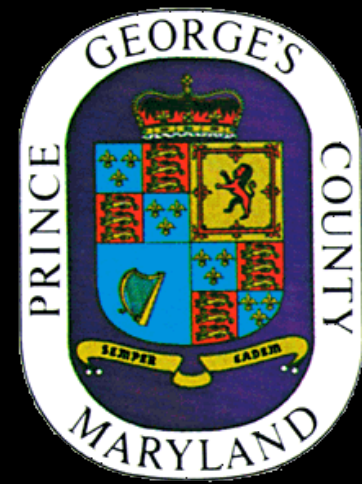




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County Project Of The Year

Brooke Lane Off-Site Woodland Conservation Bank

County: Prince George's County
Engineer: Straughan Environmental Services
Contractors: Eco-Goats
Kelly's Tree & Landscaping

Brooke Lane Woodland Conservation Bank



**CEAM Fall Conference
September 21, 2012**



**Rushern L. Baker, III
County Executive**

**Haitham A. Hijazi
Director**

The Team



S T R A U G H A N
E N V I R O N M E N T A L

**Kelly's Tree and
Landscaping**



- Prince George's County Department of Public Works & Transportation (DPW&T)
- Straughan Environmental, Inc.
- Kelly's Tree and Landscaping
- Eco-Goats

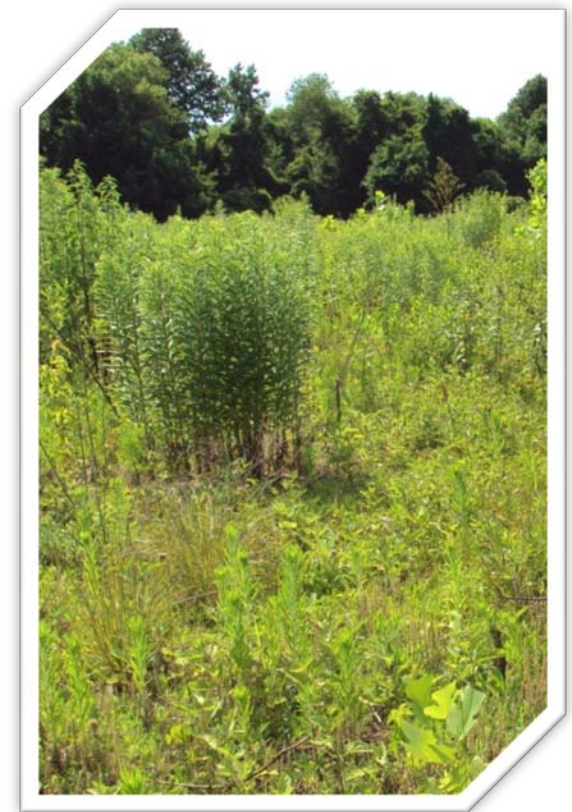
Forest Mitigation

- Brooke Lane Woodland Conservation Bank
 - Established by the County in 2009
 - Offsets forest lost due to Capital Improvement Projects (i.e., on public/County land)
 - 53-acre site: $\frac{1}{2}$ forested
 $\frac{1}{2}$ fields



Forest Mitigation

- Traditional Methods for Establishing a Bank:
 - **Clear** vegetation in fields (mowing, herbicides, etc.)
 - **Plant** with new tree seedlings and/or saplings
 - **Maintain** for 5 years (watering, replacement of dead trees, removal of competing vegetation, etc.)



Challenges

- Cost of Traditional Method:
Site Clearing
Tree Planting
+ Maintenance (5 yrs)
\$325,000 (\$13,000 per acre)



- Invasive species throughout site (in fields and forest) threaten new forest growth

Innovative Solutions



- Identify available County owned property
- Leverage existing site conditions
- Implement multi-pronged approach to invasive species management

Leverage Site Conditions

- Identified high density and diversity of tree seedlings in fields
- Maryland-National Capital Park and Planning Commission approved the use of the **natural regeneration** technique
- **Provided the following project benefits:**
 - No costly site preparation, tree planting, or 5 years of maintenance
 - Instead, control invasive species for only 3 years

Invasive Species



Princess tree
(*Paulownia tomentosa*)

Canada thistle
(*Cirsium arvense*)



Oriental
bittersweet
(*Celastrus orbiculatus*)



Chocolate vine
(*Akebia quinata*)



Multiple Control Methods

Chemical



Mechanical



Biological



Before Treatment

- Chocolate vine infestation in forested area
- Threatened young trees in adjacent fields



Before Biological Treatment

- Chocolate vine infestation – 2 years after mechanical and chemical treatment



During Biological Treatment

- Chocolate vine infestation removal



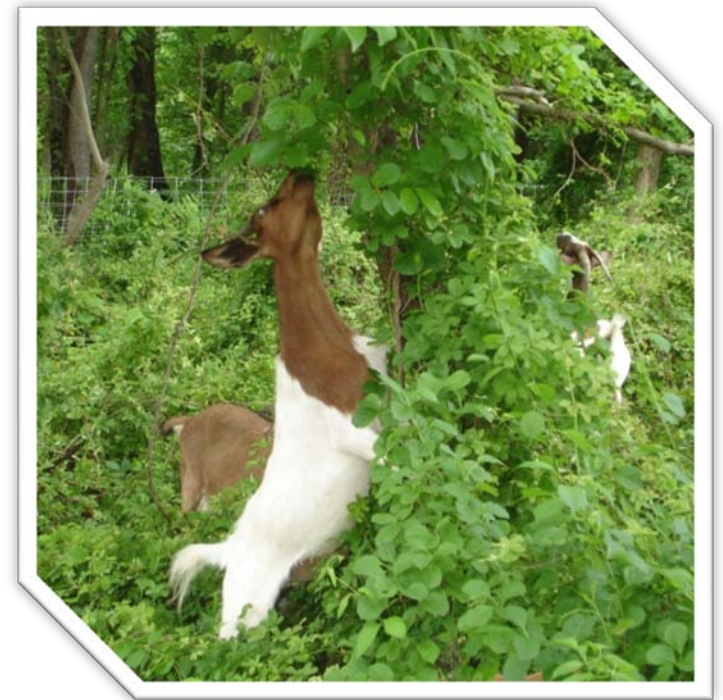
After Treatment

- Chocolate vine infestation – immediately following biological treatment



Biological Treatment

- County utilized eco-friendly goats to target 1-acre infestation
 - One week and 60 goats
 - Community Meeting Held
 - Much Interest in the project
 - Received positive Press coverage



Regenerating Forest

- Fields spot-treated with herbicides



Regenerating Forest

- Fields now thriving stands of tree saplings
- Cost was less than ½ the traditional method



Contact Information



- DPW&T Office of Project Management
 - 301-883-5640
 - www.princegeorgescountymd.gov/dpwt



**STRAUGHAN
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