PSEG LONG ISLAND LLC

on Behalf of and as Agent for the LONG ISLAND LIGHTING COMPANY d/b/a LIPA

Southampton to Deerfield Transmission Project

ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN

Appendix G

Drainage System Repair Plan

SHDF EM&CP Introduction

1 INTRODUCTION

The following Drainage System Repair Plan describes a plan for the unlikely event where repair of drainage lines damaged during the construction of the Project may need to occur. The plan includes procedures for repair of crushed/severed clay tile and plastic drain lines, and drawings showing the generic technique to be implemented for drain line repairs, and protocols for replacement of functional stone drainage systems severed during construction.

This plan is consistent with relevant conditions included in the Certificate of Environmental Compatibility and Public Need (CECPN) and New York State Agriculture and Markets (NYSAGM) standards for Construction Mitigation for Projects on Agricultural Lands.

1.1 Existing Agricultural Lands

The Project route passes by agricultural lands. These parcels were identified through certified NYSAGM Agricultural District 5 parcels, Suffolk County property map, and aerial imagery. Due to the in-roadway nature of the Project, no impact to these lands is anticipated. The location of agricultural lands is shown on the Plan and Profile drawings in the Project's EM&CP Appendix A. Parcels that are adjacent to the Certified Route are shown in Table 1.

Table 1. Agricultural Parcels Along the Certified Route

Address	Municipality	Parcel No.	Approximate Distance Along Route (feet)	NYSAGM Ag District	Source
340 Edge of Woods Rd	Water Mill	0900100000200001003	27	5	a
210 Edge of Woods Rd	Southampton	0900099000300004003	2629	N/A	b
636 N Sea Mecox Rd	Southampton	0900132000200015002	20	5	a
473 N Main St	Southampton	0900132000200011003	153	5	a
357 Edge of Woods Rd	Southampton	0900100000100013001	185	5	a
638 N Sea Mecox Rd	Southampton	0900099000300022000	20	5	a
17 Clearview Farm Rd	Southampton	0900132000200011013	213	5	a
16 Clearview Farm Rd	Southampton	0900132000200011005	173	5	a
450 N Main St	Southampton	0900132000200011004	20	5	a
416 N Main St	Southampton	0900132000200019000	121	N/A	С

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Southampton	0900132000200011002	186	5	a
Southampton	0900079000200013018	1043	N/A	ь
Water Mill	0900100000200001002	40	5	a
Southampton	0900080000100005024	N/A*	N/A	b
Southampton	0900132000100025034	708	5	a
Southampton	0900100000100013002	176	5	a
Southampton	0900100000100014000	379	5	a
Southampton	0900100000200001001	601	5	a
Southampton	0900100000100013003	373	5	a
Southampton	0900100000100013004	40	5	a
Southampton	0900132000200015003	20	5	a
Southampton	0900099000300021000	236	5	a
Southampton	0900132000200015008	404	5	a
Southampton	0900132000200009001	51	5	a
Southampton	0900132000200009002	783	5	a
Southampton	0900132000100060006	N/A*	5	a
Southampton	0900132000100060007	N/A*	5	a
Southampton	0900100000300002013	519	N/A	ь
	Southampton	Southampton 0900079000200013018 Water Mill 0900100000200001002 Southampton 0900080000100005024 Southampton 0900132000100025034 Southampton 0900100000100013002 Southampton 0900100000100014000 Southampton 0900100000200001001 Southampton 0900100000100013003 Southampton 0900132000200015003 Southampton 0900132000200015008 Southampton 0900132000200015008 Southampton 0900132000200009001 Southampton 0900132000200009002 Southampton 0900132000100060006 Southampton 0900132000100060006	Southampton 0900079000200013018 1043 Water Mill 0900100000200001002 40 Southampton 0900080000100005024 N/A* Southampton 0900132000100025034 708 Southampton 0900100000100013002 176 Southampton 0900100000100014000 379 Southampton 0900100000200001001 601 Southampton 0900100000100013003 373 Southampton 0900132000200015003 20 Southampton 0900132000200015003 20 Southampton 0900132000200015008 404 Southampton 0900132000200009001 51 Southampton 0900132000200009002 783 Southampton 0900132000100060006 N/A* Southampton 0900132000100060007 N/A*	Southampton 0900079000200013018 1043 N/A Water Mill 0900100000200001002 40 5 Southampton 090008000100005024 N/A* N/A Southampton 0900132000100025034 708 5 Southampton 090010000100013002 176 5 Southampton 0900100000100014000 379 5 Southampton 0900100000200001001 601 5 Southampton 0900100000100013003 373 5 Southampton 0900132000200015003 20 5 Southampton 0900132000200015003 20 5 Southampton 0900132000200015008 404 5 Southampton 0900132000200009001 51 5 Southampton 0900132000200009002 783 5 Southampton 0900132000100060006 N/A* 5 Southampton 0900132000100060007 N/A* 5

^{*} Parcel was included in agricultural outreach due to size and proximity to the Certified Route. Parcels will not be impacted.

Sources

- a. Agricultural Districts, New York State, Cornell University Geospatial Information Repository, https://cugir.library.cornell.edu/catalog/cugir-009010.
- b. Farmland Purchase of Development Rights, Suffolk County Open Data, https://gis.suffolkcountyny.gov/server/rest/services/LocalGovernmentSQLData/FarmlandPDRPolygon/FeatureServer.
- c. Parcel was included in agricultural outreach because the most recent aerial imagery shows signs vine cultivation on the property.

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1.2 **Relevant Certificate Conditions**

Certificate Condition 94c dictates the need for the Plan. The condition is as follows:

"During preparation of the EM&CP, a detailed drainage line repair procedure shall be developed, in consultation with the local Soil and Water Conservation District, for the repair of crushed/severed clay tile and plastic drain lines. Drawings showing the generic technique to be implemented for drain line repairs shall be provided by the Certificate Holder. All new plastic drain tubing shall meet or exceed the American Association of State Highway Transportation Officials (AASHTO) M252 specifications. The plan for the replacement of functional stone drainage systems severed during construction shall be prepared during the restoration phase, in consultation with NYSAGM and/or the Soil and Water Conservation District"1.

¹ See CECPN condition 94, part c.

SHDF EM&CP Procedures

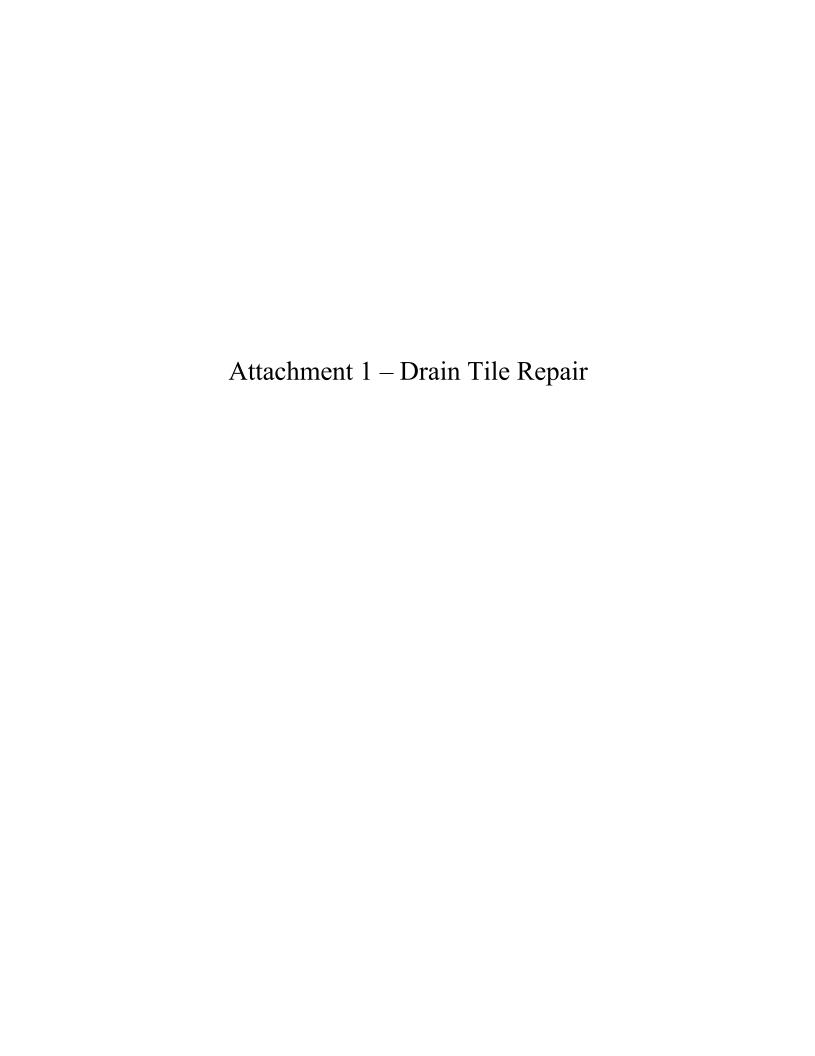
2 PROCEDURES

In the development of the Plan, consultation with landowners and the Suffolk County Soil and Water Conservation District has been initiated to identify the locations of known drain tile lines in proximity to the Project limits of disturbance. All drain tiles identified during these consultations that are in or abut the public roadway ROW will be demarcated in the field by flagging prior to construction activities commencing. No drainage features in or near the Project limits of disturbance have been identified.

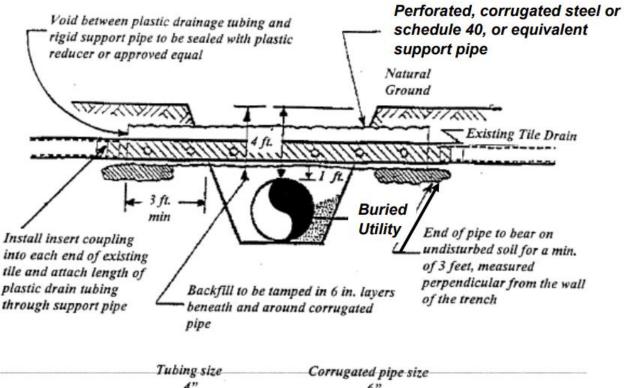
During construction, the Certificate Holder will minimize the potential for damaging drain tiles by staging equipment within the limits of disturbance and on pavement as possible. Immediately following construction activities along agricultural areas, the Environmental Monitor will conduct a visual inspection to check for evidence of drain tile damage. If any tiles are cracked or damaged by construction activities on agricultural lands, the damage will be photo documented and geo-referenced by the Environmental Monitor (photos and location shall be provided to the landowner and NYSAGM upon request).

The Certificate Holder will then remove, repair or replace any affected drain tiles as necessary to restore the preconstruction function of these tiles. Repairing the damaged tiles will be in accordance with the Repair of Severed Tile Line detail in Attachment 1, taken from the NYSAGM Construction Mitigation for Projects on Agricultural Lands standards. Tile repairs shall be reported to the landowner and NYSAGM. The Environmental Monitor will oversee drain tile repair to ensure that topsoil is properly segregated from subsoil and to prevent over excavation. Replaced tiles will assume the same gradient and alignment to the greatest extent practicable. Drain tiles shall remain at the same depth as previously installed. Care will be taken during backfilling and compaction to prevent damage to the newly repaired tile line. Following topsoil replacement and seedbed preparation, the repaired drain tile will be stabilized.

The Environmental Monitor shall continue to inspect any repaired tiles identified by the landowner as malfunctioning through restoration. Certificate Holder will consult with NYSAGM and the landowner for resolution of further repairs. If after the inspection it is determined that the repair was ineffective and requires further repair, this will be completed at Certificate Holder's cost. Certificate Holder may hire a specialist to determine the cause of the malfunctioning tile line. Thereafter, Certificate Holder reserves the right to dispute a claim for the cost of the repair between the landowner and Certificate Holder due to the malfunction of tile lines.



REPAIR OF SEVERED TILE LINE



Tubing size	Corrugated pipe size	
4"	6"	
6"	8"	
8"	10"	
10"	12"	
12"	18"	
18"	20"	

NOTES:

- All corrugated pipe to be 16 gauge steel.
- Plastic drain tubing and corrugated pipe to be installed so the holes are centered on each side of the bottom of the pipe.
- 3. All material to be contractor supplied.
- 4. The perforated rigid support pipe is shouldered back into the firm, undisturbed soil profile to ensure consistent gravity flow gradient of the tile line across the trench as the backfill material gradually settles for up to two years.