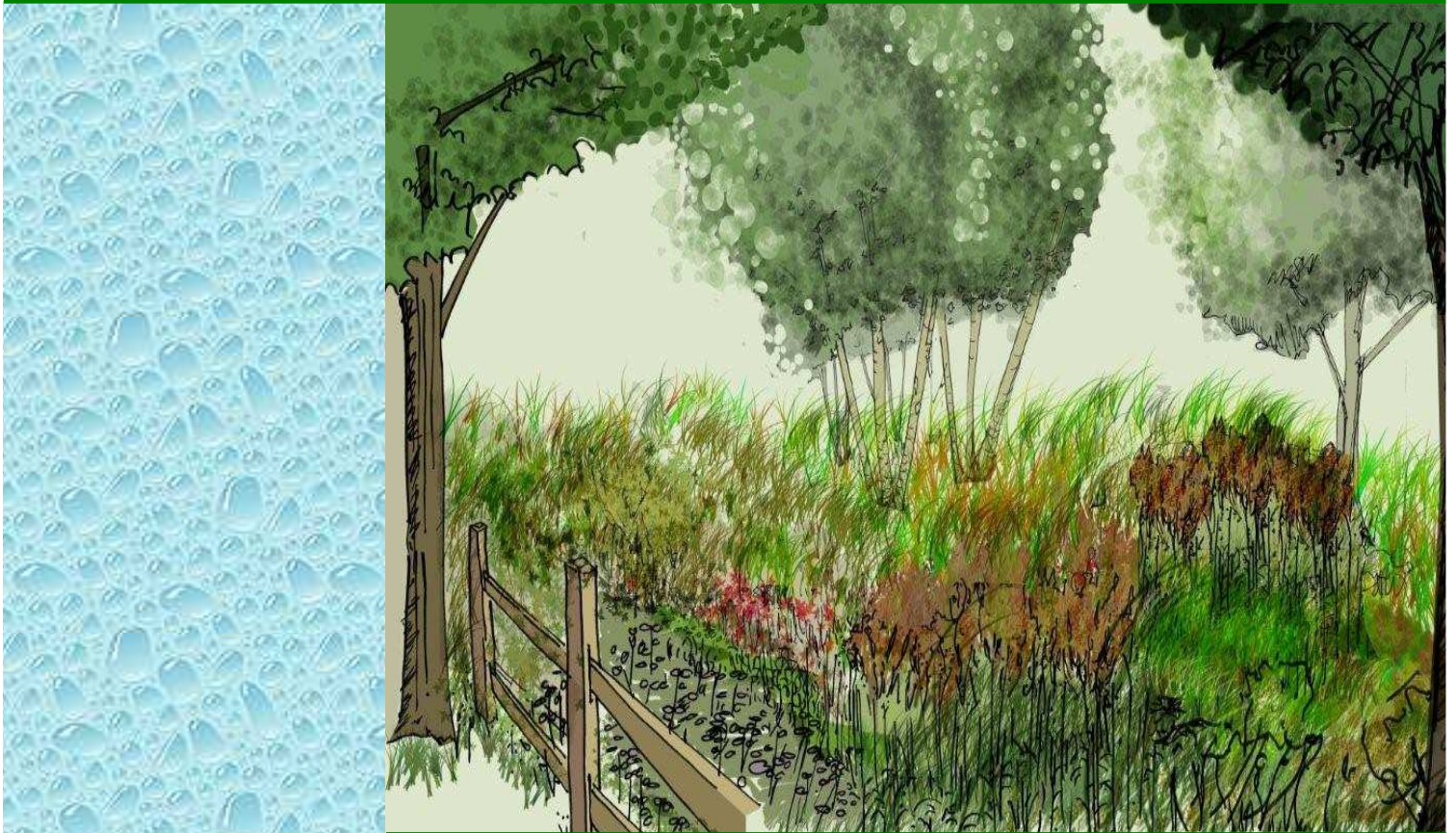


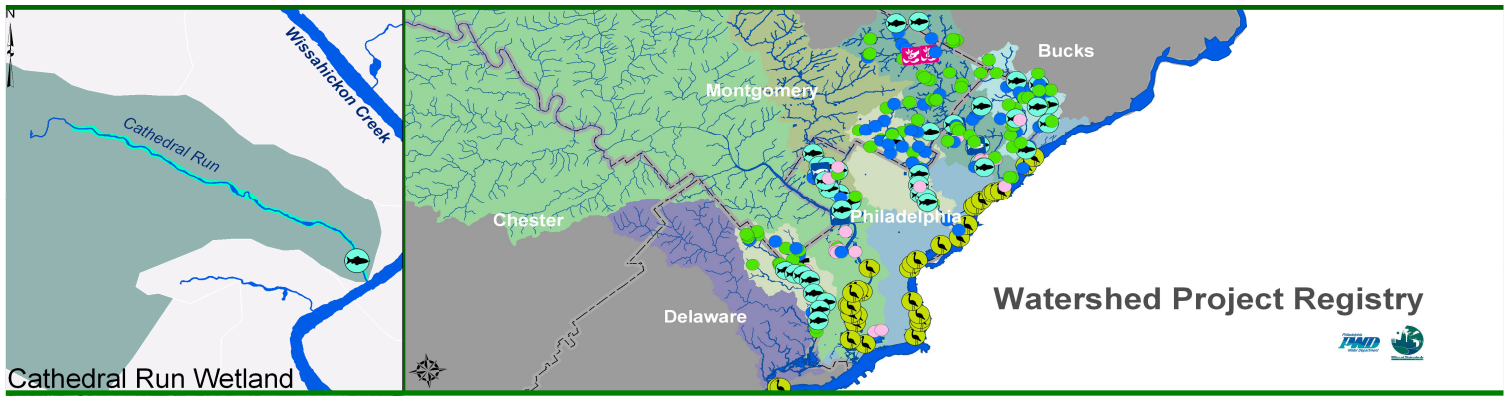
WETLAND CREATION

Cathedral Run Stormwater Wetland

Cathedral Run is a small first order tributary to the Wissahickon Creek. The stream originates from springs downstream of Courtesy Stables near the intersection of Cathedral and Glen Campbell Roads. Cathedral Run then travels approximately 2,500 ft through a wooded section of Fairmount Park before entering Wissahickon Creek. The stream is relatively steep with an average gradient of 8.5%; however, the downstream half of the tributary is visibly steeper than the upstream reach.

The watershed is highly developed with 31% impervious cover and 361 homes. The natural drainage area is 116 acres; however two outfalls collect stormwater from an additional 40 acres. Baseflow is low and was measured to be 0.06 cfs during August 2005. One outfall (W-076-01) located at the headwaters of the tributary drains approximately 91 acres of residential and commercial property.





PWD will implement a Best Management Practice (BMP) at the headwaters of Cathedral Run located near the intersection of Cathedral Road and Glenn Cambell Roads. PWD is designing a stormwater treatment wetland just west of the current location of W-076-01. The wetland will be located in a natural depression area that is owned by the City of Philadelphia and managed by the Fairmount Park Commission (FPC). This area is lightly forested and is adjacent to Cathedral Road where the 48-inch storm sewer runs prior to discharging from the outfall. This project proposes to divert most storm flow from the 48-inch storm sewer from its current outfall location and move it upstream along Cathedral Road. The diverted flow will then outfall into a stormwater treatment/ sediment basin. This pool will then discharge through an outlet pipe into the lower pool which will provide further pollutant removal and flow reduction. The stormwater wetland creation will achieve the following goals:

- Reduce downstream sediment loading
- Increase water and habitat quality
- Increase base flow
- Improve diversity of in-stream biological community
- Maintain and enhance recreational use/aesthetics
- Reduce shear stress in channel
- Ensure wetland drains within 72 hours

