Case study: How BEDHD Environmental Health finds “hidden dangers”

At first, the house looks like the rest in the neighborhood. It is a large two-story on a wooded lot with a view of the river. In the summer, children splash on a nearby public beach and kayakers float by. Even though it looks rustic, the lot is well within the limits of a local municipality. From its looks, no one would ever know that this house has a hidden danger. That danger? Unlike its neighbors, this house’s sewage goes directly to the river instead of being connected to city sewer.

How could this happen? To know that, a brief history lesson is needed. In the past, people thought that “dilution is the solution to pollution.” In other words, people thought that draining sewage into larger bodies of water would dilute the germs in the sewage enough to not cause issues. This often meant that houses had sewer or septic system lines running into county drains, field tiles, ditches, or surface water. This often was not legal, and it didn’t make neighbors happy, but it was how things were done for many years.

Over time, research and increases in waterborne illnesses began to show that dilution is not a safe way to get rid of waste. The disease-causing germs in human waste do not become less harmful just because they are moved away from a house and into another water body. To help keep this from happening anymore, the Barry-Eaton District Health Department (BEDHD) began to require permits for sewage systems in the 1950s. However, for many years, there was no way to find failing sewage systems. This meant that BEDHD couldn’t find sewage systems that had been failing for a long time or that had suspected unsafe connections of sewage to ground or surface water.

In late 2007, the Time of Sale or Transfer (TOST) Regulation was passed in Barry and Eaton counties. TOST requires that homes with a well and/or septic system have these systems inspected—and that BEDHD reviews the inspection results—at the time of sale. The purpose of the TOST Regulation is to find cases that may be a public health risk and to help home owners plan for needed corrections.

The above house by the river was built in the late 1800s. BEDHD first went to the site at the request of a local real estate company. This was before the TOST Regulation was passed. At that time, when properties that had a well or septic system were bought and sold, the buyer or seller could ask for an inspection of the well and septic system. But because the program wasn’t required, it didn’t work very well at ensuring complete inspections or corrections. During this house’s inspection, the BEDHD sanitarian could find a septic tank but no drainfield. The sanitarian did find a clay pipe going in the direction of the river but could not tell if it was actually connected to the septic tank. The health department’s report said that the sewage system had to be located and uncovered for inspection. If that couldn’t happen, the house needed a new on-site septic system or to be connected to municipal sewer.

The parties chose not to dig anything up or to complete the inspection, but the buyer agreed to connect the home to municipal sewer. BEDHD followed up with the sewer authority, who said they had been contacted about connecting the house to sewer. The BEDHD sanitarian saw utility contractors working at the driveway on the street in front of the home. It was believed that the home was being connected to sewer. But was it?
Time passed for the house by the river, but all was not well. Years later, BEDHD learned that the house had been sold again. This time, it was in violation of the TOST Regulation because it hadn’t had its now required inspection. BEDHD also found out that the house’s connection to municipal sewer had never been finished. BEDHD sent a letter to the new owner to inform them of the TOST requirements and stated that an immediate inspection of the septic system was required. The system was inspected by a third-party Registered Evaluator (RE). The RE confirmed that the sewer line went right from the septic tank into the river. BEDHD required the line going to the river to be capped right away. BEDHD said that the house needed to connect to municipal sewer or needed to construct a new sewage system with a BEDHD permit.

As is often the case, many new homeowners do not plan on paying to install or fix a sewage system or water supply in their new home. When TOST inspections are made at the time of sale of a property, BEDHD helps to see if anything needs to be fixed. The TOST Regulation then requires a correction plan to be made before the property is sold. This helps home buyers by letting them know of any septic or well problems before they buy a house. It also helps the community by making sure that needed corrections that are important to public health can be completed.

For the house on the river, why did it take so many years between the first time that an inspection was made and a violation suspected and the time that the sewage problem was confirmed and fixed? Because, as a local health agency, BEDHD only has the power that statutes and regulations give it. The first time the above site was inspected was before the TOST Regulation was passed, and so a complete inspection, pre-planning, and BEDHD authorization were not required. The TOST Regulation now gives the health department a tool to find public health hazards and plan for corrections, when needed; and it ensures timely repairs.

So how does the story of the house on the river end? A new septic system was constructed—the house no longer has a hidden danger.