

Title: A Function-Based Framework for Stream Assessment and Restoration Projects

Citation:

Harman W, Starr R, Carter M, Tweedy K, Clemmons M, Suggs K, Miller C. 2012. A Function-Based Framework for Stream Assessment and Restoration Projects. Washington, D.C.: U.S. Environmental Protection Agency, Office of Wetlands, Oceans, and Watersheds. EPA 843-K-12-006.

Objectives:

How to address central stream restoration issues – document goals (Harman et al, 2012):

1. Educate the restoration community in the relationship and build of functional hierarchy in stream functions and identify the parameters used to assess those functions.
2. Place reach scale restoration projects into watershed context and acknowledge the equal importance of site selection to reach scale activities themselves.
3. Provide informal guidance on incorporating stream function debit/credit determination methods, function-based assessments, and performance standards into SOPs.

Summary:

This document is very detailed and well documented in providing background information on stream functions (hydrology, hydraulics, geomorphology, physiochemical, and biology), the inter-relationships between them, and how they interact. It illustrates the hierarchy of stream functions and instructs how the framework may be applied in developing project goals and objectives, developing/reviewing function-based stream assessment methods, and creating SOPs for stream mitigation and monitoring programs.

This document does not provide field methodology for each assessment/measure. Instead, it provides the user with the knowledge and background of various methods/techniques and the performance standards used for each parameter, so the user may develop their own methods specific to the site needs. Through Chapters 6-10, the field methodologies for the discussed measurement methods are directed to suggested literature.

This document could be useful to NWRS staff because of its comprehensive detail and background on stream functions and its suggestions and references for methods of assessment.

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