JM Fiske Environmental

NEW BEDFORD REGIONAL AIRPORT
RUNWAY 5-23 – PHASE 4

Response to July 16, 2014 Inspection Report by GZA

This is written in response to the GZA Independent Observation Report for the site inspection dated July 16, 2014.

Attached is the detailed report from Weather Underground for the airport weather station. While the quantities do not add up to the totals for the entire event but indicate that there were several storms of high intensity that rolled through the area. The total rain event from July 15-16 was 2.44 inches. While this is not a great amount of water, it was extremely intense at times.

Observation Locations

RW5 & West Ditch Area

1. In speaking with Earle Chase who was on site as the wetland scientist on July 16th, he observed the hay bale that was not in place with Mr. Taylor. The discussion as relayed to JM Fiske was that the hay bale was dislodged and it was not clear that the hay bale had been physically removed or was dislodged when the silt fence toe failed. Earle Chase had inspected the area in the moring and while it was flooded the hay bale was in place.

2. The 81 hour shutdown involved completing the entire phase of work at the intersection of the two runways. This includes connecting center part of the drainage across the 14 runway, grinding, milling and paving the runway intersection and installing new electrical and lights in the phase. This 81-hours is a 24-hour a day operation with 2 separate crews working 12-hour shifts.

   As part of this work, the drainage pipe crew had to dewater the trench. The dewatering was directed to the swale along the RW5. The swale had a number of additional protections to provide treatment before discharge. Specifically, there were 2 rows of hay bales and 2 stone check dams and a stone inlet protection. In addition we monitored the water in the swale and at the discharge on Monday night when the dewatering started and all day Tuesday when the majority of the pipe work was complete. The pumps had not been removed when the GZA inspection occurred because it was not in the way of the 81-hour schedule.

3. There was turbid water discharged from the site as a result of the overwhelmed BMPs. WS will inspect all discharge points and report on and sediment clean up that will occur. In addition, we are working with ETL to upgrade all BMPs noted and to get an action plan put together on stabilizing the RW5 end since paving is almost complete on that end. This will include the installation of additional stone check dams in the swales.

4. The catch basin in the infield of RW5 was identified last week as needing additional BMPs. This was done on Friday afternoon. The lack of staking by ETL was an oversight. The WS identified the issues noted on Tuesday and was in process of developing a solution with ETL when GZA conducted its inspection. The area needs to be immediately stabilized because there is a concern with both the electrical work and the new pavement in this area. Temporarily we are recommending that the catch basin be covered with erosion control fabric thereby eliminating the flow out of this culvert. After that the final grading and loam needs to be installed and a seed mix immediately applied. It is recommended that the area within 100 feet of the catch basin have an erosion control blanket installed instead of the specified hydro-mulch.

5. Photo 6 shows the silt fence and hay bales being overwhelmed by the flow. This area had a second row of hay bales added per our discussion with Sarah Porter during the site walk last Thursday. In addition on Tuesday, before the storm, an additional row of silt fence was added to stop the leaks through the fence that were observed during the Thursday inspection. It would be expected that any silt fence/hay bale combination receiving water directly from a culvert outfall would be over topped. These BMPs are not designed as filters but are to trap sediment by ponding water. The goal of the current phase is to get the areas above the catch basins stabilized and vegetation growing so that the storm water system can be turned on.

RW23 RSA

This area noted as water flowing through was a modified turtle barrier. The silt fence and infiltration trench has failed several times including the first storm after it was installed. This fence receives only stormwater from the grassed area and is not receiving any direct construction storm water discharge. After 3 or 4 times repairing this fence the solution was to relieve the pressure from the water build up by installing the silt fence on a small stone pad that will allow the water to pass through. This fence is a low point in the previously installed infiltration trench and swale from Phase 3. The discharge at this point is to an upland and not directly to wetlands.

Action Items

1. JM Fiske and ETL Corp have develop a a list of action items to be addressed today and tomorrow.
2. JM Fiske and ETL will provide a timeline and details of the stabilization of the RW5 runway.
3. Based on the BMP failures during the hurricane and this last storm, some of the BMPs may have loosened or are not as secure as they appear. We will re-inspect all silt fenc and hay bales to ensure they are properly secured.
4. JM Fiske will inspect all catch basins to ensure BMPs are properly installed. We are recommending that all areas be stabilized ASAP within 100 feet of all catch basins that are installed including loam seed and mulch.