

Chesapeake Conservation Landscaping Council's  
3<sup>rd</sup> **Turning a New Leaf** Conference  
Friday, December 4, 2009  
George Washington University, Washington, DC

**TRACK C: GETTING IT DONE WITH LOCAL GOVERNMENTS**

**Session C1. Panel. Case Study: Corsica River**

**Lee Edgar, Engineer, Queen Anne's County, Maryland**

**Bob McGrory, Town Manager, Centreville, Maryland**

**Overview:** Activities done in partnership with local, state, and federal government to improve the impaired status of the Corsica River in Queen Anne's County, Maryland are discussed.

**Presenter: Lee Edgar, Queen Anne's County, Maryland Department of Public Works**

***Environmental Site Design: Advancing Conservation Landscaping***

Brief history of stormwater management:

1950s – Pond detention

1972 – EPA Clean Water Act passes

1984 – Maryland Critical Area laws enacted

1990 – NPDS Design Manuals

2007 – Maryland Stormwater Management Act

To improve the control of storm water run-off, and thereby to help clean our rivers and bay, the Maryland legislature passed the Storm Water Management Act of 2007. For a project to be grandfathered under current regulations it must have fully approved sediment control and storm water management plans by May 4, 2010. *[post-conference update: legislation being considered in the Spring 2010 session could modify this law.]*

Environmental Site Design (ESD) is defined in Chapter 5.0.3 of the Act – to integrate site design, natural hydrology, smaller nonstructural controls on small lots. ESD is designed to be used on small lots.

Types of ESD: Rain gardens, rain barrel/cistern, permeable pavers (porous concrete), more.

Pavers are the only practice designed to treat rain at its source, rather than collect runoff. They can provide a safe walking surface in cold weather. Share infrastructure /stormwater management (SWM) costs (incorporate with natural costs for paving, don't need extra SWM practices). Not a typical brick sidewalk – costs more but SWM benefits offset. Set on stone base, not concrete. Permeable pavers cost more, have indirect benefits though they can be hard to quantify. Queen Anne's County is using pervious concrete. LEED certification – indirect benefits include outreach.

Green roof – not in Queen Anne's County yet. DC has the second most green roof coverage behind Chicago.

Bioswale and vegetated swale. Bioretention cell, cross between rain garden & swale.

Stormwater planter – contained planter, organic filter, flow-through planter.

Green alleys in Chicago with pervious planting are a great model (information on Internet, access with search engine).

Getting it done – installing on government property encourages installation on small single lots subject to SWM regulations. County doesn't have resources to enforce with developers, who may view as burden, don't do it fully and completely. Sad example: developer had to put in a rain garden; homeowner took plants elsewhere on property and filled in the rain garden with soil. Focus on outreach and education, encouraging them to embrace ESD as an asset to the property. Landscaping community can sell it. . Enforcement and education are key.

#### Case examples:

Organic filter, on Kent Island, common single lot practice in Queen Anne's County. County encourages homeowners to get landscapers to make it aesthetically attractive. Filter includes has stone for SW storage, filter cloth.

River Walk Rain Garden –Installed at county public library in Centreville. Collects SW from parking lot, 1/3 of roof. Partnership included state funding; DPW engineered; Master Gardeners designed planting; volunteers planted. Educational as well as functional; helps sell rain gardens to library visitors. Garden received several awards.

Capitalizing on ESD regulation change advances CCLC's *Eight Essential Elements of Conservation Landscaping*, promotes awareness, increases public acceptance. Sell with aesthetics and enhanced property value to ensure success. Embrace ESC as asset. If it is not required now in your area, it will be. Be the first to be the expert on it; sell as your advantage over other landscape professionals.

#### Q&A

*Who enforces the law?*

MDE writes the regulations and delegates enforcement authority to local jurisdictions.

*For projects installed on private property, does county do the maintenance or the property owner?*

Case by case; both are done.

**Presenter: Robert McGrory, Town Manager, Town of Centreville, Maryland**

#### ***Corsica River Watershed: Impervious Surface and Urban Tree Canopy***

Corsica River, a 34-square-mile watershed, was declared a state targeted watershed by Governor Ehrlich's administration. A 3-year EPA "319" grant was awarded by the state DNR to undertake model fixes and measure results. The project involves many stakeholders and partners. Queen Anne's County government is mandating practices, while Town of Centreville is promoting voluntary compliance.

Protecting the watershed – in 2004 a Watershed Restoration Action Strategy (WRAS) was developed which formed the basis for funding actions in the watershed. The watershed is 80 percent agriculture, 20 percent "urban" which includes the town. The town is dealing with their 20 percent share of the pollution into the river through stormwater retrofits and upgrading the wastewater treatment plant.

Funding sources include MDA (EPA 319), DNR (waterway improvement), SHA (TEP) municipal fee in lieu of donations.

Potential funding sources include 2010 trust for residential projects, Maryland Heritage Areas Authority, e.g. War of 1812 heritage funding.

## Funded activities

- Capacity building – EPA 319 grant pays for a Watershed Manager position.
- Data development – McCrone, a local engineering firm, has donated GIS services for mapping
- Stormwater management
- Programmatic changes: -- WRAS; pet waste management; tree canopy increases; LID practices
- Education and outreach

GIS – used to locate urban nonpoint sources; lot coverage.

Residential rain garden program – under grants, rain gardens are installed on residential property. Residents of new subdivision have participated and are enthusiastic. This is a great gateway to reach residents regarding other watershed issues.

Of 1,563 acres in the Town, 18 percent is impervious surface – roads, buildings, parking, driveways. Of 23,000 acres in the Corsica River watershed, 36 percent is impervious surface.

Stream health has been assessed and is over 30 percent degraded.

Plans are to upgrade SW ponds with habitat projects, funded by state Department of Natural Resources.

The Town of Centreville has three drainage areas. As the largest waterfront property owner, it is important for the Town to set an example for effective SWM.

Projects include:

- Planting trees on a public works yard. Under an agreement with the adjacent property owner, town installed SW structures on his property as well. TEP funds three-fourths of SWM installation.
- Managing coastal plains outfalls with the installation of stepped pools at cost of \$72,000.
- Constructing wooded wetlands. Tree canopy cover currently 25 percent, working towards 35 % with a mix of voluntary and mandatory requirements for planting.

The Town also participates in various education and outreach activities, such as an annual Corsica River Awareness Day, radio spots, and flyers. Campaigns include, for example, pick up pet waste to benefit the river.

Reference web sites –

[www.corsicariver.org](http://www.corsicariver.org)

[www.townofcentreville.org](http://www.townofcentreville.org)

[www.mccrone-inc.com](http://www.mccrone-inc.com)

[www.thinkagis.com](http://www.thinkagis.com)

[www.corsicariverconservancy.org](http://www.corsicariverconservancy.org)

[www.dnr.state.md.us/download/bays/cr-strategy.pdf](http://www.dnr.state.md.us/download/bays/cr-strategy.pdf)

[Summary prepared by Carol Jelich]