



A Sustainable Drainage Solution Using Film and Flexibles

Pittsburgh, Pennsylvania: Case Study



HydroBlox, a Pittsburgh-based drainage solution company, lives up to its tagline: “100% recycled and it works better.” As an alternative to drainage pipes, HydroBlox creates permeable products that channel water away from roads, parking lots, yards, and other areas prone to flooding or stormwater runoff.

HydroBlox's products are made entirely of post-consumer plastic, including difficult-to-recycle packaging like coffee bags and snack pouches that are made of multilayer film. The company molds shredded plastic into durable blocks and slabs designed for effective drainage using its patented process that combines heat and pressure.

“All we have to do is stand still, and more trucks show up on our loading docks filled with that type of film,” said HydroBlox CEO Ed Grieser. “What we’re taking in, all of it is landfill-bound—all of it. And we’re able to redirect that.”

An April 2024 grant from The Recycling Partnership’s Film and Flexibles Recycling Coalition enables the installation of a film and fiber shredder, along with necessary electrical upgrades. The new shredder will allow HydroBlox to process an additional 3,000 tons of film and flexibles packaging annually, a 50% increase from its current capacity.

“Certainly, recycling this material is the right thing to do, and from a business perspective, now that we have this really dialed in, we’re able to make our end product at just about the same rate as we were when we were using the mixed array of plastics.”

When HydroBlox began over a decade ago, Grieser said, it was buying regrind (post-industrial plastic pellets) and integrating that with new plastic for its products. In addition to reusing material, HydroBlox says its solution is more durable than conventional drainage pipes that may be subject to crushing over time.

“No one took us very seriously,” he said. “As we grew and people realized that we could take all this difficult-to-handle plastic, the tide turned. It turned slowly, but it definitely turned.” Grieser says he’s receiving calls from recyclers and others who are eager to send HydroBlox their collected material.

HydroBlox has moved from about 30% scrap plastic in its products to 100% post-consumer film and flexibles. The biggest bottleneck, he said, has been getting the plastic shredded—the grant is helping to ease that bottleneck with the equipment expected to be operational in early 2025. “It’s exactly what we needed in the time frame that we needed it.”