

Appendix EE.15 – Climate Change

Sea Level Rise Flooding: Number of Acres in the Affected Environment at Risk

County	Current Climate Conditions		Mid-Century Climate Conditions		End-Century Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	32	32	35	35	64	64
Prince George's	0	0	0	0	0	0
Anne Arundel	4	4	5	5	7	7
Howard	0	0	1	1	1	1
Baltimore	22	36	41	68	126	292
Baltimore City	0	0	0	1	0	6
Harford	109	189	120	233	214	445
Cecil	23	24	23	24	23	24
New Castle	571	779	621	904	1,183	1,882
Delaware	15	107	17	132	67	470
Philadelphia	186	313	189	323	221	940
Bucks County	262	262	268	268	317	316
Burlington	0	0	0	0	0	0
Mercer	16	16	16	16	17	17
Middlesex	27	28	28	30	40	42
Somerset	0	0	0	0	0	0
Union	7	8	11	12	42	43
Essex	39	40	39	41	230	238
Hudson	306	390	376	520	1,177	1,426
Bergen	0	0	0	0	0	0
New York	94	120	95	121	153	195
Kings	3	17	4	18	10	52
Queens	16	42	17	44	99	166
Bronx	37	37	44	44	190	190
Westchester	7	15	8	16	18	31
Fairfield	167	219	199	255	677	786
New Haven	680	680	969	969	1,890	1,890
Middlesex	196	227	381	414	685	723
Hartford	0	0	0	0	0	0
New London	725	854	989	1,125	1,977	2,226
Washington	23	41	29	48	45	69
Kent	49	49	57	57	98	98
Providence	22	22	23	23	35	35
Bristol	0	0	0	0	0	0
Norfolk	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0
Hampden	0	0	0	0	0	0
Suffolk	39	39	40	40	359	359

Storm Surge Rise Flooding: Number of Acres in the Affected Environment at Risk

County	Current Climate Conditions		Mid-Century Climate Conditions		End-Century Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	110	110	141	141	141	141
Prince George's	0	0	0	0	0	0
Anne Arundel	57	57	59	59	59	59
Howard	7	7	7	7	7	7
Baltimore	240	426	717	1,081	742	1,129
Baltimore City	0	21	4	54	4	65
Harford	330	722	583	1,294	593	1,317
Cecil	23	24	23	24	23	24
New Castle	1,445	2,142	2,317	3,293	2,367	3,344
Delaware	165	439	291	907	329	954
Philadelphia	418	1,342	654	1,707	716	1,796
Bucks County	404	404	769	768	782	782
Burlington	0	0	0	0	0	0
Mercer	24	24	40	40	42	42
Middlesex	58	61	94	99	100	105
Somerset	0	0	0	0	0	0
Union	81	83	224	234	236	245
Essex	318	328	485	505	485	505
Hudson	1,179	1,401	1,581	1,876	1,594	1,890
Bergen	0	0	0	0	0	0
New York	148	171	285	326	286	328
Kings	11	62	12	80	12	80
Queens	146	231	248	360	264	377
Bronx	305	305	627	630	645	647
Westchester	38	57	67	110	76	126
Fairfield	840	970	1,984	2,308	2,153	2,498
New Haven	2,169	2,169	3,523	3,523	3,688	3,688
Middlesex	749	788	1,461	1,513	1,503	1,554
Hartford	11	11	6	6	6	6
New London	2,357	2,556	3,463	3,837	3,715	4,106
Washington	165	306	205	387	228	419
Kent	168	168	346	346	372	372
Providence	92	92	251	251	273	273
Bristol	1	1	6	6	6	6
Norfolk	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0
Hampden	0	0	0	0	0	0
Suffolk	61	61	185	185	227	227

Riverine Flooding: Number of Acres in the Affected Environment at Risk

County	Current Climate Conditions		Mid-Century Climate Conditions		End-Century Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	121	121	161	161	189	189
Prince George's	547	547	722	722	832	832
Anne Arundel	745	744	983	983	1,132	1,132
Howard	7	7	9	9	10	10
Baltimore	374	687	493	907	568	1,045
Baltimore City	83	121	110	160	126	184
Harford	948	1,498	1,251	1,977	1,441	2,276
Cecil	606	862	799	1,138	920	1,310
New Castle	1,643	2,366	2,153	3,099	2,481	3,572
Delaware	291	474	437	711	528	857
Philadelphia	478	1,398	717	2,097	865	2,531
Bucks County	535	534	802	802	968	967
Burlington	0	0	0	0	0	0
Mercer	440	440	638	638	766	766
Middlesex	994	1,037	1,441	1,503	1,730	1,804
Somerset	0	0	0	0	0	0
Union	158	161	229	233	275	280
Essex	366	377	530	547	636	657
Hudson	1,188	1,411	1,723	2,045	2,067	2,454
Bergen	0	0	0	0	0	0
New York	264	299	383	434	457	518
Kings	11	63	16	91	20	109
Queens	161	247	233	358	278	427
Bronx	497	502	721	728	860	868
Westchester	232	252	336	365	401	435
Fairfield	1,288	1,549	1,765	2,122	2,074	2,493
New Haven	2,872	2,872	3,935	3,935	4,624	4,624
Middlesex	820	859	1,123	1,177	1,320	1,383
Hartford	2,444	2,444	3,348	3,348	3,934	3,934
New London	3,332	3,754	4,565	5,143	5,364	6,044
Washington	1,479	1,712	2,042	2,363	2,382	2,757
Kent	488	488	674	674	786	786
Providence	217	217	299	299	349	349
Bristol	464	464	668	668	788	788
Norfolk	393	393	566	566	669	669
Middlesex	0	0	0	0	0	0
Hampden	1,019	1,019	1,467	1,467	1,732	1,732
Suffolk	80	80	115	115	136	136

Sea Level Rise Flooding: Number of Acres at Risk - Environmental Consequences

County	Current Climate Conditions		Mid-Century Climate Conditions		End-Century Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	1	1	1	1	2	2
Prince George's	0	0	0	0	0	0
Anne Arundel	0	0	0	0	0	0
Howard	0	0	0	0	0	0
Baltimore	1	2	1	2	2	10
Baltimore City	0	0	0	0	0	1
Harford	8	24	8	27	9	45
Cecil	2	5	2	5	2	5
New Castle	4	14	5	21	48	120
Delaware	1	14	1	18	1	52
Philadelphia	2	17	2	20	3	86
Bucks County	3	3	4	4	4	4
Burlington	0	0	0	0	0	0
Mercer	1	1	1	1	1	1
Middlesex	2	4	2	4	2	5
Somerset	0	0	0	0	0	0
Union	0	1	1	1	1	1
Essex	0	1	0	1	18	37
Hudson	13	23	14	30	48	107
Bergen	0	0	0	0	0	0
New York	7	13	7	13	10	21
Kings	0	2	0	2	0	4
Queens	0	5	0	5	10	23
Bronx	1	2	1	2	7	8
Westchester	0	0	0	0	0	1
Fairfield	6	10	7	11	22	29
New Haven	10	10	15	15	116	116
Middlesex	5	12	9	17	40	52
Hartford	0	0	0	0	0	0
New London	25	41	34	50	155	177
Washington	0	2	1	3	1	3
Kent	1	1	2	2	4	4
Providence	1	1	1	1	2	2
Bristol	0	0	0	0	0	0
Norfolk	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0
Hampden	0	0	0	0	0	0
Suffolk	1	1	1	1	26	26

Storm Surge Flooding: Number of Acres at Risk - Environmental Consequences

County	Current Climate Conditions		Mid-Century Climate Conditions		End-Century Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	7	7	11	11	11	11
Prince George's	0	0	0	0	0	0
Anne Arundel	8	8	8	8	8	8
Howard	0	0	0	0	0	0
Baltimore	8	35	59	126	60	130
Baltimore City	0	3	0	5	0	7
Harford	15	72	52	176	54	180
Cecil	2	5	2	5	2	5
New Castle	47	122	199	373	205	387
Delaware	6	46	10	84	16	90
Philadelphia	26	119	47	152	53	160
Bucks County	20	20	70	70	71	71
Burlington	0	0	0	0	0	0
Mercer	1	1	3	3	3	3
Middlesex	3	5	5	10	5	11
Somerset	0	0	0	0	0	0
Union	1	3	11	22	12	23
Essex	23	47	36	73	36	73
Hudson	44	101	132	234	132	235
Bergen	0	0	0	0	0	0
New York	12	21	20	33	20	33
Kings	0	4	0	4	0	4
Queens	17	32	22	40	23	41
Bronx	27	31	62	62	62	63
Westchester	1	1	3	4	4	6
Fairfield	46	58	150	197	176	230
New Haven	140	140	277	277	297	297
Middlesex	43	56	122	142	124	144
Hartford	0	0	0	0	0	0
New London	215	239	335	373	365	404
Washington	2	13	6	21	8	24
Kent	14	14	53	53	62	62
Providence	3	3	14	14	16	16
Bristol	0	0	0	0	0	0
Norfolk	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0
Hampden	0	0	0	0	0	0
Suffolk	1	1	11	11	18	18

Riverine Flooding: Number of Acres at Risk - Environmental Consequences

County	Current Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	7	7
Prince George's	32	32
Anne Arundel	49	49
Howard	0	0
Baltimore	12	55
Baltimore City	14	16
Harford	61	179
Cecil	34	108
New Castle	51	135
Delaware	7	36
Philadelphia	21	91
Bucks County	21	21
Burlington	0	0
Mercer	33	33
Middlesex	43	45
Somerset	0	0
Union	5	10
Essex	23	45
Hudson	37	76
Bergen	0	0
New York	7	7
Kings	0	0
Queens	5	5
Bronx	50	57
Westchester	2	4
Fairfield	63	84
New Haven	165	165
Middlesex	46	48
Hartford	136	136
New London	235	258
Washington	48	69
Kent	15	15
Providence	14	14
Bristol	9	9
Norfolk	12	20
Middlesex	0	0
Hampden	81	81
Suffolk	2	3

Sea Level Rise Flooding: At Grade and Trench Construction Type - Number of Acres at Risk - Environmental Consequences

County	Current Climate Conditions		Mid-Century Climate Conditions		End-Century Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	0	0	0	0	0	0
Prince George's	0	0	0	0	0	0
Anne Arundel	0	0	0	0	0	0
Howard	0	0	0	0	0	0
Baltimore	0	0	0	0	0	1
Baltimore City	0	0	0	0	0	0
Harford	0	0	0	0	0	0
Cecil	0	0	0	0	0	0
New Castle	1	3	3	7	33	58
Delaware	0	8	0	10	0	17
Philadelphia	0	0	0	0	0	39
Bucks County	0	0	0	0	0	0
Burlington	0	0	0	0	0	0
Mercer	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0
Somerset	0	0	0	0	0	0
Union	0	0	0	0	0	0
Essex	0	0	0	0	13	31
Hudson	0	0	0	6	1	19
Bergen	0	0	0	0	0	0
New York	0	0	0	0	0	0
Kings	0	0	0	0	0	0
Queens	0	0	0	0	3	3
Bronx	0	0	1	0	4	2
Westchester	0	0	0	0	0	0
Fairfield	1	2	1	3	11	13
New Haven	3	3	4	4	64	64
Middlesex	0	0	0	0	2	3
Hartford	0	0	0	0	0	0
New London	5	6	9	9	90	90
Washington	0	0	0	0	0	0
Kent	0	0	0	0	0	0
Providence	0	0	0	0	0	0
Bristol	0	0	0	0	0	0
Norfolk	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0
Hampden	0	0	0	0	0	0
Suffolk	1	1	1	1	19	19

Storm Surge Flooding: At Grade and Trench Construction Type - Number of Acres at Risk - Environmental Consequences

County	Current Climate Conditions		Mid-Century Climate Conditions		End-Century Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	0	0	0	0	0	0
Prince George's	0	0	0	0	0	0
Anne Arundel	7	7	8	8	8	8
Howard	0	0	0	0	0	0
Baltimore	3	6	32	49	33	52
Baltimore City	0	0	0	0	0	0
Harford	0	0	8	8	10	10
Cecil	0	0	0	0	0	0
New Castle	35	61	153	221	159	232
Delaware	0	15	1	30	2	30
Philadelphia	14	55	23	70	27	74
Bucks County	16	16	57	57	58	58
Burlington	0	0	0	0	0	0
Mercer	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0
Somerset	0	0	0	0	0	0
Union	0	0	0	0	0	0
Essex	17	39	22	51	22	51
Hudson	1	19	19	39	19	39
Bergen	0	0	0	0	0	0
New York	0	0	0	0	0	0
Kings	0	0	0	0	0	0
Queens	4	4	6	6	6	6
Bronx	15	10	45	28	45	28
Westchester	0	0	0	0	0	1
Fairfield	22	24	64	79	75	92
New Haven	72	72	122	122	127	127
Middlesex	2	4	26	33	26	33
Hartford	0	0	0	0	0	0
New London	124	127	177	181	191	197
Washington	0	1	0	1	0	2
Kent	0	0	12	12	12	12
Providence	0	0	5	5	7	7
Bristol	0	0	0	0	0	0
Norfolk	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0
Hampden	0	0	0	0	0	0
Suffolk	1	1	11	11	17	17

Riverine Flooding: At Grade and Trench Construction Type - Number of Acres at Risk - Environmental Consequences

County	Current Climate Conditions	
	Existing NEC including Hartford/Springfield Line	Preferred Alternative
District of Columbia	0	0
Prince George's	25	25
Anne Arundel	32	32
Howard	0	0
Baltimore	6	13
Baltimore City	13	11
Harford	12	31
Cecil	0	2
New Castle	38	71
Delaware	1	15
Philadelphia	14	59
Bucks County	16	16
Burlington	0	0
Mercer	29	29
Middlesex	38	40
Somerset	0	0
Union	3	8
Essex	17	39
Hudson	1	19
Bergen	0	0
New York	0	0
Kings	0	0
Queens	4	4
Bronx	35	32
Westchester	1	2
Fairfield	31	33
New Haven	95	95
Middlesex	5	7
Hartford	129	129
New London	134	138
Washington	7	7
Kent	0	0
Providence	11	11
Bristol	5	5
Norfolk	10	13
Middlesex	0	0
Hampden	81	81
Suffolk	1	1

Stations at Risk of Inundation along the Preferred Alternative under Current, Mid-Century, and End-of-Century Climate Conditions

State	County	ID	Name	Type	Current	Mid-Century	End-of-Century
MD	Prince George's	2	New Carrollton	Existing	RF	RF	RF
	Anne Arundel	6	BWI Airport	Existing	RF	RF	RF
	Baltimore County	7	Halethorpe	Existing	RF	RF	RF
	Baltimore City	10	Baltimore Penn Station	Existing	RF	RF	RF
	Baltimore City	13	Bayview	New	RF	RF	RF
DE	New Castle	26	Newport	New	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	New Castle	27	Wilmington Station	Existing	SS, RF	SS, RF	SLR, SS, RF
	New Castle	28	Edgemoor	New		SS	SS
	New Castle	29	Claymont	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
PA	Delaware	32	Chester	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	Delaware	34	Baldwin	New	SS, RF	SS, RF	SLR, SS, RF
	Delaware	33	Eddystone	Existing	SS, RF	SS, RF	SLR, SS, RF
	Delaware	35	Crum Lynne	Existing	RF	RF	RF
	Delaware	41	Sharon Hill	Existing	RF	RF	RF
	Delaware	42	Curtis Park	Existing		SS	SS
	Delaware	43	Darby	Existing	SS, RF	SS, RF	SS, RF
	Delaware	44	Philadelphia Airport	New	SS, RF	SS, RF	SLR, SS, RF
	Philadelphia	45	Philadelphia 30th St	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	Philadelphia	51	Holmesburg-Junction	Existing		SS	SS
	Philadelphia	52	Torresdale	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
NJ	Bucks	55	Croyton	Existing	RF	RF	RF
	Mercer	58	Trenton	Existing	RF	RF	RF
	Middlesex	63	Jersey Avenue	Existing	RF	RF	RF
	Middlesex	67	Metropark	Existing	RF	RF	RF
	Middlesex	68	Metropark H.S.	New	RF	RF	RF
	Union	69	Rahway	Existing	SS, RF	SS, RF	SLR, SS, RF
	Union	70	Linden	Existing	RF	RF	SLR, RF
	Union	71	Elizabeth	Existing		SS	SS
	Essex	73	Newark Airport	Existing	SS, RF	SS, RF	SLR, SS, RF
Essex	74	Newark Penn Station	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF	
NY	Hudson	76	Secaucus	Modified	SS, RF	SLR, SS, RF	SLR, SS, RF
	Bronx	78	Hunts Point	New	RF	RF	RF
	Bronx	80	Morris Park	New	RF	RF	RF
	Bronx	81	Co-op City	New	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	Westchester	84	Mamaroneck	Existing	SS, RF	SS, RF	SS, RF
	Westchester	85	Harrison	Existing	RF	RF	RF
	Westchester	86	Rye	Existing	RF	RF	RF
	Westchester	87	Cross-Westchester	New	RF	RF	RF
Westchester	88	Port Chester	Existing	SS, RF	SS, RF	SLR, SS, RF	

Stations at Risk of Inundation along the Preferred Alternative under Current, Mid-Century, and End-of-Century Climate Conditions

State	County	ID	Name	Type	Current	Mid-Century	End-of-Century
CT	Fairfield	89	Greenwich	Existing	SS, RF	SS, RF	SS, RF
	Fairfield	90	Cos Cob	Existing	SS, RF	SS, RF	SLR, SS, RF
	Fairfield	92	Old Greenwich	Existing	SS, RF	SS, RF	SS, RF
	Fairfield	93	Stamford	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	Fairfield	94	Stamford H.S.	New		SS	SLR, SS
	Fairfield	97	Rowayton	Existing	SS, RF	SS, RF	SS, RF
	Fairfield	98	South Norwalk	Existing		SS	SS
	Fairfield	100	Westport	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	Fairfield	101	Greens Farms	Modified	SS, RF	SS, RF	SLR, SS, RF
	Fairfield	102	Southport	Existing	SS, RF	SS, RF	SLR, SS, RF
	Fairfield	103	Fairfield	Existing		SS	SS
	Fairfield	104	Fairfield Metro	Existing		SS	SS
	Fairfield	105	Bridgeport	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	Fairfield	108	Stratford	Existing	RF	RF	RF
	New Haven	109	Milford	Existing	SS, RF	SS, RF	SS, RF
	New Haven	110	West Haven	Existing	RF	RF	RF
	New Haven	111	New Haven Station	Existing	SS, RF	SS, RF	SLR, SS, RF
	New Haven	113	New Haven State Street	Existing	SS, RF	SS, RF	SLR, SS, RF
	New Haven	114	Branford	Existing	SS, RF	SS, RF	SS, RF
	New Haven	115	Guilford	Existing	SS, RF	SLR, SS, RF	SLR, SS, RF
	Middlesex	117	Clinton	Existing		SS	SS
	Middlesex	118	Westbrook	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	New London	121	New London	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	New London	122	Mystic	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	New Haven	157	North Haven	New	SS, RF	SS, RF	SS, RF
	New Haven	185	Meriden	New	RF	RF	RF
	Hartford	161	Newington	New	RF	RF	RF
	Hartford	168	Windsor	Existing	RF	RF	RF
Hartford	169	Windsor Locks	Existing	RF	RF	RF	
Hartford	187	Enfield	New	RF	RF	RF	
RI	Washington	123	Westerly	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF
	Washington	126	Wickford Junction	Existing	RF	RF	RF
	Providence	128	Providence Station	Existing	SLR, SS,RF	SLR, SS, RF	SLR, SS, RF
MA	Bristol	132	Attleboro	Existing	RF	RF	RF
	Bristol	133	Mansfield	Existing	RF	RF	RF
	Norfolk	134	Sharon	Existing	RF	RF	RF
	Norfolk	136	Rte 128	Existing	RF	RF	RF
	Suffolk	138	Hyde Park	Existing		SS	SS
	Suffolk	140	Ruggles Street	Existing			SLR
	Suffolk	141	Back Bay	Existing			SLR
Suffolk	143	Boston South Station	Existing	SLR, SS, RF	SLR, SS, RF	SLR, SS, RF	
Total Stations at Risk of Inundation					68	78	80
Total New Stations at Risk of Inundation					13	15	15
Total Existing Stations at Risk of Inundation					53	61	63
Total Modified Stations at Risk of Inundation					2	2	2
Total Stations at Risk of Inundation from SLR Flooding					16	18	34

Note: Stations are considered at risk if the acreage at risk of flooding at the station is greater than 0.0001.