



CHAPTER 4

WATERSHED REGULATIONS

The management of Georgia's waterways continues to become increasingly complicated as new regulations are developed and existing regulations are more strictly enforced in an effort to improve water quality. Regulation of water pollution has in the past focused primarily on point sources such as factories and municipal wastewater treatment plants that discharged process or wastewater to streams and rivers. Such regulation has traditionally been implemented in such a manner as to isolate each source rather than considering the cumulative effect of multiple sources, including nonpoint sources, on downstream waterbodies. In addition, the various regulatory programs were themselves developed and enforced in isolation from each other. There is a current movement towards integration of watershed regulations with a stronger focus on nonpoint source pollution. The goal of this movement is to have more effective pollution control while streamlining the compliance process for all involved.

This chapter will describe the following regulatory programs that relate to the Alcovy Watershed Protection Project.

The Safe Drinking Water Act, which regulates public water systems and requires a source water assessment for water supply watersheds above public drinking water intakes. This federal Act is enforced in Georgia through the *Georgia Safe Drinking Water Act*.

The Clean Water Act, which regulates point and nonpoint sources of pollution. Total Maximum Daily Loads (TMDLs) are regulated under this Federal Act. This is enforced in Georgia through *The Georgia Water Quality Control Act*, which makes it unlawful to discharge excessive pollutants into waters of the State, regulates water withdrawals, diversions or impoundments, and requires watershed assessments for any new NPDES discharge or expansion of an existing permit.

The Georgia Planning Act includes requirements for buffers and setbacks on many state waterways and imposes impervious surface limits for small water supply watersheds.

The Georgia Erosion and Sedimentation Control Act requires permits for many land-disturbing activities that may affect state waterways.

These regulations are often overlapping in both scope and jurisdictional area. The goal of this project is to provide a comprehensive watershed assessment that meets the requirements of these rules for the Alcovy River watershed. By conducting a comprehensive multi-jurisdictional assessment combining the above regulatory requirements, each community within the watershed will



benefit. The descriptions below summarize requirements and include potential regulatory changes that may require additional effort beyond the scope of this watershed assessment.

SAFE DRINKING WATER ACT

Statutes

Safe Drinking Water Act (SDWA), 42 U.S.C.A. §300 et. seq. (Regulations at 40 C.F.R. §§141-142). Georgia Safe Drinking Water Act, O.C.G.A. §12-5-170 et. seq. (Regulations at 391-3-5).

Summary

The 1996 amendments to the SDWA require states to perform source water assessments for all water supply watersheds within the state's boundaries.¹ The goal of the act is the development and implementation of prevention and protection strategies to address those potential threats to the water supply system identified through the assessment process. This law represents a movement towards a more preventive approach of avoiding contamination of public water supply systems.

The statute requires that states submit an Implementation Plan to the U.S. Environmental Protection Agency (EPA) for conducting the assessments.² Georgia submitted such a plan to the EPA on January 29, 1999. The plan was approved on April 24, 2000, and was effective as of May 1, 2000.

The common term used to refer to these requirements is "Source Water Assessments."

Responsibilities

The new requirements apply to all public water systems. This study deals only with those systems that obtain their water from surface water supplies.³ Surface water systems that supply water to at least 50,000 people are given the primary responsibility for developing and implementing an assessment and protection plan for their system. However, these systems may make requests to Georgia Environmental Protection Division (EPD) for technical assistance and funding. EPD will

¹ 42 U.S.C.A. §300j-13. This provision applies to those states, including Georgia, that exercise primary enforcement responsibility for public water systems.

² The statute requires only that EPA publish guidance that recommends criteria for the assessment of source water. 42 U.S.C.A. §300j-14(d).

³ Public water systems that obtain their water from groundwater or groundwater under the influence of surface water are already covered by other programs that have established assessment programs.

P:\Alcovy\1806\1\Protection & Implementation Plan\Alcovy Report\Final Version-Wtrshd Assmnt\Alcovy River Wtrshd Assmnt-Chap.4-finalized



have primary responsibility for conducting assessments for all surface water systems supplying water to less than 50,000 people.

Assessment Area

For the Source Water Assessment, the entire watershed that drains to the water intake is within the protection area; however, the EPA has given the states flexibility to identify and assess smaller areas or segments of the watershed for a cost and time-effective analysis. Georgia's Plan was developed to be consistent with protection distances as defined in the EPD Rules of Environmental Planning Criteria, as part of the Georgia Planning Act of 1989. The plan identifies three assessment zones within the water supply watershed upstream from a given drinking water intake:

- The inner management zone (IMZ) – within a 7-mile radius above the intake,
- The outer management zone (OMZ) – radius between 7 and 20 miles of the intake, and
- The non-management zone (NMZ) – remainder of watershed above the OMZ.

Requirements

Each assessment must include a delineation of the watershed that drains to the intake location, an inventory of potential pollution and contaminant sources, and a determination of the susceptibility of the drinking water source to potential contamination. The susceptibility analysis is based on the potential for contaminants to be released into the environment as well as the risk to the surface water intake. In addition, the results of the assessment must be made available to the population served by the public water system. This information may then be used for developing source water protection plans as part of local comprehensive planning efforts.

Potential Regulatory Changes

None expected at this time.

CLEAN WATER ACT

Statutes

Clean Water Act, 33 U.S.C. §121 et seq. (1977) (Regulations at 40 C.F.R. Subchapter D). Provisions for the NPDES permit program are at 33 U.S.C. §1342. Georgia Water Quality Control Act is at Chapter 391-3-6.



Summary

The Clean Water Act prohibits the discharge of any pollutant to waters of the United States from a point source unless the discharge is authorized under the National Pollutant Discharge Elimination System (NPDES) permit. The responsibility for issuing such permits in Georgia has been delegated to the Georgia EPD⁴ through the Georgia Water Quality Control Act. The EPD has recently begun requiring permit applicants to perform watershed assessments in order to address water quality issues within the service area of the permitted discharge. This relatively new requirement has not yet been promulgated into law, but is policy of EPD prior to issuance of new NPDES permits, or expansion of existing permits.

Although the NPDES program has always required that each permit address and meet the state's water quality standards, the states had a policy of presuming compliance.⁵ However, litigation concerning other programs under the Clean Water Act, particularly, the TMDL program, has caused agencies to reconsider their traditional method of issuing permits. The assessment will be used to determine whether water quality standards will continue to be met should the permit be granted.

EPA has also promulgated rulemaking that requires NPDES permits for storm water dischargers. Phase I Stormwater permitting requirements include only large municipalities generally serving populations of more than 100,000. Phase II Stormwater permits are required for municipalities serving populations of less than 100,000, or that meet other criteria. Although no jurisdictions in the Alcovy basin are automatically included, the proposed regulation also gives the state agency the authority to include other areas. The agency is to consider certain criteria and then make a determination based upon the threat to water quality. This regulation was published in December 1999.

Other revisions to the NPDES Program include EPA's regulatory requirements for establishing TMDLs. States are required to list waterbodies that are not supporting their designated uses for failure to meet water quality standards. TMDLs will be established for such waterbodies. A TMDL is the maximum daily amount of a given pollutant that may be discharged to a given waterbody without exceeding water quality standards. TMDLs are based on identifying and implementing necessary reductions in both point and nonpoint sources of pollutants.

Furthermore, EPA granted authority to Georgia EPD to issue general NPDES permits. EPD has issued a general permit for stormwater discharges associated with construction activities on sites greater than five (5) acres or tracts of less than five (5) acres that are part of an overall larger development.

⁴ 33 U.S.C. §1341(a); 40 C.F.R. §130.12(a).

⁵ A water quality standard defines the water quality goals of a water body by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. 40 C.F.R. §131.2.

P:\Alcovy\1806\1\Protection & Implementation Plan\Alcovy Report\Final Version-Wtrshd Assmnt\Alcovy River Wtrshd Assmnt-Chap.4-finalized



The common terms used to refer to the requirements of this Act are: “NPDES Permits”, “Watershed Assessment and Protection Plan”, “TMDLs”, “Stormwater Permits”, “Georgia General NPDES Permit for Storm Water Discharges Associated with Construction Activities.”

Responsibilities

Watershed assessments and protection plans are required of publicly-owned facilities that provide wastewater treatment for flows greater than 1.0 million gallons per day.

States are required to develop comprehensive lists of all waterbodies that do not attain and maintain water quality standards. States are required to develop their lists every four (4) years and will schedule the establishment of all necessary TMDLs.

Georgia EPD is responsible for the enforcement of the NPDES general permit for stormwater discharges associated with construction activities.

Assessment Area

The watershed assessment area includes all streams and other water bodies in the current and proposed service area of the water pollution control plant.

TMDLs are established for watersheds above impaired waterbodies.

Receiving streams or storm water outfalls associated with land disturbing activities (> 5 acres) are subject to turbidity monitoring in association with the general NPDES permit for construction activities.

Requirements

Watershed assessments include data collection, sampling, modeling and plan development. The EPD will determine if a municipality in the Alcovy watershed is subject to the Phase II Stormwater permitting requirements. If so, the municipality would be required to obtain an NPDES permit and include in its permit application a program that would 1) reduce the discharge of pollutants to the ‘maximum extent practicable’; and 2) protect water quality. However, the Phase II permitting requirements may be met using a general permit approach. Permittees under Phase II will be expected to meet only narrative, rather than numeric, effluent limitations.

Components of the NPDES general permit for storm water discharges associated with construction activities include 1) notification of the facility’s intent to comply with the permit, 2) preparation of



an Erosion, Sedimentation and Pollution Control Plan (Plan), 3) preparation of a Comprehensive Monitoring Program, and 4) development of a plan and program implementation strategy. The EPD will develop TMDLs for streams not meeting designated use criteria. The process of establishing a TMDL requires the following information:

- waterbody name and location
- identification of the pollutant and the water quality standard for the waterbody
- amount of pollutant allowable to meet standards
- load reduction needed to meet standards
- sources of the pollutant
- wasteload allocation for point sources
- load allocation for runoff and other sources of pollution
- an implementation plan,
- a margin of safety
- consideration of seasonal variation
- allowance for reasonably foreseeable increases in pollutant loads

Potential Regulatory Changes

In August 1999, the EPA proposed several revisions to the NPDES program. First, the EPA would require that new or significantly expanding dischargers (a twenty percent or greater increase in pollutant loadings) obtain an offset of one-and-a-half times their proposed discharge. Secondly, if the watershed is subject to TMDL implementation, the EPA is seeking the authority to object to, and ultimately reissue, all permits in those areas subject to TMDL implementation. Finally, in areas subject to TMDLs, the EPA is seeking to expand the NPDES program to include concentrated animal feeding operations (large chicken and hog operations) and certain silviculture operations. Thus, these operations would be required to obtain an NPDES permit in order to discharge into a waterbody.

THE GEORGIA PLANNING ACT

Statutes

O.C.G.A. §12-2-8. (Criteria at Chapter 391-3-16-.01 for Water Supply Watersheds and Chapter 391-3-16-.04 for River Corridor Protection.)



Summary

As part of the Georgia Planning Act of 1989, the Georgia legislature directed the Department of Natural Resources (DNR) to establish criteria to be used by local governments as a basis for protecting waterways in water supply watersheds. The law requires that each local government adopt a comprehensive plan that includes a natural resource element and that these plans and implementing regulations include the minimum criteria established by DNR. The common term for the requirements of this Act is “Part V Criteria”. The Georgia Department of Community Affairs (DCA) establishes minimum standards and procedures for the development of local government comprehensive plans and is the agency responsible for reviewing and approving these plans. A local government that fails to adopt an approved comprehensive plan loses “qualified local government” status and is not eligible for state funds and grants that require such status.

The Criteria for River Corridor Protection, developed by DCA, provide provisions for the protection of large river corridors. Criteria for protection of such rivers include establishing a 100-foot buffer on both sides of the river, as measured horizontally from the riverbanks.

Responsibility

This Act requires that local governments identify existing and future water supply watersheds and adopt water supply watershed protection plans as part of their planning process. The local government must adopt a land use plan for this area that protects drinking water.⁶

It is the responsibility of local governments and regional development centers to comply with the standards set forth for the protection of large rivers when developing and implementing local comprehensive development plans.

Assessment Area

‘Water supply watershed’ is defined as “the area of land upstream of a governmentally-owned public drinking water intake.”⁷

The Criteria for River Corridor Protection applies to any perennial river or other waterbody downstream of the point below which the average annual flow is at least 400 cubic feet per second (cfs) as determined by appropriate U.S. Geological Survey documents. The majority of the Alcovy River does not meet this criteria. The Criteria for River Corridor Protection applies only to a small reach of the Alcovy River located immediately above Jackson Lake and Jackson Lake itself.

⁶ This is the water supply watershed protection plan as defined by 391-3-16-.01(2)(i).

⁷ Chapter 391-3-16-.01(2)(h).



Requirements

The statute requires that minimum standards for watershed protection include buffer areas along streams and reservoirs and restrictions for land development densities and land use activities.⁸ As allowed by the statute, the DCA has adopted differing minimum standards based on the size of the watershed.

A large water supply watershed is defined as having 100 square miles or more of land within the drainage basin upstream of the water supply intake.⁹ While criteria have not been established for the stream corridors of tributaries to the water supply intake, criteria have been established for stream corridors of perennial tributaries¹⁰ of a water supply reservoir¹¹. All tributaries within a 7-mile radius of the reservoir boundary¹² are to be protected by:

1. a 100-foot buffer¹³ on each side of the stream
2. setback areas of 150 feet for the construction of any impervious surface¹⁴
3. prohibition of septic tanks and septic tank drainfields within the setback area

A small water supply watershed has less than 100 square miles of land within the drainage basin upstream of the water supply intake.¹⁵ In these watersheds, perennial stream corridors within a 7-mile radius upstream of the water supply intake are to be protected by the same criteria as above. Stream corridors outside this area are to be protected by the same criteria at half the distances (50-foot buffers, and 75-foot setbacks). In addition, certain criteria apply to all areas within a small watershed: 1) new sanitary landfills are allowed only if they have synthetic liners and leachate collection systems; 2) new hazardous waste treatment or disposal facilities are prohibited; and 3) impervious surface area is limited to twenty-five percent, or existing use, whichever is greater.

Potential Regulatory Changes

None are anticipated at this time.

⁸ O.C.G.A. §12-2-8(d).

⁹ 391-3-16-.01(6)(a).

¹⁰ “A stream which flows throughout the whole year as indicated on a US Geological Service Quad map.” 391-3-16-.01(2)(d).

¹¹ “A governmentally owned impoundment of water for the primary purpose of providing water to one or more governmentally owned public drinking water systems.” 391-3-16-.01(2)(g).

¹² “The edge of a water supply reservoir defined by its normal pool level.” 391-3-16-.01(2)(e).

¹³ “A natural or enhance vegetated area with no or limited minor land disturbances, such as trails and picnic areas.” 391-3-16-.01(2)(a).

¹⁴ “A man-made structure or surface which prevents the infiltration of storm water into the ground below the structure or surface. Examples are buildings, roads, driveways, parking lots, decks, swimming pools, or patios.” 391-3-16-.01(2)(c).

¹⁵ 391-3-16-.01(7)(a).



EROSION AND SEDIMENTATION CONTROL

Statutes

O.C.G.A. §12-7-1 through §12-7-18 (Regulations at Chapter 391-3-7-.01).

Summary

In 1975, Georgia passed the Erosion and Sedimentation Act with the intent to strengthen statewide comprehensive programs for erosion and sedimentation control. The Act requires submission and approval of erosion and sediment control plans prior to any land disturbing activity and gives authority to local governments for implementation and enforcement of such plans. Where local governments choose not to administer such a program, EPD becomes the issuing authority. Whenever the issuing authority believes a violation has occurred or is about to occur, a judicial injunction may be sought or an administrative order issued that requires the violator to stop the activity and take all necessary corrective and mitigating action.¹⁶ Civil penalties for each violation may be up to \$2,500.¹⁷

Responsibility

The Act prohibits any ‘land-disturbing activity’¹⁸ without a permit acquired from either the EPD or a local government who has been granted the authority from the EPD to issue such permits. An erosion and sediment control plan¹⁹ must be filed with each permit application, and the authority issuing the permit must affirmatively determine that the plan regarding such activities meets the requirements of the Act.²⁰ The State Soil and Water Conservation Commission (SSWCC) and the Natural Resource Conservation Service (NRCS) act in an advisory role in approval of the land-disturbing permit.

¹⁶ O.C.G.A. §12-7-12.

¹⁷ O.C.G.A. §12-7-15(a).

¹⁸ “Any activity which may result in soil erosion from water or wind and the movement of sediments into state water or onto lands within the state, including, but not limited to, clearing, dredging, grading, excavating, transporting, and filling of land...” O.C.G.A. §12-7-3(9).

¹⁹ Chapter 391-3-7-.04 describes the information that must be included in the plan.

²⁰ O.C.G.A. §12-7-9.

P:\Alcovy\18061\Protection & Implementation Plan\Alcovy Report\Final Version-Wtrshd Assmnt\Alcovy River Wtrshd Assmnt-Chap.4-finalized



Assessment Area

The assessment area is designated as the area of the land disturbing activity.

Requirements

The erosion and sediment control plan must include appropriate best management practices (BMPs) to prevent and minimize erosion and sedimentation. BMPs include good site planning, minimization of cut and fills, as well as the extent and duration of soil exposure, and vegetative and structural control measures as detailed in the “Manual for Erosion and Sediment Control,” (Georgia soil and

Water Conservation Commission 1998). Compliance with these practices must be designed to control soil erosion and sedimentation for all rainfall events up to and including a 25-year rainfall event.²¹ In addition, the statute prohibits any land-disturbing activity conducted within 25 feet of the banks of any state waters, or within 50 feet of the banks of any state water classified as ‘trout streams.’ However, the statute weakens this prohibition by allowing the EPD to allow for variances.

Amendments to the rules were recently passed which include changes to Buffer Variance Procedures. The following is a list of significant changes included in the new amendments that are applicable to the Alcovy watershed:

- The buffer variance process will apply to all state waters having vegetation “wrested” from the channel, regardless of stream size, (wrested essentially means scoured or removed).
- Variances will only be considered if:
 - Adherence to minimal buffer requirements precludes development of the property or would create an unjust result,
 - Buffer intrusion is necessary for the purpose of restoration or enhancement, or
 - The project involves structures or other intrusions that must be located within the buffer.
- Buffer variance requests must include, among other things,
 - A detailed site plan, description of the project and calculation of the total area and length of buffer disturbance,
 - Documentation of unusual hardship, should the buffer be maintained,
 - At least one alternative site plan which does not involve buffer intrusion or an acceptable explanation of why such a plan is not possible, and
 - Proposed mitigation, if any, for buffer disturbance.
- Consideration will be given to the long-term water quality impacts of the proposed variance as well as the construction impacts.

²¹ O.C.G.A. §12-7-6(a).

P:\Alcovy\18061\Protection & Implementation Plan\Alcovy Report\Final Version-Wtrshd Assmnt\Alcovy River Wtrshd Assmnt-Chap.4-finalized



- A public notice will be issued for each proposed variance allowing a 30-day public comment period.
- The EPD may require mitigation to offset impacts of the buffer encroachment, and
- The local issuing authority may utilize their discretion to disallow the variance, even if the EPD approves it. However, the reverse is not true, that is, a local issuing authority cannot allow a variance that the EPD does not approve.

Potential Regulatory Changes

None are anticipated at this time.

References

Georgia Soil and Water Conservation Commission. Fourth Edition, 1996 (includes changes through January 1, 1998). "Manual for Erosion and Sediment Control in Georgia." Athens, Georgia.