

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 4



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 |
| DELTRAN, 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 |

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FLOOD INSURANCE STUDY NUMBER
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Version Number 2.3.3.2



FEMA

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Table 24: Floodway Data

Exhibits

| Flood Profiles | <u>Panel</u> |
|---------------------------------|--------------|
| Assiscunk Creek | 001-002 P |
| Assiscunk Creek Tributary | 003 P |
| Baffin Brook | 004 P |
| Ballinger Run | 005-006 P |
| Ballinger Run Tributary | 007 P |
| Barkers Brook | 008-013 P |
| Barkers Brook Unnamed Tributary | 014-015 P |
| Barton Run | 016-018 P |
| Barton Run Tributary 1 | 019 P |
| Barton Run Tributary 2 | 020 P |
| Barton Run Tributary 3 | 021-022 P |
| Beaverdam Creek | 023-024 P |
| Bisphams Mill Creek | 025-026 P |
| Black Run | 027-029 P |
| Black Run Tributary | 030-031 P |
| Blacks Creek | 032-033 P |
| Blue Lake Run | 034 P |
| Bobbys Run | 035-036 P |
| Bread and Cheese Run | 037-038 P |
| Budds Run | 039 P |
| Burrs Mill Brook | 040-041 P |
| Bustleton Creek | 042 P |
| Buttonwood Run | 043 P |

| | |
|------------------------|-------|
| Country Lake Tributary | 044 P |
| Crafts Creek | 045 P |

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| | |
|-------------------------------|-----------|
| Cranberry Branch | 046-047 P |
| Cropwell Branch | 048-049 P |
| Crosswicks Creek | 050-062 P |
| Delaware River | 063-070 P |
| Evesboro Tributary | 071-072 P |
| Friendship Creek | 073-077 P |
| Hartford Road Tributary | 078 P |
| Haynes Creek | 079-086 P |
| Hooten Road Tributary | 087 P |
| Indian Mills Brook | 088-093 P |
| Jacks Run | 094 P |
| Jade Run | 095-098 P |
| Kendles Run | 099 P |
| Lake Mishe Mokwa Run | 100 P |
| Laurel Run | 101 P |
| Little Creek | 102-106 P |
| Masons Creek | 107-110 P |
| Mill Creek | 111-113 P |
| Mill Creek South Branch | 114 P |
| Mill Creek Tributary | 115 P |
| Mill Creek Tributary 1 | 116 P |
| Mill Race | 117 P |
| Mimosa Lake Run | 118 P |
| Mount Holly Bypass Channel | 119 P |
| Mount Misery Creek | 120-121 P |
| Mullica River | 122-123 P |
| Muskingum Brook | 124-126 P |
| Ong Run | 127 P |
| Parkers Creek | 128-130 P |
| Pennsauken Creek | 131-132 P |
| Pennsauken Creek North Branch | 133-135 P |
| Pennsauken Creek South Branch | 136-138 P |
| Pheasant Run | 139 P |
| Pole Bridge Branch | 140-142 P |
| Pole Bridge Branch Tributary | 143 P |

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Exhibits

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|---|--------------|
| Pompeston Creek | 144-148 P |
| Pompeston Creek East and Southeast Branches | 149 P |
| Pompeston Creek Northeast Branch | 150 P |
| Ramblewood Tributary | 151-152 P |
| Rancocas Creek | 153-156 P |
| Rancocas Creek North Branch | 157-166 P |
| Rancocas Creek South Branch | 167-173 P |
| Rancocas Creek South Branch Tributary | 174-176 P |
| Rancocas Creek Southwest Branch | 177-186 P |
| Sharps Run | 187-189 P |
| Shinns Branch | 190 P |
| Skeet Run | 191 P |
| Springer Brook | 192-193 P |
| Strawberry Lake | 194-195 P |
| Swede Run | 196-200 P |
| Swede Run Tributary | 201 P |
| Tributary 1 to Sharps Run | 202 P |
| Wading River West Branch | 203-206 P |

Published Separately

Flood Insurance Rate Map (FIRM)

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 60.3, *Criteria for Land Management and Use*.

SFHAs are delineated on the community's Flood Insurance Rate Maps (FIRMs). Under the NFIP, buildings that were built before the flood hazard was identified on the community's FIRMs are generally referred to as "Pre-FIRM" buildings. When the NFIP was created, the U.S. Congress recognized that insurance for Pre-FIRM buildings would be prohibitively expensive if the premiums were not subsidized by the Federal Government. Congress also recognized that most of these floodprone buildings were built by individuals who did not have sufficient knowledge of the flood hazard to make informed decisions. The NFIP requires that full actuarial rates reflecting the complete flood risk be charged on all buildings constructed or substantially improved on or after the effective date of the initial FIRM for the community or after December 31, 1974, whichever is

later. These buildings are generally referred to as “Post-FIRM” buildings.

1.2 Purpose of this Flood Insurance Study Report

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

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

1.3 Jurisdictions Included in the Flood Insurance Study Project

This FIS Report covers the entire geographic area of 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.

The location of flood hazard data for participating communities in multiple jurisdictions is also indicated in the table.

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

Table 1: Listing of NFIP Jurisdictions

| Community | CID | HUC-8 Sub-Basin(s) | Located on FIRM Panel(s) | If Not Included, Location of Flood Hazard Data |
|-------------------------|--------|-----------------------|--|--|
| 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 | 34005C0019F 34005C0037F 34005C0038F 34005C0039F 34005C0041F 34005C0043F 34005C0132F 34005C0151F 34005C0155F 34005C0160F | |
| 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 | |
| Eastampton, Township of | 340095 | 02040201, 02040202 | 34005C0144F 34005C0163F 34005C0257F 34005C0276F | |

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 |
|-----------------------------|--------|--------------------|---|--|
| 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 | |
| Lumberton, Township of | 340100 | 02040202 | 34005C0252F 34005C0253F 34005C0254F 34005C0256F 34005C0257F 34005C0258F 34005C0259F 34005C0261F 34005C0262F 34005C0266F | |

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 |
|---------------------------|--------|-----------------------|--|--|
| 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 | |
| Moorestown, Township of | 340105 | 02040202 | 34005C0114F 34005C0118F 34005C0119F 34005C0207F 34005C0209F 34005C0226F 34005C0227F 34005C0228F 34005C0229F 34005C0231F 34005C0232F 34005C0233F | |

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 |
|---------------------------|--------|-----------------------|---|--|
| 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 | |
| Palmyra, Borough of | 340110 | 02040202 | 34005C0093F 34005C0094F 34005C0206F 34005C0207F | |
| Pemberton, Borough of | 340111 | 02040202 | 34005C0277F 34005C0279F 34005C0281F 34005C0283F | |

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 |
|------------------------|--------|-----------------------|---|--|
| 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 | |
| Shamong, Township of | 340534 | 02040202, 02040301 | 34005C0383F 34005C0384F 34005C0387F 34005C0392F 34005C0395F 34005C0403F 34005C0404F 34005C0411F 34005C0413F 34005C0415F 34005C0420F 34005C0482F ¹ 34005C0505F 34005C0510F | |

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 |
|--------------------------|--------|-----------------------|--|--|
| 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 | |
| Springfield, Township of | 340116 | 02040201, 02040202 | 34005C0129F 34005C0135F 34005C0141F 34005C0142F 34005C0144F 34005C0160F 34005C0161F 34005C0162F 34005C0163F 34005C0164F 34005C0166F 34005C0168F 34005C0170F 34005C0190F 34005C0277F 34005C0281F | |

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 |
|-------------------------|--------|-----------------------|--|--|
| Tabernacle, Township of | 340533 | 02040202, 02040301 | 34005C0289F 34005C0294F 34005C0295F 34005C0382F 34005C0384F 34005C0401F 34005C0402F 34005C0403F 34005C0404F 34005C0410F 34005C0415F 34005C0420F 34005C0426F 34005C0430F 34005C0440F 34005C0445F 34005C0510F 34005C0530F | |
| 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 | |

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 |
|--------------------------|--------|--------------------|---|--|
| 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 | |
| Woodland, Township of | 340551 | 02040202, 02040301 | 34005C0294F 34005C0295F 34005C0312F 34005C0313F 34005C0314F 34005C0316F 34005C0318F 34005C0320F 34005C0340F 34005C0410F 34005C0426F 34005C0430F 34005C0431F 34005C0432F 34005C0433F 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 [TBD]. 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:

| <u>Old Zone</u> | <u>New Zone</u> |
|-----------------|-----------------|
| 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.

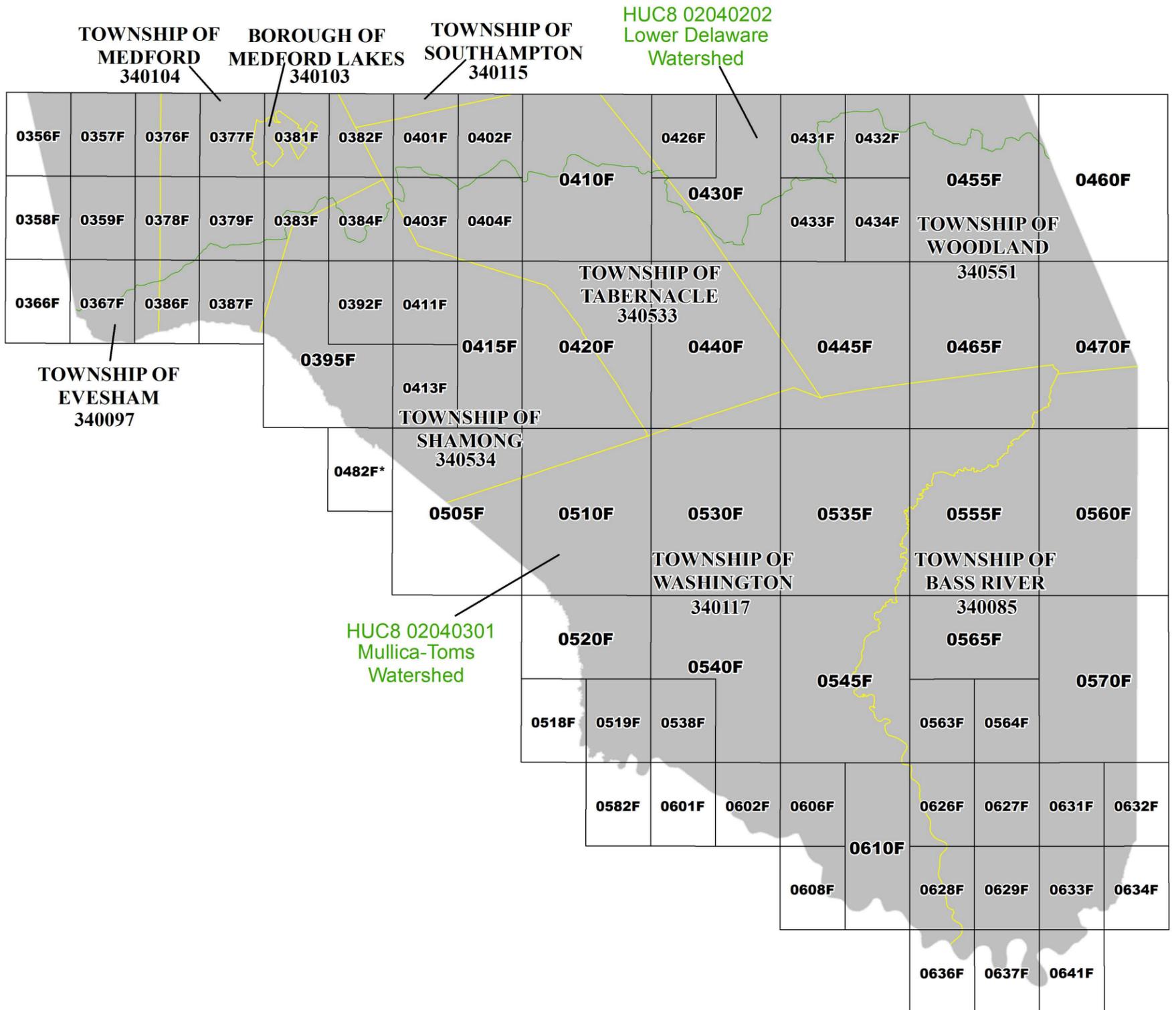
- Previous FIS Reports and FIRMs may have included levees that were accredited as reducing the risk associated with the 1% annual chance flood based on the information available and the mapping standards of the NFIP at that time. For FEMA to continue to accredit the identified levees, the levees must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

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

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

Figure 1 FIRM Panel Index

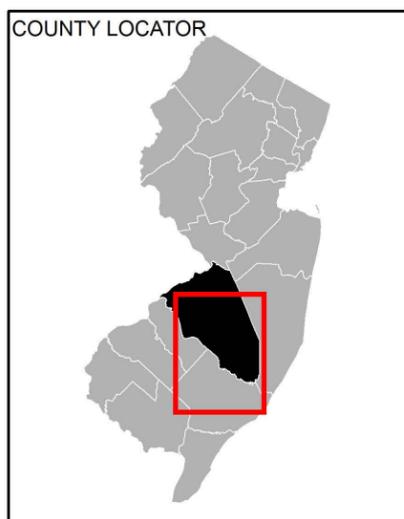


Map Projection:
New Jersey State Plane FIPS Zone 2900; North American Datum 1983; North American Vertical Datum of 1988

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

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

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP INDEX (Sheet 1 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, 0482, 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

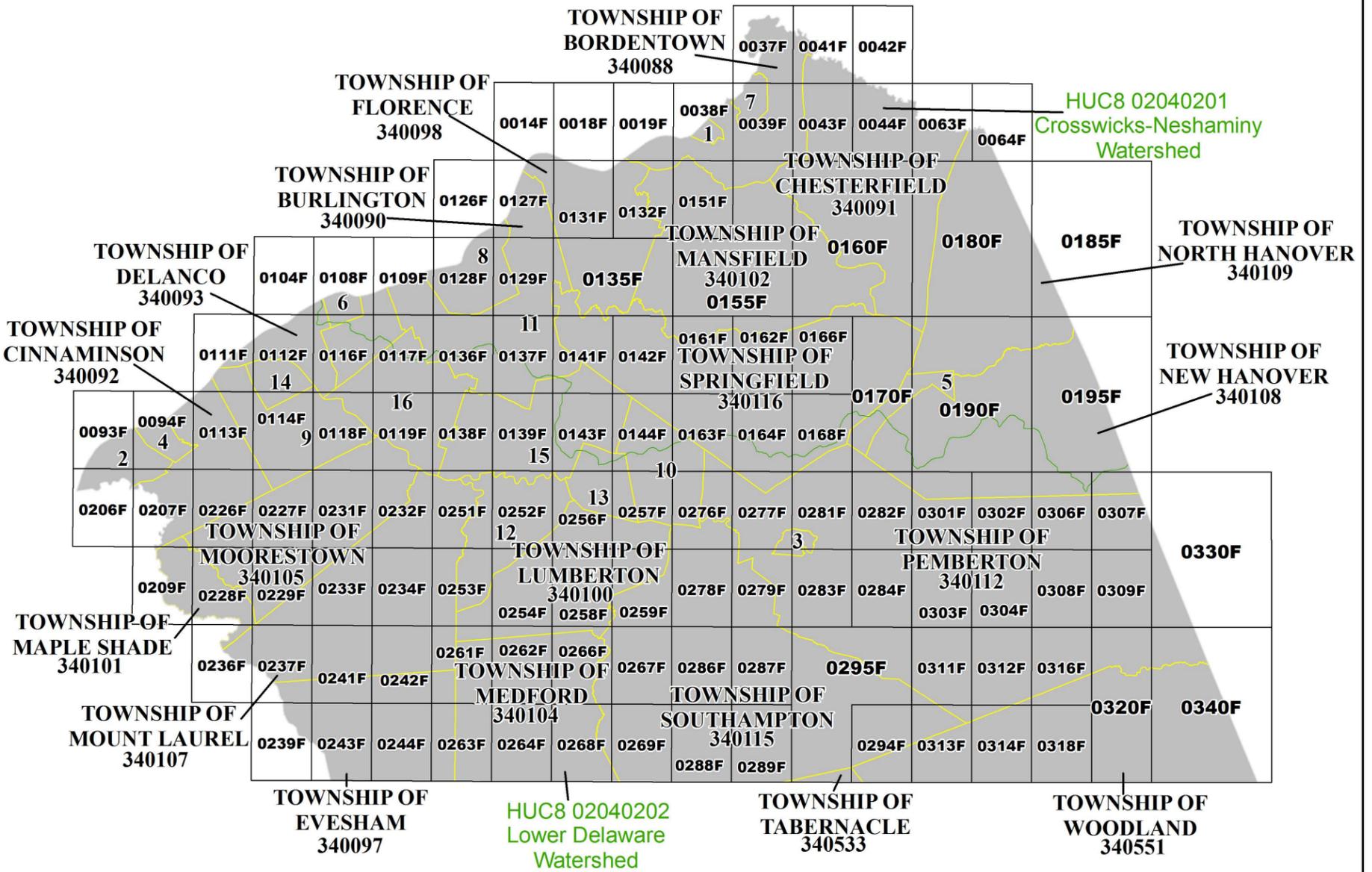


MAP NUMBER
34005CIND1A
EFFECTIVE DATE

*PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS

Figure 1 FIRM Panel Index

| 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 |



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

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

COUNTY LOCATOR



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

BURLINGTON COUNTY, NEW JERSEY (All Jurisdictions)
PANELS PRINTED:

0014, 0018, 0019, 0037, 0038, 0039, 0041, 0042, 0043, 0044, 0063, 0064, 0093, 0094, 0104, 0108, 0109, 0111, 0112, 0113, 0114, 0116, 0117, 0118, 0119, 0126, 0127, 0128, 0129, 0131, 0132, 0135, 0136, 0137, 0138, 0139, 0141, 0142, 0143, 0144, 0151, 0155, 0160, 0161, 0162, 0163, 0164, 0166, 0168, 0170, 0180, 0185, 0190, 0195, 0206, 0207, 0209, 0226, 0227, 0228, 0229, 0231, 0232, 0233, 0234, 0236, 0237, 0239, 0241, 0242, 0243, 0244, 0251, 0252, 0253, 0254, 0256, 0257, 0258, 0259, 0261, 0262, 0263, 0264, 0266, 0267, 0268, 0269, 0276, 0277, 0278, 0279, 0281, 0282, 0283, 0284, 0286, 0287, 0288, 0289, 0294, 0295, 0301, 0302, 0303, 0304, 0306, 0307, 0308, 0309, 0311, 0312, 0313, 0314, 0316, 0318, 0320, 0330, 0340



MAP NUMBER
34005CIND2A
EFFECTIVE DATE

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.

PRELIMINARY FIS REPORT: FEMA maintains information about map features, such as street locations and names, in or near designated flood hazard areas. Requests to revise information in or near designated flood hazard areas may be provided to FEMA during the community review period, at the final Consultation Coordination Officer's meeting, or during the statutory 90-day appeal period. Approved requests for changes will be shown on the final printed FIRM.

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.

Figure 2. FIRM Notes to Users

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.

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 [TBD].

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

| | |
|--|--|
| <p>SPECIAL FLOOD HAZARD AREAS: <i>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.</i></p> | |
|  | <p>Special Flood Hazard Areas subject to inundation by the 1% annual chance flood (Zones A, AE, AH, AO, AR, A99, V and VE)</p> |
| 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

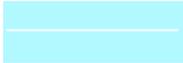
| | |
|--|---|
|  | Regulatory Floodway determined in Zone AE. |
|  | Non-encroachment zone (see Section 2.4 of this FIS Report for more information) |
| OTHER AREAS OF FLOOD HAZARD | |
|  | Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average 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 | |
|  <i>Aqueduct Channel Culvert Storm Sewer</i> | Channel, Culvert, Aqueduct, or Storm Sewer |
|  <i>Dam Jetty Weir</i> | Dam, Jetty, Weir |

Figure 3: Map Legend for FIRM

| | |
|--|--|
| | Levee, Dike or Floodwall |
| <p style="text-align: center;">Bridge</p> | Bridge |
| <p>COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA): <i>CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas. See Notes to Users for important information.</i></p> | |
| <p style="text-align: center;">CBRS AREA 09/30/2009</p> | Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway. |
| <p style="text-align: center;">OTHERWISE PROTECTED AREA 09/30/2009</p> | Otherwise Protected Area |
| <p>REFERENCE MARKERS</p> | |
| | River mile Markers |
| <p>CROSS SECTION & TRANSECT INFORMATION</p> | |
| | Lettered Cross Section with Regulatory Water Surface Elevation (BFE) |
| | Numbered Cross Section with Regulatory Water Surface Elevation (BFE) |
| | Unlettered Cross Section with Regulatory Water Surface Elevation (BFE) |
| | 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. |
| | Base Flood Elevation Line (shown for flooding sources for which no cross sections or profile are available) |
| <p>ZONE AE (EL 16)</p> | Static Base Flood Elevation value (shown under zone label) |
| <p>ZONE AO (DEPTH 2)</p> | 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 | |
| <i>Missouri Creek</i>  | River, Stream or Other Hydrographic Feature |
|  | Interstate Highway |
|  | U.S. Highway |
|  | State Highway |
|  | County Highway |
| MAPLE LANE  | Street, Road, Avenue Name, or Private Drive if shown on Flood Profile |
|  <i>RAILROAD</i> | 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 |
| ⁴²76^{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. 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 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. 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, 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 updated 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 downstream of Neck Road | 02040201 | 1.9 | | Y | AE | 12/1981 |
| Assiscunk Creek | Township of Burlington | Approximately 1.0 miles downstream of Neck Road | Approximately 475 feet upstream of Neck Road | 02040201 | 1.2 | | N | AE | 04/1988 |
| Assiscunk Creek | Townships of Burlington, Mansfield and Springfield | Approximately 475 feet upstream of Neck Road | 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 0.22 miles downstream of Oxmead Road | Approximately 0.28 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 – Whitesbogs 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 5 | 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 Saylor's Pond Road | 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 Saylor's 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 | 7.1 | | 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 | 02040202 | 0.6 | | Y | AE | 03/1982 |
| Barton Run Tributary 2 | Township of Evesham | At Taunton Lake Road | Approximately 70 feet downstream of Kings Grant Drive | 02040202 | 0.8 | | 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 |
|--------------------------|---|--|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 | 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 |
| 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 |

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 |
|---------------------|-------------------------|---|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 Woodland | At State Route 70 | At Coopers Road | 02040202 | 1.0 | | Y | AE | 04/1980 |
| 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 |
| Black Run | Township of Evesham | At confluence with Barton Run | At Private Drive | 02040202 | 2.2 | | 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 |
|---------------------|--|--|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 Delaware River | 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 |
| Bobbys Run | Township of Lumberton | Confluence with Rancocas Creek South Branch | At Eayrestown Road | 02040202 | 1.5 | | Y | AE | 02/1982 |

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 |
|----------------------|---|---|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 | 02040202 | 2.0 | | N | AE | 01/1989 |
| Bread and Cheese Run | Township of Tabernacle | At Carranza Road | 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 |
| 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 |

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 |
|---------------------|---------------------------------------|---|---|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 0.6 mile downstream of Railroad | Approximately 1.0 mile downstream of Railroad | 02040201 | 0.4 | | N | A | 09/2015 |
| Bustleton Creek | Townships of Burlington and Florence | Approximately 0.6 mile downstream of Railroad | At U.S. Highway 130 | 02040201 | 0.8 | | Y | AE | 06/1980 |

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 |
|------------------------|---|---|---|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| Bustleton Creek | Township of Florence | At U.S. Highway 130 | Approximately 1.3 miles upstream of U.S. Highway 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 (Woolman Lake) | 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-Whitesbogs Road | 02040202 | 1.2 | | Y | AE | 07/1978 |
| Crafts Creek | Townships of Florence and Mansfield | Confluence with Delaware River | At US Highway 130 | 02040201 | 0.7 | | Y | AE | 03/1988 |

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 | 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 | 02040202 | 2.2 | | Y | AE | 07/1978 |
| Cranberry Branch, Various Tributaries | Township of Pemberton | At Lake Hurst Road | 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 | At North Cropwell Road | 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 Allentown Road | 02040201 | 0.6 | | Y | AE | 04/1988 |
| Crosswicks Creek | Townships of Bordentown and Chesterfield | Approximately 2.0 miles downstream of Groveville Allentown 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, Palmyra and Riverside; Cities of Beverly, Bordentown and Burlington, Townships of Bordentown, Burlington, Cinnaminson, Delanco, Delran, Edgewater Park, and Florence | 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 | At State Highway 70 | 02040202 | 1.7 | | Y | AE | 11/2006 |
| Friendship Creek | Township of Southampton | At 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 Southwest Branch Rancocas Creek | 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 Tributary | 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 Wading River West Branch | 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 Springer 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 | East Branch Bass River | Philips Road and Tommy Branch | 02040301 | 2.5 | | N | A | 09/2015 |
| Lake Migazee | Borough of Medford Lakes | Migazee Trail | Tuckerton Road | 02040202 | 0.1 | | N | A | 09/2015 |
| Lake Minonok | Borough of Medford Lakes | Cheyenne Trail | Mohawk Trail | 02040202 | 0.1 | | N | A | 09/2015 |
| Lake Mishe Mokwa | Borough of Medford Lakes | Hiawatha Trail | Mishe Mokwa Trail | 02040202 | 0.5 | | N | A | 09/2015 |
| Lake Mishe-Mokwa Run | Borough of Medford Lakes | Confluence with Ballinger Run | Hiawatha Trail | 02040202 | 0.6 | | Y | AE | 06/1978 |
| Lake Mushkodosa | Borough of Medford Lakes | Mishe Mokwa Trail | Wagush Trail | 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 |
|------------------------|--|--|---|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| Lake Peshekee | Borough of Medford Lakes | Mudjekeewis Trail | Cheyenne Trail | 02040202 | 0.2 | | N | A | 09/2015 |
| Lake Sioux | Borough of Medford Lakes | Tuckerton Road | Atsion Road | 02040202 | 0.2 | | N | A | 09/2015 |
| Lake Siquitise | Borough of Medford Lakes | Mishe Mokwa Trail | Askoran Trail | 02040202 | 0.2 | | N | A | 09/2015 |
| Lake Wabassi | Borough of Medford Lakes | Askoran Trail | Migazee Trail | 02040202 | 0.1 | | N | A | 09/2015 |
| Lake Wagush | Borough of Medford Lakes | Wagush Trail | Mishe Mokwa Trail | 02040202 | 0.1 | | N | A | 09/2015 |
| Lake Wauwaukashe | Borough of Medford Lakes | Wagush Trail | Mudjekeewis Trail | 02040202 | 0.1 | | N | A | 09/2015 |
| Laurel Run | Township of Delran | At Creek Road | Approximately 0.5 mile upstream of Creek Road | 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 Southwest Branch Rancocas Creek | 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 | 02040202 | 0.7 | | Y | AE | 05/1978 |
| Mill Creek Tributary 1 | Township of Willingboro | Confluence with Mill Creek | At Levitt Parkway | 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 | Confluence 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 |
| 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 |

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 |
|----------------------------------|-------------------------------------|--|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 Bypass Channel | Township of Mount Holly | Confluence with Rancocas Creek North Branch | Confluence with Mill Race | 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 |
| 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 |

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 |
|---------------------------------------|--|--|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 0.2 mile upstream of Orange Avenue | Approximately 200 feet downstream of Gas Road | 02040202 | 1.2 | | N | A | 09/2015 |
| 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 |

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 |
|------------------------------------|--|--|---|--------------------|-------------------------------------|--|----------------|--------------------|---------------------------|
| 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 | At Union Mill Road | 02040202 | 3.2 | | Y | AE | 12/1978 |
| Parkers Creek | Township of Mount Laurel | At Union Mill Road | At Hainesport Mt. 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 |
| Pennsauken Creek North Branch | Townships of Maple Shade, Moorestown, and Mount Laurel | Confluence with Pennsauken Creek and Pennsauken Creek South Branch | At Hainesport Mt Laurel Road | 02040202 | 7.6 | | Y | AE | 04/1977, 12/1978, 09/1976 |

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, 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 and Pennsauken Creek North Branch | 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 Waterford Drive | 02040202 | 0.3 | | N | AE | 07/1974 |
| Plains Branch | Townships of Bass River and Washington | Confluence with Oswego River | 4500 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 Colony 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 | 02040202 | 0.5 | | Y | AE | 07/1978 |
| Pole Bridge Branch Tributary | Township of Pemberton | At Lakehurst Road | 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 River Road | 02040202 | 1.2 | | Y | AE | 04/2014 |
| Pompeston Creek | Township of Cinnaminson and Moorestown | Approximately 0.9 mile upstream of River Road | 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 Branch | Township of Cinnaminson | Confluence with Pompeston Creek | 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 |
| 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 |

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 | Townships of Delanco, Delran, Edgewater Park, Hainesport, Moorestown, Mount Laurel, Riverside, Willingboro, and Westampton | Confluence with Delaware River | At Interstate 295 | 02040202 | 8.0 | | Y | AE | 04/2014 |
| Rancocas Creek | Townships of Mount Laurel and Westampton | At Interstate 295 | 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 and Rancocas Creek South Branch | At Lakehurst Road and downstream limit of Mirror Lake | 02040202 | 23.6 | | Y | AE | 05/1978 |
| 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 |

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 South Branch | Townships of Hainesport, Lumberton, Mount Laurel and Southampton | Confluence with Rancocas Creek and Rancocas Creek North Branch | At Bed Bug Hill Road | 02040202 | 16.6 | | Y | AE | 11/2006 |
| Rancocas Creek South Branch | Township of Southampton | At 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 |
| 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 |

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 |
|---------------------------------|--|---|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 |
| Shinns Branch | Township of Woodland | Confluence with Bisphams Mill Creek | 1100 feet downstream of Norlemon Road | 02040202 | 0.6 | | Y | AE | 04/1980 |

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 |
|----------------------------------|-------------------------------------|---|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 |
| 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 |

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 |
|---------------------|--|--|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 |
| Strawberry 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 Delaware River and at St. Michel Drive | Approximately 0.9 mile upstream of St. Michel Drive | 02040202 | 0.9 | | Y | AE | 04/2014 |
| Swede Run | Townships of Delran and Moorestown | Approximately 0.9 mile upstream of St. Michel Drive | 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 with 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 |

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 |
|--------------------------|--|---|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 |
| 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 |

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 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 |
| 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 |

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 |
|--------------------------|--|---|--|--------------------|-------------------------------------|--|----------------|--------------------|------------------|
| 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 | 1080 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 | At Cedar Road | 02040301 | 4.3 | | Y | AE | 04/1980 |
| West Branch Wading River | Townships of Washington and Woodland | Approximately 0.6 mile downstream of County Route 563 | At Tabernacle Chatsworth Road | 02040301 | 11.9 | | N | A | 09/2015 |
| Woolman Lake | Township of Mount Holly | At Branch Street | At Buttonwood Lake | 2040202 | 0.2 | | N | A | 09/2015 |

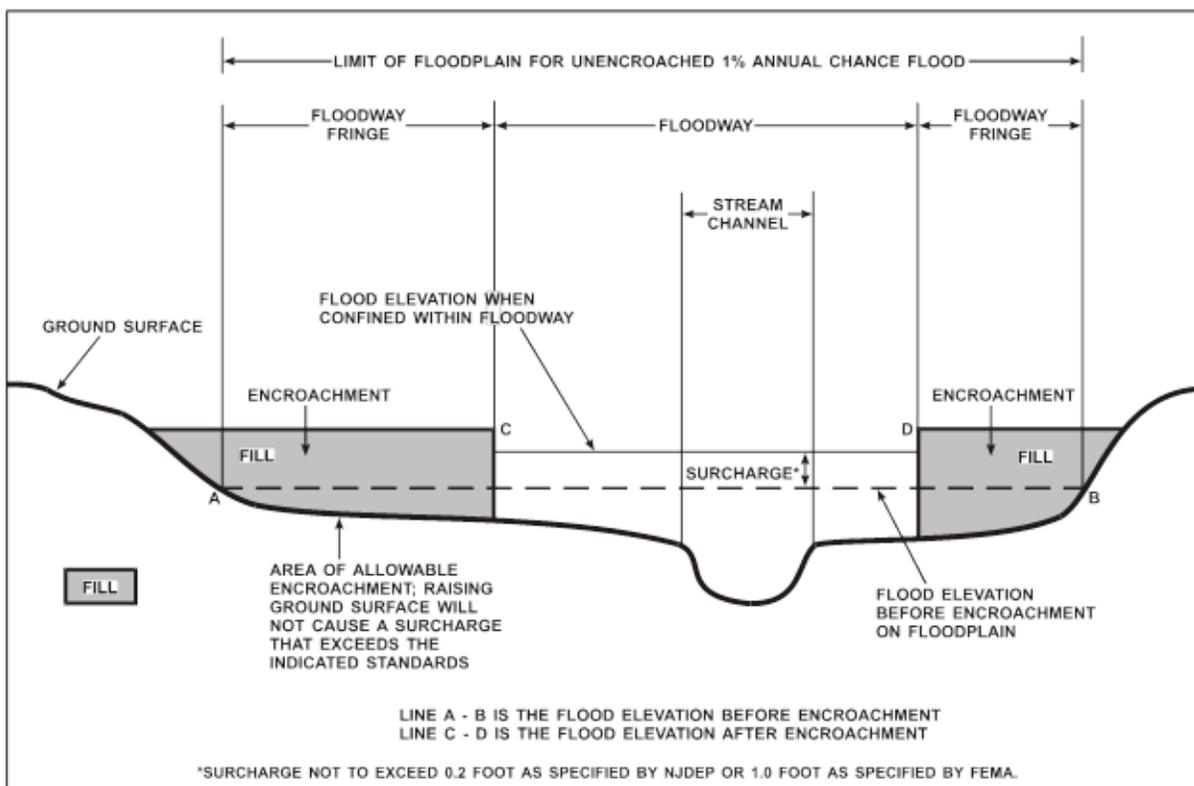
2.2 Floodways

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 Figure 3. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown on the FIRM. For information about the delineation of floodways on the FIRM, refer to Section 6.3.

2.3 Base Flood Elevations

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

Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. BFEs are primarily intended for flood

insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM.

2.4 Non-Encroachment Zones

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

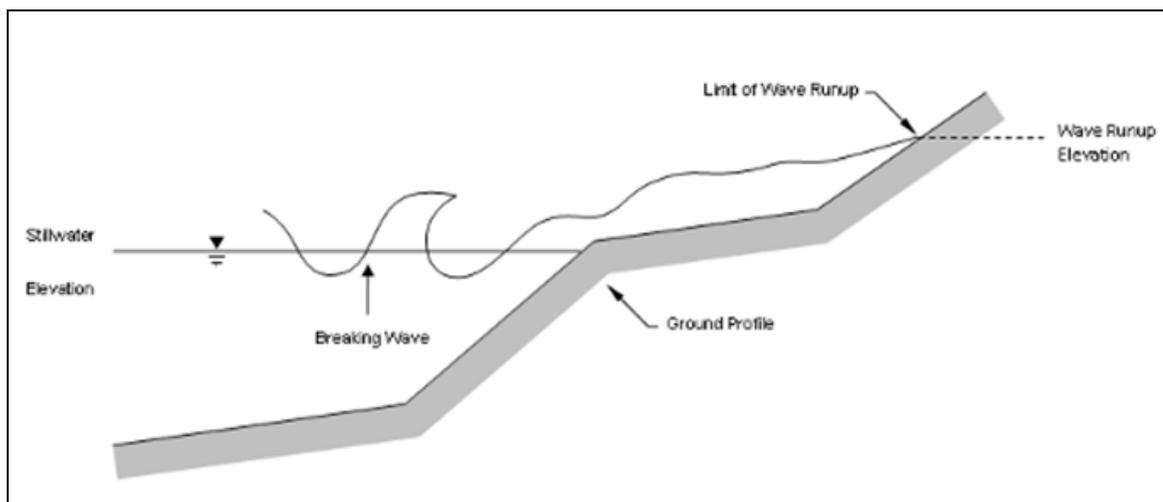
- *Wave setup* is the increase in stillwater elevation at the shoreline caused by the reduction of waves in shallow water. It occurs as breaking wave momentum is transferred to the water column.

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.

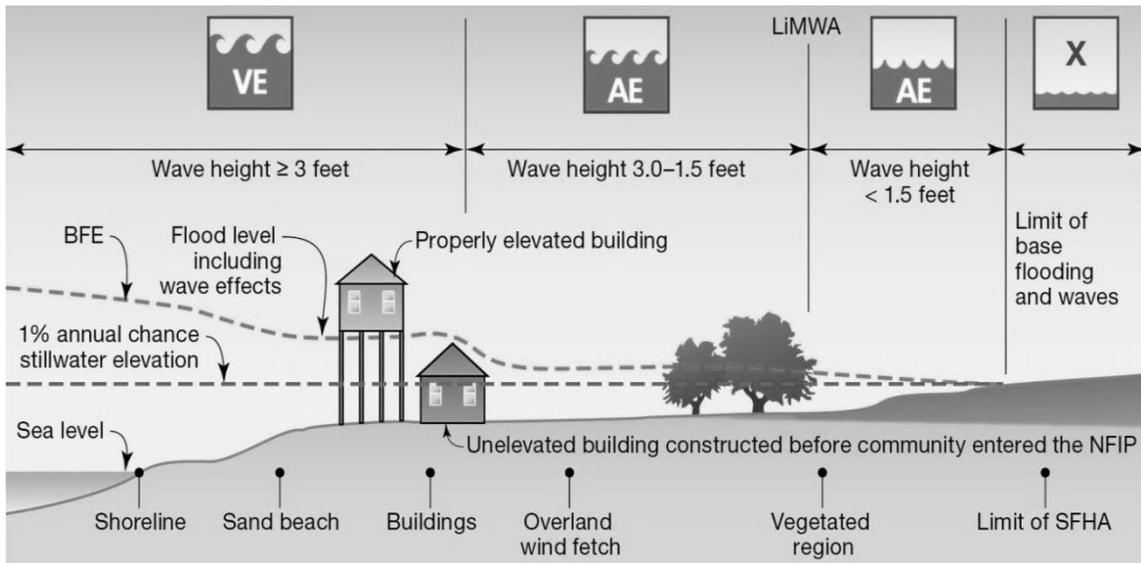
CHHAs are designated as “V” zones (for “velocity wave zones”) and are subject to more stringent regulatory requirements and a different flood insurance rate structure. The areas of greatest risk are shown as VE on the FIRM. Zone VE is further subdivided into elevation zones and shown with BFEs on the 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 | <p>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).</p> <p><i>Township of Lumberton</i> – 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.</p> <p><i>Township of Mount Holly</i> – flooding is primarily due to continental and ocean-bred storms resulting in both riverine and tidal flooding. In tidal areas, flooding may be magnified or produced solely from tidal swells created as a result of the storm path over the open ocean.</p> <p><i>Township of Mount Laurel</i> – all streams studied by detailed methods are flooding sources</p> |
| Assiscunk Creek | <p>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.</p> |
| Bass River | <p><i>Township of Bass River</i> – 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).</p> |
| Beaverdam Creek | <p><i>Township of Southampton</i> – primary flooding source due to torrential rains during summer and autumn months.</p> |
| Delaware River | <p>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</p> <p><i>Township of Cinnaminson</i> – high tides on the Delaware River produce major flooding in Pompeston Creek’s lower reaches (FEMA, 1991).</p> <p><i>Borough of Palmyra</i> – flows through the tidal flatlands creating flooding</p> |
| East Branch | <p><i>Township of Cinnaminson</i> – East Branch is easily overflows its banks during storms of high intensity and short duration (FEMA, 1991).</p> |
| Jacks Run | <p><i>Borough of Riverton</i> and <i>Township of Cinnaminson</i> (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.</p> |
| Laurel Run | <p><i>Township of Delran</i> – primary flooding source (FEMA, 1995)</p> |
| Lake Flooding | <p><i>Borough of Medford Lakes</i> – 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</p> |

Table 6: Principal Flood Problems – continued

| Flooding Source | Description of Flood Problems |
|-------------------------------|--|
| | their banks. |
| Masons Creek | <i>Township of Hainesport</i> – flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms. |
| Mullica River | <i>Township of Washington</i> – 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 | <i>Borough of Palmyra</i> – flows through the tidal flatlands and confluences with the Delaware River, making it subject to tidal flooding |
| Pennsauken Creek North Branch | <i>Township of Maple Shade</i> – primary flooding source due to heavy rains and local thunderstorms. |
| Pennsauken Creek South Branch | <i>Township of Maple Shade</i> – primary flooding source due to heavy rains and local thunderstorms. |
| Pompeston Creek | <i>Borough of Riverton</i> – high tides on the Delaware River produce major flooding in Pompeston Creek’s lower reaches |
| Rancocas Creek | <p><i>Township of Delanco</i> – Rancocas Creek, along with the Delaware River, is a primary flooding source. Flooding on Rancocas Creek occurs when high tides occur due to hurricanes and other large Atlantic storms. In tidal areas, flooding may be magnified or produced solely from tidal swells created as a result of these storms passing over the open ocean. Flooding from rainfall also occurs.</p> <p><i>Township of Delran</i> – primary flooding source (FEMA, 1995)</p> <p><i>Townships of Riverside, Westampton, and Willingboro</i> - -primary flooding source, flooding occurs during hurricanes and other large storms passing along the Atlantic Ocean coast, causing high tides on the Delaware River and subsequently, Rancocas Creek.</p> |
| Rancocas Creek North Branch | <p><i>Township of Eastampton</i> – flooding occurs in the low-lying areas adjacent to Rancocas Creek North Branch during hurricanes and other large storms.</p> <p><i>Township of Hainesport</i> – flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms.</p> <p><i>Township of Medford</i> – flooding is primarily due to torrential rains during summer and autumn month.</p> <p><i>Township of Mount Holly</i> – 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.</p> <p><i>Borough of Pemberton; Townships of Pemberton, Southampton</i> – primary flooding source due to torrential rains during summer and autumn months.</p> |
| Rancocas Creek South Branch | <p><i>Township of Hainesport</i> – flooding source impacted by high tides caused on the Delaware River due to passing hurricanes and other large storms.</p> <p><i>Township of Medford</i> – flooding is primarily due to torrential rains during</p> |

Table 6: Principal Flood Problems – continued

| Flooding Source | Description of Flood Problems |
|---|--|
| | summer and autumn month |
| Rancocas Creek Southwest Branch | <i>Township of Medford</i> – flooding is primarily due to torrential rains during summer and autumn month. |
| Swede Run | <i>Township of Delran</i> – primary flooding source (FEMA, 1995). |
| Wading River West Branch | <i>Township of Woodland</i> – 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 | Locational Information Not Available in previous FIS | 16.24 | 1971 | * | Local Gage |
| Delaware River | Locational Information Not Available | 9.4 | 1933 | 4 | Local Gage |
| Delaware River | Borough of Fieldsboro | 9.3 | 1933 | 4 | 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 |
| Pennsauken Creek | At Mouth | 9.0 | 1933 | 4 | Local Gage |
| Pompeston Creek | At Mouth | 8.8 | 1933 | 4 | Local Gage |
| Rancocas Creek North Branch | Locational Information Not Available in previous FIS | 14.8 | 1940 | 5 | 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 |
|---------------------------------|-------------------------|-----------------------------|------------|---|-----------------|
| Rancocas Creek North Branch | Unspecified location | 25.6 | 1940 | 5 | High Water Mark |
| Rancocas Creek South Branch | At Marne Highway Bridge | 12.8 | 1940 | 5 | Local Gage |
| Rancocas Creek South Branch | USGS Gage No. 01465850 | 12.34 | 2004 | * | USGS Gage |
| Rancocas Creek Southwest Branch | USGS Gage No. 01465880 | 19.7 | 2004 | * | 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 | |
| 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 |

Table 8: Non-Levee Flood Protection Measures – continued

| Flooding Source | Structure Name | Type of Measure | Location | Description of Measure |
|---------------------------------|-----------------|----------------------|---|--|
| 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 Table 27, “Incorporated Letters of Map Change”, which include Letters of Map Revision (LOMRs). For more information about LOMRs, refer to Section 6.5, “FIRM Revisions.”

5.1 Hydrologic Analyses

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

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

¹1-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 Delaware River | 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

¹1-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

¹1-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 Swap 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

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 |
| Masons Creek | Upstream of unnamed tributary 2 | 4.1 | 340 | * | 580 | 720 | 1,150 |
| Masons Creek | Downstream of unnamed tributary in Lumberton Township | 3.2 | 270 | * | 470 | 585 | 940 |
| Masons Creek | Upstream of unnamed tributary in Lumberton Township | 2.6 | 220 | * | 380 | 475 | 770 |
| Masons Creek | At limit of detailed study | 2.1 | 210 | * | 365 | 460 | 750 |
| Mill Creek | At confluence with Rancocas Creek | 11.2 | 1225 | * | 1,900 | 2,270 | 3,315 |
| Mill Creek | Downstream of confluence of Mill Creek South Branch | 9.0 | 1200 | * | 1,870 | 2,240 | 3,280 |
| Mill Creek | Upstream of confluence of Mill Creek South Branch | 7.6 | 1115 | * | 1,745 | 2,100 | 3,095 |
| Mill Creek | Downstream of confluence of Mill Creek Tributary 1 | 6.6 | 980 | * | 1,550 | 1,870 | 2,785 |
| Mill Creek | Upstream of confluence of Mill Creek Tributary 1 | 5.7 | 830 | * | 1,330 | 1,615 | 2,440 |
| Mill Creek | At corporate limit of Willingboro Township | 4.5 | 560 | * | 935 | 1,165 | 1,860 |
| Mill Creek | At corporate limit of Burlington Township | 4.2 | 527 | * | 884 | 1,102 | 1,764 |

*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 |
| Mill Creek | Downstream of confluence of Mill Creek Tributary | 4.0 | 505 | * | 850 | 1,060 | 1,700 |
| Mill Creek | Upstream of confluence of Mill Creek Tributary | 2.8 | 375 | * | 640 | 800 | 1,290 |
| Mill Creek | At Interstate 295/limit of detailed study | 2.2 | 310 | * | 530 | 660 | 1,070 |
| Mill Creek Tributary | At confluence with Mill Creek | 1.1 | 205 | * | 355 | 450 | 735 |
| Mill Creek Tributary | At limit of detailed study | 0.7 | 200 | * | 260 | 280 | 355 |
| Mill Creek Tributary 1 | At confluence with Mill Creek | 0.8 | 330 | * | 430 | 465 | 590 |
| Mill Creek Tributary 1 | At limit of detailed study | 0.7 | 300 | * | 395 | 425 | 540 |
| Mill Creek South Branch | At confluence with Mill Creek | 1.4 | 325 | * | 525 | 635 | 940 |
| Mill Creek South Branch | At limit of detailed study | 0.7 | 325 | * | 425 | 460 | 575 |
| Mill Race | From downstream confluence to bypass channel | ** | 650 | * | 950 | 1,100 | 4,530 |
| Mill Race | From bypass channel to downstream of confluence of Buttonwood Run | ** | 290 | * | 550 | 670 | 780 |

*Not calculated for this Flood Risk Project

**Data Not Available

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 |
| Mill Race | From upstream of confluence of Buttonwood Run to upstream of confluence with Rancocas Creek North Branch | ** | 190 | * | 400 | 470 | 530 |
| Mimosa Lake Run | At confluence with Haynes Creek | 2.1 | 120 | * | 210 | 265 | 435 |
| Mimosa Lake Run | At limit of detailed study | 1.6 | 110 | * | 200 | 250 | 415 |
| Mirror Lake | At outlet of Mirror Lake | 33.8 | 665 | * | 1,105 | 1,345 | 2,105 |
| Mount Holly Bypass Channel | From confluence with Mill Race to confluence with Rancocas Creek North Branch | ** | 360 | * | 400 | 430 | 750 |
| Mount Misery Creek | At confluence with Rancocas Creek North Branch | 75.1 | 1,020 | * | 1,565 | 1,850 | 2,640 |
| Mount Misery Creek | At limit of detailed study | 74.2 | 1,010 | * | 1,550 | 1,830 | 2,615 |
| Mullica River | At the Washington State Forest boundary | 241.76 | 2,496 | * | 4,144 | 4,992 | 7,374 |
| Mullica River | At Pleasants Mill Bridge | 124.76 | 1,790 | * | 2,980 | 3,585 | 5,300 |
| Muskingum Brook | Upstream of confluence with Indian Mills Brook | 7.8 | 540 | * | 915 | 1,140 / 1,425 ¹ | 1,840 |

*Not calculated for this Flood Risk Project

**Data not available

¹1-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 |
| Ong Run | At confluence with Little Pine Lake | 1.9 | 265 | * | 450 | 555 | 880 |
| Ong Run | At limit of detailed study | 1.7 | 225 | * | 380 | 475 | 750 |
| Parkers Creek | At corporate limit of Mount Laurel Township | 8.3 | 710 | * | 1,030 | 1,180 | 1,510 |
| Parkers Creek | Downstream of Marne Highway | 7.4 | 670 | * | 970 | 1,120 | 1,450 |
| Parkers Creek | Downstream of State Route 38 | 6.7 | 640 | * | 940 | 1,070 | 1,430 |
| Parkers Creek | Downstream of Union Mill Road | 5.0 | 540 | * | 780 | 890 | 1,210 |
| Pennsauken Creek | Upstream of confluence with Delaware River | 35.70 | 1580 | * | 2,460 | 2,930 | 4,000 |
| Pennsauken Creek North Branch | At confluence with Pennsauken Creek | 15.8 | 980 | * | 2,050 | 2,740 | 5,480 |
| Pennsauken Creek North Branch | At Main Street | 13.5 | 870 | * | 1,820 | 2,470 | 4,810 |
| Pennsauken Creek North Branch | At Lenola Road | 12.4 | 810 | * | 1,710 | 2,300 | 4,550 |
| Pennsauken Creek North Branch | At corporate limit of Mount Laurel Township | 7.5 | 620 | * | 1,310 | 1,800 | 3,450 |
| Pennsauken Creek North Branch | At New Jersey Turnpike | 6.1 | 560 | * | 1,180 | 1,630 | 3,120 |
| Pennsauken Creek North Branch | At confluence of Evesboro Tributary | 5.1 | 490 | * | 1,020 | 1,400 | 2,700 |

*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 |
| Pennsauken Creek North Branch | At Evesboro Road | 2.3 | 360 | * | 740 | 990 | 2,080 |
| Pennsauken Creek South Branch | At confluence with Pennsauken Creek | 35.7 | 2,000 | * | 3,900 | 5,100 | 9,200 |
| Pennsauken Creek South Branch | At State Route 38 | 12.6 | 810 | * | 1,750 | 2,400 | 4,850 |
| Pennsauken Creek South Branch | At Kings Highway | 8.6 | 600 | * | 1,350 | 1,850 | 3,750 |
| Pennsauken Creek South Branch | Downstream of New Jersey Turnpike | 5.6 | 425 | * | 910 | 1,300 | 2,820 |
| Pennsauken Creek South Branch | Upstream of New Jersey Turnpike | 5.6 | 425 | * | 700 | 886 | 1,325 |
| Pennsauken Creek South Branch | At corporate limit of Mounty Laurel Township | 3.7 | 425 | * | 700 | 860 | 1,325 |
| Pennsauken Creek South Branch | Upstream of unnamed tributary | 2.7 | 295 | * | 495 | 610 | 960 |
| Pennsauken Creek South Branch | Upstream of Cropwell Brook | 0.6 | 140 | * | 185 | 195 | 255 |
| Pole Bridge Branch | At outlet of Colony Lake | 22.4 | 315 | * | 545 | 670 | 1,085 |
| Pole Bridge Branch | Upstream of confluence of Pole Bridge Branch Tributary | 15.2 | 220 | * | 685 | 484 | 795 |
| Pole Bridge Branch | At upstream of limit of detailed study | 14.9 | 210 | * | 370 | 460 | 765 |

*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 |
| Pole Bridge Branch Tributary | At confluence with Pole Bridge Branch | 0.2 | 65 | * | 90 | 95 | 120 |
| Pole Bridge Branch Tributary | At limit of detailed study | 0.1 | 45 | * | 55 | 60 | 75 |
| Pompeston Creek | At confluence with Delaware River | 8.8 | 1620 | * | 2,550 | 2,990 | 4,240 |
| Pompeston Creek | Downstream of US Route 130 | 5.8 | 1120 | * | 1,780 | 2,100 | 3,000 |
| Pompeston Creek | Upstream of Willow Drive | 3.3 | 690 | * | 1,115 | 1,320 | 1,910 |
| Pompeston Creek | Between Parry Road and Riverton Road | 2.6 | 560 | * | 910 | 1,085 | 1,575 |
| Pompeston Creek | Downstream of New Albany Road | 1.6 | 360 | * | 595 | 710 | 1,040 |
| Pompeston Creek | Downstream of Bridge Avenue | 0.8 | 190 | * | 320 | 385 | 575 |
| Ramblewood Tributary | At confluence with Evesboro Tributary | 0.3 | 120 | * | 250 | 330 | 640 |
| Rancocas Creek | At confluence with Delaware River | 354.5 | 3,275 | * | 5,020 | 5,925 | 8,455 |
| Rancocas Creek | Downstream of confluence of Mill Creek | 348.4 | 3,230 | * | 4,955 | 5,850 | 8,350 |
| Rancocas Creek | Upstream of confluence with Mill Creek | 337.2 | 3,150 | * | 4,830 | 5,705 | 8,145 |

*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 |
| Rancocas Creek | At confluence of Rancocas Creek North Branch and Rancocas Creek South Branch | 321.3 | 3,040 | * | 4,660 | 5,505 | 7,855 |
| Rancocas Creek North Branch | At confluence with Rancocas Creek | 151.3 | 1,730 | * | 2,650 | 3,130 | 4,465 |
| Rancocas Creek North Branch | Downstream of confluence of Mill Race Tributary | 146.0 | 1,685 | * | 2,580 | 3,045 | 4,350 |
| Rancocas Creek North Branch | Upstream of confluence of Mill Race Tributary | 144.9 | 1,675 | * | 2,565 | 3,030 | 4,320 |
| Rancocas Creek North Branch | Downstream of confluence of Budds Run | 128.3 | 1,530 | * | 2,340 | 2,765 | 3,945 |
| Rancocas Creek North Branch | Upstream of confluence of Budds Run | 122.2 | 1,475 | * | 2,260 | 2,665 | 3,810 |
| Rancocas Creek North Branch | Downstream of confluence of Mount Misery Creek | 114.0 | 1,400 | * | 2,415 | 2,530 | 3,610 |
| Rancocas Creek North Branch | At Pemberton gage | 111.0 | 1370 | * | 2100 | 2480 | 3540 |
| Rancocas Creek North Branch | Upstream of confluence of Mount Misery Creek | 38.9 | 755 | * | 1250 | 1520 | 2370 |
| Rancocas Creek North Branch | At outlet of Mirror Lake | 33.8 | 665 | * | 1105 | 1345 | 2105 |

*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 |
| Rancocas Creek South Branch | At outlet | 167.07 | 5,618 | * | 8,665 | 10,351 / 12,539 ¹ | 12,539 |
| Rancocas Creek South Branch | Downstream of Masons Creek | 166.01 | 5,684 | * | 8,766 | 10,476 / 12,690 ¹ | 12,690 |
| Rancocas Creek South Branch | At Marine Highway | 155.82 | 4,967 | * | 7,709 | 9,228 / 11,197 ¹ | 11,197 |
| Rancocas Creek South Branch | At State Route 38 | 155.23 | 5,021 | * | 7,795 | 9,335 / 11,327 ¹ | 11,327 |
| Rancocas Creek South Branch | Downstream of confluence of Unnamed Tributary to Rancocas Creek South Branch | 154.31 | 5,112 | * | 7,934 | 9,504 / 11,880 ¹ | 11,531 |
| Rancocas Creek South Branch | Downstream of Bobbys Run | 149.48 | 5,155 | * | 8,012 | 9,610 / 11,663 ¹ | 11,663 |
| Rancocas Creek South Branch | Upstream of abandoned railroad | 144.99 | 6,157 | * | 9,523 | 11,141 / 13,862 ¹ | 13,862 |
| Rancocas Creek South Branch | Downstream of confluence of Rancocas Creek Southwest Branch | 142.97 | 6,257 | * | 9,680 | 11,637 / 14,100 ¹ | 14,100 |
| Rancocas Creek South Branch | Upstream of confluence of Rancocas Creek Southwest Branch | 66.17 | 1,413 | * | 2,088 | 2,385 / 2,981 ¹ | 3,112 |

*Not calculated for this Flood Risk Project

¹1-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 |
| Rancocas Creek South Branch | At Lumberton-Vincetown Road – USGS Gage No. 01465850 | 34.39 | 1,380 | * | 2,040 | 2,330 / 2,913 ¹ | 3,040 |
| Rancocas Creek South Branch | Downstream of Jade Run | 64.36 | 1,380 | * | 2,039 | 2,329 / 2,911 ¹ | 3,039 |
| Rancocas Creek South Branch | Upstream of confluence of Jade Run | 51.66 | 1,143 | * | 1,690 | 1,931 / 2,414 ¹ | 2,519 |
| Rancocas Creek South Branch | Downstream of confluence of Beaverdam Creek | 50.86 | 1,128 | * | 1,668 | 1,905 / 2,381 ¹ | 2,485 |
| Rancocas Creek South Branch | Upstream of confluence of Beaverdam Creek | 47.20 | 1,058 | * | 1,565 | 1,787 / 2,234 ¹ | 2,332 |
| Rancocas Creek South Branch | Downstream of confluence of Friendship Creek | 43.78 | 993 | * | 1,467 | 1,676 / 2,095 ¹ | 2,187 |
| Rancocas Creek South Branch | Upstream of confluence of Friendship Creek | 10.31 | 495 | * | 838 | 1,036 / 1,283 ¹ | 1,283 |
| Rancocas Creek South Branch Tributary | At confluence with Rancocas Creek South Branch | 2.9 | 290 | * | 500 | 620 | 1,000 |
| Rancocas Creek South Branch Tributary | At limit of detailed study | 1.3 | 210 | * | 360 | 455 | 740 |

* Not calculated for this Flood Risk Project

¹1-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 |
| Rancocas Creek Southwest Branch | At mouth of the bridge at Stacy Hanes Road | 76.25 | 3,620 | * | 9,035 | 10,465 / 13,083 ¹ | 22,639 |
| Rancocas Creek Southwest Branch | Downstream of confluence of Little Creek | 76.12 | 3,674 | * | 9,175 | 10,599 / 13,249 ¹ | 22,950 |
| Rancocas Creek Southwest Branch | Upstream of confluence of Little Creek | 54.35 | 2,474 | * | 6,174 | 7,085 / 8,856 ¹ | 15,638 |
| Rancocas Creek Southwest Branch | Downstream of confluence of Tributary 3 | 52.36 | 2,480 | * | 6,201 | 7,032 / 8,079 ¹ | 15,628 |
| Rancocas Creek Southwest Branch | Downstream of confluence of Haynes Creek | 46.39 | 1,985 | * | 5,289 | 5,970 / 7,463 ¹ | 13,598 |
| Rancocas Creek Southwest Branch | Downstream of confluence of Barton Run | 19.93 | 1,435 | * | 3,741 | 4,176 / 5,220 ¹ | 9,201 |
| Rancocas Creek Southwest Branch | At headwaters | 2.78 | 526 | * | 1,055 | 1,077 / 1,346 ¹ | 2,036 |
| Sharps Run | At confluence with Rancocas Creek Southwest Branch | 4.6 | 400 | * | 680 | 845 | 1,355 |
| Sharps Run | At limit of detailed study | 2.7 | 310 | * | 530 | 660 | 1,065 |
| Shinns Branch | At confluence with Bispahms Mill Creek | 1.73 | 34 | * | 67 | 87 | 152 |
| Skeet Run | At confluence with Little Creek | 2.0 | 220 | * | 380 | 475 | 775 |

*Not calculated for this Flood Risk Project

¹1-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 |
| Skeet Run | Downstream of unnamed tributary | 1.9 | 210 | * | 365 | 460 | 750 |
| Skeet Run | Upstream of unnamed tributary | 1.3 | 170 | * | 295 | 375 | 615 |
| Skeet Run | At limit of detailed study | 1.1 | 140 | * | 245 | 310 | 510 |
| Springer Brook | At downstream limit of detailed study | 13.9 | 760 | * | 1,280 | 1,580 / 1,975 ¹ | 2,520 |
| Strawbridge Lake | ** | 4.17 ¹ | 470 ² | * | 990 ² | 1,800 ² | 2,600 ² |
| Strawbridge Lake | ** | 3.60 ¹ | 430 ² | * | 910 ² | 1,580 ² | 2,450 ² |
| Strawbridge Lake | ** | 3.18 ¹ | 400 ² | * | 850 ² | 1,200 ² | 2,250 ² |
| Strawbridge Lake | At corporate limit of Mount Laurel Township | 2.6 | | * | 790 | 1,020 | 1,990 |
| Strawbridge Lake | Upstream of confluence of Hooten Road Tributary | 1.6 | 280 | * | 620 | 810 | 1,570 |
| Strawbridge Lake | Downstream of Interstate 295 | 1.4 | 270 | * | 600 | 770 | 1,490 |
| Swede Run | At confluence with Dredge Harbor | 7.02 | 1,069 | * | 1,871 | 2,347 | 3,496 |
| Swede Run | Approximately 1,300 feet upstream of Lake Lonnie | 6.08 | 1,049 | * | 1,817 | 2,249 | 3,303 |

*Not calculated for this Flood Risk Project

**Data Not Available

¹1-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.

²Data extracted from Frequency Discharge, Drainage Area Curves found in the FIS for the 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 |
| Swede Run | Approximately 600 feet downstream of Underwood Court | 5.56 | 998 | * | 1,732 | 2,139 | 3,078 |
| Swede Run | Approximately 1,400 feet downstream of Hunter Drive | 4.55 | 858 | * | 1,476 | 1,811 | 2,610 |
| Swede Run | Upstream of Bridgeboro Road | 3.95 | 791 | * | 1,372 | 1,687 | 2,424 |
| Swede Run | Approximately 400 feet downstream of Garwood Road | 3.01 | 660 | * | 1,148 | 1,416 | 2,044 |
| Swede Run | Upstream of Westfield Road | 1.40 | 418 | * | 690 | 841 | 1,178 |
| Swede Run Tributary | ** | 0.48 ¹ | 77 ¹ | * | 94 ¹ | 160 ¹ | 165 ¹ |
| Unnamed Tributary to Sharps Run | Approximately 1,410 feet upstream of Oliphant's Mill – Hartford Road | 0.2 | * | * | * | 360 | * |
| Wading River West Branch | At Route 532 | 8.97 | 120 | * | 242 | 308 | 520 |
| Wading River West Branch | At Lebanon State Forest Boundary | 0.71 | 51 | * | 98 | 128 | 220 |

*Not calculated for this Flood Risk Project

**Data Not Available

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

Table 11: Summary of Non-Coastal Stillwater Elevations – continued

Figure 7: Frequency Discharge-Drainage Area Curves

[Not Applicable to this Flood Risk Project]

Table 11: Summary of Non-Coastal Stillwater Elevations

| Flooding Source | Location | Elevations (feet NAVD88) | | | | |
|-----------------|---|--------------------------|------------------|------------------|------------------|--------------------|
| | | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Delaware River | At the Philadelphia tide gage | 6.4 | * | 8.0 | 8.8 | 10.9 |
| Delaware River | At the mouth of Pennsauken Creek | 6.6 | * | 8.1 | 8.9 | 11.1 |
| Delaware River | At the mouth of Pompeston Creek | 6.6 | * | 8.2 | 9.0 | 11.3 |
| Delaware River | At downstream corporate limits of Burlington Township | 7.2 | * | 8.9 | 9.7 | 12.3 |
| Delaware River | At the "Old" Burlington tide gage | 7.3 | * | 9.0 | 9.8 | 12.4 |
| Delaware River | At upstream corporate limits of Burlington Township | 7.6 | * | 9.9 | 10.9 | 14.0 |
| Delaware River | At downstream corporate limits of Florence Township | 7.6 | * | 9.9 | 10.9 | 14.0 |
| Delaware River | At upstream corporate limits of Florence Township | 8.2 | * | 11.0 | 11.9 | 15.4 |

* Not calculated for this Flood Risk Project

Table 11: Summary of Non-Coastal Stillwater Elevations – continued

| Flooding Source | Location | Elevations (feet NAVD88) | | | | |
|------------------|--|--------------------------|------------------|------------------|------------------|--------------------|
| | | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Delaware River | At downstream corporate limits of Bordentown Township | 8.7 | * | 12.2 | 13.4 | 17.4 |
| Delaware River | At upstream corporate limits of Bordentown Township | 9.0 | * | 13.9 | 14.2 | 18.6 |
| Great Bay | Entire Mullica River shoreline | 4.7 | * | 6.5 | 7.8 | 12.8 |
| Jefferson Lake | Between Center Structure and update limit of detailed study | 81.9 | * | 82.1 | 82.2 | 82.4 |
| Jefferson Lake | Between Oregon Terrace and Center Structure | 81.3 | * | 81.5 | 81.7 | 81.9 |
| Lake Kawasea | Entire Shoreline | 71.6 | * | 71.7 | 71.7 | 71.7 |
| Lake Meeshaway | Entire Shoreline | 75.2 | * | 75.3 | 75.3 | 75.3 |
| Lake Mushkodosa | Entire Shoreline | 72.0 | * | 72.1 | 72.1 | 72.1 |
| Lake Sigitise | Entire Shoreline | 76.4 | * | 76.5 | 76.5 | 76.8 |
| Lake Wagush | Entire Shoreline | 71.9 | * | 72.0 | 72.1 | 72.3 |
| Little Pine Lake | Between Bayberry Street and upstream limit of detailed study | 69.3 | * | 69.5 | 69.6 | 69.9 |

*Not calculated for this Flood Risk Project

Table 11: Summary of Non-Coastal Stillwater Elevations – continued

| Flooding Source | Location | Elevations (feet NAVD88) | | | | |
|------------------------|---|--------------------------|------------------|------------------|------------------|--------------------|
| | | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Little Pine Lake | Between Hanover Boulevard and Bayberry Street | 68.7 | * | 69.1 | 69.3 | 69.6 |
| Little Pine Lake | Between Club House Road and Hanover Boulevard | 60.9 | * | 61.3 | 61.4 | 61.6 |
| Mirror Lake | At Outlet | 60.2 | * | 60.7 | 60.9 | 61.4 |
| Pau Puck Keewis Lagoon | Entire Shoreline | 76.4 | * | 76.5 | 76.5 | 76.8 |

*Not calculated for this Flood Risk Project

Table 12: Stream Gage Information used to Determine Discharges

[Not Applicable to this Flood Risk Project]

5.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Base flood elevations on the FIRM represent the elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report. Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations. These whole-foot elevations may not exactly reflect the elevations derived from the hydraulic analyses. Flood elevations shown on the FIRM 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. The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

For streams for which hydraulic analyses were based on cross sections, locations of selected cross sections are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 6.3), selected cross sections are also listed on Table 24, "Floodway Data."

A summary of the methods used in hydraulic analyses performed for this project is provided in Table 13. Roughness coefficients are provided in Table 14. Roughness coefficients are values representing the frictional resistance water experiences when passing overland or through a channel. They are used in the calculations to determine water surface elevations. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation.

Table 13: Summary of Hydrologic and Hydraulic Analyses

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-----------------------|---|---|---|--------------------------------|-------------------------|--------------------|----------------------------------|
| Adler Run | Approximately 250 feet downstream of Pemberton Road | Approximately 200 feet upstream of Private Drive | FLO-2D | FLO-2D | 09/2015 | A | |
| Adler Run Tributaries | Confluence with Adler Run | Various Limits of Study within the Township of Pemberton | FLO-2D | FLO-2D | 09/2015 | A | |
| Annaricken Brook | Confluence with Assiscunk Creek | Approximately 650 feet upstream of Juliustown Georgetown Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Arnold Branch | Approximately 300 feet upstream of Chips Folly Road | Approximately 0.6 miles upstream of Chatsworth Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Assiscunk Branch | Confluence with Assiscunk Creek | Approximately 70 feet downstream of US-206 | FLO-2D | FLO-2D | 09/2015 | A | |
| Assiscunk Creek | Confluence with Delaware River | Approximately 1.0 miles downstream of Neck Road | Peak discharge-frequency / Peak elevation-frequency | HEC-2 | 12/1981 | AE w/floodway | Tidal influence (Delaware River) |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-----------------------------|--|---|---|--|-------------------------|--------------------|---|
| Assiscunk Creek | Approximately 1.0 miles downstream of Neck Road | Approximately 475 feet upstream of Neck Road | Gage Analysis | Stillwater Elevations for Delaware River | 04/1988 | AE | Tidal influence (Delaware River) – Riverine model results were lower than tidal elevations therefore, tidal stillwater elevations were utilized |
| Assiscunk Creek | Approximately 475 feet upstream of Neck Road | Approximately 0.2 mile upstream of Gaunts Bridge Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Assiscunk Creek Tributary | Approximately 0.22 miles downstream of Oxmead Road | Approximately 0.28 miles upstream of Oxmead Road | Regression Equations | HEC-2 | 05/1978 | AE w/floodway | |
| Assiscunk Creek Tributaries | Confluence with Assiscunk Creek, Assiscunk Creek Tributary and Assiscunk Tributary 5 | Various Limits of Study within the townships of Florence, Mansfield, Springfield and Westampton | FLO-2D | FLO-2D | 09/2015 | A | |
| Bacons Run | Confluence with Blacks Creek | Approximately 1000 feet upstream of Chesterfield Georgetown Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Baffin Brook | Confluence with Pole Bridge Branch | At Upton Station Road | Peak discharge-drainage area relationship | HEC-2 | 07/1978 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-------------------------|---|---|----------------------------------|--------------------------------|-------------------------|--------------------|------------------------|
| Baffin Brook | From Upton Station Whitesbog Road | Approximately 1.3 miles upstream of State Route 70 | FLO-2D | FLO-2D | 2015 | A | |
| Ballinger Run | Confluence with Haynes Creek | Approximately 0.8 mile upstream of control structure at Private Drive | Discharge-frequency relationship | HEC-2 | 03/1982 | AE w/floodway | |
| Ballinger Run | Approximately 0.1 mile downstream of Unnamed Road at Papoose Lake | Approximately 1.7 miles upstream of Unnamed Road at Papoose Lake | FLO-2D | FLO-2D | 09/2015 | A | |
| Ballinger Run Tributary | Confluence with Ballinger Run | Approximately 90 feet upstream of Birchwood Drive | Discharge-frequency relationship | HEC-2 | 03/1982 | AE w/floodway | |
| Ballinger Run Tributary | Approximately 90 feet upstream of Birchwood Drive | Approximately 100 feet downstream of Tuckerton Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Bard Branch | Confluence with Unnamed Stream 3 | Confluence with Bard Branch Tributary 1 and Bard Branch Tributary 2 | FLO-2D | FLO-2D | 09/2015 | A | |
| Bard Branch Tributaries | Confluence with Bard Branch | Various Limits of Study within the Township of Shamong | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---------------------------------|--|---|--|--------------------------------|-------------------------|--------------------|------------------------|
| Barkers Brook | Confluence with Assiscunk Creek Tributary 5 | Approximately 1.2 miles upstream of confluence with Barkers Brook Unnamed Tributary | Water-Resources Investigations (WRI) Report 94-4002 procedure – regression analysis – log-Pearson Type III | HEC-RAS | 03/2010 | AE w/floodway | |
| Barkers Brook | Approximately 0.8 miles downstream of Jobstown Juliustown Road | Approximately 0.2 miles upstream of Jobstown Juliustown Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Barkers Brook Unnamed Tributary | Confluence with Barkers Brook | Approximately 0.1 mile upstream of Saylor's Pond Road | Water-Resources Investigations (WRI) Report 94-4002 procedure – regression analysis – log-Pearson Type III | HEC-RAS | 03/2010 | AE w/floodway | |
| Barkers Brook Unnamed Tributary | Approximately 0.1 mile upstream of Saylor's Pond Road | Approximately 0.9 mile upstream of Juliustown – Georgetown Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-----------------------------------|---|--|--|--------------------------------|-------------------------|--------------------|------------------------|
| Barkers Brook Unnamed Tributary 1 | Confluence with Barkers Brook Unnamed Tributary | Approximately 0.3 mile upstream of confluence with Barkers Brook Unnamed Tributary | FLO-2D | FLO-2D | 09/2015 | A | |
| Bartletts Branch | Confluence with Cranberry Bog | Approximately 1.7 miles upstream of Cranberry Bog | FLO-2D | FLO-2D | 09/2015 | A | |
| Barton Run | Confluence with Rancocas Creek Southwest Branch | Approximately 0.3 mile upstream of Flamingo Drive | Regression Equations | HEC-2 | 03/1982 | AE w/floodway | |
| Barton Run Tributary 1 | Confluence with Barton Run | At New Road | USGS Special Report No. 38 – regression analysis | HEC-2 | 03/1982 | AE w/floodway | |
| Barton Run Tributary 1 | At New Road | Approximately 0.5 mile upstream of South Elmwood Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Barton Run Tributary 2 | Confluence with Barton Run | At Taunton Lake Road | Regression Equations | HEC-2 | 03/1982 | AE w/floodway | |
| Barton Run Tributary 2 | At Taunton Lake Road | Approximately 70 feet downstream of Kings Grant Drive | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-----------------------------|--|---|--|---|-------------------------------|-----------------------|------------------------------------|
| Barton Run Tributary 2A | Approximately 400 feet upstream of Vernetta Lane | Approximately 1.2 miles upstream of Vernetta Lane | FLO-2D | FLO-2D | 09/2015 | A | |
| Barton Run Tributary 3 | Confluence with Barton Run | At State Route 73 | Special Report No. 38 – Regression Analysis | HEC-RAS, Slope/Area method | 04/2005 | AE w/floodway | |
| Barton Run Tributary 3.1 | Confluence with Barton Run Tributary 3 | Approximately 1.4 miles upstream of confluence with Barton Run Tributary 3 | FLO-2D | FLO-2D | 09/2015 | A | |
| Barton Run Tributary 3A | Approximately 0.3 mile upstream of Tomlinson Mill Road | Approximately 0.5 mile upstream of Commonwealth Drive | FLO-2D | FLO-2D | 09/2015 | A | |
| Barton Run Tributary 4 | Approximately 275 feet upstream of Barton Run | Approximately 300 feet upstream of Braddock Mill Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Bass River | Confluence with Mullica River | Confluence with East Branch Bass River and West Branch Bass River | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | VE, AE | Coastal influence (Atlantic Ocean) |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|------------------|---|---|---------------------------------|--------------------------------|-------------------------|--------------------|------------------------------------|
| Batsto River | Confluence with Mullica River | At Batsto Village Road | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE | Coastal influence (Atlantic Ocean) |
| Batsto River | Approximately 1.0 mile downstream of Hampton Road | Approximately 3.1 miles upstream of State Route 532/Chatsworth Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Bear Swamp River | Approximately 0.1 mile upstream of confluence with Little Creek | Approximately 2.1 miles upstream of U.S. Highway 206 | FLO-2D | FLO-2D | 09/2015 | A | |
| Beaver Branch | Confluence with Beaver Run | Approximately 1,000 feet downstream of Shamong Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Beaver Run | At County Road 679` | At upstream confluence with Beaver Branch | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---------------------|---|--|--|--------------------------------|-------------------------|--------------------|---|
| Beaverdam Creek | Confluence Rancocas Creek South Branch | At Intersection of U.S. Highway 206 and Ridge Road | Stream Gage Analysis, Gage Transfer Computations, Regression equations | HEC-RAS | 11/2006 | AE w/floodway | NJFHADF calculated for entire reach. The NJFHADF is equal to the 1-percent annual chance flood plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flood. NJFHADF boundary is to regulate disturbance to the land and vegetation within the flood hazard area of a water body. This regulation is set forth by the state of New Jersey Flood Hazard Area Control Act Rules N.J.A.C. 7:13, and is administered. |
| Beaverdam Creek | At Intersection of U.S. Highway 206 and Ridge Road | Approximately 300 feet upstream of Ridge Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Biddle Branch | Confluence with Shoal Branch | Approximately 1.3 miles upstream of Barnegat Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Bisphams Mill Creek | At State Route 70 | At Coopers Road | log-Pearson Type III | HEC-2 | 09/1978 | AE w/floodway | |
| Bisphams Mill Creek | At approximately 300 feet downstream of Lower Mill Road | At Oregon Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Black Run | At confluence with Barton Run | At Private Drive | Regression Equations | HEC-2 | 03/1983 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---------------------|--|--|--|--------------------------------|-------------------------|--------------------|------------------------|
| Black Run | At Private Drive | Just downstream of Kettle Run | FLO-2D | FLO-2D | 09/2015 | A | |
| Black Run Tributary | Confluence with Black Run | At Braddock Mill Road | Regression Equations | HEC-2 | 03/1983 | AE w/floodway | |
| Black Run Tributary | At Braddock Mill Road | Approximately 0.4 mile upstream of Braddock Mill Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Blacks Creek | Confluence with Delaware River | Approximately 80 feet upstream of US Highway 206 | Regression Equations | HEC-2 | 0/3/1980 | AE w/floodway | |
| Blacks Creek | Approximately 80 feet upstream of US Highway 206 | Approximately 1,400 feet upstream of State Route 667/Wrightstown Sykesville Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Blue Lake Run | Confluence with Haynes Creek (Pine Lake) | Approximately 0.5 mile upstream of Hopewell Road | Discharge-frequency relationship | HEC-2 | 03/1982 | AE w/floodway | |
| Blue Lake Run | Approximately 0.5 mile upstream of Hopewell Road | Approximately 1.0 mile upstream of Mystic Way | FLO-2D | FLO-2D | 09/2015 | A | |
| Bobbys Run | Confluence with Rancocas Creek South Branch | At Eayrestown Road | USGS Special Report No. 38/regression analysis | Not Specified | 02/1982 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|----------------------|---|---|---------------------------------|--------------------------------------|-------------------------|--------------------|------------------------|
| Bobbys Run | At Eayrestown Road | Approximately 1.3 miles upstream of Vincetown Columbus Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Boundary Creek | Approximately 360 feet downstream of Creek Road | Approximately 530 feet upstream of Creek Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Bread and Cheese Run | Confluence with Friendship Creek | At Carranza Road | Regional regression equations | USGS Step-backwater computer program | 01/1989 | AE | |
| Bread and Cheese Run | At Carranza Road | Immediately downstream of U.S. Highway 206 | FLO-2D | FLO-2D | 09/2015 | A | |
| Breeches Branch | Confluence with Oswego River | Approximately 1.3 miles upstream of Chatsworth Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Buck Run | Confluence with Oswego River | Approximately 0.6 mile upstream of Martha Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Bucks Cove Run | At Lakehurst Road | At North Whites Bog Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---------------------|---|--|---|--------------------------------|-------------------------|--------------------|------------------------|
| Budds Run | Confluence with Rancocas Creek North Branch | Approximately 0.2 mile upstream of Hanover Street/Fort Dix Road | Peak discharge-drainage area relationship | HEC-2 | 06/1978 | AE w/floodway | |
| Budds Run | Approximately 0.2 mile upstream of Hanover Street/Fort Dix Road | Approximately 0.6 mile upstream of Catesville Road/Fort Dix Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Bull Creek | At County Road 542 | Approximately 0.9 miles upstream of Bulltown Maxwell Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Bulls Branch | Confluence with Tulpehocken Creek | Confluence with Shane Branch | FLO-2D | FLO-2D | 09/2015 | A | |
| Burnt Bridge Spring | Confluence with Batsto River | Approximately 0.2 mile upstream of County Road 532 | FLO-2D | FLO-2D | 09/2015 | A | |
| Burrs Mill Brook | Approximately 370 feet upstream of confluence of Burrs Mill Brook Tributary 6 | Approximately 100 feet downstream of confluence of Gum Spring | Regression Equations | HEC-2 | 04/1980 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|------------------|---|---|--|--------------------------------|-------------------------|--------------------|------------------------|
| Burrs Mill Brook | Confluence with Friendship Creek | Approximately 370 feet upstream of confluence of Burrs Mill Brook Tributary 6 | FLO-2D | FLO-2D | 09/2015 | A | |
| Burrs Mill Brook | Approximately 100 feet downstream of confluence of Gum Spring | Confluence with South Branch Burrs Mill Brook and Burrs Mill Brook Tributary 15 | FLO-2D | FLO-2D | 09/2015 | A | |
| Bustleton Creek | Approximately 0.6 mile downstream of Railroad | Approximately 1.0 mile downstream of Railroad | FLO-2D | FLO-2D | 09/2015 | A | |
| Bustleton Creek | Approximately 0.6 mile downstream of Railroad | At U.S. Highway 130 | Regression Equations | HEC-2 | 06/1980 | AE w/floodway | |
| Bustleton Creek | At U.S. Highway 130 | Approximately 1.3 miles upstream of U.S. Highway 130 | FLO-2D | FLO-2D | 09/2015 | A | |
| Buttonwood Lake | At Woolman Lake | At Upper Lake | FLO-2D | FLO-2D | 09/2015 | A | |
| Buttonwood Run | Confluence with Mill Race | At Branch Street (Woolman Lake) | USGS Special Report No. 38/regression analysis | HEC-2 | 06/1978 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|------------------------|---|---|--|--------------------------------|-------------------------|--------------------|------------------------|
| Cedar Run | Confluence with Rancocas Creek South Branch | Approximately 4.0 miles upstream of Rancocas Creek South Branch | FLO-2D | FLO-2D | 09/2015 | A | |
| Coares Run | Confluence with Budds Run | Approximately 0.1 mile upstream of Pointville Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Cold Water Run | Confluence with Bear Swamp River | At Hawkin Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Colliers Pond | Confluence with Blacks Creek | 0.6 mile upstream of confluence with Blacks Creek | FLO-2D | FLO-2D | 09/2015 | A | |
| Cooper Branch | Approximately 0.1 mile downstream of Coopers Road | Approximately 0.7 mile upstream of Coopers Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Country Lake Tributary | Confluence with Pole Bridge Branch | At Upton Station-Whitesbogs Road | Peak discharge-drainage area relationship | HEC-2 | 07/1978 | AE w/floodway | |
| Crafts Creek | Confluence with Delaware River | At US Highway 130 | USGS Special Report N0. 38 – Regression Analysis | HEC-2 | 03/1988 | AE w/floodway | |
| Crafts Creek | At US Highway 130 | At Gaunts Bridge Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---------------------------------------|---|--|--|--------------------------------|-------------------------|--------------------|------------------------|
| Crafts Creek Tributary | Approximately 0.2 mile upstream of confluence with Crafts Creek | Approximately 0.4 mile upstream of Potts Mill Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Cranberry Branch | Confluence with Pole Bridge Branch / Outlet of Colony Lake | At Lakehurst Road | Peak discharge-drainage area relationship | HEC-2 | 07/1978 | AE w/floodway | |
| Cranberry Branch, Various Tributaries | At Lake Hurst Road | Approximately 0.4 mile upstream of West Whites Bogs Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Cranberry Bog | Approximately 0.4 mile downstream of Chatsworth Road | Approximately 0.5 mile upstream of Chatsworth Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Cropwell Brook | Confluence with Pennsauken Creek South Branch | At North Cropwell Road | Water-Resources Investigations (WRI) Report 94-4002 procedure – regression analysis – log-Pearson Type III | HEC-RAS 4.0.0 | 03/2010 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|----------------------------|---|--|---------------------------------|--------------------------------|-------------------------|--------------------|------------------------|
| Crosswicks Creek | Confluence with Delaware River | Approximately 0.4 mile downstream of Groveville Allentown Road | Regression Equations | HEC-2 | 04/1988 | AE w/floodway | |
| Crosswicks Creek | Approximately 2.0 miles downstream of Groveville Allentown Road | Approximately 0.3 mile upstream of Extonville Road | Regression Equations | HEC-2 | 03/1980 | AE w/floodway | |
| Crosswicks Creek | Approximately 0.3 mile upstream of Extonville Road | County Boundary within the Township of North Hanover | Regression Equations | HEC-2 | 09/1977 | AE w/floodway | |
| Crystal Lake | At U.S. Highway 130 | Approximately 1,775 feet upstream of New Jersey Turnpike | FLO-2D | FLO-2D | 09/2015 | A | |
| Crystal Lake Tributary 1.1 | Confluence with Crystal Lake | Approximately 0.4 mile upstream of Confluence with Crystal Lake | FLO-2D | FLO-2D | 09/2015 | A | |
| Crystal Lake Tributary 2 | Confluence with Crystal Lake | Approximately 0.3 miles upstream of confluence with Crystal Lake | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|------------------------|--|--|-----------------------------------|--------------------------------------|-------------------------|--------------------|---|
| Dans Bridge Branch | Confluence with East Branch Bass River | Approximately 0.5 mile downstream of Oswego Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Delaware River | County Boundary with the Borough of Palmyra | County Boundary within the Township of Bordentown | Graphical Interpolation Procedure | HEC-2 | 04/1988 | AE w/floodway | Stillwater elevations used since greater than riverine modeling |
| East Branch Bass River | Confluence with Bass River | Approximately 390 feet upstream of County Road 654 | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE | Coastal influence (Atlantic Ocean) |
| East Branch Bass River | Approximately 390 feet upstream of County Road 654 | Approximately 0.3 mile upstream of Dan Bridge Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Evesboro Tributary | Confluence with Pennsauken Creek North Branch | At Union Mill Road | Discharge-frequency relationship | HEC-2 | 12/1978 | AE w/floodway | |
| Featherbed Branch | Confluence with Shane Branch | Approximately 0.3 mile upstream of Carranza Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Friendship Creek | Confluence with Rancocas Creek South Branch | At State Highway 70 | Regional Regression Equation | USGS Step-backwater computer program | 1992 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|------------------|--|--|---|--------------------------------|-------------------------|--------------------|---|
| Fish Creek | Confluence with Mullica River | Approximately 0.5 mile upstream of Mullica River | | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE, VE | Coastal influence (Atlantic Ocean) |
| Friendship Creek | Confluence with Rancocas Creek South Branch | At State Highway 70 | Stream gage analysis, gage transfer computations, and regression equations (USGS Special Report No. 38) | HEC-RAS 3.1.3 | 11/2006 | AE w/floodway | NJFHADF calculated for XSs A through F. The NJFHADF is equal to the 1-percent annual chance flood plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flood. NJFHADF boundary is to regulate disturbance to the land and vegetation within the flood hazard area of a water body. This regulation is set forth by the state of New Jersey Flood Hazard Area Control Act Rules N.J.A.C. 7:13, and is administered. |
| Friendship Creek | At State Highway 70 | Approximately 1.4 miles upstream of State Highway 70 | FLO-2D | FLO-2D | 09/2015 | A | |
| Friendship Creek | Approximately 0.4 mile downstream of Powell Place Road | Confluence with Bread and Cheese Run | USGS Special Report No.38 / Regression Analysis | HEC-2 | 01/1989 | AE | |
| Friendship Creek | Approximately 0.6 mile upstream of Powell Place Road | Approximately 0.6 mile upstream of South Park Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-------------------------|--|--|---|--------------------------------|-------------------------|--------------------|------------------------|
| Friendship Creek Branch | Confluence with Friendship Creek | At Warwick Way | USGS Special Report No.38 / Regression Analysis | HEC-2 | 09/1978 | AE | |
| Goldys Run | Confluence with Rancocas Creek North Branch | Approximately 0.2 mile upstream of confluence with Rancocas Creek North Branch | USGS Special Report No.38 / Regression Analysis | HEC-2 | 07/1978 | AE | |
| Goodwater Run | Approximately 1.3 miles downstream of Baily Road | Approximately 0.5 mile upstream of Chatsworth Barnegat Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Grubbs Run | At Rancocas Road | Approximately 0.1 mile upstream of Quail Hollow Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Gum Spring | Confluence with Mount Misery Creek | Approximately 0.1 mile upstream of Pitman Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Hartford Road Tributary | Confluence with Parkers Creek | Approximately 600 feet upstream of Larchmont Boulevard | Discharge-Drainage Area Relationship | HEC-2 | 12/1978 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--|---|---|----------------------------------|--------------------------------|-------------------------|--------------------|------------------------|
| Haynes Creek | Confluence with Southwest Branch Rancocas Creek | Approximately 0.2 mile upstream of Hopewell Road | Discharge-frequency relationship | HEC-2 | 03/1982 | AE w/floodway | |
| Hockamik Creek and various unnamed tributaries | Confluence with North Run | Approximately 0.2 mile upstream of Buntington Bridge Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Hooten Road Tributary | Confluence with Strawbridge Lake Tributary | At I-295 (Southbound Lanes) | Discharge-frequency relationship | HEC-2 | 12/1978 | AE w/floodway | |
| Horse Pond Stream | Confluence with Batsto River | Approximately 0.5 mile upstream of Carranza Drive | FLO-2D | FLO-2D | 09/2015 | A | |
| Hospitality Brook | Confluence with Wading River West Branch | Approximately 0.7 mile upstream of Stormy Hill Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|------------------------|---|--|--|--------------------------------|-------------------------|--------------------|---|
| Indian Mills Brook | Confluence with Springer Brook | Approximately 0.6 mile upstream of Bunker Hill Road | USGS Special Report No. 38 / Regression Analysis | HEC-RAS 3.1.2 | 04/2005 | AE w/floodway | NJFHADF calculated for entire reach. The NJFHADF is equal to the 1-percent annual chance flood plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flood. NJFHADF boundary is to regulate disturbance to the land and vegetation within the flood hazard area of a water body. This regulation is set forth by the state of New Jersey Flood Hazard Area Control Act Rules N.J.A.C. 7:13, and is administered. |
| Indian Run | Confluence with Rancocas Creek North Branch | At Birmingham Road | USGS Special Report No. 38 / Regression Analysis | HEC-2 | 07/1978 | AE | |
| Indian Run | At Birmingham Road | Approximately 0.2 mile downstream of Juliustown Pemberton Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Indian Run Tributary 1 | Confluence with Indian Run | Approximately 0.7 mile upstream of North Pemberton Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--------------------------|--|--|---------------------------------|--------------------------------|-------------------------|--------------------|------------------------------------|
| Indian Run Tributary 1.1 | Confluence with Indian Run Tributary 1 | Approximately 0.6 mile upstream of Indian Run Tributary 1 | FLO-2D | FLO-2D | 09/2015 | A | |
| Indian Run Tributary 2 | Confluence with Indian Run | Approximately 0.8 mile upstream of confluence with Indian Run | FLO-2D | FLO-2D | 09/2015 | A | |
| Indian Run Tributary 3 | Confluence with Indian Run | Approximately 0.7 mile upstream of Catesville Road/Fort Dix Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Ives Branch | Confluence with Wading River | At County Road 653 | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE | Coastal influence (Atlantic Ocean) |
| Ives Branch | At County Road 653 | At downstream limit of Cranberry Bog | FLO-2D | FLO-2D | 09/2015 | A | |
| Ives Branch | At upstream limit of Cranberry Bog | Approximately 0.4 mile upstream of Martha Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Jacks Run | Confluence with Pompeston Creek | At Highland Avenue | Rational Equation | HEC-2 | 09/1989 | AE | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-----------------|---|---|---|--------------------------------|-------------------------|--------------------|---|
| Jade Run | Confluence with Rancocas Creek South Branch | Approximately 0.3 mile upstream of Ridge Road | Stream gage analysis, gage transfer computations, and regression equations (USGS Special Report No. 38) | HEC-RAS 3.1. 3 | 11/2006 | AE w/floodway | |
| Jade Run | Approximately 0.3 mile upstream of Ridge Road | At Turkey Buzzard Bridge Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Jefferson Lake | At Oregon Trail | At State Highway 70 | USGS Special Report No. 38 / Regression Analysis | HEC-2 | 07/1978 | AE w/floodway | Modeled as larger part of Ballinger Run |
| Jobs Creek | Confluence with Bass River | At Garden State Parkway | FLO-2D | FLO-2D | 09/2015 | A | |
| Kendles Run | Confluence with Rancocas Creek | Approximately 0.7 mile upstream of Creek Road | Rational Method | HEC-2 | 09/1976 | AE w/floodway | Starting WSELs obtained from tidal elevations on Rancocas Creek |
| Kendles Run | Approximately 0.7 mile upstream of Creek Road | Approximately 1.0 mile upstream of Creek Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Absegami | East Branch Bass River | Philips Road and Tommy Branch | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Migazee | Migazee Trail | Tuckerton Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|----------------------|--|------------------------------------|---|--------------------------------|-------------------------|--------------------|------------------------|
| Lake Minonok | Cheyenne Trail | Mohawk Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Mishe Mokwa | Hiawatha Trail | Mishe Mokwa Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Mishe-Mokwa Run | Confluence with Ballinger Run | Hiawatha Trail | Peak discharge-drainage area relationship | HEC-2 | 06/1978 | AE w/floodway | |
| Lake Mushkodosa | Mishe Mokwa Trail | Wagush Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Peshekee | Mudjekeewis Trail | Cheyenne Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Sioux | Tuckerton Road | Atsion Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Siquitise | Mishe Mokwa Trail | Askoran Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Wabassi | Askoran Trail | Migazee Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Wagush | Wagush Trail | Mishe Mokwa Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Lake Wauwaukashe | Wagush Trail | Mudjekeewis Trail | FLO-2D | FLO-2D | 09/2015 | A | |
| Laurel Run | 250 feet downstream of confluence of Laurel Run and Laurel Run Tributary | 630 feet downstream of Grande Blvd | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--------------------------|--|--|----------------------------------|--------------------------------|-------------------------|--------------------|------------------------|
| Laurel Run Tributary 1 | Confluence with Laurel Run | Approximately 0.1 mile upstream of Bridgeboro Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Little Creek | Confluence with Southwest Branch Rancocas Creek | Approximately 0.8 mile upstream of State Highway 70 | Discharge-frequency relationship | HEC-2 | 09/1978 | AE w/floodway | |
| Little Creek | Approximately 0.4 mile downstream of Hawkin Road | Approximately 0.1 mile upstream of Medford Lakes Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Little Creek Tributary 3 | Confluence with Little Creek | Approximately 1.4 miles upstream of confluence with Little Creek | FLO-2D | FLO-2D | 09/2015 | A | |
| Little Creek Tributary 4 | Confluence with Little Creek | Approximately 365 feet upstream of Hawkin Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Little Creek Tributary 5 | Confluence with Little Creek | Approximately 260 feet upstream of Shawnee Pass | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|----------------------------|---|---|----------------------------------|--------------------------------|---------------------------|--------------------|------------------------------------|
| Little Creek Tributary 5.1 | Confluence with Little Creek Tributary 5 | Approximately 900 feet upstream of confluence with Little Creek Tributary 5 | FLO-2D | FLO-2D | 09/2015 | A | |
| Little Creek Tributary 6 | Confluence with Little Creek | Approximately 0.4 mile upstream of confluence with Little Creek | FLO-2D | FLO-2D | 09/2015 | A | |
| Little Haukin Run | Confluence with West Branch Wading River | Just downstream of Green Bank Chatsworth Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Loveland Thorofare | Confluence with Bass River | Confluence with Wading River | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE | Coastal influence (Atlantic Ocean) |
| Lower Pasture Creek | Confluence with Mullica River | Approximately 0.3 mile upstream of confluence of Mullica River | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE, VE | Coastal influence (Atlantic Ocean) |
| Masons Creek | Confluence with Rancocas Creek South Branch | At Stacy Haines Road | Discharge-frequency relationship | HEC-2 | 05/1978, 06/1978, 02/1982 | AE w/floodway | Tidal influence (Delaware River) |
| Masons Creek | At Stacy Haines Road | Approximately 700 feet upstream of Ark Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-------------------------|--|---|---|--------------------------------|-------------------------|--------------------|------------------------------------|
| Mathis Thorofare | Confluence with Mullica River | Confluence with Broad Creek | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE, VE | Coastal influence (Atlantic Ocean) |
| McDonalds Branch | Confluence with Bisphams Mill Creek | Approximately 1.0 miles upstream of confluence of Bisphams Mill Creek | FLO-2D | FLO-2D | 09/2015 | A | |
| Merrygold Branch | Confluence with Wading River | Approximately 2.0 miles upstream of confluence with Wading River | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE | Coastal influence (Atlantic Ocean) |
| Mile Run | Confluence with West Branch Wading River | Approximately 0.2 mile upstream of Friendship Speedwell Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Mill Creek | Confluence with Rancocas Creek | At Interstate 295 | Regression Equations | HEC-2 | 05/1978 | AE w/floodway | Tidal influence (Delaware River) |
| Mill Creek | At Interstate 295 | Approximately 0.2 mile upstream of Mount Holly Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Mill Creek South Branch | Confluence with Mill Creek | At John F Kennedy Way | Peak discharge-drainage area relationship | HEC-2 | 05/1978 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--|--|---|---|--------------------------------------|-------------------------------|-----------------------|--|
| Mill Creek South Branch | At John F Kennedy Way | At Garfield Drive | FLO-2D | FLO-2D | 09/2015 | A | |
| Mill Creek Tributary | Confluence with Mill Creek | At Woodlane Road | Regression Equations | HEC-2 | 05/1978 | AE w/floodway | |
| Mill Creek Tributary 1 | Confluence with Mill Creek | At Levitt Parkway | Peak discharge- drainage area relationship | HEC-2 | 05/1978 | AE w/floodway | |
| Mill Creek Tributary 1 | At Levitt Parkway | Approximately 0.1 mile upstream of Evergreen Drive | FLO-2D | FLO-2D | 09/2015 | A | |
| Mill Race | Confluence with Rancocas Creek North Branch | Confluence with Rancocas Creek North Branch | log-Pearson Type III | HEC-2 | 06/1978 | AE w/floodway | The calculated peak discharges of Rancocas Creek North Branch were divided among Rancocas Creek North Branch, Mill Race, and Mount Holly By-pass Channel between the upstream and downstream terminal points of Mill Race. |
| Mimosa Lake | At Scout Drive | Confluence with Mimosa Lake Tributary 1 and Mimosa Lake Tributary 2 | FLO-2D | FLO-2D | 09/2015 | A | |
| Mimosa Lake, Various Tributaries | Confluence with Mimosa Lake and Mimosa Lake Tributary 2 | Within the Township of Medford | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--------------------------------------|--|--|----------------------------------|--------------------------------|-------------------------|--------------------|--|
| Mimosa Lake Run | Confluence with Haynes Creek (Tauton Lake) | At Scout Drive | Discharge-frequency relationship | HEC-2 | 03/1982 | AE w/floodway | |
| Mimosa Lake Run, Various Tributaries | Confluence with Mirror Lake and Approximately 2.3 miles upstream of Lakehurst Road | Within the Township of Pemberton | FLO-2D | FLO-2D | 09/2015 | A | |
| Mirror Lake | At Lakehurst Road | Approximately 2.3 miles upstream of Lakehurst Road | Routing Method | HEC-2 | 07/1978 | AE w/floodway | |
| Mirror Lake, Various Tributaries | Confluence with Mirror Lake and Approximately 2.3 miles upstream of Lakehurst Road | Within the Township of Pemberton | FLO-2D | FLO-2D | 09/2015 | A | |
| Mirror Lake Nos. 1, 2, 3 | Chippewa Trail | Oak Drive | FLO-2D | FLO-2D | 09/2015 | A | |
| Mount Holly By-pass Channel | Confluence with Rancocas Creek North Branch | Confluence with Mill Race | log-Pearson Type III | HEC-2 | 06/1978 | AE w/floodway | The calculated peak discharges of Rancocas Creek North Branch were divided among Rancocas Creek North Branch, Mill Race, and Mount Holly By-pass Channel between the upstream and downstream terminal points of Mill Race. |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---------------------------------------|--|--|---------------------------------|--------------------------------|-------------------------|--------------------|------------------------------------|
| Mount Misery Brook | Confluence with Gum Creek | Approximately 0.4 mile upstream of Rattler Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Mount Misery Brook North Branch | Confluence with Mount Misery Brook | Approximately 0.5 mile upstream of Glassworks Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Mount Misery Brook South Branch | Confluence with Mount Misery Brook | Approximately 0.7 mile upstream of Savoy Boulevard | FLO-2D | FLO-2D | 09/2015 | A | |
| Mount Misery Creek | Confluence with Rancocas Creek North Branch | Approximately 0.2 mile upstream of Greenwood Bridge Road | log-Pearson Type III | HEC-2 | 07/1978 | AE w/floodway | |
| Mount Misery Creek | Approximately 0.2 mile upstream of Greenwood Bridge Road | Confluence with Mount Misery Brook and Gum Spring | FLO-2D | FLO-2D | 09/2015 | A | |
| Mullica River and various tributaries | Entire Coastline | Entire Coastline | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | VE, AE | Coastal Influence (Atlantic Ocean) |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--------------------------------------|--|--|---|--------------------------------|-------------------------|--------------------|---|
| Muskingum Brook | Confluence with Indian Mills Brook | At Tuckerton Road | USGS Special Report No. 38 | HEC-RAS 3.1.2 | 04/2005 | AE w/floodway | NJFHADF calculated for entire reach. The NJFHADF is equal to the 1-percent annual chance flood plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flood. NJFHADF boundary is to regulate disturbance to the land and vegetation within the flood hazard area of a water body. This regulation is set forth by the state of New Jersey Flood Hazard Area Control Act Rules N.J.A.C. 7:13, and is administered. |
| Muskingum Brook | At Tuckerton Road | Approximately 0.3 mile upstream of Old Indian Mills Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Muskingum Brook, Various Tributaries | Confluence with Muskingum Brook | Within Township of Tabernacle | FLO-2D | FLO-2D | 09/2015 | A | |
| North Run | County Boundary | Borough of Wrightstown corporate limit | FLO-2D | FLO-2D | 09/2015 | A | |
| Ong Run | Confluence with Mirror Lake | Approximately 0.2 mile upstream of Orange Avenue | Peak discharge-drainage area relationship | HEC-2 | 07/1978 | AE w/floodway | |
| Ong Run | Approximately 0.2 mile upstream of Orange Avenue | Approximately 200 feet downstream of Gas Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-----------------------|-----------------------------------|---|--------------------------------------|--|-------------------------|--------------------|----------------------------------|
| Ore Spring | Confluence with Featherbed Branch | Approximately 0.5 mile upstream of confluence with Featherbed Branch | FLO-2D | FLO-2D | 09/2015 | A | |
| Oswego River | At Chatsworth Road | Burlington / Ocean county lines | FLO-2D | FLO-2D | 09/2015 | A | |
| Papoose Branch | Confluence with Oswego River | Approximately 1.2 miles upstream of Baptist Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Parkers Creek | Confluence Rancocas Creek | At Union Mill Road | Discharge-Drainage Area Relationship | HEC-2 | 12/1978 | AE w/floodway | Tidal influence (Delaware River) |
| Parkers Creek | At Union Mill Road | At Hainesport Mt. Laurel Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Pau Puk Keewis Lagoon | Lake Siquitise | Approximately 0.2 mile upstream of Lake Siquitise | FLO-2D | FLO-2D | 09/2015 | A | |
| Pennsauken Creek | Confluence with Delaware River | Confluence with Pennsauken Creek North Branch and Pennsauken Creek South Branch | USGS Special Report No. 38 | Normal Depth Calculations or the One-Year tide, whichever is greater | 05/1990 | AE w/floodway | Tidal influence (Delaware River) |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--|--|--|---|--|---------------------------|--------------------|----------------------------------|
| Pennsauken Creek North Branch | Confluence with Pennsauken Creek and Pennsauken Creek South Branch | At Hainesport Mt Laurel Road | Regional Frequency Method | HEC-2 | 04/1977, 12/1978, 09/1976 | AE w/floodway | Tidal influence (Delaware River) |
| Pennsauken Creek North Branch, Various Tributaries | Confluence with Pennsauken Creek North Branch | Various Limits of Study within the Townships of Evesham, Moorestown and Mount Laurel | FLO-2D | FLO-2D | 09/2015 | A | |
| Pennsauken Creek South Branch | Confluence with Pennsauken Creek and Pennsauken Creek North Branch | Approximately 1.1 miles upstream of State Route 90 | USGS Special Report No. 38 | Normal Depth Calculations or the One-Year tide, whichever is greater | 05/1990 | AE w/floodway | |
| Pennsauken Creek South Branch | Approximately 1.1 miles upstream of State Route 90 | Approximately 0.5 mile upstream of South Church Road | Regional parameters developed from statistical analyses | FEMA, 1976 | 04/1977 | AE w/floodway | |
| Pennsauken Creek South Branch | Approximately 0.7 mile downstream of Centertree Road | Approximately 0.3 mile upstream of Marlton Pike | USGS Special Report No. 38 | HEC-2 | 03/1982 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--|---|--|--|--------------------------------|-------------------------|--------------------|------------------------|
| Pennsauken Creek South Branch, Various Tributaries | Confluence with Pennsauken Creek South Branch | Various Limits of Study within the Townships of | FLO-2D | FLO-2D | 09/2015 | A | |
| Pheasant Run | Confluence with Pompeston Creek East Branch | Approximately 0.1 mile upstream of Waterford Drive | New Jersey Water Resources Circular No. 13 | HEC-2 | 07/1974 | AE | |
| Plains Branch | Confluence with Oswego River | 4500 feet downstream of Route 72 | FLO-2D | FLO-2D | 09/2015 | A | |
| Pole Branch | Approximately 900 feet upstream of Gretna Chatsworth Road | Approximately 1,600 feet downstream of confluence with Pole Branch Tributary | FLO-2D | FLO-2D | 09/2015 | A | |
| Pole Bridge Branch | Outlet of Colony Lake | At Whitesbogs Road | Peak discharge-drainage area relationship | HEC-2 | 07/1978 | AE w/floodway | |
| Pole Bridge Branch | Approximately 210 feet downstream of Wissahickon Trail | Confluence with Mount Misery Brook | FLO-2D | FLO-2D | 09/2015 | A | |
| Pole Bridge Branch Tributary | Confluence with Pole Bridge Branch | At Lakehurst Road | Peak discharge-drainage area relationship | HEC-2 | 07/1978 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--|--|--|--|--|-------------------------|--------------------|----------------------------------|
| Pole Bridge Branch Tributary | At Lakehurst Road | Approximately 1.7 miles upstream of Lakehurst Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Pompeston Creek | Confluence with Delaware River | Approximately 0.9 mile upstream of River Road | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE w/floodway | Tidal influence (Delaware River) |
| Pompeston Creek | Approximately 0.9 mile upstream of River Road | Approximately 425 feet upstream of West Maple Avenue | New Jersey Water Resources Circular No. 13 | Normal Depth Calculations or the One-Year tide, whichever is greater | 09/1989 | AE w/floodway | Tidal influence (Delaware River) |
| Pompeston Creek | Approximately 425 feet upstream of West Maple Avenue | At Dawson Street | FLO-2D | FLO-2D | 09/2015 | A | |
| Pompeston Creek East Branch and Southeast Branch | Confluence with Pompeston Creek | Confluence of Pompeston Creek Northeast and Southeast Branch | New Jersey Water Resources Circular No. 13 | Normal Depth Calculations or the One-Year tide, whichever is greater | 09/1989 | AE | Tidal influence (Delaware River) |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|----------------------------------|--|--|---------------------------------|--------------------------------|-------------------------|--------------------|------------------------|
| Pompeston Creek Northeast Branch | Confluence with Pompeston Creek East and Southeast Branch | Approximately 0.5 mile upstream of confluence with Pompeston Creek East and Southeast Branch | FLO-2D | FLO-2D | 09/2015 | A | |
| Pompeston Creek Southeast Branch | Confluence with Pompeston Creek East and Southeast Branch | Approximately 0.5 mile upstream of confluence with Pompeston Creek East and Southeast Branch | FLO-2D | FLO-2D | 09/2015 | A | |
| Pope Branch | Confluence with Shoal Branch | Approximately 0.6 mile upstream of Lauries Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Powell Run | Approximately 700 feet upstream of Rancocas Creek North Branch | Approximately 800 feet upstream of North Pemberton Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Powells Run | Confluence with Powell Run | Approximately 1.7 miles upstream of Powell Run | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---|---|---|---|--------------------------------|-------------------------|--------------------|----------------------------------|
| Ramblewood Tributary | Confluence with Evesboro Tributary | Approximately 0.5 mile upstream of confluence with Evesboro Tributary | Discharge-frequency relationship | HEC-2 | 12/1978 | AE w/floodway | |
| Rancocas Creek | Confluence with Delaware River | At Interstate 295 | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE w/floodway | Tidal influence (Delaware River) |
| Rancocas Creek | At Interstate 295 | Confluence with Rancocas Creek North Branch and Rancocas Creek South Branch | Gage Analysis | HEC-2 | 05/1978 | AE w/floodway | |
| Rancocas Creek, Various Tributaries | Confluence with Rancocas Creek | Various Limits of Study | FLO-2D | FLO-2D | 09/2015 | A | |
| Rancocas Creek North Branch | Confluence with Rancocas Branch and Rancocas Creek South Branch | At Lakehurst Road and downstream limit of Mirror Lake | Drainage area-discharge transfer equation | HEC-2 | 05/1978 | AE w/floodway | Tidal influence (Delaware River) |
| Rancocas Branch North Branch, Various Tributaries | Confluence with Rancocas Creek North Branch | Various Limits of Study within Townships of Pemberton and Westampton | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---------------------------------------|--|---|--|---|-------------------------|--------------------|---|
| Rancocas Creek South Branch | Confluence with Rancocas Creek and Rancocas Creek North Branch | At Bed Bug Hill Road | Stream gage analysis, gage transfer computations and regression equations (USGS Special Report No. 38) | HEC-RAS 3.1.3 | 11/2006 | AE w/floodway | NJFHADF calculated for entire reach. The NJFHADF is equal to the 1-percent annual chance flood plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flood. NJFHADF boundary is to regulate disturbance to the land and vegetation within the flood hazard area of a water body. This regulation is set forth by the state of New Jersey Flood Hazard Area Control Act Rules N.J.A.C. 7:13, and is administered. |
| Rancocas Creek South Branch | At Bed Bug Hill Road | Approximately 0.3 mile downstream of Serenity Court | FLO-2D | FLO-2D | 09/2015 | A | |
| Rancocas Creek South Branch Tributary | Confluence with Rancocas Creek South Branch | Approximately 0.5 mile upstream of Crispin Road | Gage Analysis, log-Pearson type III | Mean annual tide elevation – graphic comparison of riverine/tidal flows | 02/1982 | AE w/floodway | |
| Rancocas Creek South Branch Tributary | Approximately 500 feet downstream of Fostertown Road | Approximately 0.4 mile upstream of Setter Club Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--|--|---|--|--------------------------------|-------------------------|--------------------|---|
| Rancocas Creek Southwest Branch | Confluence with Rancocas Creek South Branch | Approximately 0.2 mile upstream of Bon Air Drive | HEC-HMS (HMS = Hydrologic Modeling System) | HEC-RAS 3.1.3 | 11/2006 | AE w/floodway | NJFHADF calculated for entire reach. The NJFHADF is equal to the 1-percent annual chance flood plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flood. NJFHADF boundary is to regulate disturbance to the land and vegetation within the flood hazard area of a water body. This regulation is set forth by the state of New Jersey Flood Hazard Area Control Act Rules N.J.A.C. 7:13, and is administered. |
| Rancocas Creek Southwest Branch | Approximately 0.2 mile upstream of Bon Air Drive | Approximately 0.4 mile upstream of North Maple Avenue | FLO-2D | FLO-2D | 09/2015 | A | |
| Rancocas Creek Southwest Branch, Various Tributaries | Confluence with Rancocas Creek Southwest Branch | Various Limits of Study within the Townships of Evesham and Medford | FLO-2D | FLO-2D | 09/2015 | A | |
| Risley Branch | Confluence with West Branch Wading River | Approximately 3.1 miles upstream of West Branch Wading River | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|---------------------------------|---|--|----------------------------------|--------------------------------|-------------------------|--------------------|------------------------|
| Roberts Branch | Confluence with Skits Branch | Approximately 0.1 mile upstream of Tabernacle-Chatsworth Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Roberts Branch Tributary 1 | Confluence with Roberts Branch | Approximately 0.7 mile upstream of confluence with Roberts Branch | FLO-2D | FLO-2D | 09/2015 | A | |
| Shane Branch | Confluence with Tulpehocken Creek | Approximately 0.3 mile upstream of Speedwell Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Sharps Run | Confluence with Rancocas Creek South Branch | At Hartford Road | Discharge-frequency relationship | HEC-2 | 03/1982 | AE w/floodway | |
| Sharps Run | At Hartford Road | Approximately 2.1 miles upstream of Hartford Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Sharps Run, Various Tributaries | Confluence with Sharps Run | Various Limits of Study within the Township of Evesham and Medford | FLO-2D | FLO-2D | 09/2015 | A | |
| Shinns Branch | Confluence with Bispahms Mill Creek | 1100 feet downstream of Norlemon Road | Regression Equations | HEC-2 | 04/1980 | AE w/floodway | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--|--|--|---|--------------------------------------|-------------------------------|-----------------------|------------------------|
| Shoal Branch | Confluence with West Branch Wading River | At State Route 72 | FLO-2D | FLO-2D | 09/2015 | A | |
| Shreve Branch | Confluence with Shoal Branch | Approximately 1.3 miles upstream of Sooy Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Skeet Run | Confluence with Little Creek | At Hawkin Road | Discharge- frequency relationship | HEC-2 | 03/1982 | AE w/floodway | |
| Skeet Run, Various Tributaries | Confluence with Skeet Run | Various Limits of Study within the Township of Medford | FLO-2D | FLO-2D | 09/2015 | A | |
| Skit Branch | Confluence with Batsto River | Approximately 6.0 miles upstream of confluence with Batsto River | FLO-2D | FLO-2D | 09/2015 | A | |
| Skit Branch, Various Tributaries | Confluence with Skit Branch | Various Limits of Study within the Township of Tabernacle | FLO-2D | FLO-2D | 09/2015 | A | |
| Spring Hill Brook | Confluence with Crystal Lake | Approximately 0.1 mile upstream of confluence with Crystal Lake | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|------------------|--|--|--|--------------------------------|-------------------------|--------------------|---|
| Springer Brook | Approximately 0.6 mile downstream of U.S. Route 206 | Confluence with Muskingum Brook | Special Report No. 38 | HEC-RAS 3.1.2 | 04/2005 | AE w/floodway | NJFHADF calculated for entire reach. The NJFHADF is equal to the 1-percent annual chance flood plus an additional 25% in flow, and not to exceed the 0.2-percent annual chance flood. NJFHADF boundary is to regulate disturbance to the land and vegetation within the flood hazard area of a water body. This regulation is set forth by the state of New Jersey Flood Hazard Area Control Act Rules N.J.A.C. 7:13, and is administered. |
| Springer Brook | Approximately 0.6 mile downstream of U.S. Route 206 | Approximately 2.1 miles downstream of U.S. Route 206 | FLO-2D | FLO-2D | 09/2015 | A | |
| Strawbridge Lake | Confluence with Pennsauken Creek North Branch | At New Jersey Route 38 | Regionalized parameters, developed from statistical analyses – gage analysis | HEC-2 | 09/1976 | AE w/floodway | |
| Strawbridge Lake | At New Jersey Route 38 | Approximately 900 feet downstream of Hooten Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Swede Run | Confluence with Delaware River and at St. Michel Drive | Approximately 0.9 mile upstream of St. Michel Drive | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE | Tidal influence (Delaware River) |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-----------------------------|--|---|---------------------------------------|--------------------------------------|-------------------------------|-----------------------|------------------------|
| Swede Run | Approximately 0.9 mile upstream of St. Michel Drive | At North Stanwick Road | TR-55 | HEC-2 | 10/1993 | AE w/floodway | |
| Swede Run | At North Stanwick Road | Approximately 170 feet upstream of Golf View Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Swede Run Tributary | Confluence with Swede Run | Approximately 180 feet upstream of Salem Road | TR-55 | HEC-2 | 10/1993 | AE w/floodway | |
| Sykes Branch | Confluence with Shoal Branch | Approximately 1.3 miles upstream of Sooy Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Taunton Lake Tributary | At Centennial Avenue | Approximately 550 feet upstream of Kettle Run Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Taunton Lake Tributary 1 | Confluence with Taunton Lake Tributary | At Hopewell Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Thorton Creek | Approximately 920 feet downstream of Park Street | At Hogbeck Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|-----------------|---|--|---------------------------------|--------------------------------|-------------------------|--------------------|------------------------|
| Tommys Branch | Confluence with Lake Absegami | Approximately 0.6 mile upstream of confluence with Lake Absegami | FLO-2D | FLO-2D | 09/2015 | A | |
| Tributary 1 | Approximately 0.2 mile downstream of Phillips Road | Approximately 0.2 mile upstream of Kettlebrook Drive | FLO-2D | FLO-2D | 09/2015 | A | |
| Tributary 2 | Approximately 0.2 mile downstream of Masonville Fostertown Road | Approximately 0.9 mile upstream of Masonville Fostertown Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Tributary 2.1 | Confluence with Tributary 2 | Approximately 0.1 mile upstream of confluence with Tributary 2 | FLO-2D | FLO-2D | 09/2015 | A | |
| Tributary B | Confluence with Unnamed Stream above the Delaware River | Approximately 0.2 mile upstream of confluence with Unnamed Stream above the Delaware River | FLO-2D | FLO-2D | 09/2015 | A | |
| Tub Mill Branch | Confluence with Wading River | Approximately 0.2 mile upstream of Chatsworth Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--|---|--|---------------------------------------|---|-------------------------------|-----------------------|------------------------------------|
| Tulpehocken Creek | Approximately 550 feet downstream of Bulls Branch | Approximately 500 feet upstream of Shane Branch | FLO-2D | FLO-2D | 09/2015 | A | |
| Unnamed Streams | Various Limits of Study as noted on FIRM panels | Various Limits of Study as noted on FIRM panels | FLO-2D | FLO-2D | 09/2015 | A | |
| Unnamed Tributaries | Various Limits of Study as noted on FIRM panels | Various Limits of Study as noted on FIRM panels | FLO-2D | FLO-2D | 09/2015 | A | |
| Upper Marlton Lake | Confluence with Haynes Creek and Upper Marlton Lake Tributary 1 | County Boundary | FLO-2D | FLO-2D | 09/2015 | A | |
| Upper Marlton Lake Tributary 1 | Confluence with Haynes Creek and Upper Marlton Lake | County Boundary | FLO-2D | FLO-2D | 09/2015 | A | |
| Upper Marlton Lake Tributary 1.1 | Confluence with Upper Marlton Lake Tributary 1 | County Boundary | FLO-2D | FLO-2D | 09/2015 | A | |
| Wading River | Confluence with Mullica River | Confluence with Oswego River | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | VE, AE | Coastal influence (Atlantic Ocean) |
| Wesickaman Creek | At Three Bridge Road | At Locust Road | FLO-2D | FLO-2D | 09/2015 | A | |

Table 13: Summary of Hydrologic and Hydraulic Analyses – continued

| Flooding Source | Study Limits Downstream Limit | Study Limits Upstream Limit | Hydrologic Model or Method Used | Hydraulic Model or Method Used | Date Analyses Completed | Flood Zone on FIRM | Special Considerations |
|--------------------------|---|-----------------------------------|---------------------------------|--------------------------------|-------------------------|--------------------|------------------------------------|
| West Branch Bass River | Confluence with Bass River and East Branch Bass River | At Cranberry Bog downstream limit | -- | SWAN + ADCIRC / CHAMP - WHAFIS | 04/2014 | AE | Coastal influence (Atlantic Ocean) |
| West Branch Wading River | At Tabernacle Chatsworth Road | At Cedar Road | Regression Equations | HEC-2 | 04/1980 | AE w/floodway | |
| West Branch Wading River | Approximately 0.6 mile downstream of County Route 563 | At Tabernacle Chatsworth Road | FLO-2D | FLO-2D | 09/2015 | A | |
| Woolman Lake | At Branch Street | At Buttonwood Lake | FLO-2D | FLO-2D | 09/2015 | A | |

Table 14: Roughness Coefficients

| Flooding Source | Channel “n” | Overbank “n” |
|---------------------------------|-------------|--------------|
| Assiscunk Creek | 0.028 | 0.055-0.090 |
| Assiscunk Creek Tributary | 0.035 | 0.060-0.080 |
| Ballinger Run | 0.035-0.040 | 0.060-0.080 |
| Ballinger Run Tributary | 0.035 | 0.060 |
| Barkers Brook | 0.045 | 0.035-0.100 |
| Barkers Brook Unnamed Tributary | 0.045 | 0.035-0.100 |
| Barton Run | 0.024-0.045 | 0.050-0.150 |
| Barton Run Tributary 1 | 0.015-0.035 | 0.080 |
| Barton Run Tributary 2 | 0.020-0.035 | 0.060 |
| Barton Run Tributary 3 | 0.020-0.035 | 0.070-0.100 |
| Beaverdam Creek | 0.036-0.055 | 0.036-0.115 |
| Bisphams Mill Creek | 0.017-0.055 | 0.050-0.075 |
| Black Run | 0.020-0.035 | 0.050-0.080 |
| Black Run Tributary | 0.020-0.040 | 0.080 |
| Blue Lake Run | 0.040 | 0.080 |
| Bobbys Run | 0.021-0.040 | 0.060-0.090 |
| Bread and Cheese Run | 0.045 | 0.055-0.120 |
| Budds Run | 0.035 | 0.070-0.090 |
| Burrs Mill Brook | 0.055-0.065 | 0.050-0.075 |
| Bustleton Creek | 0.050-0.070 | 0.080 |
| Buttonwood Run | 0.040-0.050 | 0.055-0.075 |
| Crafts Creek | 0.035 | 0.050 |
| Cranberry Branch | 0.040 | 0.060-0.070 |
| Cropwell Brook | 0.040 | 0.030-0.100 |
| Delaware River | 0.016-0.030 | 0.050-0.070 |
| Evesboro Tributary | 0.025-0.075 | 0.025-0.140 |
| Friendship Creek | 0.038-0.056 | 0.043-0.100 |
| Hartford Road Tributary | 0.025-0.075 | 0.025-0.140 |
| Haynes Creek | 0.015-0.040 | 0.070-0.080 |
| Hooten Road Tributary | 0.025-0.075 | 0.025-0.140 |
| Indian Mills Brook | 0.035-0.045 | 0.035-0.120 |
| Jacks Run | 0.025-0.080 | 0.040-0.090 |

Table 14: Roughness Coefficients – continued

| Flooding Source | Channel “n” | Overbank “n” |
|---------------------------------------|-------------|--------------|
| Jade Run | 0.028-0.062 | 0.030-0.106 |
| Kettle Run | 0.015-0.040 | 0.050-0.080 |
| Lake Mishe Mokwa Run | 0.035 | 0.080 |
| Little Creek | 0.022-0.040 | 0.060-0.080 |
| Masons Creek | 0.020-0.075 | 0.025-0.140 |
| Mill Creek | 0.029-0.045 | 0.060-0.090 |
| Mill Creek Tributary | 0.040 | 0.060-0.080 |
| Mill Creek South Branch | 0.040 | 0.070 |
| Mill Race | 0.035-0.050 | 0.050-0.070 |
| Mimosa Lake Run | 0.040 | 0.070 |
| Mount Holly Bypass Channel | 0.020 | 0.015-0.080 |
| Mount Misery Creek | 0.035 | 0.050-0.080 |
| Mullica River | 0.039-0.051 | 0.049-0.064 |
| Miskingum Brook | 0.035-0.045 | 0.035-0.120 |
| Ong Run | 0.035 | 0.065-0.085 |
| Parkers Creek | 0.025-0.075 | 0.025-0.140 |
| Pennsauken Creek | 0.040 | 0.070 |
| Pennsauken Creek North Branch | 0.025-0.075 | 0.025-0.140 |
| Pennsauken Creek South Branch | 0.020-0.075 | 0.025-0.140 |
| Pole Bridge Branch | 0.040 | 0.060-0.070 |
| Pole Bridge Branch Tributary | 0.040 | 0.070 |
| Pompeston Creek | 0.025-0.080 | 0.040-0.090 |
| Ramblewood Tributary | 0.025-0.075 | 0.025-0.140 |
| Rancocas Creek | 0.016-0.030 | 0.034-0.070 |
| Rancocas Creek North Branch | 0.030-0.035 | 0.050-0.090 |
| Rancocas Creek South Branch | 0.025-0.051 | 0.025-0.198 |
| Rancocas Creek South Branch Tributary | 0.022-0.040 | 0.040-0.100 |
| Rancocas Creek Southwest Branch | 0.035-0.055 | 0.060-0.130 |
| Sharps Run | 0.035-0.040 | 0.060-0.080 |
| Shinns Branch | 0.040-0.045 | 0.080 |
| Skeet Run | 0.035-0.040 | 0.080 |
| Springer Brook | 0.035-0.045 | 0.035-0.120 |

Table 14: Roughness Coefficients – continued

| Flooding Source | Channel “n” | Overbank “n” |
|--------------------------|-------------|--------------|
| Strawbridge Lake | 0.025-0.075 | 0.025-0.140 |
| Swede Run | 0.012-0.035 | 0.030-0.060 |
| West Branch Wading River | 0.050-0.060 | 0.050-0.090 |

5.3 Coastal Analyses

For the areas of Burlington County that are impacted by coastal flooding processes, coastal flood hazard analyses were performed to provide coastal BFEs. Coastal BFEs reflect the increase in water levels during a flood event due to extreme tides and storm surge as well as overland wave effects.

The following subsections provide summaries of how each coastal process was considered for this FIS Report. Greater detail (including assumptions, analysis, and results) is available in the archived project documentation. Table 15 summarizes the methods and/or models used for the coastal analyses. Refer to Section 2.5.1 for descriptions of the terms used in this section.

Table 15: Summary of Coastal Analyses

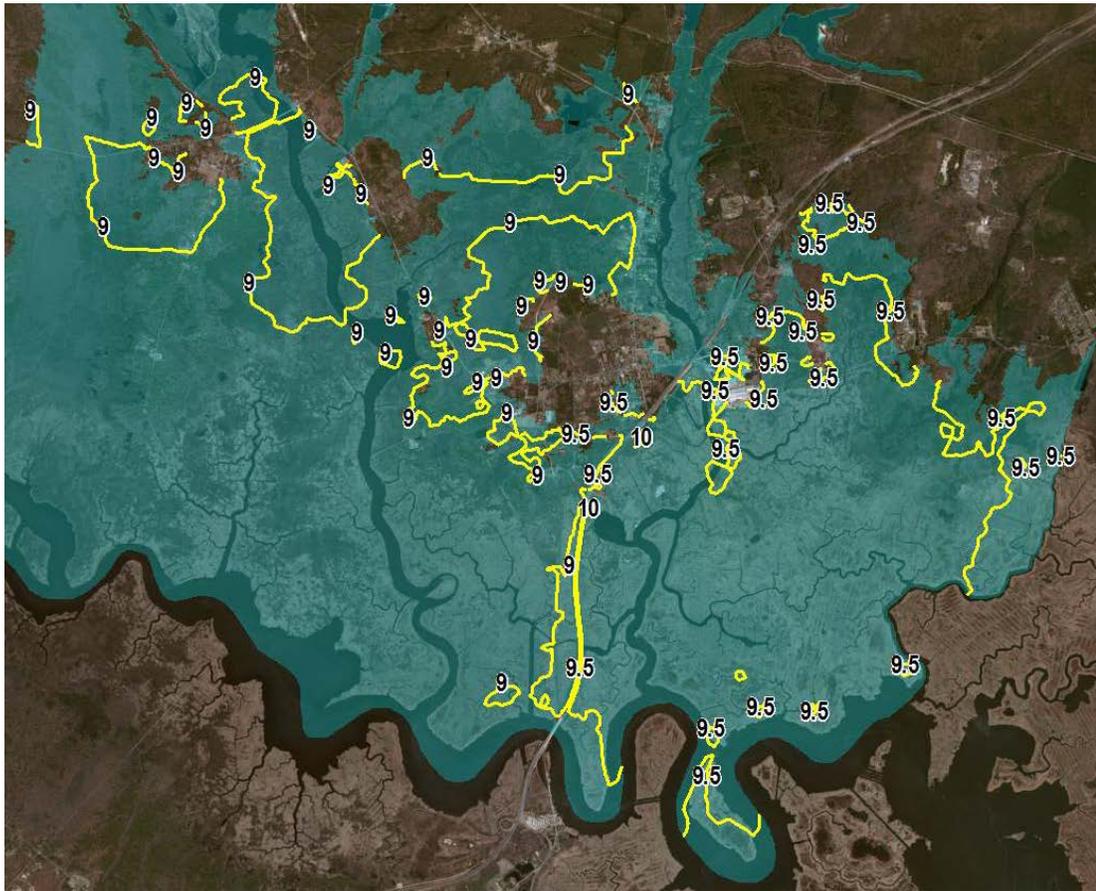
| Flooding Source | Study Limits From | Study Limits To | Hazard Evaluated | Model or Method Used | Date Analysis was Completed |
|-----------------|---------------------------------------|---------------------------------------|---------------------------|----------------------|-----------------------------|
| Mullica River | Entire Coastline of Burlington County | Entire Coastline of Burlington County | Storm Surge | ADCIRC | 9/29/2014 |
| Mullica River | Entire Coastline of Burlington County | Entire Coastline of Burlington County | Wave setup | ADCIRC+ SWAN | 9/29/2014 |
| Mullica River | Entire Coastline of Burlington County | Entire Coastline of Burlington County | Statistical Analyses | JPM | 9/29/2014 |
| Mullica River | Entire Coastline of Burlington County | Entire Coastline of Burlington County | Wave Generation | SWAN | 9/29/2014 |
| Mullica River | Entire Coastline of Burlington County | Entire Coastline of Burlington County | Overland Wave Propagation | WHAFIS | 1/23/2014 |

5.3.1 Total Stillwater Elevations

The total stillwater elevations (stillwater including storm surge plus wave setup) for the 1% annual chance flood were determined for areas subject to coastal flooding. The models and methods that were used to determine storm surge and wave setup are listed in Table 15. The

stillwater elevation that was used for each transect in coastal analyses is shown in Table 17, “Coastal Transect Parameters.” Figure 8 shows the total stillwater elevations for the 1% annual chance flood that was determined for this coastal analysis.

Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas



Astronomical Tide

Astronomical tides were simulated as part of the storm surge model. The model was forced with tidal constituents and validated to local tide data.

Storm Surge Statistics

Storm surge was modeled based on characteristics of actual storms responsible for significant coastal flooding. The characteristics of tropical cyclones (such as hurricanes) were determined by statistical study of the regional historical record of storms. Characteristics such as the strength, size, track, etc., of storms were used in the Joint Probability Method (JPM) to define tropical cyclones. Storm data was used in conjunction with numerical hydrodynamic models to determine the corresponding storm surge levels. For extra-tropical storms, major historical storms were simulated directly since unlike tropical cyclones, their meteorology cannot be characterized statistically. An extreme value analysis was performed on the storm surge modeling results to determine a stillwater elevation for the 1% annual chance event.

Table 16: Tide Gage Analysis Specifics

[Not Applicable to this Flood Risk Project]

Wave Setup Analysis

Wave setup was computed during the storm surge modeling through the methods and models listed in Table 15 and included in the frequency analysis for the determination of the total stillwater elevations.

5.3.2 Waves

The SWAN coastal wave model (<http://swanmodel.sourceforge.net/>) was used to calculate the nearshore wave fields required for the addition of wave setup effects. The SWAN model is tightly coupled to the ADCIRC hydrodynamic model so that forces are passed between models as they run. This results in the wave setup from breaking waves being part of the computed water elevations.

5.3.3 Coastal Erosion

This section is not applicable to this Flood Risk Project.

5.3.4 Wave Hazard Analyses

Overland wave hazards were evaluated to determine the combined effects of ground elevation, vegetation, and physical features on overland wave propagation. These analyses were performed at representative transects along all shorelines for which waves were expected to be present during the floods of the selected recurrence intervals. The results of these analyses were used to determine elevations for the 1% annual chance flood.

Transect locations were chosen with consideration given to the physical land characteristics as well as development type and density so that they would closely represent conditions in their locality. Additional consideration was given to changes in the total stillwater elevation. Transects shown in Figure 9, “Transect Location Map,” are also depicted on the FIRM. Table 17 provides the location, stillwater elevations, and starting wave conditions for each published transect evaluated for overland wave hazards. In this table, “starting” indicates the parameter value at the beginning of the transect.

Wave Height Analysis

Wave height analyses were performed to determine wave heights and corresponding wave crest elevations for the areas inundated by coastal flooding and subject to overland wave propagation hazards. Refer to Figure 6 for a schematic of a coastal transect evaluated for overland wave propagation hazards.

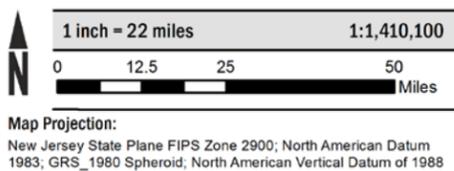
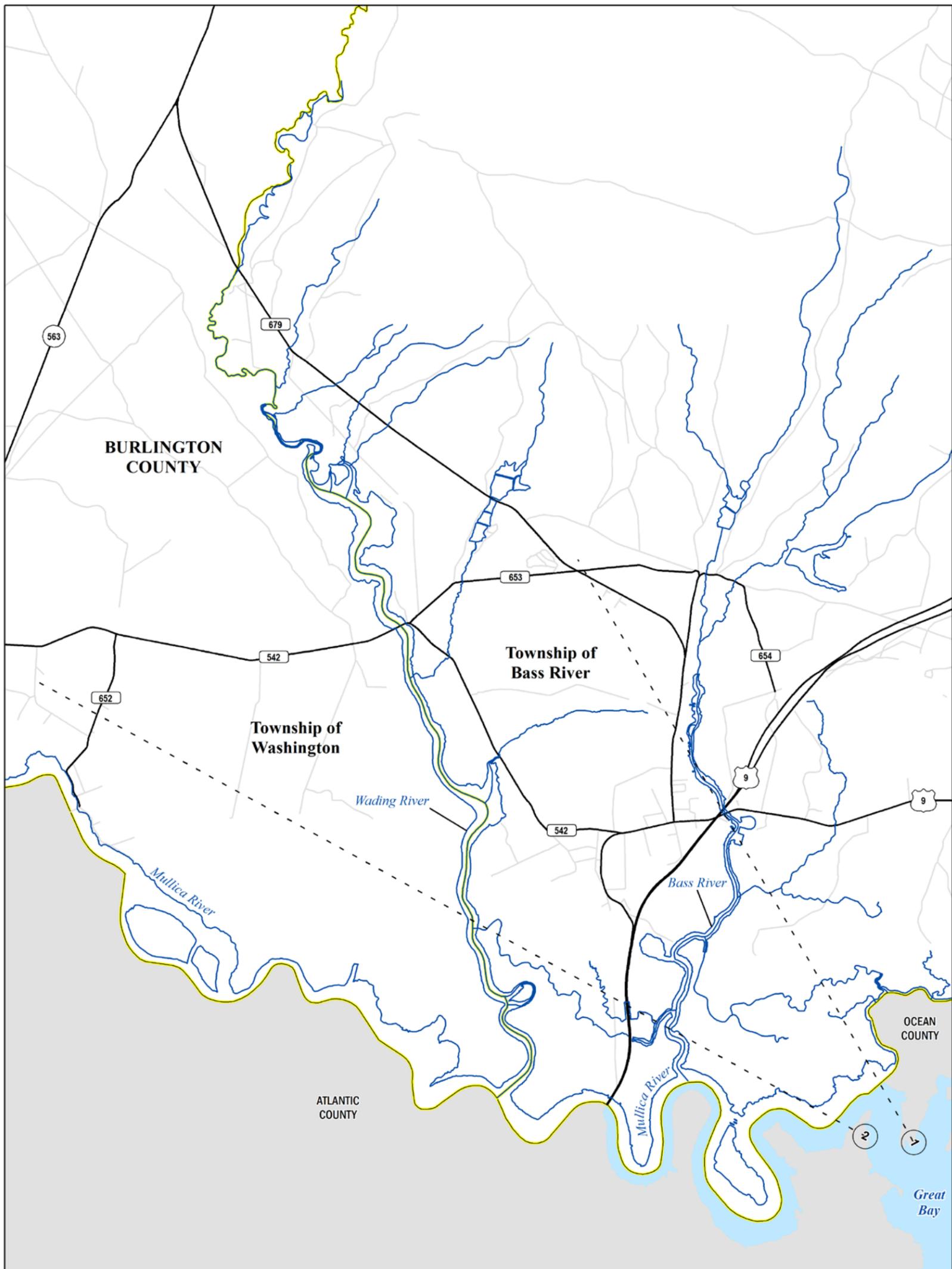
Wave heights and wave crest elevations were modeled using the methods and models listed in Table 15, “Summary of Coastal Analyses”.

Table 17: Coastal Transect Parameters

| Flood Source | Coastal Transect | Starting Wave Conditions for the 1% Annual Chance | | Starting Stillwater Elevations (ft NAVD88) Range of Stillwater Elevations (ft NAVD88) | | | | |
|---------------|------------------|---|--|--|------------------|------------------|------------------|--------------------|
| | | Significant Wave Height H _s (ft) | Peak Wave Period T _p (sec) | 10% Annual Chance | 4% Annual Chance | 2% Annual Chance | 1% Annual Chance | 0.2% Annual Chance |
| Mullica River | 1 | 3.41 | 3.64 | 6.3 | * | 8.5 | 9.4 | 11.6 |
| | | | | 5.5-6.3 | * | 7.5-8.7 | 8.8-9.9 | 11.3-12.9 |
| Mullica River | 2 | 3.13 | 3.52 | 6.3 | * | 8.6 | 9.5 | 11.6 |
| | | | | 5.7-6.3 | * | 7.9-8.9 | 8.9-9.9 | 11.2-12.9 |

*Not calculated for this Flood Risk Project

Figure 9: Transect Location Map



NATIONAL FLOOD INSURANCE PROGRAM
Transect Locator Map

PANELS WITH TRANSECTS
0564, 0606, 0610, 0627, 0628, 0629, 0633, 0637, 0641

FEMA

5.4 Alluvial Fan Analyses

This section is not applicable to this Flood Risk Project.

Table 18: Summary of Alluvial Fan Analyses

[Not Applicable to this Flood Risk Project]

Table 19: Results of Alluvial Fan Analyses

[Not Applicable to this Flood Risk Project]

SECTION 6.0 – MAPPING METHODS

6.1 Vertical and Horizontal Control

All FIS Reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum used for newly created or revised FIS Reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the completion of the North American Vertical Datum of 1988 (NAVD88), many FIS Reports and FIRMs are now prepared using NAVD88 as the referenced vertical datum.

Flood elevations shown in this FIS Report and on the FIRMs are referenced to NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between NGVD29 and NAVD88 or other datum conversion, visit the National Geodetic Survey website at www.ngs.noaa.gov, or contact the National Geodetic Survey (NGS) 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

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the archived project documentation associated with the FIS Report and the FIRMs for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks in the area, please contact information services Branch of the NGS at (301) 713-3242, or visit their website at www.ngs.noaa.gov.

The datum conversion locations and values that were calculated for Burlington County are provided in Table 20.

Table 20: Countywide Vertical Datum Conversion

| Quadrangle Name | Quadrangle Corner | Latitude | Longitude | Conversion from NGVD29 to NAVD88 (feet) |
|--|-------------------|----------|-----------|---|
| New Gretna | NE | 39.625 | -74.5 | -1.257 |
| Oswego Lake | NE | 39.75 | -74.5 | -1.253 |
| Green Bank | NE | 39.625 | -74.625 | -1.237 |
| Jenkins | NE | 39.75 | -74.625 | -1.247 |
| Chatsworth | NE | 39.875 | -74.625 | -1.247 |
| Browns Mills | NE | 40 | -74.625 | -1.217 |
| Egg Harbor City | NE | 39.625 | -74.75 | -1.207 |
| Atsion | NE | 39.75 | -74.75 | -1.230 |
| Indian Mills | NE | 39.875 | -74.75 | -1.214 |
| Pemberton | NE | 40 | -74.75 | -1.188 |
| Columbus | NE | 40.125 | -74.75 | -1.115 |
| Hammonton | NE | 39.75 | -74.875 | -1.191 |
| Medford Lakes | NE | 39.875 | -74.875 | -1.171 |
| Mount Holly | NE | 40 | -74.875 | -1.122 |
| Bristol | NE | 40.125 | -74.875 | -1.053 |
| Williamstown | NE | 39.75 | -75 | -1.175 |
| Clementon | NE | 39.875 | -75 | -1.142 |
| Moorestown | NE | 40 | -75 | -1.138 |
| Beverly | NE | 40.125 | -75 | -1.004 |
| Camden | NE | 40 | -75.125 | -1.070 |
| Average Conversion from NGVD29 to NAVD88 = -1.174 feet | | | | |

Table 21: Stream Based Vertical Datum Conversion

[Not Applicable to this Flood Risk Project]

6.2 Base Map

The FIRMs and FIS Report for this project have been produced in a digital format. The flood hazard information was converted to a Geographic Information System (GIS) format that meets FEMA’s FIRM database specifications and geographic information standards. This information is provided in a digital format so that it can be incorporated into a local GIS and be accessed more easily by the community. The FIRM Database includes most of the tabular information contained in the FIS Report in such a way that the data can be associated with pertinent spatial features. For example, the information contained in the Floodway Data table and Flood Profiles can be linked

to the cross sections that are shown on the FIRMs. Additional information about the FIRM Database and its contents can be found in FEMA’s *Guidelines and Standards for Flood Risk Analysis and Mapping*, www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping.

Base map information shown on the FIRM was derived from the sources described in Table 22.

Table 22: Base Map Sources

| Data Type | Data Provider | Data Date | Data Scale | Data Description |
|-------------------------|-------------------------------------|-----------|-------------------------------------|---|
| Digital Orthophoto | NJ Office of Information Technology | 2013 | 1 foot (ground sample distance) GSD | Color orthoimagery was provided for the entire county |
| Political boundaries | NJ Office of Information Technology | 2013 | 1:2,400 | Municipal and county boundaries |
| Transportation Features | US Census Bureau | 2013 | Various sources | Burlington County TIGER/Line Roads |

6.3 Floodplain and Floodway Delineation

The FIRM shows tints, screens, and symbols to indicate floodplains and floodways as well as the locations of selected cross sections used in the hydraulic analyses and floodway computations.

For riverine flooding sources, the mapped floodplain boundaries shown on the FIRM have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using the topographic elevation data described in Table 23. For each coastal flooding source studied as part of this FIS Report, the mapped floodplain boundaries on the FIRM have been delineated using the flood and wave elevations determined at each transect; between transects, boundaries were delineated using land use and land cover data, the topographic elevation data described in Table 23, and knowledge of coastal flood processes. In ponding areas, flood elevations were determined at each junction of the model; between junctions, boundaries were interpolated using the topographic elevation data described in Table 23.

In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% annual chance floodplain boundary has been shown. 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 floodway widths presented in this FIS Report and on the FIRM were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. Table 2 indicates the flooding sources for which floodways have been determined. The results of the floodway computations for those flooding sources have been tabulated for selected cross sections and are shown in Table 24, “Floodway Data.”

Certain flooding sources may have been studied that do not have published BFEs on the FIRMs, or for which there is a need to report the 1% annual chance flood elevations at selected cross sections because a published Flood Profile does not exist in this FIS Report. These streams may have also been studied using methods to determine non-encroachment zones rather than floodways. For these flooding sources, the 1% annual chance floodplain boundaries have been delineated using the flood elevations determined at each cross section; between cross sections, the boundaries were interpolated using the topographic elevation data described in Table 23. All topographic data used for modeling or mapping has been converted as necessary to NAVD88. The 1% annual chance elevations for selected cross sections along these flooding sources, along with their non-encroachment widths, if calculated, are shown in Table 25, “Flood Hazard and Non-Encroachment Data for Selected Streams.”

Table 23: Summary of Topographic Elevation Data used in Mapping

| Community | Flooding Source | Source for Topographic Elevation Data | | | |
|--|--|---------------------------------------|---------|------------------|-----------|
| | | Description | Scale | Contour Interval | Citation |
| Burlington County (All Jurisdictions) | All areas located within Burlington County | LiDAR | 1:4,800 | 2 ft | FEMA 2015 |

BFEs shown at cross sections on the FIRM represent the 1% annual chance water surface elevations shown on the Flood Profiles and in the Floodway Data tables in the FIS Report. Rounded whole-foot elevations may be shown on the FIRM in coastal areas, areas of ponding, and other areas with static base flood elevations.

Table 24: Floodway Data

See Volume 2 of this Flood Risk Project

Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams

[Not Applicable to this Flood Risk Project]

6.4 Coastal Flood Hazard Mapping

Flood insurance zones and BFEs including the wave effects were identified on each transect based on the results from the onshore wave hazard analyses. Between transects, elevations were interpolated using topographic maps, land-use and land-cover data, and knowledge of coastal flood processes to determine the aerial extent of flooding. Sources for topographic data are shown in Table 23.

Zone VE is subdivided into elevation zones and BFEs are provided on the FIRM.

The limit of Zone VE shown on the FIRM is defined as the farthest inland extent of any of these criteria (determined for the 1% annual chance flood condition):

- The *primary frontal dune zone* is defined in 44 CFR Section 59.1 of the NFIP regulations. The primary frontal dune represents a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes that occur immediately landward and adjacent to the beach. The primary frontal dune zone is subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune zone occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.
- The *wave runup zone* occurs where the (eroded) ground profile is 3.0 feet or more below the 2-percent wave runup elevation.
- The *wave overtopping splash zone* is the area landward of the crest of an overtopped barrier, in cases where the potential 2-percent wave runup exceeds the barrier crest elevation by 3.0 feet or more.
- The *breaking wave height zone* occurs where 3-foot or greater wave heights could occur (this is the area where the wave crest profile is 2.1 feet or more above the total stillwater elevation).
- The *high-velocity flow zone* is landward of the overtopping splash zone (or area on a sloping beach or other shore type), where the product of depth of flow times the flow velocity squared (hv^2) is greater than or equal to $200 \text{ ft}^3/\text{sec}^2$. This zone may only be used on the Pacific Coast.

The SFHA boundary indicates the limit of SFHAs shown on the FIRM as either “V” zones or “A” zones.

Table 26 indicates the coastal analyses used for floodplain mapping and the criteria used to determine the inland limit of the open-coast Zone VE and the SFHA boundary at each transect.

Table 26: Summary of Coastal Transect Mapping Considerations

| Coastal Transect | Primary Frontal Dune (PFD) Identified | Wave Runup Analysis | Wave Height Analysis | Zone VE Limit | SFHA Boundary |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------|---------------|
| | | Zone Designation and BFE (ft NAVD 88) | Zone Designation and BFE (ft NAVD 88) | | |
| 1 | | N/A | VE 12-13 AE 9-12 | Wave Height | SWEL |
| 2 | | N/A | VE 12-13 AE 9-12 | Wave Height | SWEL |

A LiMWA boundary has also been added in coastal areas subject to wave action for use by local communities in safe rebuilding practices. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave.

6.5 FIRM Revisions

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions to FIS projects may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 31, “Map Repositories”).

6.5.1 Letters of Map Amendment

A LOMA is an official revision by letter to an effective NFIP map. A LOMA results from an administrative process that involves the review of scientific or technical data submitted by the owner or lessee of property who believes the property has incorrectly been included in a designated SFHA. A LOMA amends the currently effective FEMA map and establishes that a specific property is not located in a SFHA. A LOMA cannot be issued for properties located on the PFD (primary frontal dune).

To obtain an application for a LOMA, visit www.fema.gov/floodplain-management/letter-map-amendment-loma and download the form “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill”. Visit the “Flood Map-Related Fees” section to determine the cost, if any, of applying for a LOMA.

FEMA offers a tutorial on how to apply for a LOMA. The LOMA Tutorial Series can be accessed at www.fema.gov/online-tutorials.

For more information about how to apply for a LOMA, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627).

6.5.2 Letters of Map Revision Based on Fill

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA’s determination concerning whether a structure or parcel has been elevated on fill above the base flood elevation and is, therefore, excluded from the SFHA.

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting www.fema.gov/floodplain-management/letter-map-amendment-loma for the “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill” or by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the “Flood Map-Related Fees” section.

A tutorial for LOMR-F is available at www.fema.gov/online-tutorials.

6.5.3 Letters of Map Revision

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.

Table 27: Incorporated Letters of Map Change

| Case Number | Effective Date | Flooding Source | FIRM Panel(s) |
|-------------|----------------|---------------------------------|--------------------------|
| 14-02-2411P | 06/15/2015 | Unnamed Tributary to Sharps Run | 34005C0261F, 34005C0262F |
| 00-02-015P | 04/05/2001 | Barton Run Tributary 2 | 34005C0376F |
| 96-02-055P | 01/11/1996 | N/A (road name updates) | 34005C0244F, 34005C0357F |
| 95-02-045P | 04/21/1995 | Assiscunk Creek | 34005C0135F |

6.5.4 Physical Map Revisions

A PMR is an official republication of a community’s NFIP map to effect changes to base flood elevations, floodplain boundary delineations, regulatory floodways and planimetric features. These changes typically occur as a result of structural works or improvements, annexations resulting in additional flood hazard areas or correction to base flood elevations or SFHAs.

The community’s chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if warranted. The community is provided with copies of the revised information and is afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

For more information about the PMR process, please visit www.fema.gov and visit the “Flood Map Revision Processes” section.

6.5.5 Contracted Restudies

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy, known as the Coordinated Needs Management Strategy (CNMS). The CNMS is used by FEMA to assign priorities and allocate funding for new flood hazard analyses used to update the FIS Report and FIRM. The goal of CNMS is to define the validity of the engineering study data within a mapped inventory. The CNMS is used to track the assessment process, document engineering gaps and their resolution, and aid in prioritization for using flood risk as a key factor for areas identified for flood map updates. Visit www.fema.gov to learn more about the CNMS or contact the FEMA Regional Office listed in Section 8 of this FIS Report.

6.5.6 Community Map History

The current FIRM presents flooding information for the entire geographic area of Burlington County. The remaining portions of the Townships and other jurisdictions in Burlington County will be updated in the near future. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBM) and/or Flood Boundary and Floodway Maps (FBFM) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 28, “Community Map History.” A description of each of the column headings and the source of the date is also listed below.

- *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.
- *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or “pending” (for Preliminary FIS Reports) is shown. If the community is listed in Table 28 but not identified on the map, the community is treated as if it were unmapped.
- *Initial FHBM Effective Date* is the effective date of the first Flood Hazard Boundary Map (FHBM). This date may be the same date as the Initial NFIP Map Date.
- *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.
- *Initial FIRM Effective Date* is the date of the first effective FIRM for the community. This is the first effective date that is shown on the FIRM panel.
- *FIRM Revision Date(s)* is the date(s) the FIRM was revised, if applicable. This is the revised date that is shown on the FIRM panel, if applicable. As countywide studies are completed or revised, each community listed should have its FIRM dates updated accordingly to reflect the date of the countywide study. Once the FIRMs exist in countywide format, as Physical Map Revisions (PMR) of FIRM panels within the county are completed, the FIRM Revision Dates in the table for each community affected by the

PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

Table 28: Community Map History

| Community Name | Initial Identification Date (First NFIP Map Published) | Initial FHBM Effective Date | FHBM Revision Date(s) | Initial FIRM Effective Date | FIRM Revision Date(s) |
|-----------------------------|--|-----------------------------|-----------------------|-----------------------------|--|
| Bass River, Township of | 05/10/1974 | 05/10/1974 | 06/25/1976 | 04/04/1983 | 07/15/1992 |
| Beverly, City of | 06/21/1974 | 06/21/1974 | N/A | 12/23/1977 | 02/05/1992 |
| Bordentown, City of | 12/20/1974 | 12/20/1974 | 05/28/1976 | 02/17/1982 | 12/15/1989 |
| Bordentown, Township of | 06/28/1974 | 06/28/1974 | 03/19/1976 | 04/15/1982 | 02/02/1990 |
| Burlington, City of | 07/23/1971 | 07/23/1971 | N/A | 07/23/1971 | 07/01/1974 02/20/1976 07/29/1977 11/15/1985 01/02/1987 |
| Burlington, Township of | 06/28/1974 | 06/28/1974 | 03/19/1976 | 02/17/1982 | 12/15/1989 |
| Chesterfield, Township of | 06/28/1974 | 06/28/1974 | N/A | 01/21/1983 | N/A |
| Cinnaminson, Township of | 05/11/1973 | 05/11/1973 | N/A | 05/15/1978 | 11/20/1991 |
| Delanco, Township of | 06/21/1974 | 06/21/1974 | 06/11/1976 | 09/28/1979 | N/A |
| Delran, Township of | 11/23/1973 | 11/23/1973 | N/A | 05/02/1977 | 12/05/1995 |
| Eastampton, Township of | 10/05/1973 | 10/05/1973 | 02/07/1975 | 09/14/1979 | N/A |
| Edgewater Park, Township of | 04/15/1992 | N/A | N/A | 04/15/1992 | N/A |
| Evesham, Township of | 05/31/1974 | 05/31/1974 | 02/27/1976 | 09/01/1983 | 03/02/1995 |
| Fieldsboro, Borough of | 11/29/1974 | 11/29/1974 | 10/02/1975 | 06/15/1981 | 05/03/1990 |
| Florence, Township of | 06/28/1974 | 06/28/1974 | 03/05/1976 | 03/01/01982 | 01/17/1990 |
| Hainesport, Township of | 07/30/1976 | 07/30/1976 | N/A | 07/16/1979 | N/A |
| Lumberton, Township of | 04/05/1974 | 04/05/1974 | 09/26/1975 | 08/15/1983 | N/A |
| Mansfield, Township of | 07/26/1974 | 07/26/1974 | 10/15/1976 | 03/18/1983 | 05/02/1991 |
| Maple Shade, Township of | 03/15/1974 | 03/15/1974 | 04/16/1976 | 12/18/1979 | N/A |

Table 28: Community Map History – continued

| Community Name | Initial Identification Date (First NFIP Map Published) | Initial FHBM Effective Date | FHBM Revision Date(s) | Initial FIRM Effective Date | FIRM Revision Date(s) |
|----------------------------|--|-----------------------------|-----------------------|-----------------------------|--|
| Medford Lakes, Borough of | 05/31/1974 | 05/31/1974 | 04/23/1976 | 06/01/1981 | N/A |
| Medford, Township of | 02/01/1974 | 02/01/1974 | 07/01/1977 | 08/15/1983 | N/A |
| Moorestown, Township of | 03/16/1973 | 03/16/1973 | N/A | 09/15/1978 | 09/04/1991 01/19/1996 |
| Mount Holly, Township of | 04/20/1973 | 04/20/1973 | 11/19/1976 | 08/01/1979 | N/A |
| Mount Laurel, Township of | 01/09/1974 | 01/09/1974 | 08/06/1976 | 03/02/1981 | 03/01/1984 10/16/1987 09/22/1999 |
| New Hanover, Township of | 08/09/1974 | 08/09/1974 | N/A | 05/11/1979 | N/A |
| North Hanover, Township of | 07/19/1974 | 07/19/1974 | 04/02/1976 | 08/03/1979 | N/A |
| Palmyra, Borough of | 03/15/1974 | 03/15/1974 | N/A | 06/01/1978 | 05/04/1992 |
| Pemberton, Borough of | 08/20/1976 | 08/20/1976 | 12/10/1976 | 09/24/1976 | N/A |
| Pemberton, Township of | 12/13/1974 | 12/13/1974 | N/A | 03/04/1980 | N/A |
| Riverside, Township of | 02/11/1977 | 02/11/1977 | N/A | 07/02/1979 | N/A |
| Riverton, Borough of | 12/28/1973 | 12/28/1973 | 12/27/1974 | 04/15/1977 | 08/19/1991 |
| Shamong, Township of | 12/20/1974 | 12/20/1974 | 07/23/1976 | 06/15/1979 | N/A |
| Southampton, Township of | 01/09/1974 | 01/09/1974 | 09/17/1976 | 03/04/1980 | N/A |
| Springfield, Township of | 07/26/1974 | 07/26/1974 | 05/28/1976 | 01/28/1983 | N/A |
| Tabernacle, Township of | 02/07/1975 | 02/07/1975 | N/A | 04/15/1992 | N/A |
| Washington, Township of | 07/26/1974 | 07/26/1974 | 06/25/1976 | 12/15/1981 | N/A |
| Westampton, Township of | 06/28/1974 | 06/28/1974 | 07/16/1976 | 02/15/1980 | N/A |
| Willingboro, Township of | 11/30/1973 | 11/30/1973 | N/A | 07/02/1979 | N/A |
| Woodland, Township of | 04/25/1975 | 04/25/1975 | N/A | 01/20/1982 | N/A |
| Wrightstown, Borough of | 06/28/1974 | 06/28/1974 | N/A | 05/11/1979 | N/A |

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

7.1 Contracted Studies

Table 29 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

Table 29: Summary of Contracted Studies Included in this FIS Report

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|---------------------------|------------------|------------------------------|---|---------------------|--|
| Alder Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Alder Run Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Annaricken Brook | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Springfield |
| Arnold Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Assiscunk Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Springfield |
| Assiscunk Creek (Zone AE) | 01/02/1987 | URS Company, Inc. | H-6808 | December 1981 | City of Burlington |
| Assiscunk Creek (Zone AE) | 12/15/1989 | USACE, Philadelphia District | Not Specified | April 1988 | Township of Burlington |
| Assiscunk Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Burlington, Mansfield and Springfield |

RAMPP = Risk Assessment, Mapping, and Planning Partners. A joint venture of Dewberry, AECOM (formerly URS), and ESP.

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|-----------------------------|------------------|---|---|---------------------|--|
| Assiscunk Creek Tributary | 08/1979 | NJDEP | H-3959 | May 1978 | Townships of Springfield and Westampton |
| Assiscunk Creek Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Florence, Mansfield, Springfield and Westampton |
| Bacons Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Mansfield |
| Baffin Brook (Zone AE) | 03/04/1980 | New Jersey Department of Environmental Protection (NJDEP), Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |
| Baffin Brook (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Ballinger Run (Zone AE) | 02/15/1983 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | March 1982 | Township of Medford |
| Ballinger Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford, Township of Shamong |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|---|------------------|---|---|---------------------|-------------------------|
| Ballinger Run Tributary (Zone AE) | 02/15/1983 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | March 1982 | Township of Medford |
| Ballinger Run Tributary (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Bard Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Shamong |
| Bard Branch Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Shamong |
| Barkers Brook (Zone AE) | TBD | T.Y. Lin International Medina | EMN-2003-CO-0005 | March 2010 | Township of Springfield |
| Barkers Brook (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Springfield |
| Barkers Brook Unnamed Tributary (Zone AE) | TBD | T.Y. Lin International Medina | EMN-2003-CO-0005 | March 2010 | Township of Springfield |
| Barkers Brook Unnamed Tributary (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Springfield |
| Barkers Brook Unnamed Tributary 1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Springfield |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|----------------------------------|------------------|------------------------------|--|---------------------|------------------------|
| Bartletts Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Barton Run | 03/02/1995 | USACE, Philadelphia District | EMW-92_E_3839, Project Order No. 5, Amendment No A | March 1982 | Township of Evesham |
| Barton Run | 02/15/1983 | NJDEP | H-3959 | March 1982 | Township of Medford |
| Barton Run Tributary 1 (Zone AE) | 03/02/1995 | USACE, Philadelphia District | EMW-92_E_3839, Project Order No. 5, Amendment No A | March 1982 | Township of Evesham |
| Barton Run Tributary 1 (Zone AE) | 02/15/1983 | NJDEP | H-3959 | March 1982 | Township of Medford |
| Barton Run Tributary 1 (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Barton Run Tributary 2 (Zone AE) | 03/02/1995 | USACE, Philadelphia District | EMW-92_E_3839, Project Order No. 5, Amendment No A | March 1982 | Township of Evesham |
| Barton Run Tributary 2 (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Barton Run Tributary 2A | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Barton Run Tributary 3 | TBD | Leonard Jackson Associates | EMN-2002-RP-0021 | April 2005 | Township of Evesham |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|---------------------------|------------------|--------------------------------------|---|---------------------|---|
| Barton Run Tributary 3.1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Barton Run Tributary 3A | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Bass River | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| Batsto River (Zone AE) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Washington |
| Batsto River (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Shamong, Township of Tabernacle |
| Bear Swamp River | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Southampton |
| Beaver Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Beaver Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Beaverdam Creek (Zone AE) | TBD | URS Group, Inc. and Dewberry & Davis | EMN-2000-CO-0247 | November 2006 | Township of Southampton |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|-------------------------------|------------------------|------------------------------------|---|---------------------|--|
| Beaverdam Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Southampton |
| Biddle Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Woodland |
| Bisphams Mill Creek (Zone AE) | 07/20/1981 | NJDEP | H-4546 | April 1980 | Township of Woodland |
| Bisphams Mill Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton, Township of Woodland |
| Black Run (Zone AE) | 03/02/1995 | NJDEP | H-3959 | March 1982 | Township of Evesham |
| Black Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Black Run Tributary (Zone AE) | 03/02/1995 | NJDEP | H-3959 | March 1982 | Township of Evesham |
| Black Run Tributary (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Blacks Creek (Zone AE) | 12/15/1989, 02/02/1990 | NJDEP, Division of Water Resources | H-4623 | March 1980 | City of Bordentown, Township of Bordentown |
| Blacks Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Bordentown, Chesterfield, and Mansfield |
| Blue Lake Run (Zone AE) | 02/15/1983 | NJDEP | H-3959 | March 1982 | Township of Medford |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|--------------------------------|------------------|---|---|---------------------|---------------------------------------|
| Blue Lake Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Evesham and Medford |
| Bobbys Run (Zone AE) | 02/15/1983 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | February 1982 | Township of Lumberton |
| Bobbys Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Lumberton and Southampton |
| Boundary Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Delran and Moorestown |
| Bread and Cheese Run (Zone AE) | 04/15/1992 | U.S. Geological Survey | EMW-85-E-1823, Project Order No. 23 | January 1989 | Township of Tabernacle |
| Bread and Cheese Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Tabernacle |
| Breeches Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Washington and Woodland |
| Buck Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Bucks Cover Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|----------------------------|------------------|---|---|---------------------|---|
| Budds Run (Zone AE) | 03/1979, 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | June/July 1978 | Borough of Pemberton, Township of Pemberton |
| Budds Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Pemberton, Township of Pemberton |
| Bull Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Washington |
| Bulls Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Washington |
| Burnt Bridge Spring | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Tabernacle |
| Burr Mills Brook (Zone AE) | 07/20/1981 | NJDEP | H-4546 | April 1980 | Township of Woodland |
| Burr Mills Brook (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Southampton and Woodland |
| Bustleton Creek (Zone AE) | 01/17/1990 | NJDEP, Division of Water Resources | H-4623 | June 1980 | Townships of Florence and Burlington |
| Bustleton Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Burlington and Florence |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|-----------------------|------------------|---|---|---------------------|--|
| Buttonwood Lake | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Mount Holly |
| Buttonwood Run | 02/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | June 1978 | Township of Mount Holly |
| Cedar Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Southampton |
| Coares Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Cold Water Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Southampton and Tabernacle |
| Colliers Pond | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Chesterfield |
| Coopers Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Woodland |
| County Lake Tributary | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|--|------------------------|---|---|---------------------|---|
| Crafts Creek (Zone AE) | 05/02/1991 | NJDEP, Division of Water Resources | H-4623 | March 1988 | Townships of Florence and Mansfield |
| Crafts Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Florence and Mansfield |
| Crafts Creek Tributary | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Florence |
| Cranberry Branch (Zone AE) | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |
| Cranberry Branch, Various Tributaries (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Cranberry Bog | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Cropwell Brook | TBD | T.Y. Lin International Medina | EMN-2003-CO-0005 | March 2010 | Township of Evesham |
| Crosswick Creek | 12/15/1989, 02/02/1990 | USACE, Philadelphia District | EMW-89-E-2994, Project Order No. 1, Task Letter No. 2 | April 1988 | City of Bordentown and Township of Bordentown |
| Crosswick Creek | 01/21/1983, 02/02/1990 | NJDEP | Not Specified | March 1980 | Townships of Bordentown and Chesterfield |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|----------------------------------|----------------------------------|------------------------------|---|---------------------|--|
| Crosswick Creek | 07/20/2016 | Soil Conversation Service | IAA-H-9-76, Project Order No. 1 | September 1977 | Townships of Bordentown, Chesterfield and North Hanover |
| Crystal Lake | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Bordentown and Mansfield |
| Crystal Lake Tributary 1.1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bordentown |
| Crystal Lake Tributary 2 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bordentown |
| Dans Bridge Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Delaware River | Various Dates – See Bibliography | USACE, Philadelphia District | EMW-89-E-2994, Project Order No. 1, Task Letter No. 2 | April 1988 | Boroughs of Fieldsboro, Palmyra and Riverside; Cities of Beverly, Bordentown and Burlington, Townships of Bordentown, Burlington, Cinnaminson, Delanco, Delran, Edgewater Park, and Florence |
| East Branch Bass River (Zone AE) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| East Branch Bass River (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|----------------------------|------------------|---|---|---------------------|---|
| Evesboro Tributary | 09/22/1999 | USACE, Philadelphia District | H-7-76, Project Order No. 13 | December 1978 | Township of Mount Laurel |
| Featherbed Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Washington and Tabernacle |
| Fish Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| Friendship Creek (Zone AE) | TBD | URS Group, Inc. in association with Dewberry and Davis | EMN-2000-CO-0247 | 11/2006 | Township of Southampton |
| Friendship Creek (Zone AE) | 04/15/1992 | USGS | EMW-85-E-1823, Project Order No. 23 | January 1989 | Township of Tabernacle |
| Friendship Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Southampton |
| Friendship Creek Branch | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | September 1978 | Township of Southampton |
| Goldys Run | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Borough of Pemberton, Township of Pemberton |
| Goldwater Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Woodland |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|--|------------------------|---|---|---------------------|-------------------------------------|
| Grubbs Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Westampton |
| Gum Spring | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Pemberton and Woodland |
| Hartford Road Tributary | 09/22/1999 | USACE, Philadelphia District | H-7-76, Project Order No. 13 | December 1978 | Township of Mount Laurel |
| Haynes Creek | 03/02/1995, 02/15/1983 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | March 1982 | Townships of Evesham and Medford |
| Hockamik Creek and various unnamed tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of New Hanover |
| Hooten Road Tributary | 09/22/1999 | USACE, Philadelphia District | H-7-76, Project Order No. 13 | December 1978 | Township of Mount Laurel |
| Horse Pond Stream | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Tabernacle |
| Hospitality Brook | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Washington |
| Indian Mills Brook | TBD | Leonard Jackson Associates | EMN-2003-CO-0005 | April 2005 | Townships of Medford and Shamong |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|--------------------------|------------------|---|---|---------------------|--|
| Indian Run (Zone AE) | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |
| Indian Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Pemberton and Springfield |
| Indian Run Tributary | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Indian Run Tributary 1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Indian Run Tributary 1.1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Pemberton and Springfield |
| Indian Run Tributary 2 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Indian Run Tributary 3 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Ives Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| Jakes Run | 11/20/1991 | USACE | EMW-89-E-2994, Project Order No. 1, Task Letter No. 2 | September 1989 | Borough of Riverton, Township of Cinnaminson |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|-----------------------|------------------|---|---|---------------------|---------------------------------------|
| Jade Run (Zone AE) | TBD | URS Group, Inc. in association with Davis and Dewberry | EMN-2000-CO-0247 | November 2006 | Township of Southampton |
| Jade Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton and Southampton |
| Jefferson Lake | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | September 1978 | Township of Pemberton |
| Jobs Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| Kendles Run (Zone AE) | 01/19/1996 | USACE, Philadelphia District | IAA-H-19-74 and IAA-H-16-75, Project Order Nos. 17 and 6 with Amendment No. 3 | September 1976 | Township of Moorestown |
| Kendles Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Moorestown |
| Lake Absegami | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Lake Migazee | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|----------------------|------------------|---|---|---------------------|--------------------------|
| Lake Minonok | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |
| Lake Mishe Mokwa | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |
| Lake Mishe Mokwa Run | 12/01/1980 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | June 1978 | Borough of Medford Lakes |
| Lake Peshekee | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |
| Lake Sioux | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |
| Lake Siquitise | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |
| Lake Wabassi | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |
| Lake Wagush | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |
| Lake Wauwaukashe | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|----------------------------|------------------|---|---|---------------------|--|
| Laurel Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Delran |
| Laurel Run Tributary 1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Delran |
| Little Creek (Zone AE) | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | September 1978 | Townships of Lumberton and Southampton |
| Little Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes, Townships of Medford and Southampton |
| Little Creek Tributary 4 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Southampton |
| Little Creek Tributary 5 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Little Creek Tributary 5.1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Little Creek Tributary 6 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Little Haukin Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Washington |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|------------------------|------------------------------|---|---|------------------------------------|---|
| Loveland Thorofare | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| Lower Pasture Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| Masons Creek (Zone AE) | 01/1979, 02/15/1983, 02/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | May 1978, February 1982, June 1978 | Townships of Hainesport, Lumberton, and Mount Holly |
| Masons Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Lumberton |
| Mathis Thorofare | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| McDonalds Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Woodland |
| Merrygold Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| Mile Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Tabernacle and Washington |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|-----------------------------------|------------------|---|---|---------------------|---|
| Mill Creek (Zone AE) | 08/1979, 01/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | May 1978 | Townships of Burlington, Westampton and Willingboro |
| Mill Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Burlington, Westampton and Willingboro |
| Mill Creek South Branch (Zone AE) | 01/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | May 1978 | Township of Willingboro |
| Mill Creek South Branch (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Willingboro |
| Mill Creek Tributary | 08/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | May 1978 | Township of Westampton |
| Mill Creek Tributary 1 (Zone AE) | 01/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | May 1978 | Township of Willingboro |
| Mill Creek Tributary 1 (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Willingboro |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|---|------------------|---|---|---------------------|--------------------------|
| Mill Race | 02/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | May 1978 | Township of Mount Holly |
| Mimosa Lake | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Mimosa Lake Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Mimosa Lake Run (Mimosa Lake) (Zone AE) | 02/13/1983 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | March 1982 | Township of Medford |
| Mimosa Lake Run, Various Tributaries (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Mirror Lake (Zone AE) | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |
| Mirror Lake, Various Tributaries (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Mirror Lake Nos. 1, 2, and 3 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|---|------------------|---|---|---------------------|--|
| Mount Holly By-Pass Channel | 02/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | June 1978 | Township of Mount Holly |
| Mount Misery Brook | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Pemberton and Woodland |
| Mount Misery Brook – North and South Branches | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Pemberton and Woodland |
| Mount Misery Creek (Zone AE) | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |
| Mount Misery Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Mullica River and Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Townships of Bass River and Washington |
| Muskingum Brook (Zone AE) | TBD | Leonard Jackson Associate | EMB-1999-CO-0563 | April 2005 | Townships of Shamong and Tabernacle |
| Muskingum Brook (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Shamong and Tabernacle |
| Muskingum Brook Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Tabernacle |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|------------------------------------|------------------|---|---|---------------------|--|
| North Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of New Hanover and North Hanover |
| Ong Run (Zone AE) | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |
| Ong Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Ore Spring | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Tabernacle |
| Oswego River | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River and Washington |
| Papoose Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Bass River, Washington and Woodland |
| Parkers Creek (Zone AE) | 09/22/1999 | USACE, Philadelphia District | H-7-76, Project Order No. 13 | December 1978 | Townships of Moorestown and Mount Laurel |
| Parkers Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Mount Laurel |
| Parkers Creek, Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Mount Laurel |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|---|---------------------------------|------------------------------|---|--|--|
| Pau Puk Keewis Lagoon | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Medford Lakes |
| Pennsauken Creek | 05/04/1992, 11/20/1991 | USACE | EMW-89-E-2994, Project Order No. 1, Task Letter No. 2 | May 1990 | Borough of Palmyra and Township of Cinnaminson |
| Pennsauken Creek North Branch (Zone AE) | 06/1979, 01/19/1996, 09/22/1999 | USACE, Philadelphia District | IAA-H-10-77, Project Order No.9; IAA-H-19-74 and IAA-H-16-75, Project Order Nos. 17 and 6 with Amendment No.3; H-7-76, Project Order No. 13 | April 1977, September 1976 December 1978 | Townships of Maple Shade, Moorestown, and Mount Laurel |
| Pennsauken Creek North Branch, Various Tributaries (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Evesham, Moorestown and Mount Laurel |
| Pennsauken Creek South Branch | 11/20/1991 | USACE | EMW-89-E-2994, Project Order No.1, Task Letter No. 2 | May 1990 | Township of Cinnaminson |
| Pennsauken Creek South Branch | 06/1979 | USACE, Philadelphia District | IAA-H-10-77, Project Order No. 9 | April 1977 | Township of Maple Shade |
| Pennsauken Creek South Branch | 03/02/1995 | NJDEP | H-3959 | March 1982 | Township of Evesham |
| Pennsauken Creek South Branch, Various Tributaries (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Evesham, Moorestown and Mount Laurel |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|--|------------------------|---|---|---------------------|---|
| Pheasant Run | 11/20/1991 | USACE, Philadelphia District | IAA-H-15-72, Project Order No. 18 | July 1974 | Township of Cinnaminson |
| Plains Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Bass River and Washington |
| Pole Bridge Branch (Zone AE) | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |
| Pole Bridge Branch (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Pole Bridge Branch Tributary (Zone AE) | 09/1979 | NJDEP, Division of Water Resources, Bureau of Floodplain Management | H-3959 | July 1978 | Township of Pemberton |
| Pole Bridge Branch Tributary (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Pemberton |
| Pompeston Creek (Zone AE) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Borough of Riverton and Township of Cinnaminson |
| Pompeston Creek (Zone AE) | 11/20/1991, 01/19/1996 | USACE | ENW-89-E-2994, Project Order No. 1, Task Letter No. 2 | September 1989 | Townships of Cinnaminson and Moorestown |
| Pompeston Creek (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Moorestown |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|---|------------------|------------------------------|---|---------------------|--|
| Pompeston Creek East and Southeast Branch | 11/20/1991 | USACE | ENW-89-E-2994, Project Order No. 1, Task Letter No. 2 | September 1989 | Township of Cinnaminson |
| Pompeston Creek Northeast Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Moorestown |
| Pompeston Creek Southeast Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Moorestown |
| Pope Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Woodland |
| Powell Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Eastampton and Pemberton |
| Powells Run | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Pemberton and Springfield |
| Ramblewood Tributary | 09/22/1999 | USACE, Philadelphia District | H-7-76, Project Order No. 13 | December 1978 | Township of Mount Laurel |
| Rancocas Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Townships of Delanco, Delran, Edgewater Park, Hainesport, Moorestown, Mount Laurel, Riverside, Willingboro, and Westampton |
| Rancocas Creek | 08/1979 | NJDEP | H-3959 | May 1978 | Townships of Mount Laurel and Westampton |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|--|---|--|---|---------------------|---|
| Rancocas Creek North Branch | 01/1979, 02/1979, 03/1979, 08/1979, 09/1979 | NJDEP | H-3959 | May 1978 | Borough of Pemberton, Townships of Eastampton, Hainesport, Mount Holly, Pemberton, Westampton |
| Rancocas Creek North Branch, Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Pemberton and Westampton |
| Rancocas Creek South Branch (Zone AE) | TBD | URS Group, Inc. in association with Dewberry and Davis | EMN-2000-CO-0247 | November 2006 | Townships of Hainesport, Lumberton, Mount Laurel and Southampton |
| Rancocas Creek South Branch (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Southampton |
| Rancocas Creek South Branch Tributary (Zone AE) | 02/15/1983 | NJDEP | H-3959 | February 1982 | Township of Lumberton |
| Rancocas Creek South Branch Tributary (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Lumberton and Medford |
| Rancocas Creek Southwest Branch (Zone AE) | TBD | URS Group, Inc. in association with Dewberry and Davis | EMN-2000-CO-0247 | November 2006 | Townships of Evesham, Lumberton, Medford and Southampton |
| Rancocas Creek Southwest Branch (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|--|------------------|---|---|---------------------|---------------------------------------|
| Rancocas Creek Southwest Branch, Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Evesham and Medford |
| Risley Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Woodland |
| Roberts Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Shamong and Tabernacle |
| Roberts Branch Tributary 1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Tabernacle |
| Shane Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Tabernacle and Washington |
| Sharps Run (Zone AE) | 02/15/1983 | NJDEP | H-3959 | March 1982 | Township of Medford |
| Sharps Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Sharps Run, Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Evesham and Medford |
| Shinns Branch | 07/20/1981 | Gannett Fleming Corddry and Carpenter, Inc. for NJDEP | H-4546 | April 1980 | Township of Washington |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|----------------------------------|------------------|----------------------------|---|---------------------|-------------------------------------|
| Shoal Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Woodland |
| Shreve Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Woodland |
| Skeet Run (Zone AE) | 02/15/1983 | NJDEP | H-3959 | March 1982 | Township of Medford |
| Skeet Run (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Skeet Run, Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Medford |
| Skit Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Shamong and Tabernacle |
| Skit Branch, Various Tributaries | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Tabernacle |
| Spring Hill Brook | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Mansfield |
| Springer Brook (Zone AE) | TBD | Leonard Jackson Associates | EMN-2002-RP-0021 | April 2005 | Township of Shamong |
| Springer Brook (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Shamong |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|------------------------------|---------------------------|------------------------------------|---|---------------------|--|
| Strawberry Lake (Zone AE) | 01/19/1996 | USACE, Philadelphia District | IAA-H-19-74, IAA-H-16-75, Project Order Nos. 17 and 6 with Amendment No.3 | September 1976 | Township of Moorestown |
| Strawberry Lake (Zone AE) | 09/22/1999 | USACE, Philadelphia District | H-7-76, Project Order No. 13 | December 1978 | Township of Mount Laurel |
| Strawberry Lake (Zone A) | TBD | RAMPP | HSFEHQ-09- D-0369, Task Order HSFE02-09- J-0001 | September 2015 | Townships of Moorestown and Mount Laurel |
| Swede Run (Zone AE) | TBD | RAMPP | HSFEHQ-09- D-0369, Task Order HSFE02-12- J-0065 | April 2014 | Township of Delran |
| Swede Run (Zone AE) | 12/05/1995, 01/19/1996 | USACE, Philadelphia District | EMW-92-E- 3839, Project Order No. 5, Amendment A | October 1993 | Townships of Delran and Moorestown |
| Swede Run (Zone A) | TBD | RAMPP | HSFEHQ-09- D-0369, Task Order HSFE02-09- J-0001 | September 2015 | Township of Moorestown |
| Swede Run Tributary | 01/19/1996 | USACE, Philadelphia District | EMW-92-E- 3839, Project Order No. 5, Amendment A | October 1993 | Township of Moorestown |
| Sykes Branch | TBD | RAMPP | HSFEHQ-09- D-0369, Task Order HSFE02-09- J-0001 | September 2015 | Township of Woodland |
| Taunton Lake Tributary | TBD | RAMPP | HSFEHQ-09- D-0369, Task Order HSFE02-09- J-0001 | September 2015 | Townships of Evesham and Medford |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|--------------------------|------------------|------------|---|---------------------|--|
| Taunton Lake Tributary 1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Thorton Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | City of Bordentown, Townships of Bordentown and Chesterfield |
| Tommys Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Tributary 1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Hainesport and Mount Laurel |
| Tributary 2 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Hainesport and Lumberton |
| Tributary 2.1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Hainesport |
| Tributary B | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Borough of Fieldsboro and Township of Bordentown |
| Tub Mill Branch | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |
| Tulpehocken Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Washington |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|----------------------------------|------------------|------------|---|---------------------|--|
| Unnamed Streams, Various | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Burlington County (All Jurisdictions) |
| Unnamed Tributaries, Various | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Burlington County (All Jurisdictions) |
| Upper Marlon Lake | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Upper Marlon Lake Tributary 1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Upper Marlon Lake Tributary 1.1 | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Evesham |
| Wading River | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Townships of Bass River and Washington |
| Wesickaman Creek | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Shamong |
| West Branch Bass River (Zone AE) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-12-J-0065 | April 2014 | Township of Bass River |
| West Branch Bass River (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Township of Bass River |

Table 29: Summary of Contracted Studies Included in this FIS Report – continued

| Flooding Source | FIS Report Dated | Contractor | Number | Work Completed Date | Affected Communities |
|------------------------------------|------------------|---|---|---------------------|--------------------------------------|
| West Branch Wading River (Zone AE) | 07/20/1981 | Gannett Fleming Corddry and Carpenter, Inc. for NJDEP | H-4546 | April 1980 | Township of Woodland |
| West Branch Wading River (Zone A) | TBD | RAMPP | HSFEHQ-09-D-0369, Task Order HSFE02-09-J-0001 | September 2015 | Townships of Washington and Woodland |

7.2 Community Meetings

The dates of the community meetings held for this FIS project and any previous FIS projects are shown in Table 30. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

Table 30: Community Meetings

| Community | FIS Report Dated | Date of Meeting | Meeting Type | Attended By |
|--------------------------|------------------|-----------------|------------------------------|--|
| Bass River, Township of | TBD | 12/03/2015 | Flood Risk Review Meeting | FEMA, NJDEP, this community and the study contractor |
| | | 03/20/2015 | Initial CCO Meeting | FEMA, NJDEP, this community and the study contractor |
| Bordentown, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Burlington, City of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Burlington, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Cinnaminson, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Eastampton, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Hainesport, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Mount Holly, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Palmyra, Borough of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |

Table 30: Community Meetings – continued

| Community | FIS Report Dated | Date of Meeting | Meeting Type | Attended By |
|-------------------------|------------------|-----------------|------------------------------|--|
| Shamong, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Tabernacle, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |
| Washington, Township of | TBD | 12/03/2015 | Flood Risk Review Meeting | FEMA, NJDEP, this community and the study contractor |
| | | 03/20/2015 | Initial CCO Meeting | FEMA, NJDEP, this community and the study contractor |
| Westampton, Township of | TBD | 05/08/2013 | Project Coordination Meeting | FEMA, this community and the study contractor |

SECTION 8.0 – ADDITIONAL INFORMATION

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see www.fema.gov.

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for the Township of Bass River (FEMA 1982) and the Township of Washington (FEMA 1981).

Table 31 is a list of the locations where FIRMs for Burlington County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

Table 31: Map Repositories

| Community | Address | City | State | Zip Code |
|---------------------------|--|--------------|-------|----------|
| Bass River, Township of | Bass River Township Municipal Building 3 North Maple Avenue | New Gretna | NJ | 08087 |
| Beverly, City of | City Hall 446 Broad Street, 2nd Floor | Beverly | NJ | 08010 |
| Bordentown, City of | City Hall, Tax Office 324 Farnsworth Avenue | Bordentown | NJ | 08505 |
| Bordentown, Township of | Municipal Building, Construction Office 1 Municipal Drive | Bordentown | NJ | 08505 |
| Burlington, City of | City Hall, Municipal Office 525 High Street | Burlington | NJ | 08016 |
| Burlington, Township of | Township Municipal Building, Engineering Department 851 Old York Road | Burlington | NJ | 08016 |
| Chesterfield, Township of | Municipal Building 300 Bordentown- Chesterfield Road | Chesterfield | NJ | 08515 |
| Cinnaminson, Township of | Township Building 1621 Riverton Road | Cinnaminson | NJ | 08077 |
| Delanco, Township of | Township Hall, Clerk's Office 770 Coopertown Road | Delanco | NJ | 08075 |

Table 31: Map Repositories – continued

| Community | Address | City | State | Zip Code |
|-----------------------------|---|----------------|-------|----------|
| Delran, Township of | Municipal Building 900 Chester Avenue | Delran | NJ | 08075 |
| Eastampton, Township of | Municipal Building 12 Manor House Court | Eastampton | NJ | 08060 |
| Edgewater Park, Township of | Township Building 400 Delanco Road | Edgewater Park | NJ | 08010 |
| Evesham, Township of | Municipal Building, Community Development 984 Tuckerton Road | Evesham | NJ | 08053 |
| Fieldsboro, Township of | Municipal Building 204 Washington Street | Fieldsboro | NJ | 08505 |
| Florence, Township of | Municipal Complex, Clerk's Office 711 Broad Street | Florence | NJ | 08518 |
| Hainesport, Township of | Township Municipal Building 1401 Marne Highway | Hainesport | NJ | 08036 |
| Lumberton, Township of | Municipal Building 35 Municipal Building | Lumberton | NJ | 08048 |
| Mansfield, Township of | Mansfield Township Municipal Complex 3135 Route 206 South, Suite 1 | Columbus | NJ | 08022 |
| Maple Shade, Township of | Municipal Building, Community Development 200 Stiles Avenue | Maple Shade | NJ | 08052 |
| Medford Lakes, Borough of | Municipal Building, Clerk's Office 1 Cabin Circle | Medford Lakes | NJ | 08055 |
| Medford, Township of | Municipal Hall 17 North Main Street | Medford | NJ | 08055 |
| Moorestown, Township of | Town Hall, Community Development 111 West Second Street, 2nd Floor | Moorestown | NJ | 08057 |
| Mount Holly, Township of | Municipal Building, Clerk's Office, 3rd Floor 23 Washington Street | Mount Holly | NJ | 08060 |
| Mount Laurel, Township of | Municipal Building 100 Mount Laurel Road | Mount Laurel | NJ | 08054 |

Table 31: Map Repositories – continued

| Community | Address | City | State | Zip Code |
|----------------------------|---|-------------|-------|----------|
| New Hanover, Township of | New Hanover Township Municipal Building 2 Hockamick Road | Cookstown | NJ | 08511 |
| North Hanover, Township of | North Hanover Township Building 41 Schoolhouse Road | Jacobstown | NJ | 08562 |
| Palmyra, Borough of | Borough Hall, 2nd Floor 20 West Broad Street | Palmyra | NJ | 08065 |
| Pemberton, Borough of | Pemberton Borough Municipal Building 50 Egbert Street | Pemberton | NJ | 08068 |
| Pemberton, Township of | Pemberton Township Municipal Building 500 Pemberton-Browns Mill Road | Pemberton | NJ | 08068 |
| Riverside, Township of | Administrative Offices, Construction Office 237 South Pavilion Avenue | Riverside | NJ | 08075 |
| Riverton, Borough of | Borough Hall 505A Howard Street | Riverton | NJ | 08077 |
| Shamong, Township of | Municipal Building 105 Willow Grove Road | Shamong | NJ | 08088 |
| Southampton, Township of | Municipal Building 5 Retreat Road | Southampton | NJ | 08088 |
| Springfield, Township of | Springfield Township Municipal Building 2159 Jacksonville-Jobstown Road | Jobstown | NJ | 08041 |
| Tabernacle, Township of | Town Hall Municipal Building 163 Carranza Road | Tabernacle | NJ | 08088 |
| Washington, Township of | Washington Township Municipal Building, Office of Emergency Management 2436 County Route 563 | Egg Harbor | NJ | 08215 |
| Westampton, Township of | Municipal Complex, Construction Office 710 Rancocas Road | Westampton | NJ | 08060 |
| Willingboro, Township of | Township Municipal Building One Reverend Dr. M. L. King, Jr. Drive | Willingboro | NJ | 08046 |
| Woodland, Township of | Municipal Building 3943 Route 563 | Chatsworth | NJ | 08019 |

Table 31: Map Repositories – continued

| Community | Address | City | State | Zip Code |
|----------------------------|---|-------------|-------|----------|
| Wrightstown, Borough of | Municipal Building 21 Saylor's Pond Road | Wrightstown | NJ | 08562 |

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 32.

Table 32 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the State NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of State or territorial government to coordinate that State's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of State and local GIS data in their state.

Table 32: Additional Information

| FEMA and the NFIP | |
|---|--|
| FEMA and FEMA Engineering Library website | www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library |
| NFIP website | www.fema.gov/national-flood-insurance-program |
| NFHL Dataset | msc.fema.gov |
| FEMA Region II | 26 Federal Plaza New York, NY 10278-0002 Telephone: (212) 680-3600 |
| Other Federal Agencies | |
| USGS website | www.usgs.gov |
| Hydraulic Engineering Center website | www.hec.usace.army.mil |
| State Agencies and Organizations | |
| State NFIP Coordinator | John H. Moyle, PE New Jersey Department of Environmental Protection P.O. Box 420 Trenton, NJ 08625 Phone: (609) 292-2296 John.moyle@dep.state.nj.us |
| Burlington County GIS Division | Burlington County Information Technology Department, Geographic Information Systems (GIS) Division 49 Rancocas Road Mount Holly, NJ 08060 Phone: (609) 702-7067 |

SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES

Table 33 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.

Table 33: Bibliography and References

| Citation in this FIS | Publisher/ Issuer | Publication Title, "Article," Volume, Number, etc. | Author/Editor | Place of Publication | Publication Date/ Date of Issuance | Link |
|----------------------|-------------------------------------|--|---------------|----------------------|------------------------------------|---|
| DRBC 2014 | Delaware River Basin Commission | <i>General Flood Information</i> | | | 2014 | http://www.state.nj.us/drbc/hydrological/flood/ |
| FEMA 1976 | Federal Emergency Management Agency | <i>Flood Insurance Study, Township of Pennsauken, Camden County, New Jersey</i> | | Washington, D.C. | October 1976 | |
| FEMA 1981 | Federal Emergency Management Agency | <i>Flood Insurance Study, Township of Washington, Burlington County, New Jersey</i> | | Washington, D.C. | 1981 | FEMA Flood Map Service Center http://msc.fema.gov |
| FEMA 1982 | Federal Emergency Management Agency | <i>Flood Insurance Study, Township of Bass River, Burlington County, New Jersey</i> | | Washington, D.C. | 1982 | FEMA Flood Map Service Center http://msc.fema.gov |
| FEMA 1991 | Federal Emergency Management Agency | <i>Flood Insurance Study, Township of Cinnaminson, Burlington County, New Jersey</i> | | Washington, D.C. | November 20, 1991 | FEMA Flood Map Service Center http://msc.fema.gov |

Table 33: Bibliography and References – continued

| Citation in this FIS | Publisher/ Issuer | Publication Title, "Article," Volume, Number, etc. | Author/Editor | Place of Publication | Publication Date/ Date of Issuance | Link |
|----------------------|--|---|------------------|-----------------------|------------------------------------|---|
| FEMA 1995 | Federal Emergency Management Agency | <i>Flood Insurance Study, Township of Delran, Burlington County, New Jersey</i> | | Washington, D.C. | December 5, 1995 | FEMA Flood Map Service Center http://msc.fema.gov |
| G&S Appendices | Federal Emergency Management Agency | <i>FEMA's Guidelines and Standards for Flood Risk Analysis and Mapping</i> | | Washington, D.C. | 2014 | http://www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping . |
| HMP 2014 | Tetra Tech, Inc. for Burlington County, NJ | <i>Burlington County Multi-Jurisdictional: All Hazards Mitigation Plan</i> | Tetra Tech. Inc. | Burlington County, NJ | March 2014 | http://co.burlington.nj.us/1243/Mitigation-Plan-2014 |