

Keeping Our Streams Clean: How Campus Manages Stormwater Pollution

When it rains, stormwater doesn't just disappear—it runs across roads, sidewalks, and parking lots, picking up everything from litter to motor oil before eventually reaching Brush Creek. To protect local waterways, our University has invested in several stormwater control measures designed to catch, clean, and slow down runoff before it leaves campus. Here's how they work:

- **Manufactured Devices (like AquaSwirls):** These are underground systems that act a bit like a giant filter. As stormwater flows in, they swirl the water around, allowing heavier pollutants such as sediment and trash to settle out before the water continues on its way. We monitor these and clean them out regularly to ensure they continue to work as designed.
- **Pervious Pavement:** Some of our parking lots may look like regular asphalt, but they're actually made of a special porous material that allows water to soak through the pavement into the ground. This helps reduce runoff and naturally filters pollutants as the water passes through layers of soil. You can view an example of one on the west side of parking lot 22.
- **Bioretention Beds:** These landscaped areas are more than just pretty plantings. They're designed to capture stormwater, hold it for a short time, and let plants and soil microbes break down pollutants. Think of them as nature's own water treatment system right here on campus. Buccaneer Ridge is a great place to view these lovely systems.



Bioretention area at Buccaneer Ridge

- **Detention Basins:** These large, grassy depressions are built to temporarily hold stormwater after heavy rain. By slowing down the flow, they reduce flooding risks and give sediments and other pollutants time to settle before the water is slowly released. These large basins can be seen in a number of locations. There is a large one at the intramural fields.



Detention basin at the ETSU softball field

Together, these systems form a hidden but powerful network working behind the scenes to keep our streams cleaner and healthier. Next time you see a rain garden, a porous parking lot, or even a big grassy basin, you'll know they're all part of the University's effort to protect our environment—one storm at a time.

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