



Representative Stormwater and Wastewater Projects

Representative Projects:

- Residential stormwater and wastewater system design and construction oversight - 500 acre residential subdivision
- Stormwater and wastewater system analysis and reconfiguration
- Erosion control system design and construction
- Drainage channel construction
- Stormwater permitting
- Stormwater Pollution Prevention Plans



Residential stormwater and wastewater system design and construction oversight - 500-acre residential subdivision:

- Interfaced with local permitting agencies and engineering and construction inspectors.
- Performed oversight of ground survey crews.
- Performed preliminary and detailed design of detention ponds.
- Performed preliminary and detailed design of streets and water and wastewater lines incorporating an 1000-watt lift station with an 18-inch interconnecting pipeline.
- Managed material take-offs for procurement.
- Provided oversight for system construction.

Stormwater and Wastewater System Analysis and Reconfiguration:

- Assessed refinery stormwater collection and handling system and performed characterization of area- and outfall-specific flows. Activities included flow, treatment, and holding capacity assessment of existing facility systems, sediment controls, and separator systems. Assisted in reconfiguration of stormwater and wastewater handling systems to implement water conservation, treatment, and reuse of wastewater.
- Performed survey of existing stormwater and wastewater flow lines at a 140-acre operating refinery and petroleum storage facility. Performed assessment and remediation of the facility's firewall systems and flow-handling equipment.
- Performed Seismic Tomographic Imaging project on sewer system at a major oil refinery to evaluate soils around sewer lines.
- Performed a pilot test of innovative wastewater treatment technologies on refinery wastewater processes to reduce energy costs required for treatment. Based on the results of the test, successfully expanded existing facility treatment capacity while reducing unit footprint requirements.

Erosion Control System Design and Construction

- Designed and installed erosion control systems at multiple sites for multiple construction and remediation projects.
- Team with Certified Professional in Erosion and Sediment Control.

Drainage Channel Construction

- Performed construction oversight for drainage channel improvements at a site impacted with pesticides and herbicides. Tasks included health and safety preparations, evaluating subcontractor compliance with design specifications during construction, and field-verifying performance of an erosion control system installed in the drainage channel.

Stormwater Permitting

- Developed permitting strategies under the U.S. Environmental Protection Agency's (USEPA's) NPDES for storm water and industrial wastewater programs for industries subject to categorical effluent guidelines such as chemical manufacturing, wood products, steel mills, metal products manufacturing, and bulk storage terminals.

Stormwater Pollution Prevention Plans (SWPPP):

- Prepared SWPPPs for power generation facilities, natural gas pipeline compressor stations, marine fabrication facilities, airports, oil-field service facilities, chemical manufactures, bulk petroleum storage facilities, mining equipment facilities, and miscellaneous manufacturing facilities.
- Performed facility audits to differentiate stormwater vs. non-stormwater discharges, identify potential pollution sources, and developed and assisted facilities in the implementation of Best Management Practices to minimize impacts to stormwater discharges.