



Brubaker Run Floodplain Restoration

Floodplain Restoration

Challenge

Lime Spring Square, a phased land development project, contains a mix of industrial, commercial, retail, office space, and a community park. The project was designed to satisfy the Post Construction Stormwater requirements for the 98-acre development in addition to the regional flood and nutrient benefits realized for the 2.25 square mile watershed.

Solution

LandStudies designed and constructed the 11.5-acre floodplain restoration to restore an active, connected, and functional floodplain. By reconnecting the stream channel with the floodplain and restoring 4,750 linear feet of stream length, 8.4 acres of emergent wetlands and native plant communities were created that provide water quality benefits. These benefits include peak runoff rate reduction, enhanced groundwater recharge, suspended sediment reduction, nitrogen and phosphorus load reductions, and significant ecological and aesthetic improvements. This project is an integral part of the network of stormwater best management practices (BMPs) associated with the Lime Spring Square project. This restoration approach exceeded the stormwater management (SWM) requirements of the development and helped East Hempfield Township meet their MS4 Chesapeake Bay pollution reduction goals at no cost to taxpayers. It also provides an additional 8 acres of buildable space for the land developer.

Services

Green Master Plan | Assessment | Design | Engineering | Permitting | Construction | Monitoring | Maintenance



Pre-construction eroding bank with historic floodplain layer under legacy sediment



Constructed floodplain with wetland pockets

Client: Oak Tree Development Group
Location: East Hempfield Township, Lancaster County, PA



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