371	*	623	748	1,092
Tributary 6 of Valley Run	At the confluence with Valley Run	0.34	176	*	311	372	574
Tributary A to Crum Creek	At the confluence with Crum Creek	0.4	510	*	620	700	960
Tributary A to East Tributary to Darby Creek	At the confluence with East Tributary to Darby Creek	0.5	380	*	500	600	860
Tributary B to East Tributary to Crum Creek	At the confluence with East Tributary to Crum Creek	0.4	540	*	675	750	1,040
Tributary No. 1 of Trout Creek	*	*	*	*	*	*	*
Tributary No. 2 of Trout Creek	*	*	*	*	*	*	*
Tributary F to Valley Creek	Approximately 90 feet downstream of Waterloo Boulevard	0.2	117	*	188	218	282
Tributary to East Branch Brandywine Creek	At the confluence with East Branch Brandywine Creek	3.6	1,026	*	1,854	2,246	3,201
Tributary to East Branch Brandywine Creek	Approximately 618 ft upstream of Creek Rd	3.3	954	*	1,708	2,062	2,926

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Tributary to Indian Spring Run	At the Township of West Caln downstream corporate limits	1.21	400	*	700	875	1,135
Tributary to West Branch Brandywine Creek	At the township of West Caln downstream Corporate Limits	1.1	519	*	960	1,196	1,890
Tributary to West Branch Brandywine Creek	Approximately 1,020 feet downstream of Stillwagon Lane	1	480	*	890	1,110	1,756
Tributary to West Branch Brandywine Creek	Approximately 920 feet upstream of Telegraph Road	0.7	398	*	743	928	1,475
Trout Creek	*	*	*	*	*	*	*
Trout Run	Approximately 240 feet upstream of confluence with East Branch White Clay Creek	1.4	587	*	932	1,101	1,550
Trout Run	Approximately 700 feet upstream of Gap Newport Pike	1.13	499	*	808	959	1,370
Two Log Run	Approximately 110 feet upstream of the confluence with West Branch Brandywine Creek	3.1	858	*	1,521	1,868	2,870

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**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Two Log Run	At Beaverdam Road	2.7	775	*	1,371	1,682	2,581
Valley Creek No. 1	*	*	*	*	*	*	*
Valley Creek No. 2	Approximately 50 feet upstream from the confluence with Colebrook Run	12	2,026	*	3,011	3,477	4,682
Valley Creek No. 2	Approximately 110 feet upstream from the confluence with Unnamed 873	11.7	1,991	*	2,958	3,415	4,597
Valley Creek No. 2	Approximately 1180 feet downstream from Chester Valley Railroad	11.1	1,917	*	2,850	3,291	4,432
Valley Creek No. 2	Approximately 770 feet downstream from Chester Valley Railroad	10.6	1,845	*	2,739	3,162	4,253
Valley Creek No. 2	Approximately 100 feet upstream of the confluence with Indian King Run	9.4	1,680	*	2,505	2,895	3,908
Valley Creek No. 2	Approximately 100 feet upstream from the confluence with Tributary F to Valley Creek	8.9	1,622	*	2,429	2,811	3,806

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Valley Creek No. 2	Approximately 60 feet upstream from the confluence with Lionville Run	6.2	1,161	*	1,741	2,017	2,738
Valley Creek No. 2	Approximately 180 feet downstream from South Pottstown Pike	5.8	1,098	*	1,656	1,923	2,620
Valley Creek No. 2	Approximately 80 feet upstream from the confluence with Ship Road Run	4.4	865	*	1,324	1,545	2,131
Valley Creek No. 2	Approximately 100 feet upstream of the confluence with Swedesford Road Run	3.4	708	*	1,084	1,265	1,744
Valley Creek No. 2	Approximately 120 feet upstream of North Ship Road	2.8	589	*	912	1,068	1,486
Valley Creek No. 2	Approximately 420 feet upstream from Chester Valley Railroad	1.3	347	*	526	611	837
Valley Creek No. 2	Approximately 680 feet upstream from Church Farm La	1	332	*	503	585	800
Valley Creek No. 3	At the Borough of Atglen downstream corporate limits	10.37	1,055	*	1,585	1,850	2,325

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Valley Creek No. 3	Upstream of the confluence of Officers Run	4.03	505	*	755	880	1,110
Valley Run	At Marshallton Road (Bondsville Road)	4.72	1,678	*	3,023	3,666	5,260
Valley Run	At Barley Sheaf Road	2.85	1,299	*	1,236	2,674	3,685
Valley Run	At Seltzer Avenue	0.9	1,222	*	2,003	2,344	3,096
Waln Run	*	*	*	*	*	*	*
West Branch Brandywine Creek	Approximately 100 feet upstream from the confluence with Brandywine Creek	134.4	11,395	*	18,437	21,941	31,505
West Branch Brandywine Creek	Approximately 8,480 ft upstream from Bridge Road	124.3	10,793	*	17,496	20,833	29,956
West Branch Brandywine Creek	Approximately 260 feet downstream from Embreville Road	118	10,420	*	16,891	20,112	28,918
West Branch Brandywine Creek	Approximately 100 feet upstream from the confluence with Buck Run	63.4	6,746	*	10,875	12,851	17,957
West Branch Brandywine Creek	At the Borough of Modena downstream corporate limits	57.9	6,158	*	9,928	11,732	16,393

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
West Branch Brandywine Creek	Approximately 270 feet downstream from East Glencrest Road	55.6	5,853	*	9,436	11,150	15,580
West Branch Brandywine Creek	At the Borough of South Coatesville downstream corporate limits	54.6	5,805	*	9,386	11,105	15,566
West Branch Brandywine Creek	Approximately 560 feet downstream from South First Avenue	53.8	5,711	*	9,287	11,018	15,540
West Branch Brandywine Creek	At the City of Coatesville downstream corporate limits and 100 feet upstream from the confluence with Sucker Run	48.1	5,063	*	8,590	10,389	15,344
West Branch Brandywine Creek	Approximately 130 feet downstream from West Lincoln Highway	46.4	4,869	*	8,376	10,194	15,281
West Branch Brandywine Creek	Approximately 90 feet upstream from Rock Run	37.8	3,971	*	6,861	8,367	12,604
West Branch Brandywine Creek	Approximately 60 feet downstream from US Highway 30 By-Pass	35.6	3,740	*	6,462	7,881	11,871

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
West Branch Brandywine Creek	At the township of West Caln downstream Corporate Limits	33.6	3,528	*	6,096	7,434	11,198
West Branch Brandywine Creek	Approximately 80 feet downstream from Wagontown Road	32.3	3,389	*	5,857	7,142	10,759
West Branch Brandywine Creek	Approximately 60 feet downstream of South Birdell Road	18.5	3,031	*	3,975	6,063	8,653
West Branch Brandywine Creek	Upstream of the confluence of Two Log Run	15.2	2,783	*	4,111	5,718	8,364
West Branch Brandywine Creek	Approximately 90 feet upstream from the confluence with Unnamed 1792	6.3	1,610	*	2,830	3,463	5,270
West Branch Red Clay Creek	Approximately 235 feet upstream of Confluence with East Branch Red Clay Creek	17.49	3,066	*	4,977	5,923	8,502
West Branch Red Clay Creek	Approximately 145 feet downstream of Kaolin Road	16.91	2,994	*	4,858	5,782	8,296
West Branch Red Clay Creek	Approximately 310 feet upstream of Confluence with Bucktoe Creek	13.87	2,585	*	4,204	5,007	7,198

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
West Branch Red Clay Creek	Approximately 625 feet downstream of West Hillendale Road	12.83	2,446	*	3,971	4,726	6,785
West Branch Red Clay Creek	Approximately 205 feet downstream of West South Street	9.39	2,003	*	3,343	4,021	5,940
West Branch Red Clay Creek	Approximately 130 feet downstream of Pemberton Road	8.64	1,923	*	3,260	3,940	5,841
West Branch Red Clay Creek	Approximately 1,405 feet downstream of Kennett Oxford Bypass	8.1	1,832	*	3,115	3,769	5,600
West Branch Red Clay Creek	Approximately 625 feet upstream of Kennett Oxford Bypass	7.57	1,735	*	2,966	3,595	5,364
West Branch Red Clay Creek	Approximately 2,120 feet upstream of Confluence with South Brook	4.23	1,250	*	2,189	2,675	4,058
West Branch Red Clay Creek	Approximately 2,210 feet downstream of West Street Road	3.64	1,155	*	2,026	2,477	3,760

\* Not calculated for this Flood Risk Project

**Table 10: Summary of Discharges – continued**

Flooding Source	Location	Drainage Area (Square Miles)	Peak Discharge (cfs)				
			10% Annual Chance	4% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
West Branch Ridley Creek	*	*	*	*	*	*	*
West Fork of East Branch Chester Creek	*	*	*	*	*	*	*
West Town Road Run	Approximately 300 feet upstream of Bicking Drive	0.17	*	*	*	384	*
West Tributary to Crum Creek	At the confluence with Crum Creek	3.1	1,230	*	1,800	2,100	2,900
West Tributary of Buck Run	At the confluence with Buck Run	0.4	438	*	735	884	1,290

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