

# The Watering Hole

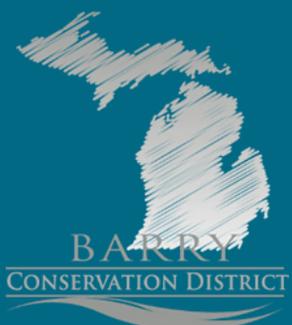


## This Month by the Numbers

- 3 grassed waterways
- 2 septic site visits
- 2 septic inspections

If you or someone you know is experiencing issues with their septic system, certain areas of Barry and Eaton counties are eligible for financial assistance to help cover the costs of septic inspections and repairs. Contact your local Watershed Coordinator David to see if you are eligible. Check back next month for the final segment of our septic series.

David Comeau is the Watershed Coordinator at the Barry Conservation District and he writes about local water quality issues. He may be contacted for more information on his project or for assistance by email at [david.comeau@macd.org](mailto:david.comeau@macd.org) or by calling 269-908-4099



## SEPTIC SYSTEMS PART III: ENVIRONMENTAL IMPACTS AND HEALTH CONCERNS

Maintaining a septic system and following proper protocol is the key to giving your septic system a long life, preventing messy and costly system failures. Proper maintenance also makes you a good neighbor, as problems septic can cause problems for everybody downstream of you. A failed septic system poses threats to both human and environmental health.

Generally, the most concerning contamination risk that results from a failed system is contamination of our water resources. Given that septic tanks and drainfields are buried underground, it makes sense to be concerned about our ground water supply if a failure occurs. Leaching from a cracked tank can easily reach higher water tables in some areas, and once it has entered the water table, it can migrate quickly to areas of concern.

Surface water is also at risk for contamination from septic systems. Even though septic systems are buried, it is not uncommon for a failure to allow sewage to bubble up aboveground.

This generally occurs when a drainfield is in an area that is flooded or when a failure occurs and clogged soils below the drainfield prevent sewage from percolating downward. Old or unpermitted systems can also harm surface water quality if they consist of a straight pipe or bleeder line. Those are both terms for what is essentially a drain tile that is run from the building directly to a county drain or stream. This is a serious risk to human and environmental health because it pumps untreated sewage directly into our streams.

Human health concerns with failed septic systems are at best unpleasant and at worst deadly. We are all at risk of contracting many different forms of bacteria and viruses if we come in contact with untreated sewage. A few of the more common concerns include E. coli, hepatitis A, cholera, and typhoid fever.

While human health concerns top the list of priorities, the

environmental impacts of a failure are concerning as well. Human waste from failed systems contributes to high nutrient loads in surface water. These nutrients feed nuisance aquatic weeds and cause algae blooms. High algae and plant growth leads to less dissolved oxygen in the water because these species take up oxygen in the water through respiration and decomposition. Low dissolved oxygen is an issue because living organisms in the water need oxygen to survive. Many more "desirable" species require higher dissolved oxygen levels to survive. These species include pike, trout, salmon, and many aquatic insects such as mayflies, stoneflies and caddisflies.

Due to the threats from septic system failure to ground and surface water, human health, and the environment, it is important to keep at least minimum distances from areas that are at a high risk to cause harm if contaminated. The sanitary code for Barry and Eaton Counties contains helpful information about isolation distances of septic systems from areas of risk. New systems are required to be built to these standards. The following table contains the minimum required isolation distances from areas of risk:

| From:                              | To:         |                      |          |              |            |
|------------------------------------|-------------|----------------------|----------|--------------|------------|
|                                    | Septic Tank | Absorption Field/Bed | Dry Well | Block Trench | Sewer Line |
| Property Line                      | 50          | 50                   | 50       | 50           | 50         |
| Right of Ways & Easements          | 10          | 10                   | 10       | 10           | 5          |
| Basement Wall                      | 5           | 5                    | 5        | 5            | 5          |
| Building Foundation                | 10          | 20                   | 30       | 20           | 5          |
| Water Line under positive pressure | 5           | 5                    | 10       | 10           | --         |
| Bank or Drop-off                   | 10          | 10                   | 10       | 10           | 10         |
| Lake or Stream                     | 10          | 20                   | 25       | 20           | 10         |
| Swimming Pool                      | 50          | 100                  | 100      | 100          | 25         |
| High Water Table                   | 20          | 20                   | 20       | 20           | 20         |
| Existing Disposal System           | 1           | 4                    | 4        | 4            | 1          |
| Properly Abandoned Well            | --          | 10                   | 15       | 10           | --         |
| County Drain & Field Tile          | 15          | 25                   | 25       | 25           | 10         |
|                                    | 50          | 50                   | 100      | 50           | 10         |

Prevention is always better than treatment. It is far easier and less expensive to maintain and protect a septic system than to replace a failed system and try to clean up a contaminated water supply. Protect yourself, your family, and your community by having your system inspected and pumped every 2-3 years to maintain a safe, functioning system.