Appendix E

Inspection and Maintenance (I&M) Requirements

Parts V.D.6. and V.D.10.d. of the draft Mashapaug General Permit requires the documentation of proper inspection and maintenance of structural and nonstructural controls. The sections below provide detail on what information, at a minimum, the Permittee shall include in this documentation within their SCP.

Section 1 The SCP shall address inspection and maintenance procedures for structural stormwater control measures (SCMs) to ensure that all SCMs function as designed.

1.1. The Mashapaug General Permit lays out the following minimum attributes for maintaining records and inventories of structural SCMs in the I&M plan:

1.1.1. The plan shall include an inventory of all existing and new SCMs. The inventory shall include, at a minimum, basic information about the SCMs including:

- 1.1.1.A. Location (street address or GPS location with accuracy of +/- 30 feet);
- 1.1.1.B. Age or date of installation or retrofit, if known.
- 1.1.1.C. Condition, if applicable.
- 1.1.1.D. Ownership and party responsible for maintenance.
- 1.1.1.E. Type of SCM with the naming convention found (if applicable).
- 1.1.1.F. Drainage area in acres.
- 1.1.1.G. Impervious area, described in terms of acres draining to the SCM.
- 1.1.1.H. Design Storage Volume (DSV)[1] of the SCM (if applicable).
- 1.1.1.I. The estimated pollutant reduction achieved by the SCMs based on the methodology described in Appendix D of this Permit, if applicable.
- 1.1.1.J. Date of last maintenance activity for the treatment device.
- 1.1.1.K. Whether the physical extent of the SCM intersects with a FEMA Flood Zone Layer (i.e. A, AE, Floodway, AH, AO, and VE zones). Each of these Flood Zones reflect areas that have a 1% chance of flooding in any given year (commonly referred to as a "100-year storm") as defined by FEMA.[2] See Appendix B of this permit for guidance on determining the position of an SCM in relation to a FEMA Flood Zone.

[1] The October 2022 New England Stormwater Retrofit Manual https://snepnetwork.org/stormwater-retrofit-manual/ defines Design Storage Volume (DSV) as the total volume of stormwater that a SCM is designed to be able to effectively hold. It includes permanent system treatment volume and does not include volumes associated with peak rate or flood control (i.e., volume above the primary outlet control). Each SCM will have a different method of calculating this volume, as presented in Appendix C of the New England Stormwater Retrofit Manual.

[2] https://www.fema.gov/glossary/flood-zones.

1.1.2. A maintenance schedule for all treatment system components and related appurtenances; and

1.1.3. On-site records of the completion of regular structural SCM maintenance activities shall be maintained in accordance with the records retention requirements in Part VI.D. of this permit.

Section 2 The SCP shall address inspection and maintenance procedures for nonstructural SCMs (e.g., sweeping, catch basin cleaning, and organic waste and leaf litter collection) and site infrastructure. This shall include an inventory of the nonstructural controls that are implemented at the site and site infrastructure that is being maintained.

2.1. The Mashapaug General Permit lays out the following minimum requirements for maintaining records and inventories of nonstructural SCMs in the I&M plan:

2.1.1. Documented procedures and protocols for good housekeeping practices and/or control measures that maintain areas that are potential sources of pollutants. This includes maintaining:

2.1.1.A. parking lots, driveways, sidewalks, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by the Permittee, and waste storage locations; and

2.1.1.B. procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as accumulated sediments, floatables, and other debris).

2.1.2. Documented procedures for inspection and maintenance of catch basins:

2.1.2.A. Prioritize inspection and maintenance for catch basins located near construction activities. Clean catch basins in such areas more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings.

2.1.2.B. Prioritize inspection and maintenance for catch basins that may be prone to flooding in major storm and flood events.

2.1.3. Establish and update as necessary a schedule with a goal that the frequency of routine cleaning will ensure that no catch basin at any time will be more than 50 percent full.

2.1.3.A. If a catch basin sump is more than 50 percent full during two consecutive routine inspections/cleaning events, the Permittee shall document that finding, investigate the contributing drainage area for

sources of excessive sediment loading, and to the extent practicable, abate contributing sources.

2.1.3.B. For the purposes of this part, an excessive sediment or debris loading is a catch basin sump more than 50 percent full. A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin.

2.1.4. Drainback water resulting from catch basin cleaning shall be discharged to the sanitary sewer after seeking approval from the local sewer authority or other facility designed for the treatment and disposal of catch basin drainback water. No catch basin cleaning drainback water shall be discharged to the drainage system (i.e., MS4, private storm sewer system, or to the receiving water).

2.1.5. The Permittee shall keep a log of catch basins cleaned or inspected as part of the plan. At a minimum, this log shall include the sump depth, last cleaning or maintenance event, and estimated volume of sediment removed at last cleaning, and whether the catch basin is located within a flood zone as defined by FEMA (see section 1.1.1.K. of this Appendix).

2.1.6. On-site records of the completion of regular non-structural SCM maintenance activities shall be maintained in accordance with the records retention requirements in Part VI.D. of this permit.