

Comments of  
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on  
Proposed  
*National Objectives, Principles and Standards for  
Water and Related Resources Implementation Studies*

I strongly endorse the substance of the proposed *National Objectives, Principles and Standards for Water and Related Resources Implementation Studies* as proposed by the White House Council on Environmental Quality and which would supersede the *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies* dated March 10, 1983. This action would reestablish true multi-objective water resource planning and is long overdue.

Prior to its promulgation the document should be thoroughly reviewed to ensure consistency among terms such as objectives, goals, and principles.

I would offer the following comments:

Up until the end of World War II, national water resource development objectives included both economic efficiency and improvement of the well-being of the people of the nation. The establishment by the Bureau of the Budget in the 1950s of an overriding focus on economic benefits and costs led to review of water resource programs by a Senate Select Committee and President John F Kennedy's Water Resources Council. In 1962, President Kennedy, after dialogue with the Congress, submitted to the Congress the report of the President's Water Resources Council, *Policies on Standards, and Procedures in the Formulation, Evaluation, and Review of Plans for Use and Development of Water and Related Land Resources*, This report, which was published as Senate Document 97, 87<sup>th</sup> Congress, Second Session, indicated that the objectives of Federal water planning should be national economic development (to include an regional aspects of such development), the protection of environmental resources and the "well being of people." These objectives were incorporated, through the 1965 Water Resources Planning Act, into the 1973 and subsequent versions of the *Principles and Standards for Planning Water and Related Land Resources*. (Homes 1979, Reuss 1992)

In 1983, without the opportunity for substantive public or Congressional comment, the Administration issued the *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies*. These principles and guidelines indicated that the "Federal objective of water and related land resources project planning is to contribute to national economic development consistent with protecting the Nation's environment, pursuant to national environmental statutes, applicable executive orders, and other Federal planning requirements," in effect, nullifying the multi-objective intentions of the Water Resources Planning Act of 1965.

No doubt, comments will be made that the existing principles and guidelines do not require revision because there are provisions for the secretaries of the departments to approve studies that do not meet

the specified Federal objective. A careful examination of the "success record" of study seeking exception would clearly indicate that the waiver provisions are essentially of no value. In addition

Since 1983, these principles and guidelines have been subject to constant criticism by study committees for their narrow focus and the limits they have placed on multi-objective development of the nation's precious water resources.

In 1994, a White House Study of the Great Mississippi Flood of 1993 indicated that:

The principal federal water resources planning document, *Principles and Guidelines*, is outdated and does not reflect a balance among the economic, social, and environmental goals of the nation. This lack of balance is exacerbated by a present inability to quantify, in monetary terms, some environmental and social impacts. As result, these impacts are frequently understated or omitted. Many critics of *Principles and Guidelines* see it as biased against nonstructural approaches

To focus attention on comprehensive evaluation of all federal water project and program effects, the President should immediately establish environmental quality and national economic development as co-equal objectives of planning conducted under the *Principles and Guidelines*. *Principles and Guidelines* should be revised to accommodate the new objectives and to ensure full consideration of nonstructural alternatives'

The *P&G* are now more than ten years old, and several areas are in need of thorough review. (IFMRC 1994)

In 1999, A National Research Council committee examined the Corps' planning processes and noted in its report that:

The committee recommends that **the federal *Principles and Guidelines* be thoroughly reviewed and modified to incorporate contemporary analytical techniques and changes in public values and federal agency programs.** The executive branch, which approved the *P&G* in 1983, should take the necessary steps to update the guidelines so that they reflect contemporary planning principles and methods and address the full range of responsibilities in the Corps' work program [original emphasis].

The executive branch should use its authority to find the means to modernize the *P&G* so that the document better reflects contemporary water planning theories and practices. (NRC 1999)

A 2000 report by a National Research Council committee investigating the Corps' methodologies for flood risk determination indicated that:

The *Principles and Guidelines* requirement that the Corps select the alternative that maximizes net economic benefits to the nation has important implications for risk analysis applications and the construction of Corps levees. In a Corps flood damage reduction study, levee height is determined according to the National Economic Development criterion (i.e., based on prescribed benefit calculation procedures), rather than according to a levee's ability to withstand a flood of a given magnitude. As the

Corps's *Digest of Water Resources Policies and Authorities* states, "There is no minimum level of performance or reliability required for Corps projects; therefore, any project increments beyond the NED plan represent explicit risk management options" (USACE, 1999a).

**To appropriately include such consequences and their relative importance, the committee recommends that the ecological, health, and other social effects of Corps flood damage reduction studies, and the tradeoffs between them, be quantified to the extent possible and included in the National Economic Development Plan.** More explicit efforts at including these types of consequences and values in the Corps's benefit–cost calculations should increase social benefits of the Corps's flood damage reduction studies. Examples of these consequences that are not included in the current benefit–cost guidelines contained within the *Principles and Guidelines* include lives saved (by structural and nonstructural projects), damages avoided to structures in floodplain evacuation projects, and preservation of biodiversity. Appropriate revisions of existing legislation, consistent with this recommendation, may have to be enacted by the U.S. Congress. The Corps should seek guidance from the Office of Management and Budget and seek consistency with other federal agencies on the use of alternative metrics for incorporating potential loss of life, environmental impacts, and other effects of floods. (NRC 2000) [original emphasis].

While reviewing the issues associated with maintenance of the ecosystem of the Missouri River, another National Research Council committee found that:

Executive Order 12893 strengthened the benefit–cost requirement for federal agencies at the same time that it opened the way for wider consideration of environmental values by urging greater quantification of all types of benefits and costs, but also the use of qualitative measures reflecting values that are not readily quantified (Office of the President, 1994). However, the *P&G* document has not been modified to include such approaches. (NRC 2002)

The Water Resources Development Act of 2000 (Section 216) requested the National Academies review Corps peer review procedures and methods of analysis. This effort was divided into five semi-independent studies. The committee looking at analytical methods found that:

**The Principles and Guidelines should be revised to better reflect contemporary management paradigms, analytical methods, legislative directives, and social, economic, and political realities. The new planning guidance should apply to water resources implementation studies and similar evaluations carried out by all federal agencies. A revised version of the P&G document should be periodically and formally reviewed and updated.** [original emphasis]

No significant action has yet taken place within the Administration in response to this recommendation that has been voiced multiple times by previous groups.

**Benefit-cost analysis should not be used as the lone criterion in deciding whether a proposed planning or management alternative in a Corps planning study should be approved (NRC 2004a)** [original emphasis].

The committee examining river basin planning techniques noted that:

Comprehensive guidance on integrated planning is not found in the current *Principles and Guidelines (P&G)*, particularly regarding the evaluation of non-commensurate social, environmental, and economic objectives and the identification of appropriate spatial and temporal scales to analyze a diverse range of project objectives. Existing guidance is thorough on traditional benefit-cost analysis (BCA), but the heavy reliance on analytical methods must be relaxed in the context of multi-objective, multi-stakeholder integrated studies. The *P&G* has not been revised for 20 years and should be updated to provide sufficient and balanced information on how to conduct integrated water systems planning within river basins and coastal systems. (NRC 2004b)

In a separate study of water resources planning for the Upper Mississippi River and Illinois Waterway, a National Research Council committee reported that:

Another example of federal direction that should be revised and clarified is within the federal *Principles and Guidelines (P&G)*, which has been unchanged since 1983. This 22-year-old document is regarded by many as the conceptual basis of U.S. federal water resources planning studies, yet it is silent on the subject of ecosystem restoration. The Corps adopted a National Ecosystem Restoration account in its 2000 planning guidance (USACE, 2000) as a legitimate project purpose and objective, yet the *P&G* continues to support single-purpose project planning dedicated to the maximization of National Economic Development. The report from the 216 study panel on analytical methods notes this and other shortcomings of the *P&G*, leading to a recommendation in that report that the *P&G* be revised Upper Mississippi (NRC 2005).

In 2005, US Army Corps of Engineers issued Engineer Circular 1105-2-409, *Planning is a Collaborative Environment*, to "provide revised procedures for the conduct of Corps water resources planning..." This Circular re-emphasized the necessity for studies to explicitly evaluate and compare the full range of alternative plan effects on national economic development, environmental quality, regional economic development, and other social effects.

A recent report by the Corps' Institute of Water Resources confirmed the importance of the consideration of other social effects indicating that, "While water resources planning has primarily been focused on enhancing economic well-being as portrayed in the National Economic Development (NED) account, well-being is a multi-faceted concept grounded in human needs that include distributive justice, social connectedness, equality, and health and safety considerations, in addition to economic well-being factors. Information on these multiple dimensions of well-being is increasingly being used by Federal agencies, the World Bank, and other countries to provide a more comprehensive understanding of quality of life and livability issues. A water resources planning process that incorporates a multi-dimensional conception of well-being positively influences the degree to which water resources solutions will be judged as effective, acceptable, and fair" (Dunning and Durden 2007). Establishing other social effects as an objective goes a long way in addressing this challenge.

As a result of the failure of the Congress and the Administration to revise Principles and Guidelines, many projects with strong environmental, social, and public safety benefits have been left on the table to the detriment of efforts to protect and enhance our natural environment, provide social justice for those who need our support, and offer life safety to the many people who live at risk in areas where the

economic benefits alone do not justify their protection. Our nation faces significant water resource challenges and we are not now properly addressing these water issues. Climate change will only exacerbate the challenges and place greater fiscal and management burdens on our society. Dealing with the future will require that the documents that guide the development of water projects produce projects that truly meet the needs of the Nation.

## References

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