EcoTec, Inc.

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SITE INSPECTION MEMO

Date: December 11, 2023

To: Douglas Conservation Commission
Applicant & Contractor Contacts

From: Arthur Allen, CPSS, CWS, CESSWI

Re: Construction Period Inspections – Oak Street Solar, 45 Oak Street, Douglas, MA (DEP File No. 143-0989)

Via E-Mail

By way of background, I, Arthur Allen of EcoTec, Inc. performed pre-construction siltation control barrier inspections in January, 2023. I met with project representatives during a January 27th inspection. I also inspected the Kroll property (abutter to the project at 78 Torrey Road, Sutton) on August 2, 2023 and provided a report documenting that inspection dated August 4, 2023.

Prior to this report, my most recent, formal inspection report was dated November 13, 2023. My most recent inspections were conducted on November 27 and December 11, 2023. A rain event of 3.25-inches had occurred in the 12 hours prior to my December 11th inspection. I met with project and town representatives during this inspection. Below you will find my comments on the project with recommendations in **bold** font. Photos of the project are attached.

As of December 11th, the entire site had been cleared with tree cuttings removed in Phases 1, 2 & 3. Phase 1 was generally completed and stable (see photos Nos. 1-3). The modified, stabilized site entrance and lay down area was functioning property and appeared to be protecting Oak Street and abutting properties from impacts due to runoff. Infiltration Basin-1 was ponded with turbid water. DEP and EPA signs remain posted at the site entrance. The Basin-1 outlet was temporarily blocked and the over-flow spillway was in place. Two sediment basins were in place and functional between Basin-1 and Oak Street with cross-swales to direct driveway runoff to the basins. The stabilized swales and stone-filled cross trenches, constructed along and across the access road leading up the hill to the solar site, were functional and clean. Phases 2 & 3 were undergoing bulk grading. The outer slopes of Basin-2 had been largely stabilized with anchored erosion control blankets and no new impacts to Wetlands A and B were noted.

Soils within Phase 3 were largely exposed during the recent rain event and significant erosion occurred. In places the erosion extended down to, and into, to the underlying glacial hardpan. The perimeter controls, berms and swales in place at the time of the rain event proved largely ineffective in stopping sediment runoff from leaving the site. As depicted in the attached photos, sediment-laden runoff was flowing over and through the perimeter controls, into Sutton, over several downgradient properties and into Manchaug Pond. A large plume of turbid water was observed within Manchaug Pond. Off-site sediment deposits were noted which require further assessment and cleanup. A protocol for off-site cleanup should be submitted for review. On-site siltation controls should be cleaned and repaired as soon as possible. Additional on-site control and stabilization measures are needed.

Thank you for the opportunity to provide these comments. Please let us know if you have any questions.

ECOTEC INSPECTION PHOTOS – SOLAR PROJECT, 45 OAK ST., DOUGLAS, MA (DEP #143-0989)

1. Wetland on south side of Holt Road culvert in Sutton (across from Manchaug Pond)

2. Manchaug Pond on north side of Holt Road culvert in Sutton

3. Vicinity Basin-5, north corner of 45 Oak Street

4. North corner at sediment discharge point

ECOTEC INSPECTION PHOTOS – SOLAR PROJECT, 45 OAK ST., DOUGLAS, MA (DEP #143-0989)

5. Erosion of overburden soils down to, and into, glacial hardpan (north corner of site)

6. Basin-2 stabilization