



FACT SHEET

Department of Animal Science, University of Connecticut

Effective Horse Management – Best Practices Series

How Horse Enthusiasts Can Help Protect Water Bodies

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Many of us look forward to some time on the water, either with or without horses. A horse owner's thoughts may turn to dreams of riding on the beach or swimming with your horse. Here are some things to think about when we have horses around water bodies.

Riding on the beach or swimming in the water can be lots of fun for horse enthusiasts. However, we do need to ensure that we are only using those beaches that are open to horses and respect beach closures which may be seasonal. Also, equestrians should prevent horses from defecating or urinating because it pollutes the water. Avoid entering wildlife sanctuaries, bird and turtle nesting areas, and dune restoration areas that may have fragile or endangered foliage.

In the old days, we all dreamed of having a horse farm with a stream or pond running through it so that we would not have to carry water or create a watering system for the horses. But current environmental research shows that having horses drink directly out of natural water sources may lead to erosion of stream banks, and pollution of the water with nutrients, pathogens, and sediment.

Excess nutrients such as phosphorus and nitrogen can be harmful to aquatic life in a number of ways. Phosphates cause excessive growth of algae. Nitrogen can result in the presence of ammonia which can be toxic to fish. Too much nitrogen and phosphorus in water can lead to an overgrowth of floating plants like duckweed and filamentous algae. That results in dense scum on the water surface. This then deprives aquatic plants, fish and other lake organisms of sunlight and oxygen they need to survive. Harmful algal blooms (such as blue green algal blooms caused by cyanobacteria in freshwater and red tide in seawater) may also result. The harmful effects of excess nutrients are not limited to aquatic life though. Nitrate, another primary form of nitrogen in lakes and streams, can result in health problems in people such as a lack of ability to carry oxygen in the blood, difficulty breathing, nausea, vomiting and dehydration among others when it gets into drinking water.

A vegetated buffer will help to filter nutrients, protect the water body from pathogens and sediment coming from storm water runoff, and also may provide wildlife habitat. To create a vegetated buffer, you may consider using either a natural or a landscaped buffer. An appropriate buffer may range from 35 to 100+ feet in width. This area would be from the water body up onto your property. Manure storage or sacrifice areas should be farther from the water body. If you are using a natural buffer, you will want to remove any invasive plants (see this link for help with identifying these: https://cipwg.uconn.edu/invasive_plant_list/). You can simply maintain the existing vegetation by no longer mowing the area and let trees and woody shrubs re-establish themselves, which may take several years. If you prefer to create a landscaped buffer, obtain a soil test (<https://soiltest.uconn.edu/sampling.php>) to reduce or eliminate the need to use lime or fertilizer. Plant native species and preferably a mix of trees, shrubs and ground cover. Most native species will provide wildlife habitat and require little or no fertilizer. Be sure to choose non-invasive shrubs and saplings that will help increase the uptake of nutrients. Choose grasses that are dense stiff species that will trap sediment.

Horse owners should strive to keep clean water clean by using gutters on their run-in sheds, stables and arenas with downspouts that lead to dry wells or pipes that disperse water away from paddocks, wash areas, and other horsekeeping areas. Swales can be used to help intercept runoff from areas with slope and prevent runoff from occurring by delivering water away from horsekeeping areas. Swales are shallow channels with gently sloping sides that can help slow, store and spread water.

It is a good idea to practice rotational grazing or have a sacrifice area (dry lot) that you can use for your horses to prevent them from overgrazing their pastures. If horses overgraze an area, it may result in loss of vegetation. This may lead to polluted surface runoff.

We all love to see a nice body of water. Let's all help to keep the water clean by ensuring that our activities and horsekeeping practices are done in a way that protects them. Keep on horsin' around and have fun enjoying the water!

Sources:

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