The Reedy Creek Watershed Initiative:
A Case Study of Partners in Action
Challenges

Buried Headwater Streams

Channelization
Erosion & Sedimentation
Trash

Invasive species

Nutrients
Flooding
16 Improvements projects
Pollution Issues

E-Coli

Pollution Tolerant Benthic Macroinvertebrates
Reedy Creek Impairment Issues

• Listed Impaired by DEQ in 2004 for excessive bacteria levels
  – Listed as “threatened” in 1998

• Lower 1/3rd watershed contributes to Richmond’s Combined Sewer Overflow (CSO) system.

• Bacteria TMDL currently under review
The Partnerships
VCU Service Learning Program

- Active in community since 2000
- Stream clean ups
- Relationship with Miles J Jones Elementary School
The Catalysts

• Richmond’s proposed (now approved) stormwater utility

• Recognition that single conservation projects by themselves are good, but measurement of success difficult at watershed level

• Focus on root cause of pollution - Stormwater
Created a Local Watershed Group

• The Reedy Creek Coalition
  • Watershed residents
  • Virginia Commonwealth University (Geography students)
  • Alliance for the Chesapeake Bay
  • 1 Grad Student from Virginia Tech
Mission Statement

- The Reedy Creek Coalition is committed to restoring the health and beauty of Reedy Creek through education, training, and collaboration with all residents and users of the Reedy Creek Watershed and its natural resources. Healthy watersheds are an integral part of vibrant, healthy communities.
Homeowner Audit Program

Due to predominance of impervious surfaces from residential properties in watershed, target homeowners.

Audit program created so trained RCC volunteers can provide a 3rd party audit.

- Unbiased source of information to homeowner
- Critically evaluate property
- Identify issues homeowner might not
- Audit becomes conservation plan/recommends BMPs and behavior changes
Homeowner Audit Program

Reduce stormwater
Solutions
Reduce Stormwater Runoff

- Minimize areas of impervious surface (this includes lawns!)
- Capture/redirect stormwater to reduce stream erosion and increase groundwater recharge (Rain barrels, rain gardens, etc.)
- Manage landscape and lawns to promote water retention (e.g. mulch, soil amendment, lawn-cutting practices)
- Riparian Buffers
Water Monitoring

• 2 focuses
  – Water quality monitoring
    • Nutrients
    • Bacteria
    • Dissolved Oxygen
    • Turbidity
    • Conductivity
  – Flow monitoring
Water Monitoring

- Samples collected by volunteers under ACB’s volunteer water monitoring program (RiverTrends)

- Partnership with City of Richmond Dept. of Public Utilities (DPU)

- DPU analyzes water samples at Richmond WWTP laboratory
Water Monitoring

• Flow monitoring

• Goal:

  – Document reduction of stormwater flows in Reedy Creek before and after BMP implementation on landscape

  – Modeled on 2006 Burnsville, MN Raingarden Study
Burnsville, MN
Study Results
Future Directions

Goal: Develop holistic watershed program

- Adapt homeowner audit program for commercial/government/non-profit properties
- Work with churches & community centers
Future Directions

- Target demonstration projects at schools
  - BayScapes are “Outdoor Classrooms”
  - Integrate nature education into curriculum
  - Reach parents through the children
  - Provide teacher development opportunities
Future Directions

- Work with local media to tell our story
  - NBC 29 news station located in watershed
  - Richmond Times Dispatch

- Integrate social media
  - Facebook, Youtube, etc.
  - Blogs

- Incentive program for conservation practices
Reedy Creek Program Support

Altria

National Fish and Wildlife Foundation
Questions?

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