

Filtration media
cleans up busy
Minnesota parking lot

By Doug Green

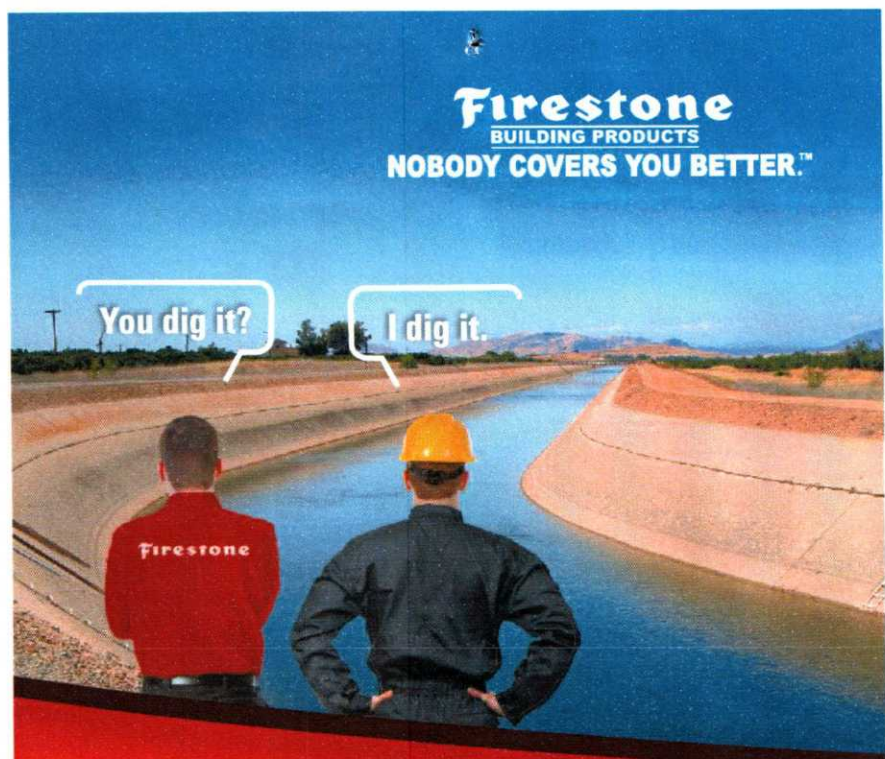
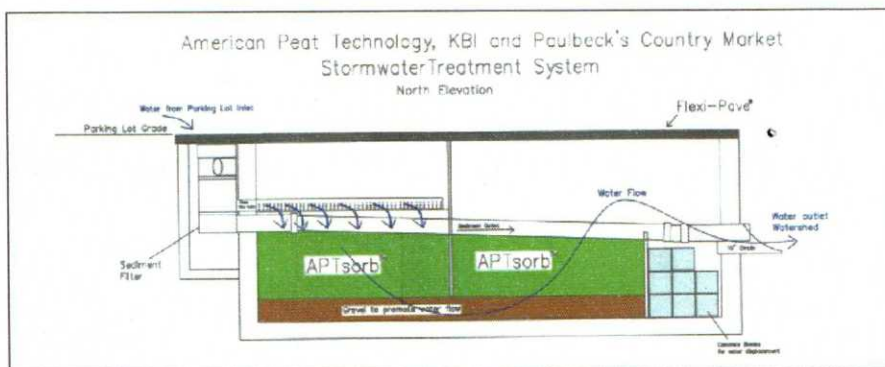
As every storm water professional knows, the eyes of government are looking ever more closely at water that falls from the sky—what is in it and where it is going. Industry has long had to be concerned with the potential pollution that can emanate from its operations and property. As urban areas are expanding and the acreage of impermeable surfaces increases, everyone—not just big industry—will be held accountable for the pollutants that run off their property.

Some of the most potentially damaging and most difficult to control pollutants in storm water are heavy metals. One of the most damaging aspects of heavy metals is that the pollutants accumulate in the bodies of plants and animals and do not degrade over time. These contaminants remain in the environment even after the plant or animal dies.

Another problem with heavy metal pollution is that many of the current storm water remediation methods do not mitigate it. To be effective, the



In the spring of 2014, a new storm water application will be tested in Aitkin, Minn., for the removal of copper from the storm water running off a grocery store parking lot.




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remove elevated levels of copper and zinc found during testing. The plan is to run the rainwater from the parking lot through the system, using only gravity, and then allow the water to flow into the existing drainage area and watershed. This effort is a collaboration of three companies that have come together to solve a problem and explore new options for treating an ever-growing number of storm water problems.

Paulbeck's County Market provided the lot, the problem and the willingness to step forward. APT brought in KBI Industries and its permeable pavement material, Flexi-Pave, which will be used to allow drainage through the pavement and get the contaminated water in contact with the APTsorb for the required amount of time to ensure adequate removal of copper and other contaminants.

APT will establish a local test to determine whether its media could be effective in combating copper and zinc concentrations emanating from the cars parking in the lot by using a passive treatment system. The most likely culprit for the copper concentrations is brake dust falling off the cars at the largest and busiest parking lot in Aitkin County, Minn.

Because of poor design, the 119,000-sq-ft parking lot only drained into one corner. The passive treatment system will capture and direct the contaminated water through the system and then back into the established drainage pond and watershed. The proximity to APT's plant and labs will allow for testing and monitoring before, during and after every rain event. This close monitoring and oversight will ensure accurate and consistent data that will open another use for APTsorb and help APT scientists and engineers to expand and refine use of the media in storm water remediation. **SWS**

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