



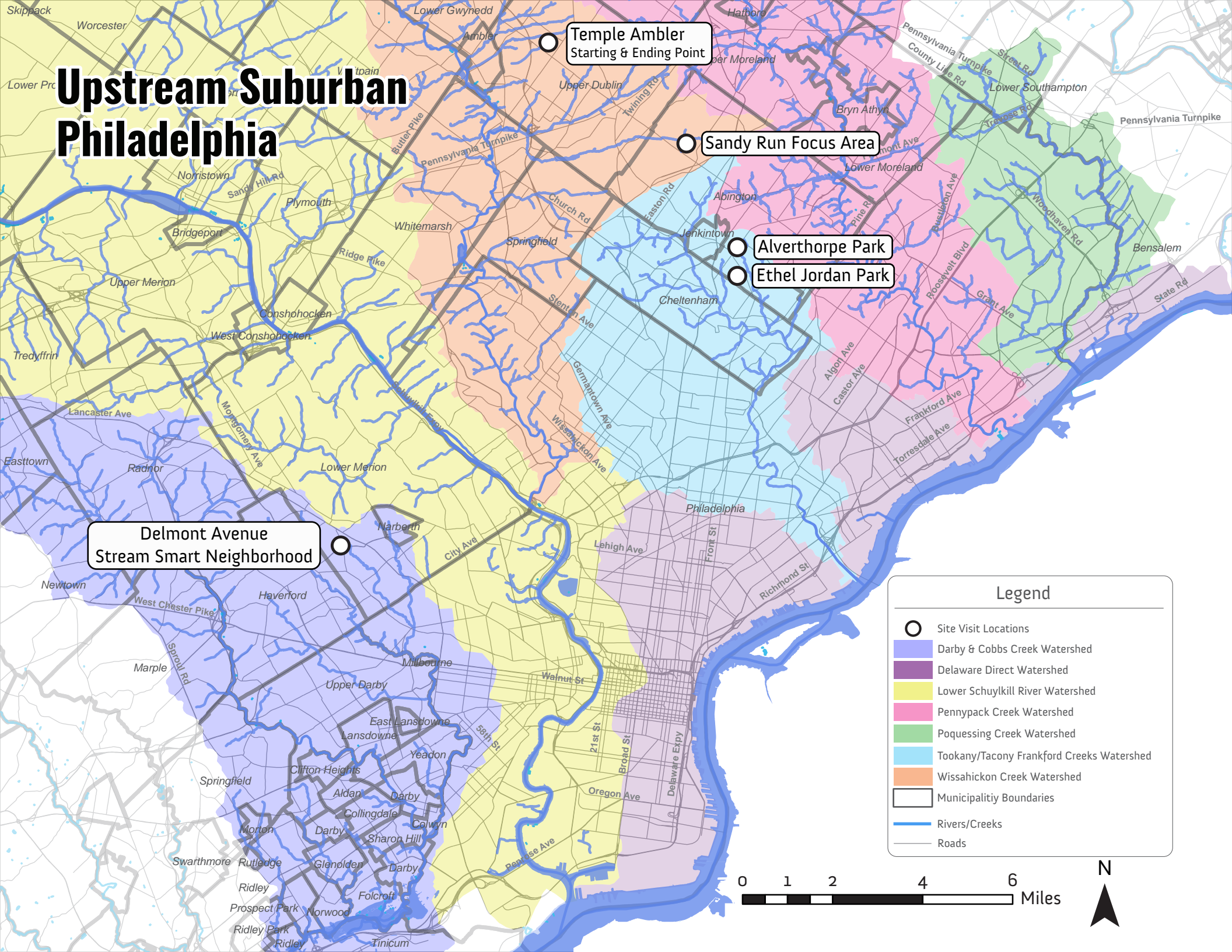
pennsylvania environmental council

Upstream Suburban Philadelphia Watershed Tour

October 29, 2019



Upstream Suburban Philadelphia



Temple Ambler
Starting & Ending Point

Sandy Run Focus Area

Alverthorpe Park

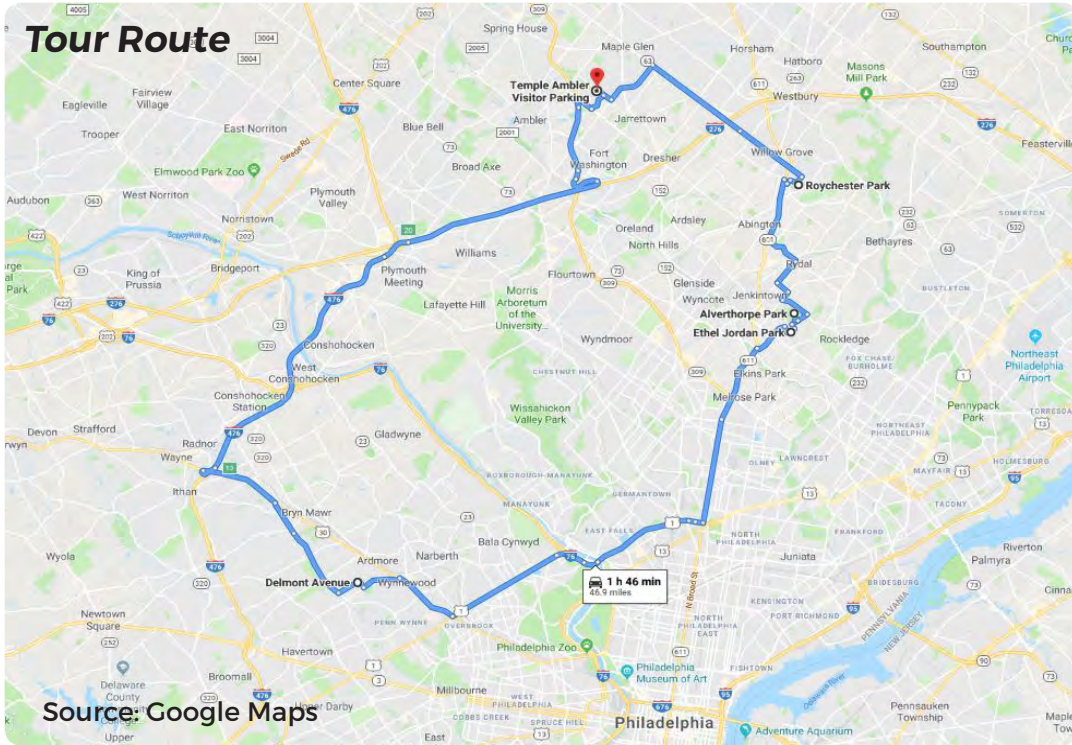
Ethel Jordan Park

Delmont Avenue
Stream Smart Neighborhood

Legend

- Site Visit Locations
- Light Blue Box Darby & Cobbs Creek Watershed
- Purple Box Delaware Direct Watershed
- Yellow Box Lower Schuylkill River Watershed
- Pink Box Pennypack Creek Watershed
- Green Box Poquessing Creek Watershed
- Light Blue Box Tookany/Tacony Frankford Creeks Watershed
- Orange Box Wissahickon Creek Watershed
- Black Outline Municipality Boundaries
- Blue Line Rivers/Creeks
- Grey Line Roads





Tour Itinerary

Start: Temple Ambler, Pre-tour Briefing

8:30 am - 10:00 am

Learning Center Room 208

580 Meetinghouse Road, Ambler, 19002

Stop #1: Delmont Avenue

10:30 am - 11:30 am

220 Delmont Avenue, Ardmore, PA 19003

Stop #2: Alverthorpe Park

12:20 pm - 2:00 pm

Jenkintown Road & Forrest Avenue,

Jenkintown, PA 19046

(Fox Chase Road entrance)

Stop #3: Ethel Jordan Park

2:20 pm - 3:10 pm

347 Cadwalader Ave #301, Elkins Park, PA

19027

(Jenkintown Road & Cadwalader Avenue)

Stop #4: Roychester Park

3:30 pm - 4:40 pm

1837 Harding Avenue, Abington, PA 19001

End: Temple Ambler

5:00 pm

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- Downspout Planter
- Rain Garden
- Depaving
- Lawn Replacement
- New Shrubs

Delmont Ave



Delmont Avenue Stream Smart Neighborhood

Project Partners: Lower Merion Conservancy, Lower Merion Township

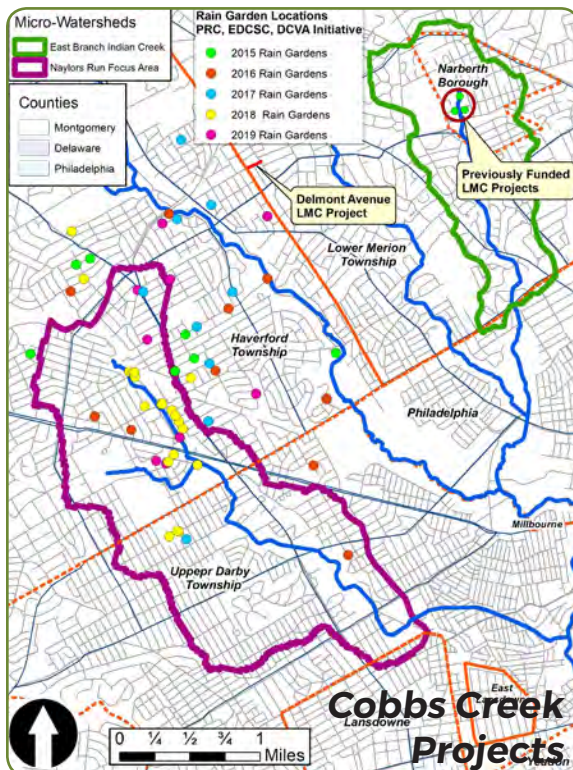
Timeline: 2019-2021

Funding: Delmont Avenue/Overall Stream Smart funding: NFWF - \$280,000 for entire Cornerstone Stream Smart House Call Grant addressing Cobbs, Wissahickon, Tookany, and Pennypack Watersheds. Additional grant funds received: LMC: \$45,000, WWA \$120,000 (Growing Greener), PRC \$248,589 (Growing Greener)

Municipality: Lower Merion Township

Watershed: Cobbs Creek

This tour location highlights the Stream Smart House Call program, launched in the Darby-Cobbs Watershed and now expanding to other USP watersheds. The Delmont Avenue Green Street project aims to contribute to water quality improvements in Cobbs Creek through the management of stormwater at a residential scale on a densely developed block. Individual projects can improve water quality and reduce runoff quantity while also serving as inspiration for Stream Smart recipients in other areas. The Stream Smart program aligns with a USP complementary strategy to educate residents by involving them in stormwater projects. Our goal is to translate this knowledge and experience into broader constituent support for larger municipal capital project investments. Collaboration has been essential, with neighbors encouraging other neighbors to retain stormwater. Cooperation from the municipality has made it possible for the Lower Merion Conservancy and Temple to install monitoring equipment in two inlets at the bottom of the street that detect water and measure water temperature.



Temperature Monitor Installed in Storm Pipe

Depaving Project



Downspout Planter





Alverthorpe Park

Jenkintown Creek

East Branch Jenkintown Creek



Alverthorpe Park

Project Partners: Tookany/Tacony-Frankford (TTF) Watershed Partnership, Abington Township

Timeline: 2019-2021, Phase 2

Funding: 2018 Grant (\$75,000) from the Pennsylvania Commonwealth Financing Authority to TTF

Municipality: Abington Township

Watershed: Tookany/Tacony-Frankford (Jenkintown Creek)

**Sampling for
Nutrients, Sediment,
and Other Ions**



**Stormwater in Parking Lot
Before Project Construction**



**Planting Native Plants in
Bioretention Area**



**Completed Project Reduces
Velocity and Erosion**

Multiple stormwater interventions are proposed at Alverthorpe Park. These include linear bioretention features along the perimeter of parking lots to manage stormwater runoff, bioswales to safely convey flows to the creek while reducing velocity and erosion, and a rain garden which will intercept the existing stormwater discharge to provide storage and water quality improvements. Stormwater runoff sampling is being conducted to measure project impacts. The Alverthorpe Park projects are part of a broader effort to aggregate projects along Jenkintown Creek (with its large property project opportunities) in order to achieve cumulative water quality improvement impacts. The park also receives many visitors, providing an opportunity to educate the public about stormwater management impacts and green stormwater infrastructure solutions.



McKhley Fire Co.

Ethel Jordan Park

Rain Garden

Bioswale

Jenkintown Creek

Stream Smart Projects



Ethel Jordan Park

Project Partners: Tookany/Tacony-Frankford Watershed Partnership, Abington Township

Timeline: Completed Spring 2018, Funded during Phase 1

Funding: NFWF 2016 (\$86,308), TreeVitalize grant, PA Carbon Reduction grant, \$34,158 matching. Grants awarded to TTF as project sponsor.

Municipality: Abington Township

Watershed: Tookany/Tacony-Frankford (Jenkintown Creek)

Rain Garden Installation



Rain Garden Planting



Bioswale



Measuring Stream Cross Section

This project intercepts runoff from the McKinley Fire Company rooftop and adjacent roadways and diverts it into two green stormwater infrastructure features. The project has also aimed to restore a section of the stream. The creek is hard armored or enclosed in pipe both upstream and downstream of this park. All Jenkintown Creek projects have been upstream of this site until this fall. The highly visible site has provided an opportunity to engage with the community along this 270' section of natural stream corridor. This project built upon the successful creation of a buffer along the creek in the fall of 2015. Education and outreach efforts at this site have included plantings, maintenance, and celebrations and have engaged township, state, and federal elected officials and neighbors. Two Stream Smart participant properties with a newly installed bioswale are within walking distance of this project. A suite of monitoring efforts is underway to measure project impacts, including storm runoff volume (bottles), sediment/nutrient monitoring, DIY logger, and Streamkeeper temperature data.



Conceptual Design Area

Sandy Run

Roychester Park

Overlook Elementary School

Stream Smart Housecall Focus Area

Roychester Park

Project Partners: Wissahickon Valley Watershed Association (WVWA), Abington Township

Timeline: Construction underway Fall 2019

Funding: Growing Greener Grant to Abington Township in 2015 (\$186,000 for both the Evergreen Manor and Roychester Park SCMs), Stream Smart funding from NFWF Cornerston (\$61,100) and Growing Greener (\$100,000)

Municipality: Abington Township

Watershed: Wissahickon (Sandy Run)

WVWA's micro-focus area approach in the headwaters aims to target several tiers of stormwater management and education in one small area. With involvement from homeowners (Stream Smart), Abington School District (Overlook project applying for funding in 2020), and Abington Township (Roychester Park projects), we hope to see improved water quality conditions in the coming years. The Stream Smart House Call Program aligns with residential education and outreach complementary strategy (including involving homeowners in stormwater projects). Our goal is for people in the focus area to "own the solution" and ask their elected officials to own it as well through expanded municipal stormwater programs and investments. Monitoring underway includes a flow meter and DIY logger, stormwater runoff sampling (bottles), and hillslope tracer test that measured the rate of flow/capture area using drone/thermal imagery.



Flow logger in Dry Streambed Awaiting a Storm to Log Flow Data



Conceptual Design for Roychester Park





Attachments

Village Circle Basin Retrofit Before & After

Lukens Park Infiltration Trenches & Rain Garden Before & After

College Settlement Restored Wetland Monitoring & Modeling Update

Jenkintown Creek Rain Gardens & Riparian Buffer Monitoring & Modeling Update

Naylors Run Monitoring Update