Planning Associates 2013 Critical Think Piece:
Consideration of Water Quality in Ecosystem Restoration Analysis

Executive Summary

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Water quality is a critical component of the structure, function, and dynamic processes of aquatic ecosystems. Almost all plans to restore degraded aquatic systems to a more natural condition will require measures that improve water quality. However, the U.S. Army Corps of Engineers (USACE) does not have an explicit water quality mission, and while existing guidance acknowledges the importance of considering water quality in restoring ecosystems, the current practice is to avoid discussion and quantification of water quality benefits. Explicit discussion of these benefits would promote formulation of more effective and efficient restoration plans and would allow USACE to fully account for the value of our ecosystem restoration (ER) projects to the nation. Furthermore, multiple Federal agencies have an interest in water quality improvements and increased coordination related to water quality may spur efficiencies in project implementation.

Federal interest in water quality is demonstrated through court actions, laws, and Federal investments. Most notably, the Clean Water Act (CWA), while delegating responsibility for control and elimination of water pollution to the states, provides for Federal support and oversight. Impaired waters exist throughout the U.S. and requirements for addressing those impairments are expanding. As a result, more potential project sponsors will approach the USACE planning process with an increased interest in efficiently developing projects that restore impaired ecosystems while also addressing water quality.

USACE has maintained its leadership as a premier engineering organization by adapting to new challenges. Although the agency cannot take on the responsibilities of others as mandated by law, new consideration of water quality policy can provide planners the tools needed to successfully formulate efficient and effective ER projects. To achieve this end, planners must be given the opportunity to fully investigate and account for the significance and value of all benefits provided by ER projects, including those related to water quality. Clarification of USACE guidance can aid planners in clearly defining the responsibilities of others, developing efficient comprehensive plans that address water quality as appropriate, and expand the means by which ecosystem health and project benefits are quantified. Improved coordination between USACE and USEPA can allow for efficiencies among Federal programs. Additionally, understanding the value of all aspects of ER projects will be of increased importance as USACE moves towards implementation of the new Principles and Requirements (P&R). These steps will improve the ability of USACE to implement efficient and effective restoration projects and clearly communication their value and significance to the nation.