

Chester Ridley Crum Watersheds Association  
and Ridley Park Borough  
Little Crum Creek Stream Stabilization Project



June 2010

East Lake Park, Ridley Park

# Project Background

- East Lake receives over 20 tons of sediment per year from the 4 sq mi Little Crum Creek watershed.
- Sediment carries nutrients and other pollutants, forms unsightly mid channel bars, and is costly to remove.
- Erosion of the stream channel in the park contributes to this problem.
- Ridley Park Borough contacted CRC (Chester Ridley Crum Watersheds Association) to help with problem.

# Project Benefits

- Reduces erosion and channel overwidening
- Protects trees and sewer infrastructure (including a CDCA sewer line)
- Reduces sedimentation to creek and East Lake
- Provides for fish habitat
- Increases flood storage capacity and provides for new plantings, as well as an attractive low flow stream crossing

# Project Partners

## Funding Partners:

- Central Delaware County Authority
- Boeing
- PECO Green Region Open Space Program
- Ridley Park Borough

## Planners and Consultants

- Chester Ridley Crum Watersheds Association
- Consultants- Rettew and Flyway Excavating
- Borough Engineer- Charles Catania, Jr.

# Installation of temporary dam and bypass pump to protect stream



Coffer Dam

# Construction of Cross Vane



Dan Synoracki of Rettew directs  
installation of quarry stone for cross vane

# Partially Completed Cross Vane



Partially installed Cross Vane

# Construction of Cross Vane



View of Cross Vane From Upstream and opposite bank

# Completed Cross Vane before bank matting & seeding



# Completed Cross Vane



Little Crum Creek Cross Vane #1  
after matting & seeding -viewed from above

# Installation of Toe Rip Rap before grading, seeding, & matting



Toe Rip Rap

# Toe Rip Rap with stabilized wall



Toe Rip  
Rap

Regraded Wall

# Completed Floodplain Bench



Newly seeded and matted Floodplain Bench with two rock deflectors on opposite bank with toe rip rap in between protect CDCA sewer line from future erosion

# Completed deflector ( #1 of 2)



Close-up view of deflector #1 – deflectors and the cross vane pools have created great fish habitat.

# Additional area stabilized by Borough (not part of grant)



New toe rip rap stream wall and regraded bank at the ball field replaced collapsed gabions and removed a safety threat. It was done at same time to reduce the cost to the Borough.

# Next Steps

- Tree Vitalize grant will fund a September planting of trees and shrubs in both areas along Little Crum Creek to further anchor new banks.
- CRC and Little Crum municipalities to implement the *Little Crum Creek Watershed Action Plan* to reduce stormwater impacts from upstream land uses.
- CRC and Borough Engineer to monitor stream structures for Borough to see if any adjustments are warranted during the one year warranty period.

# CRC gives many thanks again to our partners:

- Central Delaware County Authority
- Boeing Corporation
- PECO Green Region Open Space Program
- Ridley Park Borough
- Rettew Associates, Inc.
- Flyway Excavating, Inc.
- Charles Catania, Jr. of Catania Engineering
- Delaware Riverkeeper Network (for initial plan)