

Financing Green Infrastructure with Environmental Impact Bonds (EIBs)

William & Mary: Resilience Funding Forum
Mary 3, 2019



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Agenda

- 1 Intro: Why We're Doing This
- 2 What is an Environmental Impact Bond?
How can it help local governments?
- 3 Chesapeake Bay Watershed Case Studies
- 4 Lessons Learned



A Quick Video

Introduction to Environmental Impact Bonds:
<https://youtu.be/aQIVXFwhzho>



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Why We're Doing This



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Green Infrastructure



Bioinfiltration, D.C.

Jeffrey Brainerd



Permeable parking, D.C.

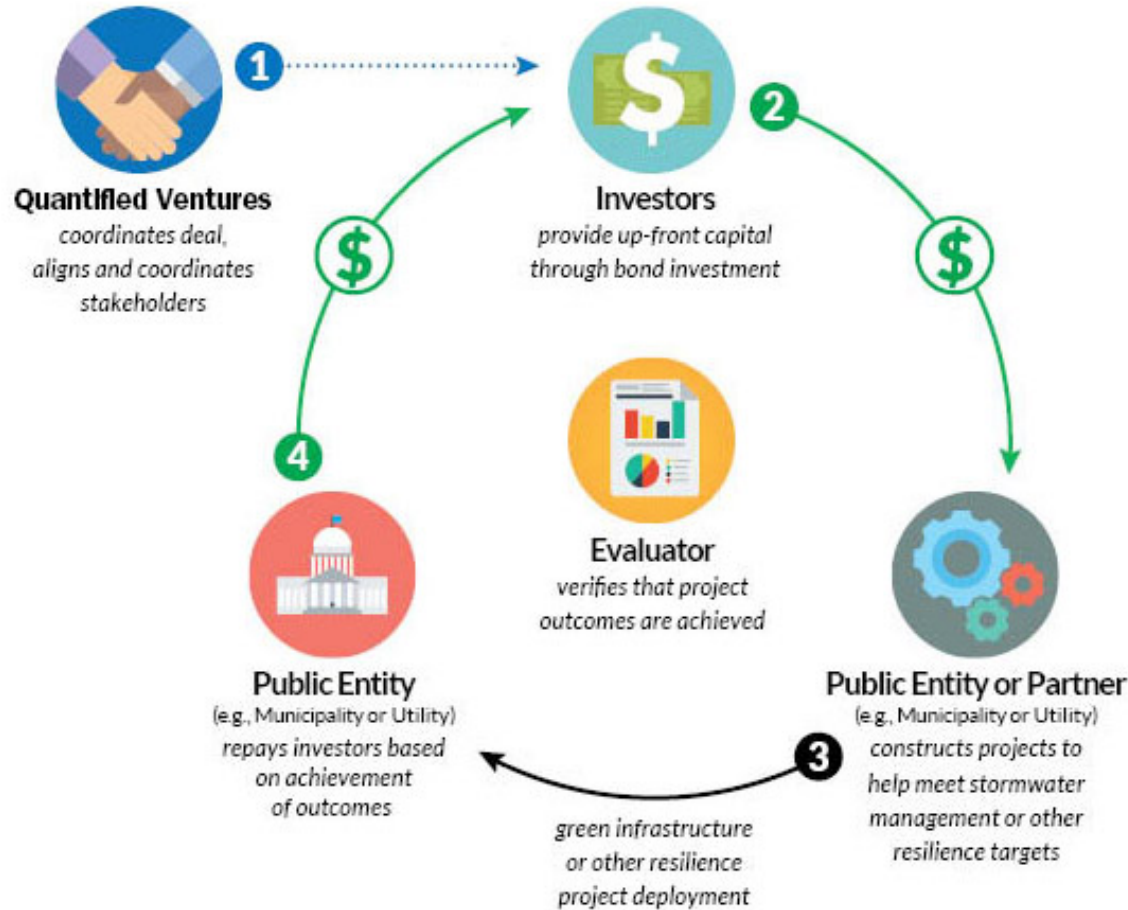
DC DOEE



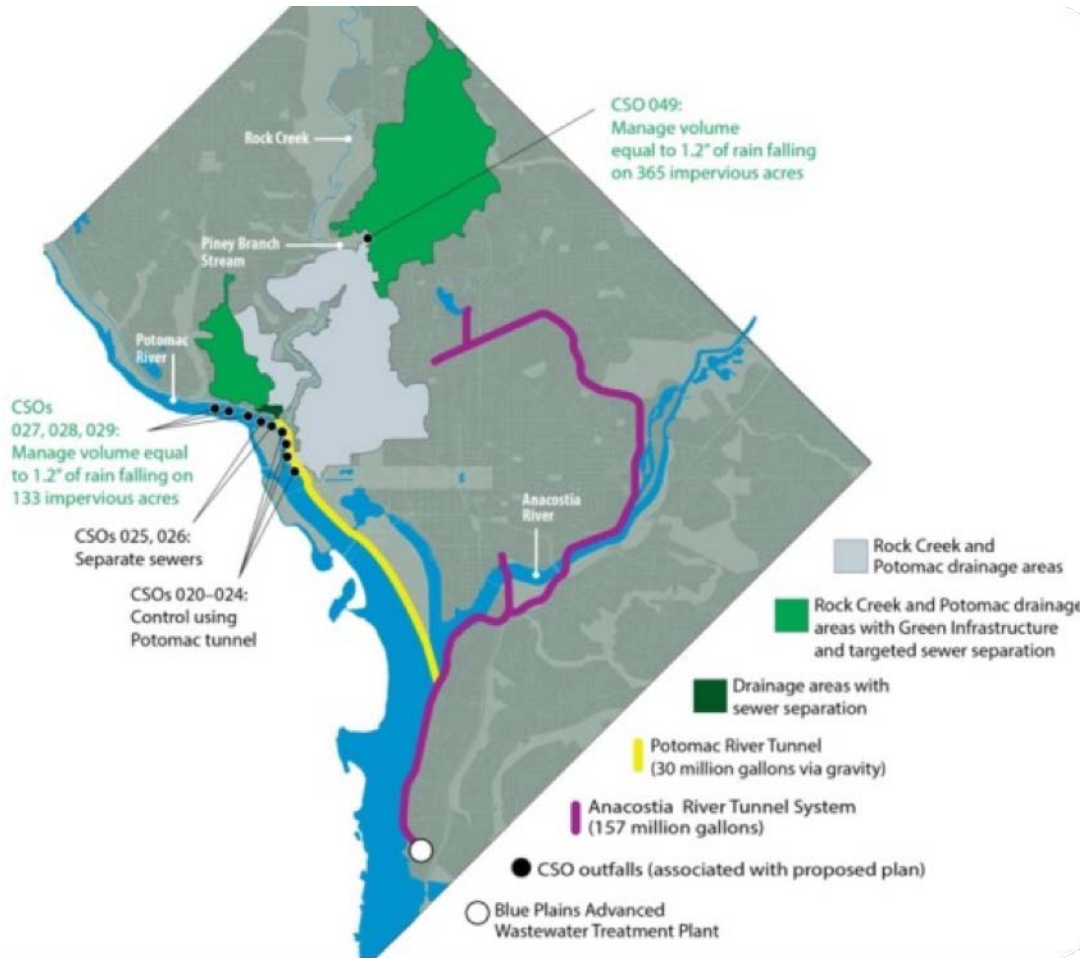
Parking lot infiltration, Stafford County, VA



How is an EIB Structured? Who is Involved?



Case Study: DC Water



- **Consent decree required addressing combined sewer overflows**
- **Green infrastructure approved to replace planned tunnel**
- **Concern remained about performance risk**
- **Focus on secondary benefit of green job creation**



Outcomes Based Financing

Rock Creek Sewershed (Project RC-A)

Pilot
(20
acres)

**Consent decree
requirement**
(365 acres of GI)

After 5 years, performance payments made based on stormwater captured on-site:

Underperform (2.5% likely): Investors pay DC Water \$3.3M – interest rate ~.5%

Perform as expected (95% likely): No performance payment – interest rate ~3%

Outperform (2.5% likely): DC Water pays investors \$3.3M – interest rate ~6%



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Environmental Impact Bonds at Work

CBF-QV working with the **City of Baltimore** to help finance 120+ small- to medium-scale urban green infrastructure projects worth \$6.2M.



CBF-QV now working with the **City of Hampton** to identify green infrastructure solutions as part of the city's larger Climate Resiliency Plan, and finance with an EIB.



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Lessons Learned: Regulatory Environment



Seattle High Point

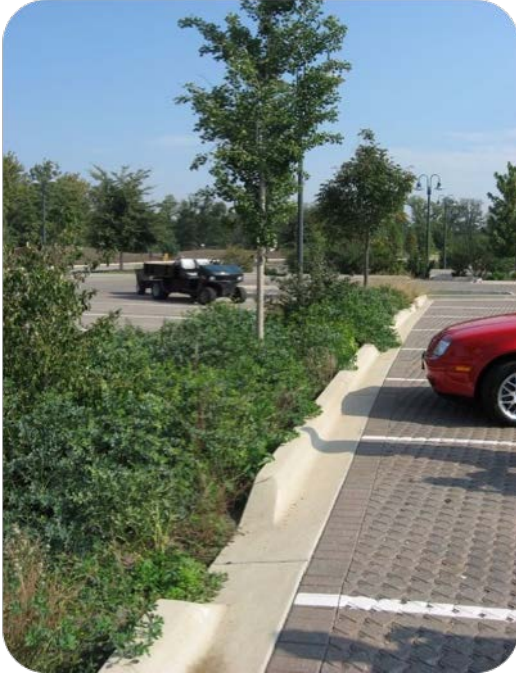
- Assumption: Strong regulatory incentive from MS4 permits
- Awarded credit through Chesapeake Bay Model
- Local governments **are not** awarded more credit for better performance
- Creative performance metrics



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Lessons Learned: Municipal Capacity



Pavement and swale, Chicago, IL

- \$2-3 million minimum for EIB issuance
- Many of the municipalities in the Chesapeake Bay watershed are smaller, their stormwater budgets & financing needs are also smaller
- Watershed municipalities have not traditionally used outside financing for stormwater infrastructure



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Lessons Learned: Planning & Budgeting



Portland, OR

- Assumption: EIBs could fill the financing gap for shovel-ready GI projects
- Capital Improvement Plan (CIP) process.
- Earlier stages of project planning & budgeting
- Need for pipeline



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Conclusions



Cleveland Public Library © Alisha Goldstein

- EIBs are a specific tool that can help with:
 - Piloting new project ideas
 - Risk transfer
 - Bringing new investors to a city
- EIBs build off of work around resilience being done at the local level
- Continue to support mechanisms for local governments to plan & prepare



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