

**New Bedford Regional Airport
Runway Safety Improvements Project – Phase 4
Reconstruct, Mark, and Groove Runway 5-23
MassDEP File No. SE049-0635**

ENVIRONMENTAL MONITOR INSPECTION FORM

Environmental Monitor: **Amanda Atwell**

Date/ Time of Inspections: **8/28/14 (morning), 9/2/14 (morning), 9/4/14 (morning).**

Weather Conditions: **mid 60s to high 70s partly cloudy to sunny. No appreciable rain within this EM review cycle. (weatherunderground.com)**

Observed Construction Activities Underway (attach additional pages if necessary):

On 8/28/14 the contractor was continuing with its topsoil grading, seeding, and electrical trenching. The contractor is also quality controlling paving work and painting. Taxiway and runway lights have been installed. Tree clearing processing operations are wrapping up. Tree clearing work is complete. The temporary lay down area is reclaimed and the contractor is spreading loam. The contractor is working within the “Area 5” north of New Plainville Road in preparation of wetland replication. The soil stockpile was moved to an area owned by the Airport and outside the active fence. This area is located outside of the 100 foot buffer to wetlands. Erosion controls that were still outstanding in Report 9 (week of 8/21/14) were fixed during this EM cycle.

On 9/4/14 the contractor is finishing spreading loam and hydroseeding onsite. Electrical trenching is ongoing and is located mostly in the RSAs of both Runways and along the ILS road. The soil overburden within the wetland replication was removed Tuesday – Thursday and microtopography is starting to be created in the subsoil. It is anticipated that microtopography, wetland topsoil, and planting will occur the week of 9/8/14.

Status of Existing BMPs and Other Inspection Items

| Control Measure | Cleaning or Repair Needed | Comments/Recommendations from the EM |
|-------------------------|--|--|
| Erosion Control Devices | <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> n/a | <p>Erosion controls were generally in good condition throughout the work zone. Erosion controls including check dams, silt fence and hay bales are in good condition. The Catch Basin 3 and 11 were appropriately covered and armed.</p> <p>The contractor repaired and restaked silt fence and hay bales in the discrete areas mentioned in the previous report. Silt fence and haybales were restaked and/ replaced within the MALSRS light pole areas. Silt fence and compost tubes were replaced along the ILS road and are generally in good condition. In a few discrete areas hay bales and silt fence have been laid down, likely from heavy equipment backing into them. Silt fence is still properly trenched and no sediment was noted beyond the silt fence in these discrete areas along the ILS road. The WS was notified and intends to mend these areas.</p> <p>Areas where previous failures were observed are continuing to be monitored and no additional issues have been observed. The contractor has an emergency supply of silt fence, hay bales and compost tubes present on the site.</p> |

| Control Measure | Cleaning or Repair Needed | Comments/Recommendations from the EM |
|---|--|--|
| Box Turtle Barriers, Gates and Protection Measures | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | Turtle barriers were in good condition at time of inspections. The moveable gate installed at the West Ditch arch culvert was functioning properly at the time of inspections. Turtle gates are in good condition. |
| Stabilized Construction Entrances, Haul Roads, Dust Control | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | The stone tracking pad was in good shape with no significant silt or sediment on the roadway. An individual from ET&L was stationed at both entrances for site access control and sediment control. The gravel access road was previously stabilized with pavement millings to minimize erosion in the buffer zone and adjacent wetlands and dust generated by the heavy construction equipment – this BMP has worked well. Epsilon observed watering of exposed surfaces throughout the work zone and sweeping the construction entrance and Shawmut Ave. by ET&L to minimize dust. |
| Stockpiling Materials | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | Contractor staging area remains in good condition. The contractor is starting to reclaim the staging area with topsoil. Sediment stockpile has been relocated beyond the Airport fence and within Airport property (Aviation Way). Stockpiles are in good condition outside of the 100 foot buffer zone. Epsilon recommends seeding, as necessary, the stockpiles once material from the stockpile is no longer needed for immediate construction. |
| Dewatering | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | Some of the electrical vaults need to be dewatered. The electrical contractor is still utilizing a shop vac and dewatering the vault to the adjacent upland area. No adverse impact was noted. |
| Construction Equipment Storage and Refueling | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | Equipment storage was located within the designated lay down area and outside of 100 foot buffers within Area 5 (top of slope adjacent to New Plainville Road) at the time of inspection. No issues were observed. |
| Site Clean-up and Stabilization | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | Areas noted in previous EM reports appear stable. Epsilon is continuing to monitor wetland resources down gradient from the erosion controls at each headwall, including the west ditch. It does not appear that sediment will need to be removed from these areas. These areas will be monitored, and cleaned and stabilized if necessary. |
| Timber Swamp Matting in Wetlands for Tree Clearing in Dartmouth | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | The contractor completed removal of the timber mats during the last EM cycle. This general area where the matting was placed is stable and is in good condition. |
| Work Area 1A – Tree Clearing in Dartmouth | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | Wagner Wood completed tree clearing and processing by 8/29/14. The contractor is reclaiming the staging area. |
| Work Area V – Wetland Replication Area | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> n/a | This work started in earnest 9/2/14. Soil overburden within the wetland replication was removed Tuesday – Thursday. Microtopography is starting to be created in the subsoil. It is anticipated that microtopography will be completed, wetland topsoil will be spread, and planting will occur the week of 9/8/14. |
| Overall Adherence to Environmental Permits | | The project site was in generally good condition during the inspection period. No obvious contradictions or intentional violations with the various permits and approvals were noted. |

Other General Comments:

On **8/28/14** – reviewed the Runway 5 end, Runway 23 end, Area 5, ILS road, timber mat removal area and stormwater headwalls. The site was generally in good condition and erosion controls were holding up nicely.

On **8/21/14** – reviewed the Runway 5 end, Runway 23 end, Area 5, ILS road, timber mat removal area, and stormwater headwalls. The site was generally in good condition and erosion controls were holding up nicely.

Open action items from the June 12 meeting with MassDEP: (1) formal proposal to stabilize interface between Turtle Area 3 and Site 6 with mulch (continuing with “wait-and-see” approach as the area has vegetated and the sand is not currently migrating; it continues to hold up well following rain events); and (2) a follow up response to MassDEP’s June 4, 2014 email regarding potential long term stabilization measures for runoff near West Ditch (the need for any additional long term runoff control measures will be determined after work is complete and site is stabilized; likely that no additional measures will be necessary based on current observations following larger storm events).

Are additional erosion control measures needed?

no yes If yes, describe:

Are sediment/pollution discharges from the site present?

no yes If yes, describe: **Previous minimal sediment discharges noted in prior reports were inspected and no new work is currently necessary.**

Describe any corrective action required at this time: **Refresh sediment controls along the ILS road in discrete areas as necessary. WS continues to work with ET&L to mitigate any potential erosion issues.**

Attach additional sheets with notes, comments, illustrations and issues as needed. Use site plan to identify locations of work areas or issues noted above: **Photos are attached.**

AA/MH



View of spreading loam on the Runway 23 end, week of 8/28/14.



View final grade stormwater drainage for Runway 23 end/ taxiway A, week of 8/28/14.

~Wetland
buffer zone



Soil stockpile site off of Aviation way. 100 ft wetland buffer was identified with stakes and flagging.



View of hydroseeding infield on 8/28/14 visit.



View of headwall leading from Catch Basin 1 & 3. Water has been clear for weeks. Slow movement percolating through the rock check dam and silt fence.



No appreciable sediment has been observed at this outfall.



View of West Ditch immediately downstream headwall 1 & 3. Water levels are down.



View of vegetation establishment post hydroseeding. This was one of the first areas to be seeded.



View of reshaped sideslopes south of Taxiway A. Taxiway lighting is completed.



View of hydroseeded area adjacent to closed off catch basin 11.



View of headwall from catch basin 11. Water is still turbid. This system will be cleaned out as part of punch list work.



No appreciable sediment has been observed at this outfall.



View of spreading loam in Contractor's laydown area. Erosion controls are in poor shape in this area but are generally no longer needed with work wrapping up and equipment removed from the site.



View of former timber mat road leading to tree clearing area in Dartmouth.



View of ILS road south of the Paskamansett River. The WS hand-seeded and spread hay along the sideslopes.



View of reestablished silt fence & compost tubes along the ILS road.



Compost tubes along the ILS road.



View of electrical manhole and a example discrete section of silt fence/ hay bales that have been disturbed. These erosion controls are still tailed in, however they need to be straightened up.



View of repair work of silt fence/hay bales in the area reported in Report #9. Sediment was removed from the wetland and erosion controls were fixed.



View of MALSR lighting pad at furthest portion of Runway 5 end MALSR. Erosion controls in good condition.



View of MALSR lighting pad at furthest portion of Runway 23 end MALSR. Erosion controls in good condition and slopes well protected with hay.



View of area between Turtle Area 3 and Site 6. This site appears to be relatively stable and responding to seeding. No additional discharges noted and vegetation is filling in nicely in the transition zone.



View of overburden excavation in wetland mitigation site. Note grey subgrade with iron redox staining.



View of overburden excavation in wetland mitigation site. Note grey subgrade with iron redox staining.



View of ongoing work to construct pits and mounds micro-topography in the wetlands mitigation site.



View of WS staking out areas for pits.