

## KEY MAINTENANCE

DEER DETERRENCE: DETERMINE AN APPROACH TO PREVENT DEER FROM BROWSING YOUNG PLANT MATERIAL (DEER FENCE, MONO-FILAMENT, LIQUID FENCE)

MEADOW YEARS 1-3: MOW ONCE PER MONTH DURING GROWING SEASON (MAY - SEPT)  
AFTER ESTABLISHMENT: MOW ONCE PER YEAR

CLEAN OUTLET ONE TO TWO TIMES PER YEAR  
REMOVE INVASIVE SPECIES: AS THEY APPEAR WITHIN THE ENTIRE RETROFIT AREA



CHECK DAMS



FASCINE LOGS (COIR FIBER LOGS)



WET AND DRY MEADOWS



LIVE STAKES AND SHRUBS (Salix nigra - Black Willow)

WET MEADOW / WETLAND  
SALVAGE AS MUCH EXISTING DESIRABLE PLANTING AS POSSIBLE. STOCKPILE AND REPLACE IN NEWLY GRADED DEPRESSION; ADD GRASSES, SEED, PLUGS AND SHRUBS

MEADOW  
WARM SEASON GRASSES

STABILIZED AREA FOR PARKING

OUTLET STRUCTURE (TO REMAIN)  
RAISE LEVEL OF OUTLET STRUCTURE TO DETAIN WATER AND ALLOW INFILTRATION

SHRUBS WITH TREE GROVES  
ALONG SWALE FOR SOIL STABILIZATION TO REDUCE EROSION

INFILTRATION TRENCHES



STONE CHECK DAMS, TYP.  
2'-3" STONE AND GRAVEL WITH PLANTED FASCINE LOG TO INTERRUPT AND SLOW WATER FLOW

STORAGE POOL, TYP.

TREE GROVES TO SHADE BALL PLAYERS

MEADOW  
WARM SEASON GRASSES

SHRUBS WITH TREE GROVES, TYP.  
ON STEEP SLOPES TO PREVENT EROSION

RECONTOUR BASIN  
- EXTEND THE FLOW PATH  
- DIRECT BARRIERS TO GARDEN POCKETS  
- INCREASE WATER CONTACT WITH SOILS AND PLANTS  
- SLOW WATER FLOW  
- INCREASE EVAPOTRANSPIRATION  
- INCREASE POLLUTANT FILTERING

OUTLET STRUCTURE (TO REMAIN)

SETTLING BASIN WITH GRASSES

6" BERM  
TO DETAIN WATER AND ALLOW INFILTRATION

WET DEPRESSION, TYP.  
SEED WITH WET MEADOW MIX

FASCINE LOGS, TYP.  
SLOPE STABILIZATION

## Stormwater Basin Retrofits

During the spring of 2008, Viridian Landscape Studio and Meliora Environmental Design worked with the Pennsylvania Environmental Council to restore hydrologic functions within the Wissahickon Watershed.

Stormwater basins retrofits serve as drivers for green retrofits throughout the region. The primary objectives were to improve water quality and reduce volume discharge. Three pilot projects were chosen: Aidenn Lair Park - a community park in a suburban residential neighborhood with two basins; Center Street Basin - a stormwater basin on an easement on private residential property; and Village Circle Basin - a stormwater basin adjacent to a suburban neighborhood, but with little active recreation.

Each site had different challenges and opportunities. The goal of all retrofits was to transform the basins by increasing infiltration and evapotranspiration, improving habitat value, creating teaching opportunities, and maintaining volume storage. Additionally, Viridian and Meliora worked with PEC to share their knowledge and experience of the basin retrofits with local township engineers and maintenance staff. Most recently, the basin retrofits have been featured on the Green Treks environmental video series.

- Location:** Wissahickon Watershed, PA
- Client:** Pennsylvania Environmental Council
- Size:** 2 acres; Center Street - 0.4 acres; Village Circle - 1.6 acres
- Cost:** approx. \$50,000 per basin
- Status:** Aidenn Lair - partial retrofit completed; Center Street - under negotiation; Village Circle - obtaining bids.