

Impact Assessment

4.0 Impact Factor

Permitted impacts result in a variety of impairments to a stream's ability to transport water, transport sediment, support and maintain a community of organisms and provide a safe water supply. Impacts affect streams by altering bankfull depth, slope, velocity, flow resistance, sediment size, sediment load, and bankfull discharge.

Different types of impacts should be assessed based on the extent to which they are expected to impair the stream. A stream condition assessment shall be completed to determine the current stream function conditions. A theoretical stream condition assessment will also be conducted based on the proposed project plans. The difference between these, or Delta, will be used to calculate the functional loss resulting from the project. The difference will be referred to as the Reach Condition Index Delta, or dRCI. Impacts shall be characterized into one of five classifications based on the dRCI. The five categories are: 1) Severe; 2) Major; 3) Moderate; 4) Minor; and 5) Negligible. Each Impact Classification has a corresponding **Impact Factor (IF)**; the more severe the impact, the higher the **IF**. If multiple impacts occur within the stream reach, the district engineer will determine, on a case-by-case basis, the most applicable **IF**.

4.1 Impact Classification

Severe-IF Score 5

The proposed project will eliminate a stream, or result in a loss function equivalent to a 4-point change in Reach Condition Index.

Major-IF Score 4

The proposed project will result in a loss of function equivalent to a 3-point change in Reach Condition Index.

Moderate-IF Score 3

The proposed project will result in a loss of function equivalent to a 2-point change in Reach Condition Index.

Minor -IF Score 2

The proposed project will result in a loss of function equivalent to or less than a 1-point change in Reach Condition Index.

Temporary- If Score 1

Impacts are temporary and the site will be returned to pre-construction contours and elevations with no permanent loss of aquatic function.

4.2 Calculating Debits

Reach Condition Index Delta x Impact Factor x Linear Feet of Impact = Debits