Pet Waste and Water Quality

When pet waste is washed into lakes, streams or rivers, the added nutrients in the water use up oxygen and release ammonia. This, combined with warm water temperatures, can kill fish and other aquatic life.

Pet waste also contains nutrients and pathogenetic organisms that can be added to surface waters and render them unsafe for swimming and fishing.

In order to keep animal waste from contaminating our waterways, pet owners should always pick up after their pets.

To help keep our water clean

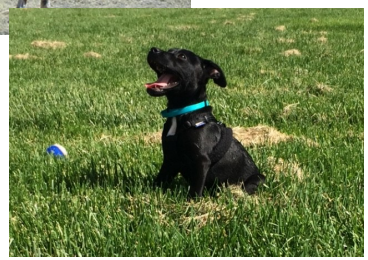
- Always pick up after your pet
- Carry disposal bags while walking your dog to pick up and dispose of waste properly.
- Pick up pet waste from your yard.
- Do not leave pet waste on streets, sidewalks, or other impervious (hard) surfaces where it can wash into storm drains, ditches or waterways.
- Communities are encouraged to provide pet waste disposal bags at local parks, along trails and in public places where people frequently walk their dogs.

Pet waste contains nutrients that can cause excessive algae growth in waterways that upset the natural balance

LARIMER COUNTY

Engineering Department
200 West Oak Street, Suite 3000
P.O. Box 1190
Fort Collins, CO 80522-1190

Pet Waste & Manure Management



This is an informative flyer to be used as a reference and guide on how you can help to protect Larimer County's waterways. Your everyday behavior impacts water quality in and around Larimer County, but you can take some simple steps to prevent pollution from getting into the storm drains near your property. The water that flows into those storm drains leads directly to our streams, lakes and rivers.

For additional information go to:

https://www.larimer.org/engineering/stormwater-drainage/stormwater-quality

LARIMER COUNTY

Why Manage Manure?

Constituents of Animal Waste

-Pathogenic organisms
-Organic matter
-Heavy metals
-Salts
-Micronutrients (Ca, Mg, S, Mn, Zn, Cu)
-Potassium
-Phosphorus
-Nitrogen (nitrate NO3, ammonia NH3, ammonium NH)

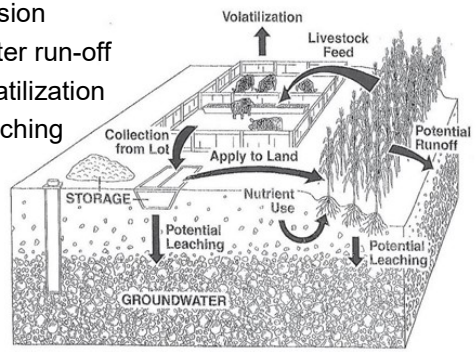
Manure can be a valuable resource but can also be a source of water pollution, odor, flies, parasites, and other nuisances. **If not properly managed, manure can contaminate drinking water, harm wildlife, and reduce property values.**

Mud and manure can cause abscesses, thrush, and other diseases in livestock. Dried manure produces molds that contribute to respiratory problems in horses and cattle. By adopting simple and low cost best management practices (BMPs) for storing, handling, managing and utilizing manure, the environment and health of farm animals will benefit.

Nutrient Management Loss

Lost nutrients can contribute to water pollution. Manure nutrients are lost via:

- Erosion
- Water run-off
- Volatilization
- Leaching



Manure Management Goals:

1. Utilize manure nutrients for enhancing soil.
2. Protect the health and safety of the public and livestock.
3. Prevent surface and ground water contamination.

Best Management Practices (BMPs)

1. Divert clean water away from manure:

- Construct berms, terraces or waterways, and/or use downspouts to divert clean water away from corrals and manure storage areas.

2. Ensure manure discharge will not enter a water body or leave the property:

- Limit animal access to ponds, streams, ditches, and wetlands.
- Collect manure frequently.

To reduce erosion and maintain water quality, water livestock off-stream and manage stream access with fencing

- Stockpile manure at least 100 feet outside a floodplain or waterway.
- Do not stockpile manure in a dry creek bed or ditch.

3. Protect ground water:

- Locate manure storage piles and livestock corrals at least 150 feet down-gradient from wells.
- Use a 150 foot buffer around wells when land applying manure.

4. Reduce nuisances like flies and odor:

- Stockpile manure downwind from barns and 200 feet away from neighbors.
- Plant trees to reduce wind and odor from stockpiles.
- Keep a lid on manure dumpsters.
- Remove manure from corrals and pens every few days to prevent flies, parasites, and worms.
- Cover fresh manure in stockpiles with at least 5 inches of straw, or hay to prevent flies.

Disposal Options

1. **Dispose off-site** to a landfill that accepts manure or hire someone to pickup and dispose of manure for you.

2. **Compost manure.** This requires the right ratio of carbon (bedding or leaves) and nitrogen (manure). Try 30 carbon to 1 nitrogen by volume. Water to keep the pile 50% moist and aerate the pile regularly.

3. **Spread manure.** Spread in spring or summer. Test manure for nutrient content and spread based on soil test recommendations. This will ensure the nutrients are being utilized by the vegetation growing. Unused nutrients can pollute water bodies and ground- water. Remember that raw manure may contain weed seeds which will be spread back on the land.

Estimated Horse Manure Application Rates*

- Dryland Range: 1 ton/ac/yr
- Irrigated alfalfa: 5-10 tons/ac/yr

*Test manure for nutrient content and spread based on soil test

Use a thermometer to monitor the temperature of your compost

For more information on manure management, visit:

https://sam.extension.colostate.edu

https://www.larimer.org/planning/animals/horses