

Water Resources Council Revisions of Its 1973 "Principles and Standards"

by Margaret S. Hrezo*

Introduction

The U.S. Water Resources Council's "Principles and Standards" furnishes important guidelines for managing the nation's water and related land resources. The principles provide a "broad policy framework for planning activities and include the conceptual basis for planning" the management and use of these resources,¹ while the standards outline how this policy framework should be implemented by detailing uniform, consistent methods of measuring the "beneficial and adverse effects of alternative plans."² Both principles and standards seek to further two specific objectives: the promotion of national economic development and the preservation of environmental quality.³

Recent revisions in the 1973 "Principles and Standards" reflect a new perspective in planning for the management and use of water and related land resources. This perspective developed from President Carter's June 1978 message to Congress, in which he outlined four water policy goals to aid the attainment of the "Principles and Standards" objectives:

1. To improve the planning and management of federal water programs,
2. To provide a new national emphasis on water conservation,
3. To increase attention on environmental quality,
4. To enhance federal-state cooperation and state water resources management.⁴

These goals resulted in no major program or policy

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revisions. The key element of the 1979 "Principles and Standards" is an increased acknowledgment that water and related land resources are not unlimited or free goods and that care and efficiency must be expended in their management and use.

The four most important shifts reflected in the revised "Principles and Standards" are (1) an increased stress on water conservation and environmental quality in water resources planning, (2) an emphasis on the formulation of nonstructural plans for all types of water resources projects, (3) an increase in the planning role of state and local governments, and (4) an acceptance of the assumption that water and related land resources have economic costs, which includes an emphasis on measuring the marginal costs of water and the public's willingness to pay. Other revisions include a clearer explication of the "Principles and Standards" planning objectives, a specific acknowledgment of the unity of the hydrologic cycle, a new focus on the role of the President in the management of water resources, and a scaling down of expectations about the potential achievements of the planning process.

Water Conservation

The most important revision is the emphasis placed on the importance of water conservation. The 1973 "Principles" section I V(E) on the evaluation of alternatives has been replaced with a statement charging planners to integrate fully water conservation into "project and program planning and review,"⁵ and a paragraph reemphasizing this mandate has been added to "Standards" section I I (A). This requirement reappears in revised "Standards" section IV(E), which calls the integration of water conservation into project and program planning "a means of achieving both the national economic development and envi-

ronmental quality objectives."⁶ This section also defines water conservation as actions that will "(a) reduce the demand for water; (b) improve efficiency in use and reduce losses and waste; and (c) conserve water." It accents a clear difference between "the above conservation elements and storage facilities for new supplies"⁸

Complementing the direct water conservation mandate is the addition of the words "management" and/or "use" in several sections. The national economic development subsection of section V(B) now calls for the efficient, productive "use" of facilities, energy, transportation services, and public services.⁹ The revisions call on planners to evaluate the costs of alternative water supply sources in terms of the "more efficient use of water" in addition to fulfilling the 1973 version's evaluation criteria of additional product output.¹⁰ Moreover, revised "Standards" section I I (D) replaces the "development" of water and related land resources with the phrase, "development and management."¹¹ This new phrase suggests that a value be placed on conserving present resources equal to that placed on the development of future ones. The new text also specifically requires the consideration of "conservation measures that can alter future demand" when planners evaluate resource capabilities.¹² Finally, the 1979 revisions underscore the importance of water conservation by adding to several sections a directive to "balance water use with supply"¹³ or to "balance water availability against competing purposes"¹⁴ in the evaluation of alternative plans.

The inclusion of water conservation and environmental planning in the revised "Principles and Standards" was designed to aid in the fulfillment of the Council's twin objectives of the promotion of national economic development and the preservation of environmental quality by releasing productive water resources for other uses. For example, improved water management may reduce the consumptive use of water for irrigation and "make that saved water available to irrigate additional acreage, provide for municipal use, or satisfy in-stream flow needs for fish and wildlife without the construction of additional supplies."¹⁵ The revised "Principles and Standards" makes clear the unifying role of water conservation in the accomplishment of both Council objectives.

Nonstructural Plans

The new requirement in the revised "Principles and Standards" that planners prepare "at least one primarily nonstructural plan" reinforces the water conservation mandate.¹⁶ For instance, such plans

must now be prepared for flood control, hydro-power, and supply augmentation projects. Since nonstructural plans are demand-reducing measures, a "primarily nonstructural plan" is one which makes the "maximum feasible use" of such measures as "a means of addressing water resources problems and needs," and the "ideal nonstructural alternative" is the plan that offers the most benefits in terms of maximizing economic development and environmental quality for the least cost.¹⁷

Federalism

The revised "Principles and Standards" seeks to increase cooperative federalism by stressing the partnership between the national government and state and local governments. The new definition of "planner" specifically mentions "Federal, State, or local entities."¹⁸ Moreover, revised "Standards" section I V (E), which deals with the consideration and com-

parison of alternatives, states the importance of formulating non-Federal plans and forbids the recommendation of plans that "would physically or economically preclude alternative non-Federal" options that would "more effectively" achieve the environmental quality and economic development objectives.¹⁹

Water as an Economic Good

The revised "Principles and Standards" emphasizes the necessity of obtaining estimates of the marginal costs of these resources, of the public's willingness to pay for them, and of any external economies associated with water and related land resources. It recommends the use of these concepts by utilities and those engaged in planning additional watersupplies or water-based or enhanced recreational opportunities. Manipulation of these concepts, it argues, can lead to more efficient management and use of water and related land resources. More realistic pricing policies that better reflect the actual costs of providing water services, for example, could reduce the demand for water, thus alleviating the necessity for new structural water supply augmentation plans. Information on the willingness of recreationists to pay at least a share of the cost of providing water-based or enhanced recreational opportunities will help planners balance competing demands for available water supplies.²⁰

Other Revisions

An effort is made throughout the revised "Principles and Standards" to provide a clearer explanation of the policy's overall objectives. For instance, the 1973 "Standards" section IV (E) called for the evaluation of alternatives in terms of their contribution to meeting objectives. However, the "Principles and

Standards" specified the nature of these objectives in only one or two places. The 1979 version, on the other hand, reiterates throughout the text that promotion of national economic development and preservation of environmental quality are the specific objectives to be met.²¹

Second, the revised "Principles and Standards" recognizes the unity of the total hydrologic cycle. "The conjunctive relationship of groundwater with surface water" is now specifically mentioned as physical data that should be included in any water and related land resources inventory.²² The 1973 version tended to treat each type of water resource as a separate, segmented entity.

The 1979 text substantially revamps the section on flood control, land stabilization, and related activities. While the 1973 "Principles and Standards" called for the "prevention or reduction of inundation" and the "prevention of damage from inadequate drainage," the revised section stresses the utilization of environmentally sound flood control or land stabilization measures.²³ For instance, the 1979 directives explicitly suggest the protection of natural streamflows as a means of reducing flooding.²⁴ Moreover, the old regulations did not include this section's 1979 mention of the "improvement of drainage and protection of wetlands."²⁵

The revised directives also include new references to the role of the president and to the policy initiatives he has undertaken in the area of water and related

and resources. While the 1973 "Principles and Standards" made no mention of a presidential role in water resources management, the revisions mention his directives to "scrupulously adhere" to the "Principles and Standards" in the "planning, review, and implementation of Federal waterresources projects" and to fully integrate water conservation" into project and program planning and review."²⁶

Last, the 1979 text evidences a more realistic set of expectations concerning the potential achievements of the planning process. The initial regulations called for "plans to meet problems and needs." This directive has been replaced with the realization that plans and procedures can only "contribute" to meeting needs or achieving policy objectives.²⁷

Summary

These "Principles and Standards" revisions have the potential to strengthen the Carter Administration's water policy goals and thus to aid in achieving environmental quality and national economic development as objectives. Water conservation, an increased emphasis on nonstructural plans, and the more efficient management and use of existing resources would contribute to the attainment of both these goals. Acknowledgment of the unity of ground and surface waters and the importance of a cooperative relationship among all relevant agencies, groups, and levels of government makes comprehensive resources planning easier. A clearer understanding of the economic aspects of water and its related land resources should further more efficient resource management and development and should educate the public about the true costs of these vital resources. Finally, more realistic expectations about the continual development of new economical sources of water supply, the efficacy of purely structural plans, and the capabilities of the entire planning process should result in a more balanced approach to water resources planning and to a better accommodation of the goals of economic development and environmental quality.

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FOOTNOTES

Water Resources Council, "Water and Related Land Resources: Establishment of Principles and Standards." *Federal Register*, Vol. 38, No. 174, Part III (September 10, 1973), p. 4. The revisions reviewed in this report were printed in *Federal Register*, Vol. 44, No. 242 (December 14, 1979), pp. 72978-72990. The page numbers cited in the following footnotes refer to the changes in the 1973 version.

2. *Ibid.*, p. 4.

3. *Ibid.*, p. 5.

4. "Water Policy: What the Feds Are Doing," *Nation's Cities Weekly* (Washington: National League of Cities, January 1, 1980), p. 9.

5. "Principles and Standards," p. 11.

6. *Ibid.*, p. 86.

7. *Ibid.*, p. 86.

8. *Ibid.*, p. 86.

9. *Ibid.*, pp. 34, 94.

10. /*bid.*, p. 42.

11. /*bid.*, p. 33.

12. /*bid.*, p. 98.

13. /*bid.*, pp. 86, 98.

14. *Ibid.*, p. 95.

15. /*bid.*, p. 38.

16. /*bid.*, pp. 13, 26, 39, 87, 90, 100, 102.

17. /*bid.*, p. 87.

18. /*bid.*, pp. 13, 86-87.

19. /*bid.*, p. 87.

20. /*bid.*, pp. 39, 43-46, 50, 54-55, 57, 59.

21. /*bid.*, p. 86.

22. /*bid.*, p. 98.

23. *Ibid.*, p. 44.

24. /*bid.*, p. 44.

25. /*bid.*, p. 44.

26. /*bid.*, p. 26.

27. /*bid.*, pp. 26, 95, 97.

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