

Koons Toyota Stormwater Retrofit

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Problem:

Annapolis' Spa Creek watershed includes a sizable commercial area with a high percentage of impervious cover consisting of roads, buildings and parking lots. Parking lots in particular are a major source of contaminants including not only motor oil and debris, but also pavement sealants, which contain carcinogens and can cause environmental degradation. Koons Toyota, a commercial landowner in the watershed, wanted to be part of the solution rather than the problem. When Koons expanded its existing West Street facility, it used the opportunity to retrofit its property to better manage stormwater.

Solution:

Working in collaboration with the nonprofit Spa Creek Conservancy, Koons retrofitted its parking lot in order to treat runoff from both the lot and structures at the site. With funding from the National Fish and Wildlife Foundation (NFWF) and the Chesapeake Bay Trust, Koons created a bioretention area and installed rain gardens and bioswales to filter runoff. This reduced stormwater pollutant and nutrient loads by 38% to 87%, as well as removing more than 90% of suspended particles.



Construction of the new bioretention areas.



The finished product with 87% of pollutants controlled and significantly reduced runoff.

Photo credit: Spa Creek Conservancy

Key Project Facts

Location: Annapolis, MD

Type of Project: Bioretention

Scale: 1,772 square foot bioretention area

Pollutants Removed: 37.5 lbs per year of nitrogen removed, 34 lbs of phosphorous removed and 64 TONS per year of sediment withheld

Cost: \$217,000

Funding Sources: Annapolis Hyundai; Chesapeake Bay Trust; Koons Toyota; National Fish and Wildlife Foundation; Rich Morton Lincoln-Mercury

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What is Polluted Runoff?

The growth of our cities has resulted in too many paved surfaces, which prevent rain water from being absorbed by the ground. Instead, the water runs off streets and buildings, collecting trash and dangerous chemicals on its way. This contaminated water overflows into our streams and rivers, creating public health hazards and toxic waters.

Stormwater projects create safe paths for polluted runoff to be captured and filtered before it reaches our waterways. It keeps communities healthy and the environment clean.

When communities and their local governments work together to solve big problems like stormwater runoff, that's a story worth telling!