

DESIGN GUIDELINES APPROVED FOR USE IN DESIGNING WATER CROSSINGS OVER FISH-BEARING WATERS IN WASHINGTON STATE

FHWA Context Sensitive Solutions in Transportation Planning

Notes for appropriate use to comply with WAC 220-660-190

May 6, 2015

Documents relating to the **Context Sensitive Solutions** program were obtained from the FHWA website:
<http://www.fhwa.dot.gov/planning/csstp/>

Comments in this review are based on the **Context Sensitive Solutions Primer (CSS)**, an undated document with no authors cited. It is a 24 page Adobe Acrobat document. CSS does not specifically address water crossings and their design, so in that sense this is not a guideline or design manual. This document is reviewed here as an approved approach for water crossing design because CSS recommends a collaborative, interdisciplinary approach that protects environmental resources, among other values. Integrating environmental protection into the design process is the only efficient way to comply with the hydraulic code and immediately obtain an HPA.

Since there are no specific recommendations on the content or structure of a CSS (developing a shared plan is the first step in the process, page 6), it is suggested that projects that require a water crossing HPA include these general design objectives (from WAC 220-660-190):

1. Water crossing structures in fish-bearing streams must allow fish to move freely through them at all flows when fish are expected to move.
2. All water crossings must retain up-stream and downstream connection in order to maintain expected channel processes. These processes include the movement and distribution of wood and sediment and shifting channel patterns.