



# US Army Corps of Engineers

Institute for Water Resources

BUILDING STRONG®

## Multiobjective Plan Formulation and Evaluation Manual (2010)

**Status:**            **Project Manager:**

In Progress        [Lillian Almodovar](#)

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**Purpose:**            The Corps' Planning Guidance Notebook (ER 1105-2-100) states that projects be formulated for multiple purposes "whenever possible, subject to budgetary constraints." Further, EC 1105-2-404 (Planning Civil Works Projects under the Environmental Operating Principles) and EC 1105-2-409 (Planning in a Collaborative Environment) instruct Corps planners to undertake multiobjective planning, but do not explain "how" to do it. Currently, true multiobjective formulation is not being performed by the Corps. There are therefore few or no "go by" examples of completed Corps feasibility studies exhibiting approved multiobjective plan formulation and evaluation procedures. Because systematic approaches to accomplish multiobjective project formulation are not currently available to Corps planners, a Manual is needed to help define a process for conducting multiobjective project formulation and evaluation and provide suitable case study examples.

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**Objective:**        To develop a Manual that assist Corps planners with multiobjective project formulation and evaluation. The Manual will describe differences between multipurpose/multiobjective project planning (e.g., flood damage reduction and ecosystem restoration) and single purpose/objective project planning (e.g., just flood damage reduction); provide procedures for formulating and evaluating alternative plans that provide multiple outputs; and demonstrate techniques to conduct trade-off analyses to help select the recommended multiobjective plan. The MCDA module of IWR Planning Suite software will be used to demonstrate how the effects of multiobjective alternative plans can be evaluated to provide decision-makers with information to ultimately select a recommended plan.

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**Benefits:**         Better guidance to Corps District project delivery teams; formulation of projects that incorporate the Corps' environmental operating principles; and better inclusion of multiple objectives in evaluating and selecting alternative plans.

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**Progress:**        Initial kick-off meeting with HQ and IWR staff summer 2007. Manual Outline revised summer 2007. Selection of multiobjective case study (Cameron Run Watershed Study, Baltimore District) and meetings with Baltimore District planning technical lead September 2007. First draft of manual completed Spring 2008. Second draft currently under review Summer 2008.

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