

Aidenn Lair Park Stormwater Basin Retrofit



A Wissahickon Watershed Partnership Stormwater Management Demonstration Project



April 2009



Upper Dublin Township, with funding and support from the Wissahickon Watershed Partnership, Pennsylvania Environmental Council, Philadelphia Water Department, the Schuylkill River Heritage Program and the Delaware River Basin Commission, is undertaking this project to improve the function of the two stormwater management basins at Aidenn Lair Park. Project construction will commence Spring 2009 with most work occurring over a 4-6 week period. The project includes re-grading the interior shape of the basin to extend the flow path and better stabilize basin soils. Once grading is complete, the basin will be re-vegetated with native plants including tall grasses, meadow flowers, shrubs and several trees. This retrofit project will demonstrate how minor changes to an existing stormwater management basin, can improve basin performance, better control stormwater and protect our creeks.

The two basins at Aidenn Lair Park control stormwater runoff from approximately 57 acres including many private properties and township streets in the Pine Run Watershed. Rainwater flowing off roofs, roads and driveways that quickly enters storm drains in the street can rapidly discharge large volumes of polluted runoff into stormwater basins and creeks. The basins at Aidenn Lair Park do little to slow the quickly moving water; therefore, large volumes of stormwater enter the Pine Run tributary and Wissahickon Creek during storms -- this can cause flash flood conditions in and around our creeks during storms. This situation also contributes to creeks running very low in between storms, some of our local creeks even dry out in the summer months. Stormwater runoff from our developed neighborhoods readily picks up oil, grease, nutrient and sediment pollutants from streets and lawns; these runoff pollutants will readily discharge into the creek if not filtered or removed. New research and evidence suggest that basin retrofits which slow the flow of stormwater and use native plants in lieu of turf grass better control stormwater runoff and protect our creeks. The basins at Aidenn Lair Park will be retrofitted to reduce the volume of stormwater discharged during storms and to filter runoff; thereby, improving water quality in the Pine Run.

The Township will start construction in April and expects this phase to be completed by June 2009. (Additional planting is expected to occur in Spring 2010.)

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Project Highlights and Benefits:

- ◆ More colorful and diverse landscape year-round.
- ◆ Reduce the volume of stormwater entering the Pine Run tributary during storms, since more stormwater will soak into the ground, be taken up by plants and evaporate into the atmosphere.
- ◆ The native trees, shrubs, and grasses selected for this project tolerate wet soils and offer a richer habitat attractive to wildlife including butterflies, dragonflies and blue birds.
- ◆ Plants have been selected because their deep roots aerate soils and help stormwater percolate down into the ground.
- ◆ Rich, uncompacted soils provide a better growing medium for plants and more effectively filter stormwater runoff pollutants like fertilizer nutrients commonly used on residential lawns.
- ◆ Check dams control the velocity of flowing stormwater in the narrow steeper section of the basin.
- ◆ Retentive grading techniques and man-made log structures installed on interior earthen slopes control erosion.
- ◆ Woody plants growing too close to the inlet and outlet pipes will be cut back, as needed, to allow visibility and access for inspection and maintenance activities.

Caution: Park Patrons

Once basin retrofit construction is underway, park patrons are asked to refrain from entering the basin. This is needed to help protect the plants and seed and to prevent soil compaction. If you must enter the basin to retrieve a ball, please do so gently to protect young seedlings.



FOR MORE INFORMATION

phillyriverinfo.org

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