



LILLY CENTER FOR
**LAKES
& STREAMS**

GRACE
COLLEGE

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When the Banks Overflow: The Impact of Flooding

By Dr. Nate Bosch, director of the Lilly Center for Lakes & Streams

When we envision flooding, we likely picture waterlogged basements, backyards turned into ponds and streets made impassible. As we head into spring, we may experience something similar! But did you know there is more than one form of flooding? And how does so much extra water impact Bass Lake?

Two Common Kinds of Flooding

The first type of common flooding is overbank flooding. When lakes and streams are filled to capacity (especially if a steady, heavy rain is paired with snowmelt as it was in February) water overflows its banks and spreads onto land. It usually takes days for overbank flooding to recede.

The second type is flash flooding. Flash floods are caused by severe storms that overflow waterways in just a few hours. They are most often characterized by fast-moving water and gusting wind, a combination that makes travel extremely dangerous. If the water rises and flows with enough force, it can dislodge large trees or structures and carry them downstream.

How Flooding Impacts Your Lake

Overflowing streams sweep away whatever is in their paths, including dirt, dead leaves, rocks and fallen branches. If the flooding reaches lawns or fields, it will also pick up bacteria, oils, nutrients and other substances.

These substances enter the waterway and are carried into the nearest lake. Once there, the fish, underwater plants and microorganisms are often negatively affected by the sudden addition of harmful substances. One cause of blue-green algae, for instance, is phosphorus, a nutrient found in fertilizer that can get washed into lakes during times of flooding. Lakes that receive polluted water may also see a decrease in fish life.

But you can prepare today to preserve the health of your lake! Use nontoxic household products and properly dispose of hazardous household waste, such as electronics. Recycle used motor oil and maintain your car to keep oil, coolant, antifreeze or other chemicals from leaking onto the ground. Use only the fertilizer that your lawn needs by using phosphorus-free fertilizer applied at a rate based on soil testing. When another storm comes, the substances swept from your property will be much less harmful to the local lakes.

Learn more on lakes.grace.edu, where you can find our lake water level study that discusses what influences the water level in lakes. You can also look at our stream sensor network and see in real-time what the water levels are doing in several Kosciusko County lakes!

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The Lilly Center for Lakes & Streams at Grace College conducts research, provides resources, engages and educates residents, and collaborates with local organizations to make the lakes and streams of Kosciusko County clean, healthy, safe and beautiful. To date, the Lilly Center has conducted scientific research on over 30 streams and 40 lakes. The Lilly Center is driven to create a legacy of stewardship by equipping community members, visitors and future generations with understanding and to enjoy the county's natural beauty. For more information, visit lakes.grace.edu.