Philadelphia’s Green City, Clean Waters

2019 Villanova Stormwater Symposium
Villanova, PA
October 16, 2019

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Agenda

• Introduction

• Current State of Green City, Clean Waters

• Future of Green City, Clean Waters

• Looking Ahead
Introduction
Current State of GCCW

- Most Productive Year to Date
- All Facets of Public Program Ramping Up
- Private Programs Continue to Produce
CO&A Year 10 Requirements

- 2,148 Greened Acres
- 2,044 MG/yr Volume Reduction
- 6 Miles Interceptor Relining
- No Mass Capture Reporting Requirement
Future of GCCW
Innovation

• Implementing New GSI Configurations
  Large Area Disconnections
  American Street Corridor
  Small Sites Contract

• Actively Evaluating Dynamic Design
Data Management

- Decentralized Program Requires Significant Investments in Data Management
- Every Program is Collecting, Tracking, and Storing Meaningful Information
- Developing Workflows Around Tracking Systems
- Providing Platform to Run Internal Analytics and Reporting
Program Costs

- Cost is Critical
- GCCW Designed as an Adaptive Program
- Better Understanding of Popular Grant and Crediting Program
Post-Construction

• Not Just Generating GA’s, Keeping GA’s

• Standardizing and Optimizing Public Maintenance Program

• Investigating and Identifying Post-Con Impacts to GSI and other Infrastructure

• Investing in Private Post-Construction Program

• Lifecycle Feedback in Practice
Looking Ahead
Changing Climate / Flood Prone Areas

Precipitation ↑
Extreme storm events* ↑
Sea levels ↑
Air temperature ↑
Drought? ↑ ↓

*number of heavy & extremely heavy precipitation events per year
Growing MS4 Requirements

TMDL PLAN REQUIREMENTS FOR DISCHARGES TO WATERS IMPAIRED FOR NUTRIENTS AND/OR SEDIMENT

A reduction of 10% or 5% of the permittee’s existing sediment or TP load, respectively, as calculated by the permittee in its TMDL Plan and approved by DEP
Ex. – Gravity Mains - Model results suggest that PWD’s Renew and Replace program will need to increase from ~11 miles per year to ~34 miles per year in 2058.
What are the Amendments to Section 402?

New language added to Clean Water Act Section 402 (governing the NPDES program)\(^1\) puts water utilities in a stronger position to negotiate long-term programs to balance compliance with regulations governing all types of point sources with consideration of the burden on local rate payers and tax payers.

(a) **INTEGRATED PLANS.**—Section 402 of the Federal Water Pollution Control Act (33 U.S.C. 1342) is amended by adding at the end the following:

“(8) **INTEGRATED PLANS.**—

“(1) **DEFINITION OF INTEGRATED PLAN.**—In this subsection, the term ‘integrated plan’ means a plan developed in accordance with the Integrated Municipal Stormwater and Wastewater Planning Approach Framework, issued by the Environmental Protection Agency and dated June 5, 2012.

Adaptation → Integrated Planning and Integrated Affordability