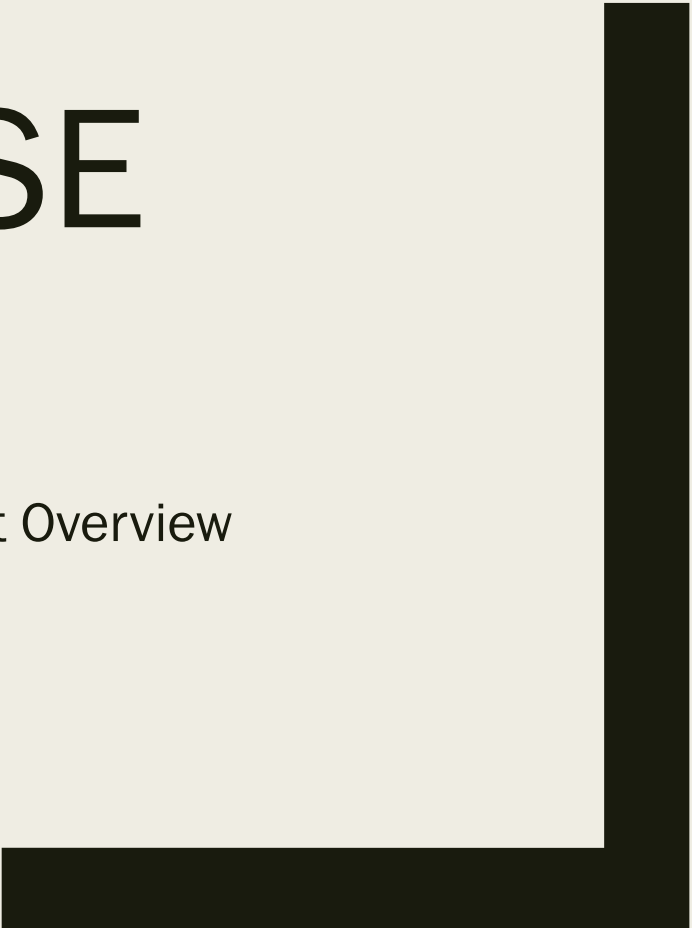




SPRING HOUSE FARMS

Watershed Protection / Growing Greener Grant Overview

August 19, 2019



Meeting Format

- Overview of Growing Greener Grant Initiative, projects, goals and benefits (Phase I / Phase II)
- View Phase I and Phase II engineered plans
- If interested, site visit of Phase I projects (rain garden / 2 naturalized basins)

Introductions

- Lower Gwynedd Township (LGT) staff:
 - *Jamie Worman, Assistant Township Manager*
 - *Jim Hersh, P.E., Township Engineer (Gilmore & Associates)*
- Environmental Advisory Council (EAC)
 - *Township residents dedicated to ensuring a greater quality of life for our community through educational outreach, participation and implementation of best practices*
 - *We focus on education and promote sustainable practices within LGT and the larger community through workshops, projects, and community events*
 - *Other EAC Members in attendance:*
 - Lisa Brown, Secretary
 - Brenda Doll, Associate Member
 - Marianne Grey, Member
 - Mark Grey, Board of Supervisors and EAC Liaison
 - Mark Schafer, Vice Chair

What is Growing Greener ?

- Largest single investment of state funds in PA to address critical environmental concerns
- Funds distributed among 4 PA state agencies:
 - *Department of Agriculture (farmland preservation)*
 - *Department of Conservation and Natural Resources (state park renovation and improvements)*
 - *Infrastructure Investment Authority (water and sewer upgrades)*
 - *Department of Environmental Protection (DEP) (watershed restoration and protection and other initiatives to improve water quality) **

Growing Greener Grant Prioritized Projects

- DEP Watershed Grant priority activities include:
 - *Development of watershed restoration or protection plans*
 - *Watershed assessments and local watershed-based conservation projects*
 - *Watershed restoration or protection projects*
 - *Construction, retrofit or enhancement of stormwater control measures on areas where land use is not changing **
- DEP designated the Wissahickon Creek as a Priority Watershed
 - *All projects are located within the Wissahickon Creek watershed*

Growing Greener Funding

- LGT received DEP funding in 2016 to address the following:
 - *Stormwater Management (aka Nonpoint Source Management)*
 - *Assist in meeting requirements of the Total Maximum Daily Load (TMDL) & Pollutant Reduction Plan (PRP) for Lower Gwynedd Township submitted to DEP August 2017*
- Phase I/II projects are part of a larger Land Management Plan developed by the township and the EAC
 - *Phase I Implementation completed in 2018*
 - *Phase II Implementation is scheduled to begin fall 2019*

Phase I and Phase II Project Locations

■ Willow Run

- *A tributary of the Wissahickon Creek, discharges to the Wissahickon Creek at Penllyn Woods in LGT*
- *Phase I projects discharge to Willow Run*
- *Phase II projects will take place at the headwaters of Willow Run near Spring House Farms*

Phase I and Phase II Project Benefits

■ Primary benefits:

– *Projects address non-point sources of pollution through restoration and protection efforts*

- Improved water quality through innovative designs and measures to reduce stormwater runoff
- Sediment pollution loading reduction
- Improved habitat for birds and beneficial insects by planting native plants, shrubs, perennials, rain garden/basin seed mixes and wildflowers

■ Secondary benefits of projects:

- Increased aesthetic benefits for the community
- Foster educational outreach via workshops and signage at restoration sites

Phase I Project Overview

- Naturalization of 2 existing basins on township complex:
 - *Convert from manicured, turf grass to natural looking meadow grass, wildflower and detention basin seed mix*
 - *Removal of invasive plant species*
- Naturalization of the basins:
 - *Plants filter pollutants, slow stormwater runoff and allow water to infiltrate into the ground rather than being quickly discharged into a waterway (i.e., Willow Run)*
 - *Reduces the introduction of nutrients and sediment into Willow Run*

Before & After



Basin During Retrofit



Phase I Project Overview (continued)

■ Rain Garden

- *600 square-foot rain garden*
- *Disconnected several downspouts on administration building to divert rain water from the roof into rain garden*
- *Rain water picks up dirt and materials on the roof*
 - Rain water diverted to the rain garden will be filtered and cleaned by long-rooted rain garden plants

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Rain Garden Before & After



Phase II Project Overview

- 2 township-owned basins (located in township open space area):
 - *Township maintains the basins and open space area*
 - *Project area located off Stone House Road*
- Retrofit of stormwater basins:
 - *Runoff from the start of any storm picks up all surface contamination (referred to as first flush)*
 - *Stormwater Best Management Practices (BMPs) slow down runoff allowing plants to filter pollutants and surface contamination before water is discharged into Willow Run*
 - *Reduces flooding, erosion and water pollution*
 - *Traditional basins were designed to convey smaller storms quickly*

Phase II Project Overview (continued)

- Removal of low-flow channels
- Change from lawn groundcover to wet-tolerant and native plant species, with seed mixes
- Root system of these plants effective in cleaning runoff

Questions?

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Environmental Advisory Council, Chair

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