

than functioning systems (Day, 2004). Additionally, consumers with malfunctioning systems might be more likely to use synthetic chemicals meant for system cleaning, which can further contaminate the environment (Canter & Knox, 1985).

Environmental contamination from malfunctioning onsite wastewater systems can impact public health at the household level in addition to the community and environmental impacts outlined above. Many households relying on an onsite wastewater system also use a private well (i.e., a

of uniformity in regulations on onsite wastewater system registration, in addition to a lack of data on siting, design, age, and maintenance practices, makes it more difficult to measure the impact of onsite wastewater systems on nearby bodies of water. Including this type of data collection and maintenance practices in local and state regulations can aid environmental health professionals in evaluating contamination risk in nearby ecosystems and protecting the health of their communities (Withers, Jordan, May, Jarvie, & Deal, N.E., 2014; Withers et al., 2012).

Finally, residents who receive education on their onsite wastewater systems could learn more about their systems and some might change how they maintain their onsite wastewater systems. Despite increased access to educational materials, many do not change their maintenance practices, which can lead to increased rates of onsite wastewater system failure and greater contamination of surrounding areas (Silverman, 2005). Creating and implementing local operation and maintenance regulations will ensure that onsite wastewater systems operate more efficiently for longer periods of time, protecting the surrounding environment and the public health of nearby communities.

References

Alexander, S.C., Alexander, E.C., Jr., Green, J.A., Schuster, W.E., & Forest, B. (2008). Dye trace study of a new septic system in Door County, Wisconsin. In L.B. Yuhr, E.C. Alexander, Jr., & B.F. Beck (Eds.), (pp. 495–504). Reston, VA: American Society of Civil Engineers. Retrieved from <https://ascelibrary.org/doi/book/10.1061/9780784410035>

