

# Local companies start testing the waters

Construction has just been completed on a joint collaboration between two local companies, American Peat Technology (APT) and Paulbeck's County Market on a pilot stormwater treatment system that will remove debris, sediment and heavy metals before the stormwater is ultimately released to the Ripple River.

The innovative treatment system was designed and installed on the east side of Paulbeck's parking lot in order to test APT's water filtration media, APTsorb, and combined it with a permeable pavement called KBI Flexi-Pave, which is made from recycled tires and produced by KB Industries of Largo, Fla.

"There are no environmental concerns with the stormwater coming from Paulbeck's parking lot," said Peggy Jones, lab manager at APT. "but it's one of the busiest parking lots in Aitkin County and a site where we thought we could find some detectable levels of dissolved

metals in the stormwater. We also wanted a site where we could test our media, along with some other complimentary technologies we plan to use in the future, and Mike Paulbeck agreed to let us use his parking lot for the pilot system."

Stormwater continues to raise concern among regulators and planners, especially in heavily developed urban and suburban areas. As more and more land is developed, the accompanying roads, driveways, parking lots and roofs contribute to increasing volumes of stormwater that result every time it rains. Because transportation is a contributor to stormwater pollution and because of their size, parking lots are prime candidates for stormwater treatment. Along with sediment and debris, cars tend to shed heavy metals like copper, cadmium, lead and chromium from their brakes, exhaust systems and tires. Those heavy metals remain on the parking lot surface - until it rains. Then,

the metals, along with the other debris that collects on a parking lot, start the journey downhill to the nearest water body.

APT's APTsorb looks much like coffee grounds, but when it meets dissolved heavy metals, such as those found in stormwater, it binds the metals to the APTsorb granule and prevents the contaminants from going further downstream. In addition to the KBI's Flexi-Pave, the pilot system at the Paulbeck's parking lot also includes three sediment filters for removing large debris and sand before the water is filtered through the APTsorb.

"We'll be monitoring the pilot system for metals removal, as well as assessing the function of the filters and permeable pavement," said Jones. "It's a nice combination of three green technologies and has the potential to make a real difference in future water quality as we develop this technology and the means to deploy it."



SUBMITTED PHOTO

**A stormwater treatment system has been installed at Paulbeck's County Market.**