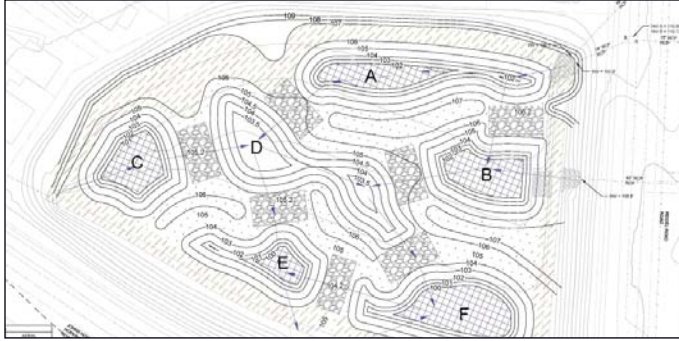


Little Patuxent Public Pond Retrofits

Anne Arundel County, Maryland



from top: Stormwater pond retrofit design; Assessing Stormwater Pond retrofit options to maximize water quality treatment

As part of its efforts to meet Chesapeake Bay TMDL and local NPDES MS4 requirements, the Anne Arundel County Department of Public Works sought to develop a new generation of

stormwater pond retrofits that would achieve higher levels of nutrient reduction while also creating a recreational amenity, enhanced wildlife habitat, and greater public acceptance and demand for these facilities.

By thoroughly exploring potential stormwater pond retrofit opportunities, Anne Arundel County is poised to enhance water quality, wildlife habitat, and quality of life for constituents.

Biohabitats, in a joint venture with Century Engineering, helped the County evaluate, prioritize, and develop schematic stormwater pond retrofit designs in the Little Patuxent Watershed. The evaluation process began with field investigations, visual assessments, and natural resources inventories of all nine existing stormwater ponds in the watershed. The team also compared and evaluated as-built drawings and available computations. Site investigation and retrofit options included upland considerations such as alternative/additional best management practices like parking lot retrofits, bioretention bump-outs, and bioswales.

The team then developed pond retrofit ranking protocol for the County with criteria that included drainage area

characteristics, existing pond and site conditions, ownership, and retrofit feasibility and requirements. The ranking protocol was then applied and the top ranked ponds were moved through the retrofit concept development phase. Of the remaining ponds, two were deemed unsuitable for retrofitting, while maintenance and further site investigation were recommended for three. Schematic designs prepared for the four top ranking retrofit sites are currently in design development. Once constructed, the retrofitted ponds are expected to gain Chesapeake Bay TMDL and NPDES MS4 credit approvals.

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