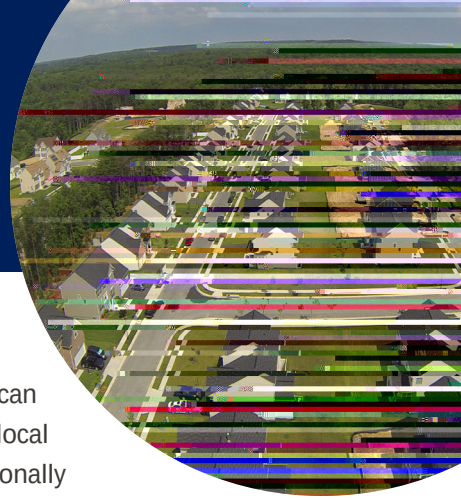


Coldwater Reserve Case Study



Project Information

Level of Certification: Four Stars
NGBS Certified

Location: Severn, MD

Size of Site: 27-acre infill site

Site Details: 50 single-family lots

Specifications

Coldwater Reserve exemplifies how green neighborhoods can become the new normal while meeting federal, state, and local regulations. The design of Coldwater Reserve includes regionally appropriate stormwater management features, conservation wetland and forest areas and clustered lots. These features helped improve the infill site to better mimic the natural environment and earn a four-star NGBS certification.

Coldwater Reserve's stormwater management plan was designed to meet the state of Maryland's 2007 stormwater regulations. The new regulations introduced environmental site design (ESD) as the guiding principle for stormwater management and defined its goals as "using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources." To meet the ESD, Sigma and Crasmen designed their version of a Coastal Plains Outfall system to accommodate the site's stormwater and runoff.

The Coastal Plains Outfall system includes four tiered pools that collect sediments and other pollutants from stormwater before it can reach local streams on the property. Each ponded area represents four distinct vegetative habitats with native flora. The Coastal Plains Outfall design falls somewhere between a large detention pond and a bioretention basin, creating a model system that innovatively meets unique water quality and volume requirements.



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