

GEORGIA'S NEW PARADIGM: A SHIFT IN PERSPECTIVE

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Abstract. Because of the many changes that have occurred in Georgia in recent years, a new paradigm has emerged. We now have an equal and parallel commitment to encourage a healthy and productive economy and to preserve our natural systems. Business leaders and citizens alike understand that these goals are not mutually exclusive; in fact, all evidence points to the fact that they are internally consistent.

But our promotion of these simultaneous goals is being constrained, because we have isolated our economic from our environmental planning. As Georgia considers a statewide water management plan, the strategy should integrate environmental with economic planning, and include comprehensive land use and ecosystem protection, dependence on sound science, and active solicitation of public participation. A regional environmental management strategy integrated with regional economic planning improves social equity, environmental health, and promotes sustainable economic development.

BACKGROUND

The changes that have occurred in Georgia over the last three decades have brought a corresponding change in our priorities. Expanding economic opportunities available in Georgia have led to dramatic population increases, which in turn have necessitated an increase in the associated infrastructure (roads, housing, sewers, etc.) to support this growth.

As a result, severe stress has been placed on many of Georgia's natural systems. For example according to the most recent EPA statistics, Atlanta air pollution is some of the worst in the nation, many of our waterways are impaired, and certain coastal ecosystems are endangered. Georgians perceive that the continued increase in this level of environmental stress is not sustainable - that this incremental

degradation of the ecosystem has the long-term result of eventual collapse.

Likewise, the business community and Georgia legislators understand that a healthy environment is necessary for continued economic prosperity (Doering, 2002; O.C.G.A. Section 2-5-571). Abundant natural resources are a necessary element for almost all economic endeavors, from agriculture to residential development. The impact of dirty air and water on human health, lowered property values, and the more esoteric effects of pollution (e.g., lowered quality of life, social inequity) depress economic prosperity. In addition, a degraded environment has significant detrimental effects on recreational opportunities, like fishing, boating, hiking, and others. The recreation industry adds billions of dollars to Georgia's economy (U.S. Census Bureau, 1997). Never before has it been so clear that abuse of the environment results in negative economic impacts.

The negative consequences of this schism between environmental protection and economic development are clearly evident in the management of water supply in Georgia. Water supply providers (generally local governments) distribute supplies on a regional basis (i.e., across multiple government jurisdictions). These suppliers appreciate the economies of scale that exist in regional water supply production and delivery, and every attempt is made to take advantage of these benefits of scale through cooperative efforts with their neighboring governments.

But as population increases and supply becomes limited, there is a growing concern among local government officials that they cannot continue to depend on the ability of their neighbors to share their water resources in the future. As a result, there has been a "rush to the trough", with each local government creating and protecting its own supply through building new reservoirs, pumping groundwater, or installing new pumping stations in rivers and streams.

This demand for self-supply, though understandable, results in redundant and fragmented (i.e., costly) supply

distribution systems. The long-term consequence of this increasingly inefficient management strategy is an inadequate water supply to meet future, increasing demands. In addition, increasing river regulation may have profound negative effects on aquatic habitats located a significant distance from the point of water withdrawal (Collier, 2000; Cowie, 2002).

THE PARADIGM SHIFT: A REGIONAL STRATEGY

Even as this movement toward self-supply accelerates, many citizens of Georgia and their community leaders are aware that this waste of resources, both financial and natural, is neither smart nor sustainable. But our current approach to environmental protection, where the media or system elements (air, water, land, human, and non-human) are separated from the whole in which they exist, leaves us without the ability to understand the inter-relationships between these systems and creates a regulatory nightmare for those responsible for compliance (President's Council on Sustainable Development, Task Force Report, 1999). The current media-based approach to environmental management is an absolutely necessary foundation upon which to understand the functions of the parts of the system; but these parts must now be integrated in order to understand, protect, and enhance the whole (Clements, 1996).

In addition, our current economic development strategy is de facto isolated from a strategy for environmental protection. Even when directed to consider environmental factors in efforts toward regional economic planning, consideration of the environmental component has been delegated to the various (and numerous) state and federal environmental protection agencies. In fact, historically economic planning and environmental protection have competed for scarce public and private funds. Perceived as a zero sum game, each program is seen to gain only at the expense of the other. And so the concurrent promotion of goals within the 2 programs is constrained.

Therefore, a management strategy integrating the various elements of environmental protection (utilizing a whole, systems approach) with economic development is needed to reduce this limitation. To accomplish this integration, a simple bridge between economic development and environmental protection is not sufficient. There must be a new framework that truly blends the 2 programs and merges the multiple

objectives so they can complement instead of compete with each other.

A local example where this integration has been effectively accomplished is in the Metropolitan North Georgia Water Planning District (Metro Water District). The Metro Water District is a planning entity dedicated to developing regional and watershed-specific plans for a 16-county area around Atlanta. The Metro Water District's close alignment with its regional economic planning agency results in a successful integration of economic planning with the environmental management of water. Going forward, similar efforts that integrate regional economic planning and regional management of the environment should be created and implemented throughout the state.

Framework Elements of a Regional Strategy

Within the context of this paper, "regional" management is loosely defined as one in which the service/management area includes multiple governmental jurisdictions. Criteria for designation of the "borders" of a region can be based on generalized watersheds, on specific watershed ecosystems, or some other ecologically defined boundary. In Georgia, many resources are not utilized exclusively on a watershed basis (e.g., Coastal Georgia is located in 5 watersheds but primarily utilizes groundwater for supply; the Albany area uses significant amounts of water from both the Flint River and multiple groundwater aquifers; the Atlanta area withdraws water from 5 separate watersheds), so a consideration of political boundaries (as utilized within the Metro Water District) may be necessary and advantageous. It is not the type of boundary chosen that is important, but that it be well defined and consistent across the state (Adler, 1995).

An important element to be considered in the delineation of the "border" is the aerial extent of the region. The perspective for decision-making must be large enough to assure that local preferences and interests are submerged within the larger interests of the region and State. Authority must be given to the regional decision-makers (either through the legislature or through explicit mutual consent) so that decisions made in the best interest of the region are enforceable. However, it must be clear that all decisions made by the regional authority must be in the best, long-term interest (both in the monetary and environmental sense) of all local entities (Rawls, 1971).

To define the specific details of a regional strategy, one can consider the varied strategies utilized in cities, counties, and states across the US and indeed countries throughout the world (International Council for Local

Environmental Initiatives, 2003) and depend on the unique characteristics of the community. But in each case, the specific strategy chosen was not as important as that there was active local participation (Rinne, 1996). Regional management, a strategy in which local participants have a “seat at the table”, allows (even compels) citizens to participate in their economic and environmental future.

Regional management does not take place outside the control of conventional regulatory agencies, and the role of the regional authority does not duplicate that of the regulatory agencies. The focus of the regional authority would be to develop clear and comprehensive goals for regional development, and to identify and reduce or eliminate activities associated with implementation of these goals that may place a disproportionate burden on any social sector or may result in negative impacts to regional resources. Discussions of resource allocation or regional impact can be made with the full knowledge of all participants, thus decisions that are in the best interest of all citizens can be realized. Decisions must be carried out using an open and transparent process to ensure that the goals of any project are not diverted from those upon which previous public agreement had been obtained.

In order to minimize those activities that have negative social, economic, or environmental regional consequences, a great deal of information is required. Although much of this data is generated by state/federal agencies and research institutes, the appropriate evaluation and application of this data to help solve regional problems would be a function of the regional authority. Although the interpretation of certain data is subjective and not amenable to quantification, a process that, to the maximum extent possible, is fact-based will allow local participants to more easily assess the pros and cons of an action.

Benefits of Regional Management for Environmental Protection

Current environmental protection programs in Georgia that are regional in scope are media-specific (e.g., Source Water Protection Plans, State Implementation Plans for Air Quality, Metro Water District). However across the US and the world as effective management strategies are identified, regional management strategies that are multi-media and focus on ecosystem protection are gaining popularity (EPA, 1996). Because many environmental problems are interrelated, an ecosystem approach yields a more complete understanding of overall

conditions in an area and the stressors that affect those conditions (EPA, 1996). An ecosystem management strategy does not replace conventional regulatory oversight programs; but because regional ecosystem management programs are cross-functional, they are a cost-effective means to support and advance many of the State’s efforts toward economic development and environmental protection (Executive Order 13123, 1999.)

Benefits of Regional Management for Economic Development

In Georgia, regional planning for economic development was initiated in 1947 with the creation of the Metropolitan Planning Commission (now the Atlanta Regional Commission). The importance of regional planning continues to be emphasized through state government actions (creation of Regional Development Centers in 1963, Local Government Services Delivery Strategy Act of 1987, Georgia Planning Act of 1989, creation of OneGeorgia Authority in 2000), because it is a cost effective and efficient mechanism that allows pooling of financial resources within the region. This allows those regions or counties that would be left behind because of financial limitations to provide adequate infrastructure for development, if so desired. Raising the level of economic prosperity for any part benefits all members within the region. Regional management also allows infrastructure resources to be shared more efficiently. Reducing unnecessary duplication of infrastructure reduces capital costs, streamlines management of that infrastructure, and reduces repair costs (EPA, 1996; Clements, 1996).

Reduction in infrastructure has the additional benefit of reducing environmental impacts. Since infrastructure facilities will serve regional needs, more locations will be available that meet the project criteria. Therefore site selection can be more environmentally protective. For example, adequate site selection alternatives are critically important for siting reservoir facilities.

Benefits of Integrated Management

It is clear that a regional management strategy benefits both economic and environmental goals. Integrating these 2 strategies has additive benefits. Integrating diverse types and levels of information affects the decision-making process in such a way that opportunities for economic development that are less stressful to the environment become more obvious, and therefore more logical and desirable (President’s Council on Sustainable Development, Final Report, 1999). The regional perspective also aids in identifying

distant, delayed, or additive environmental impacts associated with a seemingly insignificant action. This approach offers Georgia a strategy that can insure a more equitable distribution of the use of these resources across all counties and regions of the state, and is protective of the long-term health of ecosystems and the economy.

The primary goal of integrated regional management is to equally promote both economic and environmental sustainability. Regional growth strategies can be created recognizing the apparent limits of resources as defined by state and federal environmental protection agencies and as based on regional goals relating to environmental health. As resource limits are approached, innovative strategies to reduce the stress on natural resources may be identified, allowing continued economic development to the extent desired by the community (President's Council on Sustainable Development, Task Force Report, 1999).

CONCLUSIONS

As a consequence of the realization that economic prosperity and environmental health are connected, a new paradigm is emerging. The new paradigm requires that, along with promoting a healthy and expanding economy, we must make an equally strong and parallel commitment to preserving our natural systems. As we pursue ever-greater economic prosperity, we must also promote cleaner air, cleaner water, less stress on fragile resources and natural habitats, and greater resource productivity.

Georgia will soon be contemplating a new strategy for managing our water resources. Water management should be made from the perspective of regional ecosystem protection and should be integrated with the promotion of economic prosperity. This strategy does not result in the elimination of all environmental and economic limitations, but it is a more sustainable course. After all, "What good is a house, if you haven't got a decent planet to put it on?" - Henry David Thoreau (1817-1862).

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