UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

In re Sterling Suffolk Racecourse, LLC	NPDES Permit No. MA0040282

AFFIDAVIT OF KENNETH DESHAIS

I, Kenneth Deshais, affirm under oath as follows:

1. I am a senior Project Scientist with Tetra Tech. Tetra Tech has been retained on behalf of Sterling Suffolk Racecourse, LLC ("Suffolk Downs" or "Suffolk") to, among other things, assess and design systems to address surface water discharges for the stables and portions of the racetrack known as Suffolk Downs in East Boston and Revere, Massachusetts.

2. I submit this affidavit in support of the Comments of Suffolk Downs on the Draft National Pollutant Discharge Elimination System ("NPDES") Permit, No. MA0040282, proposed by EPA New England, Region 1 ("EPA") and the Massachusetts Department of Environmental Protection ("MassDEP"). Unless otherwise noted, capitalized terms in this affidavit have the same meanings as the same terms in Suffolk's Comments.

3. I make the following statements based upon my personal knowledge and review of documents associated with the project.

4. I have reviewed the Fact Sheet that EPA and MassDEP have issued in support of the draft NPDES Permit as well as Suffolk's Comments.

5. Suffolk performed various construction activities in late 2011 and early 2012 to control its discharges of process wastewater and make other environmental improvements.

6. What Suffolk calls outlet PWP-1 is not the same as Outfall 001 described in the Draft Permit. Suffolk's PWP-1 does not discharge to Sales Creek. Instead, PWP-1 is at the end of a 30-inch pipe that discharges process wastewater from the Production Area to the Storage Pond. By contrast, Outfall 001 is a riprap slide that leads to a vegetated swale. The swale connects to Sales Creek.

7. Similarly, Suffolk's PWP-2 and Outfall 002 are distinct drainage points. Suffolk's PWP-2 does not discharge to Sales Creek. Instead, PWP-2 is at the end of an 18-inch pipe that discharges process wastewater from the Production Area to the Storage Pond. By contrast, Outfall 002 is a riprap slide that leads to a vegetated swale. The swale connects to Sales Creek.

8. There is no reasonable potential for discharge of oil and grease from Outfalls 001 and 002. The NSMP restricts the use of vehicles in the Production Area. Those restrictions have succeeded in preventing oil and grease from ending up in Suffolk Downs's process wastewater. Since the summer of 2012, Suffolk Downs has been discharging to the Boston Water and Sewer Commission's sewer system, which in turn discharges to the MWRA system, process wastewater collected in the Storage Pond. Suffolk Downs has tested those discharges monthly. Each sample has had no detectable amounts of oil and grease. True and correct copies of such testing results are attached as Exhibit 1 to this Affidavit.

9. Suffolk Downs has installed a gauge on the Storage Pond's inlet-control structure. That gauge permits Suffolk Downs to determine whether the Storage Pond has the capacity to contain a 25-year, 24-hour storm event. The gauge obviates the need for any additional depth marker in the Storage Pond.

10. Outfall 003 does not discharge directly to Sales Creek. Instead, it discharges at a "flow-through" pit located in the wetlands that are adjacent to the Creek. The end of the pipe is buried beneath that pit. Discharges from the pit diffuse through heavy vegetation. The pit also collects stormwater runoff present in the wetlands and adjacent uplands.

11. The elevations of the drain line and the flow-through pit at Outfall 003 (which is approximately three feet deep) cause the drain pipe to surcharge. Discharge to the flow-through pit occurs at Outfall 003 as hydraulic head builds in the drain line and effluent percolates through the soil.

12. Following the 2011-2012 construction activities, horses do not affect the discharges at Outfall 003. Roof runoff composes the majority of the Production Area stormwater that Suffolk contributes to the drain line leading to Outfall 003. The drain line leading to Outfall 003 also is likely picking up groundwater from Suffolk's property.

13. There is at least one drain line located outside of Suffolk's property that contributes flows to a Suffolk-owned drain line that empties at Outfall 003. Because Outfall 003 is submerged, it is impossible to tell whether Suffolk's drain line, or off-site drains that connect to Suffolk's line, pick up groundwater even during dry weather.

14. Groundwater infiltrates into the drain pipe leading to Outfall 004.

15. Process wastewater and racetrack runoff never have discharged through Outfall 004. Horses never have had contact with any of the water that discharges at Outfall 004.

16. Runoff discharged from Outfall 005 originates on roofs of buildings within the Production Area. There also appears to be some groundwater infiltration to the line discharging at Outfall 005. Horses have had no contact with that runoff since Suffolk's 2011-2012 construction activities.

17. Prior to Suffolk's 2011-2012 construction activities, Outfall 006 consisted of two pipes, an eight-inch line and a 24-inch line, which discharged to a tributary stream bordered by vegetated wetlands. Both the tributary stream and wetlands are adjacent to the eastern bank of Sales Creek.

18. Until the 2011-2012 construction was completed, sampling at Outfall 006 occurred in the mixing zone of the two pipes.

19. Prior to 2011-2012, the eight-inch pipe at Outfall 006 discharged road runoff from Tomasello Way and Revere Beach Parkway/Winthrop Avenue, as well as minor amounts of sheet flow originating from a small portion of the Production Area.

20. Prior to 2011-2012, the 24-inch pipe at Outfall 006 discharged runoff from the Production Area as well as road runoff generated along Revere Beach Parkway/Winthrop Avenue and a portion of Washburn Avenue. Road runoff entered the 24-inch pipe through multiple connections within the Suffolk Downs property. Dry-weather observations of the discharges from the 24-inch pipe prior to 2011-2012 suggest that groundwater also was infiltrating the pipe.

21. After the 2011-2012 construction, the eight-inch pipe at Outfall 006 continues to discharge runoff generated from Tomasello Way and Revere Beach Parkway/Winthrop Avenue. The pipe no longer receives any substantial sheet flows from the Production Area.

22. After the 2011-2012 construction, the 24-inch pipe at Outfall 006 discharges runoff from the aisle parking area and roadway on the north side of Suffolk Downs (an area now designated as Non-Production Area), but only if such runoff exceeds the infiltration capacity of three infiltration islands. Any excess capacity discharges directly to the 24-inch drain line at Outfall 006, and never enters Suffolk's process-water diversion system.

23. The 24-inch pipe also receives roof runoff from certain buildings within the Production Area. The 24-inch pipe continues to discharge road runoff generated in Revere Beach Parkway/ Winthrop Avenue and a portion of Washburn Avenue.

24. As Suffolk's 2011-2012 construction did not replace the eight- or 24-inch lines (or an eighteen-inch line that is the principal connection to the 24-inch line), the eight- and 24-inch lines likely continue to discharge groundwater. The 24-inch line associated with the 006 Outfall is partially submerged and the discharge location also receives surface runoff from adjacent uplands.

25. All Production Area runoff discharged through Outfall 006 originates solely on roofs of buildings within the Production Area. Horses have had no contact with that runoff since Suffolk's 2011-2012 construction.

26. As part of its 2011-2012 construction, Suffolk Downs substantially diverted the runoff from the parking area, located west of the fence that separates the track maintenance area from the parking area away from the track maintenance area. The parking area's runoff no longer can reach Outfall 007.

27. Since construction of the sediment forebay located adjacent to Outfall 007, there has been no observed discharge at Outfall 007.

28. Outfalls 008, 009 and 010 each drain a BMP sand filter. The sand filter underdrains are reasonably likely to pick up groundwater, which in turn commingles with track runoff that has entered the sand filter. Outfalls 009 and 010 also are outlets for an underdrain system that is beneath the Storage Pond.

29. Prior to Suffolk's 2011-2012 construction activities, Outfall 011 consisted of a twelve-inch corrugated plastic pipe that connected to a concrete vault in the vicinity of BMP-5. The vault received runoff from the racetrack's drain system.

30. Following construction, Outfall 011 is a six-inch solid PVC pipe connected to the underdrain of the sand filter identified as BMP-5. Outfall 011 discharges track runoff and any groundwater that enters BMP-5's underdrain. There is no drainage swale near Outfall 011.

31. None of the monitored outfalls (Outfalls 001 through 011) is reasonably likely to result in a discharge of process wastewater from the Production Area, even in dry weather.

32. Following its 2011-2012 construction, Suffolk Downs' "continuous" discharges are limited to relatively low amounts of groundwater, and no process wastewater whatsoever. Stormwater comprises the bulk of its non-continuous discharges. Such discharges occur during storm events. Such storm events are unlikely to occur simultaneously with a low-flow condition in Sales Creek.

33. The current grading and berms around the Production Area substantially separate the Production Area from the Non-Production Area, and substantially prevent flows from travelling from one area to the other.

34. Following Suffolk's 2011-2012 construction program, dedicated drains that solely collect roof runoff from the Production Area discharge through three outfalls, Outfalls 003, 005 and 006.

35. Roof runoff discharged through Outfall 003 commingles with groundwater and apparent off-site sources from Washburn Avenue outside of Suffolk Downs. Roof runoff discharged through Outfall 006 commingles with groundwater, discharges from the northern drive-aisle's BMPs, and drainage from Revere Beach Parkway/ Winthrop Avenue (again, outside of Suffolk Downs).

36. It is impossible at the locations identified in the Draft Permit as Outfalls 003 and 006 to distinguish permitted discharges from Suffolk Downs from offsite flows.

37. To obtain samples of authorized discharges prior to mixing with other discharge streams, in accordance with MSGP, Part 6.1.2, Outfall 003 should be tested at one of the downspouts that contribute to Outfall 003, and Outfall 006 should be sampled at DMH-8.

38. Outfalls 008, 009 and 010 are located in the infield of Suffolk Downs's track. They each receive, or have the potential to receive, the same effluents: discharges from the sand filter underdrain, sand filter overflow, and track runoff that overflows the weir of the sand filter diversion structure. Outfalls 009 and 010 also receive discharge from the storage pond underdrains that contain the same effluents.

39. Outfall 011 is different from Outfalls 008, only to the extent it doesn't lead to a drainage swale and is different from Outfall 009 and 010 to extent it doesn't discharge to a drainage swale or receive discharges from the storage pond underdrains. The BMP underdrain that discharges through Outfall 011 functions the same as the other sand-

filter underdrains. Outfall 011 should discharge substantially identical effluent as Outfalls 008, 009 and 010.

40. Suffolk Downs does not continuously staff its facility with personnel who can perform the testing required in the Draft Permit at all hours and ensure delivery to a certified laboratory. Activities in the Production and Non-Production Areas largely occur during normal business hours.

41. I have reviewed the NPDES permits and fact sheets for Solutia Inc. (NPDES Permit No. MA0001147), St. Gobain Abrasives (NPDES Permit No. MA0000817) and Texas Instruments, Inc. (NPDES Permit No. MA0001791). According to their permits, each of these facilities would appear to have greater dry weather discharge impacts and flows than those dry weather discharges from the Production and Non-Production areas of Suffolk, yet each contains, with the exception of flow, pH, and temperature in some instances, only monthly (or in some instances, more infrequent) monitoring requirements. Monthly testing of Outfalls 003, 004 and 006 will adequately assure compliance with the Draft Permit's requirements.

42. The only sources of the discharges from each of the regulated outfalls are process wastewater (in extreme events), stormwater and groundwater. The latter sources do not result from any "industrial" process. As for Suffolk Downs's process wastewater, Suffolk Downs's testing of its discharges to the MWRA show that the pH of those discharges ranges between 6.8 and 7.95. Additional pH testing will not result in any greater compliance with the Permit's proposed limits.

43. The gutters and downspouts installed in 2011-2012 within the Production Area operate as designed. Additional inspections would be useful only for identifying maintenance needs. Monthly inspections of the Production Area gutters and downspouts would achieve the reasonably same level of permit compliance as weekly inspections.

I hereby state that the information set forth herein is true, to the best of my knowledge and belief.

Signed this 29th day of March, 2013, under the pains and penalties of perjury.

Kenneth Deshais