C. Milton Wright Stream Restoration

HARFORD COUNTY, MD

Project Highlights

- Drainage Area: 24 acres upstream to 80 acres downstream. Predominantly zoned for Urban Residential.
- Stream Order: 2nd Order, perennial tributary to Bynum Run
- Watershed: Bynum Run Watershed
- Design Approach: Stabilize stream and increase floodplain connectivity through natural channel/Rosgen design philosophy
- Design Discharge: Varies by reach from 8.1 cfs to 18.1 cfs
- Flood Frequency: Between a 1.1-1.25 RI on larger system, between 1.5-2 on smaller tribs

DESIGN OBJECTIVES

- Enhance floodplain connectivity and storm flow dispersion.
- Stablize stream pattern, bed, and banks
- Improve habitat and ecological function
- Enhance buffer function with native plantings
- Increase bank stability, provide shade for the stream and absorb nutrients from overland and subsurface flows.
- Reduce nutrient loading

CONSTRAINTS:

- Narrow valley in close proximity to High School athletic fields and buildings.
- Avoiding existing culvert crossings *(Except for lower failed crossing, replaced with box culvert)*
- Existing sewer and water lines

ANALYSIS/RESULTS:

- Project is stable and well suited to the natural environment and function of the school facility.
- Stream system has experienced multiple large storm events, even during construction, and has handled them as intended.

FUNCTIONAL UPLIFT GOALS:

- 326.5 lbs of Phosphorus
- 56.1 tons of suspended solids
- 1,182.0 lbs of Nitrogren
- 124 Impervious Acre Credits (IAC)

Pre-restoration

Post-restoration