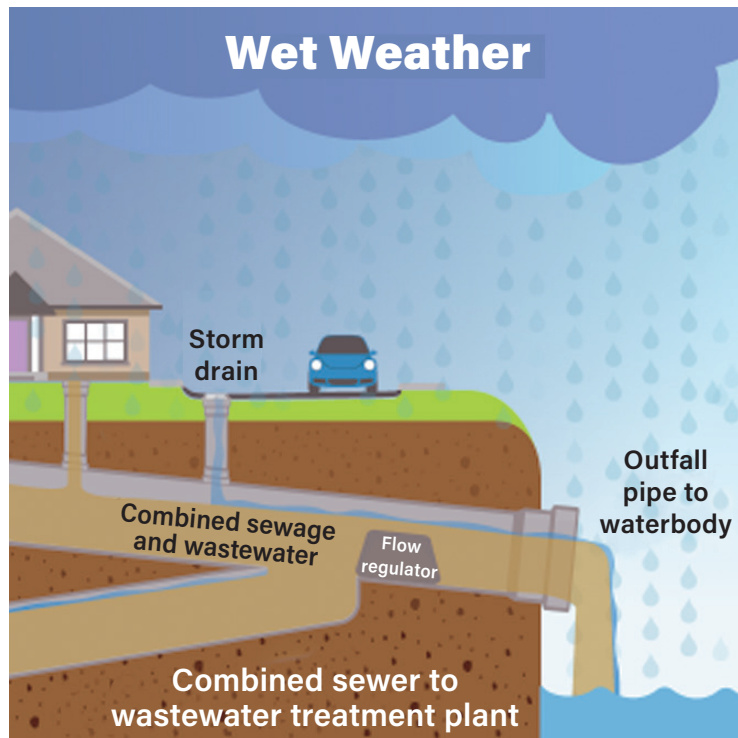
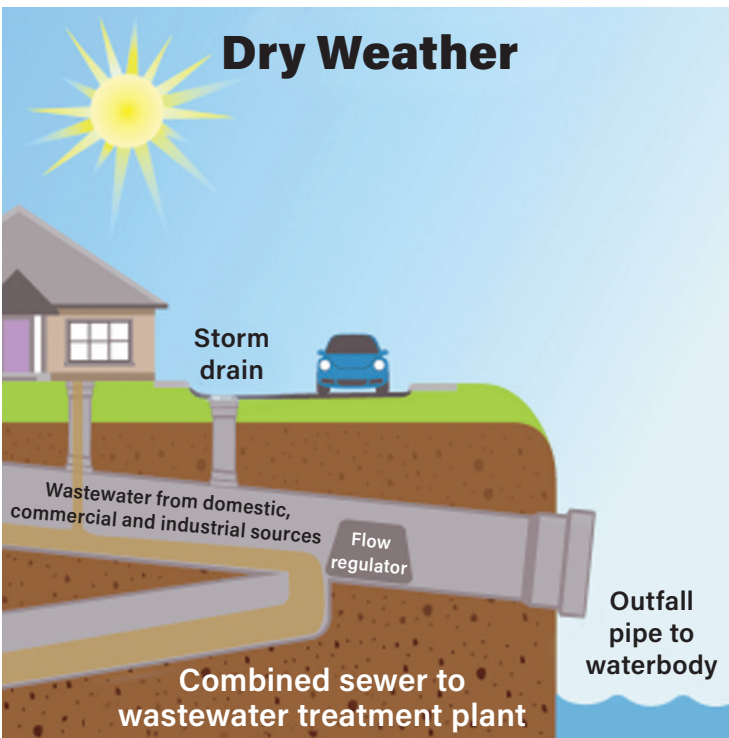


The journey of a raindrop



Many residents in the Chesapeake Bay region experience flooding from heavy rains. But how a raindrop flows down driveways and roads — and sometimes surges back up — isn't as easy to see.

In modern city water systems, a raindrop hits the pavement and rolls into the storm drain. From there, it flows to the nearest stream or river. Meanwhile, sewage heads to the treatment plant in a separate pipe.

But in older "combined" systems, rain mixes with wastewater in one pipe. To avoid backing up treatment

plants during heavy rain, the mixture will flow over a short wall called the flow regulator. From there, the water, mixed with untreated sewage, falls into a nearby river or creek.

Cities built combined sewer systems in the mid- to late- 1800s because they were more affordable. Today, though, the systems are often overwhelmed by the increasing population and intense rain from climate change. ■

– L. Hines-Acosta