Draft Statewide Comprehensive Water Management Plan

SYNOPSIS OF DRAFT RULE

Chapter 760-1-1 "Statewide Water Management Planning"

Chapter 760-1-1 is proposed to set forth the policies for Georgia's statewide water management planning as described in O.C.G.A. §12-5-520, including an integrated water management policy, guidance for adequately assessing the state's water resources, management practices addressing water quality and quantity, and regional water planning.

Purpose: Rule sections 760-1-1-.01 through 760-1-1-.02 describe the need for statewide water management planning in Georgia, recognizing that Georgia's waters have water supply and assimilative capacities that govern their use, our water resources have a limited capacity to supply water and assimilate pollution, and that water use and pollution in one part of the state can affect users in other areas. Georgia will manage water resources in a sustainable manner to support the state's economy, protect public health and natural systems, and enhance quality of life for all citizens.The interrelated nature of water quality and quantity and surface and groundwater necessitates an integrated approach to water management planning and an understanding of the capacity and sustainable yield of each water resource. These sections also define critical terms for use in the rule.

Rule sections 760-1-1-.03 through 760-1-1-.05 explain the state's integrated water management policy, which states that water quality and quantity and surface and groundwater are interrelated and require integrated planning; recognizes the values and opportunities provided by clean water and historic flow patterns; protects and restores water quality; and maintains and aims to maintain the use of Georgia's water resources and assimilative capacity for current and future use and users. These policies can best be accomplished when supported by a thorough scientific understanding of Georgia's surface and groundwater resources. These sections direct the Division to comprehensively incorporate water quality and water quantity considerations in permitting and planning decisions, including managing the consumptive use of water. These sections also authorize the Division to determine the sustainable yield of surface water sources (and, as appropriate, groundwater sources) as guidance for regional water planning. The Division must establish surface water quality standards and effluent limitations on a watershed basis and provide that information as guidance for regional water planning.

Rule section 760-1-1-.06 establishes a framework for scientifically assessing the status and condition of Georgia's water resources. The framework includes four key elements: (1) compiling existing data, (2) coordinating and integrating existing voluntary and regulatory data collection efforts, (3) identifying gaps in current data gathering programs, and (4) developing a program for data management and monitoring that fills the gaps identified. The Director is authorized to develop a plan and budget to address these issues, including a monitoring program based on sound scientific foundations to monitor surface water flows, groundwater levels and source-specific determinations of sustainable yield ("water quantity resource assessments"), and a monitoring program to assess water quality conditions across the state. In completing a water quantity resource assessment, the Director must (1) define aggregate geographic boundaries for the water source, (2) consider flows from hydrologically connected adjoining water sources and the extent to which withdrawn water is returned to the water source, and (3) establish and consider the sustainable yield of a water source (including water storage and prior water management and development practices). The Director must also establish watershed based effluent limitations and the hydrologic boundaries for determining the limitations, and use these criteria in permitting decisions.

Rule sections 760-1-1-.07 through 760-1-1-.10 describe the range of water quantity (including demand, return and supply) management practices available to manage the consumptive use of water from a given source, including supplementing the sustainable yield of the source when possible without foreclosing opportunities for other users and uses. While most management practices implemented will vary on a regional basis under the respective regional water development and conservation plans, the rule highlights water conservation as the priority water quantity management practice that must be incorporated by all water use sectors. The Division must develop a water conservation implementation plan, including guidance for new required water conservation practices for each water use sector. Under the plan, applicants for new or modified water withdrawal permits for non-farm use must develop a water conservation plan and demonstrate progress toward water conservation and efficiency goals. The rule states that the preferred method of disposing of treated wastewater is to return it to a surface water body, and onsite sewage management systems, land application systems and water pollution control plans should be managed to meet benchmarks for return flows to water sources as established by the Division. The rule also establishes criteria for decision-making with respect to new reservoirs and interbasin transfers. It also allows for an assessment of aquifer storage and recovery, and acknowledges the potential importance of desalination.

Rule sections 760-1-1-.11 through 760-1-1-.13 establish the range of management options available to protect clean waters and restore impaired waters, acknowledging that the most effective way of doing so is on a watershed basis. It recognizes the importance of ongoing monitoring and authorizes the Director to develop a new designation for "Significant Natural Resource Waters" to be added to the use classifications of the Water Quality Control rules (391-3-3-.03(4)) and update water quality standards for bacteria and dissolved oxygen for all areas of the state. These sections also emphasize compliance with existing water pollution laws, particularly in the areas of land use, storm water runoff, impervious surfaces and water quality. The rule directs the Director to undertake enhanced compliance

activities and to establish a variety of partnerships to help manage non-point sources of pollution on a watershed basis, better coordinate where multiple permits are required, and review the possibility of watershed permitting and pollutant allocation trading.

Rule section 760-1-1-.14 establishes a framework for regional, resource-based planning that allows either the Division or a regional water planning council designated by the Division to develop a regional water development and conservation plan (WDCP). The WDCP will assure long-term, sustainable availability of water supply and assimilative capacity in the region and guide Division water permitting decisions and state grant and loan allocations related to water resources. The rule directs the Division to assess each water resource in the state for its ability to meet current and projected needs for water supply and assimilative capacity. The Director is responsible for delineating regional water planning areas based on hydrologic boundaries and consideration of other factors, such as jurisdictional boundaries and existing infrastructure. The Director also designates regional water planning councils, which must be structured to be diverse and broadly representative of local governments and water-related interests in the water planning area. Pursuant to guidance by the Division and the Director, regional water planning councils will oversee preparation of the recommended regional WDCP. Plans must include forecasts of water supply and assimilative capacity needs for each water source within each planning area and recommended management practices to be implemented in the region. Memoranda of Agreement between the Division and respective regional water planning councils will guide implementation of the WDCP.

Main Features: This rule includes: (1) Findings, Purpose and Definitions; (2) Integrated Water Policy, including Water Quantity Policy and Water Quality Policy; (3) Assessing the Status and Conditions of Georgia's Water Resources; (4) Water Quantity Management Practices, including Conservation, Return and Supply Policies; (5) Water Quality Management Practices, including Enhanced Standards and Monitoring and Enhanced Pollution Management Practices; and (6) Regional Water Planning.

Contents of Draft Rule

PURPOSE

Georgia's current approach to water management has evolved in a piecemeal fashion over several decades, mainly through reactions to federal legislative mandates and localized and immediate water issues such as droughts. However, as the population and economy of the state grow and the demands on our water resources increase, a comprehensive approach to water management will be necessary.

The purpose of this rule is to establish a comprehensive statewide water management plan that guides the state in managing water resources so as to ensure continued opportunities for economic growth, protection of public health, and preservation of natural systems. This plan has four major components:

- Guiding policies for water quantity and water quality management;
- Provisions for assessment of the capacities of our water resources;
- A "toolbox" of management practices; and
- Provisions for regional planning to select the management practices that best fit the resource conditions and uses in different regions throughout the state.

The comprehensive statewide water management plan employs concepts which are innovative for Georgia. The first is the use of thorough resource assessments. We cannot effectively plan for and manage what we do not measure. Selecting the optimum water management strategies requires precise information about the capacities of our water resources. We must determine how much water we can withdraw from our major rivers, lakes, or aquifers without causing negative impacts; this amount of water is also called the sustainable yield. We also must determine the assimilative capacity, which is the amount of wastewater and stormwater streams can assimilate before water quality begins to degrade. EPD will begin the process of assessment by identifying the hydrologic boundaries of watersheds and aquifers to be used for assessment purposes. EPD will analyzing existing information, and where that information is not sufficient, undertake enhanced monitoring.

The second new concept is the development of regional forecasts of water supply and assimilative capacity demands. These forecasts will be developed for planning regions that will be designed to reflect jurisdictional boundaries and economic interdependencies as well as hydrologic boundaries. Regional forecasts will be compared with the water resource assessments for each planning region so that areas that may face water challenges in the future can be identified. A package of management practices, tailored to local needs and resource conditions, can then be selected to meet those challenges.

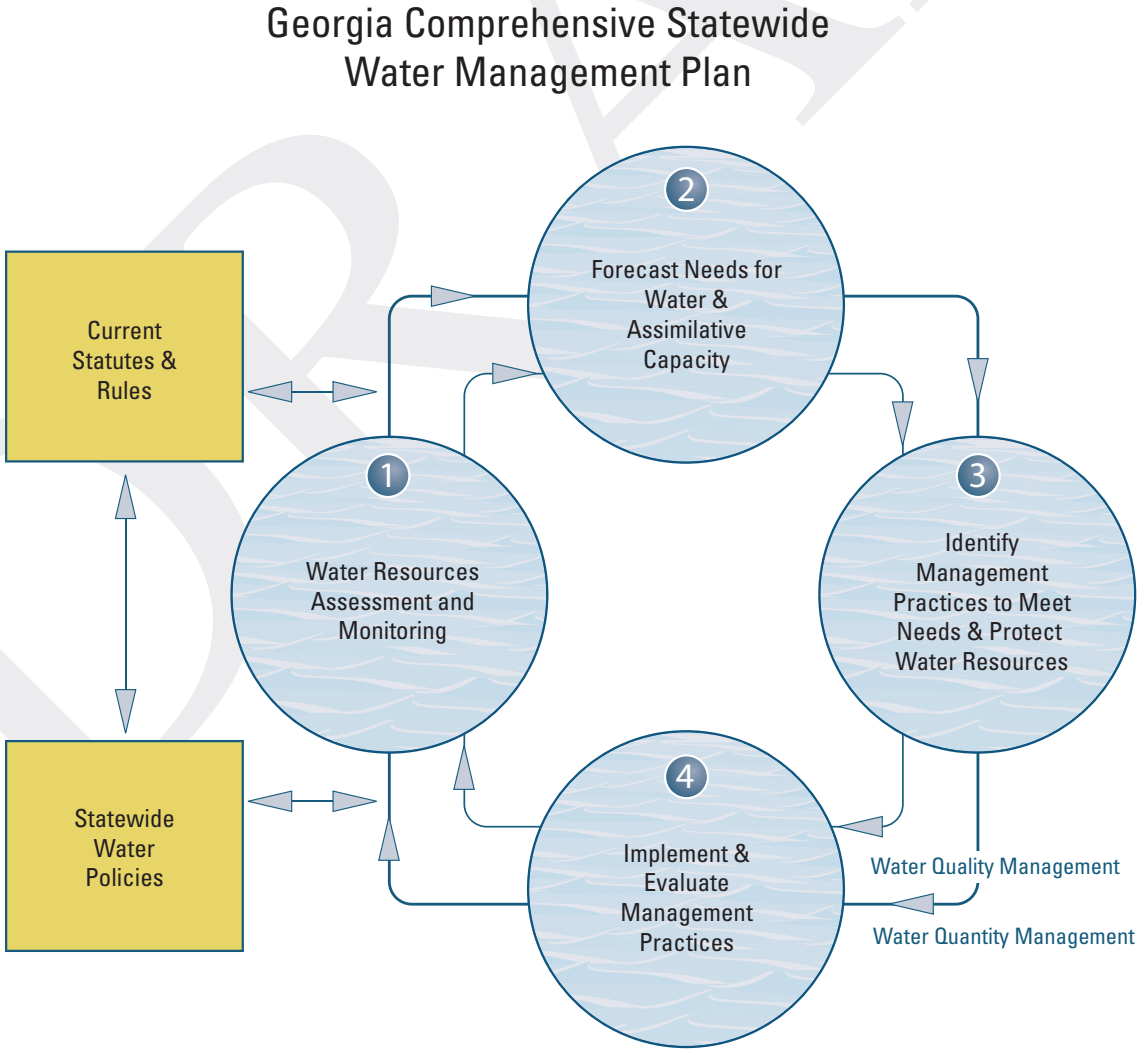
The third concept is the regional water development and conservation plans. These plans, which will be developed for all of the planning regions, will describe the water management practices to be employed in each area. Since water resources, their conditions, and their uses vary greatly across the state, selection and implementation of management practices on

a regional and local level is the most effective way to ensure that current and future needs for water supply and assimilative capacity are met. The management practices specified in the water plans for each region will be supported by statewide guidance.

All three of these water management concepts are supported by and consistent with current Georgia law. State law provides the foundation for development and implementation of a comprehensive statewide water management plan, and this rule is designed to be consistent with Georgia's current statutes. Most fundamentally, the regulated riparian legal doctrine and provisions regarding reasonable use will continue to guide water management in Georgia. Other provisions of our current management system will remain in place and the plan will not change priorities for water use, compel interbasin transfers, or favor one area of the state over another.

The plan builds upon current statutory framework to create a more integrated water management policy consistent with the vision and guiding principles presented above. Figure 1 depicts the overall approach to integrated water management laid out in this plan. The process is a cycle, rather than a one-time plan. Based on current state laws and policies, the cycle has four major steps that will be addressed in regional planning following the provisions of this rule:

1. The cycle begins with completion of a set of water resource assessments by EPD. These assessments will define the capabilities of Georgia's water resources in terms of water supply and capacity to assimilate pollution.
2. A regional water planning council will then be responsible for using regional population and employment estimates to forecast needs for water and assimilative capacity within a water planning region.
3. A regional water development and conservation plan will be prepared, identifying the management practices to be employed to ensure that the forecasted regional water and wastewater needs can be met without exceeding the water



quantity and water quality capacities identified in the resource assessments. In some situations, the regional water plan may identify management practices that will supplement the resource capacities in a manner that conforms to criteria established by this plan. The regional water management plans will be reviewed by the EPD, and if they are consistent with EPD's guidance, EPD will adopt them.

4. Once adopted, the plans would be implemented by the water users in the water planning region and EPD will make water permitting decisions based on the plans.

EPD, in cooperation with federal agencies, local governments, and other partners, will continue to monitor water resources to maintain and update information on the status and condition of the state's waters. This information will support future revisions in resource assessments and management practices.

This rule lays out the basic framework for the management cycle depicted in Figure 1. The rule first establishes the overall integrated water policies that will govern water management decisions in the state. The rule then creates the information programs that will support water management decisions. The next sections detail the water quantity and water quality management practices that may be employed on a statewide or regional basis. Finally, the rule establishes the regional water planning process, through which the majority of water management practices will be implemented.

760-1-1-.01 Purpose

(1) Findings. In promulgating this rule, the Council declares the following:

a. Georgia's surface waters have assimilative and water supply capacities that govern their use for in-stream and off-stream purposes. Georgia's groundwaters have similar capacities that govern their use. Exceeding these capacities, or supplementing them in ways that foreclose opportunities for other users and uses, is likely to have detrimental effects on current and future users and on the health and well-being of Georgians and natural systems.

b. Water uses, wastewater discharges and runoff in one water source affect the assimilative and water supply capacities of hydrologically connected water sources.

c. Water use refers to the particular purposes or end uses for which water is employed, whether in-stream, off-stream or pumped from an aquifer. Water use includes human consumption, irrigation and other farm uses, industrial and commercial production, wastewater assimilation, recreation, hydropower, habitat maintenance and species protection, among others. Water users refers to those using the water such as water utilities, homeowners, farmers, industries, and commercial businesses.

d. Water quality and quantity and surface and groundwater are interrelated and require integrated planning as well as reasonable and efficient use.

e. In order to support the state's economy, protect public health and natural systems, and enhance citizens' quality of life, Georgia must protect the ability of our water resources to meet needs for water supply and assimilation of wastewater.

(2) The purpose of this rule, as stated by O.C.G.A. §12-5-522(a), is to develop a plan for Georgia to manage water resources in a sustainable manner to support the state's economy, to protect public health and natural systems, and to enhance the quality of life for all citizens. These regulations include statewide policies and management practices as well as procedures for selecting and implementing region- and resource-specific management practices.

760-1-1-.02 Definitions

All terms used in this chapter are defined herein:

1) "Assimilative capacity" is the amount of contaminant load that can be discharged to a specific waterbody without exceeding water quality standards or criteria. Assimilative capacity is used to define the ability of a waterbody to naturally absorb and use a discharged substance without water quality becoming impaired or aquatic life being harmed.

2) "Consumptive use" is the difference between the total water withdrawn from and the water returned to an individual water resource.

3) "Consumptive use budget" is the water available from a water source in a dry year, beyond the quantities needed to meet in-aquifer needs or downstream flow regime requirements. Consumptive use budget amounts may be increased through either selected modifications of the source or supplementing the source.

4) "Council" means the Water Council.

5) "Director" is the Director of the Environmental Protection Division of the Department of Natural Resources.

6) "Division" means the Environmental Protection Division of the Department of Natural Resources.

7) "Effluent limitation" means any restriction or prohibition established by the Director on quantities, rates, or concentrations, or a combination thereof, of chemical, physical, biological, or other constituents which are discharged into the waters of the State.

8) "Flow regime" is a description of the pattern of flow variability for an individual surface water source. Flow regime involves the magnitude, timing, duration, frequency and rate of water movement.

9) "Green Infrastructure" is an interconnected network of protected land, water, and other open spaces that supports native species, maintains natural ecological processes, sustains air and water resources, and contributes to the health and quality of life for Georgia's communities and people. In the context of stormwater management, green infrastructure refers to those

systems and practices that use or mimic natural processes to facilitate stormwater infiltration, evapotranspiration (the return of water to the atmosphere either through evaporation or by plants), or reuse on-site.

10) "Human use" refers to all ways in which water is employed for public health and human consumption,including agricultural and industrial productivity, recreational, municipal, and commercial purposes.

11) "Impervious surface" means any surface such as pavement, roofs, roadways or others surface material that water does not permeate.

12) "Interbasin transfer" is a withdrawal or diversion in which water used is returned to a different basin than the one from which it was withdrawn or diverted.

13) "Low impact development" is a comprehensive land planning and engineering design approach to stormwater management that attempts to mimic a site's pre-development hydrology by using techniques that filter, store, and detain runoff close to its source and aid in infiltration and evaporation.

14) "Management practices" are reasonable methods, considering available technology and economic factors, for managing water demand, water supply, return of water to surface water sources, and prevention and control of pollution of the waters of the state.

15) "Non-point source pollution" is diffuse contamination including sediment, litter, bacteria, pesticides, fertilizers, metals, oils, grease, industrial chemicals and other pollutants entering bodies of water. Non-point source pollution may be transmitted by stormwater runoff, precipitation, atmospheric deposition, drainage, and/or seepage. Stormwater itself may also detrimentally alter a stream's hydrology, flow rate, temperature, and other physical and biological characteristics.

16) "On-site sewage management system," or "system(s)," means a sewage management system other than a public or community sewage treatment system that serves one or more buildings, mobile homes, recreational vehicles, residences, or other facilities designed or used for human occupancy or congregation. Such term shall include, without limitation, conventional and chamber septic tank systems, privies, and experimental and alternative on-site sewage management systems that are designed to be physically incapable of a surface discharge of effluent that may be approved by the Department of Human Resources.

17) "Permit holders" means those persons or entities that have been issued a signed permit by the Director to supply drinking water, withdraw surface or ground water, or discharge treated wastewater or stormwater.

18) "Point source pollution" is contamination that emanates from discharges of treated wastewater or stormwater regulated under the National Pollutant Discharge Elimination System (NPDES).

19) "Reclaimed water" is wastewater that has received treatment to urban water reuse standards, meets the treatment criteria specified in EPD's reuse guidelines, and is utilized at a reuse area or is sent to a designated user for reuse. Reclaimed water can include municipal wastewater, industrial wastewater, or treated effluent.

20) "Septage" means a waste that is a fluid mixture of partially treated or untreated sewage solids, liquids and sludge of human or domestic waste, present in or pumped from septic tanks, malfunctioning on-site sewage management systems, grease traps or privies.

21) "Stormwater" is water originating from precipitation, snowmelt or irrigation that does not soak into the ground and therefore travels over land or via conveyance (natural or artificial) to enter surface water.

22) "Sustainable" means use that can be continued with minimal long-term effect on the environment; using a resource so that it is not depleted or permanently damaged.

23) "Sustainable yield" is the amount of water a source can supply for current and future consumption without causing injury or detriment to other users, or without causing unacceptable alteration of the physical, biological, or chemical integrity of the water source. Sustainable yield can be increased through selected modification of the source.

24) "Water conservation" is the beneficial reduction of water use, water waste, and water loss. Water conservation involves both water efficiency and water reuse.

25) Water Council" is the coordinating committee composed of 14 individuals, established by O.C.G.A. §12-5-524, representing the Georgia Legislature, State officials, and the public, whose responsibility it is to recommend a comprehensive statewide water management plan to the General Assembly

26) "Water permit" includes any permit administered or issued by the EPD related to water or watershed protection, including drinking water supply, surface or ground water withdrawal, wastewater discharge, and stormwater.

27) "Water planning region" is a geo/politically defined area that includes one or more water quantity and/or quality resources as defined by the Director

28) "Water reuse" is the use of reclaimed water as a substitute for another generally higher quality water source. Reclaimed water can be reused for the beneficial irrigation of areas that may be accessible to the public (such as golf courses, residential and commercial landscaping, parks, athletic fields, roadway medians, and landscapes) and for other beneficial uses such as cooling towers, concrete mixing, and car washes.

29) "Water resource" is a source of water that is useful or potentially useful for agricultural, industrial, household, recreational, or environmental activities.

30) "Water use efficiency" generally addresses how efficiently water is used or the act of achieving a water use function with the minimal amount of water possible.

INTEGRATED WATER POLICY

Throughout Georgia's history, we have used the state's water resources for a wide variety of off-stream purposes. Rivers and streams have also served as receptacles for our wastewater. While these two types of water use are interrelated, the state has not regulated water withdrawals and wastewater discharges in an integrated fashion. Historically, our regulatory decisions on the capability of sources to support water withdrawals have not considered how those withdrawals may affect water quality. Likewise, when making decisions about use of land application wastewater treatment practices, we have failed to consider how such practices affect the flow regimes of streams that would have received the water had we required a stream discharge instead. We continue to make decisions regarding the location of discharges of treated wastewater without considering whether the water will be returned to the same source from which it was withdrawn.

The disconnection between the regulation of water quantity and water quality is largely a result of disconnected water polices. Our water quality policies have historically been driven by federal legislative mandates and programs, while our water quantity policies have emanated from state legislation. The water management challenges Georgia will face as it continues along a path of vibrant economic and population growth in the decades ahead will require the integration of water policies.

This rule establishes an integrated water policy based on the premise that our water resources have certain capacities to provide water for off-stream uses and to assimilate pollution, and that water withdrawals can and do affect other water users. We must consider the full impacts of water management decisions, and employ management practices that can mitigate those impacts. For example, when a decision is made to use septic tanks, which do not return water to its source in a timely manner, consideration must be given to the effect of that choice on water quantity downstream. Similarly, it is important to consider how increased water withdrawals may facilitate land use decisions that in turn cause significant increases in pollution.

Georgia's water resources have certain capacities that govern their use. The integrated water policy also recognizes that these capacities can, under some circumstances, be supplemented in a sustainable manner, provided that is done following specific criteria to ensure that opportunities for other uses and users are not foreclosed. Criteria for specific management practices are included in the rule. Barring sustainable supplementation, exceeding the capacities that govern the use of water resources is likely to have detrimental effects on current and/or future users and on the health and well-being of Georgians and/or natural systems.

In concert with a comprehensive consideration of the myriad effects of water quantity decisions, the State of Georgia will manage consumptive uses of water from surface water and groundwater sources to ensure that sufficient amounts remain to allow all users and uses – present and future – the opportunity to benefit from the values and opportunities provided by the resources.

Likewise, in concert with a comprehensive consideration of the myriad effects of water quality decisions, the State of Georgia will manage point and non-point source pollution to Georgia's waters on a watershed basis to ensure the physical, chemical and biological integrity of those waters and maintain assimilative capacity, now and in the future. This requires protecting waters that currently meet water quality standards and restoring waters whose physical, chemical, or biological integrity are impaired.

This policy is predicated on the notion that use of the waters of the state must be "reasonable." The legal doctrine of reasonable use guides use of a common resource by riparian owners and has long been the foundation of water management in Georgia. Such reasonable use must be accomplished in a manner that does not unduly foreclose opportunities for other users and uses of the resource.

The first steps in implementing the integrated water policy are the water resource assessment steps detailed in section 760-1-1-.06 of this rule. Once the capacities of water resources have been determined and current and forecasted uses quantified, an array of management practices may be applied to ensure use of each source without unacceptable adverse consequences.

760-1-1-.03 Integrated Water Policy

(1) Findings. In promulgating this rule, the Council declares the following:

a. Georgia's economic well-being, the health and welfare of its citizens, and the diversity and health of its natural environment is dependent on the availability of clean water in the rivers, streams, lakes, wetlands, estuaries, coastal waters and groundwaters of the state.

b. Water resources in Georgia will be managed in a manner that recognizes the importance of clean water, provides for the protection and/or restoration of water quality, embraces the values and opportunities provided by historic flow patterns, and maintains use of surface waters, groundwaters, and assimilative capacity for current and future uses and users.

c. The effective management of Georgia's water resources requires a thorough scientific understanding of the quantity and quality of available surface and groundwater and the extent to which available supplies will support current and future uses and users.

d. In accordance with O.C.G.A. §12-5-522(b)(5), water quality and quantity and surface and groundwater are interrelated and require integrated planning.

(2) When permitting water withdrawals and discharges of pollutants in accordance with O.C.G.A. §§12-5-31, 12-5-30(a) and 12-5-30(b), in addition to consideration of sections 391-3-6-.06 and 391-3-6-.07, the Director shall consider the extent to which such permits, if issued, will influence the amounts and timing of waters returning to streams or other waters; the character, amounts and timing of flow of pollutants to streams or other waters;

and the implications these considerations may have on the continued sustainable use and physical, chemical, and biological integrity of affected waters. The Director may place appropriate conditions in said permits to reflect full evaluation of such considerations.

WATER QUANTITY POLICY

The water quantity policy is to manage the consumptive use of water on a watershed basis so that sufficient amounts remain within the source to allow all users and uses – present and future – the opportunity to benefit from the values and opportunities provided by the resources. Water use is consumptive when water is removed from the water source and is not returned. Consideration of consumptive use, instead of water withdrawals, can more clearly show how water uses in some areas affect the water availability in other points within the water source and at points hydrologically connected to the source. The cumulative consumption from a water source can be quantified and compared with the source's sustainable yield.

Managing the consumptive use from a particular water source requires defining its sustainable yield or its consumptive use budget. Once that quantity is defined, a plan can be developed to ensure that consumptive use stays within the sustainable yield or consumptive use budget for that water source. This approach helps to ensure that water consumed from a source in one area will not preclude water uses in other hydrologically connected waters.

This policy reflects the shared nature of water resources. On the state level, the Environmental Protection Division (EPD) would implement management of consumptive use through its current statutory authority to issue water withdrawal permits.

The water resource assessment activities detailed in section 760-1-1-.06 of this rule would lay the foundation for management of consumptive use. The resource assessment would define hydrologic units and identify the geographic boundaries from which a water source derives its waters (i.e., sub-basins or watersheds, aquifers). Such boundaries may be coincidental with political boundaries, but most often are not. The next step would be to determine the sustainable yield of each water source. Sustainable yield determinations would be based on dry year conditions, so that the plans are able to prepare for the worst case scenario. For surface waters, flows will generally be higher in normal and wet years.

A similar comprehensive accounting of the yields for all aquifers in Georgia is likely to be extraordinarily expensive, time consuming, and may not produce results that are equally useful for each aquifer or overlying geographic area. Therefore, in deciding where and when to apply capital to this task, we must consider the functional characteristics of the aquifer, existing evidence of adverse affects due to withdrawals from the aquifer, and whether forecasts suggest significant increases in demands placed on that aquifer in the years ahead. While the process to be employed to determine sustainable yield of a given aquifer must be fundamentally the same across the state, this approach will allow priorities and financial resources to be properly placed.

The policy also requires assessment of current and future needs for consumptive use of water. Taken together, these assessments would allow identification of gaps between water needs and the sustainable water yields expected to be available under dry-year conditions.

These assessments would support selection of management practices used to meet current and future needs while protecting resource users and uses. This policy provides flexibility in the use of an array of water quantity management practices. Management practices are addressed in greater detail in sections 760-1-1-.07 through 760-1-1-.13 of this rule. Water conservation, which can be the most economically efficient way of meeting water needs, will be a priority management practice for implementation across the state.

760-1-1-.04 Water Quantity Policy

(1) Water resources in Georgia will be managed in a manner that recognizes the values and opportunities provided by historic flow patterns. The flow pattern in Georgia's rivers and streams varies widely across the state, and the opportunities for off-stream and in-stream uses of water that are supported by these flow patterns likewise varies across the state. Historic flow patterns in different rivers and streams, and the opportunities for off-stream and instream water use that they afford, are of prime importance in making water management decisions.

(2) The State of Georgia will manage consumptive uses of water, alterations of flows through storage, and other actions that affect flow regimes, to ensure that sufficient amounts remain to allow all users and uses – present and future – the opportunity to benefit from the values and opportunities provided by the resources.

(3) In accordance with O.C.G.A. §12-5-31(g) and section 391-3-6-.07 regarding factors to be considered by the Division in evaluating applications for withdrawals from surface water sources, the Division shall evaluate the extent to which the cumulative present and forecasted consumptive uses of surface water can be supplied within the sustainable yield of that source. The Division will determine the sustainable yield of surface water sources in accordance with section 760-1-1-.06 of this rule.

(4) In accordance with O.C.G.A. §12-5–96(d) regarding factors to be considered by the Division in evaluating applications for groundwater withdrawal permits, and in concert with Department of Natural Resources rule pertaining thereto, the Division shall evaluate the extent to which the cumulative present and forecasted consumptive uses of groundwater can be supplied within the sustainable yield of groundwater sources. The sustainable yield of groundwater sources shall be determined in accordance with section 760-1-1-.06 of this plan.

a. The Director may determine that, for some groundwater sources, there is not sufficient evidence to suggest that increased use will result in

unacceptable adverse impacts on current or future uses of that source and that it is not practical to determine the sustainable yield of that source within reasonable time and cost constraints. The Director may allow increased use of these groundwater sources without a sustainable yield determination. Use of these sources will be subject to results of recurrent monitoring of aquifer response to increased withdrawals.

(5) Subsequent to the Division's determination of the sustainable yield of a water source, the Division shall provide that determination as guidance for production of a water development and conservation plan for the planning region in which that source lies, in accordance with O.C.G.A. §§12-5-31(h) and 12-5-96(e).

WATER QUALITY POLICY

Pollutants are discharged to the state's surface waters each day in treated wastewater, known as point source pollution. Georgia has been managing these wastewater treatment plant discharges for more than 35 years, and doing so with a high degree of success. Far more contamination is washed into rivers and streams by urban runoff after storm events and agricultural runoff (i.e., non-point source pollution). As our population grows and more land is converted to urban uses, the amounts of pollutants we send to our streams via urban runoff will likely dramatically increase unless we begin to manage stormwater and land disturbance more effectively.

Our streams and rivers are able to assimilate a portion of the pollution they receive. However, their ability to assimilate pollutants is limited. In Georgia, there are over 6,000 miles of streams that do not meet water quality standards. Most impairments are caused by non-point source pollution. National and state water quality protection policies do not allow discharges to exceed the assimilative capacities of water.

The recommended water quality policy is to protect clean water, restore impaired waters, and maintain assimilative capacity for current and future users. Clean water and its assimilative capacity provide values and opportunities to current and future Georgians. Protecting those values and opportunities will require that we use appropriate standards in assessing the status and condition of Georgia's waters. It will also require a better understanding of the assimilative capacity of Georgia's waters, and of the management practices that can be implemented to assure point and non-point source discharges do not exceed those assimilative capacities or cause water quality violations.

To fully implement the proposed water quality policy, wasteload allocation procedures for point source discharges will be updated to assess current and future needs for assimilative capacity on a watershed basis and to identify gaps between assimilative capacity needs and the assimilative capacity available to meet those needs. The Division will establish new water quality standards for surface waters, and is currently considering revisions in the fecal coliform and dissolved oxygen standards. The Division will also assess the ways in which activities on land, and the ways in which land is developed, affect water quality and assimilative capacity. In many areas across the state, growth and urbanization of rural lands is happening faster than state and local governments are able to develop and implement the management practices required to minimize non-point source water pollution and maintain assimilative capacity.

Any gap between forecasted needs for assimilative capacity and the assimilative capacity that is available will be addressed by the selection of appropriate management practices. These practices will have the goals of managing assimilative capacity on a watershed basis, restoring impaired waters, and/or to protecting waters that are not impaired. As with the water quantity policy, the water quality management practices would be implemented at a local level to address the unique conditions affecting water quality in specific areas.

760-1-1-.05 Water Quality Policy

(1) Water resources in Georgia will be managed in a manner that provides for the protection of water quality, the restoration of impaired waters and the management of assimilative capacity for current and future uses and users.

(2) In accordance with O.C.G.A. §12-5-23(c)(9), the Director will establish the surface water quality standards necessary to ensure that water use classifications and water quality criteria are adequate to protect public health and maintain or restore the physical, chemical and biological integrity of the of the state's waters, now and in the future.

(3) In accordance with O.C.G.A. §§12-5-23-(c)(2), 12-5-30-(a), and 12-5-30-(b), the Director will manage pollution to Georgia's waters to protect public health and to ensure the physical, chemical and biological integrity of those waters, now and in the future. This requires the implementation of management practices to protect waters that currently attain water quality standards and restore waters whose physical, chemical, or biological integrity are impaired.

(4) In accordance with O.C.G.A. §§12-5-23-(c)(2), 12-5-30-(a), and 12-5-30-(b), the Director shall manage assimilative capacity on a watershed basis through effluent limitations based on forecasts of future discharge needs within a watershed, in accordance with section 760-1-1-.06(4) of this rule.

(5) Subsequent to the Division's determination of the effluent limitations for pollutant discharges in a watershed, the Division shall provide those effluent limitations as guidance for production of a water development and conservation plan for the planning region in which that watershed lies. Following adoption of a water development and conservation plan, the Director shall incorporate specific effluent limitations in permits for individual pollutant dischargers in the water planning region.

WATER RESOURCE ASSESSMENT

Georgia has more than 70,000 miles of streams, 400,000 acres of lakes, 4,500,000 acres of freshwater wetlands, 384,000 acres of tidal wetlands, 854 square miles of estuaries, 100 miles of coastline, and an enormous amount of water in aquifers. Additionally, over the course of an average year Georgia will receive fifty inches of precipitation. These waters are used in a wide variety of ways, and are affected by a number of human activities.

Assessing these resources and their condition, as well as determining what factors influence our ability to utilize these resources in a sustainable manner, is vital to effective water management. Many current water management efforts, such as source water protection plans and watershed protection plans, have water resource assessment components. While varied, the information gathered as a part of these efforts provides a foundation on which to base our management of those resources. To ensure that long-term needs for water are met in a sustainable manner, however, we must build on existing data with a systematic assessment of water availability and assimilative capacity. This assessment must be statewide, but can best be conducted at the regional level.

In the last several decades, Georgia has experienced significant economic growth and development. Georgia is one of the fastest growing states in the nation and as Georgia grows, the demand for water and assimilative capacity will increase. In addition, in the past two decades, Georgia experienced the two worst droughts on record and major flooding, including a one hundred year flood and a five hundred year flood. The spring of 2007 was one of the driest on record and many parts of the state entered the dry summer season with a significant rainfall deficit. In light of these extremes, Georgians are increasingly aware of the need for better information on the capacities of our water resources to assist in regional planning and identification of the practices that can effectively manage those resources in a sustainable manner.

If Georgia is to develop water resource plans that will allow continued sustainable use and enjoyment of our water resources, the state must first define the capabilities of these water resources. These resource capabilities must be defined in terms of the ability of each water resource to support additional water withdrawals and to safely assimilate larger masses of pollutants without foreclosing opportunities for other users and uses of the resource.

Assessment of resource capacity will require compilation of a substantial information base, a comprehensive monitoring program, and a well-coordinated system for information management. This system would include the compilation of existing data, the coordination and integration of ongoing governmental and voluntary monitoring programs, the identification of gaps in current information and the development of a program to fill the gaps. The information collected and analyzed for these resource assessments must also be available to state agencies and other entities involved in planning and implementing resource management plans, as well as to the general public.

760-1-1-.06 Assessing the Status and Condition of Georgia's Water Resources

(1) Findings. In promulgating this rule, the Council declares the following:

a. In accordance with O.C.G.A. §12-5-522(b)(4), the effective management of Georgia's water resources requires a sound scientific foundation which includes a scientific understanding of the condition of the water resources, in terms of the quantity of water available to support current and future in-stream and off-stream uses and the capacity of the water resources to assimilate pollution.

b. In accordance with O.C.G.A. §12-5-522(b)(6), a comprehensive and accessible database must be developed to provide sound scientific and technical information upon which effective water resource management decisions can be based.

c. Georgia must invest additional resources to coordinate current monitoring efforts and expand monitoring as needed for a statewide assessment of the condition and capacities of Georgia's water resources. This information will support regional planning and comprehensive water management.

(2) In accordance with the findings above and with O.C.G.A. §12-5-23(c)(4), the Director will develop a assessment plan and budget that will direct the collection of the scientific data and information necessary to support implementation of the comprehensive statewide water management plan. This assessment plan will include provisions for:

a. The compilation of existing data;

b. The coordination and integration of ongoing governmental, industry, and volunteer monitoring programs, including monitoring required by permits;

c. The identification of gaps in current monitoring and data management programs; and

d. The development of a monitoring and data management program to fill said gaps.

(3) Water Quantity Assessments

a. In accordance with O.C.G.A. §12-5-522 (b) and paragraph (2) above, the Director shall implement a monitoring program to document surface water flows and groundwater levels. Water resources management efforts must have a sound scientific foundation. Assessment of the quantity of water available to support current and future in-stream and off-stream uses requires enhanced information on surface water flows and groundwater levels.

b. As provided in O.C.G.A. §§12-5-31and 12-5–96, the Director, in determining whether to issue a surface water or groundwater withdrawal permit, is authorized to assess the reasonableness of the water need. In concert with this withdrawal permitting authority, the Director shall determine the extent

to which each water source is capable of yielding water while preserving water-related opportunities for present and future uses of the water source and water sources that are hydrologically connected. This determination of sustainable yield from water sources shall be known as water quantity resource assessment, and shall be source-specific.

c. In completing any water quantity resource assessment for any water source, the Director shall define the aggregate geographic boundaries from which water naturally accrues to that water resource.

d. In completing a water quantity resource assessment for any water source, the Director shall determine the extent to which any specific water source contributes to the flow regimes of hydrologically connected adjoining water sources, so as to ensure preservation of opportunities for other water users and uses. In determining flow support from a water source to other hydrologically connected water resources, the Director will consider the entire history of flows, natural and altered, in the connected water resources, and the flow contributions the source in question has historically made to the hydrologically connected water resources.

e. In completing any water quantity resource assessment for any water source, the Director shall consider the extent to which the water withdrawn from a water source will be, after reasonable use, returned to the water source within a time frame that allows contemporary users of that water source, and users of hydrologically connected adjoining water sources, to make corresponding reasonable use of that returned water. In considering the extent to which withdrawn water is returned to the water source, the Director shall evaluate the impact of on-site sewage disposal systems, land application systems, transfers of withdrawn waters to sources that are not by nature hydrologically connected to the subject source, and other water management practices that may impact the quantity and timing of return flows.

f. In completing any water quantity resource assessment for a water source, the Director shall consider the extent to which prior water development and management practices have affected the sustainable yield of a source. The Director shall evaluate the impact of the size and operational characteristics of water storage projects, the discharge characteristics of waters from interbasin transfers, and other current water management practices that have altered the natural sustainable yield of the source.

g. In completing water quantity assessments, a distinction will be made between the flow regime requirements related to the sustainable yield of a water source and the in-stream flow conditions applied to a surface water withdrawal permit. In-stream flow conditions for surface water withdrawal permits will be determined pursuant to the instream flow protection strategy adopted by the Department of Natural Resources Board on May 23, 2001, while the flow regime requirements related to the sustainable yield of a water source will be evaluated in the water quantity assessment for that water source.

(4) Water Quality Assessments

a. In accordance with O.C.G.A. §12-5-23(c)(4) and paragraph (2) above, the Director will implement a monitoring program to survey the waters of the state to assess water quality conditions and compliance with water quality standards.

b. In accordance with O.C.G.A. §12-5-23(c)(2) the Director will act in the interest of the people to protect the waters of the state and restore waters found to be impaired.

c. In accordance with O.C.G.A. §§12-5-30(a), 12-5-30(b), and 12-5-30(c), any person desiring to operate facilities that will result in the discharge of pollutants into the waters of the state is required to obtain a permit from the Director to make such discharge. The Director is authorized to issue permits upon the condition that discharges meet or will meet all water quality standards. In accordance with O.C.G.A. §12-5-30(c) the Director is authorized to require as conditions in permits the achievement of effluent limitations to ensure compliance with water quality standards.

d. The Director shall define the hydrologic boundaries or watersheds for the determination of effluent limitations.

e. Local governments and water users in the watershed shall be responsible for providing forecasts that quantify future discharge needs in terms of effluent flow and discharge location. Such flow forecasts shall be based on guidelines established by the Director.

f. The Director shall establish effluent limitations considering the present and future discharge needs to waters that are hydrologically connected by nature. Waters that are hydrologically connected by nature may be called watersheds.

WATER QUANTITY MANAGEMENT PRACTICES

This plan requires water users within defined water planning regions to collectively plan for the sustainable future use of the water resources that serve that planning region. The state will establish the water planning regions according to the rules in the Regional Planning section, and will provide regions with the water resource assessments for the sources within that area. The regional water development and conservation plans will use the water resource assessments, in combination with forecasts of future water demands, to identify the array of water management actions and activities (i.e., 'water quantity

management practices') that can be implemented to ensure that water demands are met in a sustainable manner. These management practices will largely address the management of consumptive use of water.

Managing consumptive use of a water source involves the integrated management of demands from that source, returns to that source, and actions taken to supplement the supply that source provides. Managing consumptive use also requires that we consider other implications of consumption, including the water quality implications. There are innumerable ways to combine sets of demand, return, and supply supplementation practices to ensure that future consumption from a water source does not exceed the capability of that source, and to ensure that proper attention has been given to protecting and preserving water quality. The regional plan development process will allow and encourage flexibility in selecting these management practices, as well as innovation in response to new information and changing conditions.

A variety of water quantity management practices can be implemented on both the state and local levels to ensure that the consumptive use of surface water and groundwater is optimized. Withdrawals can be effectively managed primarily through conservation measures including conservation water rates, limiting outdoor watering, and regular audits of public water and irrigation systems. Encouraging the use of centralized sewer systems and discouraging the use of individual septic tanks and land application systems, where consistent with water quality conditions, can greatly increase the amount of water we return to surface water sources, so that withdrawals will have less of an impact on downstream flows. When water users approach the sustainable yield of a water source and conservation and return efforts have been exhausted, users of that particular water source could augment their water supplies through careful use of a number of practices for which criteria have been promulgated by this rule or in current DNR rules. Collectively, these criteria are intended to ensure use of water supply management practices do not foreclose opportunities for reasonable use by others.

The first priority for implementation must be conservation-related water management practices that effectively reduce our water demands. Current statewide water conservation requirements can be dramatically enhanced. While the state encourages the development of conservation plans, the state does not require that these plans be implemented. Even when conservation plans are voluntarily implemented by the water user, the results are not always evaluated for their effectiveness. In addition, conservation plans do not equitably address all water use sectors, including municipal, agricultural, and industrial.

The state must develop a 'toolbox' of water conservation practices that can help Georgians meet conservation goals. These practices will include non-discretionary practices that are required by permittees and a variety of discretionary practices that may be beneficial in some geographic areas and less beneficial in others. Discretionary practices can be encouraged by incentives, education and outreach, and other mechanisms. As water conservation practices are implemented, water users will also implement the other water quantity management practices specified in the region's water development and conservation plan.

760-1-1-.07 Water Quantity Management Practices

(1) The purpose of water quantity management practices is to manage the consumptive use of water from a given source in a sustainable manner by managing demand and returns or, when it can be done without foreclosing opportunities for other users and uses, to supplement the sustainable yield of a water source.

(2) A variety of water quantity management practices may be implemented to manage and use water resources in conformity with Georgia's integrated water policy (section 760-1-1-.03). These practices include but are not limited to:

- **a. Water demand management practices, including water conservation and water reuse;**
- **b. Water return management practices, including optimal management of centralized wastewater treatment facilities and management of the number and location of septic systems and land application systems; and**
- **c. Water supply management practices, including the construction of water supply reservoirs and adoption of reservoir management policies that optimize water supply storage and maintain necessary flow regimes, pursuant to these rules; interbasin transfers, so long as the transfers protect meet the criteria in this rule; and aquifer storage and recovery. Desalination may be an important water supply management practice in the future. These practices are addressed in sections 760-1-1-.08 through 760-1-1-.10.**

(3) Water conservation will be the priority water quantity management practice implemented to help meet water needs in all areas of the state, and shall be practiced by all water use sectors.

(4) Other practices shall be implemented as consistent with the regional water development and conservation plan adopted by the Division, pursuant to section 760-1-1-.14.

760-1-1-.08 Water Demand Management Practices

(1) Findings. In promulgating this rule, the Water Council declares the following:

- **a. Water conservation is an effective and efficient management practice to meet the needs of all water users in the state. In accordance with section 391-3-6-.07(4)(b)(8)(ix), water conservation must be incorporated into long-term water demand and supply planning. Furthermore, measurable progress toward more efficient use of water and water conservation goals is critical to the health and viability of Georgia's water resources.**
- **b. Water reuse, or the use of reclaimed water as a substitute for another, generally higher quality water source, is a viable water management practice that**

may help sustain Georgia's water resources. Water reuse shall be permitted and managed following the provisions of section 391-3-6.11 and EPD's guidelines for Water Reclamation and Urban Water Reuse (revised February 20, 2002 and any subsequent revisions).

(2) Water Conservation

a. The Division shall develop a water conservation implementation plan which shall include, but not be limited to, the following elements:

i. Goals for water conservation and water use efficiency;

ii. Guidance for required water conservation practices for each water use sector;

iii. State efforts to help achieve water conservation goals;

iv. Funding to help achieve goals for water conservation and water use efficiency;

v. Timelines for plan implementation and update; and

vi. Such other elements as are reasonably necessary to carry out the purposes of Georgia law.

b. In compliance with O.C.G.A. §§12-5-31(d) and 12-5-96(a)(2), prior to the issuance of withdrawal permits or permit modifications for non-farm uses, applicants will be required to demonstrate progress toward water conservation goals or water efficiency standards identified in the water conservation implementation plan, or demonstrate the implementation of the appropriate water conservation practices listed in this section as well as sections 391-3-6-.07(4) and 391-3-2-.04(11).

c. An applicant for a new or modified water withdrawal permit for non-farm uses shall develop a water conservation plan in accordance with sections 391-3-6-.07 and 391-3-2-.04(11).

i. If the applicant does not have an existing service area or operation, the applicant must develop a water conservation plan including the practices listed in this section or practices determined to be acceptable in the water conservation implementation plan. The applicant must also develop an implementation schedule for all water conservation practices.

ii. If an applicant has an existing service area or operation, the applicant may demonstrate, through methods approved by the Director, acceptable water conservation results and/or compliance with water use efficiency standards or goals as identified in the water conservation implementation plan. Acceptable demonstration may be provided in lieu of the need to implement the practices listed in this section.

iii. If an applicant has an existing service area or operation, and is unable to demonstrate water conservation results and/or compliance with water use efficiency standards or goals, the applicant must demonstrate the implementation of the water conservation practices listed in this section prior to the issuance of withdrawal permits.

d. Municipal and private water utilities and water providers shall implement the following water conservation practices.

i. Conduct regular water system audit (from withdrawal to meter);

ii. Implement a tiered conservation-oriented rate structure for all customers and adopt water bills that clearly reflect consumer usage;

iii. Adopt a water loss control program or other water loss control program approved by the Director;

iv. In compliance with sections 391-3-5-.06(a)(1)&(2), meter all water uses (current and future), including all outdoor water uses that are not currently metered (i.e. public uses);

v. Adopt a meter calibration, repair, and replacement program;

vi. Require new multi-family residential buildings to install individual meters or report individual water usage;

vii. In compliance with section 391-3-30, enforce current outdoor water use schedule;

viii. Meter all uses of reclaimed reuse water and report use on a regular basis following guidance issued by the Director;

ix. Conduct reuse feasibility studies, when no such study has been conducted in the past five years; and

x. Update water conservation plans on a regular basis, following guidance issued by the Director, to reflect new and changing circumstances in water management.

e. Industrial water withdrawal permittees or permit applicants shall implement the following water conservation practices:

i. Conduct facility-specific water audits every three years or when major process changes occur, which ever happens first, to include:

(1) In-process reuse capability (i.e. condensate recovery);

(2) Cross-process reuse capability (i.e. using process water in other processes);

(3) Reusing treated wastewater in-house (end-of-pipe reuse);

(4) Potential of taking treated wastewater from another source.

ii. Measure all water use not currently measured;

iii. Measure all uses of reclaimed reuse or recycled water and report use on a regular basis following guidance issued by the Director;

iv. Adopt maintenance and repair program for pipelines, intakes and discharge structures;

v. Install rain or moisture sensor shut-off on devices on new and existing irrigation systems;

vi. Irrigate landscape in compliance with the current outdoor water use schedule defined in section 391-3-30;

vii. Conduct reuse feasibility studies, if no such study has been conducted over the past 5 years; and

viii. Update water conservation plans on a regular basis, following guidance issued by the Director, to reflect new and changing circumstances in water management.

f. Water withdrawal permit holders or drinking water providers submitting annual reports on non-farm water use to the Division in accordance with sections 391-3-6-.07(4)(viii), 391-3-6-.07(15)(e) and 391-3-5-.17(7) shall include in such reports data and information regarding levels of water efficiency and where applicable, progress toward water conservation goals and/or efficiency standards, using guidance provided by the Division.

g. As required in section 391-3-6-.07(4)(vii), for non-farm water use, progress reports outlining efforts to conserve water and reduce water loss shall be submitted to the Division on a regular basis and shall include measurable improvements related to water use efficiency and reduction in water loss and waste, following guidance by the Director and using a format and/or forms provided by the Division.

h. The following shall be provided by the permit holders and/or applicants for non-farm water use and considered by the Director when evaluating the implementation of water conservation practices, compliance with water efficiency standards, and/or progress toward water conservation goals:

i. Measurable outcomes in terms of reduced or maintained water production or usage. Outcomes may be expressed on a per capita, per connection, total system, or other basis as approved by the Director;

ii. Impact any water conservation practices or programs have on the consumptive use of water for that water planning region;

iii. A schedule for implementing water conservation practices or achieving water use efficiency goals;

iv. Feasible and efficient re-use of reclaimed water as an alternative for another generally higher quality water source; and

v. Other considerations, as determined by the Director.

i. Through the Georgia Department of Agriculture, the Georgia Soil and Water Conservation Commission, the University of Georgia Cooperative Extension Service, and other partners, entities with farm-related water use permits, including those for urban agricultural water uses, shall be encouraged to use the most efficient, practicable irrigation practices, as described in the water conservation implementation plan, and to use tillage practices that make the most efficient use of the irrigation water that is applied.

760-1-1-.09 Water Return Management Practices

(1) Onsite Sewage Management Systems.

a. In promulgating this rule, the Council declares the following:

i. The preferred fate of treated wastewater is return to a stream or other surface water body to support other water uses, as consistent with section 391-3-6-.03(2)(b).

ii. While the exact quantity will vary with location and other site conditions, a significant portion of the water treated in septic systems is not returned to the water source in a time frame that allows contemporary users of that water source, and users of hydrologically connected adjoining water sources, to make corresponding reasonable use of that returned water. For practical purposes, this temporarily absent water contributes to the cumulative consumptive use in a sub-basin or watershed.

iii. Managing the effect of on-site sewage management systems on the quantity of water returned to a water source should be a component of managing consumptive use.

b. Regional planning pursuant to section 760-1-1-.14 shall address mechanisms for meeting benchmarks for return flows to individual water sources, following guidance to be provided by the Director. Mechanisms to adjust the future use of septic systems as necessary to meet benchmarks for return flows for a water planning region shall be considered during preparation of regional water development and conservation plans.

c. Onsite sewage management systems shall continue to comply with Department of Human Resources rules provided in section, 290-5-26-.05 and Department of Natural Resources rules provided in section 391-3-6-.13.

d. Use of onsite sewage management systems shall comply with provisions for water quality management practices specified in section 760-1-1-.13 as well as the provisions specified here.

(2) Land Application Systems.

a. In promulgating this rule, the Council declares the following:

i. The preferred fate of treated wastewater is return to a stream or other surface water body to support other water uses, as consistent with section 391-3-6-.03(2)(b).

ii. A significant portion of the water treated in land application wastewater treatment systems is not returned to the water source in a time frame that allows contemporary users of that water source, and users of hydrologically connected adjoining water sources, to make corresponding reasonable use of that returned water. For practical purposes, this temporarily absent water contributes to the cumulative consumptive use in a sub-basin or watershed.

iii. Managing the effect of land application systems on the quantity of water returned to surface water sources should be a component of managing consumptive use.

b. The use of land application systems shall conform with benchmarks for return flows to the water source(s) within a water planning region, following guidance provided by the Director and as consistent with section 391-3-6-.03(2)(b).

c. Land application systems should be permitted and managed following the provisions of sections 391-3-6-11, and 391-3-6-.24.

(3) Centralized water treatment in Water Pollution Control Plants.

a. In promulgating this rule, the Council declares the following:

i. Water Pollution Control Plants can be operated so that the water returned to surface sources is maximized.

ii. Managing the return of water to surface water sources by Water Pollution Control Plants should be a component of managing consumptive use.

iii. Where water quality or quantity considerations dictate the reuse of effluent, the effluent should be used for irrigation, as a replacement for potable water.

iv. Water Pollution Control Plants should be permitted and managed following the provisions of section 391-3-6-.06.

760-1-1-.10 Water Supply Management Practices

(1) Surface water storage for water supply purposes.

a. Finding. In promulgating this rule, the Council declares the following: Water supply reservoirs are an important part of Georgia's water resource infrastructure, and additional surface water storage is likely to be a critical supplement to the natural capacities of streams to meet water supply needs in certain parts of the state. However, a number of factors limit the viability of reservoir sites. In addition, reservoirs can have a variety of negative impacts, including significant changes in flow regimes, alteration of aquatic environments, and loss of free-flowing stream habitat. These changes can impact downstream users as well as in-stream uses.

b. The State of Georgia will ensure that new water supply reservoirs are designed, sited, and operated in a sustainable manner that minimizes harm to the environment.

c. Regional water planning, as further described in section 760-1-1-.14, shall identify areas where additional storage may be needed to meet water supply demands. This process should include:

i. Water demand forecasts.

ii. The assessment of water supply alternatives, including implementation of water conservation and reuse practices, and the utilization of alternate sources, including purchasing water from adjacent utilities or water providers and the use of groundwater and existing surface storage.

d. The Division will screen the areas identified in regional planning for feasibility. Elements to be considered during the feasibility screening shall include, but will not be limited to, overall forecasted demand for the planning area, potential service areas, and the total storage potential available for that water source.

e. In evaluating applications for permits associated with a water supply reservoir, the Director shall consider the factors specified in sections 391-3-5, 391-3-6-.07, and 391-3-8, as well as the following:

i. Demonstration of need over a 50-year planning horizon

A. Demand forecasts should be based on populations that do not already have supply allocated from other existing or planned projects.

B. Assessment of the project's capacity to serve a multi-jurisdictional area

C. Use of full yield for water supply. Water supply reservoirs that do not use the full yield for water supply will not be permitted.

ii. Full consideration of all water supply alternatives prior to reservoir planning

A. Implementation of water conservation and reuse practices;

B. Utilization of existing sources, including purchase of water from adjacent utilities or water providers, use of excess capacity in existing wells, and/or use of excess capacity in existing reservoirs; and

C. Assessment of alternate sources.

iii. Site selection to minimize environmental impacts

A. Avoidance of streams or sites that currently provide high quality habitat for aquatic biota

B. Siting on tributaries or smaller streams or completely off of a streambed, utilizing pumped storage as needed

C. Minimal contribution to fragmentation of the stream system

D. Impacts on critical species or habitats in the reservoir pool area and immediately downstream

iv. Water supply watershed protection provisions, pursuant to section 391-3-16, including application of criteria by all jurisdictions in the watershed

v. Provision of flows to meet in-stream needs pursuant to section 760-1-1-.10(1)(f).

vi. Water quality protection provisions

f. Reservoirs should be designed and operated to ensure that the volume and timing of flows are provided as necessary to meet in-stream flow needs, as determined by the Director, in segments immediately downstream of such reservoirs. The current in-stream flow strategy, adopted in a policy passed by the Department of Natural Resources Board on May 23, 2001, shall continue to be applied at or just below individual reservoirs and withdrawal points. The Division will continue to build the information base required to adapt these requirements to specific in-stream flow needs in different regions of the state.

(2) Interbasin transfers

a. Finding. In promulgating this rule, the Council declares the following: interbasin transfer is a management practice that addresses water supply and/or water quality needs in some parts of the state. However, these transfers may have adverse impacts on water resources in both basins and on opportunities for reasonable water use in the donor basin.

b. The State of Georgia shall protect the reasonable use of water in donor basins through the regulation of interbasin transfers.

c. Interbasin transfers may be undertaken to meet water needs in areas facing limitations on their water sources, as indicated when the forecasted consumption of water from a specific source approaches the defined sustainable yield, as long as the transfer does not unduly foreclose opportunities for water use in the donor basin.

d. Interbasin transfers of raw water shall not be permitted until sustainable yield assessments have been completed for the affected water sources, pursuant to section 760-1-1-.06, and water development and conservation plans have been completed for the affected water planning regions, pursuant to section 760-1-1-.14.

e. In evaluating a permit application for a new interbasin transfer, the Director should consider the factors specified in section 391-3-6-.07(14) and the following:

Donor basin considerations

i. The quantity of the proposed withdrawal and the stream flow of the donor basin, with special consideration for dry years and low flow conditions.

ii. The current and reasonably foreseeable future water needs of the donor basin, with special consideration for dry years and low flow conditions

iii. Protection of water quality in the donor basin, with special consideration for dry years and low flow conditions

iv. Any offsetting increases in flow in the donor basin that may be arranged through permit conditions

v. The number of downstream river miles from which water will be diverted as a result of the transfer

vi. The connection between surface water and groundwater in the donor basin, and the effect of the proposed transfer on either or both.

Receiving basin considerations

vii. Determination of whether or not the applicant's proposed use is reasonable, including consideration of whether the applicant has implemented water conservation practices and achieved reasonable water conservation goals.

viii. Assessment of the wastewater treatment capacity of the receiving basin.

ix. The supply of water presently available to the receiving basin, as well as the estimates of overall current water demand and the reasonable foreseeable future water needs of the receiving basin

x. The beneficial impact of any proposed transfer, and the demonstrated capability of the applicant to effectively implement its responsibilities under the requested permit.

xi. The impact of the proposed transfer on water conservation.

xii. The applicant's efforts to explore all reasonable options for use of reclaimed water and recycling of available sources to meet the needs of the receiving basin.

xiii. Assessment of the adequacy of treatment capacity and current water quality conditions.

Considerations affecting both basins

xiv. The economic feasibility, cost effectiveness, and environmental impacts of the proposed transfer in relation to alternative sources of water supply.

xv. The cumulative impacts of the current and proposed interbasin transfers in the basin.

xvi. The requirements of the state and federal agencies with authority related to water resources.

xvii. The availability of water for responding to emergencies, including drought, in the donor basin and the receiving basin.

xviii. The impact, whether beneficial or detrimental, on navigation, hydropower or other power generation, fish and wildlife habitats, aesthetics, or recreation.

xix. The quantity, quality, location, and timing of water returned to the basin of donor basin, receiving basin, and basins downstream.

xx. Climatic conditions

xxi. Impact on interstate water use

xxii. The cumulative effect on the donor basin and the receiving basin of any water transfer or consumptive use that is authorized or forecasted.

xxiii. Such other factors as are reasonably necessary to carry out the purposes of Georgia law.

f. Use of interbasin transfers shall comply with the water quality policy specified in section 760-1-1-.05.

(3) Aquifer storage and recovery

a. In promulgating this rule, the Council declares the following: Aquifer Storage and Recovery (ASR), a process in which water is recharged through a well into an aquifer and later withdrawn, may prove to be a viable way to supplement water availability in some parts of the state. O.C.G.A. §12-5-135 prohibits the injection of surface water into the Floridan Aquifer in any county governed by the Georgia Coastal Zone Management program, created by O.C.G.A § 12-5-327, until December 31, 2009.

b. The State may assess the viability of ASR as a water management practice. Assessment of ASR would include:

i. Identification of recharge water sources and aquifers that are potential candidates for ASR recharge.

ii. Comparison of the potential cost of ASR to other management practices.

iii. Study of the legal issues related to ASR.

iv. Environmental assessment including the following:

A. Study of the subsurface geology and hydraulic properties of ASR target aquifers, adjacent aquifers, and confining units; mineralogy and chemistry of target aquifer matrices, and the chemistries of recharge water and target aquifer.

B. Bench testing and chemical equilibrium modeling to determine how introduction of oxygenated surface water may cause leaching of trace metals and how such leaching could be detrimental to the ASR system.

C. Pilot scale testing of an ASR well or wells, permitted according to section 391-3-6-.13 (Underground Injection Control Class V well) to determine the feasibility of ASR and to provide information for the design and operation of an ASR system.

D. Quantitative analysis and possibly computer modeling to predict how ASR could affect movement of recharge water within the target aquifer and how water could move between aquifers in complex hydrogeologic regimes.

WATER QUALITY MANAGEMENT PRACTICES

Georgia's continuing growth will continue to be accompanied by conversion of land cover, more intensive land uses, and significant increases in the volume of pollutants discharged to our waters from both point and non-point sources. If not managed properly, these increases will compromise our ability to beneficially use the state's waters. The State must make a more careful and concerted effort to protect our water from pollution emanating from wastewater discharges and urban and rural runoff. This effort, however, must be flexible enough to address the unique water quality issues in different parts of the state. An array of management practices can be employed statewide and on a watershed basis to restore impaired waters and protect clean waters.

Many of these practices are ongoing and will be continued. Ongoing management practices are described briefly below, as are a number of new or enhanced management practices. In addition to the proposed statewide management practices, a number of additional management practices will be needed at the regional and/or local government level.

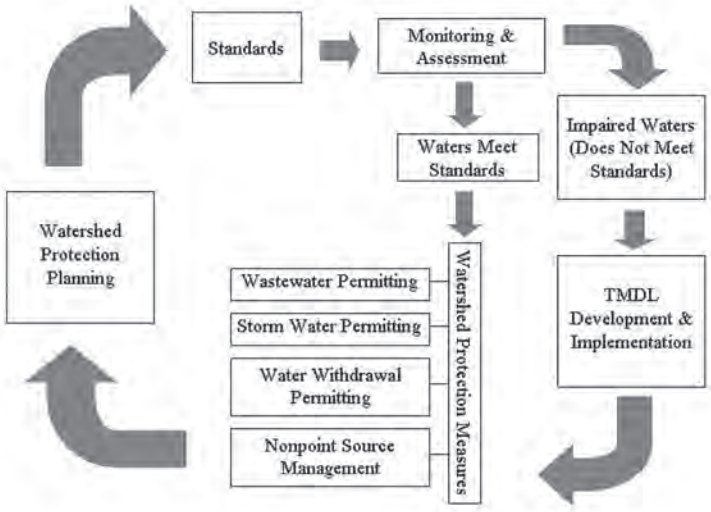
Existing Practices

State and local government agencies, regulated entities and individual stakeholders currently implement a watershed approach to water quality protection. This cyclical approach is illustrated in following figure.

The state designates uses for each water, such as fishing and recreation. The state also sets criteria that must be met in order for the waters to be classified as supporting the designated use. There are criteria for parameters which indicate the health of the stream, such as pH and dissolved oxygen, and criteria for contaminants, such as pesticides, metals, and fecal coliform bacteria. These standards set goals for Georgia's waters.

Water quality monitoring is conducted to assess progress toward those goals. Currently, approximately 20% of the state's waters are tested. Waters found to be exceeding water quality standards are placed on Georgia's list of impaired waters and Total Maximum Daily Loads (TMDLs) are prepared for the listed

waters. TMDLs are implemented through regulatory permitting processes for point sources of pollution, and voluntary best management practices are used to address non-point sources of pollution.



Georgia's Watershed Protection Process

Georgia's fourteen major river basins have been divided into five major groups and the monitoring, assessment, impaired waters listing, TMDL development and implementation steps of the watershed approach are implemented for each basin group over a five year period. This five year rotating river basin cycle provides an opportunity to coordinate work over an entire river basin. Each year different activities are ongoing in each of the five major basin groups. This approach to watershed protection will be continued and Georgia will implement the new and/or enhanced water quality management practices described below.

Enhanced Practices

The proposed new or enhanced management practices address two issues: enhancing water quality standards and monitoring practices and enhancing practices for managing sources of pollution.

Standards. Water quality standards and monitoring programs are crucial to the success of Georgia's water planning and protection efforts. Georgia must periodically review water quality standards to ensure that correct standards are in place and that the standards are appropriate for the areas of the state in which they are being applied. The current standards can be substantially improved. For example, the state currently uses one standard for dissolved oxygen for all of the waters of the state. However, the state's waters have naturally varying levels of dissolved oxygen, and the same level that may indicate a problem in one stream may be healthy in another. Some research has also questioned whether the current fecal coliform standards accurately identify public health concerns. In order to create water quality criteria that most accurately identify impaired waters, EPD must make a significant investment in water monitoring.

The state also needs to revise the designated uses it currently assigns to surface waters. Currently, the designations for wild and scenic river and outstanding national resource water are extraordinarily stringent, but the designations for fishing are not stringent enough for certain sensitive ecosystems. Additional designated uses would allow the state more flexibility in determining the most appropriate criteria for waters across the state.

One of the principal aims of the water quality resource assessments performed by the state will be to gather information to support revisions of water quality standards. Ongoing assessment of the capacities of Georgia's waters will require a comprehensive and consistent monitoring program which can compile substantial information about the condition and assimilative capacity of Georgia's waters.

Compliance. Several practices can be used to address the sources of pollution. There are a number of state laws and regulations and local government ordinances in place to manage water pollution. Enhancing the implementation of and compliance with existing laws and regulations on a consistent basis across the State is an effective way to protect and restore water quality. Since environmental compliance is the ultimate goal, those regulated entities with a significant record of long-term superior environmental performance should enjoy benefits such as a reduced administrative burden (e.g., less compliance testing and reporting, less frequent inspections) and/or expedited requests for permit changes.

Non-point Source Pollution. A key part of addressing non-point source pollution, which causes the majority of water quality problems in the state, is addressing the impact that changing land use can have on water quality. One way to mitigate certain effects of land use on water quality is completion and implementation of the comprehensive plans required by the Georgia Planning Act. These plans enhance local government authority to make land use decisions to protect water quality.

Likewise, effective management of stormwater and the impacts of impervious surfaces on a watershed basis can reduce the adverse effects of runoff. When pervious land cover, such as forests and other natural areas, are paved over or otherwise converted to impervious surfaces, rainwater is no longer able to sink into the soil. The water washes across surfaces and into nearby streams, washing mud, oil, chemicals, and bacteria into creeks and rivers. The flow in streams during wet weather is greatly increased, which often causes erosion and sedimentation.

Innovative ways to manage impervious surfaces and to increase infiltration of stormwater include enhancing or expanding existing programs such as post-construction stormwater management, quality growth and low-impact development initiatives, green infrastructure planning, and land conservation and open space protection programs.

Effective non-point source management uses a combination of regulatory, voluntary, self-regulatory, incentive-based and educational approaches to manage polluted runoff. These efforts often involve multiple entities, including Federal, State, and local governments, organizations, regulated entities, individuals, and other stakeholders. Establishing and/or enhancing voluntary, self-regulatory and incentive-based programs will increase the

breadth and reach of non-point source management. Potential incentive programs include reducing loan rates, increasing priority for certain grants and loans, enhancing existing recognition programs (e.g., Georgia Green Subdivisions, Clean Marinas Programs) and creating innovative new programs.

Forestry currently uses a self-regulation approach. Opportunities exist to expand this approach to other entities or industries that exhibit successful characteristics such as highly motivated members, stewardship attitudes, a high level of interest in self-management, and a certain level of internal organization. Self-regulatory programs include a combination of established and acceptable management practices, industry-specific education and training, and self-inspection and monitoring. Self-regulation also offers the opportunity to avoid future regulations by demonstrating successful environmental compliance.

Wastewater Treatment Facilities. Pollution from centralized wastewater treatment systems operated by local governments, industries and other entities is regulated through permits. These permits include effluent limitations and monitoring requirements to ensure that the facility discharge does not cause a violation of water quality standards. Significant progress has been made over the last several decades by local governments and industry to curb water pollution from wastewater treatment plan discharges. However, as municipalities grow, the need for capacity to assimilate the treated wastewaters increases and the growth within the municipality significantly increases the potential for non-point source pollution, placing a further demand on stream assimilative capacity.

Local governments must assess their watersheds and develop watershed protection plans to minimize the impact on water quality of both the treated wastewater discharge and the potential increase in non-point source pollution associated with growth and development. EPD will simplify the planning process by combining planning requirements so that one consolidated plan will cover as many regulatory requirements as possible.

On-site Sewage Management Systems. On-site sewage management systems are fixed sewage management systems that do not discharge directly to a public sewer. One of the most common on-site systems is the residential septic tank. In order to minimize the risk of water quality impacts from on-site sewage management systems to surface waters and groundwater, these systems must be properly sited, designed, installed, and maintained, and septage from these systems must be managed in an environmentally sound manner

Potential New Tools for Pollution Management. Watershed permitting and water quality trading may be useful tools for managing water quality. A watershed permitting approach involves consideration of the condition of an entire watershed and the variety of discharges to the water source, instead of examining each individual point source discharger.

Water quality trading, which is also called pollutant allocation trading, is an innovative approach to achieving water quality goals more efficiently. Sources in a watershed can face very different costs to control the same pollutant. Trading programs allow facilities to meet regulatory obligations by purchasing equivalent or superior pollution reductions from another source, achieving water quality improvements in a cost-effective manner.

The EPA has endorsed the use of watershed permitting and water quality trading as tools for achieving watershed goals. The United States Natural Resources Conservation Service has also endorsed the use of water quality trading, signing a Partnership Agreement with the U.S. Environmental Protection Agency in October 2006 to promote the concept. Application of these tools in Georgia may help accomplish water quality protection goals. However, there are a number of unanswered questions about how best to apply the tools here to ensure water quality protection, and their potential use should be carefully evaluated following guidance to be developed in consultation with water-related interests across the state.

760-1-1-.11 Water Quality Management Practices

(1) Findings. In promulgating this rule, the Council declares the following:

a. The purpose of water quality management practices is to protect clean waters and restore impaired waters for current and future users while protecting water quality.

b. There are more than 6,000 miles of streams on Georgia's list of impaired waters.

c. In accordance with O.C.G.A. § 12-5-21(b) it is the responsibility of the Division to establish methods for preventing and controlling the pollution of the waters of the state.

d. Water quality management practices are most effective when implemented on a watershed basis.

e. A variety of management practices can be implemented to enhance the ongoing management of water quality in accordance with Georgia's integrated water policy in section 760-1-1-.03 of this rule. These practices include but are not limited to:

i. Practices to enhance water quality standards and monitoring

ii. Practices to enhance the management of pollution including consistent implementation of and compliance with existing laws, TMDL implementation in tributaries to impaired waters, best management practices to address land use and non-point source pollution, coordinated planning and permitting, practices to manage onsite sewage treatment systems and new tools such as watershed permitting and water quality trading.

f. These practices are described in sections 760-1-1-.12 through 760-1-1-.13 of this rule.

760-1-1-.12 Enhanced Water Quality Standards and Monitoring Practices

(1) In promulgating this rule, the Council declares the following:

a. In accordance with O.C.G.A. §12-5-23(c)(9), it is the responsibility of the Director to review water quality standards on a periodic basis and establish or revise standards of water purity for any waters of the state.

b. Except for 70 miles of streams located in national forests, all Georgia waters are currently classified as High Quality Waters subject to anti-degradation review. Higher classifications such as Wild River, Scenic River, or Outstanding Natural Resource Waters require stringent controls to preclude any alteration in natural water quality. A new classification of Significant Natural Resource Waters will provide a higher, but attainable, level of protection for selected waters.

c. More than 62% of impairments of Georgia's waters are due to a violation of the current bacteria standard. The appropriateness of this standard must be reviewed.

d. More than 15% of Georgia's impaired waters are due to a violation of the current statewide dissolved oxygen standard. Statewide application of the dissolved oxygen standard must be reviewed.

e. In accordance with section 760-1-1-.06 of this, rule the Director will develop and implement enhanced monitoring and assessment practices to collect, manage, and use the scientific data and information needed to implement this plan.

(2) The Director shall add a designation for Significant Natural Resource Waters to the use classifications in section 391-3-6-.03(4) of the Rules and Regulations for Water Quality Control. This designation will provide additional protections for high quality waters but not be as stringent as wild river, scenic river or outstanding natural resource water, which generally preclude any alteration in natural water quality. This designation would support the Georgia Land Conservation Program's objective of protecting lands with high environmental values or conservation benefits. Steps in this process may include:

a. Developing a definition for Significant Natural Resource Waters,

b. Identifying the waters across the state that may meet the definition, and

c. Defining the criteria for additional protection for these waters

(3) The Director will update water quality standards for bacteria and dissolved oxygen so that the standards are correct and appropriate for different areas of the state.

(4) The Director will implement the enhanced monitoring and assessment program developed in accordance with section 760-1-1-.06 of this rule.

760-1-1-.13 Enhanced Pollution Management Practices

(1) In promulgating this rule, the Council declares the following:

a. There are a number of laws currently in place in Georgia designed to control water pollution. Implementation of and compliance with these laws should be enhanced.

b. A critical link exists between land use, stormwater and water quality. Land use changes affect water quality largely because the conversion of pervious land cover (e.g., forests and other natural areas) to impervious land cover (e.g., buildings, concrete surfaces) causes a larger volume of stormwater and stormwater-associated pollution, which streams are unable to assimilate.

c. Impervious cover also prevents water infiltration into the soil, which under natural conditions is responsible for degrading pollutants, recharging groundwater and maintaining the stream baseflows needed to maintain assimilative capacity.

d. Some stormwater and land use management practices can be applied on a watershed basis that will maintain infiltration and groundwater recharge and reduce or eliminate the adverse impacts of stormwater. These practices are critical elements of effective management of non-point source pollution and protection of Georgia's waters.

e. Practices to manage non-point source pollutants have, to date, proven to be marginally effective. Non-point source management practices need to be reviewed, and recommendations to improve these practices need to be developed.

f. Coordination of environmental planning and management between state agencies, permittees, and local government entities responsible for land use planning and management will serve to reduce the adverse effects of land use and stormwater on water quality.

g. On-site sewage management systems that are properly sited, designed and maintained can effectively reduce most human health or environmental threats.

h. Georgia faces environmental and health hazards associated with the illegal disposal of septage. Acceptable methods of disposal of septage include discharge to a wastewater treatment plant; discharge to a separate septage handling facility; or direct land application to land with a low potential for public exposure.

i. The U.S. Environmental Protection Agency (EPA) has published guidance regarding watershed permitting as an approach to developing discharge permits.

j. The EPA and the United States Natural Resources Conservation Service have endorsed water quality or pollutant allocation trading as an innovative approach to achieve water quality goals more efficiently.

k. The State should assess new water quality management tools, such as watershed permitting and pollutant allocation trading, to determine if they can be effectively applied to support the objectives of this rule and Georgia's water quality control program.

(2) The Director will update current compliance inspection and enforcement capabilities and recommend enhancements as appropriate to provide consistent implementation of existing laws and rules and regulations across the State and among local issuing authorities authorized pursuant to O.C.G.A. §12-7-8.

(3) The Director will partner with regulated entities, state and local government agencies involved in land and water management, and other appropriate stakeholders to enhance current approaches to managing non-point sources of pollution, so that sources are managed on a watershed basis in an effective and integrated fashion. The following actions shall be undertaken:

a. Updating the Georgia Stormwater Management Manual.

b. Encouraging local stormwater utilities as a mechanism for funding the administration, operations and maintenance, and capital costs of stormwater and non-point source pollution controls.

c. EPD will develop guidance for local government programs to manage fertilizer for lawn use in watersheds where phosphorus loading is an issue.

d. EPD will work with appropriate stakeholders to develop industry-specific best management practices and provisions for self-monitoring and enforcement.

e. EPD will work with appropriate stakeholders to develop watershed education programs to address non-point source pollution in the urban and home setting.

f. The regional planning undertaken pursuant to section 760-1-1-.14 shall include elements that address stormwater management, including projections of stormflows, evaluation of stormwater permitting requirements, and assessment of practices to promote infiltration and control non-point source pollutant loading.

(4) In consultation with state and local government agencies involved in land and water management, as well as other appropriate stakeholders, the Director shall evaluate the following actions, among others:

a. Watershed limitations on effective impervious surfaces

b. Innovative programs for protection of riparian buffers as well as requirements for revegetation of buffers

c. State or local government requirements related to low impact development, improved site design, and growth management consistent with watershed protection and maintenance of water quality standards

d. Enhanced incentives or requirements for land conservation, wildlife conservation, greenspace protection or other land protection programs, including the use of statewide Green Infrastructure Planning requirements to protect land resources with high environmental value or conservation benefits from non-point source pollution.

e. Requirements for implementation of best management practices to restore waters and watersheds currently impacted by non-point sources of pollution.

f. Closer coordination between state and local government agencies with respect to land use decisions and the protection of water resources.

(5) In accordance with O.C.G.A. §§12-2-8 and 50-8-30 et seq., the Director will not issue a requested new or expanded water withdrawal, drinking water, discharge or land application permit unless the local government applicant has Qualified Local Government status as approved by the Georgia Department of Community Affairs. For permit renewals to governments without Qualified Local Government status, additional permit conditions may be added.

(6) In accordance with O.C.G.A. §12-5-23(a)(1)(S), local governments requesting a point source discharge or land application permit are required to conduct watershed assessments and develop watershed protection plans.

a. The purposes of the Watershed Protection Plan are to: 1) address water quality standards violations, 2) develop and implement best management practices to prevent future water quality standards violations, and 3) provide ongoing monitoring to either verify the effectiveness of the best management practices or provide information necessary to modify those practices to achieve water quality standards.

b. Watershed assessments and protection plans shall be developed in accordance with the latest guidance provided by the Division and implemented following the schedule indicated in the plan. Population forecasts used in support of permit applications shall be used to assess whether local governments are projected to become subject to municipal stormwater permitting requirements pursuant to section 391-3-6.16(3)(b)(7). For those local governments projected to become subject to stormwater permitting requirements, watershed protection plans shall include pre-planning for stormwater management to ensure compliance with permitting requirements when applicable.

c. In review of water withdrawal and drinking water permit applications, the Director shall evaluate the information in, and status of, any watershed assessments and watershed protection plans affected by the water use and associated discharge.

d. The Division shall work with local governments, other State agencies, and regulated entities to coordinate

and integrate watershed monitoring, assessment and protection planning requirements associated with various State water programs in support of regional planning performed pursuant to section 760-1-1-.14. Information from watershed monitoring and assessments will be incorporated in water quality assessments pursuant to section 760-1-1-.06(4).

(7) On-site sewage management systems shall be properly sited, designed, installed, and maintained to ensure long-term performance so that negative impacts to surface water and groundwater quality are effectively reduced or eliminated. Laws and rules are currently in place and implemented by the Department of Human Resources, Division of Public Health to address siting, design and installation.

a. The Director shall partner with state and local agencies and regulated entities involved in land and water management to enhance requirements for inspection and maintenance of on-site sewage management systems. The Director will evaluate the effect of the following requirements, among others:

i. Inspection and maintenance ordinances implemented by local governments as a condition of public water supply system permits.

ii. Inspection and the disclosure of the presence and the general location of on-site sewage management systems at the time of the sale of a property.

iii. State and local government implementation of "Voluntary Guidelines for Management of Onsite and Decentralized Wastewater Systems" produced by the EPA.

(8) The Division will continue to coordinate with the Department of Human Resources on proper septage disposal. In accordance with O.C.G.A. §12-8-41, the Division will regulate and permit land disposal sites that receive septic tank waste from a septic tank pumping or hauling business.

(9) The Director will partner with state and local government agencies, regulated entities, and other appropriate stakeholders involved in land and water management to review the practice of watershed permitting to determine the potential for use of this tool in Georgia.

(10) The Director will partner with state and local government agencies, regulated entities, and other appropriate stakeholders involved in land and water management to review the practice of pollutant allocation trading to determine the potential for use of this tool in Georgia.

REGIONAL WATER PLANNING

In order to meet Georgia's water resource needs in a sustainable manner, we must develop long-term plans for each of our major surface water and groundwater resources. These plans must forecast future water supply and assimilative capacity needs and identify the management practices that will ensure the sources can meet future needs.

This rule provides for the preparation of regional water development and conservation plans (WDCPs) throughout the state. As the first step in regional planning, the boundaries of water planning regions will be established to reflect hydrologic boundaries, political boundaries, economic conditions, and other factors as appropriate. Water planning regions will include one or more major surface or groundwater resource(s). EPD will then designate a water planning council for each water planning region, which will be responsible for preparing a recommended water development and conservation plan, following EPD guidance and with support from contractors with EPD. Water planning councils will be diverse and broadly representative of local governments, water users, and other water-related interests in each planning region. Membership will depend on the existing water-related organizations and institutions in each region as well as the characteristics of regional water resources and water uses.

EPD will consult with each water planning council in contracting for services to support preparation of the regional WDCP. Water planning councils and contractors will use EPD's water quantity and water quality assessments for each major water resource in the planning region to prepare a recommended regional WDCP, following EPD guidance. WDCPs will include forecasts of future water supply and assimilative capacity needs and will identify the optimal water management practices for that planning region. Each water planning council will submit a recommended plan to EPD, which will adopt the plan if it is complete and consistent with EPD guidance.

Once adopted, the regional WDCPs will be used by EPD as a basis for making permitting decisions. They will also guide decisions regarding state grants and loans from the Georgia Environmental Facilities Authority for water-related projects in each water planning region. The water planning councils are not expected to have a direct role in implementation of the adopted WDCPs. Rather, implementation of management practices specified in the WDCPs will be the responsibility of water users in the region, including local governments and others with the capacity to develop water infrastructure and apply for the required permits, grants, and loans.

EPD will ensure that water planning is carried out consistently and equitably across water planning regions, and that the resultant plans will lead to management of water resources so that opportunities for current and future use of water resources are maintained.

760-1-1-.14 Regional Water Planning

(1) Findings. In promulgating this rule, the Council declares the following:

a. The characteristics of water resources and water users across Georgia vary significantly in differing regions across Georgia.

b. Protecting the ability of our water resources to meet needs for water supply and assimilation of wastewater will require regional, resource-based plans that identify the management practices appropriate to the resources and users in each region.

(2) Purpose. As authorized by O.C.G.A. §§12-5-31, 12-5-96, and 12-5-522, and in a manner consistent with O.C.G.A. §12-5-570 et seq., the Division, or regional water planning councils designated by the Division, will prepare regional water development and conservation plans (WDCPs) for each designated water planning region across the state as a means to assure the long-term, sustainable availability of water supplies and assimilative capacities. When adopted, these WDCPs will guide Division water permitting decisions, and state grants and loans by the Georgia Environmental Facilities Authority for water projects.

(3) Water Quantity and Water Quality Assessments. For each water resource (as defined by the Director), the Division will complete an assessment of the water resources' capability for water supply and assimilative capacity, as described in sections 760-1-1-.06(3) and 760-1-1-.06(4).

(4) Delineation of Water Planning Regions.

a. The Director will delineate regional water planning regions that comprise one or more water quantity and/or water quality resources, as defined by the Director pursuant to sections 760-1-1-.06(3)(c) and 760-1-1-.06(4)(d) and consistent with the provisions of O.C.G.A. §12-5-570 et seq. Delineation of water planning regions will be based on the hydrologic boundaries of the water resources in each planning region and on consideration of jurisdictional boundaries, infrastructure interconnections, and other factors.

b. The Director shall propose an initial delineation of water planning region boundaries. Following public input and consultation with local governments and water-related interests, the Director shall publish a final delineation.

c. Local jurisdictions that rely on water resources that lie in more than one water planning region, including those jurisdictions that are part of the Metropolitan North Georgia Water Planning District, will have the option of contributing to preparation of more than one water development and conservation plan.

(5) Designation of Water Planning Councils. The Director shall designate water planning councils to prepare regional water development and water conservation plans for each water planning region.

a. To the greatest extent practicable, membership of each water planning council shall be diverse and broadly representative of local governments and water-related interests in the water planning region. Composition of water planning councils may vary between regions, reflecting variation in water resources and water use, but consistent with O.C.G.A. §12-5-523(b), each water planning council will include, at a minimum, representatives of nonprofit advocacy organizations, business organizations, local government entities and associations of local government entities, and regional development centers.

b. Each water planning council shall, through a memorandum of agreement (MOA) with EPD, establish procedures including but not limited to:

i. Decision-making procedures;

ii. Provisions for appropriate public sector involvement in plan development and implementation of management practices;

iii. Specifications for advisory bodies and processes, including opportunities for meaningful public participation in plan development;

iv. Provisions for the participation of any local government located outside the planning region boundary that relies on, or impacts, water resources within the planning region;

v. Other requirements established by guidance issued by the Director.

c. Memoranda of agreement between EPD and water planning councils shall have a three-year term and be subject to renewal. In the event of vacancies, the Director shall make additional appointments to a water planning council during the term of the agreement. Renewal of a MOA shall be contingent on performance, which shall be evaluated according to regional water planning guidance.

d. The provisions of this section do not apply to any local government subject to the Metropolitan North Georgia Water Planning District Act, O.C.G.A. §12-5-570 et seq., except to the extent such local government is participating in a water planning council described in this section.

(6) Regional Water Development and Conservation Plans (WDCPs).

a. Water planning councils shall, following guidance to be provided by the Director, oversee preparation of regional water development and conservation plans. Plans shall include forecasts of water supply and assimilative capacity needs for each water source within each planning area, developed in consultation with the Division.

b. In accordance with O.C.G.A. §12-5-522 et seq., regional water development and conservation plans shall promote the sustainable use of Georgia's waters, through the selection of an array of management practices, to support the state's economy, to protect public health and natural systems, and to enhance the quality of life for all citizens. The plans shall identify steps which will be taken to ensure that the forecasted needs can be met within the water resources' capabilities, as specified in the water resource assessments defined by the Director.

c. Plans shall include the following principal elements, which shall be developed according to guidance issued by the Director:

i. Local governments lying in whole or part within the water planning region;

ii. Planning for regions at the periphery of the water planning region that may be located in more than one regional water planning region;

iii. Major water users;

iv. Surface water and groundwater sources and their conditions;

v. Forecasts of 10-, 20-, 30-, and 40-year population expectations, water demands, wastewater returns, land surface types and distribution, and employment characteristics, developed in consultation with EPD;

vi. Forecasted uses of water bodies for water supply, wastewater discharge, and storm flows for each forecast period;

vii. Comparisons of those forecasts with the sustainable yields and assimilative capacities of water resources as determined by the water quantity and water quality assessments.

viii. Water quantity and quality management objectives for 10-, 20, 30-, and 40-year time horizons.

ix. Recommendations for appropriate management practices for stormwater management, wastewater treatment, water supply, water conservation, and the general protection of water quality within the planning region. Management practices shall help meet the water quality and water quantity management objectives of the WDCP and provide for sustainable use of available water or practices that supplement water availability when consistent with criteria specified in section 760-1-1-.10(1) and 760-1-1-.10(2). Practices should also emsure the sustainable use of assimilative capacity on a watershed basis, the restoration of impaired waters and protection of waters that currently meet water quality standards.

x. Proposals for addressing data and information needs;

xi. Benchmarks for assessment of plan effectiveness and identification of required revisions;

xii. Actions required of state to support objectives in the recommended water development and conservation plan.

xiii. Other elements established by guidance issued by the Director.

d. The Division shall develop guidance for the process of creation, finalization and revisions of regional water development and conservation plans. This guidance shall include, but not be limited to:

i. Procedures and criteria for forecasting water demands and needs for assimilative capacity.

ii. The criteria for review of such plans, including provisions to ensure that plan implementation shall not cause undue adverse impacts on water users or water uses in the subject planning area or in other planning areas

iii. Procedures and criteria for future review and revision of water development and conservation plans.

iv. Procedures for providing state water planning funds to contractors to assist water planning councils in plan development.

e. The Division shall provide technical assistance to water planning councils in preparation of water development and conservation plans. The Division shall also contract for services needed to support the preparation of the plan. Each water planning council shall assist EPD in directing the work of contractor(s) for their water planning region.

f. The Director shall take the steps necessary to ensure communication and coordination between water planning councils charged with preparation of plans for water resources that are hydrologically-connected or those affected by water management activities in adjacent planning regions.

(7) Regional Water Development and Conservation Plan Review and Approval.

a. Regional water planning councils shall submit recommended regional water development and conservation plans to the Director. The Director shall review recommended regional water development and conservation plans and any amendments thereto to determine if they are complete with respect to section 760-1-1-.14(6) and:

i. Adopt a recommended plan if it is complete and consistent with the provisions of this rule and guidance adopted pursuant to this rule; or

ii. Advise the regional water planning council as to additional measures that should be taken to complete a recommended plan and make it consistent with the provisions of this rule and guidance adopted pursuant to this rule; or

iii. Adopt a recommended plan with conditions.

b. For any water planning region for which a recommended plan is not submitted by the date specified in the guidance for plan development, the Director shall prepare the regional water development and conservation plan and identify management practices as described in section 760-1-1-.14(6).

c. Upon adoption, the Director shall use the water development and conservation plans to guide decisions regarding permitting. Plans will also guide state grants and loans from the Georgia Environmental Facilities Authority for water-related projects within that water planning region.

(8) Future revisions of water development and conservation plans shall follow the procedures and meet the criteria listed in section 760-1-1-.14(6) and guidance developed by the Director pursuant to section 760-1-1-.14(6)(d).