Loudoun Watershed Watch
“Restoring Loudoun Streams”
LCSA Water Forum

Presented by:
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Loudoun Watershed Watch
Loudoun Wildlife Conservancy
Loudoun Watershed Watch

- Loudoun Watershed Watch formed in 2001 – alliance of county stream stewardship groups
LWW’s Vision

LWW shares a common vision with citizens across the nation: clean and safe water, and healthy aquatic ecosystems.

For citizens in Loudoun, this means a county distinguished for its cool meandering streams with wide, forested riparian buffers flowing through woodlots, farms, residential communities, and parks with streamside trails.
LWW – Educational Initiatives

- LWW distributed the first Loudoun watershed map and activity guide for Loudoun's 37,000 public school students.
- LWW distributed a summary report on stream health in Loudoun County.
- LWW organized the Catoctin Watershed Project to support TMDL implementation.
LWW – Community Stewardship Events

Catoctin Riparian Buffer Restoration
Waterford Area -- 2005
Catoctin Creek Clean-up
Stewardship Event

Taylorstown -- 2005
Loudoun Family Stream Day

Watershed Model at Broadlands Community Center - 2005

10/08/2005
Task 1 -- Where Do We Start Looking for Problems?
What Do VA DEQ Reports Tell Us?

Impaired Waters – Loudoun streams are impaired – they don’t meet state water quality standards and they are often not safe for recreational use:

- Sugarland Run
- Broad Run
- Goose Creek
- Sycolin Creek
- Tuscarora Creek
- Little River
- NF Goose Creek
- Beaverdam Creek
- Catoctin Creek
- NF Catoctin Creek
- SF Catoctin Creek
- Piney Run
- Limestone Branch
Fecal pollution from livestock with access to streams is the #1 cause of impairments.
Erosion caused by livestock fill our streams with sediments that destroy habitat for aquatic life and pollute the Chesapeake Bay.
What Does a Tour of Loudoun Streams Tell Us?

Developments are destroying riparian buffers, increasing stream flows, and eroding stream banks.
High volume stormwater flows in urban areas are polluting our streams and erode stream banks.
Homeowners and HOAs provide poor maintenance of stormwater drainages from impervious surfaces
Flooding, erosion and sediments are creating poor habitats for aquatic life in many streams.
Why can we find so many problems everywhere we look?

Aren’t BMPs suppose to be protecting Loudoun streams?

Sadly, the answer is no . . .
BMPs Are Not Protecting Against Downstream Property Damage

BMP protection against erosion from a three-year rain is not enough.
BMPs Are Not Preserving Natural Capacity to Filter and Purify

Clearing forested buffers and grading floodplains remove capacity to filter and purify.
BMPs Are Not Supporting Healthy Streams and Aquatic Life

Algae growth in stream from sediments and nutrients in runoff from development
Property Owner’s Complaints About One Upstream Development

<table>
<thead>
<tr>
<th>Type of Complaint (Submitted to Building and Development)</th>
<th>Number of Complaints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy sediments in stream</td>
<td>9</td>
</tr>
<tr>
<td>Inadequate BMP controls along stream</td>
<td>5</td>
</tr>
<tr>
<td>Added drainage requires new culvert or control</td>
<td>4</td>
</tr>
<tr>
<td>Stream water has a green coloration</td>
<td>1</td>
</tr>
</tbody>
</table>
Some Reasons Why BMPs Aren’t Working

• County does not have performance standards to insure that water quality standards are met by developer.

• Property owners have no rights if BMPs installed by developers do not protect against downstream damage.
Standards are Designed to Allow Erosion and Flooding

- Stormwater controls are designed to prevent erosion only from 3-year rainfalls
- Stormwater controls are designed to prevent floods only from 10-year rainfalls
- With greater rains -- there will be erosion and flooding caused by developments by design.
County Ordinance do not Require Environmental Studies

- Environmental studies are needed to establish baseline water quality and habitat conditions at planned development sites.
- Such studies for future developments in floodplains are not required – only voluntary
Task 2 – Where Do We Look for Solutions?
Look in Your In Basket!

Loudoun County Sanitation Authority

Watershed Protection Plan for Beaverdam and Goose Creek
Upgrade Our BMPs!

We don’t want this to happen again
BMP’s – What the Experts Tell Us is Needed

• Appropriate precipitation analysis will result in correct sizing of BMP’s and protection of streams.

• Alternative BMP’s are needed to complement watershed-level BMP’s:
  - Structural BMP’s
  - Vegetative BMP’s
  - Construction BMP’s
  - BMP Retrofitting
  - LID and Pollution Prevention Activities
Watershed Management Planning!

Loudoun County needs to develop plans to implement the Federal Clean Water Act, the Chesapeake Bay Act, and Virginia Water Quality Standards.
Loudoun Water Management Authority!

Loudoun County should create a water management authority to develop watershed management plans for each watershed, and oversee initiatives to restore the quality of Loudoun streams.
Loudoun County needs a countywide stream monitoring program to provide data to develop watershed plans, and to assess impacts of new BMPs on water quality and stream health.
Collaboration between State, County, and Citizens!

We need to combine resources to tackle water pollution:
- DEQ
- DCR
- Loudoun Soil and Water Conservation District
- Loudoun County Health Department
- Loudoun County Building and Development
- Loudoun County General Services, Public Works
- Loudoun County Planning
- Loudoun County Sanitation Authority
- Citizen Groups
County--Citizen partnership is the best way to solve problems like these . . .
and to help educate riparian property owners.
Where to Find Information About Citizen Activities

Websites:
• www.LoudounWatershedWatch.org
• www.Loudounwildlife.org
• www.Audubonnaturalist.org

Sites Include:
• Educational Materials
• Water Quality Data
• LWW State of Loudoun Streams Reports
• Catoctin Watershed Project Accomplishments
Why Do Citizens Monitor?

"We monitor because we care; we care because we are informed; we are informed because we monitor."

Cassie Champion, of the Minnesota Metropolitan Council,
http://www.riversmn.org/resources_monarticles.html#Monitoring%20Bacteria