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: **5/8/14 (10am to 5pm), 5/15/14 (10am-3pm)**

Weather Conditions: **5/8/14 sunny 60s, 5/15/14 sunny 70s (weatherunderground.com).**

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

On 5/8/14 the contractor is primarily milling Runway pavement at the Runway 5 and 23 ends, stripping loam along the Runway 5 end, along the Runway 23 shoulders and creating infiltration trenches. The contractor is continuing to stockpile sediment at the Runway 5 end outside of the 100-ft buffer zone and address previous erosion control issues and maintenance.

On 5/15/14 the contractor is continuing to mill and strip sediment off of Runway 23 end and starting to construct the subbase for both Runway ends. The contractor is constructing the subbase for Taxiway A, which includes a small area of wetland fill that was extracted from Phase 2 contract; this area is periodically dewatered. The contractor removed a portion of the previous stormwater system and continues to create and sculpt the infiltration trenches. The new stormwater pipes and system will start to be installed next week. There is still stockpiled soil within the Runway5 end RSA, and erosion control maintenance is ongoing.

Status of Existing BMPs and Other Inspection Items

Control Measure	Cleaning or Repair Needed	Comments/Recommendations from the EM
Erosion Control Devices	☒**yes** ☐**no** ☐**n/a**	Erosion controls have been installed within all active work zones along the Work Area 1 (Runway from Taxiway B to 5 end) and 2 (Runway 23 end) and are complete. Erosion control has been fixed and tailed in. Silt fence in a small area along the West Ditch was found not to be appropriately tailed in, the WS was notified and this area was fixed immediately. Another area that failed along the 23 end and observed on 5/8/2014 was properly tailed in and fixed. Hay bales were installed along the 23 end. An area located immediately adjacent to the infiltration ditch culvert was exposed. The WS and EM were concerned that sediment could reach the adjacent wetland through the infiltration trench, as such the WS will install an erosion control device upslope of the culvert prior to leaving the site on May 16, 2014. On May 16, 2014 the EM instructed the WS and Site Contractor to confirm that an adequate supply of erosion controls was present on the site in the event of a heavy rain event or emergency condition. The WS indicated to the EM that there were extra hay bales and stakes on site and that ETL had ordered additional silt fence to be stockpiled on site.
Box Turtle Barriers, Gates and Protection Measures	☒**yes** ☐**no** ☐**n/a**	Oxbow has directed the site contractor and ETL to close gaps in the turtle fencing in two specific areas. EM will follow up with the WS and Oxbow early next week.

Control Measure	Cleaning or Repair Needed	Comments/Recommendations from the EM
Stabilized Construction Entrances, Haul Roads, Dust Control	☐**yes** ☒**no** ☐**n/a**	The stone tracking pad was in good shape with no significant silt or sediment on the roadway. An individual from ET&L is stationed at the entrance for site access control and sediment control. The EM witnessed the contractor watering the exposed sediment and along the Airport access road.
Stockpiling Materials	☒**yes** ☐**no** ☐**n/a**	The 100-ft buffer zone is staked proximate to the stockpile area. The small stockpile in question at the time of writing the previous report was consolidated to the larger pile. One large stockpile is located within the central portion of the Runway 5 RSA and consists of sediment from stripping the Runway 5 end. The EM and WS discussed sowing the stockpile with annual rye. Epsilon will follow up during its next inspection.
Dewatering	☐**yes** ☒**no** ☐**n/a**	A small area of authorized wetland fill is located within the footprint of Taxiway A. This area was identified as "unsuitable material" during Phase 2 construction and was purposefully delayed until Phase 4 work. The underlying material was approximately 6-ft of muck with debris from the airfield overlaying mineral soil. The contractor is removing the muck layer down to the mineral layer. The dewatering trench is periodically dewatered utilizing a pump attached to a settling tank. Water from the settling tank is discharged to the exposed soil area in the middle of the Runway 5 RSA. Discharge is monitored to ensure that water does not seep into wetlands. No significant discharge has reached the hay bale/silt fence area.
Construction Equipment Storage and Refueling	☐**yes** ☒**no** ☐**n/a**	Equipment storage is located within the designated lay down area. Refueling occurred outside of resource areas and buffer zones.
Site Clean-up and Stabilization	☐**yes** ☐**no** ☒**n/a**	
Timber Swamp Matting	☐**yes** ☐**no** ☒**n/a**	
Work Area 1A – Tree clearing and grubbing in Dartmouth	☐**yes** ☐**no** ☒**n/a**	
Work Area V – Wetland Replication Area	☐**yes** ☐**no** ☒**n/a**	
Overall Adherence to Environmental Permits		The WS submitted the West Ditch Restoration plan to MassDEP on May 12, 2014. The contractor and the WS shall continue to implement the West Ditch restoration & monitoring work.

Other General Comments:

On **5/8/14** Epsilon reviewed the Runway 5 end RSA area with the IO, and the WS. Water levels in the West Ditch had substantially subsided since the previous week's inspection. Accumulated sediment was observed in three locations within the streambed of the West Ditch that was previously obscured by high water. We recommended that it be removed immediately and the WS adhered to this schedule. Based on the Friday 5/9/14 WS report, this material was removed from the West Ditch; one area yielded approximately 4 cubic feet of sediment and rock. Three other very small areas were accessed and sediment was removed from the West Ditch if noted. The EM reviewed and commented on the proposed restoration plan that was required as a result of the disturbance to the West Ditch. On Monday May 12, 2014 the EM approved the final restoration plan and this plan was forwarded to MassDEP. Epsilon flagged the shrubs that were impacted by disturbance for future reference and monitoring.

Epsilon recommended that the silt fence be relocated at the top of the slope by the wetland resource and observed an area by the RSA 23 end where the silt fence failed and needed to be mended. Further, the Turtle Ecologist recommended a change in silt fence location mentioned previously in the table above.

On **5/15/14** Epsilon reviewed the Runway 5 and 23 ends, within the limits of the active work zone. Epsilon observed that silt fence along the Runway 5 end is in good condition and the areas of sediment accumulation within the West Ditch were removed. Silt fence in a small area along the West Ditch was found not to be appropriately tailed in, the WS was notified and this area was fixed immediately. It was noted that there are some small areas of exposed soil down gradient the silt fence by the West Ditch. It was recommended that these areas be mulched to protect from erosion of exposed sediment into the West Ditch. The area along the 23 end that previously failed and was noted during the May 8 site visit was properly tailed in and fixed. Hay bales were installed along the 23 end. Dewatering efforts are ongoing and properly executed and overseen. Sarah Porter of the New Bedford Conservation Commission conducted a site inspection with Epsilon and the WS in the afternoon.

Are additional erosion control measures needed?

☐no ☒yes If yes, describe: Relocate silt fence from toe of slope of wetland at Runway 5 end; Replenish emergency stockpiles of erosion controls; Close gaps in turtle barriers as directed by Oxbow.

Are sediment/pollution discharges from the site present?

☒no ☐yes If yes, describe: These areas were removed prior to the May 15 site visit.

Describe any corrective action required at this time: None at this time.

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 wetland area by Runway 5 end where silt fence was installed at toe of slope. Previous May 1 photos showed sedimentation in the water column. No appreciable sediment was observed one week later.

View of soil stockpile located outside the 100-ft buffer zone. This area will likely be seeded with annual rye to help stabilize.

View of check dams installed in constructed storm water swale.

View of May 8, observed sediment and rocks within the West Ditch

View of May 15, area where sediment and rocks were removed from West Ditch. The ground surface was reshaped and straw was placed in this area for stabilization. Approximately 4 CF of material were removed.

View of dewatering efforts and fill along the Taxiway A footprint (May 15, 2014).

View of settling tank as part of dewatering efforts.

View of drainage pipe from settling tank transferring water to central part of the RSA area (Runway 5 end).

View of milling work from the Runway 23 end.

View of silt fence where sediment breach occurred at the northern end of the 23 RSA.

View of 23 end blow out area from May 8, view of repairs and hay bale placement as of May 15.

View of exposed sediment on the down gradient side of the silt fence. Recommended mulching in this area.

View of patching an area of silt fence that was found to not be tailed in properly. The WS and contractor immediately addressed as soon as it was documented.

View of water truck watering exposed sediment on the runway on May 15, 2014.