Build It and They Will Come, if It's Built Correctly: Quality Control During Construction of Restoration Projects

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In order to determine whether a particular ecological restoration treatment is effective, one must first know whether the treatment was implemented according to engineering design specifications. Quality assurance (QA) and quality control (QC) oversight during all phases of project implementation and construction are critical to determining the level of adherence to the engineering design. The U.S. Environmental Protection Agency Great Lakes National Program Office (GLNPO) spearheaded an effort to develop a guidance document (EPA-905-K19-001, April 2019) focused on the principal components of quality documentation fundamental to planning effective quality oversight during the construction, installation, or implementation phases of an ecological restoration project. Such projects may involve creating certain ecological features (e.g., riparian corridor stabilization for erosion control) or modifying existing habitat (e.g., optimal ratio of pool/riffle/run). Quality control includes calibrating all measurement and testing equipment, confirming the quality and quantity of all construction material used in the project, verifying appropriate seed/plant species are used for the habitat and geographic area, and more. The guidance addresses the value of documenting continuous assessment of the construction processes, materials, and techniques being used to ensure the quality of workmanship and the effective use of resources. This guidance provides a comprehensive approach to QA/QC oversight in ecological restoration construction projects through integration of new and existing concepts from reputable and published sources. This presentation summarizes the key components of this guidance document and is funded under an EPA contract in support of the Great Lakes Restoration Initiative.

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