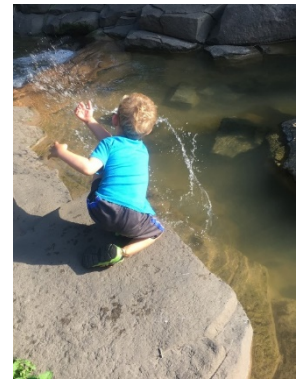


## Reuse of Stormwater and Rainwater in Minnesota

### A PUBLIC HEALTH PERSPECTIVE

Stormwater runoff from land surfaces and rainwater from roofs can be collected in ponds or cisterns and treated before being discharged to the environment. Stormwater reuse, or using this collected water for purposes such as irrigation or washing vehicles prior to discharge, has potential benefits as outlined in [Advancing Safe and Sustainable Water Reuse in Minnesota: 2018 Interagency Report on Water Reuse \(PDF\)](#). Also called “capture and use,” stormwater reuse can decrease the use of groundwater or treated surface water to conserve our drinking water resources, minimize the consequences of drought conditions, and help manage stormwater during periods of high precipitation.



Stormwater has been found to often contain bacteria, viral, or protozoan pathogens (also called “germs”) that can make people sick. To satisfy the MDH mission to protect, maintain and improve the health of all Minnesotans, MDH evaluated the safety of selected Minnesota stormwater reuse systems by asking the following questions:

- What is in stormwater that could be harmful to people?
- How likely are people to get sick from stormwater reuse?
- Who could be affected?
- Is there a way to reduce the hazard or the exposure of reused water to prevent potential illness or injury?

### Interim Recommendations

The evaluation showed that pathogens in stormwater have the potential to infect people exposed to untreated stormwater when used in applications such as irrigation systems or indoor uses.

Although there are many areas for further research and discussion, the paper outlines interim recommendations for those currently implementing reuse of stormwater to consider. These recommendations cover several components of implementation including:

**Management Plan** - to designate roles and responsibilities throughout the system’s lifetime

**Design** - to enhance reliability and provide safety through controls and/or treatment

**Operations and Maintenance** - to maintain the safety, function, and overall success of the system

**Managing Storage and Distribution** - to provide health protection at the point of use

**Monitoring** - to verify the system is performing as designed and that other aspects of the system are in good condition

**Reporting** - to share information and support the practice of reuse into the future

The full paper can be found at:

[Reuse of Stormwater and Rainwater in Minnesota: A Public Health Perspective \(PDF\)](#)

## Next steps

MDH's mission is to ensure that the health of the public is protected. MDH plans to participate in a workgroup that will be convened to develop actionable steps and hold conversations with key stakeholders about stormwater reuse, associated risks, and the potential need to manage water reuse in Minnesota. More research on pathogens and harmful algal blooms and their effects in water reuse systems in Minnesota is also needed to ensure the public's health is adequately protected.

## Resources

- [Advancing Safe and Sustainable Water Reuse in Minnesota: 2018 Interagency Report on Water Reuse \(PDF\)](#)  
(<https://www.health.state.mn.us/communities/environment/water/docs/cwf/2018report.pdf>)
- [Reuse of Stormwater and Rainwater in Minnesota: A Public Health Perspective \(PDF\)](#)  
(<https://www.health.state.mn.us/communities/environment/water/docs/cwf/wpwaterreuse.pdf>)

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1/2022

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