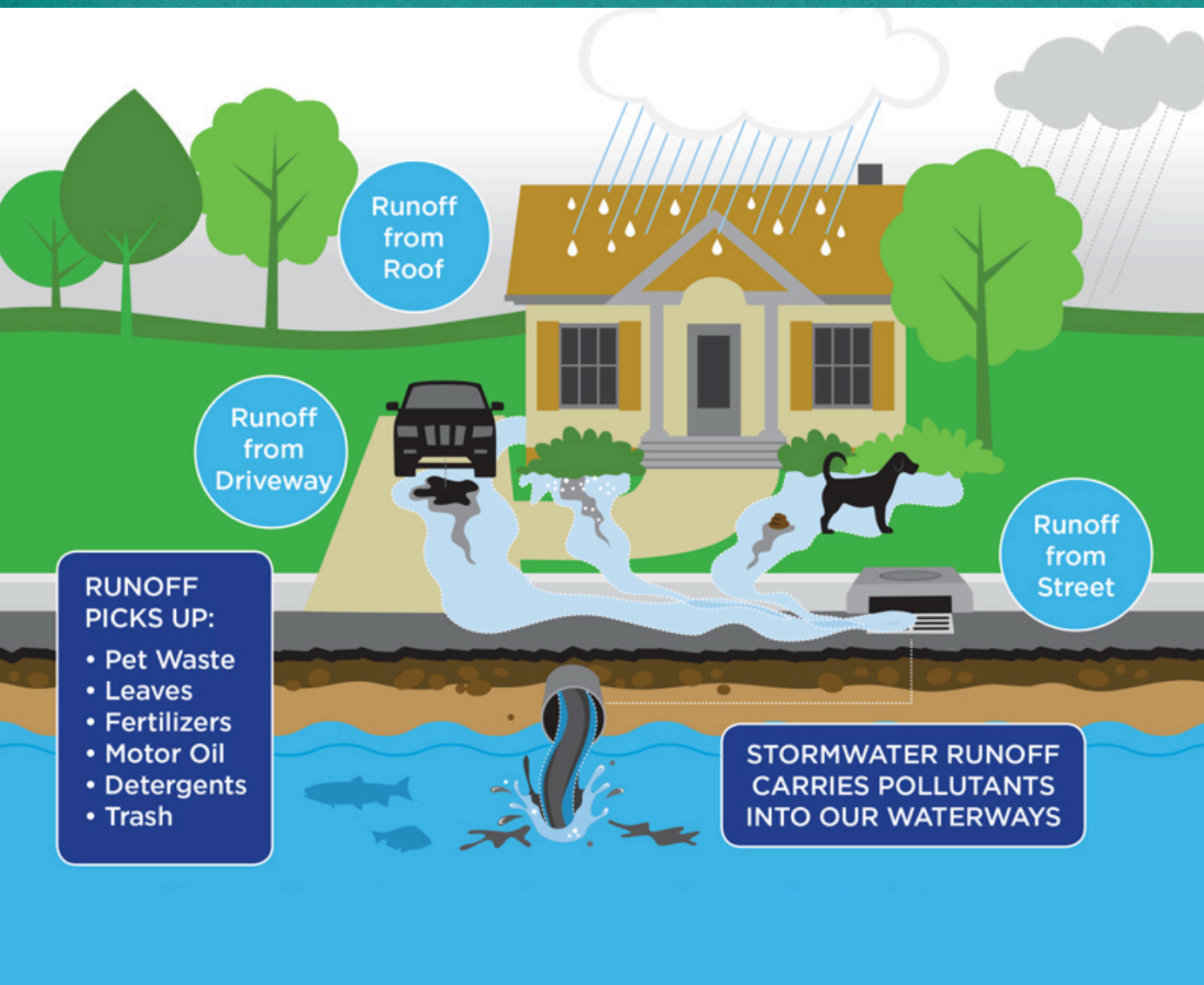


# Stormwater Runoff

## Understanding the Natural Phenomenon and its Impacts on Beaches



### How our watersheds are affected



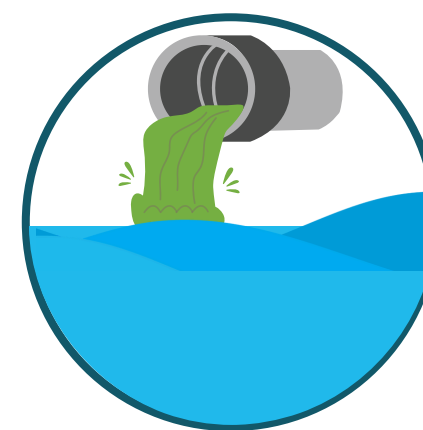
#### PRECIPITATION

Rainstorms (or snowmelt) deposit water from the atmosphere onto the Earth's surface.



#### SURFACES

Water from the atmosphere moves along different surfaces as it travels through the watershed. These surfaces could be anything from fields and forests to roads and parking lots.



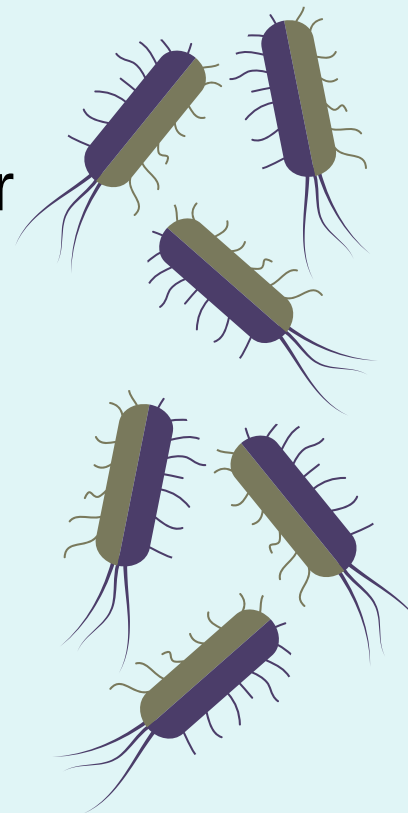
#### WATERSHEDS

Stormwater has the potential to deposit anything it picked up from surfaces into the watershed. Stormwater runoff can result in deposits of nutrients or pollutants at beaches.

**Stormwater runoff**, also called urban runoff, is water generated from storms or snowmelt that flows over land or impervious surfaces like parking lots or buildings.

### Why would beaches be affected?

- Beaches may be put under health advisories or closures due to harmful contaminants found in the water. Fecal bacteria are often the culprit.
- Fecal bacteria at beaches can make people and animals sick, with common symptoms including diarrhea, vomiting, and stomach cramps.



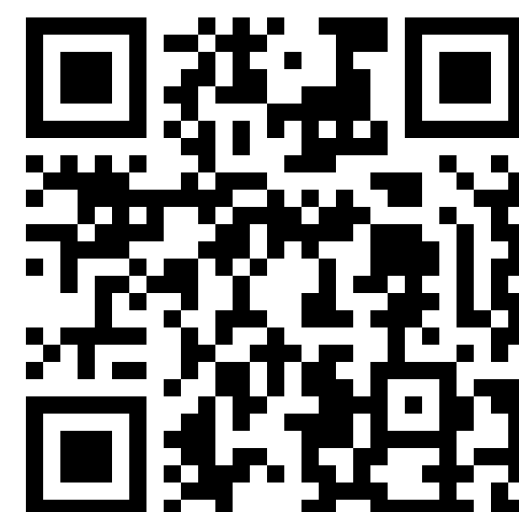
### Why *E. coli*?

- Heightened levels of *E. coli* can indicate the presence of other harmful contaminants in water.
- The State of Michigan advisory limit of 300 *E. coli* per 100 mL is recommended to protect community health from exposure to pollutants.

### Stay Mindful After Storms

- It is advised to not swim at beaches within 24 hours of heavy rain, and to refrain from letting pets swim in or drink this water.
- If swimming after a recent rain event, do not swallow water and rinse off as soon as possible.
- For all Michigan beaches, check The Environment, Great Lakes, and Energy (EGLE) BeachGuard site for posted advisories or closures.

Curious about your favorite beach? Check here!



Interested in learning more about what can impact beaches?

[www.otterlab.org/beach-monitoring](http://www.otterlab.org/beach-monitoring)