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AGGREGATE FACILITY SWPPP AND TPDES MSGP COMPLIANCE IN TEXAS

PROJECT OVERVIEW

[📍 Rosenberg, Texas](#)

A Texas aggregate materials facility in the Rosenberg area required stormwater compliance support for outdoor bulk material handling and processing operations. The site included exposed sand stockpiles, material staging areas, vehicle activity, maintenance, and refueling areas. ESE was engaged to prepare a site-specific Stormwater Pollution Prevention Plan (SWPPP) and support TPDES Multi-Sector General Permit compliance under TXR050000. The objective was to establish defensible stormwater controls, monitoring procedures, and record keeping systems for ongoing operations.

CHALLENGES

The facility was regulated under TPDES MSGP Sector J for construction sand and gravel activities, with sediment, total suspended solids, and nutrient parameters as key compliance considerations. Outdoor stockpiles, dust suppression, traffic tracking, maintenance activities, and fuel storage created potential pollutant pathways during qualifying storm events. The site also required evaluation of off-site run-on from adjacent agricultural and livestock areas, two stormwater outfalls, and receiving water conditions.

ESE'S APPROACH

ESE developed a SWPPP aligned with Clean Water Act, TCEQ, and TPDES MSGP requirements for Sector J industrial stormwater discharges. The approach included field-based source identification, drainage mapping, outfall characterization, BMP selection, inspection procedures, and monitoring protocols. ESE also integrated spill response, training, maintenance logs, and sampling documentation into a practical compliance system for facility personnel.

KEY ELEMENTS IMPLEMENTED

- Prepared a site-specific SWPPP for TPDES MSGP TXR050000 Sector J coverage
- Developed drainage area mapping, receiving waters review, and outfall documentation
- Identified exposed materials, pollutant sources, and potential agricultural run-on
- Established structural and non-structural BMPs for sediment, tracking, fuel, and maintenance areas
- Created quarterly inspection, visual monitoring, benchmark sampling, and annual reporting procedures
- Implemented spill response, training, rainfall logging, and SWPPP revision records

RESULTS

The facility obtained a structured compliance framework for managing industrial stormwater under the TPDES MSGP. The SWPPP clarified responsibilities, monitoring schedules, BMP expectations, and documentation requirements across operational teams. The program reduced compliance risk by linking field controls directly to permit conditions, outfall monitoring, and required record retention.

PROJECT IMPACT

The project strengthened long-term audit readiness by converting permit requirements into site-specific procedures, forms, maps, and inspection tools. Facility staff gained a clear system for maintaining stormwater controls, documenting corrective actions, and responding to qualifying storm events. The resulting SWPPP supports defensible compliance management for aggregate operations in Texas.