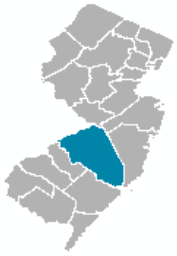
FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 6



BURLINGTON COUNTY, NEW JERSEY

(ALL JURISDICTIONS)

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
BASS RIVER, TOWNSHIP OF	340085	MEDFORD, TOWNSHIP OF	340104
BEVERLY, CITY OF	340086	MOORESTOWN, TOWNSHIP OF	340105
BORDENTOWN, CITY OF	340087	MOUNT HOLLY, TOWNSHIP OF	340106
BORDENTOWN, TOWNSHIP OF	340088	MOUNT LAUREL, TOWNSHIP OF	340107
BURLINGTON, CITY OF	345287	NEW HANOVER, TOWNSHIP OF	340108
BURLINGTON, TOWNSHIP OF	340090	NORTH HANOVER, TOWNSHIP OF	340109
CHESTERFIELD, TOWNSHIP OF	340091	PALMYRA, BOROUGH OF	340110
CINNAMINSON, TOWNSHIP OF	340092	PEMBERTON, BOROUGH OF	340111
DELANCO, TOWNSHIP OF	340093	PEMBERTON, TOWNSHIP OF	340112
DELRAN, TOWNSHIP OF	340094	RIVERSIDE, TOWNSHIP OF	340113
EASTAMPTON, TOWNSHIP OF	340095	RIVERTON, BOROUGH OF	340114
EDGEWATER PARK, TOWNSHIP OF	340096	SHAMONG, TOWNSHIP OF	340534
EVESHAM, TOWNSHIP OF	340097	SOUTHAMPTON, TOWNSHIP OF	340115
FIELDSBORO, BOROUGH OF	340543	SPRINGFIELD, TOWNSHIP OF	340116
FLORENCE, TOWNSHIP OF	340098	TABERNACLE, TOWNSHIP OF	340533
HAINESPORT, TOWNSHIP OF	340099	WASHINGTON, TOWNSHIP OF	340117
LUMBERTON, TOWNSHIP OF	340100	WESTAMPTON, TOWNSHIP OF	340118
MANSFIELD, TOWNSHIP OF	340102	WILLINGBORO, TOWNSHIP OF	340119
MAPLE SHADE, TOWNSHIP OF	340101	WOODLAND, TOWNSHIP OF	340551
MEDFORD LAKES, BOROUGH OF	340103	WRIGHTSTOWN, BOROUGH OF	340120

EFFECTIVE:

DECEMBER 21, 2017

FLOOD INSURANCE STUDY NUMBER
34005CV001A

Version Number 2.3.3.2

FEMA

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FLOOD INSURANCE STUDY REPORT
BURLINGTON COUNTY, NEW JERSEY (ALL JURISDICTIONS)

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 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, *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 Burlington County, New Jersey.

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.

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
Bass River, Township of	340085	02040301	34005C0465F 34005C0470F 34005C0535F 34005C0545F 34005C0555F 34005C0560F 34005C0563F 34005C0564F 34005C0565F 34005C0570F 34005C0610F 34005C0626F 34005C0627F 34005C0628F 34005C0629F 34005C0631F 34005C0632F 34005C0633F 34005C0634F 34005C0636F 34005C0637F 34005C0641F	
Beverly, City of	340086	02040201, 02040202	34005C0108F 34005C0116F	
Bordentown, City of	340087	02040201	34005C0037F 34005C0038F 34005C0039F	
Bordentown, Township of	340088	02040201	34005C0019F 34005C0037F 34005C0038F 34005C0039F 34005C0041F 34005C0043F 34005C0132F 34005C0151F 34005C0155F 34005C0160F	
Burlington, City of	345287	02040201	34005C0109F 34005C0126F 34005C0127F 34005C0128F 34005C0129F	

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
Burlington, Township of	340090	02040201	34005C0109F 34005C0117F 34005C0127F 34005C0128F 34005C0129F 34005C0131F 34005C0135F 34005C0136F 34005C0137F 34005C0138F 34005C0139F 34005C0141F	
Chesterfield, Township of	340091	02040201	34005C0041F 34005C0042F 34005C0043F 34005C0044F 34005C0063F 34005C0155F 34005C0160F 34005C0170F 34005C0180F 34005C0190F	
Cinnaminson, Township of	340092	02040202	34005C0094F 34005C0111F 34005C0113F 34005C0114F 34005C0207F 34005C0209F 34005C0226F 34005C0227F	
Delanco, Township of	340093	02040201, 02040202	34005C0104F 34005C0108F 34005C0111F 34005C0112F 34005C0116F 34005C0118F	
Delran, Township of	340094	02040202	34005C0111F 34005C0112F 34005C0113F 34005C0114F 34005C0116F 34005C0118F 34005C0119F 34005C0227F	

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
Eastampton, Township of	340095	02040201, 02040202	34005C0144F 34005C0163F 34005C0257F 34005C0276F	
Edgewater Park, Township of	340096	02040201, 02040202	34005C0108F 34005C0109F 34005C0116F 34005C0117F	
Evesham, Township of	340097	02040202, 02040301	34005C0237F 34005C0239F 34005C0241F 34005C0242F 34005C0243F 34005C0244F 34005C0261F 34005C0263F 34005C0356F 34005C0357F 34005C0358F 34005C0359F 34005C0366F 34005C0367F 34005C0376F 34005C0378F 34005C0386F	
Fieldsboro, Borough of	340543	02040201	34005C0038F	
Florence, Township of	340098	02040201	34005C0014F 34005C0018F 34005C0019F 34005C0127F 34005C0131F 34005C0132F 34005C0135F 34005C0141F	
Hainesport, Township of	340099	02040202	34005C0251F 34005C0252F 34005C0253F 34005C0254F 34005C0256F	

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
Lumberton, Township of	340100	02040202	34005C0252F 34005C0253F 34005C0254F 34005C0256F 34005C0257F 34005C0258F 34005C0259F 34005C0261F 34005C0262F 34005C0266F	
Mansfield, Township of	340102	02040201	34005C0038F 34005C0132F 34005C0135F 34005C0142F 34005C0151F 34005C0155F 34005C0160F 34005C0161F 34005C0162F 34005C0166F	
Maple Shade, Township of	340101	02040202	34005C0207F 34005C0209F 34005C0228F 34005C0229F 34005C0236F 34005C0237F	
Medford Lakes, Borough of	340103	02040202	34005C0377F 34005C0381F	
Medford, Township of	340104	02040202, 02040301	34005C0261F 34005C0262F 34005C0263F 34005C0264F 34005C0266F 34005C0268F 34005C0269F 34005C0376F 34005C0377F 34005C0378F 34005C0379F 34005C0381F 34005C0382F 34005C0383F 34005C0384F 34005C0386F 34005C0387F 34005C0395F	

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
Moorestown, Township of	340105	02040202	34005C0114F 34005C0118F 34005C0119F 34005C0207F 34005C0209F 34005C0226F 34005C0227F 34005C0228F 34005C0229F 34005C0231F 34005C0232F 34005C0233F	
Mount Holly, Township of	340106	02040201, 02040202	34005C0143F 34005C0144F 34005C0256F 34005C0257F	
Mount Laurel, Township of	340107	02040202	34005C0119F 34005C0229F 34005C0231F 34005C0232F 34005C0233F 34005C0234F 34005C0236F 34005C0237F 34005C0241F 34005C0242F 34005C0251F 34005C0253F 34005C0261F	
New Hanover, Township of	340108	02040201, 02040202	34005C0170F 34005C0190F 34005C0195F 34005C0282F 34005C0301F 34005C0302F 34005C0306F 34005C0307F	
North Hanover, Township of	340109	02040201	34005C0063F 34005C0064F 34005C0170F 34005C0180F 34005C0185F 34005C0190F 34005C0195F	

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
Palmyra, Borough of	340110	02040202	34005C0093F 34005C0094F 34005C0206F 34005C0207F	
Pemberton, Borough of	340111	02040202	34005C0277F 34005C0279F 34005C0281F 34005C0283F	
Pemberton, Township of	340112	02040202	34005C0163F 34005C0164F 34005C0168F 34005C0170F 34005C0276F 34005C0277F 34005C0279F 34005C0281F 34005C0282F 34005C0283F 34005C0284F 34005C0287F 34005C0295F 34005C0301F 34005C0302F 34005C0303F 34005C0304F 34005C0306F 34005C0307F 34005C0308F 34005C0309F 34005C0311F 34005C0312F 34005C0313F 34005C0314F 34005C0316F 34005C0320F 34005C0330F 34005C0340F	
Riverside, Township of	340113	02040202	34005C0111F 34005C0112F 34005C0114F 34005C0116F	
Riverton, Borough of	340114	02040202	34005C0094F 34005C0113F	

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
Shamong, Township of	340534	02040202, 02040301	34005C0383F 34005C0384F 34005C0387F 34005C0392F 34005C0395F 34005C0403F 34005C0404F 34005C0411F 34005C0413F 34005C0415F 34005C0420F 34005C0482F[1] 34005C0505F 34005C0510F	
Southampton, Township of	340115	02040202	34005C0257F 34005C0258F 34005C0259F 34005C0266F 34005C0267F 34005C0268F 34005C0269F 34005C0276F 34005C0277F 34005C0278F 34005C0279F 34005C0286F 34005C0287F 34005C0288F 34005C0289F 34005C0294F 34005C0295F 34005C0311F 34005C0313F 34005C0382F 34005C0401F 34005C0402F	

[1] 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
Springfield, Township of	340116	02040201, 02040202	34005C0129F 34005C0135F 34005C0141F 34005C0142F 34005C0144F 34005C0160F 34005C0161F 34005C0162F 34005C0163F 34005C0164F 34005C0166F 34005C0168F 34005C0170F 34005C0190F 34005C0277F 34005C0281F	
Tabernacle, Township of	340533	02040202, 02040301	34005C0289F 34005C0294F 34005C0295F 34005C0382F 34005C0384F 34005C0401F 34005C0402F 34005C0403F 34005C0404F 34005C0410F 34005C0415F 34005C0420F 34005C0426F 34005C0430F 34005C0440F 34005C0445F 34005C0510F 34005C0530F	

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
Washington, Township of	340117	02040301	34005C0440F 34005C0445F 34005C0465F 34005C0470F 34005C0505F 34005C0510F 34005C0518F 34005C0519F 34005C0520F 34005C0530F 34005C0535F 34005C0538F 34005C0540F 34005C0545F 34005C0555F 34005C0582F 34005C0601F 34005C0602F 34005C0606F 34005C0608F 34005C0610F 34005C0626F 34005C0628F 34005C0636F	
Westampton, Township of	340118	02040201, 02040202	34005C0136F 34005C0137F 34005C0138F 34005C0139F 34005C0141F 34005C0142F 34005C0143F 34005C0144F 34005C0251F 34005C0252F 34005C0256F	
Willingboro, Township of	340119	02040201, 02040202	34005C0116F 34005C0117F 34005C0118F 34005C0119F 34005C0136F 34005C0138F 34005C0232F 34005C0251F	

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
Woodland, Township of	340551	02040202, 02040301	34005C0294F 34005C0295F 34005C0312F 34005C0313F 34005C0314F 34005C0316F 34005C0318F 34005C0320F 34005C0340F 34005C0410F 34005C0426F 34005C0430F 34005C0431F 34005C0432F 34005C0433F 34005C0434F 34005C0440F 34005C0445F 34005C0455F 34005C0460F 34005C0465F 34005C0470F	
Wrightstown, Borough of	340120	02040201, 02040202	34005C0168F 34005C0170F 34005C0190F	

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 Burlington County became effective on December 21, 2017. Refer to Table 28 for information about subsequent revisions to the FIRMs.

- Selected FIRM panels for the community may contain information (such as floodways and cross sections) that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels. In addition, former flood hazard zone designations have been changed as follows:

Old Zone	New Zone
A1 through A30	AE
V1 through V30	VE
B	X (shaded)
C	X (unshaded)

- FEMA does not impose floodplain management requirements or special insurance ratings based on Limit of Moderate Wave Action (LiMWA) delineations at this time. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. If the LiMWA is shown on the FIRM, it is being provided by FEMA as information only. For communities that do adopt Zone VE building standards in the area defined by the LiMWA, additional Community Rating System (CRS) credits are available. Refer to Section 2.5.4 for additional information about the LiMWA.

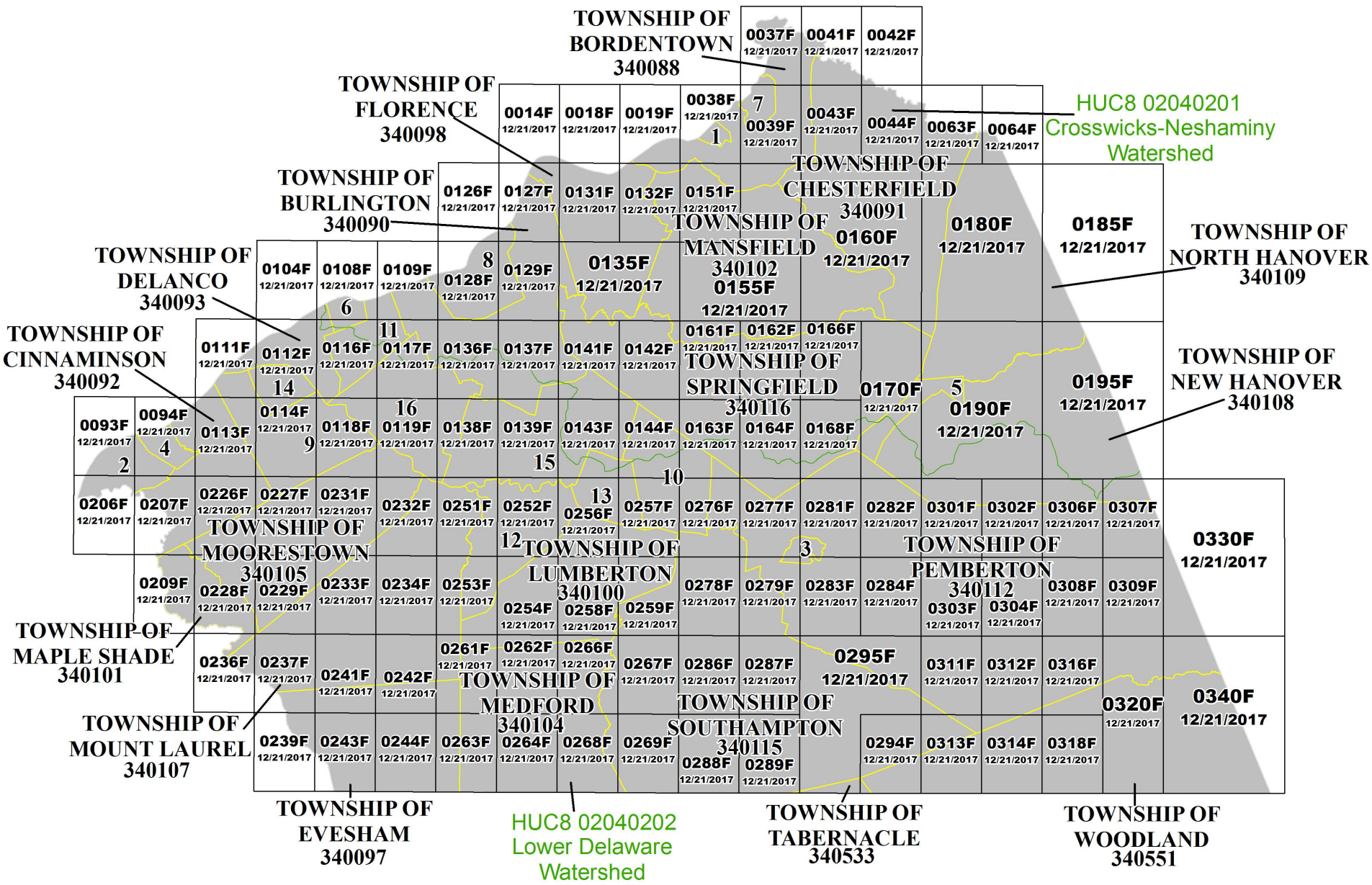
  The CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Visit the FEMA Web site at www.fema.gov/national-flood-insurance-program-community-rating-system or contact your appropriate FEMA Regional Office for more information about this program.

- 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 www.fema.gov/online-tutorials.

The FIRM Index in Figure 1 shows the overall FIRM panel layout within Burlington 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, watershed boundaries, and United States Geological Survey (USGS) Hydrologic Unit Code – 8 (HUC-8) codes.

KEY NUMBER	COMMUNITY	CID
1	Borough of Fieldsboro	340543
2	Borough of Palmyra	340110
3	Borough of Pemberton	340111
4	Borough of Riverton	340114
5	Borough of Wrightstown	340120
6	City of Beverly	340086
7	City of Bordentown	340087
8	City of Burlington	345287
9	Township of Delran	340094
10	Township of Eastampton	340095
11	Township of Edgewater Park	340096
12	Township of Hainesport	340099
13	Township of Mount Holly	340106
14	Township of Riverside	340113
15	Township of Westampton	340118
16	Township of Willingboro	340119

Figure 1 FIRM Panel Index



1 in = 4 miles 1:240,000

N

0 0.75 1.5 3 4.5 6 Miles

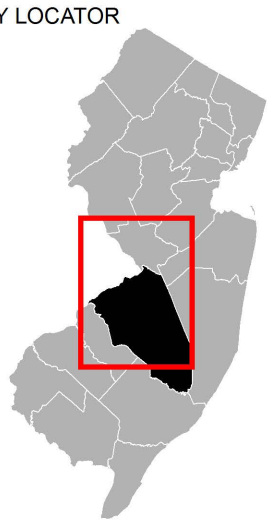
Map Projection:
New Jersey State Plane FIPS Zone 2900; North American Datum 1983; North American Vertical Datum of 1988

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

HTTP://MSC.FEMA.GOV

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

COUNTY LOCATOR



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP INDEX (Sheet 1 of 2)

BURLINGTON COUNTY, NEW JERSEY (All Jurisdictions)

PANELS PRINTED:

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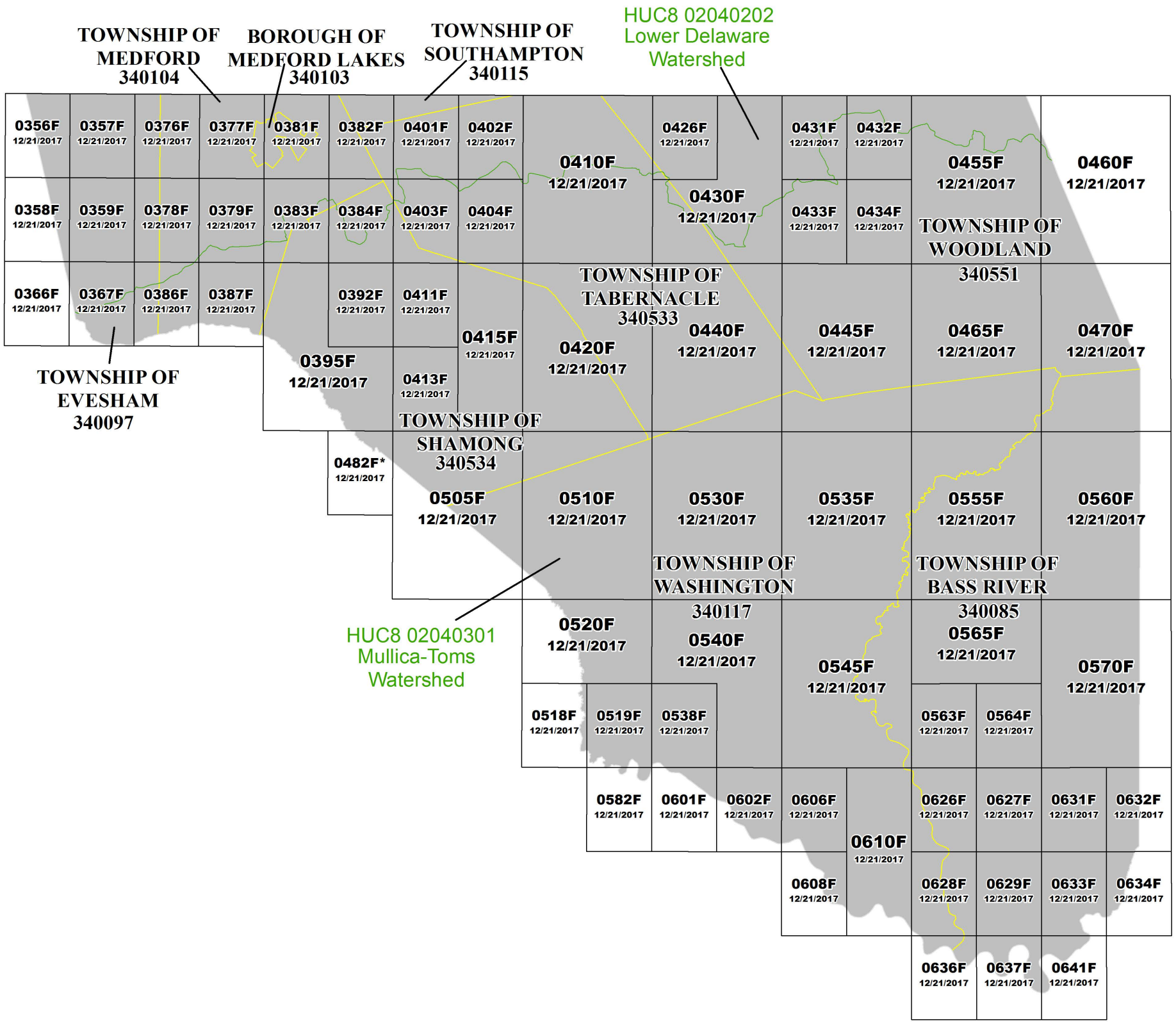
FEMA

MAP NUMBER
34005CIND1A

EFFECTIVE DATE
DECEMBER 21, 2017

Figure 1 FIRM Panel Index



1 in = 3 miles 1:200,000

N

0 0.75 1.5 3 4.5 6 Miles

Map Projection:
New Jersey State Plane FIPS Zone 2900; North American Datum 1983; North American Vertical Datum of 1988

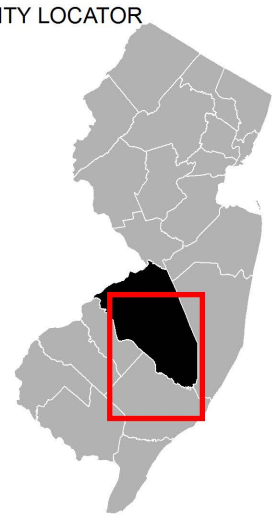
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTP://MSC.FEMA.GOV

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

*PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS

COUNTY LOCATOR



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP INDEX (Sheet 2 of 2)

BURLINGTON COUNTY, NEW JERSEY (All Jurisdictions)

PANELS PRINTED:

0356, 0357, 0358, 0359, 0366, 0367, 0376, 0377, 0378, 0379, 0381, 0382, 0383, 0384, 0386, 0387, 0392, 0395, 0401, 0402, 0403, 0404, 0410, 0411, 0413, 0415, 0420, 0426, 0430, 0431, 0432, 0433, 0434, 0440, 0445, 0455, 0460, 0465, 0470, 0505, 0510, 0518, 0519, 0520, 0530, 0535, 0538, 0540, 0545, 0555, 0560, 0563, 0564, 0565, 0570, 0582, 0601, 0602, 0606, 0608, 0610, 0626, 0627, 0628, 0629, 0631, 0632, 0633, 0634, 0636, 0637, 0641

U.S. DEPARTMENT OF HOMELAND SECURITY

FEMA

MAP NUMBER
34005CIND2A

EFFECTIVE DATE
DECEMBER 21, 2017

Each FIRM panel may contain specific notes to the user that provide additional information regarding the flood hazard data shown on that 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

NOTES TO USERS

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 Flood Map Service Center website at msc.fema.gov. 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 Flood Map Service Center website or by calling the FEMA Map Information eXchange.

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 Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to Table 28 in this FIS Report.

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.

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.

BASE FLOOD ELEVATIONS: 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 Non-Coastal 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.

Coastal Base Flood Elevations shown on the map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Coastal flood elevations are also provided in the Coastal Transect Parameters table in the FIS Report for this jurisdiction. Elevations shown in the Coastal Transect Parameters table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on the FIRM.

FLOODWAY INFORMATION: 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.

Figure 2. FIRM Notes to Users

FLOOD CONTROL STRUCTURE INFORMATION: 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.

PROJECTION INFORMATION: The projection used in the preparation of the map was New Jersey State Plane FIPS Zone 2900. The horizontal datum was North American Datum of 1983 (NAD83), GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane 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 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 multiple agencies. United States Census Bureau provided digital format of base transportation, dated 2013. Political boundaries were provided by NJ Office of Information Technology, dated 2014. The United States Geological Survey (USGS) provided 7.5- Minute Series Topographic Maps, dated 1989. NJ Office of Information Technology provided the ortho imagery for Burlington County, dated 2013. 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.

Figure 2. FIRM Notes to Users

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.

NOTES FOR FIRM INDEX

REVISIONS TO INDEX: As new studies are performed and FIRM panels are updated within Burlington County, New Jersey, 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 Burlington County, New Jersey, effective December 21, 2017.

COASTAL BARRIER RESOURCES SYSTEM (CBRS): This map includes approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see www.fws.gov/cbra/, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

LIMIT OF MODERATE WAVE ACTION: Zone AE has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between Zone VE and the LiMWA (or between the shoreline and the LiMWA for areas where Zone VE is not identified) will be similar to, but less severe than, those in Zone VE.

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 Burlington 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, either at cross section locations or as static whole-foot elevations that apply throughout the 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

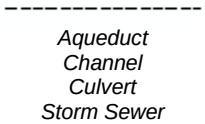
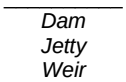
	Regulatory Floodway determined in Zone AE.
	Non-encroachment zone (see Section 2.4 of this FIS Report for more information)
OTHER AREAS OF FLOOD HAZARD	
	Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile.
	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.
	Zone X Protected by Accredited Levee: Areas protected by an accredited levee, dike or other flood control structures. See Notes to Users for important information.
OTHER AREAS	
	Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible
	Unshaded Zone X: Areas determined to be outside the 0.2% annual chance flood hazard
FLOOD HAZARD AND OTHER BOUNDARY LINES	
	Flood Zone Boundary (white line)
	Limit of Study
	Jurisdiction Boundary
	Limit of Moderate Wave Action (LiMWA): Indicates the inland limit of the area affected by waves greater than 1.5 feet
GENERAL STRUCTURES	
	Channel, Culvert, Aqueduct, or Storm Sewer
	Dam, Jetty, Weir

Figure 3: Map Legend for FIRM

	Levee, Dike or Floodwall
Bridge	Bridge
COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA): *CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas. See Notes to Users for important information.*	
CBRS AREA 09/30/2009	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.
OTHERWISE PROTECTED AREA 09/30/2009	Otherwise Protected Area
REFERENCE MARKERS	
22.0	River mile Markers
CROSS SECTION & TRANSECT INFORMATION	
B 20.2	Lettered Cross Section with Regulatory Water Surface Elevation (BFE)
5280 21.1	Numbered Cross Section with Regulatory Water Surface Elevation (BFE)
17.5	Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)
8	Coastal Transect
	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.
	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.
513	Base Flood Elevation Line (shown for flooding sources for which no cross sections or profile are available)
ZONE AE (EL 16)	Static Base Flood Elevation value (shown under zone label)
ZONE AO (DEPTH 2)	Zone designation with Depth

Figure 3: Map Legend for FIRM

ZONE AO (DEPTH 2) (VEL 15 FPS)	Zone designation with Depth and Velocity
BASE MAP FEATURES	
Missouri Creek	River, Stream or Other Hydrographic Feature
234	Interstate Highway
234	U.S. Highway
234	State Highway
234	County Highway
MAPLE LANE	Street, Road, Avenue Name, or Private Drive if shown on Flood Profile
RAILROAD	Railroad
———————	Horizontal Reference Grid Line
—	Horizontal Reference Grid Ticks
+	Secondary Grid Crosshairs
Land Grant	Name of Land Grant
7	Section Number
R. 43 W. T. 22 N.	Range, Township Number
$^{42}76^{000m}$E	Horizontal Reference Grid Coordinates (UTM)
365000 FT	Horizontal Reference Grid Coordinates (State Plane)
80° 16' 52.5"	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 Burlington 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.
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 Burlington County.
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 Burlington County, New Jersey, respectively.

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 inEach 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 Burlington County.
Figure 3. On the map, the 1% annual chance floodplain corresponds to the SFHAs. The 0.2% annual chance floodplain shows areas that, although out of the regulatory floodplain, are still subject to flood hazards.

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.

New Jersey Flood Hazard Area Design Flood

For Beaverdam Creek, Friendship Creek, Indian Mills Brook, Muskingum Brook, Jade Run, Rancocas Creek South Branch, Rancocas Creek Southwest Branch, and Springer Brook the New Jersey Flood Hazard Area Design Flood (NJFHADF) floodplain boundary was delineated in addition to the 1- and 0.2- percent annual chance boundaries. The State of New Jersey, Department of Environmental Protection (the Department) is mandated to delineate and regulate flood hazard areas pursuant to N.J.S.A 58:16A-50 et seq., the Flood Hazard Area Control Act. This Act authorizes the Department to adopt land use regulations for development within the flood hazard areas, to control stream encroachments and to integrate the flood control activities of the municipal, county, State and Federal Governments.

The State's Flood Hazard Area delineations are defined by the New Jersey Flood Hazard Area Design Flood. In 1974, the Water Policy and Supply Council passed a resolution stating that the New Jersey Flood Hazard Area Design Flood shall be equal to a design flood discharge 25% greater in flow than the 1-percent annual chance flood.

The following tabulation notes the locations and communities of flooding, for which the stream name in this countywide FIS project has been altered from those used in the previously printed FIS projects.

New Name	Old Name	Community
Assiscunk Creek Tributary	Tributary to Assiscunk Creek	Westampton, Township of
Ballinger Run Tributary	Tributary to Ballinger Run	Medford, Township of
Barton Run Tributary 1	Tributary 1 to Barton Run	Evesham, Township of
Barton Run Tributary 2	Tributary 2 to Barton Run	Evesham, Township of
Black Run Tributary	Tributary to Black Run	Evesham, Township of
Country Lake Tributary	Tributary to Country Lake	Pemberton, Township of
Haynes Creek	Kettle Run	Evesham, Township of
Mill Creek Tributary	Tributary to Mill Creek	Westampton, Township of
Mill Creek Tributary 1	Tributary to Mill Creek	Willingboro, Township of
Mill Creek South Branch	South Branch Mill Creek	Willingboro, Township of
Pennsauken Creek North Branch	North Branch Pennsauken Creek	Cinnaminson, Township of
Pennsauken Creek South Branch	South Branch Pennsauken Creek	Cinnaminson, Township of
Pole Bridge Branch Tributary	Tributary to Pole Branch	Pemberton, Township of
Pompeston Creek East Branch	East Branch Pompeston Creek	Cinnaminson, Township of
Pompeston Creek Northeast Branch	Northeast Branch Pompeston Creek	Cinnaminson, Township of
Rancocas Creek North Branch	North Branch Rancocas Creek	Eastampton, Township of
Rancocas Creek South Branch	South Branch Rancocas Creek	Hainesport, Township of
Rancocas Creek South Branch Tributary	Tributary to South Branch Rancocas Creek	Lumberton, Township of
Rancocas Creek Southwest Branch	Southwest Branch Rancocas Creek	Evesham, Township of
Strawbridge Lake	Strawbridge Lake Tributary	Mount Laurel, Township of
Swede Run	Swedes Run	Delran, Township of
Swede Run Tributary	Tributary to Swede Run	Moorestown, Township of
Wading River West Branch	West Branch Wading River	Woodland, Township of

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^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Adler Run	Township of Pemberton	Approximately 250 feet downstream of Pemberton Road	Approximately 200 feet upstream of Private Drive	02040202	1.9		N	A	09/2015
Adler Run Tributaries	Township of Pemberton	Confluence with Adler Run	Various Limits of Study within the Township of Pemberton	02040202	4.6		N	A	09/2015
Annaricken Brook	Township of Springfield	Confluence with Assiscunk Creek	Approximately 650 feet upstream of Juliustown Georgetown Road	02040201	2.2		N	A	09/2015
Arnold Branch	Township of Bass River	Approximately 300 feet upstream of Chips Folly Road	0.6 miles upstream of Chatsworth Road	02040301	1.0		N	A	09/2015
Assiscunk Branch	Township of Springfield	Confluence with Assiscunk Creek	70 feet downstream of US-206	02040201	0.8		N	A	09/2015
Assiscunk Creek	City of Burlington	Confluence with Delaware River	Approximately 1.0 miles upstream of U.S. Route 130	02040201	1.9		Y	AE	12/1981
Assiscunk Creek	Township of Burlington	Approximately 1.0 miles upstream of U.S. Route 130	Approximately 2.0 miles upstream of U.S. Route 130	02040201	1.2		N	AE	04/1988
Assiscunk Creek	Townships of Burlington, Mansfield and Springfield	Approximately 2.0 miles upstream of U.S. Route 130	Approximately 0.2 mile upstream of Gaunts Bridge Road	02040201	13.1		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Assiscunk Creek Tributary	Townships of Springfield and Westampton	Approximately 0.28 miles downstream of Oxmead Road	Approximately 0.22 miles upstream of Oxmead Road	02040201	0.5		Y	AE	05/1978
Assiscunk Creek Tributaries	Townships of Florence, Mansfield, Springfield and Westampton	Confluence with Assiscunk Creek, Assiscunk Creek Tributary and Assiscunk Tributary 5	Various Limits of Study within the Townships of Florence, Mansfield, Springfield and Westampton	02040201	16.3		N	A	09/2015
Bacons Run	Township of Mansfield	Confluence with Blacks Creek	Approximately 1000 feet upstream of Chesterfield Georgetown Road	02040201	3.6		N	A	09/2015
Baffin Brook	Township of Pemberton	Confluence with Pole Bridge Branch	At Upton Station Road	02040202	1.3		Y	AE	07/1978
Baffin Brook	Township of Pemberton	From Upton Station – Whitesbog Road	Approximately 1.3 miles upstream of State Route 70	02040202	1.6		N	A	09/2015
Ballinger Run	Township of Medford	Confluence with Haynes Creek	Approximately 0.8 mile upstream of control structure at Private Drive	02040202	4.3		Y	AE	03/1982
Ballinger Run	Township of Medford, Township of Shamong	Approximately 0.1 mile downstream of Unnamed Road at Papoose Lake	Approximately 1.7 miles upstream of Unnamed Road at Papoose Lake	02040202	1.7		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Ballinger Run Tributary	Township of Medford	Confluence with Ballinger Run	Approximately 90 feet upstream of Birchwood Drive	02040202	0.2		Y	AE	03/1982
Ballinger Run Tributary	Township of Medford	Approximately 90 feet upstream of Birchwood Drive	Approximately 100 feet downstream of Tuckerton Road	02040202	0.5		N	A	09/2015
Bard Branch	Township of Shamong	Confluence with Unnamed Stream 3	Confluence with Bard Branch Tributary 1 and Bard Branch Tributary 2	02040301	1.7		N	A	09/2015
Bard Branch Tributaries	Township of Shamong	Confluence with Bard Branch	Various Limits of Study within the Township of Shamong	02040301			N	A	09/2015
Barkers Brook	Township of Eastampton, Township of Springfield	Confluence with Assiscunk Creek Tributary	Approximately 1.2 miles upstream of confluence with Barkers Brook Unnamed Tributary	02040201	6.6		Y	AE	03/2010
Barkers Brook	Township of Springfield	Approximately 0.8 miles downstream of Jobstown Juliustown Road	Approximately 0.2 miles upstream of Jobstown Juliustown Road	02040201	0.8		N	A	09/2015
Barkers Brook Unnamed Tributary	Township of Springfield	Confluence with Barkers Brook	Approximately 0.1 mile upstream of Saylors Pond Road/County Road 670	02040201	1.4		Y	AE	03/2010

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Barkers Brook Unnamed Tributary	Township of Springfield	Approximately 0.1 mile upstream of Saylors Pond Road	Approximately 0.9 mile upstream of Juliustown - Georgetown Road	02040201	1.3		N	A	09/2015
Barkers Brook Unnamed Tributary 1	Township of Springfield	Confluence with Barkers Brook Unnamed Tributary	Approximately 0.3 mile upstream of confluence with Barkers Brook Unnamed Tributary	02040201	0.3		N	A	09/2015
Bartletts Branch	Township of Bass River	Confluence with Cranberry Bog	Approximately 1.7 miles upstream of Cranberry Bog	02040301	1.7		N	A	09/2015
Barton Run	Township of Evesham, Township of Medford	Confluence with Rancocas Creek Southwest Branch	Approximately 0.3 mile upstream of Flamingo Drive	02040202	7.0		Y	AE	03/1982
Barton Run Tributary 1	Township of Evesham, Township of Medford	Confluence with Barton Run	At New Road	02040202	1.2		Y	AE	03/1982
Barton Run Tributary 1	Township of Evesham	At New Road	Approximately 0.5 mile upstream of South Elmwood Road	02040202	1.0		N	A	09/2015
Barton Run Tributary 2	Township of Evesham	Confluence with Barton Run	At Taunton Lake Road/County Route 544	02040202	0.6		Y	AE	03/1982

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Barton Run Tributary 2	Township of Evesham	At Taunton Lake Road/County Route 544	Approximately 70 feet downstream of Kings Grant Drive	02040202	0.8		N	A	09/2015
Barton Run Tributary 2A	Township of Medford	Approximately 400 feet upstream of Vernetta Lane	Approximately 1.2 miles upstream of Vernetta Lane	02040202	1.2		N	A	09/2015
Barton Run Tributary 3	Township of Evesham	Confluence with Barton Run	At State Route 73 / County Boundary	02040202	1.3		Y	AE	04/2005
Barton Run Tributary 3.1	Township of Evesham	Confluence with Barton Run Tributary 3	Approximately 1.4 miles upstream of confluence with Barton Run Tributary 3	02040202	1.4		N	A	09/2015
Barton Run Tributary 3A	Township of Evesham	Approximately 0.3 mile upstream of Tomlinson Mill Road	Approximately 0.5 mile upstream of Commonwealth Drive	02040202	1.2		N	A	09/2015
Barton Run Tributary 4	Township of Evesham	Approximately 275 feet upstream of Barton Run	Approximately 300 feet upstream of Braddock Mill Road	02040202	0.4		N	A	09/2015
Bass River	Township of Bass River	Confluence with Mullica River	Confluence with East Branch Bass River and West Branch Bass River	02040301	4.7		N	VE, AE	04/2014
Batsto River	Township of Washington	Confluence with Mullica River	At Batsto Village Road	02040301	1.6		N	AE	04/2014

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Batsto River	Township of Shamong, Township of Tabernacle	Approximately 1.0 mile downstream of Hampton Road	Approximately 3.1 miles upstream of State Route 532 / Chatsworth Road	02040301	5.7		N	A	09/2015
Bear Swamp River	Township of Southampton	Approximately 0.1 mile upstream of confluence with Little Creek	Approximately 2.1 miles upstream of U.S. Highway 206	02040202	5.4		N	A	09/2015
Beaver Branch	Township of Bass River	Confluence with Beaver Run	Approximately 1,000 feet downstream of Shamong Road	02040301	2.5		N	A	09/2015
Beaver Run	Township of Bass River	At County Road 679	At upstream confluence with Beaver Branch	02040301	1.2		N	A	09/2015
Beaverdam Creek	Township of Southampton	Confluence Rancocas Creek South Branch	At Intersection of U.S. Highway 206 and Ridge Road	02040202	2.2		Y	AE	11/2006
Beaverdam Creek	Township of Southampton	At Intersection of U.S. Highway 206 and Ridge Road	Approximately 300 feet upstream of Ridge Road	02040202	1.8		N	A	09/2015
Biddle Branch	Township of Woodland	Confluence with Shoal Branch	Approximately 1.3 miles upstream of Barnegat Road	02040301	1.9		N	A	09/2015
Bisphams Mill Creek	Township of Pemberton	At approximately 300 feet downstream of Lower Mill Road	At Oregon Trail	02040202	4.0		N	A	09/2015
Bisphams Mill Creek	Township of Woodland	At Coopers Road	At confluence with McDonald Branch	02040202	1.2		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bisphams Mill Creek	Township of Woodland	At State Route 70	At Coopers Road	02040202	1.0		Y	AE	04/1980
Black Run	Township of Evesham	At confluence with Barton Run	At Private Drive	02040202	2.2		Y	AE	03/1982
Black Run	Township of Evesham	At Private Drive	Just downstream of Kettle Run	02040202	1		N	A	09/2015
Black Run Tributary	Township of Evesham	Confluence with Black Run	At Braddock Mill Road	02040202	1.3		Y	AE	03/1982
Black Run Tributary	Township of Evesham	At Braddock Mill Road	Approximately 0.4 mile upstream of Braddock Mill Road	02040202	0.4		N	A	09/2015
Blacks Creek	City of Bordentown, Township of Bordentown	Confluence with Crosswicks Creek	Approximately 80 feet upstream of US Highway 206	02040201	2.0		Y	AE	03/1980
Blacks Creek	Townships of Bordentown, Chesterfield, and Mansfield	Approximately 80 feet upstream of US Highway 206	Approximately 1,400 feet upstream of State Route 667 / Wrightstown Sykesville Road	02040201	10.0		N	A	09/2015
Blue Lake Run	Township of Medford	Confluence with Haynes Creek (Pine Lake)	Approximately 0.5 mile upstream of Hopewell Road	02040202	0.8		Y	AE	03/1982
Blue Lake Run	Townships of Evesham and Meford	Approximately 0.5 mile upstream of Hopewell Road	Approximately 1.0 mile upstream of Mystic Way	02040202	1.7		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bobbys Run	Township of Lumberton	Confluence with Rancocas Creek South Branch	At Eayrestown Road	02040202	1.5		Y	AE	02/1982
Bobbys Run	Townships of Lumberton and Southampton	At Eayrestown Road	Approximately 1.3 miles upstream of Vincetown Columbus Road	02040202	3.7		N	A	09/2015
Boundary Creek	Townships of Delran and Moorestown	Approximately 360 feet downstream of Creek Road	Approximately 530 feet upstream of Creek Road	02040202	0.2		N	A	09/2015
Bread and Cheese Run	Township of Tabernacle	Confluence with Friendship Creek	At Carranza Road /County Route 648	02040202	2.0		N	AE	01/1989
Bread and Cheese Run	Township of Tabernacle	At Carranza Road/County Route 648	Immediately downstream of U.S. Highway 206	02040202	1.1		N	A	09/2015
Breeches Branch	Townships of Washington and Woodland	Confluence with Oswego River	Approximately 1.3 miles upstream of Chatsworth Road	02040301	3.3		N	A	09/2015
Buck Run	Township of Bass River	Confluence with Oswego River	Approximately 0.6 mile upstream of Martha Road	02040301	0.8		N	A	09/2015
Bucks Cove Run	Township of Pemberton	At Lakehurst Road	At North Whites Bog Road	02040202	2.2		N	A	09/2015
Budds Run	Borough of Pemberton, Township of Pemberton	Confluence with Rancocas Creek North Branch	Approximately 0.2 mile upstream of Hanover Street / Fort Dix Road	02040202	0.8		Y	AE	06/1978

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Budds Run	Borough of Pemberton, Township of Pemberton	Approximately 0.2 mile upstream of Hanover Street/Fort Dix Road	Approximately 0.6 mile upstream of Catesville Road / Fort Dix Road	02040202	2.4		N	A	09/2015
Bull Creek	Township of Washington	At County Road 542	Approximately 0.9 miles upstream of Bulltown Maxwell Road	02040301	3.7		N	A	09/2015
Bulls Branch	Township of Washington	Confluence with Tulpehocken Creek	Confluence with Shane Branch	02040301	2.4		N	A	09/2015
Burnt Bridge Spring	Township of Tabernacle	Confluence with Batsto River	Approximately 0.2 mile upstream of County Road 532	02040301	2.4		N	A	09/2015
Burrs Mill Brook	Township of Woodland	Approximately 370 feet upstream of confluence of Burrs Mill Brook Tributary 6	Approximately 100 feet downstream of confluence of Gum Spring	02040202	1.7		Y	AE	04/1980
Burrs Mill Brook	Townships of Southampton and Woodland	Confluence with Friendship Creek	Approximately 370 feet upstream of confluence of Burrs Mill Brook Tributary 6	02040202	5.0		N	A	09/2015
Burrs Mill Brook	Township of Woodland	Approximately 100 feet downstream of confluence of Gum Spring	Confluence with South Branch Burrs Mill Brook and Burrs Mill Brook Tributary 15	02040202	1.7		N	A	09/2015
Bustleton Creek	Townships of Burlington and Florence	Approximately 2,000 feet downstream of John Galt Way	Approximately 1.0 mile downstream of Railroad	02040201	0.4		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Bustleton Creek	Townships of Burlington and Florence	Approximately 0.6 mile downstream of Railroad	At U.S. Route 130	02040201	0.8		Y	AE	06/1980
Bustleton Creek	Township of Florence	At U.S. Route 130	Approximately 1.3 miles upstream of U.S. Route 130	02040201	1.3		N	A	09/2015
Buttonwood Lake	Township of Mount Holly	At Woolman Lake	At Upper Lake	02040202	0.1		N	A	09/2015
Buttonwood Run	Township of Mount Holly	Confluence with Mill Race	At Branch Street / County Route 537	02040202	0.5		Y	AE	06/1978
Cedar Run	Township of Southampton	Confluence with Rancocas Creek South Branch	Approximately 4.0 miles upstream of Rancocas Creek South Branch	02040202	4.0		N	A	09/2015
Coares Run	Township of Pemberton	Confluence with Budds Run	Approximately 0.1 mile upstream of Pointville Road	02040202	1.9		N	A	09/2015
Cold Water Run	Townships of Southampton and Tabernacle	Confluence with Bear Swamp River	At Hawkin Road	02040202	1.6		N	A	09/2015
Colliers Pond	Township of Chesterfield	Confluence with Blacks Creek	0.6 mile upstream of confluence with Blacks Creek	02040201	0.6		N	A	09/2015
Cooper Branch	Township of Woodland	Approximately 0.1 mile downstream of Coopers Road	Approximately 0.7 mile upstream of Coopers Road	02040202	0.8		N	A	09/2015
Country Lake Tributary	Township of Pemberton	Confluence with Pole Bridge Branch	At Upton Station Road	02040202	1.2		Y	AE	07/1978

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Crafts Creek	Townships of Florence and Mansfield	Confluence with Delaware River	At US Highway 130	02040201	0.7		Y	AE	03/1988
Crafts Creek	Townships of Florence and Mansfield	At US Highway 130	At Gaunts Bridge Road	02040201	9.7		N	A	09/2015
Crafts Creek Tributary	Township of Florence	Approximately 0.2 mile upstream of confluence with Crafts Creek	Approximately 0.4 mile upstream of Potts Mill Road	02040201	1.6		N	A	09/2015
Cranberry Branch	Township of Pemberton	Confluence with Pole Bridge Branch / Outlet of Colony Lake	At Lakehurst Road/County Route 530	02040202	2.2		Y	AE	07/1978
Cranberry Branch, Various Tributaries	Township of Pemberton	At Lake Hurst Road/County Route 530	Approximately 0.4 mile upstream of West Whites Bogs Road	02040202	1.9		N	A	09/2015
Cranberry Bog	Township of Bass River	Approximately 0.4 mile downstream of Chatsworth Road	Approximately 0.5 mile upstream of Chatsworth Road	02040301	0.9		N	A	09/2015
Cropwell Brook	Township of Evesham	Confluence with Pennsauken Creek South Branch	Approximately 1000 feet upstream of North Maple Avenue	02040202	0.7		Y	AE	03/2010
Crosswicks Creek	City of Bordentown and Township of Bordentown	Confluence with Delaware River	Approximately 0.4 mile downstream of Groveville Road	02040201	0.6		Y	AE	04/1988
Crosswicks Creek	Townships of Bordentown and Chesterfield	Approximately 2.0 miles downstream of Groveville Road	Approximately 0.3 mile upstream of Extonville Road	02040201	13.7		Y	AE	03/1980

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Crosswicks Creek	Township of North Hanover	Approximately 0.3 mile upstream of Extonville Road	County Boundary within the Township of North Hanover	02040201	0.3		Y	AE	09/1977
Crystal Lake	Townships of Bordentown and Mansfield	At U.S. Highway 130	Approximately 1,775 feet upstream of New Jersey Turnpike	02040201	2.3		N	A	09/2015
Crystal Lake Tributary 1.1	Township of Bordentown	Confluence with Crystal Lake	Approximately 0.4 mile upstream of Confluence with Crystal Lake	02040201	0.4		N	A	09/2015
Crystal Lake Tributary 2	Township of Bordentown	Confluence with Crystal Lake	Approximately 0.3 miles upstream of confluence with Crystal Lake	02040201	0.3		N	A	09/2015
Dans Bridge Branch	Township of Bass River	Confluence with East Branch Bass River	Approximately 0.5 mile downstream of Oswego Road	02040301	2.4		N	A	2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Delaware River	Boroughs of Fieldsboro and Palmyra; Cities of Beverly, Bordentown and Burlington, Townships of Bordentown, Burlington, Cinnaminson, Delanco, Delran, Edgewater Park, Florence and Riverside	County Boundary with the Borough of Palmyra	County Boundary within the Township of Bordentown	02040201	22.9		Y	AE	04/1988
East Branch Bass River	Township of Bass River	Confluence with Bass River	Approximately 390 feet upstream of County Road 654	02040301	0.8		N	AE	08/2014
East Branch Bass River	Township of Bass River	Approximately 390 feet upstream of County Road 654	Approximately 0.3 mile upstream of Dan Bridge Road	02040301	2.0		N	A	09/2015
Evesboro Tributary	Township of Mount Laurel	Confluence with Pennsauken Creek North Branch	At Union Mill Road	02040202	1.8		Y	AE	12/1978
Featherbed Branch	Township of Washington and Tabernacle	Confluence with Shane Branch	Approximately 0.3 mile upstream of Carranza Road	02040301	1.3		N	A	09/2015
Fish Creek	Township of Bass River	Confluence with Mullica River	Approximately 0.5 mile upstream of Mullica River	02040301	0.5		N	AE, VE	04/2014

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Friendship Creek	Township of Southampton	Confluence with Rancocas Creek South Branch	Approximately 500 feet upstream of State Highway 70	02040202	3.3		Y	AE	11/2006
Friendship Creek	Township of Southampton	Approximately 500 feet upstream of State Highway 70	Approximately 1.4 miles upstream of State Highway 70	02040202	1.4		N	A	09/2015
Friendship Creek	Township of Tabernacle	Approximately 0.4 mile downstream of Powell Place Road	Confluence with Bread and Cheese Run	02040202	0.7		N	AE	01/1989
Friendship Creek	Township of Tabernacle	Approximately 0.6 mile upstream of Powell Place Road	Approximately 0.6 mile upstream of South Park Road	02040202	3.6		N	A	09/2015
Friendship Creek Branch	Township of Southampton	Confluence with Friendship Creek	At Warwick Way	02040202	0.2		N	AE	09/1978
Goldys Run	Borough of Pemberton, Township of Pemberton	Confluence with Rancocas Creek North Branch	Approximately 0.2 mile upstream of confluence with Rancocas Creek North Branch	02040202	0.2		N	AE	07/1978
Goodwater Run	Township of Woodland	Approximately 1.3 miles downstream of Baily Road	Approximately 0.5 mile upstream of Chatsworth Barnegat Road	02040301	2.2		N	A	09/2015
Grubbs Run	Township of Westampton	At Rancocas Road	Approximately 0.1 mile upstream of Quail Hollow Road	02040202	0.9		N	A	09/2015
Gum Spring	Townships of Pemberton and Woodland	Confluence with Mount Misery Creek	Approximately 0.1 mile upstream of Pitman Road	02040202	3.7		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Hartford Road Tributary	Township of Mount Laurel	Confluence with Parkers Creek	Approximately 600 feet upstream of Larchmont Boulevard	02040202	0.6		Y	AE	12/1978
Haynes Creek	Townships of Medford and Evesham	Confluence with Rancocas Creek Southwest Branch	Approximately 0.2 mile upstream of Hopewell Road	02040202	6.3		Y	AE	03/1982
Hockamik Creek and various unnamed tributaries	Township of New Hanover	Confluence with North Run	Approximately 0.2 mile upstream of Buntington Bridge Road	02040201	0.8		N	A	09/2015
Hooten Road Tributary	Township of Mount Laurel	Confluence with Strawbridge Lake	At I-295 (Southbound Lanes)	02040202	0.7		Y	AE	12/1978
Horse Pond Stream	Township of Tabernacle	Confluence with Batsto River	Approximately 0.5 mile upstream of Carranza Drive	02040301	2.5		N	A	09/2015
Hospitality Brook	Township of Washington	Confluence with West Branch Wading River	Approximately 0.7 mile upstream of Stormy Hill Road	02040301	2.2		N	A	09/2015
Indian Mills Brook	Townships of Medford and Shamong	Confluence with Muskingum Brook	Approximately 0.6 mile upstream of Bunker Hill Road	02040301	5.0		Y	AE	04/2005
Indian Run	Township of Pemberton	Confluence with Rancocas Creek North Branch	At Birmingham Road	02040202	0.2		N	AE	07/1978
Indian Run	Townships of Pemberton and Springfield	At Birmingham Road	Approximately 0.2 mile downstream of Juliustown Pemberton Road	02040202	3.3		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Indian Run Tributary 1	Township of Pemberton	Confluence with Indian Run	Approximately 0.7 mile upstream of North Pemberton Road	02040202	0.9		N	A	09/2015
Indian Run Tributary 1.1	Townships of Pemberton and Springfield	Confluence with Indian Run Tributary 1	Approximately 0.6 mile upstream of Indian Run Tributary 1	02040202	0.6		N	A	09/2015
Indian Run Tributary 2	Township of Pemberton	Confluence with Indian Run	Approximately 0.8 mile upstream of confluence with Indian Run	02040202	0.8		N	A	09/2015
Indian Run Tributary 3	Township of Pemberton	Confluence with Indian Run	Approximately 0.7 mile upstream of Catesville Road / Fort Dix Road	02040202	2.0		N	A	09/2015
Ives Branch	Township of Bass River	Confluence with Wading River	At County Road 653	02040301	1.5		N	AE	04/2014
Ives Branch	Township of Bass River	At County Road 653	At downstream limit of Cranberry Bog	02040301	0.4		N	A	09/2015
Ives Branch	Township of Bass River	At upstream limit of Cranberry Bog	Approximately 0.4 mile upstream of Martha Road	02040301	1.9		N	A	09/2015
Jacks Run	Borough of Riverton, Township of Cinnaminson	Confluence with Pompeston Creek	At Highland Avenue	02040202	1.1		N	AE	09/1989

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Jade Run	Township of Southampton	Confluence with Rancocas Creek South Branch	Approximately 0.3 mile upstream of Ridge Road	02040202	1.9		Y	AE	11/2006
Jade Run	Townships of Pemberton and Southampton	Approximately 0.3 mile upstream of Ridge Road	At Turkey Buzzard Bridge Road	02040202	5.5		N	A	09/2015
Jefferson Lake	Township of Pemberton	At Oregon Trail	At State Highway 70	02040202	1.0		Y	AE	07/1978
Jobs Creek	Township of Bass River	Confluence with Bass River	At Garden State Parkway	02040301	2.7		N	AE	04/2014
Kendles Run	Township of Moorestown	Confluence with Rancocas Creek	Approximately 0.7 mile upstream of Creek Road	02040202	1.1		Y	AE	09/1976
Kendles Run	Township of Moorestown	Approximately 0.7 mile upstream of Creek Road	Approximately 1.0 mile upstream of Creek Road	02040202	0.3		N	A	09/2015
Lake Absegami	Township of Bass River	At East Branch Bass River	At Philips Road and Tommy Branch	02040301	2.5		N	A	09/2015
Lake Migazee	Borough of Medford Lakes	At Migazee Trail	At Tuckerton Road	02040202	0.1		N	A	09/2015
Lake Minonok	Borough of Medford Lakes	At Cheyenne Trail	At Mohawk Trail	02040202	0.1		N	A	09/2015
Lake Mishe Mokwa	Borough of Medford Lakes	At Hiawatha Trail	At Mishe Mokwa Trail	02040202	0.5		N	A	09/2015
Lake Mishe	Borough of Medford Lakes	Confluence with Ballinger Run	At Hiawatha Trial	02040202	0.6		Y	AE	06/1978

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Lake Mushkodosa	Borough oMedford Lakes	At Mishe Mokwa Trail	At Wagush Trail	02040202	0.1		N	A	09/2015
Lake Peshekee	Borough of Medford Lakes	At Mudjekeewis Trail	At Cheyenne Trail	02040202	0.2		N	A	09/2015
Lake Sioux	Borough of Medford Lakes	At Tuckerton Road	At Atsion Road	02040202	0.2		N	A	09/2015
Lake Siquitise	Borough of Medford Lakes	At Mishe Mokwa Trail	At Askoran Trail	02040202	0.2		N	A	09/2015
Lake Wabassi	Borough of Medford Lakes	At Askoran Trail	At Migazee Trail	02040202	0.1		N	A	09/2015
Lake Wagush	Borough of Medford Lakes	At Wagush Trail	At Mishe Mokwa Trail	02040202	0.1		N	A	09/2015
Lake Wauwauskashe	Borough of Medford Lakes	At Wagush Trail	At Mudjekeewis Trail	02040202	0.1		N	A	09/2015
Laurel Run	Township of Delran	At Rancocas Creek	Approximately 0.5 mile upstream of Creek Road / County Route 636	02040202	0.5		N	A	09/2015
Laurel Run Tributary 1	Township of Delran	Confluence with Laurel Run	Approximately 0.1 mile upstream of Bridgeboro Road	02040202	0.2		N	A	09/2015
Little Creek	Townships of Lumberton and Southampton	Confluence with Rancocas Creek Southwest Branch	Approximately 0.8 mile upstream of State Highway 70	02040202	5.4		Y	AE	09/1978
Little Creek	Borough of Medford Lakes, Townships of Medford and Southampton	Approximately 0.4 mile downstream of Hawkin Road	Approximately 0.1 mile upstream of Medford Lakes Road	02040202	2.8		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Little Creek Tributary 3	Township of Medford	Confluence with Little Creek	Approximately 1.4 miles upstream of confluence with Little Creek	02040202	1.4		N	A	09/2015
Little Creek Tributary 4	Township of Southampton	Confluence with Little Creek	Approximately 365 feet upstream of Hawkin Road	02040202	1.5		N	A	09/2015
Little Creek Tributary 5	Township of Medford	Confluence with Little Creek	Approximately 260 feet upstream of Shawnee Pass	02040202	1.5		N	A	09/2015
Little Creek Tributary 5.1	Township of Medford	Confluence with Little Creek Tributary 5	Approximately 900 feet upstream of confluence with Little Creek Tributary 5	02040202	0.2		N	A	09/2015
Little Creek Tributary 6	Township of Medford	Confluence with Little Creek	Approximately 0.4 mile upstream of confluence with Little Creek	02040202	0.4		N	A	09/2015
Little Haukin Run	Township of Washington	Confluence with West Branch Wading River	Just downstream of Green Bank Chatsworth Road	02040301	0.6		N	A	09/2015
Loveland Thorofare	Township of Bass River	Confluence with Bass River	Confluence with Wading River	02040301	3.0		N	AE	04/2014
Lower Pasture Creek	Township of Bass River	Confluence with Mullica River	Approximately 0.3 mile upstream of confluence of Mullica River	02040301	0.3		N	AE, VE	04/2014

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Masons Creek	Townships of Hainesport, Lumberton, and Mount Holly	Confluence with Rancocas Creek South Branch	At Stacy Haines Road	02040202	5.0		Y	AE	05/1978, 02/1982, 06/1978
Masons Creek	Township of Lumberton	At Stacy Haines Road	Approximately 700 feet upstream of Ark Road	02040202	0.4		N	A	09/2015
Mathis Thorofare	Township of Bass River	Confluence with Mullica River	Confluence with Broad Creek	02010301	2.1		N	AE, VE	04/2014
McDonalds Branch	Township of Woodland	Confluence with Bisphams Mill Creek	Approximately 1.0 miles upstream of confluence of Bisphams Mill Creek	02040202	1.0		N	A	09/2015
Merrygold Branch	Township of Bass River	Confluence with Wading River	Approximately 2.0 miles upstream of confluence with Wading River	02040301	2.0		N	AE	04/2014
Mile Run	Townships of Tabernacle and Washington	Confluence with West Branch Wading River	Approximately 0.2 mile upstream of Friendship Speedwell Road	02040301	1.7		N	A	09/2015
Mill Creek	Townships of Burlington, Wastampton and Willingboro	Confluence with Rancocas Creek	At Interstate 295	02040202	5.9		Y	AE	05/1978
Mill Creek	Townships of Burlington, Wastampton and Willingboro	At Interstate 295	Approximately 0.2 mile upstream of Mount Holly Road	02040202	1.9		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Mill Creek South Branch	Township of Willingboro	Confluence with Mill Creek	At John F Kennedy Way	02040202	1.2		Y	AE	05/1978
Mill Creek South Branch	Township of Willingboro	At John F Kennedy Way	At Garfield Drive	02040202	1.3		N	A	09/2015
Mill Creek Tributary	Township of Westampton	Confluence with Mill Creek	At Woodlane Road / County Route 630	02040202	0.7		Y	AE	05/1978
Mill Creek Tributary 1	Township of Willingboro	Confluence with Mill Creek	At Levitt Parkway / County Route 630	02040202	0.3		Y	AE	05/1978
Mill Creek Tributary 1	Township of Willingboro	At Levitt Parkway	Approximately 0.1 mile upstream of Evergreen Drive	02040202	0.7		N	A	09/2015
Mill Race	Township of Mount Holly	Confluence with Rancocas Creek North Branch	Divergence with Rancocas Creek North Branch	02040202	0.8		Y	AE	06/1978
Mimosa Lake	Township of Medford	At Scout Drive	Confluence with Mimosa Lake Tributary 1 and Mimosa Lake Tributary 2	02040202	0.6		N	A	09/2015
Mimosa Lake, Various Tributaries	Township of Medford	Confluence with Mimosa Lake and Mimosa Lake Tributary 2	Within the Township of Medford	02040202	4.0		N	A	09/2015
Mimosa Lake Run (Mimosa Lake)	Township of Medford	Confluence with Haynes Creek (Tauton Lake)	At Scout Drive	02040202	0.8		Y	AE	03/1982

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Mimosa Lake Run, Various Tributaries	Township of Medford	Confluence with Mimosa Lake Run	Within the Township of Medford	02040202	0.6		N	A	09/2015
Mirror Lake	Township of Pemberton	At Lakehurst Road	Approximately 2.3 miles upstream of Lakehurst Road	02040202	2.3		Y	AE	07/1978
Mirror Lake, Various Tributaries	Township of Pemberton	Confluence with Mirror Lake and Approximately 2.3 miles upstream of Lakehurst Road	Within the Township of Pemberton	02040202	6.0		N	A	09/2015
Mirror Lake Nos. 1, 2 and 3	Borough of Medford Lakes	Chippewa Trail	Oak Drive	02040202	0.3		N	A	09/2015
Mount Holly By-pass Channel	Township of Mount Holly	Confluence with Mill Race	Divergence with Rancocas Creek North Branch	02040202	0.2		Y	AE	06/1978
Mount Misery Brook	Townships of Pemberton and Woodland	Confluence with Gum Creek	Approximately 0.4 mile upstream of Rattler Road	02040202	8.7		N	A	09/2015
Mount Misery Brook North Branch	Townships of Pemberton and Woodland	Confluence with Mount Misery Brook	Approximately 0.5 mile upstream of Glassworks Road	02040202	1.5		N	A	09/2015
Mount Misery Brook South Branch	Townships of Pemberton and Woodland	Confluence with Mount Misery Brook	Approximately 0.7 mile upstream of Savoy Boulevard	02040202	5.7		N	A	09/2015
Mount Misery Creek	Township of Pemberton	Confluence with Rancocas Creek North Branch	Approximately 0.2 mile upstream of Greenwood Bridge Road	02040202	3.9		Y	AE	07/1978

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Mount Misery Creek	Township of Pemberton	Approximately 0.2 mile upstream of Greenwood Bridge Road	Confluence with Mount Misery Brook and Gum Spring	02040202	3.6		N	A	09/2015
Mullica River and various tributaries	Townships of Bass River and Washington	Entire Coastline	Entire Coastline	02040301	29.3		N	VE, AE	04/2014
Muskingum Brook	Townships of Shamong and Tabernacle	Confluence with Indian Mills Brook	At Tuckerton Road	02040301	2.4		Y	AE	04/2005
Muskingum Brook	Townships of Shamong and Tabernacle	At Tuckerton Road	Approximately 0.3 mile upstream of Old Indian Mills Road	02040301	1.5		N	A	09/2015
Muskingum Brook Various Tributaries	Township of Tabernacle	Confluence with Muskingum Brook	Within Township of Tabernacle	02040301	1.5		N	A	09/2015
North Run	Townships of New Hanover and North Hanover	County Boundary	Borough of Wrightstown corporate limit	02040201	5.6		N	A	09/2015
Ong Run	Township of Pemberton	Confluence with Mirror Lake	Approximately 0.2 mile upstream of Orange Avenue	02040202	0.8		Y	AE	07/1978
Ong Run	Townships of New Hanover and Pemberton	Approximately 0.3 mile upstream of Snow Avenue	Approximately 200 feet downstream of Gas Road	02040202	1.2		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Ore Spring	Township of Tabernacle	Confluence with Featherbed Branch	Approximately 0.5 mile upstream of confluence with Featherbed Branch	02040301	0.5		N	A	09/2015
Oswego River	Townships of Bass River and Washington	At Chatsworth Road	Burlington / Ocean county lines	02040301	17.1		N	A	09/2015
Papoose Branch	Townships of Bass River, Washington and Woodland	Confluence with Oswego River	Approximately 1.2 miles upstream of Baptist Road	02040301	5.4		N	A	09/2015
Parkers Creek	Townships of Moorestown and Mount Laurel	Confluence Rancocas Creek	Approximately 300 feet upstream of Union Mill Road	02040202	3.2		Y	AE	12/1978
Parkers Creek	Township of Mount Laurel	Approximately 300 feet upstream of Union Mill Road	At Hainesport Mount Laurel Road	02040202	2.6		N	A	09/2015
Parkers Creek, Various Tributaries	Township of Mount Laurel	Confluence with Parkers Creek	Within the Township of Mount Laurel	02040202	5.0		N	A	09/2015
Pau Puk Keewis Lagoon	Borough of Medford Lakes	Lake Siquitise	Approximately 0.2 mile upstream of Lake Siquitise	02040202	0.2		N	A	09/2015
Pennsauken Creek	Borough of Palmyra and Township of Cinnaminson	Confluence with Delaware River	Confluence with Pennsauken Creek North Branch and Pennsauken Creek South Branch	02040202	3.7		Y	AE	05/1990

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Pennsauken Creek North Branch	Townships of Maple Shade, Moorestown, and Mount Laurel	Confluence with Pennsauken Creek and Pennsauken Creek South Branch	At Hainesport Road	02040202	7.6		Y	AE	04/1977, 12/1978, 09/1976
Pennsauken Creek North Branch, Various Tributaries	Townships of Evesham, Moorestown and Mount Laurel	Confluence with Pennsauken Creek North Branch	Various Limits of Study within the Townships of Evesham, Moorestown and Mount Laurel	02040202	4.6		N	A	09/2015
Pennsauken Creek South Branch	Township of Cinnaminson	Confluence with Pennsauken Creek	Approximately 1.1 miles upstream of State Route 90	02040202	5.2		Y	AE	05/1990
Pennsauken Creek South Branch	Township of Maple Shade	Approximately 1.1 miles upstream of State Route 90	Approximately 0.5 mile upstream of South Church Road	02040202	5.5		Y	AE	04/1977
Pennsauken Creek South Branch	Township of Evesham	Approximately 0.7 mile downstream of Centertree Road	Approximately 0.3 mile upstream of Marlton Pike	02040202	1.9		Y	AE	03/1982
Pennsauken Creek South Branch, Various Tributaries	Townships of Evesham, Moorestown and Mount Laurel	Confluence with Pennsauken Creek South Branch	Various Limits of Study within the Townships of	02040202	1.9		N	A	09/2015
Pheasant Run	Township of Cinnaminson	Confluence with Pompeston Creek East Branch	Approximately 0.1 mile upstream of Woodhaven Drive	02040202	0.3		N	AE	07/1974
Plains Branch	Townships of Bass River and Washington	Confluence with Oswego River	4,500 feet downstream of Route 72	02040301	5.6		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Pole Branch	Township of Woodland	Approximately 900 feet upstream of Gretna Chatsworth Road	Approximately 1,600 feet downstream of confluence with Pole Branch Tributary	02040301	2.0		N	A	09/2015
Pole Bridge Branch	Township of Pemberton	Outlet of Country Lake	At Whitesbogs Road	02040202	2.8		Y	AE	07/1978
Pole Bridge Branch	Township of Pemberton	Approximately 210 feet downstream of Wissahickon Trail	Confluence with Mount Misery Brook	02040202	1.5		N	A	09/2015
Pole Bridge Branch Tributary	Township of Pemberton	Confluence with Pole Bridge Branch	At Lakehurst Road /County Route 530	02040202	0.5		Y	AE	07/1978
Pole Bridge Branch Tributary	Township of Pemberton	At Lakehurst Road/County Route 530	Approximately 1.7 miles upstream of Lakehurst Road	02040202	1.7		N	A	09/2015
Pompeston Creek	Borough of Riverton and Township of Cinnaminson	Confluence with Delaware River	Approximately 0.9 mile upstream of Broad Street / County Route 543	02040202	1.2		Y	AE	04/2014
Pompeston Creek	Township of Cinnaminson and Moorestown	Approximately 0.9 mile upstream of Broad Street/County Route 543	Approximately 425 feet upstream of West Maple Avenue	02040202	4.4		Y	AE	09/1989
Pompeston Creek	Township of Moorestown	Approximately 425 feet upstream of West Maple Avenue	At Dawson Street	02040202	0.1		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Pompeston Creek East and Southeast Branches	Township of Cinnaminson	Confluence with Pompeston Creek	Approximately 400 feet upstream of confluence of Pompeston Creek Northeast and Southeast Branch	02040202	1.2		N	AE	09/1989
Pompeston Creek Northeast Branch	Township of Moorestown	Confluence with Pompeston Creek East and Southeast Branch	Approximately 0.5 mile upstream of confluence with Pompeston Creek East and Southeast Branch	02040202	0.5		N	A	09/2015
Pompeston Creek Southeast Branch	Township of Moorestown	Confluence with Pompeston Creek East and Southeast Branch	Approximately 0.5 mile upstream of confluence with Pompeston Creek East and Southeast Branch	02040202	0.5		N	A	09/2015
Pope Branch	Township of Woodland	Confluence with Shoal Branch	Approximately 0.6 mile upstream of Lauries Road	02040301	2.4		N	A	09/2015
Powell Run	Townships of Eastampton and Pemberton	Approximately 700 feet upstream of Rancocas Creek North Branch	Approximately 800 feet upstream of North Pemberton Road	02040202	1.3		N	A	09/2015
Powells Run	Townships of Pemberton and Springfield	Confluence with Powell Run	Approximately 1.7 miles upstream of Powell Run	02040202	1.7		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Ramblewood Tributary	Township of Mount Laurel	Confluence with Evesboro Tributary	Approximately 0.5 mile upstream of confluence with Evesboro Tributary	02040202	0.5		Y	AE	12/1978
Rancocas Creek	Townships of Delanco, Delran, Edgewater Park, Hainesport, Moorestown, Mount Laurel, Riverside, Willingboro, and Westampton	Confluence with Delaware River	At Bridge Street/County Route 635	02040202	8.0		Y	AE	04/2014
Rancocas Creek	Townships of Mount Laurel and Westampton	At Bridge Street/County Route 635	Confluence with Rancocas Creek North Branch and Rancocas Creek South Branch	02040202	0.3		Y	AE	05/1978
Rancocas Creek, Various Tributaries	Townships of Delran, Moorestown, Riverside, and Westampton	Confluence with Rancocas Creek	Various Limits of Study	02040202	3.2		N	A	09/2015
Rancocas Creek North Branch	Borough of Pemberton, Townships of Eastampton, Hainesport, Mount Holly, Pemberton, Westampton	Confluence with Rancocas Branch	At Lakehurst Road/County Road 530	02040202	23.6		Y	AE	05/1978

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Rancocas Creek North Branch, Various Tributaries	Townships of Pemberton and Westampton	Confluence with Rancocas Creek North Branch	Various Limits of Study within Townships of Pemberton and Westampton	02040202	12.4		N	A	09/2015
Rancocas Creek South Branch	Townships of Hainesport, Lumberton, Mount Laurel and Southampton	Confluence with Rancocas Creek	Approximately 650 feet upstream of Bed Bug Hill Road	02040202	16.6		Y	AE	11/2006
Rancocas Creek South Branch	Township of Southampton	Approximately 650 feet upstream of Bed Bug Hill Road	Approximately 0.3 mile downstream of Serenity Court	02040202	6.0		N	A	09/2015
Rancocas Creek South Branch Tributary	Township of Lumberton	Confluence with Rancocas Creek South Branch	Approximately 0.5 mile upstream of Crispin Road	02040202	2.6		Y	AE	02/1982
Rancocas Creek South Branch Tributary	Townships of Lumberton and Medford	Approximately 500 feet downstream of Fostertown Road	Approximately 0.4 mile upstream of Setter Club Road	02040202	1.7		N	A	09/2015
Rancocas Creek Southwest Branch	Townships of Evesham, Lumberton, Medford and Southampton	Confluence with Rancocas Creek South Branch	Approximately 0.2 mile upstream of Bon Air Drive	02040202	12.4		Y	AE	11/2006
Rancocas Creek Southwest Branch	Township of Evesham	Approximately 0.2 mile upstream of Bon Air Drive	Approximately 0.4 mile upstream of North Maple Avenue	02040202	1.3		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Rancocas Creek Southwest Branch, Various Tributaries	Townships of Evesham and Medford	Confluence with Rancocas Creek Southwest Branch	Various Limits of Study within the Townships of Evesham and Medford	02040202	6.2		N	A	09/2015
Risley Branch	Township of Woodland	Confluence with West Branch Wading River	Approximately 3.1 miles upstream of West Branch Wading River	02040301	3.1		N	A	09/2015
Roberts Branch	Townships of Shamong and Tabernacle	Confluence with Skits Branch	Approximately 0.1 mile upstream of Tabernacle-Chatsworth Road	02040301	4.2		N	A	09/2015
Roberts Branch Tributary 1	Township of Tabernacle	Confluence with Roberts Branch	Approximately 0.7 mile upstream of confluence with Roberts Branch	02040301	0.7		N	A	09/2015
Shane Branch	Townships of Tabernacle and Washington	Confluence with Tulpehocken Creek	Approximately 0.3 mile upstream of Speedwell Road	02040301	3.8		N	A	09/2015
Sharps Run	Township of Medford	Confluence with Rancocas Creek South Branch	At Hartford Road	02040202	2.6		Y	AE	03/1982
Sharps Run	Townships of Evesham and Medford	At Hartford Road	Approximately 2.1 miles upstream of Hartford Road	02040202	2.1		N	A	09/2015
Sharps Run, Various Tributaries	Townships of Evesham and Medford	Confluence with Sharps Run	Various Limits of Study within the Township of Evesham and Medford	02040202	2.3		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sharps Run Tributary 1	Township of Medford	Approximately 750 feet upstream of confluence with Sharps Run	Approximately 2,600 feet upstream of confluence with Sharps Run	02040202	0.4		N	AE	08/2016
Sharps Run Tributary 2	Township of Medford	A point 1,410 feet upstream of Oliphant's Mill - Hartford Road	A point 2,910 feet upstream of Oliphant's Mill - Hartford Road	02040202	0.2		N	AE	06/2015
Shinns Branch	Township of Woodland	Confluence with Bisphams Mill Creek	Approximately 0.6 mile upstream of confluence with Bisphams Mill Creek	02040202	0.6		Y	AE	04/1980
Shoal Branch	Township of Woodland	Confluence with West Branch Wading River	At State Route 72	02040301	7.6		N	A	09/2015
Shreve Branch	Township of Woodland	Confluence with Shoal Branch	Approximately 1.3 miles upstream of Sooy Road	02040301	2.9		N	A	09/2015
Skeet Run	Township of Medford	Confluence with Little Creek	At Hawkin Road	02040202	1.2		Y	AE	03/1982
Skeet Run	Township of Medford	At Hawkin Road	Approximately 0.3 mile upstream of Hawkin Road	02040202	0.3		N	A	09/2015
Skeet Run, Various Tributaries	Township of Medford	Confluence with Skeet Run	Various Limits of Study within the Township of Medford	02040202	2.3		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Skit Branch	Townships of Shamong and Tabernacle	Confluence with Batsto River	Approximately 6.0 miles upstream of confluence with Batsto River	02040301	6.0		N	A	09/2015
Skit Branch, Various Tributaries	Township of Tabernacle	Confluence with Skit Branch	Various Limits of Study within the Township of Tabernacle	02040301	2.6		N	A	09/2015
Spring Hill Brook	Township of Mansfield	Confluence with Crystal Lake	Approximately 0.1 mile upstream of confluence with Crystal Lake	02040201	0.1		N	A	09/2015
Springer Brook	Township of Shamong	Approximately 0.6 mile downstream of U.S. Route 206	Confluence with Muskingum Brook	02040301	1.4		Y	AE	04/2005
Springer Brook	Township of Shamong	Approximately 0.6 mile downstream of U.S. Route 206	Approximately 2.1 miles downstream of U.S. Route 206	02040301	1.5		N	A	09/2015
Strawbridge Lake	Township of Moorestown	Confluence with Pennsauken Creek North Branch	At New Jersey Route 38	02040202	1.9		Y	AE	09/1976
Strawbridge Lake	Township of Mount Laurel	Approximately 900 feet downstream of Hooten Road	At Interstate 295	02040202	0.7		Y	AE	12/1978
Strawbridge Lake	Townships of Moorestown and Mount Laurel	At New Jersey Route 38	Approximately 900 feet downstream of Hooten Road	02040202	0.2		N	A	09/2015
Swede Run	Township of Delran	Confluence with Dredge Harbor	Approximately 0.9 mile upstream of Broad Street	02040202	0.9		Y	AE	04/2014

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Swede Run	Townships of Delran and Moorestown	Approximately 0.9 mile upstream of Broad Street	At North Stanwick Road	02010202	5.3		Y	AE	10/1993
Swede Run	Township of Moorestown	At North Stanwick Road	Approximately 170 feet upstream of Golf View Road	02040202	0.2		N	A	09/2015
Swede Run Tributary	Township of Moorestown	Confluence ith Swede Run	Approximately 180 feet upstream of Salem Road	02040202	0.4		Y	AE	10/1993
Sykes Branch	Township of Woodland	Confluence with Shoal Branch	Approximately 1.3 miles upstream of Sooy Road	02040301	2.0		N	A	09/2015
Taunton Lake Tributary	Townships of Evesham and Medford	At Centennial Avenue	Approximately 550 feet upstream of Kettle Run Road	02040202	3.8		N	A	09/2015
Taunton Lake Tributary 1	Township of Evesham	Confluence with Taunton Lake Tributary	At Hopewell Road	02040202	0.2		N	A	09/2015
Thorton Creek	City of Bordentown, Townships of Bordentown and Chesterfield	Approximately 920 feet downstream of Park Street	At Hogbeck Road	02040201	1.8		N	A	09/2015
Tommys Branch	Township of Bass River	Confluence with Lake Absegami	Approximately 0.6 mile upstream of confluence with Lake Absegami	02040301	0.6		N	A	09/2015
Sharps Run Tributary 1	Township of Medford	Approximately 0.4 miles upstream of confluence with Sharps Run	Approximately 100 feet upstream of Farm Culvert	02040202	0.3		N	AE	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tributary 1	Townships of Hainesport and Mount Laurel	Approximately 0.2 mile downstream of Phillips Road	Approximately 0.2 mile upstream of Kettlebrook Drive	02040202	1.4		N	A	09/2015
Tributary 2	Townships of Hainesport and Lumberton	Approximately 0.2 mile downstream of Masonville Fostertown Road	Approximately 0.9 mile upstream of Masonville Fostertown Road	02040202	1.1		N	A	09/2015
Tributary 2.1	Township of Hainesport	Confluence with Tributary 2	Approximately 0.1 mile upstream of confluence with Tributary 2	02040202	0.1		N	A	09/2015
Tributary B	Borough of Fieldsboro and Township of Bordentown	Confluence with Unnamed Stream above the Delaware River	Approximately 0.2 mile upstream of confluence with Unnamed Stream above the Delaware River	02040201	0.2		N	A	09/2015
Tub Mill Branch	Township of Bass River	Confluence with Wading River	Approximately 0.2 mile upstream of Chatsworth Road	02040301	0.8		N	A	09/2015
Tulpehocken Creek	Township of Washington	Approximately 550 feet downstream of Bulls Branch	Approximately 500 feet upstream of Shane Branch	02040301	1.1		N	A	09/2015
Unnamed Streams	Burlington Countywide	Various Limits of Study as noted on FIRM panels	Various Limits of Study as noted on FIRM panels	02040201, 02040202, 02040301	17.3		N	A	09/2015
Unnamed Tributaries, Various	Burlington Countywide	Various Limits of Study as noted on FIRM panels	Various Limits of Study as noted on FIRM panels	02040201, 02040202, 02040301	4.6		N	A	09/2015

Table 2: Flooding Sources Included in this FIS Report – continued

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi^2) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Upper Marlton Lake	Township of Evesham	Confluence with Haynes Creek and Upper Marlton Lake Tributary 1	County Boundary	02040202	0.4		N	A	09/2015
Upper Marlton Lake Tributary 1	Township of Evesham	Confluence with Haynes Creek and Upper Marlton Lake	County Boundary	02040202	0.7		N	A	09/2015
Upper Marlton Lake Tributary 1.1	Township of Evesham	Confluence with Upper Marlton Lake Tributary 1	County Boundary	02040202	0.4		N	A	09/2015
Wading River	Townships of Bass River and Washington	Confluence with Mullica River	Confluence with Oswego River	02040301	8.8		N	VE, AE	04/2014
Wesickaman Creek	Township of Shamong	At Three Bridge Road	At Locust Road	02040301	2.7		N	A	09/2015
West Branch Bass River	Township of Bass River	Confluence with Bass River and East Branch Bass River	At Cranberry Bog downstream limit	02040301	1.4		N	AE	04/2014
West Branch Bass River	Township of Bass River	At Cranberry Bog upstream limit	1,080 feet upstream of confluence with West Branch Bass River Tributary	02040301	2.0		N	A	09/2015
West Branch Wading River	Township of Woodland	At Tabernacle Chatsworth Road / County Route 532	At Cedar Road	02040301	4.3		Y	AE	04/1980
Woolman Lake	Township of Mount Holly	At Branch Street	At Buttonwood Lake	2040202	0.2		N	A	09/2015

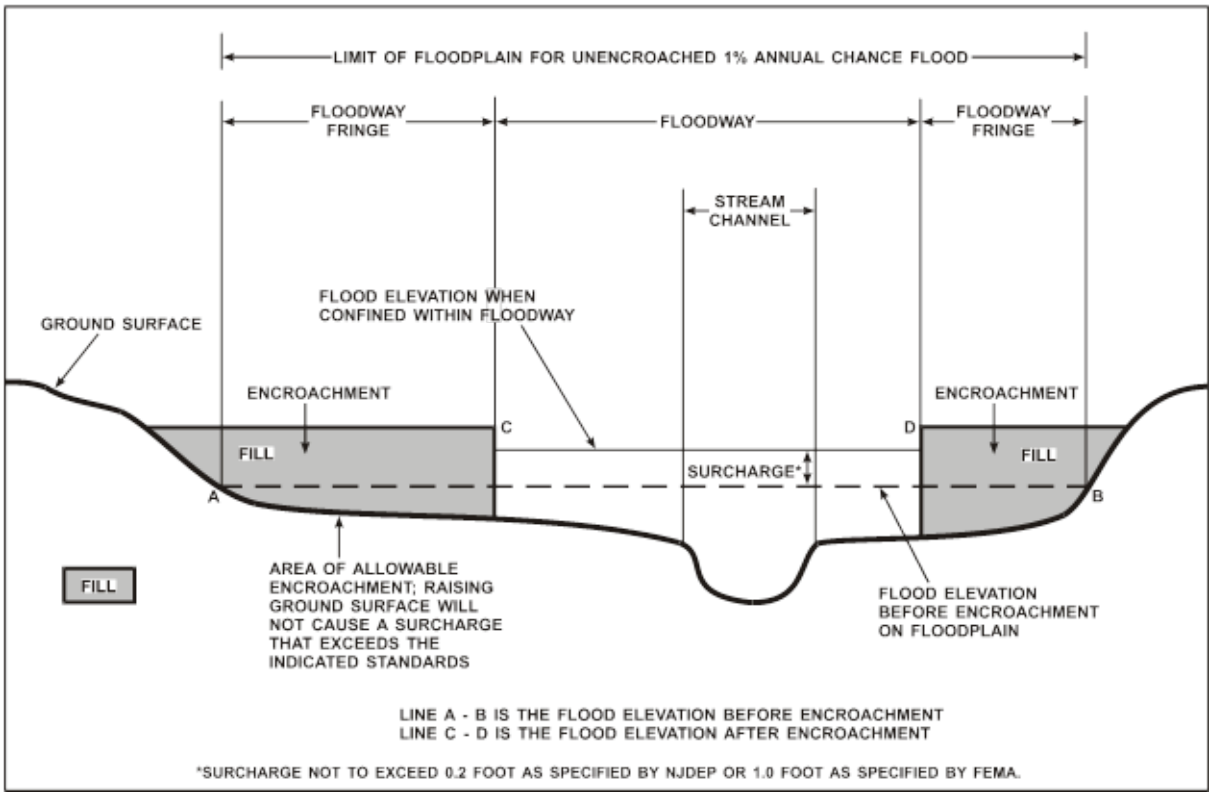
2.2 Floodways

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. Regulations for New Jersey require communities in Burlington County to limit increases caused by encroachment to 0.2 foot and several communities have adopted additional restrictions. 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."

All floodways that were developed for this Flood Risk Project are shown on the FIRM using the symbology described in 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 Burlington County.
Figure 3. In cases where the floodway and l% 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 a 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. Regulations for New Jersey require communities in Burlington County to limit increases caused by encroachment to 0.2 foot and several communities have adopted additional restrictions for non-encroachment areas.

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 FIS 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

For most areas along rivers, streams, and small lakes, BFEs and floodplain boundaries are based on the amount of water expected to enter the area during a 1% annual chance flood and the geometry of the floodplain. Floods in these areas are typically caused by storm events. However, for areas on or near ocean coasts, large rivers, or large bodies of water, BFE and floodplain boundaries may need to be based on additional components, including storm surges and waves. Communities on or near ocean coasts face flood hazards caused by offshore seismic events as well as storm events.

Coastal flooding sources that are included in this FIS project are shown in Table 2.

2.5.1 Water Elevations and the Effects of Waves

Specific terminology is used in coastal analyses to indicate which components have been

included in evaluating flood hazards.

The stillwater elevation (SWEL or still water level) is the surface of the water resulting from astronomical tides, storm surge, and freshwater inputs, but excluding wave setup contribution or the effects of waves.

- *Astronomical tides* are periodic rises and falls in large bodies of water caused by the rotation of the earth and by the gravitational forces exerted by the earth, moon and sun.
- *Storm surge* is the additional water depth that occurs during large storm events. These events can bring air pressure changes and strong winds that force water up against the shore.
- *Freshwater inputs* include rainfall that falls directly on the body of water, runoff from surfaces and overland flow, and inputs from rivers.

The 1% annual chance stillwater elevation is the stillwater elevation that has been calculated for a storm surge from a 1% annual chance storm. The 1% annual chance storm surge can be determined from analyses of tidal gage records, statistical study of regional historical storms, or other modeling approaches. Stillwater elevations for storms of other frequencies can be developed using similar approaches.

The total stillwater elevation (also referred to as the mean water level) is the stillwater elevation plus wave setup contribution but excluding the effects of waves.

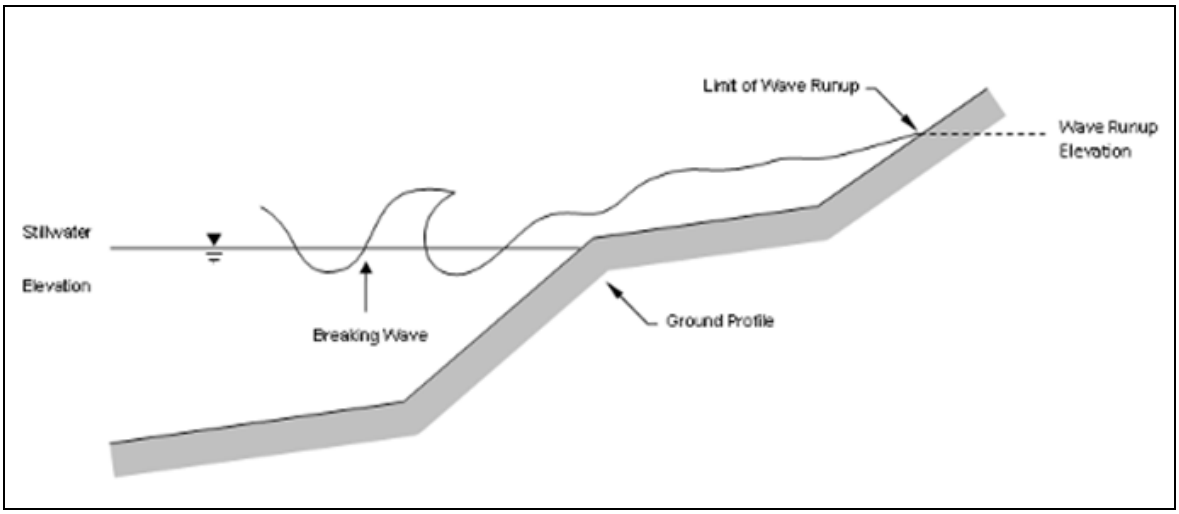
- *Wave setup* is the increase in stillwater elevation at the shoreline caused by the reduction of waves in shallow water. It occurs as breaking wave momentum is transferred to the water column.

Like the stillwater elevation, the total stillwater elevation is based on a storm of a particular frequency, such as the 1% annual chance storm. Wave setup is typically estimated using standard engineering practices or calculated using models, since tidal gages are often sited in areas sheltered from wave action and do not capture this information.

Coastal analyses may examine the effects of overland waves by analyzing storm-induced erosion, overland wave propagation, wave runup, and/or wave overtopping.

- *Storm-induced erosion* is the modification of existing topography by erosion caused by a specific storm event, as opposed to general erosion that occurs at a more constant rate.
- *Overland wave propagation* describes the combined effects of variation in ground elevation, vegetation, and physical features on wave characteristics as waves move onshore.
- *Wave runup* is the uprush of water from wave action on a shore barrier. It is a function of the roughness and geometry of the shoreline at the point where the stillwater elevation intersects the land.
- *Wave overtopping* refers to wave runup that occurs when waves pass over the crest of a barrier.

Figure 5: Wave Runup Transect Schematic



2.5.2 Floodplain Boundaries and BFEs for Coastal Areas

For coastal communities along the Atlantic and Pacific Oceans, the Gulf of Mexico, the Great Lakes, and the Caribbean Sea, flood hazards must take into account how storm surges, waves, and extreme tides interact with factors such as topography and vegetation. Storm surge and waves must also be considered in assessing flood risk for certain communities on rivers or large inland bodies of water.

Beyond areas that are affected by waves and tides, coastal communities can also have riverine floodplains with designated floodways, as described in previous sections.

Floodplain Boundaries

In many coastal areas, storm surge is the principle component of flooding. The extent of the 1% annual chance floodplain in these areas is derived from the total stillwater elevation (stillwater elevation including storm surge plus wave setup) for the 1% annual chance storm. The methods that were used for calculation of total stillwater elevations for coastal areas are described in Section 5.3 of this FIS Report. Location of total stillwater elevations for coastal areas are shown in Figure 8, "1% Annual Chance Total Stillwater Levels for Coastal Areas."

In some areas, the 1% annual chance floodplain is determined based on the limit of wave runup or wave overtopping for the 1% annual chance storm surge. The methods that were used for calculation of wave hazards are described in Section 5.3 of this FIS Report.

Table 26 presents the types of coastal analyses that were used in mapping the 1% annual chance floodplain in coastal areas.

Coastal BFEs

Coastal BFEs are calculated as the total stillwater elevation (stillwater elevation including storm surge plus wave setup) for the 1% annual chance storm plus the additional flood hazard from overland wave effects (storm-induced erosion, overland wave propagation, wave runup and wave overtopping).

Where they apply, coastal BFEs are calculated along transects extending from offshore to the limit of coastal flooding onshore. Results of these analyses are accurate until local topography, vegetation, or development type and density within the community undergoes major changes.

Parameters that were included in calculating coastal BFEs for each transect included in this FIS Report are presented in Table 17, "Coastal Transect Parameters." The locations of transects are shown in Figure 9, "Transect Location Map." More detailed information about the methods used in coastal analyses and the results of intermediate steps in the coastal analyses are presented in Section 5.3 of this FIS Report. Additional information on specific mapping methods is provided in Section 6.4 of this FIS Report.

2.5.3 Coastal High Hazard Areas

Certain areas along the open coast and other areas may have higher risk of experiencing structural damage caused by wave action and/or high-velocity water during the 1% annual chance flood. These areas will be identified on the FIRM as Coastal High Hazard Areas.

- *Coastal High Hazard Area (CHHA)* is a SFHA extending from offshore to the inland limit of the primary frontal dune (PFD) or any other area subject to damages caused by wave action and/or high-velocity water during the 1% annual chance flood.
- *Primary Frontal Dune (PFD)* is a continuous or nearly continuous mound or ridge of sand with relatively steep slopes immediately landward and adjacent to the beach. The PFD is subject to erosion and overtopping from high tides and waves during major coastal storms.

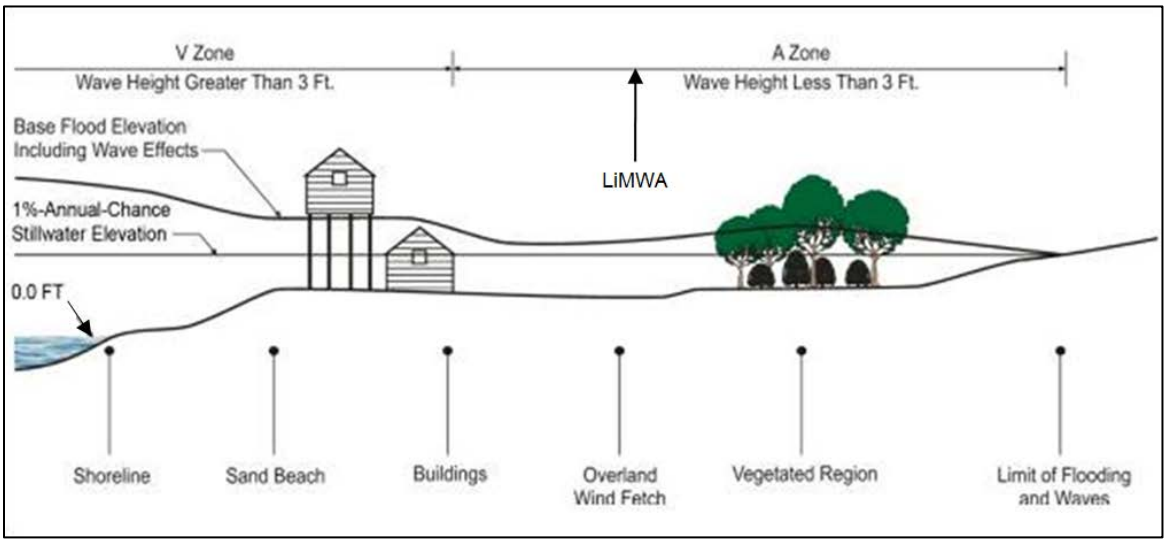
CHHAs are designated as "V" zones (for "velocity wave zones") and are subject to more stringent regulatory requirements and a different flood insurance rate structure. The areas of greatest risk are shown as VE on the FIRM. Zone VE is further subdivided into elevation zones and shown with BFEs on the FIRM.

The landward limit of the PFD occurs at a point where there is a distinct change from a relatively steep slope to a relatively mild slope; this point represents the landward extension of Zone VE. Areas of lower risk in the CHHA are designated with Zone V on the FIRM. More detailed information about the identification and designation of Zone VE is presented in Section 6.4 of this FIS Report.

Areas that are not within the CHHA but are SFHAs may still be impacted by coastal flooding and damaging waves; these areas are shown as "A" zones on the FIRM.

Figure 6, "Coastal Transect Schematic," illustrates the relationship between the base flood elevation, the 1% annual chance stillwater elevation, and the ground profile as well as the location of the Zone VE and Zone AE areas in an area without a PFD subject to overland wave propagation. This figure also illustrates energy dissipation and regeneration of a wave as it moves inland.

Figure 6: Coastal Transect Schematic



Methods used in coastal analyses in this FIS project are presented in Section 5.3 and mapping methods are provided in Section 6.4 of this FIS Report.

Coastal floodplains are shown on the FIRM using the symbology described in 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 Burlington County.
Figure 3, "Map Legend for FIRM." In many cases, the BFE on the FIRM is higher than the stillwater elevations shown in Table 17 due to the presence of wave effects. The higher elevation should be used for construction and/or floodplain management purposes.

2.5.4 Limit of Moderate Wave Action

Laboratory tests and field investigations have shown that wave heights as little as 1.5 feet can cause damage to and failure of typical Zone AE building construction. Wood-frame, light gage steel, or masonry walls on shallow footings or slabs are subject to damage when exposed to waves less than 3 feet in height. Other flood hazards associated with coastal waves (floating debris, high velocity flow, erosion, and scour) can also damage Zone AE construction.

Therefore, a LiMWA boundary may be shown on the FIRM as an informational layer to assist coastal communities in safe rebuilding practices. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The location of the LiMWA relative to Zone VE and Zone AE is shown in Figure 6.

The effects of wave hazards in Zone AE between Zone VE (or the shoreline where Zone VE is not identified) and the limit of the LiMWA boundary are similar to, but less severe than, those in Zone VE where 3-foot or greater breaking waves are projected to occur during the 1% annual chance flooding event. Communities are therefore encouraged to adopt and enforce more stringent floodplain management requirements than the minimum NFIP requirements in the LiMWA. The NFIP Community Rating System provides credits for these actions.

Where wave runup elevations dominate over wave heights, there is no evidence to date of significant damage to residential structures by runup depths less than 3 feet. Examples of these areas include areas with steeply sloped beaches, bluffs, or flood protection structures that lie parallel to the shore. In these areas, the FIRM shows the LiMWA immediately landward of the VE/AE boundary. Similarly, in areas where the zone VE designation is based on the presence of a primary frontal dune or wave overtopping, the LiMWA is delineated immediately landward of the Zone VE/AE boundary.

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 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 Burlington County.
Figure 3, "Map Legend for FIRM." 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 Burlington County.

Table 3: Flood Zone Designations by Community

Community	Flood Zone(s)
Bass River, Township of	A, AE, VE, X
Beverly, City of	AE, X
Bordentown, City of	A, AE, X
Bordentown, Township of	A, AE, X
Burlington, City of	AE, X
Burlington, Township of	A, AE, X
Chesterfield, Township of	A, AE, X
Cinnaminson, Township of	A, AE, X
Delanco, Township of	AE, X
Delran, Township of	A, AE, X
Eastampton, Township of	A, AE, X
Edgewater Park, Township of	AE, X

Table 3- Flood Zone Designations by Community – continued

Community	Flood Zone(s)
Evesham, Township of	A, AE, X
Fieldsboro, Borough of	A, AE, X
Florence, Township of	A, AE, X
Hainesport, Township of	A, AE, X
Lumberton, Township of	A, AE, X
Mansfield, Township of	A, AE, X
Maple Shade, Township of	A, AE, X
Medford Lakes, Borough of	A, AE, X
Medford, Township of	A, AE, X
Moorestown, Township of	A, AE, X
Mount Holly, Township of	A, AE, X
Mount Laurel, Township of	A, AE, X
New Hanover, Township of	A, AE, X
North Hanover, Township of	A, AE, X
Palmyra, Borough of	AE, X
Pemberton, Borough of	A, AE, X
Pemberton, Township of	A, AE, X
Riverside, Township of	A, AE, X
Riverton, Borough of	AE, X
Shamong, Township of	A, AE, X
Southampton, Township of	A, AE, X
Springfield, Township of	A, AE, X
Tabernacle, Township of	A, AE, X
Washington, Township of	A, AE, VE, X
Westampton, Township of	A, AE, X
Willingboro, Township of	A, AE, X
Woodland, Township of	A, AE, X
Wrightstown, Borough of	A, X

3.2 Coastal Barrier Resources System

The Coastal Barrier Resources Act (CBRA) of 1982 was established by Congress to create areas along the Atlantic and Gulf coasts and the Great Lakes, where restrictions for Federal financial assistance including flood insurance are prohibited. In 1990, Congress passed the Coastal Barrier Improvement Act (CBIA), which increased the extent of areas established by the CBRA and added “Otherwise Protected Areas” (OPA) to the system. These areas are collectively referred to as the John. H Chafee Coastal Barrier Resources System (CBRS). The CBRS boundaries that

have been identified in the project area are in Table 4, "Coastal Barrier Resource System Information."

Table 4: Coastal Barrier Resources System Information

Primary Flooding Source	CBRS/OPA Type	Date CBRS Area Established	FIRM Panel Number(s)
Mullica River	OPA	11/16/1991	34005C0629F, 34005C0631F, 34005C0633F, 34005C0634F, 34005C0637F, 34005C0641F

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)
Mullica-Toms	02040301	Mullica River, Barnegat Bay	Entire area contained within HUC	614
Crosswicks-Neshaminy	02040201	Assiscunk, Crosswicks, and Doctors Creek	Entire area contained within HUC	224
Lower Delaware	02040202	Rancocas Creek and Lower Delaware River	Entire area contained within HUC	407

4.2 Principal Flood Problems

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

Table 6: Principal Flood Problems

Flooding Source	Description of Flood Problems
All sources	Most flooding in Burlington County occurs during the summer and early fall months; however, floods have occurred at different times throughout the year. Portions of Burlington County experience tidal flooding from the Delaware River caused by extremely high tides, hurricane activity and tropical storms (HMP, 2014). *Township of Lumberton* – flooding is primarily due to torrential rains during summer and autumn months. A flood occurred in September 1940 that caused dam failures at Taunton and Medford Lakes. Townships of Lumberton and Medford – experienced major flooding in 2004 due to heavy rainfall. 17 dams failed and 28 more dams were damaged along various streams. For additional details see USGS, Scientific Investigations Report 2006-5096, "Flood of July 12-13, 2004, Burlington and Camden Counties, South-Central New Jersey" (USGS, 2006). *Township of Mount Holly* – flooding is primarily due to continental and ocean-bred storms resulting in both riverine and tidal flooding. Mount Holly is affected by tidal surge of the Delaware River. Tidal backwater from the Delaware River affects inland locations in Mount Holly. *Township of Mount Laurel* – all streams studied by detailed methods are flooding sources.
Assiscunk Creek	Riverine and tidal flooding impact the City of Burlington and has caused heavy flooding damage in the area of U.S. Route 130, combined with the effects from the Delaware River.
Bass River	*Township of Bass River* – flooding occurs at Bass River near Allens Dock at U.S. Route 9; at East Branch Bass River near Stage Road; and the Merrygold Branch of Wading River at Hammonton Road. All these flooding problems are affected by tidal flooding from the Great Bay. (HMP, 2014).
Beaverdam Creek	*Township of Southampton* – primary flooding source due to torrential rains during summer and autumn months.
Delaware River	Subject to flooding from intense rainfall runoff and is also subject to tidal flooding caused by extremely high tides, hurricane activity, or tropical storms. The Delaware River causes flooding in the Borough of Palmyra, and the Cities of Bordentown and Burlington; the Township of Bordentown, Burlington (FEMA, 1989), Cinnaminson, Delcano, Delran, Florence, Hainesport, Mansfield T*ownship of Cinnaminson* – high tides on the Delaware River produce major flooding in Pompeston Creek's lower reaches (FEMA, 1991). *Borough of Palmyra* – flows through the tidal flatlands creating flooding
East Branch	T*ownship of Cinnaminson* – East Branch is easily overflows its banks during storms of high intensity and short duration (FEMA, 1991).
Jacks Run	*Borough of Riverton* and T*ownship of Cinnaminson* (FEMA, 1991) – Jacks Run is easily overflows its banks during storms of high intensity and short duration. Urbanization in the vicinity of Jacks Run has decreased the ability of the watershed to absorb water, creating more surface water for a given frequency rainfall than existed in the past.

Table 6: Principal Flood Problems – continued

Flooding Source	Description of Flood Problems
Laurel Run	*Township of Delran* – primary flooding source (FEMA, 1995)
Lake Flooding	*Borough of Medford Lakes* – lake flooding is the primary source of flooding in the Borough of Medford Lakes when lake levels are at their highest for summer recreational purposes and a downpour causes the lakes to overtop their banks.
Masons Creek	*Township of Hainesport* – flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms.
Mullica River	*Township of Washington* – the Mullica River is the primary cause of flooding in the Township, typically associated with hurricanes and tropical storms. Downstream of the Pleasant Mills Bridge, flooding on the River is tidally influenced. Tributaries to the River have also experienced flooding, like the Batsto River. (HMP, 2014).
Pennsauken Creek	*Borough of Palmyra* – flows through the tidal flatlands and confluences with the Delaware River, making it subject to tidal flooding
Pennsauken Creek North Branch	*Township of Maple Shade* – primary flooding source due to heavy rains and local thunderstorms.
Pennsauken Creek South Branch	*Township of Maple Shade* – primary flooding source due to heavy rains and local thunderstorms.
Pompeston Creek	*Borough of Riverton* – high tides on the Delaware River produce major flooding in Pompeston Creek's lower reaches
Rancocas Creek	*Township of Delanco* – Rancocas Creek, along with the Delaware River, is a primary flooding source. Tidal surge occurs along the Delaware River especially when hurricane tracks are close to the Delaware River. *Township of Delran* – primary flooding source (FEMA, 1995) *Townships of Riverside, Westampton, and Willingboro* - -primary flooding source.
Rancocas Creek North Branch	*Township of Eastampton* – flooding occurs in the low-lying areas adjacent to Rancocas Creek North Branch during hurricanes and other large storms. *Township of Hainesport* – flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms. *Township of Medford* – flooding is primarily due to torrential rains during summer and autumn month. *Township of Mount Holly* – flooding is made more severe due to undersized culverts connecting the dredged stream to the former stream under the railroad embankment and from Buttonwood Run due to increasing development upstream in the Township of Eastampton. *Borough of Pemberton; Townships of Pemberton, Southampton* – primary flooding source due to torrential rains during summer and autumn months.
Rancocas Creek South Branch	*Township of Hainesport* – flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms. *Township of Medford* – flooding is primarily due to torrential rains during summer and autumn months.

Table 6: Principal Flood Problems – continued

Flooding Source	Description of Flood Problems
Rancocas Creek Southwest Branch	*Township of Medford* – flooding is primarily due to torrential rains during summer and autumn months.
Swede Run	*Township of Delran* – primary flooding source (FEMA, 1995).
Wading River West Branch	*Township of Woodland* – primary flooding source.
Within the extent of the Lower Delaware River Basin	Heavy rains, balmy temperatures, and rapid snowmelt can cause serious flooding in the Lower Delaware River Basin during the winter months. Flooding upstream and on the main stem of the Delaware River can severely affect flooding in the lower basin. Slow moving storms can cause flash flooding on the Lower Delaware River Basin. (DRBC 2014).

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

Table 7: Historic Flooding Elevations

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
Crosswicks Creek	USGS 01464500 at Extonville, NJ	43.1	2014	*	USGS Gage
Crosswicks Creek	USGS 01464500 at Extonville, NJ	45.9	2011	*	USGS Gage
Crosswicks Creek	USGS 01464500 at Extonville, NJ	41.8	2007	*	USGS Gage
Crosswicks Creek	USGS 01464500 at Extonville, NJ	42.0	1989	*	USGS Gage
Crosswicks Creek	USGS 01464500 at Extonville, NJ	42.9	1978	*	USGS Gage
Crosswicks Creek	USGS 01464500 at Extonville, NJ	42.7	1971	*	USGS Gage
Crosswicks Creek	USGS 01464500 at Extonville, NJ	41.8	1938	*	USGS Gage
Crosswicks Creek	Locational Information Not Available in previous FIS	16.24	1971	*	Local Gage
Delaware River	USGS 01463500 at Trenton NJ	21.9	2011	*	USGS Gage
Delaware River	USGS 01463500 at Trenton NJ	23.9	2006	*	USGS Gage

*Not calculated for this Flood Risk Project

Table 7: Historic Flooding Elevations – continued

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
Delaware River	USGS 01463500 at Trenton NJ	24.2	2005	*	USGS Gage
Delaware River	USGS 01463500 at Trenton NJ	22.2	2004	*	USGS Gage
Delaware River	USGS 01463500 at Trenton NJ	21.0	1996	*	USGS Gage
Delaware River	USGS 01463500 at Trenton NJ	27.4	1955	*	USGS Gage
Delaware River	USGS 01463500 at Trenton NJ	19.9	1942	*	USGS Gage
Delaware River	USGS 01463500 at Trenton NJ	23.3	1936	*	USGS Gage
Delaware River	USGS 01463500 at Trenton NJ	27.3	1903	*	USGS Gage
Delaware River	USGS 01463500 at Trenton NJ	22.4	1902	*	USGS Gage
Delaware River	USGS Station Washington Street	6.8	2014	*	USGS Gage
Delaware River	USGS Station Washington Street	7.3	2012	*	USGS Gage
Delaware River	USGS Station Washington Street	7.5	2012	*	USGS Gage
Delaware River	USGS Station Washington Street	6.8	2011	*	USGS Gage
Delaware River	USGS Station Washington Street	7.4	2011	*	USGS Gage
Delaware River	USGS Station Washington Street	7.1	1980	*	USGS Gage
Delaware River	USGS Station Washington Street	6.8	1979	*	USGS Gage
Delaware River	USGS Station Washington Street	6.8	1955	*	USGS Gage
Delaware River	USGS Station Washington Street	7.4	1950	*	USGS Gage
Delaware River	USGS Station Washington Street	7.0	1933	*	USGS Gage
Delaware River	Locational Information Not Available	9.4	1933	*	Local Gage

*Not calculated for this Flood Risk Project

Table 7: Historic Flooding Elevations – continued

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
Delaware River	Borough of Fieldsboro	9.3	1933	*	High Water Mark
Delaware River	Trenton, NJ	10.7	1955	*	Local Gage
Delaware River	Borough of Fieldsboro	13.3	1955	*	High Water Mark
Dredge Harbor	Township of Delran	7.2	1955	*	Unknown
East Branch Bass River	USGS 01410150 near New Gretna NJ	6.4	2000	*	USGS Gage
East Branch Bass River	USGS 01410150 near New Gretna NJ	7.2	1997	*	USGS Gage
Greenwood Branch	USGS 01466900 at New Lisbon NJ	44.1	2011	*	USGS Gage
Greenwood Branch	USGS 01466900 at New Lisbon NJ	43.1	2004	*	USGS Gage
Greenwood Branch	USGS 01466900 at New Lisbon NJ	42.4	2010	*	USGS Gage
Mullica River	USGS 01409400 near Batsto NJ	18.1	2011	*	USGS Gage
Mullica River	USGS 01409400 near Batsto NJ	17.0	2007	*	USGS Gage
Mullica River	USGS 01409400 near Batsto NJ	16.9	1979	*	USGS Gage
Mullica River	USGS 01409400 near Batsto NJ	16.3	1975	*	USGS Gage
Mullica River	USGS 01409400 near Batsto NJ	16.1	1967	*	USGS Gage
Mullica River	USGS 01409400 near Batsto NJ	16.1	1958	*	USGS Gage
North Branch Rancocas Creek	USGS 01467000 at Pemberton NJ	34.9	2011	*	USGS Gage
North Branch Rancocas Creek	USGS 01467000 at Pemberton NJ	34.2	2004	*	USGS Gage
North Branch Rancocas Creek	USGS 01467000 at Pemberton NJ	33.8	1979	*	USGS Gage
North Branch Rancocas Creek	USGS 01467000 at Pemberton NJ	34.2	1971	*	USGS Gage

*Not calculated for this Flood Risk Project

Table 7: Historic Flooding Elevations – continued

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
Oswego River	USGS 01410000 at Harrisville NJ	12.4	2012	*	USGS Gage
Oswego River	USGS 01410000 at Harrisville NJ	13.0	1939	*	USGS Gage
Oswego River	USGS 01410000 at Harrisville NJ	11.6	1938	*	USGS Gage
Pennsauken Creek	At Mouth	9.0	1933	*	Local Gage
Pennsauken Creek South Branch	USGS 01467081 at Cherry Hill	18.2	2011	*	USGS Gage
Pennsauken Creek South Branch	USGS 01467081 at Cherry Hill	18.0	2006	*	USGS Gage
Pennsauken Creek South Branch	USGS 01467081 at Cherry Hill	18.7	2004	*	USGS Gage
Pennsauken Creek South Branch	USGS 01467081 at Cherry Hill	18.6	1994	*	USGS Gage
Pompeston Creek	At Mouth	8.8	1933	*	Local Gage
Rancocas Creek North Branch	Locational Information Not Available in previous FIS	14.8	1940	*	Local Gage
Rancocas Creek North Branch	Unspecified location	25.6	1940	*	High Water Mark
Rancocas Creek South Branch	USGS 01465850 at Vincentown NJ	20.6	2014	*	USGS Gage
Rancocas Creek South Branch	USGS 01465850 at Vincentown NJ	21.5	2011	*	USGS Gage
Rancocas Creek South Branch	USGS 01465850 at Vincentown NJ	21.2	2007	*	USGS Gage
Rancocas Creek South Branch	USGS 01465850 at Vincentown NJ	25.5	2004	*	USGS Gage

*Not calculated for this Flood Risk Project

Table 7: Historic Flooding Elevations – continued

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
Rancocas Creek South Branch	USGS 01465850 at Vincentown NJ	20.0	1978	*	USGS Gage
Rancocas Creek South Branch	At Marne Highway Bridge	12.8	1940	*	Local Gage
Rancocas Creek Southwest Branch	USGS Gage No. 01465880 at Medford NJ	36.9	2004	*	USGS Gage
Rancocas Creek Southwest Branch	USGS Gage No. 01465880 at Medford NJ	17.2	1999	*	USGS Gage
Rancocas Creek Southwest Branch	USGS Gage No. 01465880 at Medford NJ	32.5	1989	*	USGS Gage
West Branch Wading River	USGS 01409810 near Jenkins NJ	25.8	2012	*	USGS Gage
West Branch Wading River	USGS 01409810 near Jenkins NJ	25.2	2011	*	USGS Gage
West Branch Wading River	USGS 01409810 near Jenkins NJ	24.5	2010	*	USGS Gage
West Branch Wading River	USGS 01409810 near Jenkins NJ	25.1	1979	*	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 Burlington 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	Description of Measure
Friendship Creek	Huntington Drive Dam	Dam	Township of Southampton	
Friendship Creek	Old Forge Lake Dam	Dam	Township of Southampton	

Table 8: Non-Levee Flood Protection Measures – continued

Flooding Source	Structure Name	Type of Measure	Location	Description of Measure
Pompeston Creek	N/A	Dam	Township of Cinnaminson, upstream of Route 130 Bridge at Lakewood Memorial Park	Regulate floods of smaller magnitude, little impact on storm even of 1- or 0.2-percent annual chance
Pompeston Creek	N/A	Dam	Township of Cinnaminson, approximately 300 feet upstream of the Riverton Road Bridge	Regulate floods of smaller magnitude, little impact on storm even of 1- or 0.2-percent annual chance
Pompeston Creek	N/A	Dam	Township of Cinnaminson, approximately 600 feet upstream of Parry Road Bridge	Regulate floods of smaller magnitude, little impact on storm even of 1- or 0.2-percent annual chance
Rancocas Creek North Branch	N/A	Control Structure	Township of Pemberton, located at New Lisbon Road	
Rancocas Creek North Branch	Mill Dam	Dam	Township of Mount Holly	
Rancocas Creek North Branch	Smithville Dam	Dam	Township of Eastampton, approximately two miles upstream of municipal border with Township of Mount Holly	Constructed to aid in flood storage
Rancocas Creek South Branch	Race Street Dam	Dam	Township of Southampton	
Rancocas Creek Southwest Branch	Church Road Dam	Dam	Township of Medford	Constructed to aid in flood storage
Various	N/A	Dry Detention Basins	Township of Cinnaminson, various locations	Regulate floods of smaller magnitude, little impact on storm even of 1- or 0.2-percent annual chance

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 A LOMR is an official revision to the currently effective FEMA map. It is used to change flood zones, floodplain and floodway delineations, flood elevations and planimetric features. All requests for LOMRs should be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map. If the request for a LOMR is not submitted through the chief executive officer of the community, evidence must be submitted that the community has been notified of the request.

To obtain an application for a LOMR, visit www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions and download the form "MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision". Visit the "Flood Map-Related Fees" section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Burlington County FIRM are listed in Table 27. Please note that this table only includes LOMCs that have been issued on the FIRM panels updated by this map revision. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.

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. (Coastal stillwater elevations are discussed in Section 5.3 and shown in Table 17.) 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
Assiscunk Creek	At confluence with Delaware River	46.01	2,180	*	3,445	4,155	6,245
Assiscunk Creek Tributary	At corporate limits of Springfield Township	3.1	435	*	720	885	1,375
Assiscunk Creek Tributary	At limit of detailed study	2.7	405	*	665	820	1,275
Baffin Brook	At confluence with Pole Bridge Branch	2.0	45	*	80	100	170
Baffin Brook	At upstream limit of detailed study	1.7	35	*	65	80	135
Ballinger Run	At confluence with Haynes Creek	8.2	310	*	525	640	1,005
Ballinger Run	Downstream of confluence with Ballinger Run Tributary	7.8	310	*	520	640	1,000
Ballinger Run	Upstream of unnamed tributary in Medford Township	7.0	280	*	475	580	915
Ballinger Run	Downstream of confluence with Lake Mishe Mokwa Run	6.7	265	*	450	55	870
Ballinger Run	Upstream of confluence with Lake Mishe Mokwa Run	5.7	205	*	355	440	700

*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
Ballinger Run	Upstream of corporate limits of Medford Lakes Borough and Medford Township	4.9	170	*	300	375	620
Ballinger Run	At limit of detailed study	2.9	95	*	175	220	370
Ballinger Run Tributary	At confluence with Ballinger Run	0.8	175	*	235	250	320
Ballinger Run Tributary	At limit of detailed study	2.9	95	*	175	220	370
Barkers Brook	At confluence with Assiscunk Creek Tributary	13.32	942	*	1,550	1,900	3,020
Barkers Brook	At Smithville-Jacksonville Road	9.25	701	*	1,190	1,490	2,440
Barkers Brook	Downstream of confluence of Barkers Brook Unnamed Tributary	6.08	536	*	919	1,150	1,900
Barkers Brook	Upstream of confluence of Barkers Brook Unnamed Tributary	2.41	269	*	471	597	1,010
Barkers Brook Unnamed Tributary	At confluence with Barkers Brook	3.68	322	*	562	709	1,190
Barkers Brook Unnamed Tributary	At Saylors Pond Road	2.32	203	*	360	456	776

*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
Barton Run	At confluence with Rancocas Creek Southwest Branch	14.6	480	*	805	985	1,510
Barton Run	Downstream of Barton Run Tributary 1	14.3	480	*	800	980	1,500
Barton Run	Upstream of Barton Run Tributary 1	12.7	475	*	790	970	1,485
Barton Run	Downstream of unnamed tributary	11.6	470	*	785	960	1,475
Barton Run	Upstream of unnamed tributary	10.6	470	*	785	960	1,475
Barton Run	Downstream of Black Run	10.5	470	*	785	960	1,475
Barton Run	Upstream of Black Run	7.6	460	*	770	945	1,455
Barton Run	Upstream of unnamed tributary	6.0	410	*	685	840	1,300
Barton Run	Upstream of unnamed tributary	2.2	200	*	340	425	665
Barton Run	Downstream of Kenilworth Lake	1.7	167	*	280	350	550
Barton Run	At limit of detailed study	1.1	130	*	225	280	440
Barton Run Tributary 1	At confluence with Barton Run	1.5	165	*	290	360	580
Barton Run Tributary 1	At New Road in Evesham Township	0.9	125	*	190	205	260

*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
Barton Run Tributary 2	At confluence with Barton Run	1.0	35	*	65	85	135
Barton Run Tributary 2	At limit of detailed study	0.3	30	*	45	45	60
Barton Run Tributary 3	Upstream of confluence with Barton Run	3.7	400	*	458	465	485
Barton Run Tributary 3	Upstream of Dutch Road diversion	3.6	420	*	690	840	1,200
Beaverdam Creek	At mouth	3.52	408	*	700	879 / 1,091[1]	1,091
Beaverdam Creek	Approximately 800 feet upstream of mouth	3.52	409	*	700	880 / 1091[1]	1,091
Beaverdam Creek	Approximately 2,300 feet upstream of mouth	3.15	370	*	636	800 / 992[1]	992
Beaverdam Creek	At Hilligards Road	3.08	371	*	637	801 / 994[1]	994
Beaverdam Creek	Approximately 2,000 feet upstream of Hilligards Road	2.70	333	*	575	724 / 899[1]	899
Beaverdam Creek	Approximately 980 feet downstream of Red Lion Road	2.36	310	*	536	677 / 841[1]	841
Bisphams Mill Creek	At corporate limits of Woodland Township	11.53	165	*	305	385	675
Bisphams Mill Creek	At Lebanon State Forest boundary	5.35	65	*	125	160	295

*Not calculated for this Flood Risk

[1]1-percent annual chance discharge/New Jersey Flood Hazard Area Design Flood (NJFHADF) discharge; the NJFHADF discharge is equal to the 1-percent annual chance flow plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flow.

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
Black Run	At confluence with Barton Run	2.9	120	*	210	260	415
Black Run	Downstream of Black Run Tributary	2.5	105	*	190	235	370
Black Run	Upstream of Black Run Tributary	1.2	60	*	100	130	210
Black Run	At limit of detailed study	0.9	65	*	90	95	120
Black Run Tributary	At confluence with Black Run	1.3	105	*	180	225	365
Black Run Tributary	At limit of detailed study	0.9	65	*	90	95	120
Blacks Creek	At confluence with Crosswicks Creek	22.5	1,251	*	2,027	2,469	3,774
Blacks Creek	Upstream of U.S. Route 206	19.4	1,032	*	1,693	2,072	3,197
Blue Lake Run	At confluence with Haynes Creek	1.8	85	*	155	195	315
Blue Lake Run	At corporate limits of Evesham and Medford Townships	1.6	85	*	150	185	305
Bobbys Run	At confluence with Rancocas Creek South Branch	4.6	485	*	815	1,010	1,610
Bobbys Run	At limit of detailed study	3.9	480	*	805	1,005	1,605
Bread and Cheese Run	At confluence with Friendship Creek	2.37	310	*	550	690	1,130

*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
Bread and Cheese Run	Approximately 340 feet upstream of Patty Bowker Road	1.99	270	*	460	590	970
Bread and Cheese Run	Approximately 270 feet upstream of New Road	1.43	210	*	380	480	800
Budds Run	At confluence with Rancocas Creek North Branch	6.1	605	*	1,000	1,230	1,920
Budds Run	At limit of detailed study	5.7	590	*	975	1,200	1,880
Burrs Mill Brook	At downstream study limit	16.83	165	*	305	425	675
Burrs Mill Brook	At upstream limit of detailed study	13.79	151	*	282	358	618
Bustleton Creek	At downstream corporate limit of Florence Township	1.9	316	*	528	654	1,023
Bustleton Creek	At U.S. Route 130	1.2	258	*	433	539	845
Buttonwood Run	At confluence with Mill Race	1.2	200	*	330	400	610
Buttonwood Run	At limit of detailed study	0.8	185	*	245	265	330
Country Lake Tributary	At confluence with Pole Bridge Branch	1.1	145	*	190	205	255
Country Lake Tributary	At limit of detailed study	0.7	85	*	115	125	155
Crafts Creek	At downstream corporate limit of Florence Township	13.1	1,050	*	1,400	1,740	2,315

*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
Crafts Creek	Upstream of railroad bridge	13.0	1,234	*	2,018	2,487	3,902
Crafts Creek	At U.S. Route 130	11.2	1,080	*	1,731	2,224	3,550
Cranberry Branch	At outlet of Colony Lake	22.4	315	*	545	670	1,085
Cranberry Branch	At beginning of Colony Lake	1.2	15	*	30	40	70
Cranberry Branch	At limit of detailed study	1.0	15	*	25	30	55
Cropwell Brook	At confluence with Pennsauken Creek South Branch	1.4	210	*	350	435	690
Cropwell Brook	Downstream of North Cropwell Road	1.2	200	*	345	425	675
Cropwell Brook	Upstream of North Cropwell Road	1.14	164	*	279	345	564
Cropwell Brook	At State Route 73	0.51	129	*	221	275	454
Crosswicks Creek	Upstream of confluence with Delaware River	134.1	4,340	*	7,150	8,090	11,600
Crosswicks Creek	Downstream of confluence of Blacks Creek	130.7	4,260	*	7,020	7,940	11,380
Crosswicks Creek	Downstream of confluence of Doctors Creek	120.4	4,010	*	6,600	7,470	10,700
Crosswicks Creek	Upstream of U.S. Route 130	94.5	3,350	*	5,520	6,240	8,940

*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
Delaware River	At downstream corporate limit of Burlington Township	7,167	170,000	*	250,000	288,000	387,000
Evesboro Tributary	At confluence with Pennsauken Creek North Branch	1.1	240	*	450	680	1,300
Evesboro Tributary	Upstream of confluence of Ramblewood Tributary	0.8	200	*	440	600	1,120
Evesboro Tributary	Downstream of Academy Drive	0.3	110	*	240	330	620
Evesboro Tributary	Downstream of Union Mill Road	0.1	80	*	170	230	420
Friendship Creek	Near Ridge Road	33.47	789	*	1,166	1,332 / 1,665[1]	1,738
Friendship Creek	At Retreat Road	33.38	787	*	1,164	1,329 / 1,661[1]	1,734
Friendship Creek	At Cedar Run Lake Dam	32.96	779	*	1,151	1,315 / 1,644[1]	1,716
Friendship Creek	At Old Forge Lake Dam	32.95	779	*	1,151	1,315 / 1,644[1]	1,715
Hartford Road Tributary	At confluence with Parkers Creek	0.41	150	*	220	260	370

*Not calculated for this Flood Risk Project

[1]1-percent annual chance discharge/New Jersey Flood Hazard Area Design Flood (NJFHADF) discharge; the NJFHADF discharge is equal to the 1-percent annual chance flow plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flow.

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
Haynes Creek	At confluence with Rancocas Creek Southwest Branch	29.0	730	*	1,205	1,460	2,215
Haynes Creek	Downstream of confluence of Ballinger Run	27.7	695	*	1,150	1,395	2,110
Haynes Creek	Upstream of confluence of Ballinger Run	19.5	450	*	765	935	1,485
Haynes Creek	At outlet at Lake Pine	18.0	430	*	725	890	1,410
Haynes Creek	Downstream of confluence of Taunton Lake Tributary	16.0	380	*	645	795	1,265
Haynes Creek	Upstream of confluence of Taunton Lake Tributary	13.5	305	*	525	645	1,030
Haynes Creek	At corporate limits of Evesham and Medford Townships	2.7	150	*	260	320	510
Haynes Creek	At inlet of unnamed lake	1.4	85	*	150	185	290
Hooten Road Tributary	At confluence with Strawbridge Lake	0.7	200	*	420	540	1,050
Hooten Road Tributary	Downstream of Hooten Road	0.6	180	*	380	500	960
Hooten Road Tributary	Upstream of Interstate 295	0.2	110	*	230	310	590

*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
Indian Mills Brook	Upstream of confluence with Muskingum Brook	4.6	340	*	595	750 / 938[1]	1,210
Indian Mills Brook	Upstream of Stokes Road	3.4	230	*	400	500 / 625[1]	820
Jacks Run	At confluence with Pompeston Creek	0.9	155	*	250	300	525
Jade Run	Near the intersection of Vincentown Columbus Road and Pemberton Road	13.19	842	*	1,417	1,762	2,177
Jade Run	Approximately 15,045 feet downstream of Ridge Road	12.29	832	*	1,401	1,743	2,153
Jade Run	Approximately 11,013 feet downstream of Ridge Road	11.59	783	*	1,321	1,645	2,033
Jade Run	Approximately 8,086 feet downstream of Ridge Road	11.39	787	*	1,328	1,654	2,045
Jade Run	Approximately 4,104 feet downstream of Ridge Road	9.70	665	*	1,128	1,407	1,741
Jade Run	At Ridge Road	5.39	332	*	577	724	901

*Not calculated for this Flood Risk Project

[1]1-percent annual chance discharge/New Jersey Flood Hazard Area Design Flood (NJFHADF) discharge; the NJFHADF discharge is equal to the 1-percent annual chance flow plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flow.

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
Jefferson Lake	At outlet of Jefferson Lake	12.0	185	*	335	425	730
Jefferson Lake	At limit of detailed study	11.5	165	*	305	385	675
Kendles Run	**	1.0[1]	270[1]	*	350[1]	395[1]	485[1]
Kendles Run	**	0.9[1]	255[1]	*	335[1]	375[1]	450[1]
Lake Kawasea and Lake Meeshaway	At outlet of Lake Kawasea	0.1	10	*	15	15	20
Lake Mishe Mokwa Run	At confluence with Ballinger Run	1.0	85	*	150	180	280
Lake Mishe Mokwa Run	At outlet of Lake Mishe Mokwa	0.8	85	*	130	140	180
Lake Mushkodosa	At outlet of Lake Mushkodosa	0.4	60	*	80	90	110
Lake Wagush, Lake Siquitise and Pau Puk Keewis Lagoon	At outlet of Lake Wagush	0.2	40	*	50	55	70
Little Creek	At confluence with Rancocas Creek Southwest Branch	20.0	510		860	1,050	1,700
Little Creek	Downstream of unnamed tributary	19.7	510	*	860	1,050	1,700

*Not calculated for this Flood Risk Project

**Data not available

[1] Data extracted from Frequency Discharge, Drainage Area Curves found in the FIS for Township of Moorestown dated January 19, 1996.

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 Creek	Upstream of unnamed tributary	18.4	465	*	800	980	1,575
Little Creek	Downstream of confluence of Skeet Run	16.4	465	*	800	980	1,575
Little Creek	Upstream of confluence of Skeet Run	14.3	390	*	665	825	1,330
Little Creek	Downstream of confluence with Bear Swamp River	12.6	340	*	585	725	1,170
Little Creek	Upstream of confluence with Bear Swamp River	6.4	205	*	360	445	720
Little Creek	At limit of detailed study	6.0	200	*	345	430	695
Little Pine Lake	At confluence with Mirror Lake	12.1	735	*	1,205	1,470	2,270
Little Pine Lake	At Bayberry Street	9.1	575	*	950	1,160	1,805
Masons Creek	At confluence with Rancocas Creek South Branch	8.2	640	*	1,060	1,305	2,050
Masons Creek	Downstream of unnamed tributary 1	6.1	545	*	910	1,120	1,770
Masons Creek	Upstream of unnamed tributary 1	5.2	445	*	745	925	1,470
Masons Creek	Downstream of unnamed tributary 2	5.1	445	*	745	925	1,470

*Not calculated for this Flood Risk Project