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Defense Date: December 6, 2011

Title: A Mid-Atlantic Stream Suitability Index for Brook Trout (*Salvelinus fontinalis*)

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ABSTRACT

A Mid-Atlantic multimetric index provides a quick and cost effective assessment of brook trout streams or potential brook trout streams in the Mid-Atlantic United States. Using five core metrics--three in-stream metrics (riffle/run quality, dissolved oxygen content and water temperature) and two watershed metrics (percent land use in agriculture and distance to the nearest road from the survey site), the index can be calculated in the field by professional natural resource managers or trained volunteers. The index should be used in concert with other assessment tools, including a classification model designed to allow resource managers to quickly screen a given stream reach in order to determine its potential for supporting sustainable populations of brook trout. Used in tandem, the classification model could provide a preliminary assessment of a stream, followed by a secondary assessment using an index rating to further evaluate stream quality and potential.