



Lancaster Residence Stream Improvements

Stormwater Management BMP's | Stream and Floodplain Restoration

Challenge

Construction and renovations of a home on 4.6 acres in Lancaster Township, PA will increase the impervious onsite area by 0.37 acres. A highly visible stream channel needed to be incorporated into the overall site improvements. Because of site constraints, stormwater management was challenging and required significant hard infrastructure to address regulations.

Solution

The goal of the stormwater management package proposed is to create a more functional natural system that incorporates floodplain restoration and provides enhanced water quality and aesthetic value. The solution includes restoring 535 linear feet of stream and reconnecting the stream channel to the floodplain to improve water quality.

Services

Landscape Design | Geomorphology | Engineering | Permitting | Construction Management | Construction | Native Plant Installation

Client: Private Resident
Location: Lancaster Township, PA
Special: Lancaster Township is the first Township in Pennsylvania to approve Floodplain Restoration as a Stormwater BMP (BMP 6.7.4 of the Pennsylvania Stormwater BMP Manual).

Awards: 2012 Lancaster County Smart Growth Leadership Award



Before

Recharge Volumes
 1,531 Rain Gardens / Bioretention
 9,176 Floodplain Restoration
10,707 Total Recharge Volume Proposed
 2,660 Total Recharge Volume Required

Peak Flow Reduction
 Return Period % Reduction - Site %
 Reduction - Watershed
 2 year 106% 2%
 10 year 29% 1%
 25 year 24% 1%
 50 year 19% 1%
 100 year 16% 1%



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