

Environmental Monitor Report
New Bedford Regional Airport
Runway Safety Improvements Project
MassDEP File No. SE 049-0635

Date: March 7, 2014

To: Lisa Rhodes, MassDEP
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GZA (IO)

From: Michael D. Howard, PWS, CWS, Epsilon Associates, Inc (EM)
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CC: Erick D'Leon, New Bedford Regional Airport, Airport Manager
Robert Mallard, P.E., ASG (Project Manager, Engineering)
Scott Smyers, Oxbow (Turtle Ecologist)

Subject: **Environmental Monitor Report - New Bedford Regional Airport Runway Safety Improvement Project Phases 2 and 3; Variance Order of Conditions and Water Quality Certificate; DEP File No. SE 049-0635.**

Variance Conditions

This Environmental Monitoring ("EM") report has been prepared in accordance with Special Condition 6 of the aforementioned Variance Order of Conditions and Water Quality Certificate. This report covers work completed under Phases 2 and 3. Attached to this EM report are site photographs taken by Epsilon.

Inspection Period

Epsilon (A. Atwell) conducted monthly off-season inspections of the project site during the last week of February 2014. Epsilon inspected and took photographs of erosion control devices, Best Management Practices ("BMPs"), and overall site conditions. The new Airport Manager, Mr. Erick D'Leon, joined Epsilon for a tour of the project site.

Findings & Recommendations

Status of Construction

As noted in prior EM reports there is no active construction at the Airport and the work zone is stable. The Phase 2 site contractor, Manafort, continues to work with the Airport to complete its punch list items and close out its contract. Phase 4 work is scheduled to commence later this spring when conditions allow (April timeframe).

RW 5 RSA Gravel Access Road

Erosion controls along the RW 5 RSA gravel road are in fair to good condition. A small volume of gravel has washed through the silt fence and has collected in the area between the silt fence and the West Ditch. A very small volume of gravel has also settled in the West Ditch (no more than one "shovel-full"). The gravel may have washed into the resource area from "wave" action after vehicles drove through the ponded water during frozen ground conditions. See attached photos. There is no other evidence of sedimentation within the West Ditch. The existing silt fence may in fact be doing more harm than good at this point in the project as it appears to be acting as a dam and is causing water to pond in the gravel road. We would ordinarily recommend removing it and smoothing out the gravel berm because the fence is no longer necessary given the stability of the road - but with Phase 4 construction starting this spring the fence would only need to be reinstalled in advance of construction traffic using the road. We therefore recommend leaving it alone for now until the Phase 4 contractor mobilizes (April timeframe). There is very little gravel entering the resource area and we would propose to continue monitoring the area should conditions change such that corrective actions are needed in the short term.

RW 5 RSA Gravel Access Road at East Ditch and West Ditch Intersection

No additional erosion or new gullies has occurred in the RSA area that was previously loamed and seeded by Manafort as part of its Phase 2 work. Epsilon recommends the installation of a row of straw wattles in this location to function as check dams in order to stem further erosion until this area can be reworked and stabilized. We will follow up with the Airport Manager regarding this recommendation and indicate where we think the controls should be installed.

Turtle Area 3 / Wetland Site 6

As noted in previous EM reports, sand migrating from turtle nesting area 3 into Wetland Mitigation Site 6 has been an ongoing challenge. By design, the turtle nesting area is supposed to be comprised primarily of an exposed and semi-vegetated sandy substrate. The site contractor (Manafort) has on at least 2 occasions pulled back a small amount of sand that eroded along a slope into Wetland Mitigation Site 6 and re-set the straw wattles. Unfortunately the wattles do not appear

to be mitigating the situation. An approximately 25 ft x 5 ft wide area of sand remains in Site 6 and should be removed by hand; this area has increased since last reported. We recommend that the sand be raked out by hand, the area re-seeded with a wetland seed mix and additional erosion controls (silt fence) be installed to diffuse the runoff. We will work with the Airport to identify a long term solution to this ongoing challenge including potentially constructing a vegetated natural berm along the interface. Once the vegetation is established the sand should be better contained in the turtle area and the controls can be removed. The ground is frozen in this location but the Airport staff will make a good faith effort to remove the sand and install the silt fence in the next 2 weeks as conditions allow.

MH/AA



View of silt fence along RSA road after snow melt. The silt fence may be doing more harm than good at this point in the project as it appears to be acting as a dam and is causing water to pond in the gravel road. We would ordinarily recommend removing it and smoothing out the gravel berm because the fence is no longer necessary given the stability of the road - but with Phase 4 construction starting this spring the fence would only need to be reinstalled in advance of construction traffic using the road. We therefore recommend leaving it as is until the Phase 4 contractor moves in to repair and upgrade it before commencing work later this spring. There is very little gravel entering the resource area and we would propose to continue monitoring the area should conditions change such that corrective actions are needed in the short term.



View of discrete area of silt fence along RSA road where the fence was bent back and a small amount of gravel (one “shovel-full”) washed through.



View of turtle area 3/ wetland mitigation site 6 interface after snowmelt. This is a natural low point between these two areas where sand continues to migrate into the construct wetland. We recommend that the sand be raked out, the area re-seeded with a wetland seed mix and additional erosion controls (silt fence) be installed to diffuse the runoff. We will work with the Airport to identify a long term solution to this ongoing challenge including potentially constructing a vegetated natural berm along the interface. The ground is frozen in this location but the Airport staff will make a good faith effort to remove the sand and install the silt fence in the next 2 weeks as conditions allow.