DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
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WASHINGTON DC 20310-0108

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MEMORANDUM FOR COMMANDING GENERAL, U.S. ARMY CORPS OF ENGINEERS

SUBJECT: POLICY DIRECTIVE – Comprehensive Documentation of Benefits in Decision Document

1. Purpose. This memorandum issues policy direction on the comprehensive assessment and documentation of benefits in the conduct of U.S. Army Corps of Engineers (USACE) water resources development project planning. This policy updates current procedures, and emphasizes and expands upon policies and guidance to ensure the USACE decision framework considers, in a comprehensive manner, the total benefits of project alternatives, including equal consideration of economic, environmental and social categories. This directive pertains to pre- and post-authorization decision documents (reports), as well as other decision documents approved under delegated authorities. In addition, the directive may be applied to benefit-cost analyses required to support budgetary decision-making processes. As stated in my 15 July 2020 memorandum to the Deputy Commanding General for Civil and Emergency Operations, one of my highest priorities is to ensure this policy directive is implemented as soon as practicable.

2. Applicability. This directive applies immediately to all USACE elements having Civil Works planning, engineering, design, construction, and operations & maintenance responsibilities. The policies contained in this directive shall remain in effect and fully applicable unless and until modified, supplemented, amended, or rescinded expressly and in writing by the ASA(CW). See also, paragraph 8, Limitation on Modification.

3. Background. Civil Works planning guidance, contained in Engineer Regulation (ER) 1105-2-100 (Planning Guidance Notebook), provides the overall direction by which Civil Works projects are formulated, evaluated and selected for implementation. ER 1105-2-100, published in 2000, contains a description of the USACE planning process, missions and programs, specific policies applicable to each mission and program, and analytical requirements.

a. This directive supplements the guidance provided in ER 1105-2-100 by requiring comprehensive consideration of total project benefits including economics, environmental, and social categories, until a comprehensive update is accomplished.

b. As outlined in ER 1105-2-100, USACE currently applies the *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies* (i.e., Principles and Guidelines) when formulating and evaluating Civil Works water resources development project alternatives. The Water Resources Council released the *Principles and Guidelines* (P&G) in 1983.

c. Concerns about an over-reliance on national economic benefits as a required decision metric with secondary consideration of other important benefit categories in part led to the development of the *Principles, Requirements and Guidelines* (PR&G), which were approved by the Water Resources Council in 2014 and supersede the P&G. Agency Specific Procedures to implement the PR&G are currently under development in my office.

4. Policy. Project delivery teams (PDTs) must identify and analyze benefits in total and equally across a full array of benefit categories. The level of the analysis will vary based on the magnitude of the change, its relevance to decision-making, and the availability of data, tools, and procedures to quantify or monetize the benefit or impact.

5. Planning. PDTs must identify and consider objectives that are responsive to national, state, and local concerns when undertaking studies. As an example, all flood and coastal storm risk management studies will explicitly include a life safety study objective.

a. Non-federal partners, federal, state, and local agencies and public interests bring their expertise, programs, and projects together with USACE to solve complex water resources problems. Federal water resources planners will collaborate with non-federal partners and will consider state and local concerns and engage state and local interests in all aspects of planning. PDTs will identify the level of effort necessary to formulate and evaluate plans in full consideration of discussions with the public and stakeholders, and in collaboration with non-federal partners to ensure scoping decisions will enable an assessment of benefits in total and by type.

b. Plan formulation focuses on addressing the identified problems and meeting study objectives, including those responsive to national, state and local concerns. Consideration of state and local objectives in concert with national objectives necessitates the inclusion and assessment of a broad range of benefits and impacts, both qualitative and quantitative. PDTs use plan formulation strategies that emphasize the economy (national and regional), society and communities, and the environment alone or in combination to develop a reasonable array of alternative plans.

c. All USACE planning study PDTs must evaluate and provide a complete accounting, consideration and documentation of the total benefits of alternative plans across all benefit categories. Total benefits involve a summation of monetized and/or quantified benefits, along with a complete accounting of qualitative benefits, for project alternatives across national and regional economic, environmental and social benefit categories.

d. In computing total benefits of a project alternative, it is imperative that any benefits reflected in more than one category are only counted once. The level of detail will vary based on study type and the decision-context for the specific problems identified, recognizing that not all benefits can be monetized, and some cannot be cost-effectively quantified. Even if non-monetary measures are used, these benefits and impacts must be accounted for in the most substantive way possible.

e. Alternative plans will be assessed to determine if they have net benefits in total and by type. This judgment will be in collaboration with non-federal partners and in consideration

of other study interests and stakeholders, using available data, analysis, input from peer review, and professional judgment. The set of plans judged to have net benefits will be candidates for further analysis.

f. Candidate plans may include plans that state and local governments could implement without federal participation. It may also include plans that reflect the full range of federal interest as defined by the study authorities and public laws, executive orders, and other statements of the Administration and Congress, including activities that can be carried out by other Federal agencies.

g. Each study must include, at a minimum, the following plans in the final array of alternatives for evaluation:

(1) The "No Action" alternative.

(2) A plan that maximizes net total benefits across all benefit categories.

(3) A plan that maximizes net benefits consistent with the study purpose.

(4) For flood-risk management studies, a nonstructural plan, which includes modified floodplain management practices, elevation, relocation, buyout/acquisition, dry flood proofing and wet flood proofing.

(5) A locally preferred plan, if requested by a non-federal partner, if not one of the aforementioned plans.

6. Evaluation. Benefit categories encompass economic (national and regional), environmental (national and regional), and social considerations. Sufficient guidance and procedures exist to account for benefits to the national economy and the environment but not for the regional economy or other social benefits. The following guidance is provided to account for the regional economic, other social benefit and environmental categories:

a. Regional Economics.

(1) Benefits to the regional economy not already accounted for in the national economic assessment, both positive and negative that result from each alternative plan compared to the future without project condition, must be analyzed. These impacts occur from the construction of the project and from the contribution to a regional economy from the functioning of the project.

(2) Construction impacts may be transitory and may end when the construction is complete. Construction expenditure generates income to the owners of the goods and services hired to construct the project. These owners then save and spend that income. During the spending process, some of the economic impacts from construction affect the regional economy and must be accounted for; others may "leak" to other regions and the rest of the country due to purchasing of goods and services not produced in the local region.

(3) All reports must display (quantitatively, qualitatively, or both) the regional economic benefits arising from project construction. In particular, reports must display the changes in regional income and employment in the local region as well as those changes in the rest of the U.S. economy from construction.

(4) Functioning infrastructure may also result in transfers of economic activity from other regions due to the project efficiencies. These represent regional economic gains to the project region but may cause losses to other regions. A complete accounting of regional economic impacts must identify the size of these transfers. The area of regional impacts will vary depending upon the type and scope of the project. An example of a potential regional economic impact could include a change in profits of a grain elevator resulting from the construction of a navigation project. Those benefits would be captured in the regional economic analysis but not reflected in the national economic analysis as another grain facility could capture their business.

(5) Studies must quantify the regional economic impacts on local and regional income, employment, and other measures of the regional economy from the construction of and operation of a project such as changes in property or land value, to the extent practicable for each alternative. Where impacts are anticipated to be the same across all alternatives or not play a significant role in the evaluation of alternatives and selection of a recommended plan, a qualitative assessment may suffice.

b. Other Social Effects.

(1) Other social considerations include a wide range of factors. PDTs will consider the following: urban, rural and community impacts; life, health, and safety factors; displacement; and long-term productivity.

(2) PDTs may also consider other benefits beyond those listed. Planned considerations must be communicated and discussed with the non-federal partners. PDT coordination of planned considerations with the vertical team early in the study process is recommended.

(3) Relevant factors must be described and analyzed in the most substantive manner possible, whether quantitative or qualitative. The analysis may present the same factor from multiple points of view. The analysis must also take into account who benefits as well as who is adversely affected because of each alternative.

(4) Flood and coastal storm risk management reports must include an assessment of potential mortality (life loss) for the future without project condition, as well as estimated changes in potential for and magnitude of mortality (life risk) for all alternatives in the final array. Where the change is anticipated to be the same across all alternatives or not play a significant role in the evaluation and selection of a recommended plan, a qualitative risk assessment will suffice.

(5) The residual risk to life safety must be determined for the recommended plan and when changes in estimated life loss play a significant role in decision-making.

c. Environmental. For each alternative plan, positive and negative benefits to the environment must be analyzed consistent with current ecosystem restoration or environmental compliance guidance. The benefit assessment can be quantitative or qualitative and, if appropriate, monetized. The analysis must distinguish between national and regional benefits while ensuring benefits are not accounted for more than once.

7. Documentation.

a. Reports must include a full discussion and display of the benefits, both positive and negative, in total and across all benefit types for each plan and a comparison of costs and benefits among plans. Trade-offs between the plans must be described and, where possible, displayed quantitatively. Cost-sharing responsibilities for each plan must be assessed and included in the report, including displays. Any overlap in benefits among the benefit types, such as national and regional economy types, must be noted in the report and displays. Reports should be collaborated with and explained to the non-federal partners and coordinated with other federal agencies when including activities that can be carried out by other federal agencies.

b. Reports will explain the rationale and basis for the recommended plan, including the full and equivalent considerations of benefits in total and by type. The report will outline the basis for selecting the plan based on monetary, quantitative, or qualitative outputs and federal, state, local, and international concerns. For flood and coastal storm risk management, these reasons may include life safety and managing residual risk.

c. If the recommended plan requires an exception from the Assistant Secretary of the Army for Civil Works (ASA(CW)), the office preparing the report will request the exception before the draft report is released for review.

d. The report will clearly present the responsibilities of the various parties in implementing the recommended plan, including any funds required by cost share and other items of local cooperation.

e. Recognizing some studies will be ongoing at the time of issuance of this guidance, the requirement of inclusion and analysis of total benefits as described in this guidance depends on the stage of the study and its nearness to completion. This guidance will be implemented as follows.

(1) Studies that have completed the Tentatively Selected Plan (TSP) milestone will document total benefits inclusive of all benefit types for the TSP. At a minimum, benefits will be described qualitatively for those benefits categories for which analysis is not included in the approved study plan.

(2) Studies that are underway but have not yet completed the TSP milestone will document total plan benefits inclusive of all benefit types for each alternative plan, either quantitatively or qualitatively, and fully consider such information in the decision-making process.

(3) Future detailed studies will include comprehensive analysis of the total benefits of each plan including equal consideration of all benefit types in the study scope of work. When determining the scope of work, the PDT must collaborate with the non-federal partner and consider the views of the public and stakeholders. PDTs must make every effort to utilize a similar level of detail for each benefit category.

f. The availability of data, tools, and methodologies may limit the PDT's ability to quantify benefits. As a result, new or expanded procedures may be required to support complete and commensurate evaluation of all benefit types and enable an assessment of the total benefits associated with any plan including total benefits across all categories of benefits. Use of such non-standard procedures requires vertical team coordination and the approval of the ASA(CW).

g. While it is not expected to be the case for most studies, if evaluation of total benefits results in the study exceeding $3 million and three years, a vertically aligned exception request must be submitted to the ASA(CW) to establish the time and money required to complete the required tasks to assess all benefits. This exception request should be made early in the study process to ensure adequate coordination regarding the anticipated level of detail and analyses required.

8. Limitation on Modification. Under no circumstances shall this directive be modified, supplemented, amended, or rescinded, directly or indirectly, nor shall the Corps take action not in accordance with the policies and directions herein, without the express written approval from the ASA(CW). This directive may be republished as an Engineer Circular (EC) provided that (1) the EC's content is verbatim to this memorandum, (2) the EC is issued, by exception, without an expiration date, and (3) prior to publication, the EC is reviewed and approved in writing by the ASA(CW).

9. Initial Implementation Meeting. A meeting shall be held NLT 15 January 2021 addressing USACE plans for implementing this directive. That briefing must include an assessment of how ongoing studies will account for total benefits in their analyses, what plans need to be in place to account for gaps in standard procedures, and the status of guidance to enable equivalent accounting for regional economic and other social benefits.

10. Questions regarding this guidance shall be directed to Robyn Colosimo, at (703) 209-6354 or robyn.s.colosimo.civ@mail.mil.

R.D. JAMES
Assistant Secretary of the Army
(Civil Works)

CF:
DCG-CEO, USACE
DCW, USACE

References

1. 33 U.S. Code (U.S.C.) §2281. Matters to be addressed in planning.

2. 33 U.S.C. §2282a(d). Calculation of benefits and costs for flood damage reduction projects.

3. U.S. Water Resources Council, 1983, "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies." (https://planning.erdc.dren.mil/toolbox/library/Guidance/Principles_Guidelines.pdf)

4. Council on Environmental Quality, 2013, "Principles and Requirements for Federal Investments in Water Resources." (https://obamawhitehouse.archives.gov/sites/default/files/final_principles_and_requirements_march_2013.pdf)

5. Engineer Regulation (ER) 1105-2-100, 2000, Planning Guidance Notebook. (https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1105-2-100.pdf)

6. ER 1105-2-101, 2017, Risk Assessment for Flood Risk Management Studies. (https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_1105-2-101.pdf)

7. Assistant Secretary of the Army (Civil Works) memorandum dated 3 April 2020, subject "Comprehensive Documentation of Benefits in Feasibility Studies"

8. Assistant Secretary of the Army (Civil Works) memorandum dated 15 July 2020, subject "Assistant Secretary of Army for Civil Works Priorities"

9. Water Resources Development Act of 2020, Section 110, IMPLEMENTATION OF WATER RESOURCES PRINCIPLES AND REQUIREMENTS, Public Law 116-260, 27 December 2020

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