

## Best Available Science (BAS) and Alternatives Analysis

Presented to the Timber, Fish, & Wildlife TFW Policy Committee

<b>1. Date</b>	December 1, 2016
<b>2. Name of TWIG</b> <i>Include members with affiliations</i>	<p>Forested Wetlands Effectiveness Project</p> <p>Technical Writing and Implementation Group (TWIG): Leah Beckett (CMER Staff, NWIFC), Paul Adamus (Adamus Resource Assessment, Inc. and Oregon State University), R. Dan Moore (University of British Columbia), Dan Sobota (Oregon Department of Environmental Quality), Howard Haemmerle (Project Manager, Washington Department of Natural Resources)</p>
<b>3. Process Step</b>	<i>Per the Lean Process revisions approved by CMER 10/26/15, the BAS and Alternatives Analysis document is drafted by the Technical Writing and Implementation Group (TWIG). Upon approval from CMER, the document goes to TFW Policy Committee for approval to begin the study design.</i>
<b>4. Decision for TFW Policy Committee</b>	<p><i>TFW Policy Committee must approve a study design alternative(s) before the TWIG writes the detailed study design. This document comes before Policy twice:</i> --<i>First meeting: receive document and presentation; Policy questions to TWIG</i> --<i>Second meeting: Policy approval of a study design alternative</i></p> <p><b><u>The decision or question for Policy today is:</u></b></p> <p>The Forested Wetlands Effectiveness TWIG is presenting the best available science and the study design alternatives document for approval at the January meeting. In addition, the TWIG recommends selection and approval of the Alternative 2: BACI, Stream-adjacent (hydrologically connected) Forested Wetlands and Primary Response Variables, Randomized Complete Block Design (RCBD).</p> <p><i>Once finalized, the Policy decision will be memorialized in the transmittal letter to the Adaptive Management Program Administrator (AMPA).</i></p>
<b>5. Content Overview</b>	<p><i>The BAS and Alternatives Analysis proposal can be summarized in three sentences by the following:</i></p> <p>TWIG members recommend a Before-After-Control-Impact (BACI) design arranged in Randomized Complete Blocks (RCBD) with a suite of response variables prioritized by best available science for the following reasons:</p> <ul style="list-style-type: none"> <li>• Ability to draw inferences and causality (compared to other designs such as chronosequence)</li> <li>• Wide use of BACI in other similar studies on the impacts of forest harvest on hydrology and other factors</li> <li>• Block design to minimize influence of environmental factors such as climate, geology, geography, which may obscure treatment effects</li> <li>• Cost and feasibility: fewer response variables compared to more expanded BACIs, and fewer replicate sites compared to chronosequence</li> </ul>

<b>6. Budget for Each Alternative</b> <i>As applicable</i>	Estimation of Costs and Relative Costs		
	<b>Alternative</b>	<b>Total Estimated Cost (\$)</b>	<b>Years</b>
	1	862,400	7
	2	867,350	7
	3	878,900	7
	4	380,600	3
	5	1,296,800	7
<b>7. Rule Group</b> <i>As applicable</i>	Wetlands Rule Group		

*(Not to exceed one page)*