UNTREATED SEWAGE IN OUR WATERWAYS

Fecal coliform

is an indicator of bacterial contamination from humans and other warm-blooded animals. High levels of fecal coliform in the water can affect the public health, economy, and environmental quality of a community. https://fortress.wa.gov/ecy/publications/0210010.pdf

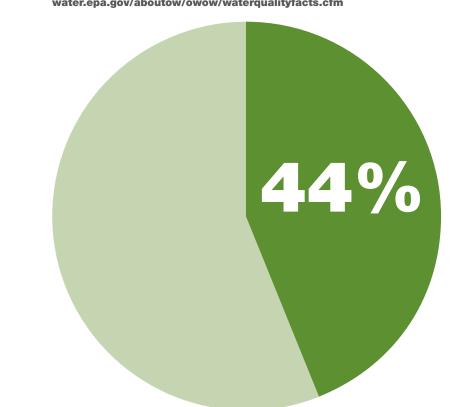
What is nonpoint treatment plants, comes from many diffuse sources.

NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, i picks up and carries away natural and humanmade pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters

and even our underground sources of drinking water. www.epa.gov/owow/nps/qa.html

> WILDLIFE **→ → → →**

of assessed U.S. waters not clean enough to support fishing and swimming.



STREAM MILES

LAKE **ACRES**

64%

of fecal coliform found in urban storm water was of non-human origin

LIVESTOCK

♣ ♣ ♣ ♦

Other problems

more fecal coliform bacteria

15 TONS OF HARMFUL PET WASTE POLLUTES OCEANS EVERYDAY, TRAVELING FROM STORM DRAINS, INLAND WATERWAYS AND BEACHES.

FAILING SEPTIC

↓ ↓ ↓ ↓

with high levels of fecal coliform

by fish and other aquatic animals

Affect the natural acidic/alkaline (pH) balance of water.

SYSTEMS

associated with feca coliform pathogens

POTENTIAL SOURCES

of fecal coliform bacteria

have very severe

health effects

urinary tract infection Salmonella

Reiter's syndrome, chronic arthritis

the amount of

3 to 10 BILLION **GALLONS OF RAW SEWAGE SPILL ACCIDENTALLY EVERY YEAR**

from systems designed to carry only sewage according to the 2004 report. Causes of these spills include improper connections, clogs from debris, construction accidents and cracks in aging pipes. satoday30.usatoday.com/news/nation/2008-05-07-sewers-main_N.htm

What to look for? There are a few indicators that one might observe to indicate a

Create odor problems and unpleasant views.

point source illicit discharge. Obviously along with the smell, floatables will more than likely be present. Floatables would include anything that you can imagine being flushed down the toilet. Also look for a grey/cloudy discoloration in the water or an oily sheen. Deposits and abnormal vegetation are generally present around the end of the pipe as well.

COMBINED SEWER OVERFLOW SYSTEM

DOWN SPOUT

PUBLICLY OWNED TREATMENT WORKS (POTW)

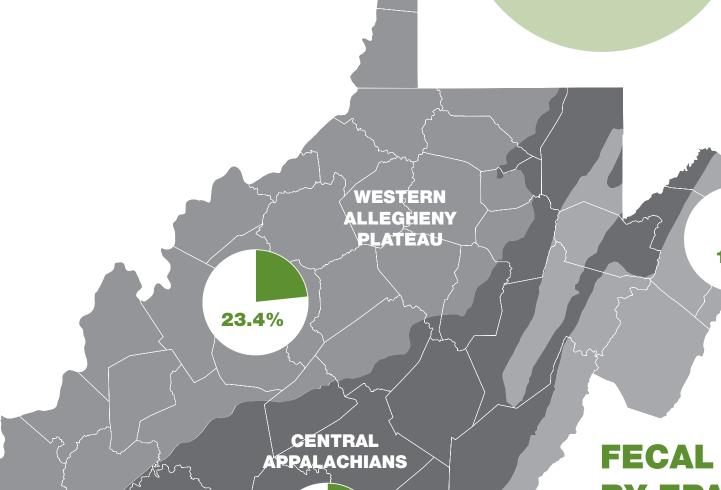
An EPA 2004 report to Congress estimated that

OF STORM WATER MIXED WITH RAW SEWAGE POUR INTO U.S.

WATERS EVERY YEAR from older, combined sewer systems that were designed to overflow in wet weather. These combined systems, built by cities in the 19th and early 20th centuries, are now considered antiquated and a threat to public health and the environment, according to

TRILLON

of untreated sewage, groundwater, and industrial waste are discharged into U.S. waters annually.



FECAL COLIFORM LEVELS BY EPA ECOREGION **% West Virginia stream miles with fecal**

coliform bacteria exceeding acceptable body contact levels (fecal coliform bacteria > 400 colonies/100 ml)

100 milliliters of sample.

What is a CFU/100mL? **CFUs are a unit of measure and stand for Colony** Forming Units. After incubation, bluish colonies of bacteria should appear on the sample dish. It is in each dish. A calculation must be performed to determine the number of colony-forming units pe

of West Virginia streams impaired by fecal bacteria

REMEMBER, WE ALL LIVE DOWNSTREAM. We are all responsible for the health of our watersheds.

HOW DOES UNTREATED SEWAGE GET IN OUR WATERWAYS? Untreated human sewage can pose Serious health risks in our local waterways. It can enter streams from

BAY &

ESTUARINE

SQUARE MILES

30%

straight pipes, an out-of-date and illegal practice still overloaded during the rainy season or simply grow old and fail and allow untreated waste to flow into drainage ditches and nearby waters. During heavy rains, **Sanitary Sewers** can become overloaded and over flow, bypassing treatment. All three of these untreated

Affect **property** values.

sewage transportation methods are known to affect water quality with in the Deckers Creek watershed. Agricultural practices such as allowing animal wastes to wash into nearby streams during the rainy season, spreading manure and fertilizer on fields during rainy periods, and allowing livestoc watering in streams can also contribute to fecal coliform contamination

WHAT CAN YOU DO?

- ▶ Report straight pipes discharging into streams.
- Report known failing septic systems.
- in or along streams.

Don't let livestock water
Clean up after your dog.