



From Plan to Progress:

Investing in Your Green Stormwater Infrastructure Workforce

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**PHILADELPHIA
WATER**
— DEPARTMENT —





Green City,
Clean Waters

A Sustainable Utility in Support of a Sustainable City

Drinking Water

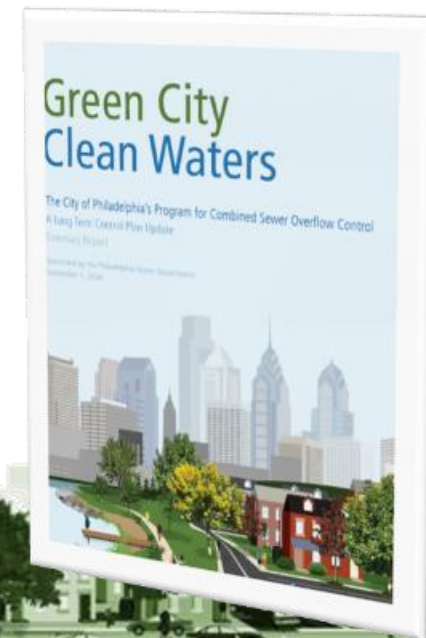
1.73 million customers in Philadelphia, Bucks, Montgomery & Delaware Counties

Wastewater

2.22 million customers in Philadelphia, Bucks, Montgomery & Delaware Counties

Stormwater

Philadelphia City/County only



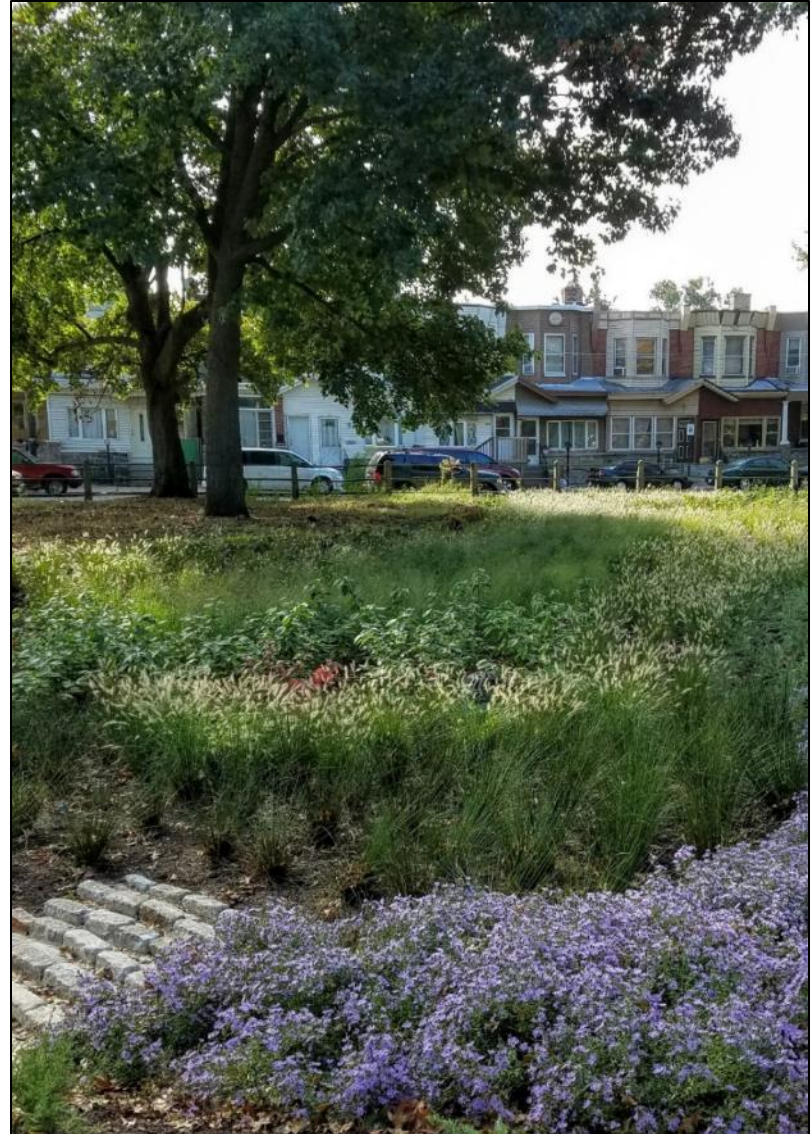
STREETS



FACILITIES & VACANT LAND



Parks and Recreation Centers



Project Highlight – N. American St.

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Green Stormwater Operations Overview

- GSI Maintenance Group (GSIMN) created in FY2010 in Office of Watersheds
- 2011 21 pilot sites; 100% of surface maintenance via contractor; limited PWD subsurface maintenance
- 2017 GSIMN moved to PWD Operations and became the Green Stormwater Operations (GSO) Unit
 - Technical and Grounds Maintenance staff
 - Augmented by Sewer Maintenance (Flushing) , Flow Control (CCTV), and Inlet Cleaning (Inlet Pretreatment)
 - Support from PowerCorps_PHL and contract labor for surface, subsurface, porous and repair tasks
 - Additional support from SUI Adoption partners (maintenance of DA, community engagement)
- Currently >1,900 active stormwater maintenance practices (SMPs)
FY2025 ~47,000 work orders to fulfill O&M requirements

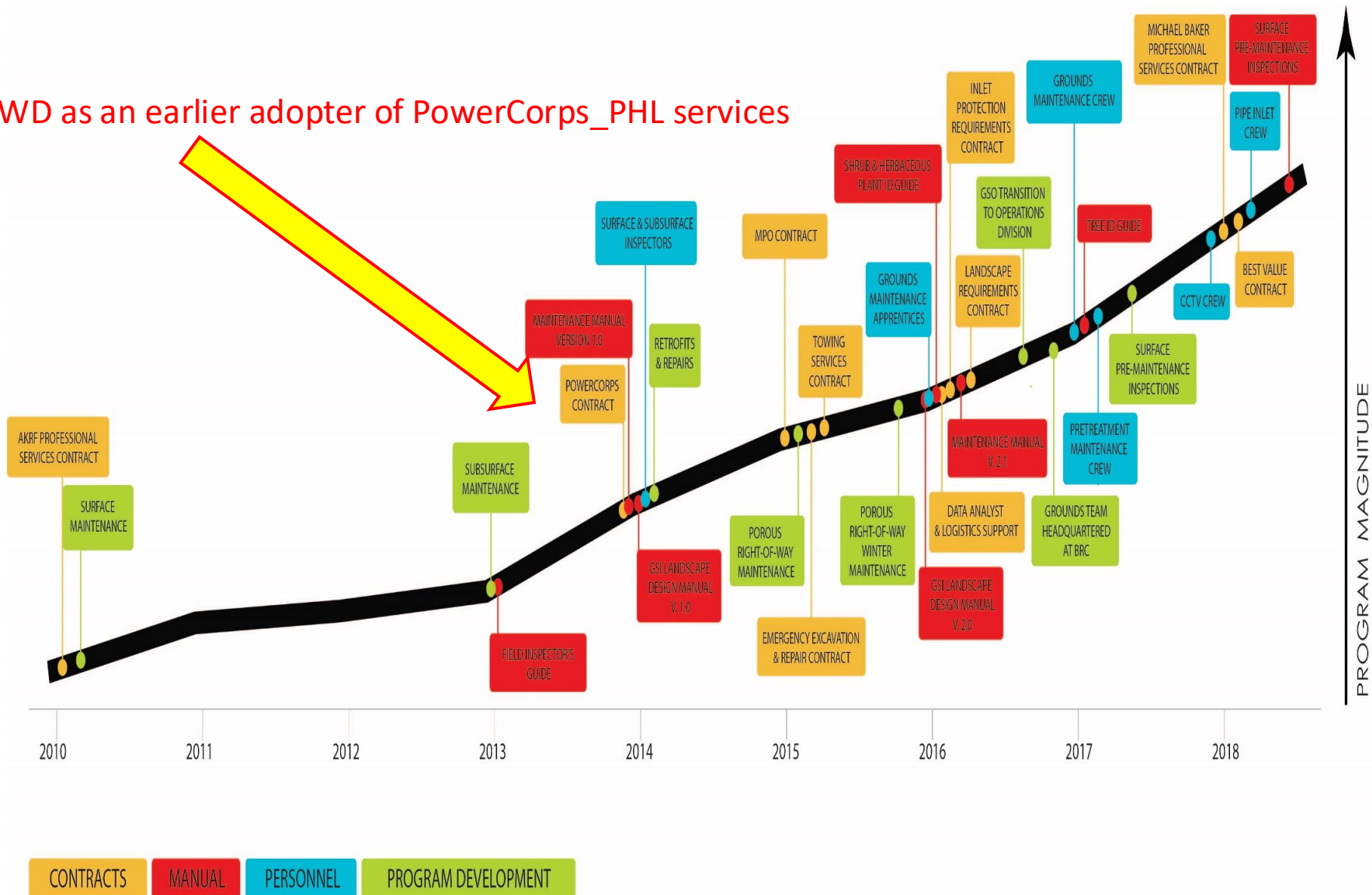
What it Takes to Get it Done: A Snapshot in Time

Work Order Type	Number of FY25 Events	Work Order Type	Number of FY25 Events
Surface	18,104	Subsurface	28,569
Surface Inspection	4,544	Subsurface – Post Construction Inspection	1,013
Surface Maintenance -Routine	6,561	Subsurface Maintenance	2,911
Surface - Mulching	817	Subsurface Inlet Cleaning	2,753
Surface - Pruning	571	Subsurface Inlet Protection Maintenance	711
Surface Maintenance -Watering	3,520	Surface Inlet Protection Maintenance	21,175
Tree Maintenance	531	Non-Standard Subsurface Inspection	0
Trench Drain Maintenance	560	Non-Standard Subsurface Maintenance	2
Work Zone Protection	1	Subsurface Structural Repair	4
Aesthetic	365	Porous	10
Signage Repair	168	Routine Porous Maintenance	10
Surface Vegetation Cutback	452	Restorative Porous Maintenance	0
Snow Removal	7	Total	47,015*
Rough Mowing	6		
Turf Mowing	1		
Surface Maintenance - Reactive	332		
Surface Vegetation Repair	138		
Earthwork	54		
Surface Structural Repair	134		
Drainage Modification	6		

*FY2025 → 7/1/2024 – 6/30/2025

GSO: The Program Development Journey

PWD as an earlier adopter of PowerCorps_PHL services



How Does PowerCorpsPHL Assist?

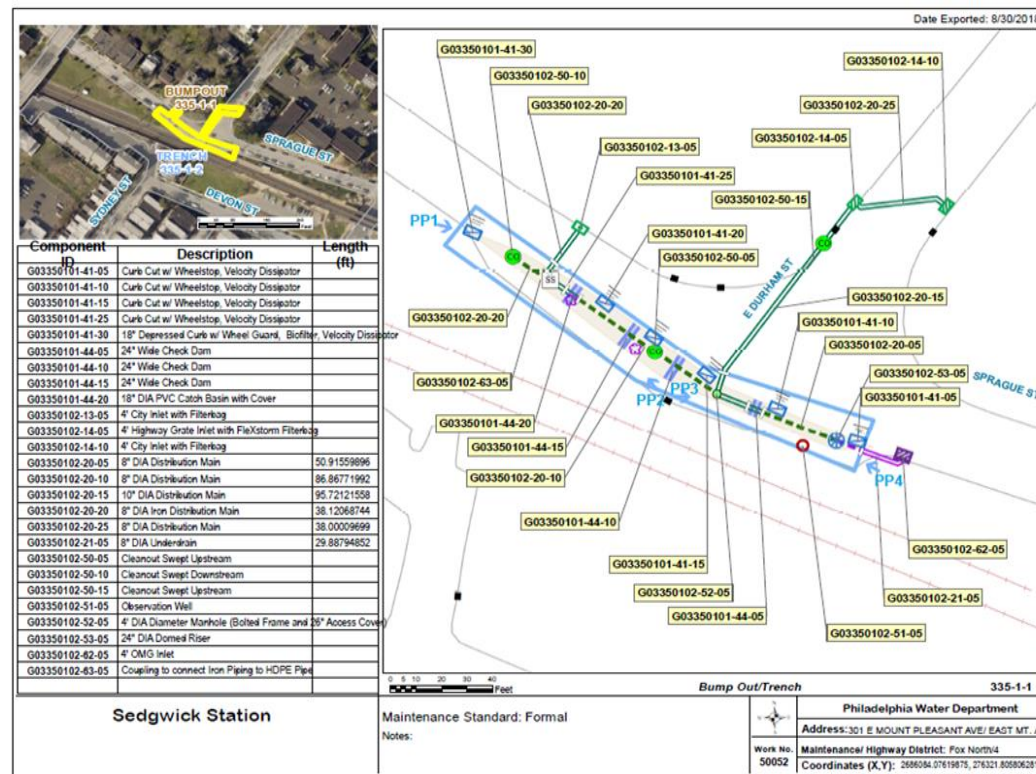


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PowerCorpsPHL Program Expectations

- PowerCorps_PHL Crews as City Representatives
 - Advocates and Ambassadors for PowerCorps_PHL and PWD
 - Professional representation
- Work Order Management & Reporting
 - Interoperability
 - Scheduling
 - Maintenance Maps
 - Logistics Management
 - Data Collection
 - Materials Collected
 - Condition Assessment
 - Adherence to PWD Maintenance Manual



• Scope of Work

- Trash & Debris Removal
 - Organic Materials
 - Sediment
 - Construction Debris
 - Other (short dumping)
- Hand -weeding
- Collaborative projects
 - Skill transfer from PWD Staff
 - GSO Surface and Grounds Teams
 - Waterways Restoration

***PWD-Assigned Cohorts**



• Scope of Work

- Aesthetic Maintenance
- Routine Maintenance
 - Progressive Approach
 - Tree trenches → Small vegetated SMPs
 - Bump-outs
 - Planters
- Vegetative Care
 - Watering
 - Replanting
 - Removal of noxious and non-target species
 - Mulching
 - Pruning



***Industry Academy Fellows**

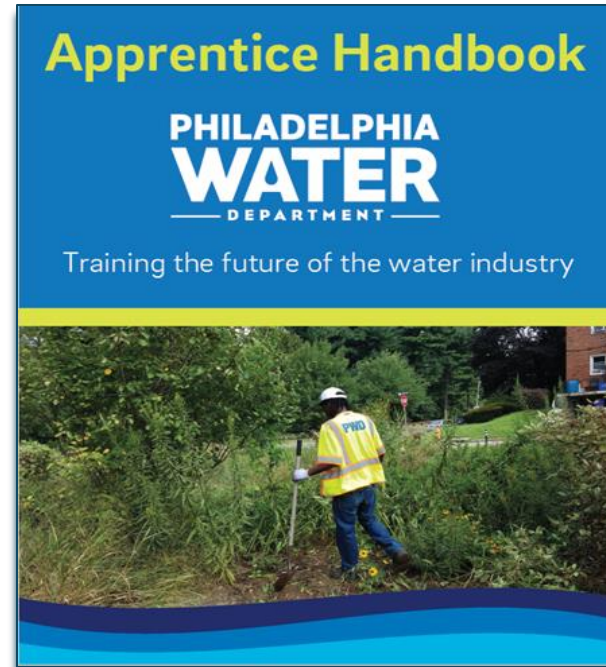
Building the Future Through Apprenticeship

Expands the talent pipeline for the Dept

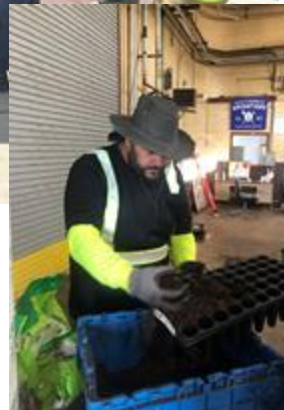
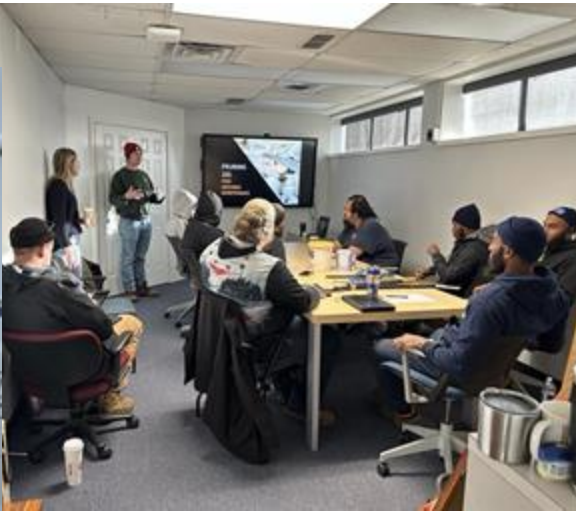
Long-term solution for hard-to-fill positions

Provides apprentices with:

- On-the-job training
- Mentorship
- Classroom instruction



Staff Trainings & Skill Development



Investing in Staff to Build Skills

Certifications & Programs

- Clean Water Certificate Program
- Pesticide Usage
- CityWorks

Field & Maintenance

- Plant Identification
- Planting/Mulching
- Structural Repairs
- Erosion Control
- Wetland Maintenance
- Hydrants

Inspection & Planning

- Surveying
- Inspections
- Landscape Plans



CREATING GREEN INDUSTRY PROFESSIONALS



How it All Comes Together

April 2014 – May 2024:

- 10,000+ Task & Work Orders completed
 - >100 tons of residential garbage collected
 - >100 tons of organic debris collected
 - 46 tons removed in FY2021
- 742 Unique SMPs/387 GAs maintained
 - 669,986 FT² (15.4 acres) vegetated area maintained
- 35 PowerCorps_PHL alumni transitioned to full-time PWD positions



Key Take-Aways

- Co-evolution of GSIMN/GSO and PowerCorps_PHL
 - PowerCorps_PHL as “buffer”
 - PowerCorps_PHL as foundation of green jobs pipeline
- Intentionality
 - Data Collection
 - Progressive ramp-up
 - Routine vs On-call/Complaint Driven Regime
- Implementation Scale vs O&M Capacity
 - GSI implementation rate higher than resource development & onboarding rate [but slow growth works!]
 - Logistics management framework takes time
 - Understanding of existing, emerging & projected emerging/projected
 - Long-term trend in contracted to internal labor ratio
 - Sustainably from budget perspective

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Darren Brown

From Community Apprentice to Crew Chief

PowerCorps_PHL

Crew Member → Assistant Crew Leader

Focus: Tree care & park revitalization

Philadelphia Water Department

Community Apprentice

Grounds and Facilities Maintenance Worker I

Grounds and Facilities Maintenance Worker II

Current Role

Grounds Maintenance Crew Chief

Leads GSO Grounds Crew

Supports training & onboarding

A pathway built through experience, training and support.





Questions?

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