

SD-000031-146 Indian Run at Indian Run Court

Stream Restoration Project

Department of Public Works and Environmental Services

Working for You!



A Fairfax County, VA, publication
March 19, 2015

Agenda

- Program Drivers
- Watershed Overview
- Project Introduction
- Existing Conditions
- Project Goal
- Typical Structures Used
- Next Steps
- Contact Information

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2

Program Drivers

- **Stream Restoration:** Return physical and ecological functions of the stream to the maximum extent possible
- **Erosion Control**
- **Public Safety**
- **Improve Water Quality**
- **State and Federal Regulations**
 - **Chesapeake Bay Agreement**
 - Partnering states (VA, MD, DC, DE, PA, WV) signed the agreement to restore the bay health and ecosystem.
 - **Executive Order**
 - President Obama recognized bay as national treasure (May, 2009) and calls to restore the bay
 - **Municipal Separate Storm Sewer Permit (MS-4)**
 - Easements rights and responsibility to maintain/upgrade
 - **Total Maximum Daily Loads (TMDL)**
 - Regulates amounts of pollutants in waterways

Implementation Strategies (Fairfax County - 400 Sq. Mi.):

- **Watershed Management Plan**
 - Developed for 30 watersheds
 - Priority areas for retrofits/restoration

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3

Watershed Overview

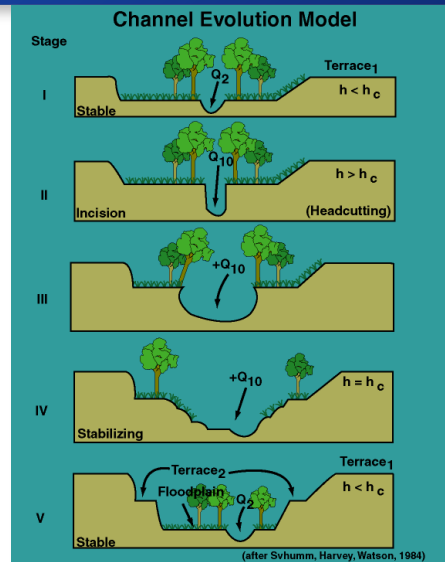


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4

Watershed Overview



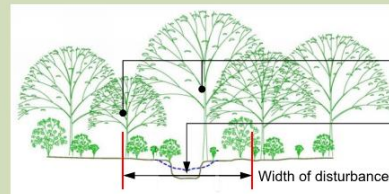
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5

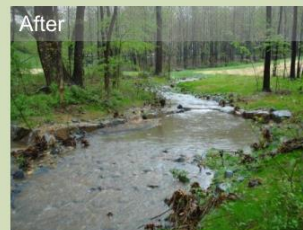
RESTORATION APPROACHES

Priority 1 Restoration - Raise stream to reconnect with the floodplain.



Fewer trees removed

Balanced cut and fill volumes result in less waste



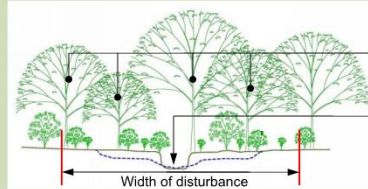
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6

RESTORATION APPROACHES

Priority 2 Restoration – Excavate floodplain at lower elevation.



Many trees removed

Large cut volumes result in waste material



Priority 3 Restoration – Confined stream valleys.

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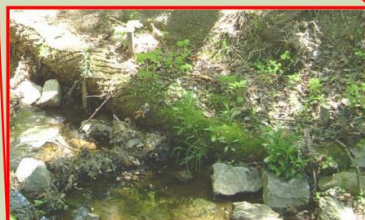
7

RESTORATION APPROACHES

Priority 4 Restoration – Stabilize in-place



Snakeden Branch Reach 2
(2003, by others) –
Long-term stability not
achieved using this
approach.



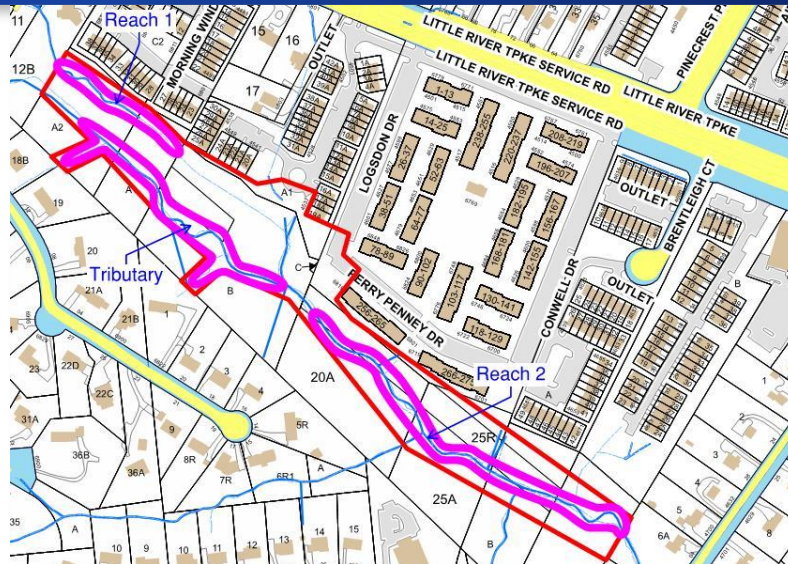
14

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8

Project Introduction



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9

Existing Conditions – Reach 1

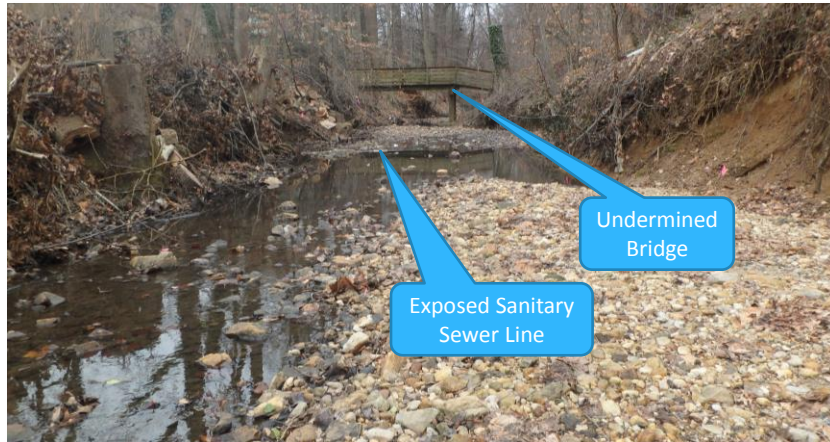


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10

Existing Conditions – Reach 1



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11

Existing Conditions between Reach 1 and 2



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12

Existing Conditions – Tributary

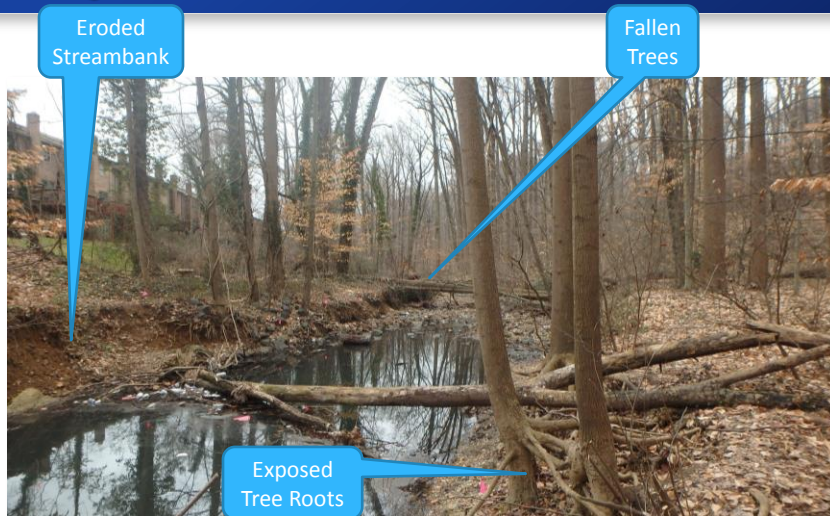


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13

Existing Conditions – Reach 2



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14

Existing Conditions – Reach 2



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15

Existing Conditions – Reach 2



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16

Existing Conditions – Reach 2



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17

Existing Conditions – Reach 2



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18

Existing Conditions – Beyond Reach 2



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19

Existing Conditions – Outside of Project Limit



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20

Project Goal

Restore Approximately 2,200 Linear Feet of Stream on Park Authority Land

- Stabilize Streambed and Banks
- Improve Habitat
 - Planting Native Trees, Shrubs, and Vegetation
- Reconnect the Floodplain
- Protecting Structures
 - Railroad Embankment
 - Pedestrian Bridge
 - Utility lines

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21

Current Project Status

- Design Contract with WSSI
- Survey
 - Site and stream
 - Tree
 - 12" or larger diameter
 - Health
 - Tree Type
 - Structure
- Archeological Survey
- Iterative Concept Design

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22

Typical Structures Used – Cross Vanes



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23

Typical Structures Used – Root Wads



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24

Typical Structures Used – Boulder Toe



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25

Before and After Stream Restoration



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26

Next Steps – Schedule

- Concept Design – October, 2015
- Preliminary Design – January, 2016
- Final Design – April, 2016
- Construction Start – When construction funding becomes available
- Your participation in Design
 - 2 members to represent all of the HOAs

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27

Additional Information

For additional information, please contact

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28