

## Coastal Flood Exposure Analysis Process Overview

**Table 3b. One Foot Increment Projected Water Levels for Exposure Analysis at Atlantic City, NJ (MHHW)**

|                      |                                   | Water Level | What High Water Level Condition Does This Height Represent?  | 2017 Frequency   |
|----------------------|-----------------------------------|-------------|--|--|
| Permanent Inundation | Recurrent Coastal Flooding        | 1 ft.       | <ul style="list-style-type: none"> <li>Permanent Inundation (MHHW) in 2030 using Central HE/LE Scenarios (0.8 ft.)</li> <li>Permanent Inundation (MHHW) in 2030 using 1-in-20 Chance HE Scenario (1.1 ft.)</li> <li>Permanent Inundation (MHHW) in 2050 using Central HE/LE Scenarios (1.4 ft.)</li> </ul>   | <ul style="list-style-type: none"> <li>In 2017, daily HHW met or exceeded this planning level <u>52 times</u>.</li> </ul>  |
|                      |                                   | 2 ft.       | <ul style="list-style-type: none"> <li>Current Annual (99% AEP) flood (1.6 ft.)</li> <li>Permanent Inundation (MHHW) in 2050 using 1-in-20 Chance HE Scenario (2.0 ft.)</li> <li>Permanent Inundation (MHHW) in 2100 using Central LE Scenario (2.3 ft.)</li> <li>Annual (99% AEP) flood in 2030 using Central HE/LE Scenarios (2.4 ft.)</li> </ul>  | <ul style="list-style-type: none"> <li>In 2017, daily HHW met or exceeded this planning level <u>9 times</u>.</li> </ul>   |
|                      |                                   | 3 ft.       | <ul style="list-style-type: none"> <li>Current 10-year (10% AEP) flood (3.3 ft.)</li> <li>Annual (99% AEP) flood in 2030 using a 1-in-20 Chance HE Scenario (2.7 ft.)</li> <li>Annual (99% AEP) flood in 2050 using Central HE/LE Scenario (3.0 ft.)</li> <li>Permanent Inundation (MHHW) in 2100 using a Central HE Scenario (3.4 ft.)</li> </ul>   | <ul style="list-style-type: none"> <li>In 2017, daily HHW met or exceeded this planning level <u>1 time (3/14/2017)</u>.</li> </ul>  |
|                      | Extreme Coastal Flooding (Storms) | 4 ft.       | <ul style="list-style-type: none"> <li>Current Sandy Storm Tide (4.1 ft.)</li> <li>10-year (10% AEP) flood in 2030 using Central HE/LE Scenarios (4.1 ft.)</li> <li>10-year (10% AEP) flood in 2030 using a 1-in-20 HE Scenario (4.4 ft.)</li> <li>Annual (99% AEP) flood in 2050 using a 1-in-20 HE Scenario (3.6 ft.)</li> <li>Annual (99% AEP) flood in 2100 using Central LE Scenario (3.9 ft.)</li> </ul>   | <ul style="list-style-type: none"> <li>In 2017, daily HHW did not meet or exceed this planning level. The highest water level experienced in Atlantic City during the period of record is 4.28 ft. above MHHW (12/11/1992).</li> </ul> |
|                      |                                   | 5 ft.       | <ul style="list-style-type: none"> <li>Sandy Storm Tide in 2030 using Central HE/LE Scenarios (4.9 ft.)</li> <li>Sandy Storm Tide in 2030 using 1-in-20 HE Scenario (5.2 ft.)</li> <li>Current 100-year (1% AEP) Flood (4.8 ft.)</li> <li>10-year (10% AEP) flood in 2050 using Central HE/LE Scenarios (4.7 ft.)</li> <li>10-year (10% AEP) flood in 2050 using a 1-in-20 HE Scenario (5.3 ft.)</li> <li>Annual (99% AEP) flood in 2100 using Central HE Scenario (5.0 ft.)</li> <li>Permanent Inundation (MHHW) in 2100 using a 1-in-20 HE Scenario (5.3 ft.)</li> </ul>                     | <ul style="list-style-type: none"> <li>Atlantic City, NJ has never experienced a water level this high during the period of record.</li> </ul>   |
|                      |                                   | 6 ft.       | <ul style="list-style-type: none"> <li>100-year (1% AEP) flood in 2030 using Central HE/LE Scenarios (5.6 ft.)</li> <li>100-year (1% AEP) flood in 2030 using a 1-in-20 HE Scenario (5.9 ft.)</li> <li>100-year (1% AEP) flood in 2050 using Central HE/LE Scenarios (6.2 ft.)</li> <li>Sandy Storm Tide in 2050 using Central HE/LE Scenarios (5.5 ft.)</li> <li>Sandy Storm Tide in 2050 using 1-in-20 HE Scenario (6.1 ft.)</li> <li>Sandy Storm Tide in 2100 using Central LE Scenario (6.4 ft.)</li> <li>10-year (10% AEP) flood in 2100 using a Central LE Scenario (5.6 ft.)</li> </ul> |  |
|                      |                                   | 7 ft.       | <ul style="list-style-type: none"> <li>100-year (1% AEP) flood in 2050 using a 1-in-20 HE Scenario (6.8 ft.)</li> <li>100-year (1% AEP) flood in 2100 using a Central LE Scenario (7.1 ft.)</li> <li>10-year (10% AEP) flood in 2100 using a Central HE Scenario (6.7 ft.)</li> <li>Annual (99% AEP) flood in 2100 using a 1-in-20 HE Scenario (6.9 ft.)</li> </ul>  |  |
|                      |                                   | 8 ft.       | <ul style="list-style-type: none"> <li>Sandy Storm Tide in 2100 using Central HE Scenario (7.5 ft.)</li> <li>100-year (1% AEP) flood in 2100 using a Central HE Scenario (8.2 ft.)</li> </ul>  |  |
|                      |                                   | 9 ft.       | <ul style="list-style-type: none"> <li>Sandy Storm Tide in 2100 using 1-in-20 HE Scenario (9.4 ft.)</li> <li>10-year (10% AEP) flood in 2100 using a 1-in-20 HE Scenario (8.6 ft.)</li> </ul>  |  |
|                      |                                   | 10 ft.      | <ul style="list-style-type: none"> <li>100-year (1% AEP) flood in 2100 using 1-in-20 HE Scenario (10.1 ft.)</li> </ul>   |  |

Notes: MHHW = Mean Higher High Water, HHW = Daily Higher High Water, HE = High Emissions, LE = Low Emissions