

WATER Resource Quality Criteria		
TYPE	DESCRIPTION	QUALITY CRITERIA - Met when measures are planned so that
A. Quantity		
1. Excess Amounts		
a. Seeps	Subsurface water flows into the surface and reduces yield or restricts the suitable use of the land	Excess subsurface water is managed by use of vegetative cover, subsurface drainage, water control structures or other practices so that it no longer severely restricts use of the land. Plants that are tolerant or use large amounts of water may be used to reduce the problem.
b. Pounding, Flooding	Water accumulates on the surface and restricts the suitable use of the land.	Excess surface water is removed safely and adequately so that suitable uses of the land are no long severely restricted. Where the producer cannot solve the problem alone, criteria is met when the planned actions do not adversely contribute to the problem.
c. Excess subsurface water	Subsurface water accumulates in the soil profile adversely affecting plant growth and production operations, restricting the suitable use of land.	Excess subsurface water is reduced to a level that no longer severely restricts the suitable use of the land. Use of water tolerant plants or restricting use of the area during periods of excess water may be used to minimize adverse effects.

TYPE	DESCRIPTION	QUALITY CRITERIA
2. Inadequate outlets	Water conveyance channels and structures to collect and remove water from the land are inadequate	Water discharges are safely disposed of through appropriate, adequate outlets for the planned land use. Water disposal system discharges are not to be changed from the natural drainageways unless required land and water rights have been obtained.
3. Water management for irrigated land	Inefficient and/or untimely utilization of existing water supplies	Measures result in a method to properly time irrigation applications to fit needs of the crop and water applied at a rate that minimizes runoff and erosion. May include provisions for utilizing water during critical stages, changing to crops that require less water, or changing irrigation to more efficient types.
4. Water management for or non-irrigated land	Managing too little too much rainfall in order to maximize production.	Natural moisture is managed for the intended land use in a practical, effective, and efficient manner.
		Cropland criteria should include measures to manage rainwater and manage vegetation to the extent that adequate yields and crop residues can be produced and managed.
		Non-cropland criteria will include those measures to manage water and vegetation to the extent that plants maximize water use efficiency.

TYPE	DESCRIPTION	QUALITY CRITERIA
		Criteria may require planning rotations that include crops that are more efficient water users or those adapted to expected seasonal moisture occurrences and availability.
		The criteria may also require practices that will minimize runoff where rainfall is limited or provide for removal of rainfall when excessive or measures such as crop residues or other moisture conserving practices
5. Restricted Flow		
a. Onsite	Flow capacity reduced by sediment deposited in conveyance systems, and quality effects to farm road or drainage ditches, culverts, etc	Capacity is restored, the conveyance is maintained and the treated area no longer contributes to the identified deposition problem. Measures to control sheet and rill erosion and ephemeral or classic gullies are required to prevent sediment deposits from impacting water bodies and watercourses.
b. Offsite	Flow capacity reduced by sediment deposited in conveyance systems, and quality effects to offsite drainage ditches, road ditches, culverts, etc.	The treated area no longer adversely contributes to the identified deposition problem. These measures generally involve controlling erosion that has higher rates of sediment yields (such as ephemeral or classic gullies) to prevent harmful sediment deposits. Criteria for nonagricultural land requires measures and treatments that retain sediment onsite and may be regulated by state or local laws and regulations. Criteria are the same as those for onsite restricted capacity.

TYPE	DESCRIPTION	QUALITY CRITERIA
5. Restricted capacity from sediment in water	Water quality that is affected because of loss of storage capacity or flow characteristics.	Storage capacity of small water bodies is restored where economically feasible and the treated area no longer adversely contributes to the identified deposition problem. The measures generally involve controlling erosion that has higher rates of sediment yields (such as ephemeral or classic gullies) to prevent harmful sediment deposits and to reduce sediment storage impacts.
B. Quality		
Ground Water Contaminants		
a. Pesticides	Ground water pollution that occurs because of inappropriate use of chemicals	Treatments are applied strictly according to labeled directions and all safety precautions are observed to prevent ground water contamination from pesticides
b. Nutrients and Organic	Ground water pollution problems that occur as result from improper use of animal waste or commercial fertilizers	Animal wastes and fertilizers are applied according to nutrient management plans. These plans will be based on laboratory analysis of manure, soil tests, and realistic crop yields.
c. Salinity	Water pollution problems from excessive amount of common salts such as sodium	Application of water at rates above the level that can be managed to avoid buildup of salts is prevented. The problem is rare here, but may occur on barrier islands and in coastal counties

TYPE	DESCRIPTION	QUALITY CRITERIA
d. Heavy metals	Water pollution problems from human induced common metals or metal compounds, such as iron, lead, zinc, copper, and cobalt	The treated area no longer adversely contributes to ground water contamination from heavy metals. Land application of waste that may contain heavy metals is regulated by Georgia Department of Natural Resources
e. Pathogens	Known pathogen pollution of water by bacteria, viruses, protozoans, helminths, and fungi. Pathogens can be transported in both fluid and particulate forms.	The treated area no longer adversely contributes to ground water contamination from pathogens. Criteria will reflect the type of organisms such as fecal streptococcus, used to reflect change; soil texture, organic matter, moisture content, temperature, and other physical and chemical factors influencing transport and decomposition of microorganisms.
		Waste utilization will provide for application at times when soil and climatic conditions are likely to cause organisms to die. Waste will not be applied to areas subject to direct entry to ground water.
		Planning should consider that pathogens can be transported in both soluble and particulate forms. Criteria will be component levels when stated in federal, state or local laws, or nondegradation of existing problem levels.

TYPE	DESCRIPTION	QUALITY CRITERIA
2. Surface water contaminants		
a. Pesticides	Surface water pollution problems that result from use of chemicals	Treatments are applied strictly according to labeled directions and all safety precautions are observed to prevent surface water contamination from pesticides. Erosion control practices are essential and runoff reducing practices will be considered.
b. Nutrients and Organic	Water pollution problems that result from use of applied plant nutrients, especially nitrogen and phosphorus, from animal waste or commercial fertilizer.	Animal wastes and fertilizers are applied according to nutrient management plans. These plans will be based on laboratory analysis of manure, soil tests, and realistic crop yields.
c. Suspended sediment and turbidity	Water pollution from suspended sediment and turbidity. Suspended sediment is particles held in surrounding fluid. Turbidity is reduced clarity of fluids caused by suspended matter.	The treated area no longer adversely contributes to the identified suspended sediment and turbidity problem that has limited the intended use of the water. The measures generally involve controlling erosion that has higher rates of sediment yields (such as ephemeral or classic gullies) to prevent material entering receiving waters.
		Criteria will be component levels when stated in federal, state, or local laws, or non-degradation or existing problem levels.

TYPE	DESCRIPTION	QUALITY CRITERIA
d. Low dissolved oxygen	Dissolved oxygen and biological oxygen demand (BOD) found in open water or in sediment pool water.	The treated area no longer contributes to problems from sediment and organic carbon. Practices will consider sediment in aquatic habitat, especially in spawning areas. Some practices will result in a decrease in total organic carbon in offsite sediment and a corresponding improvement in the level of dissolved oxygen. Practices should be planned to control runoff decrease sediment yields, and decrease offsite sedimentation.
		Practices will result in improving dissolved oxygen to an acceptable level for the intended use.
e. Heavy metals	Water pollution from natural or human induced heavy metals or metal compounds, such as iron, lead, zinc, copper and cobalt.	Buildup of heavy metals is prevented. Except for iron problems that may occur where irrigation well water is strongly acid, natural problems have not been documented in Georgia. On areas where sewage sludge is used, erosion control measures will be installed to eliminate gully erosion and reduce sheet and rill erosion to no more than one ton/acre/year. Practices that minimize surface runoff will be required. Criteria will be component levels stated in federal, state or local laws or nondegradation of existing problem levels.

TYPE	DESCRIPTION	QUALITY CRITERIA
f. Temperature	Undesirable water temperature	The treated area no longer adversely contributes to problems associated with water temperature. This problem occurs primarily as a result of a change in canopy vegetation, water impoundments, or low flow augmentation along streams. State regulations concerning stream temperatures will be met. Trout streams have special water temperature requirements.
h. Pathogens	Water pollution from bacteria, viruses, protozoans, helminths, and fungi. Pathogens can be transported in fluid and particulate forms	The treated area no longer adversely contributes to surface water contamination from pathogens.
		Application is limited to times when soil and climatic conditions will cause organisms to die. Waste will not be applied to areas subject to direct entry to surface waters. Because pathogens can be transported in both soluble and particulate forms, criteria should consider proper waste disposal system (s) as practices to reduce runoff.
		Criteria will be component levels when stated in federal, state, or local laws or nondegradation of existing problem levels.

TYPE	DESCRIPTION	QUALITY CRITERIA
3. Aquatic habitat suitability	Water pollution of open water, benthic, or streambed embryo habitat	The suitability of habitat for aquatic species is improved and results in a less polluted habitat. Planning will include erosion control practices that substantially reduce sediment yield, nutrient enrichment, and associated sediment deposition practices. States water quality standards will serve as minimum quality criteria.
		Consideration will be given to endangered and threatened aquatic species if they are present in the receiving waters.
		Criteria will be met when those measures are planned that provide for improving aquatic habitat suitability for the species of concern and when treatment has no negative impacts on endangered or threatened species or their critical habitats. Criteria will generally be measured using the Water Quality Indicators Guide. Criteria will involve component levels when stated in federal, state, or local laws or nondegradation of existing problem levels.