

Site 9: Cathedral Run

Site Information

A tributary of Wissahickon Creek, Cathedral Run is located approximately 4.9 miles above the confluence of Wissahickon Creek with the Schuylkill River, and to the southwest of the creek's mainstem.



Problems, Opportunities & Constraints

Cathedral Run is experiencing both siltation and water/flow variability problems. This site presents the opportunity to restore natural stream channel characteristics and function, stabilize and reduce erosion along stream banks, and improve aquatic habitat quality. In addition, PWD is currently undertaking stormwater management improvements upstream, further increasing the opportunities to restore the site. A stormwater wetland is being designed that will have the potential to reduce stormflow volumes within Cathedral Run. Past observations have not identified any existing infrastructure that could constrain future work. However, the steep, confined valley wall may act as a constraint to both stream and wetland habitat enhancements and could significantly restrict construction access to the site.

Major Problems	Opportunities	Constraints
Siltation Water/Flow variability	Restore natural stream channel characteristics and function	The land adjacent to the creek has steep slopes and the creek is confined by the valley wall Existing infrastructure

Alternatives

Alternative	Overview
1: No action	Severe erosion, excessive sediment delivery to Wissahickon Creek, and poor aquatic habitat will persist under without project conditions. The high and variable discharges that contribute to channel instability will continue to deliver pollutants to Cathedral Run during storm events.
2: Full stream restoration using step-pools	Alternative #2 would include natural stream restoration measures along the full channel length to alleviate bank erosion and naturalize portions of the stream corridor. Constructed wetlands at the head of the stream and construction of seepage berms at eroding gullies would capture and filter runoff and hydrate the floodplain.
3: Bank stabilization & grade control	Alternative #3 includes stabilization of sections of the channel that are experiencing the most severe bank erosion. As in Alternative #2, this alternative would also create wetlands in the upper project reach and stabilize the gullies at the end of Cathedral Road.
4: Stream restoration at higher invert	Alternative #4 includes raising the baseflow water surface by installing structures composed of boulders and large woody debris. As in Alternatives #2 and #3, this alternative would also create wetlands in the upper project reach and stabilize the gullies at the end of Cathedral Road.

