

## **MIAMI INTERNATIONAL AIRPORT STORMWATER SAMPLING AND MONITORING PROGRAM – FIELD & REPORTING SERVICES**

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**Client Name:** *Miami-Dade Aviation Department*

**Type of Service:** *Stormwater Sampling & Monitoring Program – Field/Reporting Services*

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Milian, Swain & Associates, Inc. (MSA) has provided professional engineering consulting services for the past ten years for the stormwater sampling/monitoring program at Miami International Airport (MIA). The scope of services included the following:

### **Field Services:**

***Sampling Events*** - The stormwater sampling/monitoring program has been conducted pursuant to the existing permits and requirements of the U.S. Environmental Protection Agency (EPA), South Florida Water Management District (SFWMD), Florida Department of Environmental Protection (FDEP), and Miami-Dade Department of Environmental Resources Management (DERM). Stormwater sampling, laboratory analysis and reporting followed the MIA Stormwater Sampling and Monitoring Program Protocol, provided to MSA by MDAD. MSA coordinates with the MDAD-designated laboratory to provide appropriate pre-cleaned sample bottles and shipping containers. The surface/stormwater sampling programs are executed as follows:

***Monthly Background Sampling Events (6 total)***- In accordance with the current SFWMD permits, field measurements were performed and surface samples were collected from the six (6) locations (primary outfalls OF-1, OF-2, OF-3, OF-4, OF-5 and OF-5B). Access to the sampling points was landside for all outfalls with the exception of OF-4. Six (6) monthly events were completed starting in September each year. DERM and MDAD received 48-hour notification and were kept informed of postponements.

***Primary Storm Sampling Events (3 total)*** - One (1) event sampling was conducted in September each year (rainy season), One (1) event sampling was conducted on October through December each year (dry season) and One (1) event from January through February each year. MSA conducts storm event sampling as the opportunity arises, at the five (5) event sampling locations (Primary Outfalls OF-1, OF-2, OF-3, OF-4 and OF-5).

***Secondary Outfall Sampling Events (3 total)*** - The objective of stormwater sampling at secondary outfalls was to monitor water quality at locations upstream of the primary outfalls. This data was useful in providing insight into the origin of exceedences. The samples were collected every other month in conjunction with the background primary outfall events for a total of Three (3) events (3 events at one location SEC4).

***Best Management Practices (BMP) Sampling Events (2 total)*** - The objective of this task was to assess the effectiveness of the first flush diversion and oil/water separator systems at MIA. The samples were collected from the following three (3) locations: BMP1, BMP2 and BMP3.

***Investigative Sampling (3 total)*** - From time to time, samples taken under any of the above tasks require further investigation in order to determine the validity of the laboratory results, or to determine the cause of possible exceedences. Up to three (3) investigative sampling events were performed.

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### **Reporting Services:**

***Data Analysis and Laboratory Coordination*** - A certified laboratory, under direct contract with MDAD, performed the analyses of the samples collected. MSA kept abreast of turnaround times and coordinated with the laboratory to obtain the analytical results in the timeliest manner feasible. MSA verified data quality and identify trends.

***Reporting*** - This task consisted of preparing and submitting reports to MDAD for review and distribution to the appropriate regulatory agencies. MSA submitted six (6) copies of each report as described below.

***SFWMD Annual Discharge Permit Report*** – MSA prepared the SFWMD Annual Discharge Permit Report, covering the period of July through June of each year.

***BMP Sampling Event Report*** - MSA prepared one (1) BMP sampling event report which included a summary of the sampling at selected first flush diversion oil/water separator systems at MIA. MSA provided analysis of the performance based on the removal of design (and non-design) parameters.

***Monthly Information for Annual Report Preparation*** - MSA provided preliminary data summaries of sample results. For the primary storm and secondary sampling events, the data tabulation consisted of an informal faxed summary of the analytical results. For the monthly (background) sampling results, the advance summaries were more formal (such as in a letter format), consistent with the purpose of reporting exceedances and to describe possible explanations. When the sources of reported exceedances were not readily identifiable, MSA proposed investigative sampling, technical support and regulatory agency assistance.

***Investigative Sampling Report*** - From time to time, samples taken under any of the above tasks require further investigation in order to determine the validity of the laboratory results, or to determine the cause of possible exceedances. Up to three (3) investigative sampling events were reported.