

FACT SHEET: Viruses and Bacteria Swimming in our Local Streams

The cause, the effect, and what municipalities can do to reduce the source.

THE CAUSE

Many of our local streams are full of harmful pathogens: viruses, bacteria, fungi, and/or parasites to name a few. When swimming, these microorganisms can enter your body through open wounds or by accidentally swallowing water. The most common sources of pathogens are raw sewage from failing sewer systems, livestock manure from agricultural fields, and pet waste.

Municipalities with streams impaired by pathogens must implement the following pollutant control measures to reduce the source of such in their municipality:

- ▶ Develop an inventory of suspected and known sources of bacteria in stormwater.
- ▶ Investigate each suspected source.
- ▶ Enforce ordinances that prohibit illegal connections of sewage systems to the MS4.
- ▶ Enact an ordinance that requires proper management of animal wastes on property owned by the municipality.



THE EFFECT ON WATER QUALITY

- ▶ Excess nutrients from human and animal waste cause algal blooms and can kill fish by removing oxygen from water.
- ▶ High nitrogen/nitrate levels in drinking water can cause blue baby syndrome (potentially fatal) by starving the baby of available oxygen in the blood.
- ▶ Elevated toxins and bacterial growth can make humans sick (drinking water or consuming contaminated seafood), even at low levels in groundwater.
- ▶ Pathogens create foul odor and taste.
- ▶ Viruses and bacteria can hurt swimming and boating activities.



WHAT CAN YOU DO?

- ▶ Clean up after pets and dispose of waste properly.
- ▶ Contain manure properly in structures instead of open piles.
- ▶ Apply manure as required in nutrient management/manure management plans.



America's 83 million dogs produce 10 million tons of waste per year.

"It has been estimated that a single gram of dog waste can contain 23 million fecal coliform bacteria, which are known to cause cramps, diarrhea, intestinal illness, and serious kidney disorders in humans." (DoodyCalls)

"EPA even estimates that two or three days' worth of droppings from a population of about 100 dogs would contribute enough bacteria to temporarily close a bay, and all watershed areas within 20 miles of it, to swimming and shell fishing." (DoodyCalls)

WE CAN HELP!

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