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Quail Creek: A Case Study of Restoration Using Native Materials

by James W. Gracie, (Aff.M.ASCE),

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Abstract:

Quail Creek, a stream in northern Baltimore County, Maryland, was restored in 1990 using the approach developed by Rosgen to [diagnose](#) the problems, and determine the parameters for stable stream geomorphology.

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Bay Journal

Bay scientists: Stream restoration benefits not clear cut DONATE

States and local governments are investing millions of dollars in restoration but the science is still evolving

Jeremy Cox | November 13, 2018

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3

Erik Michelsen stopped his county-issued white Jeep Cherokee on the side of the road in a leafy neighborhood south of Annapolis, then plodded down into a ravine. He followed a trail through a tunnel of oak trees and rare Atlantic white cedars. The air was heavy with the scent of dew. At the bottom, Michelsen emerged in a picturesque scene: a babbling stream slightly too wide to leap across that was strewn with rocks, ranging in size from golf balls to microwaves.

If it seemed too natural to be natural, it was. In 2005, the state of Maryland and Anne Arundel County collaborated on a nearly \$1 million project that transformed two failing stormwater ponds into "Wilelinor Stream," named after the adjoining subdivision. Bulldozers reshaped the land, workers sowed underwater grass beds and dump trucks hauled in tons of sandstone boulders and river rock.



Erik Michelsen, head of Anne Arundel County's watershed restoration program, stands near the base of a restored stream that flows into the South River. (Jeremy Cox)

"It's essentially creating systems that slow the water down through the valley, stack the water up, provide an

