

The Steamboat Pilot & Today

Community Agriculture Alliance: Are you a violator of the Clean Water Act?

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STEAMBOAT SPRINGS — Did you know that in 2000 the National Water Quality Inventory reported that agricultural nonpoint source pollution is the leading source of water quality impacts on surveyed rivers and lakes, the second largest source of impairments to wetlands and a major contributor to contamination of surveyed estuaries and ground water? Agriculture activities that cause NPS pollution include poorly located or managed animal feeding operations, overgrazing, and improper, excessive or poorly timed application of pesticides, irrigation water and fertilizer.

Nonpoint source pollution, unlike pollution from point sources such as industrial and sewage treatment plants, comes from many diffuse sources. Polluted runoff is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into watersheds through lakes, rivers, wetlands, coastal waters and even our underground sources of drinking water.

Pollutants that result from farming and ranching include sediment, nutrients, pathogens, pesticides, metals and salts. Using management practices that are adapted to local conditions can minimize impacts from agricultural activities on surface water and ground water. Many practices designed to reduce pollution also increase productivity and save farmers and ranchers money in the long run. There are many programs funded by the U.S. Department of Agriculture and by states that provide cost-share, technical assistance, and economic incentives to implement NPS pollution management practices. As a user of natural resources, it is also your responsibility to use best management practices, as well.

Farmers apply nutrients such as phosphorus, nitrogen and potassium in the form of chemical fertilizers, manure and sludge. When these sources exceed plant needs, or are applied at the wrong time, nutrients can wash into aquatic ecosystems. There they can cause algae blooms, which can ruin swimming and boating opportunities, create foul taste and odor in drinking water, and kill fish by removing oxygen from the water. High concentrations of nitrate in drinking water can cause methemoglobinemia, a potentially fatal disease in infants, also known as blue baby syndrome. To combat nutrient losses, farmers can implement nutrient management plans that help maintain high yields and save money on fertilizers.

By confining animals in small areas or lots, farmers and ranchers can efficiently feed and maintain livestock. But these confined areas become major sources of animal waste. An estimated 238,000 working farms and ranches in the United States are considered animal feeding operations, generating about 500 million tons

of manure each year. In Routt County, it is estimated that we have 30 animal feeding operations, which generate 63,000 tons of manure each year. Small acreage landowners can be just as guilty of mismanagement and contribute to the 63,000 tons a year if they confine and feed any type of livestock. Runoff from poorly managed facilities can carry pathogens such as bacteria and viruses, nutrients and oxygen-demanding organics and solids that cause many water quality problems. Ground water also can be contaminated by waste seepage. Everyone can limit discharges by storing and managing facility wastewater and runoff with appropriate waste management systems.

Overgrazing exposes soils, increases erosion, encourages invasion by undesirable plants, destroys fish habitat, and may destroy streambanks and floodplain vegetation necessary for habitat and water quality filtration. To reduce the impacts of grazing on water quality, farmers and ranchers can adjust grazing intensity, keep livestock out of sensitive areas, provide alternative sources of water and shade, and promote revegetation of ranges, pastures and riparian zones.

Irrigation water is applied to supplement natural precipitation or to protect crops against freezing or wilting. Inefficient irrigation can cause water-quality problems. Excessive irrigation can affect water quality by causing erosion, transporting nutrients, pesticides and heavy metals. It also can cause a buildup of selenium, a toxic metal that can harm waterfowl reproduction. Farmers can reduce NPS pollution from irrigation by improving water-use efficiency. They can measure actual crop needs and apply only the amount of water required. Farmers also may choose to convert irrigation systems to higher efficiency equipment.

Insecticides and herbicides are used to kill agricultural pests. These chemicals can enter and contaminate water through direct application, runoff and atmospheric deposition. They can poison fish and wildlife, contaminate food sources, and destroy the habitat that animals use for protective cover. To reduce contamination from pesticides, everyone should use Integrated Pest Management techniques based on the specific soils, climate, pest history, and crop conditions for a particular area or field. Labels on all pesticides should be read and closely followed.

As in all areas of the state, we are guilty of historical NPS pollution. Examples of this are cleaning out your corrals in the spring when the water is high so that everything washes downstream; cleaning out cattle trucks and trailers into the ditch, because it is right beside the road; clean out pesticide containers in the ditch or other water sources; confining animals too close to riparian areas. These are some of the most common practices that occur, and they are against the law. If this type of activity is reported, you can be fined. Small acreage landowners and urban residences also should be conscious of these activities and use best-management practices when handling chemicals or confining livestock. Be very conscious of the way you clean out your equipment and buildings, because a small amount of NPS pollution has a huge impact on our water, wildlife and their habitat. Don't be a Clean Water Act polluter.

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