

FACTSHEET: Acceptable Practices for Managing Livestock along Rivers

Massachusetts's streams and rivers are critically important resources. Although you have a right to use water resources within your pasturelands for livestock, you also have a responsibility to protect the quality of that water.

Mismanaged pastures along waterways negatively affect your community and its water resources. Manure runoff and bank erosion may cause fish kills, increased public health concerns, increased drain maintenance and other negative impacts.

Good grazing practices are needed to prevent erosion and protect water quality. Developing and maintaining appropriate management practices will help prevent pollution and avoid environmental complaints against your farm.

1. Acceptable Management Practices

Surface waters have always provided a convenient and economical source of water. However, property rights also need to be balanced with the responsibility to protect our natural resources.

- a. **Fencing:** Keeping livestock out of waterways is the preferred management practice to prevent manure and stream bank erosion from affecting the water resource. A convenient method to accomplish this is fencing. Placement decisions should include slope, animal species, and animal and vegetation density. Fence lines should be designed so that livestock trails do not border on or include a stream bank or lakeshore. In addition, fencing should adequately restrain the livestock. It may be as simple as a single strand of high tensile, electrified wire or as robust as woven wire fencing. Materials should be selected on the basis of livestock needs and management goals.
- b. **Alternative Watering and Shade Source:** Given a choice, cattle will drink from the most convenient source available, which may be a stream or lake. Unfortunately, sediment, bacteria and nutrients are deposited in waters when livestock are in or next to the water to drink or cool off. An alternative watering source should be provided. Keeping livestock out of the stream or lake will help maintain healthy, diverse aquatic and wildlife species, and improve habitat. Other practices, such as supplemental feeding and shade sources away from surface waters, will further reduce livestock impact.
- c. **Filter/Buffer Strips:** Filter and buffer strips are strips of densely vegetated land situated between the surface water and the pasture. They help protect water quality by reducing polluted runoff of nutrients, bacteria, sediment and other contaminants to surface water.
 - i. Filter strips are sections of land, with specific types of maintained vegetation, which help to reduce manure runoff and soil erosion. Flash grazing may be used for vegetation management if NRCS Prescribed Grazing Technical Standard (528) is followed. It also replaces the need for mowing and provides additional feed for livestock.
 - ii. Buffer strips are sections of land that contain a variety of vegetation, including trees and shrubs, that helps protect the water resource, benefit wildlife and provide needed shade for surface waters. Trout, which require much colder water than other types of fish, benefit significantly from buffer strips.

- d. **Pasture Management:** Pasture systems require good management to achieve optimal productivity of forages utilized by grazing livestock. Controlled grazing is a strategy to manage the pasture vegetation and the livestock for the greatest productivity of both. Correctly managed, controlled grazing maintains the vegetation in good condition to supply ample feed and reduce erosion. Rotational grazing is a system that includes rotating livestock from pasture to pasture, keeping the vegetation controlled according to a specific management strategy.
- e. **Controlled Access:** Stream crossings, if necessary for effective management, provide livestock access to pasture on the other side of a stream but with limited access through the stream. A firm and stable crossing will also help maintain or improve water quality and provides solid footing for livestock. Watering access sites provide controlled access to drinking water. A well-managed access site will help reduce soil erosion. Providing an alternative water source is preferred.

2. What if there are Water Quality Problems?

If farm conditions cause pollution, the Massachusetts Department of Environmental Protection (MDEP) may investigate to determine if the farm operation is in compliance with water resource protection laws and take action as appropriate. For information, call the MDEP, Water Quality Assurance at 617-292-5857.

3. Need Technical Assistance?

If you have questions or need technical assistance, contact your local USDA Natural Resources Conservation Service (NRCS).