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From Experience

Stormwater Permitting: A Clear Path to Compliance

Every construction project begins with a vision, but the ability to execute that vision depends on a clear permitting strategy. Stormwater permitting is not simply an early milestone: It is the regulatory framework that governs site layout, grading, drainage infrastructure, and construction sequencing. Because authority and standards vary by jurisdiction, the process outlined below must be approached as a project-specific compliance effort rather than a standard template.

- **Mapping the Regulatory Terrain.** Stormwater requirements originate from the federal Clean Water Act, but implementation is administered at the state and local levels. Depending on the jurisdiction, review authority may involve state environmental agencies, municipal reviewers, and Soil Conservation Districts. (Read an example of this in action in Experience in Brief.)
- **Erosion and Stormwater Reviewed Separately.** Erosion and sediment control is often reviewed by Soil Conservation Districts because their regulatory focus is construction-phase risk. Their concern is exposed soils, stabilization timing, and preventing sediment transport during grading activities. Stormwater reviewers evaluate long-term hydrologic performance, including runoff reduction, infiltration feasibility, water quality treatment, and post-construction system function. These reviews are complementary but not redundant. Effective permitting aligns both scopes without gaps, conflicts, or avoidable rework.
- **Interpreting the Code and Meeting Reviewer Expectations.** Regulatory language is rarely self-executing. Even where multiple Authorities Having Jurisdictions (AHJs) adopt similar standards, interpretation and documentation expectations can vary by reviewer, office, or municipality. In practice, differences often arise around infiltration feasibility and mounding requirements, groundwater separation approaches, hydrologic parameter selection, and rounding conventions for modeling inputs. In these environments, design is driven by compliance constraints. The permitting framework sets the allowable solution space, and engineering refines the most constructible option within it.
- **Package Assembly and Submittal.** Once the preferred concept is established, the stormwater submission package is compiled. A typical Stormwater Management Report and plan set will include:
 - Pre- and post-development hydrology and hydraulics
 - Best Management Practices (BMP) sizing, routing, infiltration feasibility inputs, and discharge calculations
 - Drawdown verification and groundwater separation documentation
 - Temporary measures through a phasing plan or Stormwater Pollution Prevention Plan (SWPPP), depending on the jurisdiction and permit type.

Submittal completeness and internal consistency are critical: Many review cycles are extended by mismatches between narratives, drainage maps, details, and modeling outputs.

- **Review Cycles and Design Iteration.** Review comments are an expected part of the process and should be treated as technical coordination, not a rejection. Common comment themes include time of concentration methodology, storage accounting, drainage area delineation, map conventions, and code-specific site requirements. Review agencies often evaluate more than calculations. They evaluate whether the system will perform under real maintenance conditions and over the life of the site.
- **Variances and Alternative Compliance Paths.** There are conditions where full compliance is not physically achievable due to soil limitations, shallow groundwater, site constraints, or existing infrastructure conflicts. In those cases, variances or alternative compliance approaches may be available, typically requiring a performance-based justification and additional documentation. Examples include filtration practices in place of infiltration or offsite treatment mechanisms where permitted. Note that these paths are not shortcuts: They shift the burden to documentation quality, technical justification, and coordination with the reviewing agencies.
- **Approval and Construction-Phase Compliance.** Approvals may be issued through stamped plan sets, formal letters, or digital permit notices. Regardless of format, approval establishes the conditions under which construction may proceed. Stormwater and erosion control compliance continues during construction through inspections, stabilization requirements, erosion control logs, and documentation that supports permit maintenance. Once final stabilization is achieved, typically through permanent vegetation or hardscape completion, a Notice of Termination may be submitted to close out the permit, where applicable.

Stormwater permitting is a structured coordination process across agencies with different mandates and review horizons. Successful outcomes depend on early identification of the applicable authorities, disciplined interpretation of code requirements, consistent documentation, and a design approach that is engineered for compliance. When executed well, permitting becomes a predictable workflow that supports constructible design and reduces schedule risk.

Experience in Brief

As noted, stormwater reviews may require input from multiple agencies. For example, on a recent Hixson project in New Jersey, stormwater and land disturbance approvals were coordinated across three entities: the state, administering the stormwater rules under N.J.A.C. 7:8, the regional soil conservation district, certifying soil erosion and sediment control plans, and the township, applying local ordinance requirements and municipal review standards. This type of structure is common in many regions. One site may require multiple parallel reviews with different submission formats, thresholds, and acceptance criteria.

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CONTACT US

Steve Guyer, P.E. , Department Manager, Civil Engineering

sguyer@hixson-inc.com