Reedy Creek: Formal and Informal Policies Influencing the Stream Restoration

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Climate Change Seminar/Capstone Poster Session, April 20, 2017

Introduction

In 2009, the U.S. Environmental Protection Agency (EPA) issued updated rules regarding Total Maximum Daily Load (TMDL) levels for three primary pollutants in the Chesapeake Bay: nitrogen, phosphorus, and total suspended sediment (TSS). The Richmond Department of Public Works (DPU) published the city's TMDL Action Plan in 2015, describing the city's intention to complete stream restoration projects on five urban streams in order to achieve necessary pollution reductions. Reedy Creek is a stream located in Richmond's Forest Hill neighborhood (see Figure 1) and was one of the five streams included in DPU's plan. The project faced significant opposition from the local community, particularly Forest Hill residents and members of the grassroots group Reedy Creek Coalition. Though many issues were raised, common complaints included a lack of planning or consideration of alternative locations, an absence of watershed-level analysis and a need for a post-restoration maintenance plan.

Many analyses, especially in the field of sociology, have debated the influence of informal groups such as nonprofits, coalitions, and consultants on formal policy-making bodies, mainly government agencies (see West 2004, Verloo 2016). The Reedy Creek restoration project involved numerous policy-makers and stakeholders, all of whom influenced the project's direction and outcomes in some way. Policy was a driving force behind the project from its inception. This analysis examines the roles and influence of the various stakeholders involved in the Reedy Creek restoration project, and attempts to analyze the influence formal and informal policy-making bodies can have on small-scale environmental management projects such as this one.
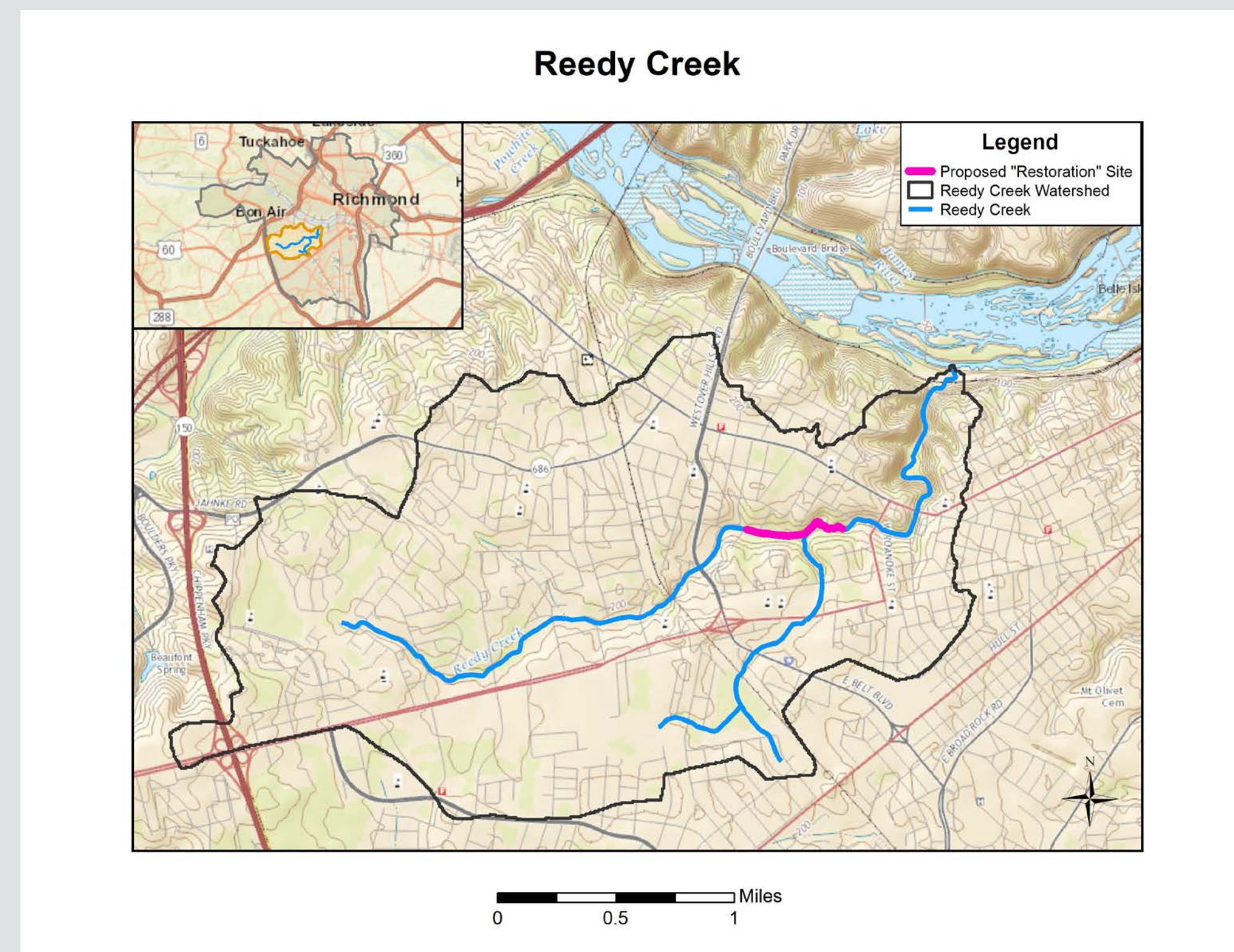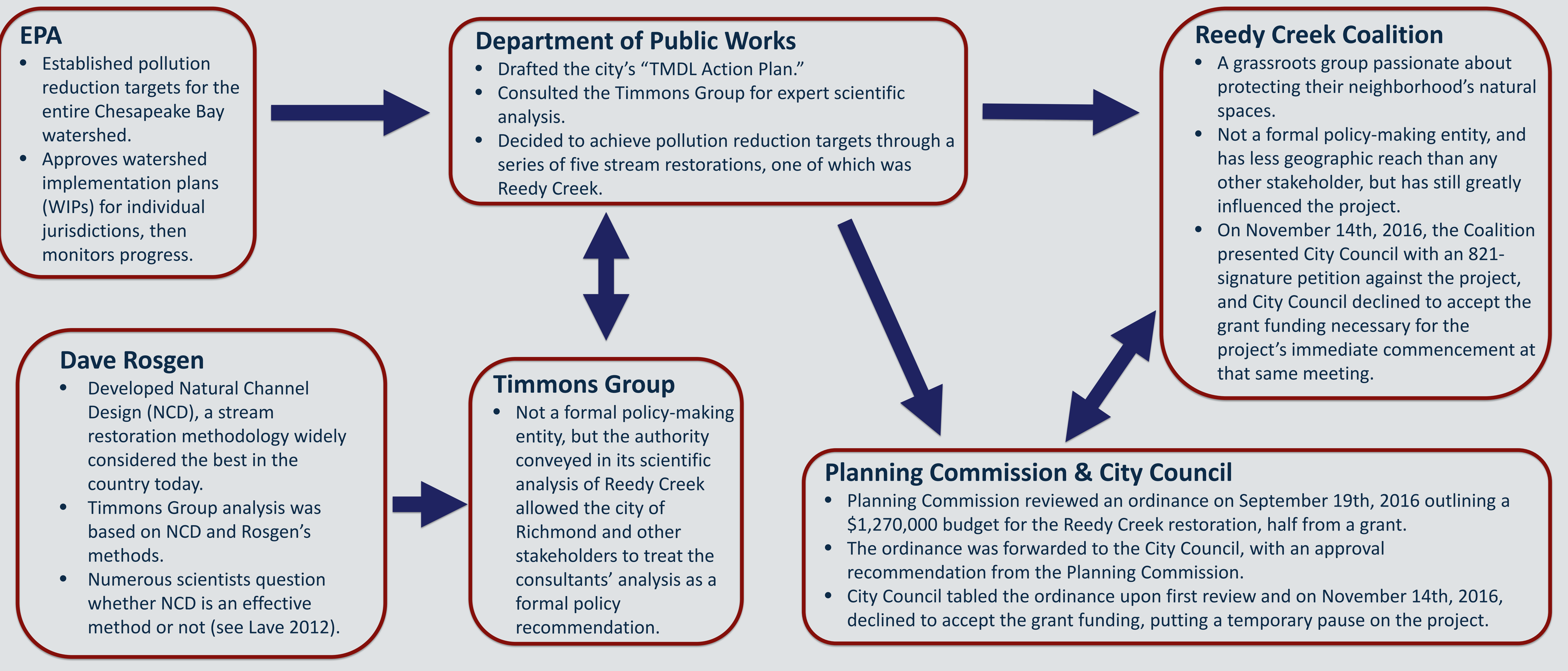

Figure 1: Map of Reedy Creek in the Forest Hill neighborhood, Richmond, Virginia. Created by Jared Goldbach-Ehmer and Andrew Loesch.

Methods

This section synthesizes information from twenty-five documents and associated regulatory rules impacting the restoration project, including the Environmental Protection Agency's Chesapeake Bay TMDL rules, the Richmond Department of Public Work's TMDL Action Plan, the Timmons Group erosion analysis summary report, Richmond City Council and Planning Commission agendas and staff reports, and Reedy Creek Coalition petitions and publications.

Analysis and Results: Roles and Influence of Reedy Creek Restoration Project Stakeholders

EPA
- Established pollution reduction targets for the entire Chesapeake Bay watershed.
- Approves watershed implementation plans (WIPs) for individual jurisdictions, then monitors progress.

Department of Public Works
- Drafted the city's "TMDL Action Plan."
- Consulted the Timmons Group for expert scientific analysis.
- Decided to achieve pollution reduction targets through a series of five stream restorations, one of which was Reedy Creek.

Reedy Creek Coalition
- A grassroots group passionate about protecting their neighborhood's natural spaces.
- Not a formal policy-making entity, and has less geographic reach than any other stakeholder, but has still greatly influenced the project.
- On November 14th, 2016, the Coalition presented City Council with an 821-signature petition against the project, and City Council declined to accept the grant funding necessary for the project's immediate commencement at that same meeting.

Dave Rosgen
- Developed Natural Channel Design (NCD), a stream restoration methodology widely considered the best in the country today.
- Timmons Group analysis was based on NCD and Rosgen's methods.
- Numerous scientists question whether NCD is an effective method or not (see Lave 2012).

Timmons Group
- Not a formal policy-making entity, but the authority conveyed in its scientific analysis of Reedy Creek allowed the city of Richmond and other stakeholders to treat the consultants' analysis as a formal policy recommendation.

Planning Commission & City Council
- Planning Commission reviewed an ordinance on September 19th, 2016 outlining a $1,270,000 budget for the Reedy Creek restoration, half from a grant.
- The ordinance was forwarded to the City Council, with an approval recommendation from the Planning Commission.
- City Council tabled the ordinance upon first review and on November 14th, 2016, declined to accept the grant funding, putting a temporary pause on the project.

Conclusion & Acknowledgements

The Reedy Creek restoration project involved numerous stakeholders, each with varying levels of influence over the project's outcome. This particular restoration project is an interesting case study because none of the other four streams proposed for restoration had a neighborhood group nearly as dedicated, passionate, and organized as the Reedy Creek Coalition. The coalition, lacking any formal policy-making authority, was able to influence a project almost entirely controlled by formal policy-making authorities because of this dedication. If Richmond authorities ultimately choose to abandon the Reedy Creek restoration project, the city may look back on this experience as an example of poor planning, inadequate communication, and unrealistically simplified environmental management. Richmond would benefit from better policies for city-resident communication and improved processes for evaluation of environmentally-focused projects.
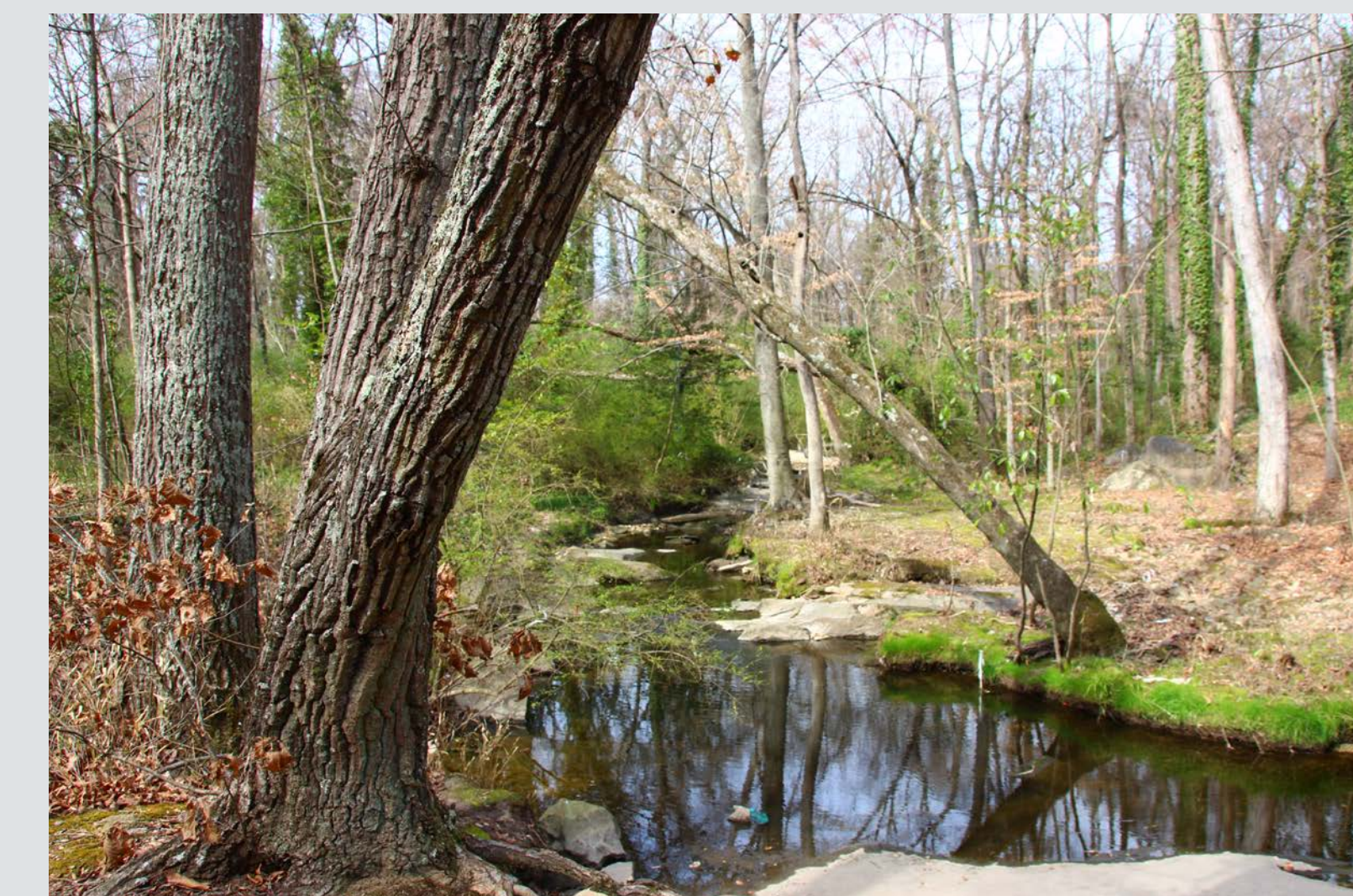
Thank you to Bill Shanabruch and the Reedy Creek Coalition for their contributions to this research endeavor.

Figure 2: Reedy Creek, photo by Emily Onufer.

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