

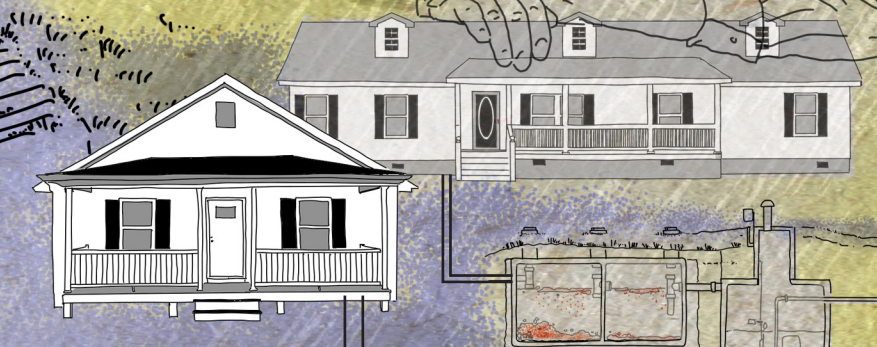
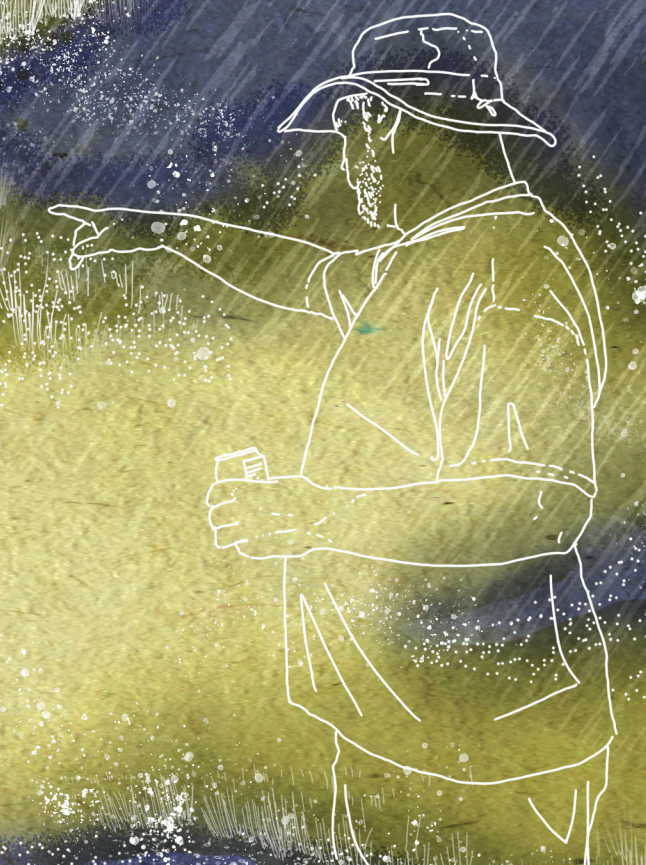
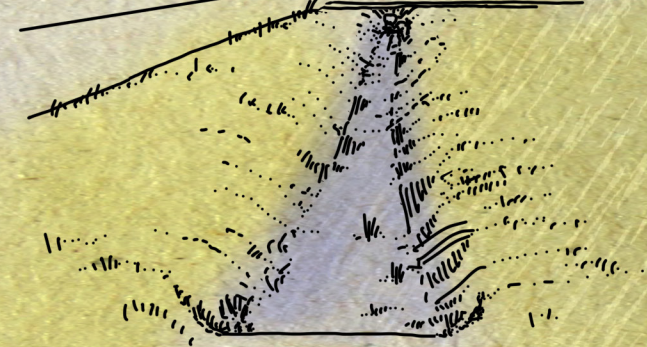
Flooding and storms risks to drinking water and septic systems on the Eastern Shore of Virginia



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My yard and driveway flood whenever it rains because leaves clogged up the culverts in front of my house, and I can't clean them out.

Sometimes I can smell sewage in the yard when there's standing water.



HIGH MOUND DRAIN FIELD

Some people use a pump to move wastewater to a high mound where it can drain even if the ground is wet.

SEPTIC PUMP

INLAND FLOODING affects low areas, creeks, and areas with poor drainage

RAIN RUNOFF carries leaves and clog drains. If culvert drains aren't open, low areas can flood easily.

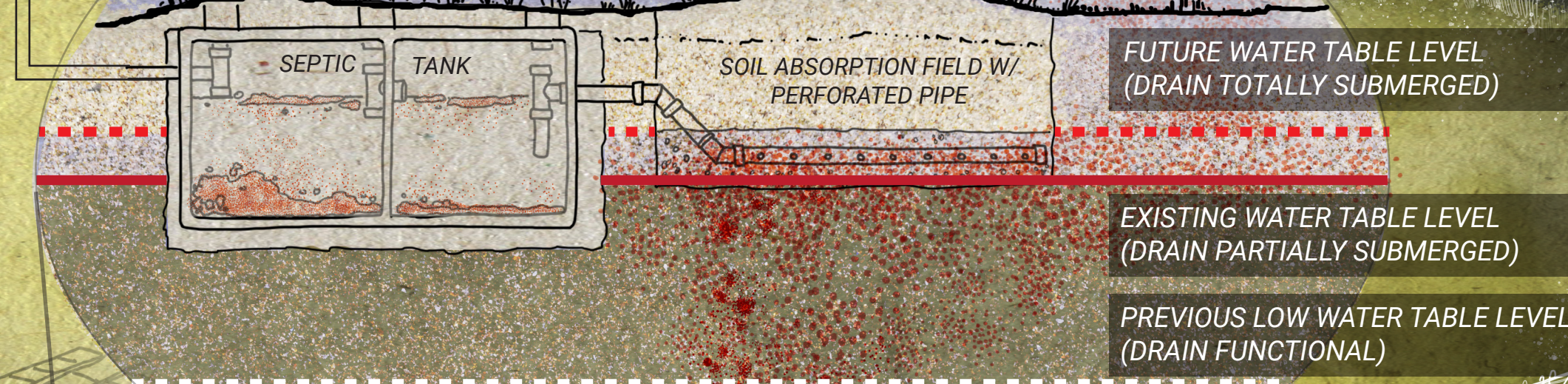
The **WATER TABLE** is the depth you can dig to before a hole fills with water, and the ground beneath that level is saturated. This level rises during storms.

Agriculture is affected by wetter ground and flooding. When the soil doesn't drain, **seeds won't germinate** and the crops may drown.

Rain runoff can also carry **pollutants from agriculture fields, yards, and roads** into the Bay and groundwater. When this water is contaminated, the seafood industry and drinking water sources are at risk.

SEPTIC PROBLEMS

Septic tanks rely on wastewater draining into the ground. When the system is in wet ground, it can't drain, so wastewater remains untreated and contaminates the groundwater and nearby wells.



After a heavy rain or long wet period, sewage will back up into my toilets and sink drains!

When the high tide comes in, we quickly relocate our cars to raised ground nearby or they'll flood.

STORMWATER RUNOFF INTO WATERWAYS

Groundwater recharge from rainwater

WATER TABLE HIGH

WATER TABLE LOW

SURFACE AQUIFER

CONFINING UNIT

CONFINED AQUIFER

SALTWATER INTRUSION

COASTAL FLOODING data trends are showing faster winds and larger waves in the future, even outside of storm events.

GROUNDWATER is the water stored in layers of porous rocks underground, which are called **aquifers**. When it rains, water seeps down through the ground and refills the spaces.

SALTWATER INTRUSION

Increases in sea level and storm severity over the next decade will make flooding and saltwater intrusion more frequent. What is necessary to meet these challenges?