



Documentation Standard for Level 1 Stream Assessment

This documentation standard (DS) is used by project sponsors preparing a Level 1 - Stream Condition Assessment for All Ephemeral and Intermittent Streams and for Impacts Less Than 500 Linear Feet to Intermittent Streams with Perennial Pools, Perennial Streams and Wadable Rivers (Stream Assessment) in accordance with guidance from the U.S. Army Corps of Engineers (USACE). Per the USACE, "This qualitative assessment is designed to evaluate relative potential of a stream to support and maintain a diverse community of organisms by visually assessing hydrogeomorphic and fluvial geomorphic characteristics such as active floodplain, width/depth ratios, bed elevation and floodplain storage and release. The visual parameters sampled under Level 1 include: 1) Visual Channel Assessment; 2) Desktop Riparian Buffer Assessment; 3) Desktop Aquatic Use Assessment; and 4) Visual Channel Alteration Assessment." The Stream Assessment is only used in the USACE Galveston District Office (SWG).

This DS lists and describes information that must be included within a Stream Assessment report. Additional information may be necessary. Stream assessments must be presented in report format and include more information than a standalone table. The Stream Assessment report may be combined with the Interim Hydrogeomorphic report, if applicable. The format below must be followed, and the information listed must be included within the report. All SWG guidance on stream assessments must also be followed, including clear descriptions of how and why the site was scored and how the theoretical score was determined. All information used to make the determinations must be included within the report to clarify how the stream was scored, how the proposed project plan was scored, and the amount of mitigation required.

Cover

If the report is in final form, delete the word "Draft."

Enter the road name and limits, project CSJ, TxDOT district, and month and year of the report.

Table of Contents

Once the report is complete, make sure to update the Table of Contents and List of Tables.

Add the project CSJ to the footer.

I. Introduction

Introduce the proposed transportation project and state when the functional assessment field work was completed. If the functional assessment was completed across several days, include the range(s) of days the site was accessed for the assessment. If there were portions of the project area that could not be accessed due to right-of-entry (ROE) limitations, describe in the introduction section. Similarly, if a desktop analysis was made on all or a portion of the project, discuss in the introduction section.

Include a general description of the project area and a project description.



II. Existing Conditions

Provide a description of the project area, including the following components as appropriate: adjacent land use, watershed characteristics, fluvial geomorphology, vegetation, and hydrologic regimes.

III. Methods

Discuss all methodologies, including how buffers were calculated (e.g., GIS data or field measurements), specific citations for information used for desktop review, how buffers were calculated, sampling methodologies used (e.g., shocking or seining, etc.), how the aquatic life use score was rated, and other information, as appropriate. Per the USACE, run transects parallel to the channel and not perpendicular.

IV. Results

Include a clear narrative and chart with the amount of mitigation required. A justification must be included discussing why scores were changed for the theoretical scores based on the project description. Calculations must be shown, including the formula used. A justification should be provided for each impact separately (e.g., replacement of existing reinforced box culverts (RBCs), installing new RBCs for roadway expansion, installing riprap, etc.). Each type of impact may be assigned a different impact factor; therefore, they must be calculated separately. Knowing the type of activity is necessary to determine if it is a total loss of the stream bed.

V. Conclusion

Summarize the results and state the amount of stream mitigation that is needed for the project.

VI. References

Include all sources utilized to prepare the report. Use American Psychological Association (APA) citation format.

VII. Attachments

List all attachments referenced throughout the report. The following exhibits must be included within the Attachments, listed, numbered, and labeled in order of appearance. Additional exhibits may be included, if applicable. All exhibits must have source data noted in the legend (e.g., aerial date, quadrangle name, Federal Emergency Management Agency (FEMA) year, etc.).

Attachment 1 – Exhibits

- Exhibit 1 - Vicinity Map
 - Exhibit 2 - Site location map
 - Exhibit 3 - Stream location map (typically from delineation report) showing areas of impacts and areas that will not be impacted
 - Exhibit 4 - Project drawings depicting stream impacts
 - Exhibit 5 - Map depicting sampling transect locations
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Attachment 2 – Stream Impact Assessment Forms

- Stream Assessment Data Forms for Level 1. Photos must be included on the Stream Impact Assessment Data Form that include (1) up-bank (2) down-bank (3) upstream (4) downstream views from the transect
- Stream Assessment Summary Form

Attachment 3 – TCEQ Aquatic Life Score (if applicable)

- Screenshot or photo of TCEQ aquatic life score



Attachment 1 Exhibits



Attachment 2

Stream Impact Assessment Forms



Attachment 3

TCEQ Aquatic Life Score (if applicable)



Appendix A

The following table shows the revision history for this document.

Revision History	
Effective Date Month, Year	Reason for and Description of Change
July 2022	Version 1 was released.