Alabama Construction Stormwater Professional (ACSP)

Scope of Practice

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Foreword

Alabama is home to one of the most biodiverse aquatic ecosystems in the world. Construction activity is a significant source of sediment and pollutant loading to its rivers, streams, and wetlands. When land is cleared and graded without competent intervention, energy associated with rainfall and runoff result in accelerated soil erosion potentially causing sediment and other pollutants into Alabama's waterways — degrading habitat and impairing water quality.

The federal Clean Water Act and Alabama's construction stormwater regulations establish the framework within which this threat is managed. But regulation alone does not protect water quality — competent professionals do.

The Alabama Construction Stormwater Professional (ACSP) credential identifies individuals with the knowledge, experience, and judgment to plan, implement, and oversee effective construction stormwater management in Alabama. This document describes their scope of practice and the foundational knowledge upon which that practice depends.

Professional Scope of Practice

ACSPs support construction project planning, design, and delivery. The primary professional obligation of an ACSP is the protection of water quality throughout all phases of project delivery and land-disturbing activity with consideration given to post-construction operation and maintenance needs. ACSPs have leadership roles in pre-construction planning and design through construction and final site stabilization.

A central regulating document in this role is the Alabama Construction General Permit (CGP) ALR100000, administered by the Alabama Department of Environmental Management (ADEM), and grounded in the technical standards of the Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas (sometimes referred to as the Alabama Handbook or the Blue Book).

Development of a Construction Best Management Practices Plan (CBMPP), Notice of Intent (NOI) for CGP coverage, required inspection and reporting, and Notice of Termination (NOT) provide the regulatory structure within which an ACSP's water quality protection responsibilities are initiated, documented, and concluded.

The ACSP may serve a project in a design capacity (**Design ACSP**) — securing CGP coverage and developing the CBMPP; an operational capacity (**Operational ACSP**) — implementing, modifying, and terminating CGP coverage; or both. Regardless of role, the ACSP understands the full scope of permit coverage and construction stormwater management responsibilities, including CBMPP development and modification, and the supervision required for implementation, inspection, and reporting activities.

Related to the CBMPP, ACSPs have the knowledge, experience, and expertise to perform, guide, oversee, and review the work of others in the following areas:

- Development of the CBMPP utilizing a holistic and comprehensive framework and applying the current state of practice and technology for construction stormwater management;
- Implementation and modification of the CBMPP through collaboration and effective communication, and the adaptive application of prescribed and modified practices based on direct observation, field reporting, and professional judgment; and
- Verification of effective implementation through observations, inspections, reporting, and oversight to confirm water quality protection and regulatory compliance.

The professional practice of an ACSP is built upon foundational principles and knowledge and expressed through a defined set of practice areas. The foundational knowledge described below represents the technical and professional understanding that an ACSP possesses and applies. The practice areas that follow describe the specific activities and responsibilities within which that knowledge is put to work.

Foundational Knowledge

Foundational knowledge informs and reinforces professional judgment across all aspects of construction stormwater management and distinguishes the ACSP as a Qualified Credentialed Professional (QCP) as defined by the CGP. The foundational areas below make up the body of knowledge required for competent ACSP practice. This listing is not intended to be exhaustive. Knowledge of the ACSP continually evolves with advances in research, technology, and regulatory requirements.

Technical Knowledge Areas

- Alabama's Climate
  - Rainfall characteristics
    - Total depth
    - Intensity
    - Duration
    - Frequency
    - Seasonal distribution
  - Hydrology
    - Runoff estimation
  - Hydraulics
    - Drainage design
    - Slope and channel stability
- Alabama's Waters
  - Characteristics and significance
  - Water type classifications (perennial, intermittent, ephemeral)
  - State water quality standards
  - Current condition of waters
    - Impaired waters and applicable 303(d) listings and TMDLs and implications for construction stormwater management
    - Priority and non-priority watersheds per the CGP
  - Potential impacts of construction activity on Alabama's aquatic environment
  - Protected aquatic species and habitat
- Alabama's Soils
  - Soil erosion and sediment transport and deposition
    - Terms, definitions, mechanics, and impacts

        - Soil loss estimation using prediction models and equivalent tools to support CBMPP development and BMP design
        - Soil transport and delivery estimation
- Alabama's Vegetation
    - Vegetation establishment and maintenance
        - Soil amendments
        - Seed species and establishment rates
        - Cover materials (mulches, HECPs, and RECPs)
- Alabama's Laws and Regulations
    - Purpose and scope of state construction stormwater laws and their federal origins and connections

Professional Knowledge Areas

- The role and responsibilities of the ACSP on construction projects
- The role and responsibilities of the Permittee and Operator
- Project coordination and planning, including site assessment and construction sequencing
- Application of a comprehensive approach to construction stormwater management in all stages of project planning, design, and delivery that includes managing communication, work, water, erosion, and sediment
- Construction site risk assessment and risk abatement
- Education and training of construction stormwater professionals, including QCIs, contractors, and other practitioners — requiring clear communication skills and thorough understanding of the subject matter being taught
- Professional ethics

1.0 PRACTICE AREA - Securing, Maintaining, and Terminating CGP Coverage

Construction activity that disturbs one or more acres in Alabama requires coverage under the Alabama Construction General Permit (CGP) prior to land disturbance. As QCP on a project, the ACSP is responsible for understanding and managing the full regulatory lifecycle of CGP coverage — securing coverage in a design capacity prior to land disturbance and maintaining and terminating that coverage in an operational capacity through active construction and project closeout. ACSPs know and apply the following:

- Conditions that trigger CGP coverage requirements, including acreage thresholds, common plan of development, designated sites, and permit coverage exclusions
- Communication protocols with the permittee
- Preparation and submission of an NOI to ADEM as required by the CGP for permit coverage, including required project information, receiving water identification, and operator certification
- Prohibited discharges under the CGP, including discharge types that are explicitly excluded from permit coverage and conditions under which otherwise authorized discharges become prohibited
- CGP conditions that must be maintained throughout active construction, including CBMPP implementation, inspection and reporting obligations, and permit transfer requirements
- Conditions and documentation required for NOT submittal to ADEM to end permit coverage, including final stabilization standards and site closeout requirements

- Consequences of failure to obtain, maintain, or properly terminate CGP coverage
- Identification of site-specific conditions that trigger heightened or additional regulatory obligations, including priority construction site designations and coastal zone management requirements for projects in Baldwin and Mobile counties
- Awareness of related permits and authorizations that may apply to construction projects and associated land disturbance, including the ADEM Small Mining General Permit (ALG890000) for borrow pits and small mines, and U.S. Army Corps of Engineers Section 404 permits for impacts to waters of the United States, and the circumstances under which such coverage may be required

2.0 PRACTICE AREA - CBMPP Development

The Construction Best Management Practices Plan (CBMPP) is the central planning document through which an ACSP fulfills the water quality protection and other water quality standards obligations of the CGP. ACSPs develop CBMPPs that are site-specific, comprehensive, and grounded in the current state of practice and technology. CBMPP development requires the integration of site knowledge, technical expertise, and professional judgment applied through a structured and holistic process.

2.1 Coordination and Planning

ACSPs gather and integrate the information necessary to develop an effective CBMPP through the following actions:

- Project scope of work and contract document review
- Project data gathering
    - Rainfall and climate data
    - Hydrologic and hydraulic data
    - Soils data
- Site assessment
    - Current land use, existing vegetation, and other surface covers
    - Sensitive areas, including wetlands, biological resources, cultural resources, and neighboring properties
    - Receiving water use classifications and site-specific regulatory designations that influence CBMPP requirements and permit obligations
    - Existing problematic areas and drainage challenges
    - Existing and proposed flow patterns
    - Site constraints and opportunities
- Environmental sensitivities and commitments review
- Construction sequence review and other needs for constructability

2.2 Best Management Practice Design and Selection

Using the information gathered through coordination and planning, ACSPs design and select BMPs within the following management framework:

2.2.1 Managing Communication

Managing Communication includes all efforts to convey information among project stakeholders to increase effectiveness in project planning, design, and implementation. Measures and Practices may incorporate written or verbal interaction and operational systems and behaviors to effectively convey necessary information. ACSPs design and select practices that address:

- Identification and documentation of roles and responsibilities of all parties involved in CBMPP development, implementation, and oversight
- Coordination protocols with permittees, owners, contractors, subcontractors, and regulatory agencies
- Training requirements and expectations for construction site personnel, including the ACSP's role in delivering or overseeing training for contractors, installers, and site personnel when needed
- Documentation and recordkeeping requirements

2.2.2 Managing Work

Managing Work includes all operational efforts to ensure that work proceeds in a manner that is protective of the owner's interests and environmental responsibilities. Measures and Practices incorporate prescribed operational practices and selected work methods, sequencing, and scheduling for enhanced water quality protection. ACSPs design and select practices that address:

- Construction sequencing and phasing to minimize the area and duration of disturbed soils and achieve compliance with CGP-specified disturbance limits
- Preservation of natural features, riparian buffers, and existing vegetation, including extended buffer requirements for priority construction sites
- Construction access management, including haul roads, construction exits, and watercourse crossings
- Preservation, stockpiling, and reuse of topsoil to support final stabilization and vegetation establishment
- Construction wastes, potential spills, materials storage/management, and good housekeeping practices to prevent non-sediment pollutant discharges
- Designated access, staging, and stockpile areas

2.2.3 Managing Water

Managing Water includes all efforts that address the flow of waters through the project to protect the work area and minimize the work of managing erosion and sediment. Measures and Practices address construction-related surface waters such as runoff, run-on, flow-through, and dewatering effluent. ACSPs design and select practices that address:

- Identification and management of offsite water entering the project
- Construction dewatering management, inspection, and documentation
- Stormwater conveyance design and temporary drainage systems
- Hydrologic and hydraulic analysis to support BMP selection, sizing, and placement

2.2.4 Managing Erosion

Managing Erosion includes all efforts to minimize the displacement of soil particles by splash, sheet, rill, and channel erosion to minimize negative project impacts and reduce the work of managing sediment. Measures and practices primarily include those that provide temporary and permanent ground cover, including vegetation. Practices that reduce runoff velocity and associated erosive energy are also emphasized. ACSPs design and select practices that address:

- Selection and design of soil stabilization (ground cover) practices appropriate for site conditions and construction sequence
- Temporary and permanent erosion control methods and application
- Vegetation establishment planning including species selection, soil amendments, seeding rates, and cover materials

2.2.5 Managing Sediment

Managing Sediment includes all efforts to minimize the transport and deposition of suspended soil particles displaced by erosion. Measures and Practices primarily include barriers and impoundments that cause the slowing or temporary ponding of construction site runoff. ACSPs design and select practices that address:

- Selection and design of sediment control practices appropriate for site conditions, hydrology, and receiving water sensitivity
- Perimeter control selection, design, and placement
- Large volume sediment retention practices (sediment basins and sediment traps) sizing, design, and placement
- Selection, application, storage, and management of treatment chemicals, including polymers, flocculants, and coagulants, in accordance with CGP requirements and manufacturer specifications

3.0 PRACTICE AREA - CBMPP Implementation

CBMPP implementation is the active, field-based phase of construction stormwater management in which the ACSP directs, oversees, and collaborates with contractors and site personnel to put the CBMPP into practice. Effective implementation requires continuous professional judgment, adaptive decision-making, clear communication throughout all phases of construction and commitment to protect water quality by the permittee.

3.1 Risk Evaluation and Abatement

Risk evaluation and abatement is a continuous responsibility throughout CBMPP implementation. As site conditions, construction sequencing, and weather change, ACSPs continuously reassess and respond to evolving risks, including:

- **Environmental risks** — potential impacts to receiving waters, wetlands, sensitive species, and aquatic habitat
- **Regulatory risks** — regulatory enforcement action exposure associated with permit coverage, CBMPP implementation, or implementation verification
- **Legal risks** — litigation exposure due to environmental impacts, property damages, or legal or regulatory violations
- **Contractual risks** — potential liabilities associated with scope gaps, undefined responsibilities, coordination failures, and construction claims liability
- **Social risks** — negative project stakeholder impacts associated with community and neighbor impacts, public perception, and stakeholder concerns

3.2 Practice Implementation and Installation

CBMPP implementation applies the same framework used in CBMPP development and described in 3.1. ACSPs are proficient in managing communication, work, water, erosion, and sediment through an operational lens. Where CBMPP Development selects and specifies practices, CBMPP Implementation and Installation directs, coordinates, and confirms correct practice execution in the field.

3.2.1 Managing Communication

ACSPs know and apply the following related to field communication during implementation:

- Communication of installation requirements, expectations, and standards to contractors and site personnel
- Coordination protocols with owners, contractors, subcontractors, and regulatory agencies during active construction
- Field-level training and direction of contractors, installers, and site personnel
- Documentation and recordkeeping of installation activities and communications

3.2.2 Managing Work

ACSPs know and apply the following related to operational sequencing and site management during implementation:

- Coordination of practice installation with construction sequencing and phasing to minimize the area and duration of disturbed soils
- Field verification of natural feature, buffer, and vegetation preservation
- Oversight of construction access, haul roads, and water access and stream crossings during active use
- Field management of topsoil preservation, stockpiling, and reuse
- Enforcement of waste, spill, materials management, and good housekeeping practices
- Oversight of designated access, staging, and stockpile areas

3.2.3 Managing Water

ACSPs know and apply the following related to field management of water during implementation:

- Field identification and management of offsite water entering the project
- Oversight of dewatering operations
- Installation, operation, and protection of temporary and permanent stormwater conveyances
- Field adjustments to water management practices based on observed hydrologic and hydraulic conditions, water quality protection effectiveness, and contractor work sequencing and staging

3.2.4 Managing Erosion

ACSPs know and apply the following related to field implementation of erosion control during construction:

- Installation of soil stabilization practices appropriate to current site conditions and construction sequence
- Timing and installation of temporary and permanent erosion control methods
- Field oversight of vegetation establishment activities, including application of species, amendments, and cover materials
- Field oversight of vegetation maintenance for long-term coverage and land use needs

3.2.5 Managing Sediment

ACSPs know and apply the following related to field implementation of sediment control during construction:

- Installation of sediment control practices appropriate to current site conditions, hydrology, and receiving water sensitivity
- Perimeter control installation and placement
- Sediment basin and sediment trap installation and placement
- Field application and management of treatment chemicals in accordance with CGP requirements and manufacturer specifications

3.3 Practice Maintenance

ACSPs know and apply the following related to the maintenance of CBMPP practices throughout active construction:

- Maintenance requirements and schedules for installed BMPs in accordance with the CBMPP, the Blue Book, and construction contract documents
- Recognition of practices that are failing, damaged, or no longer appropriate for current site conditions
- Coordination with the permittee, contractors and site personnel to ensure timely and effective maintenance
- Documentation of maintenance activities and conditions

3.4 Practice Removal

Temporary structural practices must be removed at the appropriate time and in the proper sequence to maintain water quality protection through final site stabilization. ACSPs know and apply the following:

- Conditions and sequencing that trigger practice removal, including site stabilization standards and construction progress
- Coordination of practice removal to ensure water quality protection is maintained through and after removal
- Site restoration requirements associated with practice removal
- Documentation of practice removal

4.0 PRACTICE AREA - CBMPP Implementation Verification

CBMPP implementation verification is the systematic process by which the ACSP confirms that stormwater management practices are in place, functioning as intended, and providing the water quality protection required by the CGP. Verification requires professional judgment, thorough documentation, and clear communication of findings to the appropriate parties.

4.1 Inspection

The CGP specifies detailed procedural and documentation requirements for inspections beyond the professional knowledge areas described here, and the ACSP is responsible for ensuring inspections are performed in accordance with those requirements, regardless of whether the ACSP personally conducts the inspection. ACSPs know and apply the following related to construction site inspection:

- Types of inspections and observations required under the CGP, including pre-construction inspections, daily observations, monthly site inspections, storm event inspections, construction dewatering inspections, and inspections triggered by site conditions
- Recognition of adverse weather conditions that are dangerous to personnel or that prohibit safe site access, and the documentation required when an inspection is delayed or postponed as a result
- The inspection process, including preparation, comprehensive site review, and documentation of findings
- What to observe during inspection, including:
    - Receiving water and discharge conditions
    - Areas of active erosion or sediment loss
    - BMP installation, condition, and performance relative to CBMPP requirements, Blue Book standards, and construction contract requirements
    - Conditions that indicate BMPs are missing, failing, damaged, or inappropriate for current site conditions
    - Changes in site conditions, construction sequencing, or drainage patterns that require CBMPP modification
- Stabilization determination, including the criteria for temporary and permanent stabilization as defined by the CGP, Blue Book, and construction contract documents
- Precipitation measurement requirements, including methods, recordkeeping obligations, and the qualifying precipitation event threshold that triggers rain event inspections
- Inspection requirements and reporting obligations that may differ for construction-associated land disturbance covered under permits other than the CGP, including ALG890000 and other applicable federal, state, and local permits and authorizations

4.2 Reporting

Inspection reporting and regulatory notification requirements are specified by the CGP. The ACSP is responsible for ensuring that reporting and notification are performed in accordance with those requirements. ACSPs know and apply the following related to inspection reporting and regulatory notification:

- Required content and documentation elements of inspection reports in accordance with CGP requirements, including site and inspection identification, weather conditions, sampling and analytical results where applicable, and photographic documentation of discharges, deficient practices, and areas of concern
- Available inspection findings and their appropriate application, including:
    - **Satisfactory** — BMPs are in place and functioning as intended
    - **Unsatisfactory** — BMPs are missing, damaged, or not functioning as intended
    - **Turbid discharge** — discharge from the site exceeds water quality standards for turbidity
    - **Sediment loss** — sediment is actively or has been discharged from the site
- How to prepare and when to submit inspection reports in accordance with CGP requirements
- When and how to notify ADEM of discharge events, permit violations, upset conditions, or other reportable conditions
- Communication of current compliance status and potential future compliance issues to the owner and/or permittee

4.3 Professional Oversight and CBMPP Evaluation

ACSPs know and apply the following related to their professional oversight role and periodic evaluation responsibilities:

- The role of the ACSP in implementation verification — maintaining professional independence, exercising judgment, and documenting findings and actions in a manner that protects water quality, supports regulatory compliance, and manages professional liability
- Communication with the permittee
- Frequency requirements for CBMPP evaluations, including more frequent evaluation requirements for priority construction sites
- Conducting a comprehensive evaluation of all installed controls relative to CBMPP requirements, site conditions, and current state of practice
- Identifying needed modifications or additions to erosion and sediment controls based on evaluation findings
- Updating the CBMPP in accordance with CGP requirements when evaluation findings indicate deficiencies
- Documentation of CBMPP evaluation findings and actions taken
- When to escalate findings — conditions that require immediate corrective action, contractor notification, owner or permittee notification, or regulatory contact
- Who to call — identifying the appropriate party to contact based on the nature and severity of findings, including permittees, contractors, owners, legal counsel, and ADEM

5.0 PRACTICE AREA - Negative Impacts and Mitigation

Despite careful planning and diligent implementation, construction sites can experience conditions that result in negative impacts to water quality. The ACSP's role in these situations is both proactive — anticipating and preventing negative impacts through leadership and oversight; and responsive — acting decisively when impacts occur to minimize harm, restore compliance, and protect all parties involved.

5.1 ACSP Leadership and Involvement

ACSPs know and apply the following related to their leadership role in preventing and responding to negative impacts:

- Establishing clear expectations for water quality protection with the permittee (commitment), owners (commitment and financial), contractors, and site personnel before and during construction
- Recognizing site conditions, weather events, and construction activities that create elevated risk of negative impacts
- Taking a leadership role in directing corrective action before impacts occur or escalate
- Documenting decisions, actions, and communications related to negative impact prevention and response

5.2 Noncompliance Response and Reporting

ACSPs know and apply the following related to noncompliance response and reporting:

- Identifying conditions that constitute permit noncompliance, including unauthorized discharges, BMP failures, and inspection or reporting deficiencies
- Corrective action requirements and timelines as specified by the CGP, including time-sensitive response obligations for sediment basin failures, dewatering discharge indicators, and inspection deficiencies
- Obligations and procedures for reporting noncompliance to owners, permittee, operators, and ADEM
- Documentation requirements associated with noncompliance events

5.3 Mitigating Sediment Loss

ACSPs know and apply the following related to sediment loss mitigation:

- Immediate response actions to stop or reduce to the maximum extent practicable sediment loss from a construction site
- Determine causes of sediment loss (insufficient, inappropriate, or ill-maintained practices, chronic or catastrophic precipitation events, etc.)
- Assessment of off-site sediment impacts, including discharge to receiving waters, adjacent properties, and roadways
- Corrective BMP selection, installation, and modification to prevent recurrence
- Documentation of sediment loss events, response actions, and corrective measures

5.4 Navigating Enforcement Actions and Lawsuits

ACSPs do not provide legal advice but should understand the regulatory and legal context in which their work and documentation may be scrutinized. ACSPs know and apply the following related to enforcement and legal exposure:

- Types of enforcement actions ADEM may pursue for CGP violations, including warning letters, notices of violation, consent or administrative orders, and litigation
- ACSP and permittee roles and responsibilities when a project is subject to enforcement action
- The importance of thorough, accurate, and timely documentation in protecting the ACSP, owner, permittee, and contractor in enforcement and legal proceedings
- When to communicate with project stakeholders regarding potential legal action
- The role of the ACSP as an expert consultant or expert witness, including the professional obligations, standards of objectivity, and documentation expectations associated with providing technical expertise in support of legal or regulatory proceedings