Green City, Clean Waters

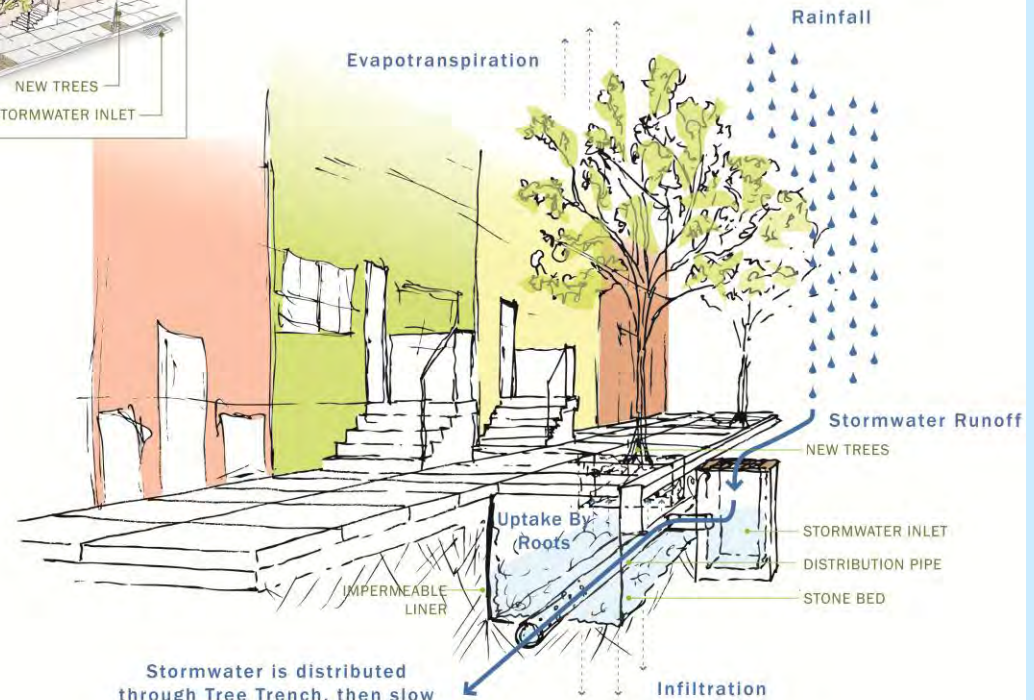### Identifying Potential Green Stormwater Infrastructure Projects in Your Neighborhood

Stormwater Tree Trench

A **Stormwater Tree Trench** is a system of street tree plantings connected by an underground storage system. Runoff flows through a special storm drain into the tree trench where it is stored, infiltrated, and taken up by the tree's roots.

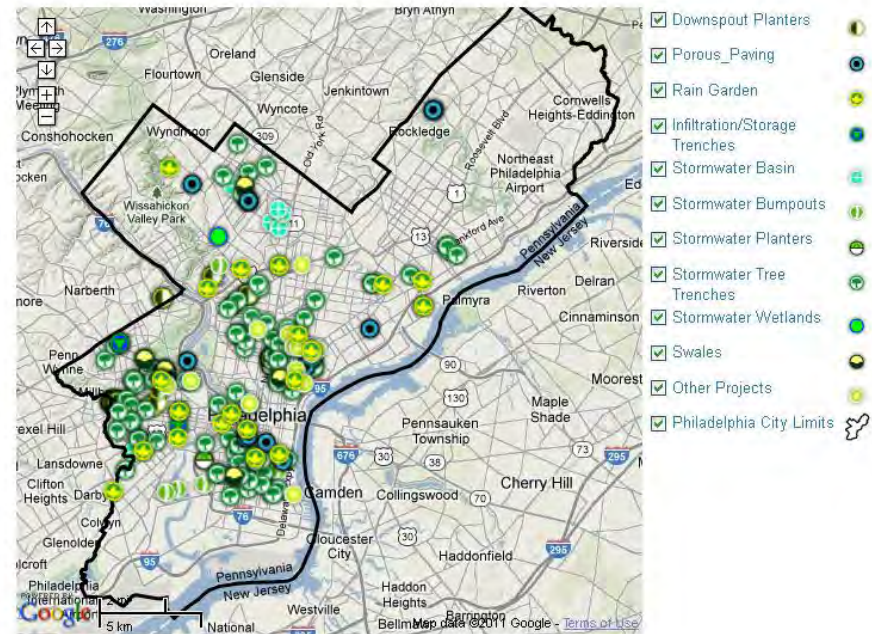# How Does PWD Indentify Projects?

PWD considers the following as part of the site selection process

- Partnership opportunities

- Combined sewer area

- Capacity to manage a significant amount of stormwater runoff including public runoff (at least 8,000 sf)

- Project site must be attached to at least 1 stormwater inlet

- Technical feasibility

Green Stormwater Infrastructure Project Map

The Philadelphia Water Department has completed or is in the process of designing:

- 99 Stormwater tree trenches
- 20 Rain gardens
- 15 Porous paving projects
- 9 Swales
- 15 Stormwater planters
- 33 Downspout planters

- 11 Stormwater bumpouts
- 14 Infiltration/storage trenches
- 2 Stormwater wetlands
- 6 Stormwater basins
- 1 Green roofs
- 15 Other projects

Legend:
- ☑ Downspout Planters
- ☑ Porous_Paving
- ☑ Rain Garden
- ☑ Infiltration/Storage Trenches
- ☑ Stormwater Basin
- ☑ Stormwater Bumpouts
- ☑ Stormwater Planters
- ☑ Stormwater Tree Trenches
- ☑ Stormwater Wetlands
- ☑ Swales
- ☑ Other Projects
- ☑ Philadelphia City Limits

Last update: November 16, 2011

Phillywatersheds.org/biggreenmap

Philadelphia PWD Water Department

Examples of Partnership Sites

Stormwater Bumpouts
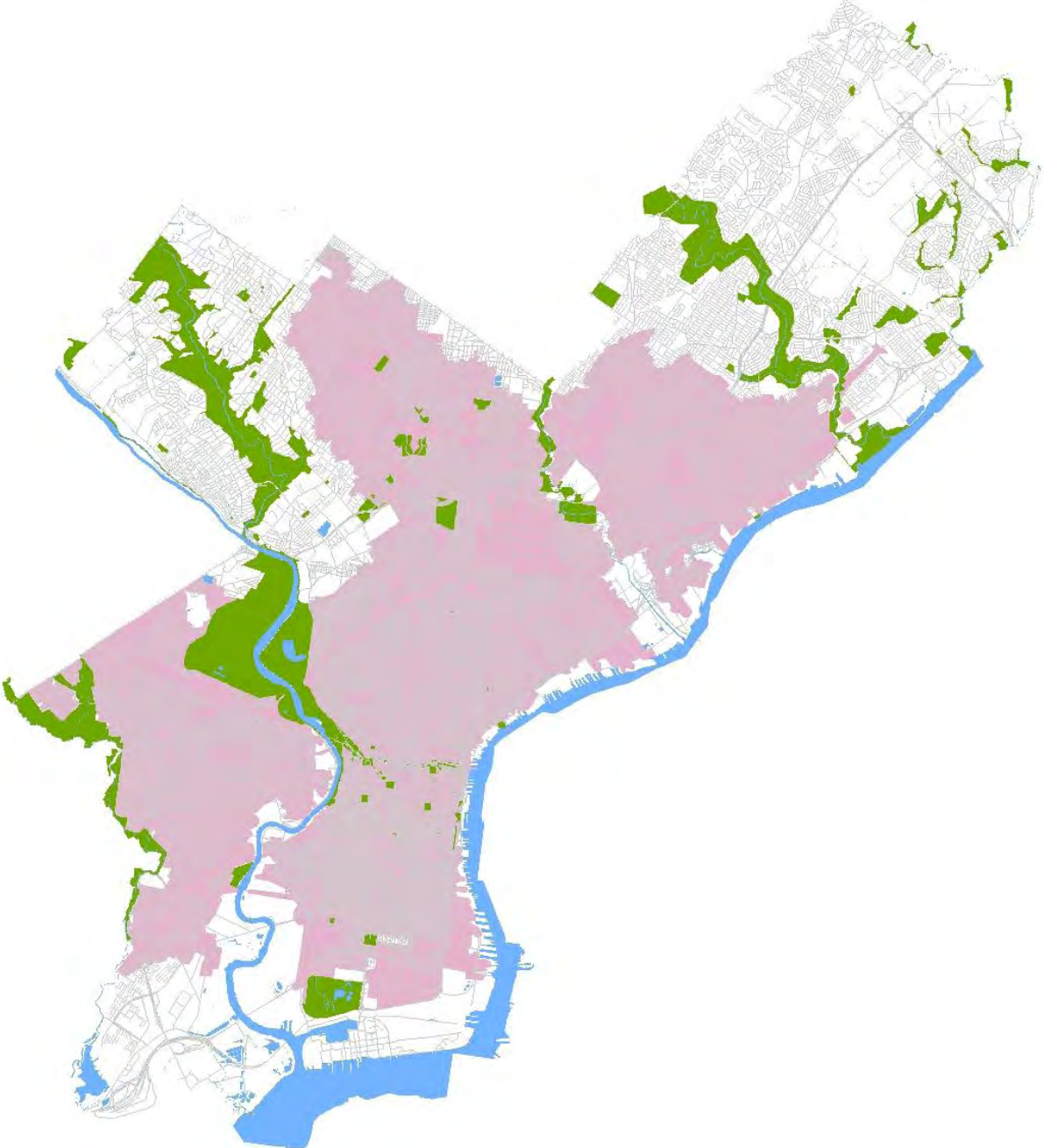Queen Lane, East Falls
Streets Department
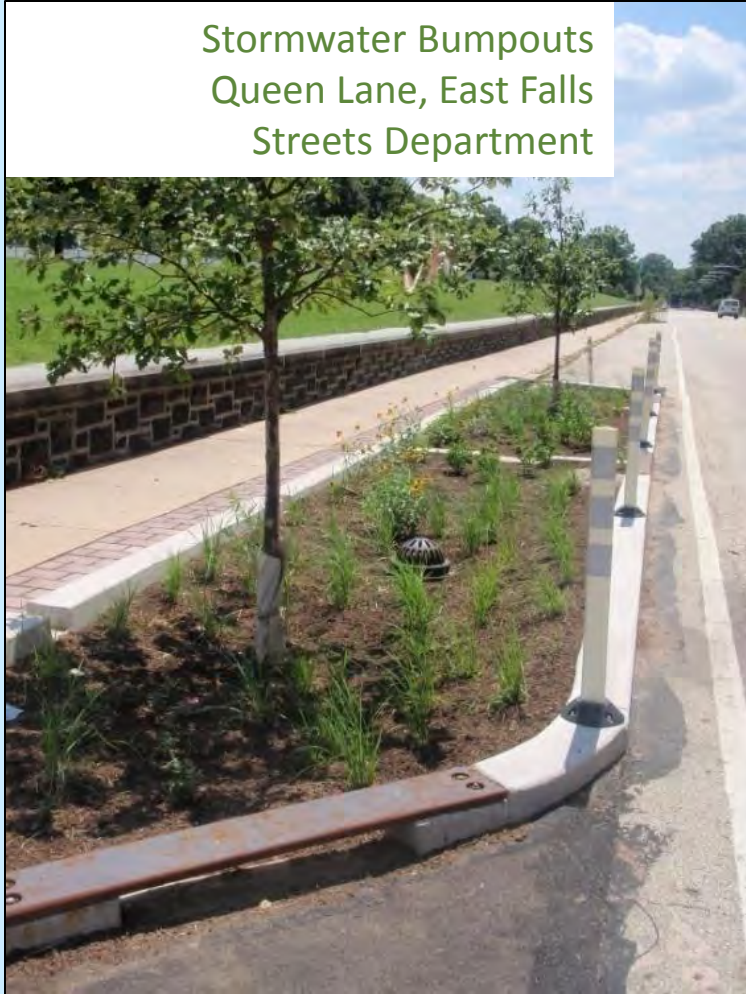
Stormwater Treatment Wetland
Saylors Grove, Wissahickon
Parks & Recreation

Rain Garden
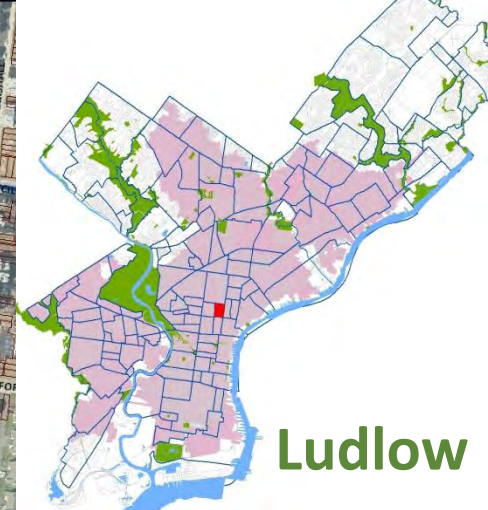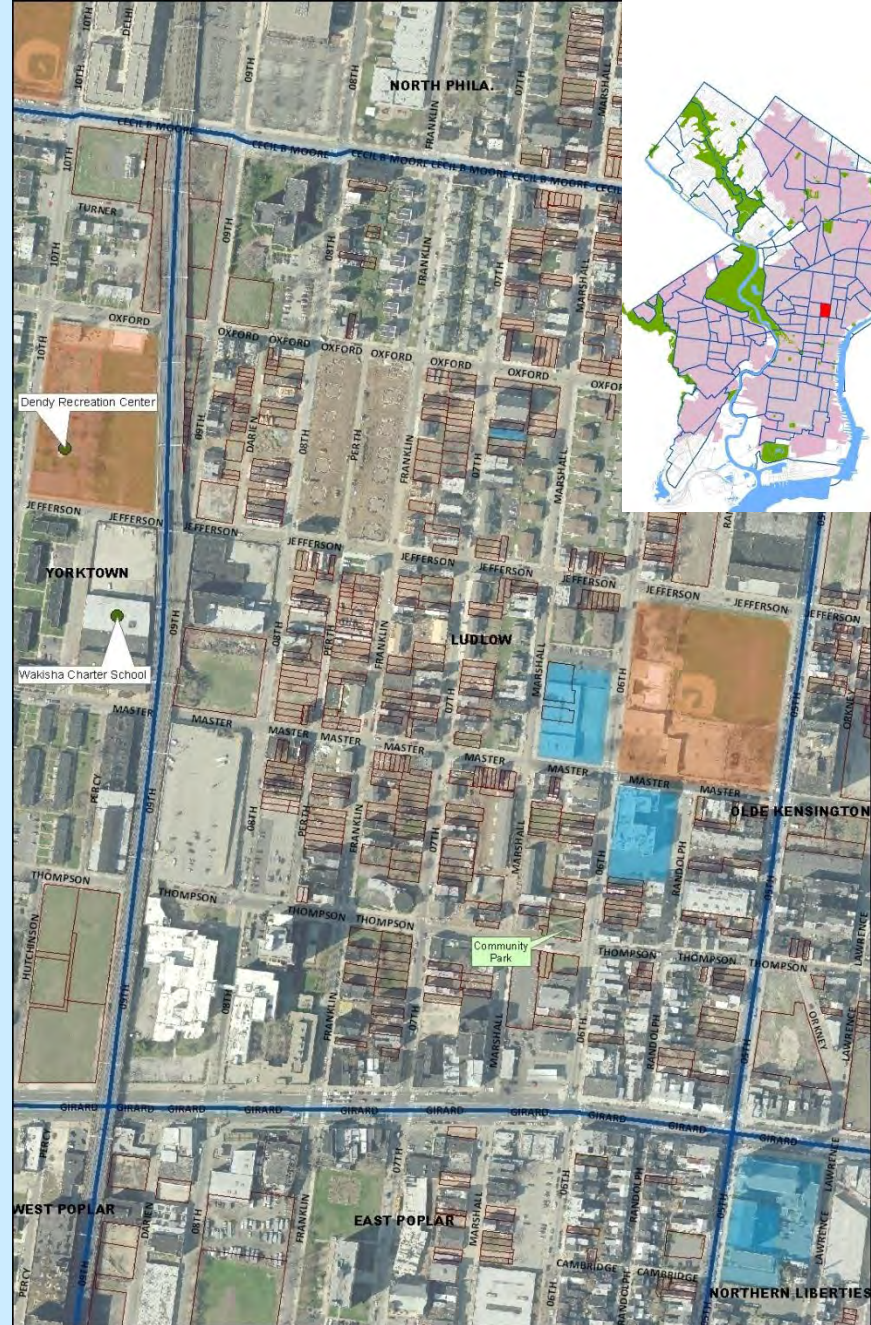Penn Alexander School, West Philadelphia
Philadelphia School District

Combined Sewer Area (pink)

Neighborhood Map

- Planned GSI Projects (green dots)
  - Dendy Recreation Center
  - Wakisha Charter School

- Rec Centers (orange)

- Schools (blue)

- Vacant lots (brown outlines)

- Parks

Green Street Technical Feasibility

Good: Wide sidewalks

Good: Buildings set back from street

Problematic: Tree lined streets

Problematic: Dense development

High point

Buildings

Hardscape

Low point

Contours   Site inlet   PWD inlet   Trees

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Drainage Area & Inlets

Rain garden   Tree trench

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Community Input Form

www.phillywatersheds.org/cif

Project Criteria

Community Input For Green Stormwater Infrastructure
Step 1 of 5: Project Criteria

Project Requirements

- Projects must focus on the development of green infrastructure for stormwater management purposes.
- Only projects at schools, parks, recreation centers, parking lots, public spaces (vacant lots, community gardens and parks, traffic triangles, vacated streets and others) and public corridors will be considered.
- Only projects on land owned by the City of Philadelphia or the Philadelphia School District (with the exception of vacant lots and community gardens) will be considered.
- Projects outside of the City of Philadelphia will not be considered.

Project Selection Priorities

- Submitters are encouraged, but not required, to be affiliated with a community organization, civic group, non-profit, school, recreation center, business district, elected official's office or other organization or institution.
- Projects that have developed community or institutional partnerships and/or have undergone a community-based planning process are prioritized by PWD.
- All projects must, if selected, conduct community outreach and engagement.

Additional Resources

- Projects on private, non-residential sites can apply for grants and low-interest loans for green infrastructure projects through the Stormwater Management Incentives Program.
- Projects on private, non-residential sites can reduce their stormwater fees by developing green infrastructure projects through PWD Stormwater Credit Assistance.
- Developers can use the Developer's Guide to Stormwater Management to develop their own stormwater management plans.
- Homeowners can utilize our Residential Page for information on developing green infrastructure projects at home.

Project Type: Parks, Recreation Centers & Schools

Parks & Recreation Centers
- Must contain impervious surface
- Must have space for green infrastructure
- Must have support from community and   park / rec center users

Schools
- Must have buy-in from principal and parent/teacher associations
- It is beneficial if there are teachers at the school who are interested in incorporating green infrastructure into their science curriculum

Waterview Recreation Center

Kensington High School for Creative and Performing Arts, Philadelphia, PA   Photo by Paul Rider

Kensington CAPA High School

Project Type: Parking lots, Traffic Circles & Triangles

Parking Lots

• Must be owned by a City of Philadelphia agency

• Must have space for green infrastructure

Traffic Circle or Triangle

• Must have excess paved space within the street right-of-way that could be used for green stormwater management without disrupting the flow of traffic

Eadom Street City-Owned Parking Lot

Traffic Triangle @ 47th St. & Grays Ferry Ave.

Project Type: Vacant Lots

Note: PWD is in the process of developing a vacant lot program. At this point vacant lots must be available for acquisition through sheriffs auction, for example, and are on a longer planning timeline

- Must not contain structures or be in use
- Can be publicly or privately owned
- Vacant lots under 2,000 sf are preferred
- Larger lots that have been prioritized by the community for greening can also be submitted
- Small or oddly-shaped lots, unsuitable for new development are of highest interest to PWD

Vacant Lot Project Site at 42nd, Brown and Lancaster

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Project Type: Other Public Spaces

Community Garden or Park

• A community-run garden or park established on a city-owned lot.

• Must have space for green stormwater infrastructure & community support

Public Plaza

• A City-owned outdoor space that does not fit into the category of park or recreation center

Vacated Street

• Land that was either planned or formerly used as a street that is no longer used as a public street
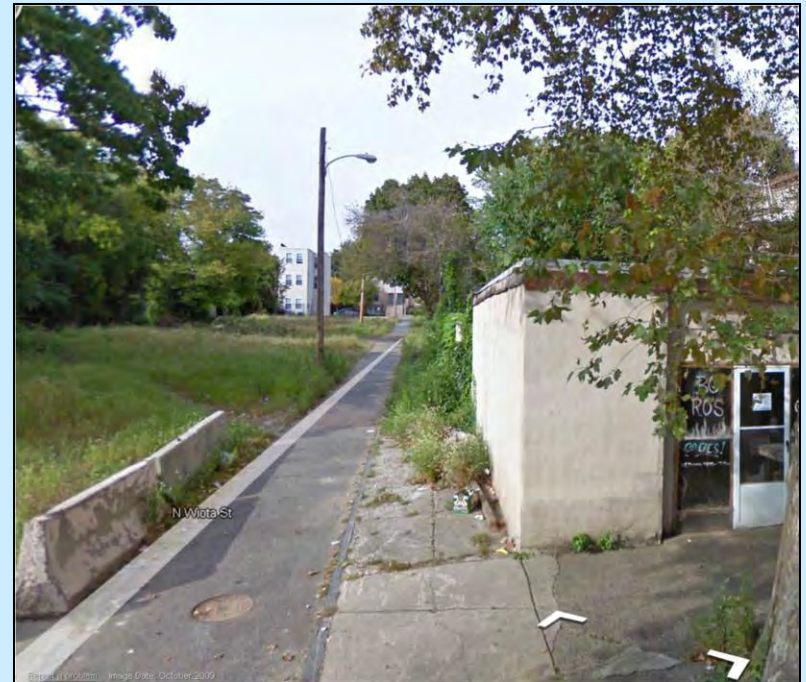
Wiota Street, Lower Lancaster Neighborhood

Complete Online Form

Important: Submission of a potential site **DOES NOT** mean the project will be selected. Projects that are preliminarily approved will be put into the project queue and will be selected for implementation as feasible. Selected projects generally take **2-5 years** to go from identification to implementation.

Adopt Your Green Stormwater Project

Philadelphia Water Department
Green City, Clean Waters
Green Stormwater Project Adoption Guide

Green Stormwater Project Adoption Activity Chart
Roles & Responsiblities

Green Stormwater Project Care and Maintenance Activity	PWD	Ambassador / Steward
Remove trash and debris	✔	✔
Monitor plant health and water during extended periods of dry weather	✔	✔
Check for Erosion	✔	✔
Maintain and Repair site infrastructure (i.e., inside the stormwater planter)	✔	✕
Add soil, fertilizer, or other growing medium	✔	✕
Install or remove vegetation	✔	✕
Look for structural damage to the facility	✔	✔
Repair structural damage to the facility	✔	✕
Monitor standing water following major rain events for ponding water standing for more than 72 hours	✔	✔

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