“We monitor because we care; we care because we are informed; we are informed because we monitor.”

Cassie Champion of the Minnesota Metropolitan Council

Thanks to the LWW Partners – Tens years!

Loudoun Watershed Watch - Overview

- Accomplishments
- Vision, Mission and Goals
- History of Monitoring Partners
- Community Outreach and Public Education

Loudoun Watershed Watch - Accomplishments

- Celebrated ten-year partnership of collaborative efforts.
- Monitored stream health on over 300 occasions at 240 sites, starting in 1997.
- Transitioned into one consistent volunteer protocol.
- Monitored bacteria bimonthly at a dozen location over five years, totaling almost 1,000 analyses.
- Outreach at many public events Family Stream Day (7), Earth Day, Lucketts River Rangers and numerous tree plantings.
- Distributed tens of thousand of pieces of literature and maintained comprehensive web site with information, data and mapping for eight years.

Vision, Mission and Goals

Loudoun Watershed Watch (LWW) 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 meandering streams with forested riparian buffers flowing through woodlots, farms, residential communities, and parks with streamside trails.
Loudoun Watershed Watch (LWW) Mission

LWW’s mission is to protect the water resources of Loudoun County through a synergy between citizens, private groups, county, and state agencies. In order to achieve this mission, LWW promotes:
- environmental stewardship,
- countywide stream monitoring,
- watershed management planning,
- water quality and stream habitat protection and restoration.

Loudoun Watershed Watch (LWW) Goals

- Goal #1 – Provide a forum for collaboration among citizen and county stakeholders
- Goal #2 – Compile water quality and stream health data and make it available to the public
- Goal #3 – Provide stream quality educational materials and stream stewardship projects

History of Monitoring Partners

Formed in 2000 as an alliance of citizen groups and Loudoun County authorities concerned about stream quality (originally Stream Monitoring Project)

Loudoun Watershed Watch (LWW) Timeline

North Fork Goose Creek Watershed Committee
Friends of Sugarland Run
Loudoun Soil & Water Conservation District
Loudoun Wildlife Conservancy
Auburn Naturalist
Loudoun County Government
Goose Creek Association
North Fork Goose Creek Committee
- Started in early 1990's
- First stream website - data
- Disbanded in 2002

http://web.archive.org/web/20020925214701/loudoun.vaswcd.org/nfgc/monthlychem.htm

Events
- Earth Day at Loudoun Lucketts Potomac River Rangers Annual
- Goose Creek Annual Forum
- Potomac Watershed Quarterly Roundtable
- Science Olympiad

Community Outreach Public Education

Community Outreach Projects (Catoctin)
- 2005 Riparian Tree Planting Day – Waterford area with 50 participants and 500 trees
- 2005 Catoctin Creek Clean-up Day – Taylorstown area with 60 participants
- 2006 Riparian Tree Planting Day – Hamilton area with 65 participants and 300 trees
- 2007-8 Riparian Tree Planting – Through Loudoun Wildlife Conservancy Waterford with 100 participants and 600 trees
- Taylorstown Citizen Association – Organizes annual stream days
- Boy Scout Troop 962 – Annual stream clean-up

Community Educational Materials (Catoctin)
- Pamphlets –
  - Citizen’s Guide – Starting a Local Watershed Group
  - Catoctin Creek – A Community Treasure pamphlet
  - Catoctin Creek – Water Quality Report Card
  - Benefits of Clean Water pamphlet
  - Visuals: Streams in Greener Water: Public Health Considerations pamphlet
- Website – Educational materials and monitoring data provided at www.loudounwatershedwatch.org
- Logo – Distinctive logo provided on educational materials and T-shirts
- Catoctin Watershed Project - banners and display
- Training – Loudoun Valley High School and other HS student on use of EasyGel

Special Project – Catoctin Bacteria TMDL Implementation Monitoring 2005-2009
Citizen volunteer organizations have made a substantial contribution to the TMDL:
- Community Outreach and Education – publications, website, meetings, etc. = 1200 hrs volunteer time
- Riparian Tree Planting and Stream Clean-up Projects = 1500 hrs volunteer time
- Stream Monitoring = 90 sampling days, 970 samples, 1500 lab analyses = 1500 hrs volunteer time

Recognition – LWW/CWP received the 2007 Outstanding Organization Award from Virginia Citizens for Water Quality
Publication – Nov 2010 ASABE Conference
Where does the raw data go?
- To the partner and/or LWW web site
- To DEQ Citizen (non-agency) database
- To Chesapeake Bay Program
- Supports the stream monitoring site nominations submitted to by LWW to DEQ

How is the data used??
- To inform and educate citizens and government about stream health status and changes.
- To “list” stream impairments.
- To identify “sensitive” watersheds.
- To support watershed management planning.
- To track progress of BMP implementation.

Data Presentation and Distribution
- Spreadsheet (download or Google Doc)
- Static map (web or poster)
- Interactive map framed portal
- Animations (time series)
LWW Reports

2009 Loudoun County Stream Assessment

2009 Review of Existing Data
- Prepared by Versar under Contract
- Summarizes all volunteer and other data sources as of Sept 2008
- Preface to 2009 comprehensive stream assessment
- Annualized summary chart
- 116 pages, online
- "State of the Streams"

Publications

Current Conditions Loudoun.gov
- Monthly precipitation compared to historical data statistics at Dulles Airport
- Daily precipitation at Dulles Airport, year-to-date (updated each month)
- Precipitation statistics at Dulles Airport for recent periods
- Recent stream stage and discharge in Loudoun County (USGS)
- Potomac River stage at Point of Rocks, MD (NOAA)
- Monthly average stream flows in Virginia (USGS)
- Groundwater levels in USGS wells
- Groundwater levels in Loudoun County monitoring wells
- National drought conditions (USGS)

Recent stream discharge and stage
Before you go out to stream monitor, check the real-time flow conditions
What happens because of the data?

- Board of Supervisors held two special Committee of the Whole 12/08 and 2/09 specially on water quality.
- Anticipate more stream sediment impairments will be declared by DEQ, some requiring TMDL.
- Loudoun has a improved baseline to measure changes, especially important with Chesapeake Bay TMDL 2-year milestones now being initiated.
- Chesapeake Bay Program has new, comprehensive stream assessment data to refine future waste load model calculations.
- County has adopted Limestone Overlay District and is considering adopting Chesapeake Bay Preservation Act.
Strategic Stream Monitoring Sites

- Collection of stream monitoring sites consisting of existing/on-going and newly verified sites with emphasis on access.
- Collaboratively mapped in Google maps.
- Ideal for new stream monitors – pick a nearby location.
- Edit and “claim” a site interactively.

Loudoun County Watersheds

- 17 major watersheds
- 1,500+/- miles of perennial streams
- Bull Run and Cub Run drain south to Occoquan, all others drain N/E to Potomac.
Watershed Planning (Loudoun)

- 1999 – Recent drought brings attention to groundwater resource and need for monitoring and management
- 2006 – Conduct strategic watershed management planning (SWMS) project. (NFWF and EPA grants.)
- 2007 – Compile/analyze existing data
- 2008/2009 – Continue working with stakeholders and technical committees to prioritize CWMP report recommendations
- 2009 – Stream Assessment
- 2010 - Limestone Overlay District
- 2017 - Chesapeake Bay Preservation Act