# Stormwater Services



There's a reason industry leaders turn to Apex for stormwater solutions. It's because, simply stated, we're stormwater experts. Our specialties are as comprehensive as our coverage. No other firm comes close to delivering the depth and breadth of services that we do. From the design and construction of new systems to repairing, restoring, and retrofitting your existing infrastructure, and all the stormwater compliance challenges in between—we can address your needs quickly and cost-effectively.

## **Stormwater Management Services**

#### Maintenance

- Vegetation management
- Sediment removal
- Trash and debris removal
- · Underground system cleaning
- · Sand filter and vault cleaning
- Erosion and scour repair
- Dry well maintenance
- Animal removal and control
- Invasive species control

## **Engineering Support**

- Permitting through agency review and approval
- Hydrologic modeling of new and existing systems
- Stormwater Prevention and Pollution Plan (SWPPP) development
- Stormwater permit negotiation and renewal
- PE certification
- Stormwater fee advisory services
- Permit sampling and program compliance
- Stormwater management system design
- National Pollutant Discharge Elimination System (NPDES) permitting/reporting

## **Inspection Services**

- Compliance inspection
- Confined space inspection
- Video inspection
- Bond release
- As-built certification
- Database development
- GPS mapping
- · Portfolio analysis
- · Cost estimating and budget analysis
- NOV resolution

### Repair and Rehabilitation

- Dredging and sediment removal
- Dam stabilization and restoration
- Riser and pipe repair/replacement
- Rip rap replacement
- Waterproofing and relining
- · Erosion repair
- Wetland buffer planting
- Stream restoration
- Removal and elimination of significant overgrowth
- Slope stabilization



## **Relevant Projects**

# Green Infrastructure Inspection and Maintenance Low Impact Development (LID) Facilities • Chesapeake Bay Region

Apex is currently performing inspection and maintenance for approximately 350 LID facilities. These facilities include bioretention ponds, vegetated swales, treebox filters, infiltration trenches, green roofs, and permeable pavement. Typical routine maintenance includes plant maintenance/installation, weeding, mulching, reseeding, watering, slope stabilization, erosion repair, rip rap installation, permeable pavement vacuuming, permeable pavement pressure cleaning, underdrain flushing and sediment/debris removal. Non-routine maintenance includes treebox filter restoration, bio-retention/infiltration facility construction/repair, and underdrain system construction/repair.

# Inspection and Maintenance American Multinational Retail Corporation • Nationwide

Since 2002, Apex has provided comprehensive stormwater maintenance services at over 800 locations, on a pre-determined frequency based on the stormwater assets and regulatory framework. Our team also removes sediment and debris from catch basins, curb drains, and channels; maintains vegetation associated with stormwater best management practices (BMPs) such as swales and ponds; provides routine inspection and cleaning of manufactured subsurface water quality devices including cleaning/replacing filters; identifies damaged or failing infrastructure to allow for timely repairs; identifies and remedies non-compliance events such as leaking compactors and other unpermitted discharges; and pursues and captures associated credit (where available) related to stormwater fees and utilities. As a result, we have eliminated our client's Notices of Violations associated with stormwater regulations.

## Inspections

### Leading Provider of Specialty Automobile Parts • Nationwide

Since 2012, Apex has assessed approximately 100 client locations (e.g. self-service auto yards, vehicle salvage, and automobile shredding/processing facilities) annually, while using our proprietary ARTEMIS® system for field data collection and report delivery. We also prepare approximately 40 Stormwater Pollution Prevention Plans (SWPPPs) and Spill Prevention, Control, and Countermeasure (SPCC) plans annually, respond to regulatory inquiries, and assist in the design and installation of BMPs.



# Inspection and Maintenance American Chain of Convenience Stores • Eastern US

Apex is currently providing comprehensive stormwater services for a \$12B chain of convenience store/gas stations with over 750 locations. Their objective was to proactively manage and track their stormwater, wastewater, and environmental programs across their portfolio. As part of the solution, Apex provided comprehensive site audits to evaluate the current condition of the stormwater infrastructure and identify and rank items in need of maintenance and repair. These audits were accomplished with a customized electronic field data collection form and included geolocating all relevant structures.

### Inspections

### Leading Operator of Shopping Centers • Nationwide

Apex evaluated the stormwater systems at over 300 shopping center locations nationwide. We provided a physical inspection of each property; documentation of the existing conditions; evaluation of the local regulatory requirements; and cost estimates for initial work, repairs, and ongoing maintenance. We also provided a ranking system so the client could easily and accurately prioritize work and allocate budget and resources as needed.

