



**US Army Corps  
of Engineers®**

**Galveston District  
Regulatory Branch**

# Special Public Notice

**Stream Condition Assessment**

**May 15, 2013**

## **Galveston District Stream Condition Assessment Standard Operating Procedure**

**PURPOSE OF PUBLIC NOTICE:** To inform you of an update to the Stream Condition Assessment Standard Operating Procedure for which you might be interested. Additional information may be found on the District's Stream web site located at <http://goo.gl/33GCT>.

**INTRODUCTION:** The purpose of this notice is to provide a set of Standard Operation Procedures (SOP) and requirements for addressing stream restoration and mitigation in the Galveston District. This SOP will only be applicable when direct impacts occur within the stream bed of a water of the United States. While the intent of the SOP is to assess the current functional condition of a stream and determine the appropriate functional credits to offset for any unavoidable loss, the SOP is not intended to take the place of project specific review which may result in adjustments to compensation requirements. Aquatic resources evaluated under this SOP shall be delineated in accordance with Regulatory Guidance Letter 05-05 - Ordinary High Water Mark Identification and wetlands present in the stream and/or riparian buffer shall be delineated in accordance with 1987 Corps of Engineers Wetland Delineation Manual and any appropriate Regional supplement. Applicants should defer to 33 CFR 332, Compensatory Mitigation for Losses of Aquatic Resources, for guidance on mitigation requirements not specifically addressed in this SOP. This SOP should only be used after a permit applicant has first avoided and minimized project impacts and the district engineer determines compensatory mitigation is necessary to offset unavoidable impacts to aquatic resources. The amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions associated with the stream bed.

**DEVELOPMENT OF THE SOP:** The District established an interagency-team comprised of state and federal agency partners to develop the SOP. Once developed, the District conducted an 18-month trial implementation of Level 1 in its permitting process. Comments submitted during the entire 18-month implementation trial were incorporated into the administrative record. Substantive comments and lessons learned were included in the District's finalization of the SOP.

**ORGANIZATION OF REVISED STREAM CONDITION ASSESSMENT STANDARD OPERATING PROCEDURE:** The SOP is divided into four sections: 1) Stream Assessment Tool; 2) Evaluating Avoidance, Minimization, Stream Restoration Projects and Compensatory Mitigation Plans; 3) Impact Assessment; and 4) Determination of Compensation. Important stream functions measured include the ability to transport water, transport sediment, support and

maintain a community of organisms and provide a safe water supply.

- Stream Assessment Tool This section describes a tiered process for establishing the current condition of the stream function. For the purpose of this tool, the stream types include:
  - Level 1: All Ephemeral & Intermittent Streams will be evaluated using Level 1. In addition, all Intermittent Streams with Perennial Pools, Perennial Streams and Wadeable Rivers where the proposed impacts are less than 500 linear feet will be evaluated using Level 1. The parameters sampled under Level 1 include; 1) Visual Channel Assessment; 2) Riparian Buffer Assessment; 3) Visual In-Stream Habitat Assessment; and 4) Visual Channel Alteration Assessment.
  - Level 2: Perennial Streams and/or Wadeable Rivers where the proposed impacts are equal to or greater than 500 linear feet. The parameters sampled under Level 2 include:  
**UNDER DEVELOPMENT**
- Evaluating Avoidance, Minimization, Stream Restoration Projects and Compensatory Mitigation Plans This section provides guidance on meeting the requirements of 40 CFR 230 in regards to avoidance and minimization of impacts to streams. In addition, it provides guidance on evaluating the purpose and need for stream restoration projects not associated with mitigation.
- Procedure for Impact Assessment (debits) This section describes an impact classification system and debit calculations based on the extent to which the proposed impact is expected to impair the stream. Five Impact Classifications are outlined based on the severity of the impact's affect on the stream's chemical, physical and biological function.
- Determination of Compensation (credits) This section describes the methods and alternatives for fulfilling the Compensation Requirement for both onsite and offsite compensation, and explains the process. Compensation may be achieved through re-establishment, rehabilitation & enhancement and through a limited amount of preservation.

**REPORTING REQUIREMENTS:** In addition to updating the SOP, Galveston District has established minimum reporting requirements for stream restoration and mitigation projects.

- Stream Assessment Report The investigator shall provide a detailed report of the stream assessment, with justification for all conclusions. Justifications should include photographic evidence, drawings and species lists. The stream shall be delineated in accordance with Regulatory Guidance Letter 05-05 - Ordinary High Water Mark Identification and wetlands present in the stream and/or riparian buffer shall be delineated in accordance with 1987 Corps of Engineers Wetland Delineation Manual and any appropriate Regional supplement. Submitted surveys shall be in accordance with the Galveston District Standard Operating Procedure for Recording Jurisdictional Delineations using Global Position Systems.
- Mitigation Plan The applicant shall provide a compensatory mitigation plan in accordance with the 33 CFR 332.4(c). In order to realize a final, stable stream design, the mitigation plan must address land use changes, as well as a history of the streams drainage basin, both at the local and watershed level, since these changes often cause disequilibrium of upstream delivery of water flow and sediment that result in stream deficiencies. The extent and cause of the deficiencies need to be discussed. Performance measures shall be ecologically based and that are objective

and verifiable. The requires the use of the *Natural Channel Design Review Checklist* published by the U.S. Fish and Wildlife Service, Chesapeake Bay Field Office and U.S Environmental Protection Agency, Office of Wetlands, Oceans and Watersheds for large and/or complex projects.

- Monitoring Plan The applicant shall provide compensatory mitigation monitoring plan reports in accordance with Regulatory Guidance Letter 08-03 - Minimum Monitoring Requirements for Compensatory Mitigation Projects. Monitoring shall include at a minimum an annual assessment of the compensatory mitigation site utilizing the Tiered Stream Assessment Tool until such time as the applicant has received written concurrence from the District Commander that the compensatory mitigation project has met its objectives and no additional monitoring reports are required.

**CONCLUSION:** The District goal is a no net loss of aquatic resource function. Branch personnel shall use the Stream Condition Assessment to assess jurisdictional stream impacts and are responsible for verifying tool results when submitted by applicants. Complex and/or controversial stream impacts may require additional information to complete an appropriate evaluation of the propose impacts. The District reserves the right to request additional assessment of stream function on a case-by-case basis. Aquatic resources impacted by the project located outside of the stream bed shall be evaluated with the appropriate assessment protocols. Additional agency coordination that would delay further permit processing is not required. There may be circumstances where a mitigation ratio greater than one-to-one is required to account for: the likelihood of success; differences between the functions lost at the impact site and the functions expected to be produced by the compensatory mitigation project; temporal losses of aquatic resource functions; the difficulty of restoring or establishing the desired aquatic resource type and functions; and/or the distance between the affected aquatic resource and the compensation site. The rationale for the required replacement ratio and the functional assessment must be documented in the administrative record for the permit action.

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