



Natural Resources Conservation Service

Vegetated Filters and Application Setbacks for Applying Animal Manure and Organic By-Products

Alabama Guide Sheet No. AL590



Definition

Vegetated filters and application setbacks are important tools used in nutrient management planning. Vegetated filters can trap and treat potential pollutants in surface and ground water. Application setbacks are separation distances between land application sites for animal manures, organic by-products, and areas that are to be protected. Using application setbacks will help minimize the odor and nuisance potential associated with animal manures and other waste. Vegetated filters and application setbacks may be greater than the listed minimum as a result of either the application of the nutrient management standard (code 590) or the site specific conditions in each field.

General Information

Unless exceptions are granted according to ADEM Rule 335-6-7-26(2) the minimum buffer distance for animal waste application are contained in Table 1. In addition to these setbacks the Alabama nutrient management standard (code 590) requires conservation practices to be installed and maintained to trap and treat nutrients transported with sediment and runoff water if nutrient transport is likely to affect water quality. Within the conservation plan much emphasis should be placed on preventing nutrient transport through practices that improves soil health and nutrient utilization. The principals of avoid, control, trap and treat nutrients transported with sediment and runoff water shall be implemented to protect water quality.

Additionally, because of the odor and nuisance potential associated with animal manures and other wastes, application distances are also needed near public and residential areas. These buffers mainly provide separation distance. In addition, trees and/or shrubs often keep the application site from public view and may even influence air movement.

Recommended Application Distances

The requirements and considerations needed to meet the Alabama nutrient management standard are contained in the table on the next page. Site specific conditions may warrant adjustments to these distances to meet the needs of the customer and conservation plan. By using appropriate vegetated filters and application setbacks, the conservation plan will protect the environment and reduce odor complaints from neighbors.

References

NRCS AL Conservation Practice Standards:
 Code 393 - Filter Strip
 Code 391A - Riparian Forest Buffer
 Code 590 - Nutrient Management

Table 1. Vegetated filters and application setback distance requirements and considerations for land applying animal manure and organic by-products as set by ADEM (Rule 335-6-7-26 (2) and the Alabama NRCS conservation practice Nutrient Management (Practice Code 590).

Object	Situation	ADEM Rule 335-6-7-26(2)	NRCS Requirement	Considerations
Waterbody or Stream ¹	All applications of waste and wastewater	50 feet	NRCS conservation practices shall be established and/or maintained to avoid, control, trap and/or treat nutrients and protect water quality. Fields adjacent to water bodies, water supplies, or have concentrated flow areas that convey runoff into these water bodies and water supplies without treatment shall require treatment.	Generally, a vegetated filter that meets the Filter Strip (393), Riparian Forest Buffers (391) and/or Grass Waterway (412) standard should be installed and/or maintained on the edges of the application field where runoff may occur to trap and/or treat nutrients transported with sediment and runoff water.
Outstanding National Resources Water, Outstanding Alabama Water, or public water supply	All applications of waste and wastewater	200 feet		
Occupied Dwelling & Public Use Area ²	When making any applications of non-wastewater waste	100 feet		Consider site specific conditions on the ground that would suggest the need to increase these setback distances to meet the needs of the land owner and the conservation plan.
	When applying a non-pumped surface application of wastewater or subsurface injection /application of wastewater	200 feet		
	When using aerial wastewater irrigation application or other type pumped or pressurized surface application of wastewater.	500 feet		
Non-potable water wells		100 feet		
Potable water wells		200 feet		
All wells	Located up-gradient of application site			200 feet
All wells	Located down-gradient of application site			300 feet
Property line	All waste applications			25 feet
Public road	Waste applied with spreader			50 feet
Public road	Pumped wastewater			100 feet

^{1/} Waterbody includes pond, lake, wetland, or sinkhole. Stream includes both perennial and intermittent streams.

^{2/} Public use areas include a dwelling (other than producer), church, hospital, school, park.