

Chapter 2

Quality Assurance Process Consultant Plans Review

2.1 Purpose

The Quality Assurance Process (QAP) describes the methodology and procedures by which the Department ensures consultant produced design products are verified, independently checked and reviewed. The Quality Assurance Process will document the checking and review process and produce a verifiable record to show that the Consultant's Quality Control/Quality Assurance Plan was adhered to during the project.

Close scrutiny by Department personnel, including the review of appropriate design assumptions and calculations is necessary to ensure the safe and economical design of stormwater facilities and bridge crossings. The seal of a professional engineer imparts a desirable degree of confidence in the hydrologic, hydraulic, and environmental adequacy of the design, but it should not be accepted as sole proof that significant errors, omissions or economic oversights exist.

Beyond the concern of hydrologic, hydraulic, and environmental adequacy are the needs to ensure economy of design and that the construction plans are clear, complete and prepared in accordance with all appropriate regulations, standards, policies and procedures. The ability to recognize and develop the most hydrologically and hydraulically efficient, economic, permissible, environmentally acceptable, legally defensible, and constructible project is a skill accrued through time and experience. Appropriate knowledge of Federal/State design, permit, and construction policies, specifications, procedures, etc. is also necessary to produce a quality set of plans that are consistent with current Department policies and procedures.

2.2 Drainage Team Members

A stormwater and environmental permit representative from the Drainage Design Office will be assigned to all consultant projects prior to the consultant acquisition process. Each representative will be proactive in their role with all stakeholders, partners, and others while actively seeking opportunities to influence events to accomplish the goals and objectives of the Department. Each team member will aide in the early identification and resolution of stormwater design, permit, and construction issues.

2.3 Quality Assurance Review

The stormwater and environmental permit team members are also responsible for performing a Quality Assurance review for each assigned project. The Quality Assurance review is a confirmation review conducted by Department personnel to ensure the consultant has complied with their Quality Control plan and to provide a degree of confidence in the hydrologic, hydraulic, and environmental adequacy of the design. The Quality Assurance review will be conducted for all project specific submittals and the level of involvement will vary depending upon project specific issues and complexity. The stormwater and environmental team members shall:

- Ensure all submittal packages are complete.
- Ensure design concept complies with project scope, project commitments, budget, etc.
- Ensure the project scope complies with all governing criteria.
- Ensure project critical requirements / issues have been addressed.
- Review submittal documents for conformance with current Department policies and procedures.
- Review plans and details for maintenance and long-term serviceability issues.
- Ensure design calculations have been reviewed, checked and corrected.
- Ensure previous Quality Assurance comments have been resolved.
- Perform/request independent analysis of specific design elements as appropriate.
- Prepare and report feedback scores to the Department's Project Manager.