



EcoTec, Inc.

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SITE INSPECTION MEMO

Date: December 18, 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

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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 December 11, 2023. My most recent inspection was conducted on December 18, 2023. A rain event of at least 3-inches was in progress at the time of 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 18th, 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 properly 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.

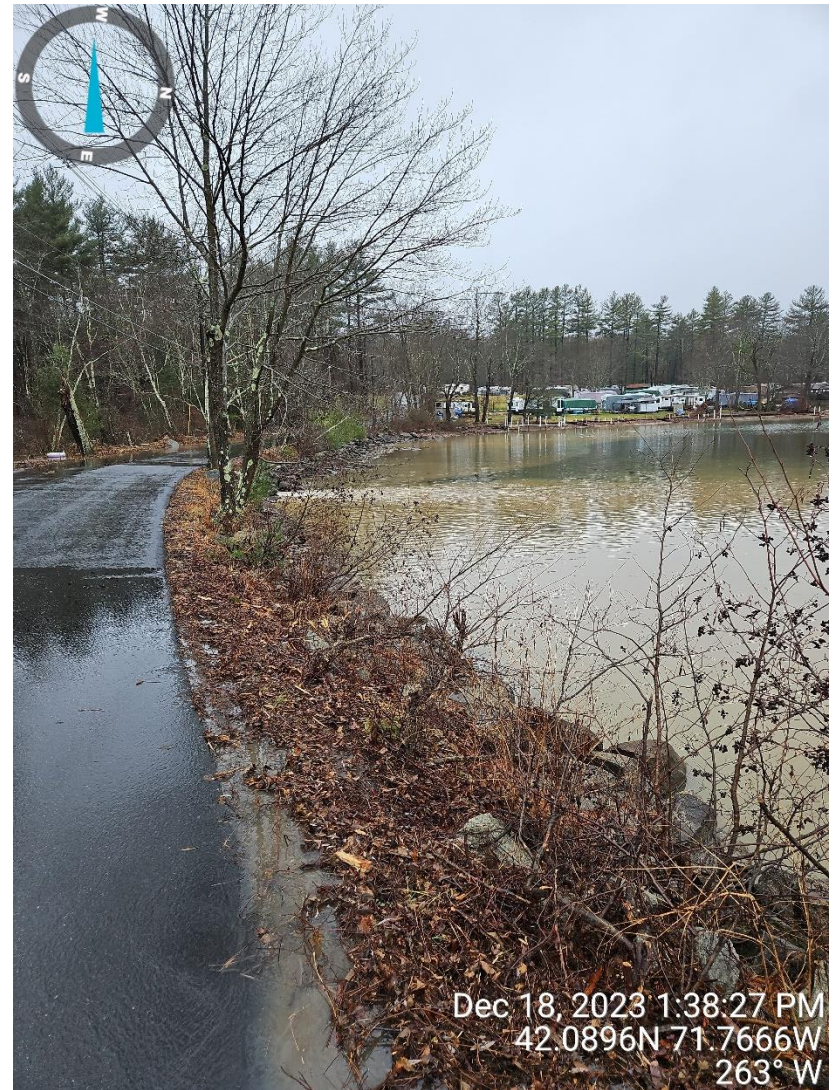
Soils within Phase 3 remained largely exposed during the recent rain event and significant erosion occurred. As noted during the December 11th inspection, the erosion extended down to, and into, to the underlying glacial hardpan. Additional swales, check dams and the rough-graded Basin-5 had been added since the December 11th rain event inspection. The pre-existing and additional 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, into Manchaug Pond, out of Manchaug Pond and into Stevens Pond. A large plume of turbid water was observed within Manchaug Pond. A smaller plume was observed in Stevens Pond (see attached photos). As noted previously, off-site sediment deposits 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

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



Dec 18, 2023 1:40:29 PM
42.0926N 71.7623W
133° SE

3. Stevens Pond (downstream from Manchaug Pond)



Dec 18, 2023 1:32:15 PM
42.0842N 71.7722W
107° E

5. Top of site



Dec 18, 2023 1:13:11 PM
42.0916N 71.7653W
141° SE

4. River between Manchaug & Stevens Ponds



Dec 18, 2023 1:27:17 PM
42.0848N 71.7706W
27° NE

6. Flow across Phase 5

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



7. North corner discharge point in Phase 5



8. Access road to Basin-5