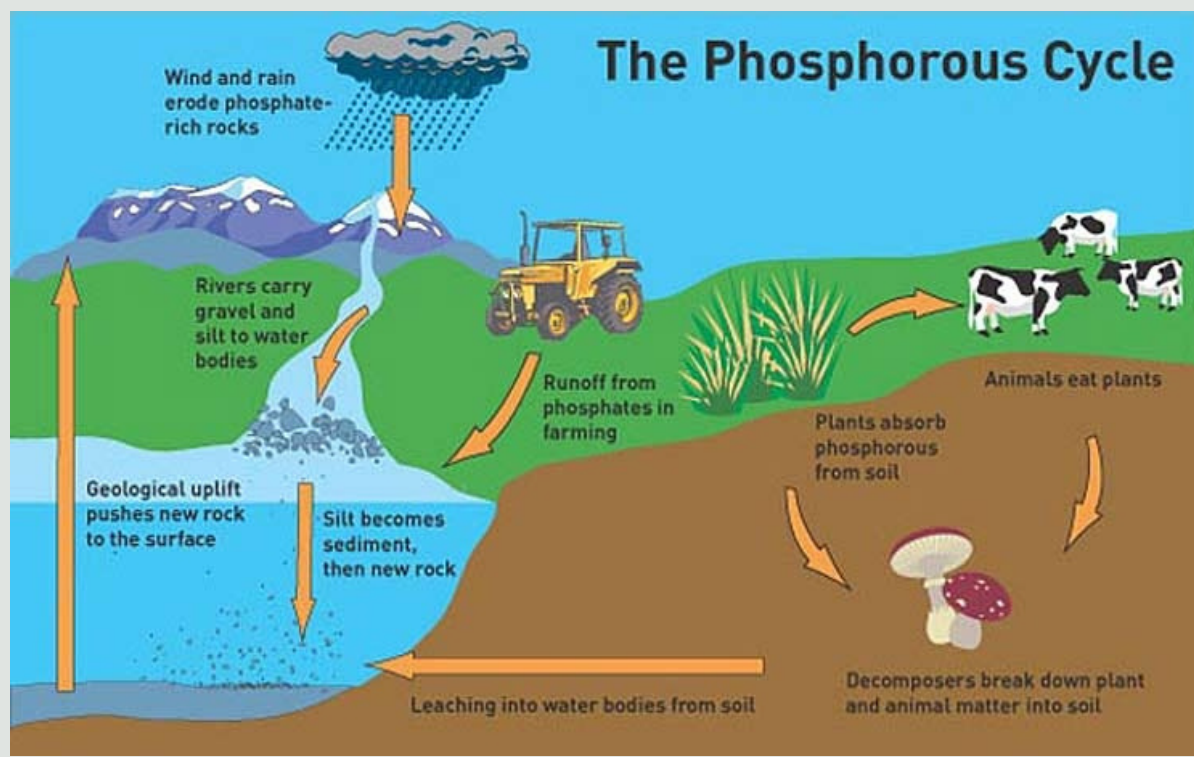
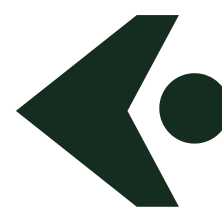


# PHOSPHORUS 101

## An Instrumental Analysis of Total Phosphorus

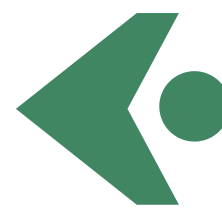
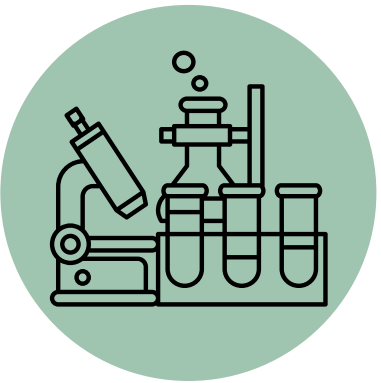


### HOW THE MAGIC HAPPENS



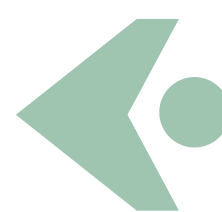
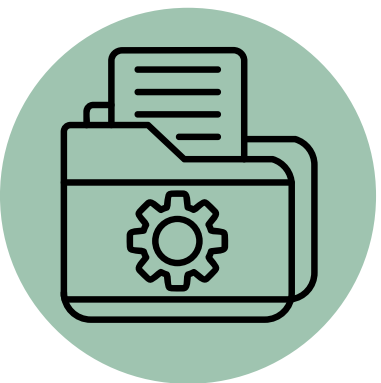
#### COLLECT SAMPLES

Samples are collected from streams and lakes



#### INTRUMENT ANALYSIS

Samples are analyzed on an automated discrete analyzer



#### REPORTING DATA

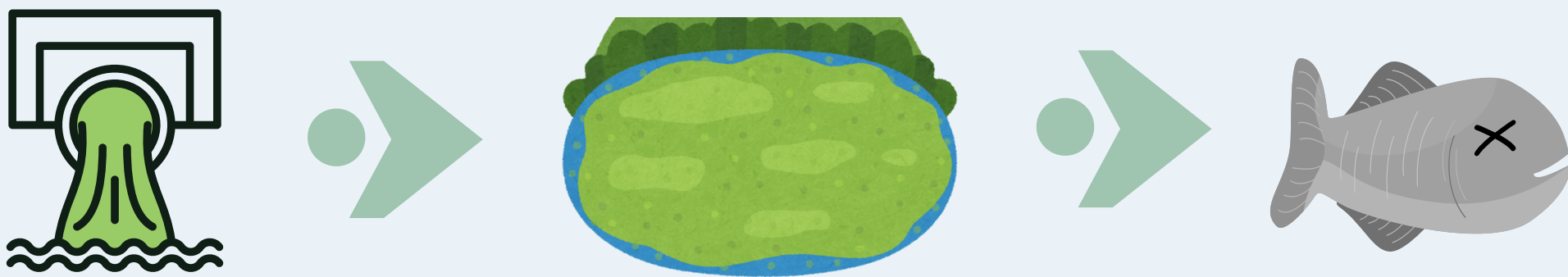
Data is analyzed for quality and reported to project partners.

Nutrients like phosphorus are essential for plant growth, but too much phosphorus can have harmful environmental effects.

Runoff from fertilizers, wastewater, and other human sources dump large amounts of phosphorus into watersheds. This loading of nutrients leads to eutrophication.

**Eutrophication** occurs when nutrients accumulate in the water. This leads to rapid algae growth, which deprives other species of sunlight and oxygen.

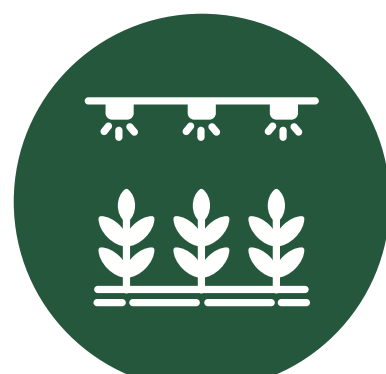
**Harmful Algal Blooms (HABs)** occur when large amounts of toxic algae grow in eutrophic water. They have negative environmental, human, and economic impacts.



Hypereutrophic water bodies can be harmful for recreation, the environment, and public health. Toxic Algal Blooms can kill fish and other wildlife. They threaten human health, and make treating drinking water much more expensive.

### PRACTICE MAKES PERFECT

- Limiting applications of lawn fertilizers.
- Taking proper care of animal wastes.
- Controlling the flow of manure and fertilizer being applied to farms and fields.



#### Did you know?

Phosphorus input from fertilizer and manure can build up in soil over time and have negative effects many years after being applied.

Interested in learning about nutrient monitoring projects in your community?

[www.gvsu.edu/wri/otter/](http://www.gvsu.edu/wri/otter/)