Appendix E.03
Agricultural Lands (Prime Farmlands and Prime Timberlands)

NEC FUTURE
A Rail Investment Plan for the Northeast Corridor

Agricultural Lands (Prime Farmlands and Timberlands) Effects Assessment Methodology

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FINAL

Submitted by:

PARSONS BRINCKERHOFF AECOM
A JOINT VENTURE

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1.1 INTRODUCTION

This methodology explains how the NEC FUTURE program will address the potential effects of the Tier 1 EIS Alternatives on Agricultural Lands (Prime Farmlands and Timberlands) in the Tier 1 EIS.

This methodology presents the regulatory framework, involved government agencies, expected regulatory and other outcomes of the Tier 1 EIS process and relevance to Tier 2, project-level assessments. It also identifies data sources, metrics and methods to be used to document existing conditions and analyze environmental consequences. This methodology may be revised as the NEC FUTURE program advances and new information is available.

1.2 DEFINITIONS

Agricultural lands include the Nation's farmlands and timberlands, which are unique natural resources that provide food, fiber, wood, and water necessary for the continued welfare of the people of the United States. Prime farmland and prime timberland are further defined below as per the United State's Department of Agriculture's Natural Resources Conservation Service.

- *Prime Farmland*: Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion [...] Prime farmland includes land that possesses the above characteristics but is being used currently to produce livestock and timber as well as yield crops. It does not include land already in or committed to urban development or water storage.
- *Prime Timberland*: Land that has soil capable of growing wood at the rate of 85 cubic feet or more/acre/year (at culmination of mean annual increment) in natural stands and is not in urban or built-up land uses or water. This is land currently in forest, but does not exclude qualifying lands that could realistically be returned to forest.

1.3 RELATED RESOURCES

The effects assessments from other resources evaluated as part of the Tier 1 EIS will contribute to the assessment of effects on agricultural lands. These related resources are identified in Table 1. Note that the effects assessments for those related resources will be documented within their respective Tier 1 EIS sections.

Table 1: Related Resource Inputs to Agricultural Lands Assessment

Resource	Input to Agricultural Lands Assessment
Land Use	▪ Land cover assessment for areas where a "conversion" of land use may occur ▪ State and regional plans that propose conservation or preservation of lands for agricultural use

Source: NEC FUTURE JV Team, 2013

1.4 AGENCY AND REGULATORY FRAMEWORK

Agricultural lands are subject to regulation by the United States Department of Agriculture (USDA). Applicable legislation and regulations, listed in Table 2 will be considered, consistent with a Tier 1 level of assessment, in the evaluation of agricultural lands for the NEC FUTURE program.

Table 2: Federal Agency Roles in Management and Regulation of Agricultural Lands (Prime Farmlands and Timberlands)

Federal Agency	Regulatory Oversight	Description	Regulated Resource
United States Department of Agriculture	▪ *Farmland Protection Policy Act* - (§4202 (b) Title 7 Chapter 73)	▪ Directs federal agencies to minimize the extent to which their federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses	▪ Prime farmland
United States Department of Agriculture, Office of Rural Development	▪ Departmental Regulation 9500-3	▪ Purpose is to minimize the continued conversion of farmland and timberland resources	▪ Farmland and timberland resources

Source: NEC FUTURE JV Team, 2013

The USDA, Natural Resources Conservation Service (NRCS) identifies, maintains, inventories and monitors the use and development of prime farmland and timberland soils.

1.4.1 Regulatory Compliance

No formal agency approvals would be requested for the Tier 1 EIS. The requirements for subsequent Tier 2 evaluations, including compliance with the Farmland Policy Protection Act, will be described in the Tier 1 EIS. During the Tier 1 EIS process, the FRA will initiate dialogue with the USDA to identify potential opportunities to streamline subsequent Tier 2 environmental reviews (see Section 1.7). Coordination with USDA will be consistent with the NEC FUTURE's Agency Coordination Plan and support the Statement of Principles (SOP) established between the FRA and federal regulatory agencies as part of the Council on Environmental Quality (CEQ) Pilot program.

1.5 METHODOLOGY TO ASSESS EFFECTS

This effects assessment methodology identifies the approach and assumptions for describing existing conditions of agricultural resources, and environmental consequences of the Tier 1 EIS Alternatives on those resources. It identifies data sources, defines the Affected Environment and Context Area considered for agricultural lands, and the approach for evaluating potential direct effects[1]. Direct effects include encroachment or alteration of existing agricultural lands as a result of the Tier 1 EIS Alternatives. Indirect effects,[2] such as those resulting from induced growth as a result of the Tier 1 EIS Alternatives, will be addressed in a separate methodology (see Indirect Effects Assessment Methodology).

1.5.1 Existing Conditions

The data sources listed in Table 3 will be used to establish the existing conditions for agricultural lands.

Table 3: Data Sources for the Evaluation of Agricultural Lands

Agricultural Resource	Data Source	Data Application
Prime Farmland and Prime Timberland	▪ Annual State Agricultural Statistics Bulletin ▪ NRCS Soil Survey Geographic Database ▪ National Land Cover Database (2006) ▪ USDA Forest Resource related technical reports ▪ State and Local Data and Publications	▪ Provide a qualitative analysis of each state's agricultural production and top commodities. ▪ Soils meeting Prime Farmland and timberland requirement will be queried and evaluated in a GIS ▪ Used in conjunction with NRCS data; developed/ urbanized lands were excluded from the Farmlands and Timberland query ▪ Identify each state's important forest resource issues ▪ State and local data to supplement information extracted from USDA publications listed above

Source: NEC FUTURE JV, 2013

The existing conditions for agricultural lands will be documented in the Tier 1 EIS for an established Affected Environment and Context Area. The Affected Environment is a 2,000-foot wide swath centered on the Representative Route[3] for each of the Tier 1 EIS Alternatives. The 2,000-foot-swath is sufficiently wide to:

[1] Direct Effects are caused by the action and occur at the same time and place (40 CFR § 1508.8)
[2] Indirect effects are those that occur later in time or are further removed in distance (40 CFR § 1508.8)
[3] Representative Route refers to a proposed route or potential alignment for a Tier 1 EIS Alternative. The Representative Route includes the physical footprint of the improvements associated with the Tier 1 EIS Alternatives. The horizontal and vertical dimensions of the footprint of the Representative Route are based on prototypical cross-sections for these improvements. The Representative Route is used as a proxy for estimating the potential effects of a route whose location could shift during subsequent project-level reviews.

- Encompass and account for the improvements associated with a Representative Route including infrastructure improvements (such as embankments, aerial structures, track improvements), ancillary facilities (such as stations, yards and parking structures), or service changes
- Account for contiguous agricultural lands that extend beyond the Representative Route

The total area (acres) of agricultural lands located within the Affected Environment for each alternative will be estimated within each state on a county-by-county basis. Acres of agricultural lands by prime farmland and prime timberland will be presented in tables and also mapped using GIS.

The Context Area is five miles wide, centered on the Representative Route for each of the Tier 1 EIS Alternatives. Within the Context Area, agricultural lands will be mapped but total area will not be quantified, in order to qualitatively characterize the resources that could be affected should the Representative Route shift. For resources within the Context Area, general characteristics of, and relative size and location of, agricultural lands will be presented; this information will be used to supplement the quantitative assessment of effects for the Affected Environment.

1.5.2 Environmental Consequences

Within the Affected Environment, environmental consequences will be determined for those areas where a Representative Route of a Tier 1 EIS Alternative overlaps with agricultural lands. A qualitative assessment of resources present in the Context Area will be used to supplement the effects assessment.

The following steps will be undertaken to evaluate the environmental consequences of each Tier 1 EIS Alternative on agricultural lands within the Affected Environment:

1. Overlay and analyze agricultural resources using GIS data from the land cover assessment (see Table 1) for the Affected Environment.
2. Calculate the area of potential agricultural conversions (for example, an area that is currently designated as agricultural lands that may be converted to a transportation use) for a Representative Route. This will be done by using a GIS overlay.
3. Identify areas of potential concern, such as concentrations of agricultural lands that could be bisected or have access constraints as a result of implementation of the Representative Route

For the Context Area, agricultural will be qualitatively discussed with regard to the potential for change in use or current condition, should there be a shift in a Representative Route.

Temporary construction-related effects to agricultural lands will be described as to the location, duration and type of activity. The NEC FUTURE program overall approach to assessing construction-related effects at the Tier 1 EIS level is further described in a separate Construction Effects Assessment Approach document. Construction methods and activities for the Tier 1 EIS Alternatives will be the basis of this assessment and will be described in Chapter 2.

1.5.3 Mitigation Strategies

A menu of potential mitigation measures will be developed on a programmatic scale for further consideration in Tier 2. An example of a programmatic mitigation measures for agricultural lands would include providing equipment access via rights-of-way.

1.6 TIER 1 EIS OUTCOMES

The Tier 1 EIS agricultural assessment will:

- Quantify acres of agricultural lands within the Affected Environment
- Map the distribution of agricultural lands in the Affected Environment and Context Area
- Overlay information from the land cover assessment as identified in Table 1
- Calculate the area of potential agricultural conversions for a Representative Route
- Identify potential mitigation strategies
- Describe regulatory compliance requirements for subsequent Tier 2 evaluations

1.7 APPLICABILITY TO TIER 2 ASSESSMENTS

The Tier 1 Analysis will identify areas where there is potential for conversions of agricultural lands to a transportation use. Tier 2 analyses would further define the actual acreage of agriculture lands that could be converted, as well as include the development of mitigation measures and designs that would avoid or minimize effects on agricultural lands.

Additionally, FRA will identify ways in which agency coordination during the Tier 1 process could create efficiencies and help streamline subsequent Tier 2 reviews and approvals. For example, if a particular portion or element of a Tier 1 EIS Alternative avoids conversion or any other impact on agricultural lands, FRA may coordinate with USDA to determine whether or not those portions need further evaluation during the Tier 2 environmental review process.

Application of Effects-Assessment Methodology

3.1 AGRICULTURAL LANDS (PRIME FARMLANDS AND TIMBERLANDS): APPLICATION OF EFFECTS-ASSESSMENT METHODOLOGY

3.1.1 VariatIons to Effects-Assessment Methodology

The following is a variation from the Effects-Assessment Methodology:

- The definition of Agricultural Lands was modified as below:
  - *Prime farmland* is considered land underlain by soil identified by the U.S. Department of Agriculture's Natural Resources Conservation Service (USDA NRCS) as having the best combination of physical and chemical characteristics for producing food and other agricultural crops.
  - *Prime timberland* is land designated by the USDA NRCS as having the capability of growing a significant volume of timber when left in natural conditions. This designation also applies to lands that are not currently in forest but realistically could be vegetated with timber.

3.1.2 Data Variations

The following is a variation from the identified data sources in the Effects-Assessment Methodology:

- Areas of land cover identified as "Developed" (high, low, medium, open space) were removed from the Agricultural Lands dataset before conducting analysis. This was done to avoid inaccurate acreage estimates caused by the inclusion of land covers that are unlikely to be used as agricultural lands. The variation is based on the assumption that when land is developed, the top soil is removed and the properties that are most valued for agriculture and timber are thus eliminated. It is not realistic to assume that developed lands would ever again be suitable for agricultural or timber uses.

3.1.3 Criteria for Analysis

Existing Conditions

- All Agricultural Lands identified within the Affected Environment of each Action Alternative were included in the total acreage listed for each county and state. Additional analysis was conducted to highlight areas of potential impact based on the use of thresholds and the results were included in the main body of the Tier 1 Draft EIS:
  - Through the use of statistical analysis, a supermajority (approximately 75 percent) of the counties within the Affected Environment was found to have less than 500 acres of Prime Farmlands and less than 1,000 acres of Prime Timberlands. The remaining approximately 25 percent of counties above those respective thresholds were highlighted in the text and bulleted lists within the report. Acreages close to the threshold were rounded up to 500 or 1,000 (e.g., 450+, 950+) and included.
  - Contiguous tracts of Prime Farmland and Prime Timberland bisected by the Representative Route were identified visually within the Data Viewer.

Environmental Consequences

- All Agricultural Lands identified within the Representative Route of each Action Alternative were included in the total acreage listed for each county and state in the Appendix E.03 Agricultural Lands table. Additional analysis was conducted to highlight areas of potential impact through the use of thresholds and the results were included in the main body of the Tier 1 Draft EIS:
  - A visual analysis within the NEC FUTURE Data Viewer (Data Viewer) was performed to identify areas of potential concern. Agricultural tracts that could be bisected or have access constraints as a result of implementation of the Representative Route were identified.
  - Specific consideration was given to the size, concentration, and contiguity of agricultural tracts. Contiguous and large concentrations of agricultural tracts were identified and, more specifically, where and how the tracts intersect with the Representative Routes of each of the Tier 1 Draft EIS Action Alternatives was highlighted in the effects assessment.
  - Occurrences where more than approximately 5 percent of the total Environmental Consequences to agricultural lands (i.e., the total acres of potential Prime Farmland or Prime Timberland impacts) for any Action Alternative lay within a single county were highlighted. This disclosure threshold is not related to any specific regulatory thresholds and is solely for the purpose of summarizing information presented in the main body of the Tier 1 Draft EIS.
  - The highest number of impacts (i.e., acreages) within an Action Alternative or option was highlighted at the county level.
- No construction types were excluded when quantifying effects on agricultural lands, as no avoidance of impact could be assumed to be associated with any construction type.

Environmental Consequences – Stations

- Impacts on agricultural lands due to new station construction were identified. In addition, modifications to existing stations were identified where an interaction with agricultural lands was observed.

Data Matrices

Geography		Prime Farmland							Prime Timberland						
		Environmental Consequences (Acres)							Environmental Consequences (Acres)						
					Alternative 3							Alternative 3			
State	County	Existing NEC	Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)	Existing NEC	Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)
DC	District of Columbia	0	0	0	0	0	0	0	0	0	0	5	5	5	5
MD	Prince George's	1	1	1	4	4	4	4	8	8	8	63	63	63	63
MD	Anne Arundel	2	2	2	30	30	30	30	44	44	44	271	271	271	271
MD	Howard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore County	2	2	2	9	9	9	9	9	9	9	24	24	24	24
MD	Baltimore City	0	0	0	0	0	0	0	1	1	1	8	8	8	8
MD	Harford	13	13	14	57	57	57	57	25	25	43	129	129	129	129
MD	Cecil	21	21	75	134	134	134	134	129	129	225	343	343	343	343
DE	New Castle	5	5	10	26	26	26	26	37	37	63	146	146	146	146
PA	Delaware	0	0	0	0	0	0	0	0	0	0	1	1	1	1
PA	Montgomery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	0	0	0	0	0	0	0	0	0	3	1	1	1	1
PA	Bucks	0	0	0	3	3	3	3	7	7	7	41	41	41	41
NJ	Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Gloucester	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Camden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Mercer	4	4	4	29	29	29	29	18	18	18	83	83	83	83
NJ	Middlesex	23	23	29	100	100	100	100	47	47	56	176	176	176	176
NJ	Somerset	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Union	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Essex	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Bergen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Hudson	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	New York	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Richmond	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Queens	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Kings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Bronx	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	0	0	0	33	0	0	33	0	0	0	213	0	0	213
NY	Putnam	0	0	0	20	0	0	20	0	0	0	67	0	0	67
NY	Nassau	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Suffolk	0	0	0	0	35	35	0	0	0	0	0	76	76	0
CT	Fairfield	1	1	1	13	1	1	13	8	8	8	148	8	8	148
CT	Litchfield	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	7	7	32	35	38	38	35	76	76	192	285	205	205	285
CT	Hartford	0	0	18	28	28	26	23	0	0	112	125	215	198	101
CT	Tolland	0	0	39	39	39	5	5	0	0	273	273	273	116	116
CT	Windham	0	0	34	34	34	0	0	0	0	325	325	325	11	11
CT	Middlesex	16	18	16	16	16	16	16	58	63	58	58	58	58	58
CT	New London	42	73	42	42	42	42	42	171	393	171	171	171	171	171
RI	Washington	66	92	66	66	66	66	66	338	519	338	338	338	338	338
RI	Kent	0	0	0	0	0	0	0	8	8	8	8	8	8	8
RI	Providence	0	0	25	28	28	0	0	1	1	282	291	291	1	1
MA	Hampden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MA	Worcester	0	0	0	0	0	34	34	0	0	0	0	0	238	238
MA	Middlesex	0	0	0	0	0	9	9	0	0	0	0	0	70	70
MA	Bristol	0	0	2	6	6	0	0	79	79	107	246	246	79	79
MA	Norfolk	14	14	17	38	38	14	14	122	122	143	347	347	122	122
MA	Suffolk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DC	Total	0	0	0	0	0	0	0	0	0	0	5	5	5	5
MD	Total	39	39	94	235	235	235	235	216	216	331	838	838	838	838
DE	Total	5	5	10	26	26	26	26	37	37	63	146	146	146	146
PA	Total	0	0	0	3	3	3	3	8	8	10	42	42	42	42
NJ	Total	28	28	34	128	128	128	128	65	65	73	259	259	259	259
NY	Total	0	0	0	54	35	35	54	0	0	0	280	77	77	280
CT	Total	65	98	181	208	198	127	134	313	540	1,139	1,386	1,255	767	889
RI	Total	66	92	91	94	94	66	66	347	527	628	637	637	346	346
MA	Total	14	14	19	44	44	57	57	201	201	250	593	593	509	509
Grand Total		**217**	**276**	**429**	**791**	**762**	**678**	**703**	**1,187**	**1,595**	**2,494**	**4,185**	**3,851**	**2,989**	**3,315**

Geography		Prime Farmland							Prime Timberland						
		Affected Environment (Acres)							Affected Environment (Acres)						
					Alternative 3							Alternative 3			
State	County	Existing NEC	Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)	Existing NEC	Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)
DC	District of Columbia	2	2	2	2	2	2	2	69	69	69	73	73	73	73
MD	Prince George's	131	131	131	134	134	134	134	641	641	641	660	660	660	660
MD	Anne Arundel	156	156	156	219	219	219	219	1,510	1,510	1,510	1,811	1,811	1,811	1,811
MD	Howard	0	0	0	0	0	0	0	6	6	6	6	6	6	6
MD	Baltimore County	221	221	221	381	381	381	381	560	560	560	919	919	919	919
MD	Baltimore City	0	0	0	0	0	0	0	36	36	36	52	52	52	52
MD	Harford	876	876	870	1,072	1,072	1,072	1,072	1,702	1,702	1,707	2,472	2,472	2,472	2,472
MD	Cecil	838	838	1,847	1,850	1,850	1,850	1,850	2,090	2,090	3,609	3,613	3,613	3,613	3,613
DE	New Castle	185	185	196	206	206	206	206	819	819	992	994	994	994	994
PA	Delaware	18	18	3	18	18	18	18	38	38	7	38	38	38	38
PA	Montgomery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	5	5	5	5	5	5	5	43	43	57	44	44	44	44
PA	Bucks	92	92	92	93	93	93	93	384	384	384	395	395	395	395
NJ	Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Gloucester	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Camden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Mercer	273	273	273	282	282	282	282	807	807	807	835	835	835	835
NJ	Middlesex	566	566	576	610	610	610	610	953	953	985	1,016	1,016	1,016	1,016
NJ	Somerset	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Union	0	0	0	0	0	0	0	7	7	9	9	9	9	9
NJ	Essex	0	0	0	0	0	0	0	3	3	3	3	3	3	3
NJ	Bergen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Hudson	0	0	0	0	0	0	0	0	1	1	1	1	1	1
NY	New York	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Richmond	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Queens	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Kings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Bronx	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	4	4	5	545	1	1	545	28	28	37	3,069	28	28	3,069
NY	Putnam	0	0	0	227	0	0	227	0	0	0	857	0	0	857
NY	Nassau	0	0	0	0	15	15	0	0	0	0	0	12	12	0
NY	Suffolk	0	0	0	0	395	395	0	0	0	0	0	800	800	0
CT	Fairfield	61	71	72	336	71	71	336	325	373	402	2,486	373	373	2,486
CT	Litchfield	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	179	179	492	651	504	504	651	1,584	1,584	2,625	4,640	2,664	2,664	4,640
CT	Hartford	0	0	251	370	256	344	459	0	0	1,109	1,531	1,757	1,949	1,723
CT	Tolland	0	0	509	509	509	210	210	0	0	3,667	3,667	3,667	3,482	3,482
CT	Windham	0	0	526	526	526	13	13	0	0	4,369	4,369	4,369	284	284
CT	Middlesex	192	194	192	192	192	192	192	959	963	959	959	959	959	959
CT	New London	548	1,063	548	548	548	548	548	2,541	5,939	2,541	2,541	2,541	2,541	2,541
RI	Washington	1,081	1,280	1,081	1,081	1,081	1,081	1,081	4,786	6,201	4,786	4,786	4,786	4,786	4,786
RI	Kent	1	1	1	1	1	1	1	156	156	156	156	156	156	156
RI	Providence	0	0	276	275	275	0	0	18	18	3,609	3,607	3,607	18	18
MA	Hampden	0	0	0	0	0	0	0	0	0	0	0	0	13	13
MA	Worcester	0	0	0	0	0	705	705	0	0	0	0	0	4,369	4,369
MA	Middlesex	0	0	0	0	0	164	164	0	0	0	0	0	843	843
MA	Bristol	58	58	79	79	79	79	79	1,134	1,134	1,383	1,402	1,402	1,402	1,402
MA	Norfolk	235	235	233	240	240	240	240	1,719	1,719	1,707	1,765	1,765	1,765	1,765
MA	Suffolk	2	2	2	2	2	2	2	11	11	11	19	19	19	19
DC	Total	2	2	2	2	2	2	2	69	69	69	73	73	73	73
MD	Total	2,221	2,221	3,224	3,656	3,656	3,656	3,656	6,544	6,544	8,069	9,533	9,533	9,533	9,533
DE	Total	185	185	196	206	206	206	206	819	819	992	994	994	994	994
PA	Total	114	114	100	116	116	116	116	465	465	448	477	477	477	477
NJ	Total	839	839	849	892	892	892	892	1,771	1,771	1,804	1,863	1,863	1,863	1,863
NY	Total	4	4	5	772	411	411	772	28	28	37	3,926	841	841	3,926
CT	Total	979	1,507	2,589	3,131	2,604	1,881	2,408	5,408	8,859	15,672	20,194	16,331	12,252	16,115
RI	Total	1,082	1,280	1,358	1,357	1,357	1,082	1,082	4,959	6,375	8,551	8,549	8,549	4,959	4,959
MA	Total	295	295	314	322	322	1,191	1,191	2,863	2,863	3,101	3,185	3,185	8,411	8,411
Grand Total		**5,721**	**6,446**	**8,636**	**10,452**	**9,564**	**9,435**	**10,323**	**22,928**	**27,794**	**38,741**	**48,795**	**41,847**	**39,404**	**46,351**

Geography		Station ID	Station Type	Prime Farmland						Prime Timberland					
				Stations (Acres)						Stations (Acres)					
						Alternative 3						Alternative 3			
State	County			Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)	Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)
DC	District of Columbia	1	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Prince George's	2	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Prince George's	3	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Prince George's	4	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Anne Arundel	5	Existing	0	0	0	0	0	0	X	X	X	X	X	X
MD	Anne Arundel	6	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Anne Arundel	6	New	0	0	0	0	0	0	0	0	21	21	21	21
MD	Baltimore County	7	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore County	15	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore City	8	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore City	9	New	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore City	10	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore City	11	New	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore City	12	New	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore City	13	New	0	0	0	0	0	0	0	0	0	0	0	0
MD	Baltimore City	14	New	0	0	0	0	0	0	0	0	0	0	0	0
MD	Harford	16	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Harford	17	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Cecil	22	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MD	Cecil	23	New	0	0	0	0	0	0	0	0	0	0	0	0
DE	New Castle	24	Existing	X	X	X	X	X	X	X	X	X	X	X	X
DE	New Castle	25	Existing	0	0	0	0	0	0	0	0	0	0	0	0
DE	New Castle	26	New	0	0	0	0	0	0	*	*	*	*	*	*
DE	New Castle	27	Existing	0	0	0	0	0	0	0	0	0	0	0	0
DE	New Castle	28	New	0	0	0	0	0	0	*	*	*	*	*	*
DE	New Castle	29	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	30	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	31	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	32	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	33	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	34	New	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	35	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	36	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	37	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	38	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	39	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	40	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	41	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	42	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Delaware	43	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	44	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	45	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	46	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	47	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	48	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	49	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	50	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	51	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Philadelphia	52	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Bucks	53	Existing	X	X	X	X	X	X	X	X	X	X	X	X
PA	Bucks	54	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Bucks	55	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Bucks	56	Existing	0	0	0	0	0	0	0	0	0	0	0	0
PA	Bucks	57	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Mercer	58	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Mercer	60	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Mercer	61	Existing	0	0	0	0	0	0	X	X	X	X	X	X
NJ	Middlesex	62	New	*	*	*	*	*	*	0	0	0	0	0	0

*Potential impacts of less than 0.5 acres.
X = Potential impacts within existing station footprint.

Geography		Station ID	Station Type	Prime Farmland						Prime Timberland					
				Stations (Acres)						Stations (Acres)					
						Alternative 3						Alternative 3			
State	County			Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)	Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)
NJ	Middlesex	63	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Middlesex	64	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Middlesex	65	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Middlesex	66	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Middlesex	67	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Middlesex	68	New	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Union	69	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Union	70	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Union	71	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Union	72	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Essex	73	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Essex	74	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Essex	75	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NJ	Hudson	76	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	New York	77	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	New York	9993	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Queens	144	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Queens	145	New	0	0	0	0	0	0	0	0	0	0	0	0
NY	Bronx	78	New	0	0	0	0	0	0	0	0	0	0	0	0
NY	Bronx	79	New	0	0	0	0	0	0	0	0	0	0	0	0
NY	Bronx	80	New	0	0	0	0	0	0	0	0	0	0	0	0
NY	Bronx	81	New	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	82	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	83	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	84	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	85	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	86	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	87	New	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	88	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Westchester	151	New	0	0	2	0	0	2	0	0	4	0	0	4
NY	Putnam	153	Existing	0	0	0	0	0	0	0	0	0	0	0	0
NY	Nassau	146	New	0	0	0	0	0	0	0	0	0	0	0	0
NY	Suffolk	148	New	0	0	0	0	0	0	0	0	0	0	0	0
NY	Suffolk	149	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	89	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	90	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	91	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	92	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	93	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	94	New	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	95	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	96	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	97	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	98	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	99	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	100	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	101	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	102	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	103	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	104	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	105	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	107	New	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	108	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Fairfield	154	New	0	0	3	0	0	3	0	0	26	0	0	26
CT	New Haven	109	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	110	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	111	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	112	New	0	0	0	0	0	0	0	0	0	0	0	0

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Geography		Station ID	Station Type	Prime Farmland						Prime Timberland					
				Stations (Acres)						Stations (Acres)					
						Alternative 3						Alternative 3			
State	County			Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)	Alternative 1	Alternative 2	via CC and PVD (3.1)	via LI and PVD (3.2)	via LI and WOR (3.3)	via CC and WOR (3.4)
CT	New Haven	113	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	156	New	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	114	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	115	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	116	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	New Haven	155	New	0	0	0	0	0	0	0	0	5	0	0	5
CT	Middlesex	117	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Middlesex	118	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Middlesex	119	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Middlesex	120	New	6	0	0	0	0	0	7	0	0	0	0	0
CT	New London	121	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	New London	124	New	0	0	0	0	0	0	10	0	0	0	0	0
CT	New London	122	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Hartford	160	New	0	0	0	0	0	0	0	0	0	0	0	0
CT	Hartford	160	Existing	0	0	0	0	0	0	0	0	0	0	0	0
CT	Hartford	161	New	0	0	0	0	0	0	0	3	0	0	0	0
CT	Hartford	164	New	0	0	0	0	0	0	0	0	0	0	0	0
CT	Tolland	165	New	0	19	19	19	0	0	0	29	29	29	0	0
CT	Tolland	166	New	0	0	0	0	4	4	0	0	0	0	13	13
RI	Washington	123	Existing	0	0	0	0	0	0	0	0	0	0	0	0
RI	Washington	125	Existing	0	0	0	0	0	0	0	0	0	0	0	0
RI	Washington	126	Existing	0	0	0	0	0	0	0	0	0	0	0	0
RI	Kent	127	Existing	0	0	0	0	0	0	0	0	0	0	0	0
RI	Providence	128	Existing	0	0	0	0	0	0	0	0	0	0	0	0
RI	Providence	129	New	0	0	0	0	0	0	0	0	0	0	0	0
RI	Providence	130	New	0	0	0	0	0	0	0	0	0	0	0	0
MA	Bristol	131	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Bristol	132	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Bristol	133	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Worcester	172	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Worcester	173	New	0	0	0	0	0	0	0	0	0	0	0	0
MA	Worcester	174	New	0	0	0	0	0	0	0	0	0	0	17	17
MA	Worcester	175	New	0	0	0	0	0	0	0	0	0	0	*	*
MA	Middlesex	176	New	0	0	0	0	0	0	0	0	0	0	3	3
MA	Middlesex	178	New	0	0	0	0	0	0	0	0	0	0	1	1
MA	Middlesex	181	New	0	0	0	0	0	0	0	0	0	0	*	*
MA	Suffolk	182	New	0	0	0	0	0	0	0	0	0	0	0	0
MA	Norfolk	134	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Norfolk	135	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Norfolk	136	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Suffolk	137	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Suffolk	138	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Suffolk	139	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Suffolk	140	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Suffolk	141	Existing	0	0	0	0	0	0	0	0	0	0	0	0
MA	Suffolk	142	New	0	0	0	0	0	0	0	0	0	0	0	0
MA	Suffolk	143	Existing	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total				**6**	**19**	**25**	**19**	**4**	**9**	**17**	**32**	**84**	**50**	**55**	**89**

*Potential impacts of less than 0.5 acres.
X = Potential impacts within existing station footprint.