

Best Practices on Major Projects  
Example from Woodrow Wilson Bridge Project

1. *Issue or Need Identified/Addressed.* Independent Environmental Monitoring Program  
The Army Corps of Engineers Permit for the project required that sponsors provide a qualified, professionally certified, multi-disciplinary, contracted environmental monitoring effort. This effort had to be independent from the design and construction contractors. The Independent Environmental Monitor (IEM) is to oversee the construction to assure permit conditions are met, maintaining a full-time presence during all phases of construction.

2. *Strategy or Best Practice developed/implemented to address the issue or need*  
A separate firm was hired directly through VDOT (administered by the GEC) to provide the Independent Environmental Monitoring services. The IEM representatives report directly and concurrently to the sponsoring and regulatory agencies. The unique Best Practice has been to involve the IEM to work in a team environment, supplementing and complementing the efforts of the GEC-provided environmental inspection (EI) staff.

Should the EI staff discover an issue, they work to determine its level of severity and seriousness. The EI staff notifies the IEM and the sponsors of any issue that may result in a noncompliance or violation. This notification follows an approved protocol established for the project. Depending on the severity, this notification will occur within a matter of minutes or hours. The EI staff coordinates with the IEM, sponsors, the contractor, and the Regulatory Agencies on steps necessary to resume activities, gain compliance, delineate and characterize the violation or noncompliance, to resolve the issue.

Rather than acting as a “policeman,” the IEM supports the entire environmental team by bringing a mature, professional perspective to the issues which may arise. The IEM staff members work ahead, looking for potential environmental issues before they arise, to supplement day-to-day inspection efforts.

3. *Results*  
Using EI inspectors and the IEM in a team environment has significantly enhanced the construction process. The collective team has the advantage of project history, as team members played critical roles during the design and permitting process that led to construction. This allows the team to draw on crucial knowledge of the permit evolution, rationale behind the permits, and specific intent of individual conditions. Construction managers, contractors, and agencies rely on this intimate working knowledge of the permits for swift and accurate answers to questions and issues that have the potential to suspend or stop operations.

Integration of the IEM into the team broadens its abilities and exposure. With the IEM in place in a quality assurance role, the EI staff can communicate more openly with the contractor and better anticipate potential problems and preempt violations. By working as a team, the environmental enforcement function has advanced from simply upholding permit conditions and commitments to working with contractors on a daily basis, improving the quality of the product and increasing production.

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