

KEY CONCEPTS FOR COMPREHENSIVE STATE WATER PLANNING

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Abstract. In a national review of state water planning efforts conducted in 2000, eight states were found to have developed comprehensive water resources plans. The concept is gaining support as nearly half of the states nationwide were studying or considering their development (Kundell et al., 2000). Georgia formally began exploring comprehensive state water planning through the passage of Senate Resolution 142 during the 2001 legislative session, which created a Joint Comprehensive Water Plan Study Committee and Water Plan Advisory Committee. In the 2003 legislative session, there are two bills proposing comprehensive state water planning legislation. These competing bills reflect the broad debate among state and local elected officials, state agency representatives, business/industry and agribusiness, the environmental community, and the media on this topic. Although there is not one perfect approach to comprehensive water planning, there are key concepts (authority, coordination and communication, inclusiveness, accountability, and efficiency) to ensure a quality product that is relevant to government, state agencies, and the public.

INTRODUCTION

Recent events have placed extraordinary pressure on Georgia's water resources. These events include a severe statewide drought, the tri-state water negotiations (Georgia, Florida, and Alabama), and the federal court order to develop total maximum daily load (TMDL) plans to achieve water quality standards. In addition, the state experienced unprecedented growth during the 1990's. These factors have created increased demand for water and need for environmental protection measures. Water management and water resource protection are more difficult when program responsibilities are divided among state agencies or fragmented across divisions within one state agency, as is the case in Georgia. Other states have found that comprehensive state water

management plans can reduce fragmentation (Kundell et al., 2000).

Georgia formally began exploring comprehensive state water planning through the passage of Senate Resolution 142 during the 2001 legislative session (SR 142, 2001). This resolution created a Joint Comprehensive Water Plan Study Committee and Water Plan Advisory Committee to study how Georgia might address its water resources concerns. The subsequent fifteen-month process resulted in recommendations that can guide the development of a state comprehensive water resources management plan (JSC, 2002).

The recent pressure on water resources and legislative attention have initiated a broad public discourse among state and local elected officials, state agency representatives, business/industry and agribusiness, the environmental community, and the media on water planning and management. This discourse is reflected in two competing bills currently under debate by the 2003 General Assembly (HB 237, 2003; SB 180, 2003). Much of the water planning debate focuses on options to address key comprehensive state water planning concepts such as authority, coordination and communication, inclusiveness, accountability, and efficiency (PFWG, 2002).

BACKGROUND

A nationwide survey of state water planning efforts revealed that all states conduct some type of water-related planning but the type varies considerably (Kundell et al., 2000). State water plans generally can be classified as: (1) service development, (2) agency, (3) resource, and (4) comprehensive plans.

Types of State Water Plans

Service development plans focus on infrastructure to develop and deliver water to a segment of the population or to an area within the state. For example, statewide reservoir development may be a priority to meet water supply goals.

water plan. The enabling legislation should identify authority for developing, approving, and implementing the plan. It must define a process for including expert and stakeholder access to shaping the development of the plan. The enabling legislation also must outline how local and regional water planning fit within the state framework. This includes the requirement that water-related management actions of federal, state, regional, and local entities comply with the comprehensive state water management plan.

DISCUSSION

Authority

A primary purpose of the enabling legislation is to determine authority for developing, approving, and implementing the plan. Maximizing strengths and minimizing weaknesses of the planning system are key objectives in establishing authority. The planning system should create a system of checks and balances that diminish the potential impact of personalities and politics. It should be simple and flexible to remain relevant over time, yet have enough structure and authority to prevent hasty and/or shortsighted dismantling. The extent to which these objectives are met is determined by how authority is configured and balanced among the various actors.

Lead agency responsibility for developing the plan carries significant authority. An existing state agency with water-related statutory responsibilities and programs that has experience and expertise in planning, regulating, and managing water resources is a good candidate for the lead agency (LASS, 2001). However, no single state agency should develop or implement the plan in isolation of other entities that have water-related responsibilities and/or impact on water resources.

Interagency coordination in the development and implementation of the plan can protect the authority of existing water-related state agencies and avoid perceptions of power imbalances. This could be achieved by creating an interagency coordination and cooperation group composed of the heads of all state water-related agencies and appointees. This group could be administratively attached to the governor's office and have the authority to approve the plan because the plan should be a compilation of the water programs administered by these state agencies.

Executive and legislative leadership in the development and implementation of the state comprehensive water plan is critical and the authority

vested in these leadership positions is significant. The governor and legislature are key leaders in the passage of needed water policy legislation and appropriations for agency staffing and/or program budgets. The placement and composition of the interagency coordinating group is designed to link the planning process with the executive and legislative levels. The legislature has additional access to the planning process through appointments to the interagency coordinating group, while the heads of state agencies (including those on the interagency group) serve at the pleasure of the governor.

Coordination and Communications

The interagency coordinating group also may be the best method to reduce water management and decision-making fragmentation. Members of the group should represent the interests and initiatives of their agency including their board of directors. While the state water programs are compiled under one plan, individually each agency should continue to implement the portions of the plan under their statutory authority. In this manner, high-level interagency coordination and communication will integrate the statutory authority and responsibility critical to link (1) plan development, (2) plan implementation, and (3) resource management program implementation.

Inclusiveness

Inclusiveness at the agency, executive, and legislative levels has been addressed in the description of authority and coordination. Stakeholder involvement is critical for a full measure of inclusiveness. In addition, stakeholder involvement contributes significantly to the checks and balances previously mentioned and accountability as discussed below. Scientists and technical experts should provide guidance in the development of the plan. This can be achieved by creating an advisory group composed of scientists and senior staff from state and federal water-related agencies and the University System of Georgia. In addition, broad yet organized public and interest group involvement in developing and reviewing the plan are critical for its successful implementation. The involvement of these groups will ensure that the planning process is enriched by the state's intellectual capital and reflective of public values.

Accountability

Effective comprehensive state water plans include methods of ensuring accountability. Many states use benchmarks (program objectives) and annual milestones

(Kundell et al., 2000). Benchmarks and milestones are good tools for evaluating whether programs are effectively making progress toward the state’s water vision. This evaluation can occur in association with the annual agency budget cycle. In addition, evaluations of progress should be reflected in revisions to the plan. Benchmarks and milestones may be developed by the lead agency in cooperation with all collaborating agencies and stakeholders.

Efficiency

The most common water resources planning approach used nationwide is the development of a hierarchy of plans (Kundell et al., 2000). Like nested Russian dolls, the state comprehensive, river basin or regional, and local plans, fit together to integrate the legal framework, public values, data and information, and water service delivery components of water resources management. A hierarchy of plans linking new comprehensive state water planning legislation with existing legislation and programs is a highly efficient way to accomplish the functions and needs that must be addressed on the statewide, river basin, and local levels. It is also an efficient way for information gathered at each planning level to inform and compliment the other plans.

River basin plans could be continued under the Georgia River Basin Management Plan Act (O.C.G.A. § 12-5-30(a), 2000). The existing program could be improved by moving beyond developing overview assessments of river basin resources to a thorough identification of basin goals, issues, and strategies. In addition, the plans should gather and incorporate the necessary data, modeling, and monitoring to support this identification. This could include monitoring and assessing the quality and quantity of water and aquatic resources, projecting future water demands, and offering specific strategies to meet water quality and quantity goals including local and regional service delivery infrastructure.

Local water plans usually focus on drinking water and wastewater treatment service delivery. Increasingly, local governments also have been undertaking watershed assessment and stormwater planning (DeMeo and Kundell, 2001). In addition, local government water plans are included as components of local comprehensive plans required under the Georgia Planning Act (O.C.G.A. § 50-8-7.1(b), 2000). Further, local government service delivery strategies are required under the Service Delivery Strategy Act (O.C.G.A. § 36-

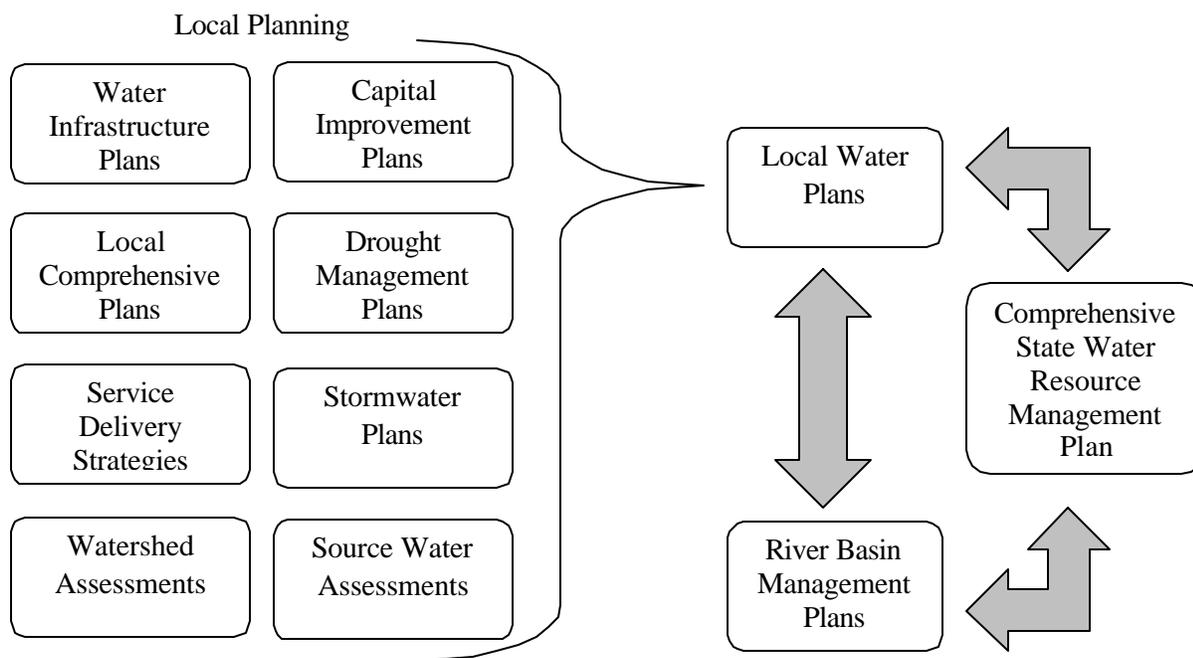


Figure 1. Hierarchy of water plans with iterative information exchange.

70-1, 2000). These plans could be unified and expanded to include current and future water supply and infrastructure needs to meet population projections and accurate estimates of capital costs to meet these needs. As well, the current, locally required watershed assessments, source water assessments, stormwater plans, and drought management plans may be continued to protect water quality, aquatic habitats, and public drinking water sources.

Hierarchy of Plans

Each of the plans in the hierarchy serves a different function. The state plan is a policy document. The river basin plans document water resource opportunities and cumulative impacts on the resource. The local plans document fine-scale resource conditions and human needs. The river basin and local plans capture data, information, monitoring, modeling, trend analysis, etc. These plans are available to inform the comprehensive plan but do not weigh down the essence of statewide planning (legislative policy and appropriations). Because each plan serves a different purpose and the information contained in each informs the others in an iterative process, this hierarchy moves away from the bottoms-up/top-down debate for plan development (Figure 1). Using a hierarchy configuration in which each planning level compliments and enriches other plans is a highly efficient method to meet the needs and purposes at the state, river basin, and local levels.

SUMMARY

Integration of water management goals and programs into a comprehensive plan is critical for effective and efficient water resources management. A key benefit of a comprehensive water plan for Georgia is to provide the mechanism to eliminate fragmented water resources decisions by considering the cumulative impacts of state agency actions. A comprehensive plan, based on the concepts in this paper, could provide the leadership and visibility for resolving statewide water issues and supporting state agency accountability. The concepts suggest a seamless strategy for managing water across agencies,

ensuring stakeholder access to the planning process, and encouraging agency commitment to the plan and its implementation. Further, linking the comprehensive state water plan to the river basin and local levels through a hierarchy of water plans suggests an efficient strategy for integrating water information and decisions at all levels.

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