



**Department of the Environment**

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# Bay Restoration Fund Onsite Sewage Disposal Update

**Governor's Advisory committee**

**September 25, 2006**



# BRF - OSDS

- Request for Proposals
- Proposed Awards
- Best Available Technologies
- Committee Reports



# Request For Proposals

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- Request for Proposals sent out on 3/1/2006
- Received 11 proposals
  - Ten proposals identified as meeting basic criteria of RFP
  - One county submitted after deadline
- \$9,000,000 obligated to ten counties.
- Subject to Board of Public Works Approval.





# Criteria for allocation of funds

- Each proposal was reviewed by the team and scored according following criteria (total score 300 points):
  - Failing OSDS in Chesapeake Bay/Coastal Bay Critical Areas (100 pts)
  - OSDS related health issues (6 pts)
  - 303(d) Watershed restoration efforts (6 pts)
  - Identification/prioritization of OSDS users to upgrade to BAT (12 pts)
  - Distance to reservoir/recreational waters (within 2500 ft ?) (6 pts)
  - Proposed management level (based on 5 EPA levels) (12 pts)
  - Partnership with County Health Department (6 pts)
  - Readiness to proceed (staff, equipment, data storage) (6 pts)
  - Allocation of funds (technology, O&M and administrative cost) (100)
- None of the projects were fully funded
  - range from 42% to 95%





# Bay Restoration Fund 2006-2007 Award Allocation

**Total Award \$9,002,000**

**Anne Arundel County**  
\$2,644,000

**Calvert County**  
\$933,000

**Charles County**  
\$604,000

**Fredrick County**  
\$712,000

**Kent County**  
\$597,000

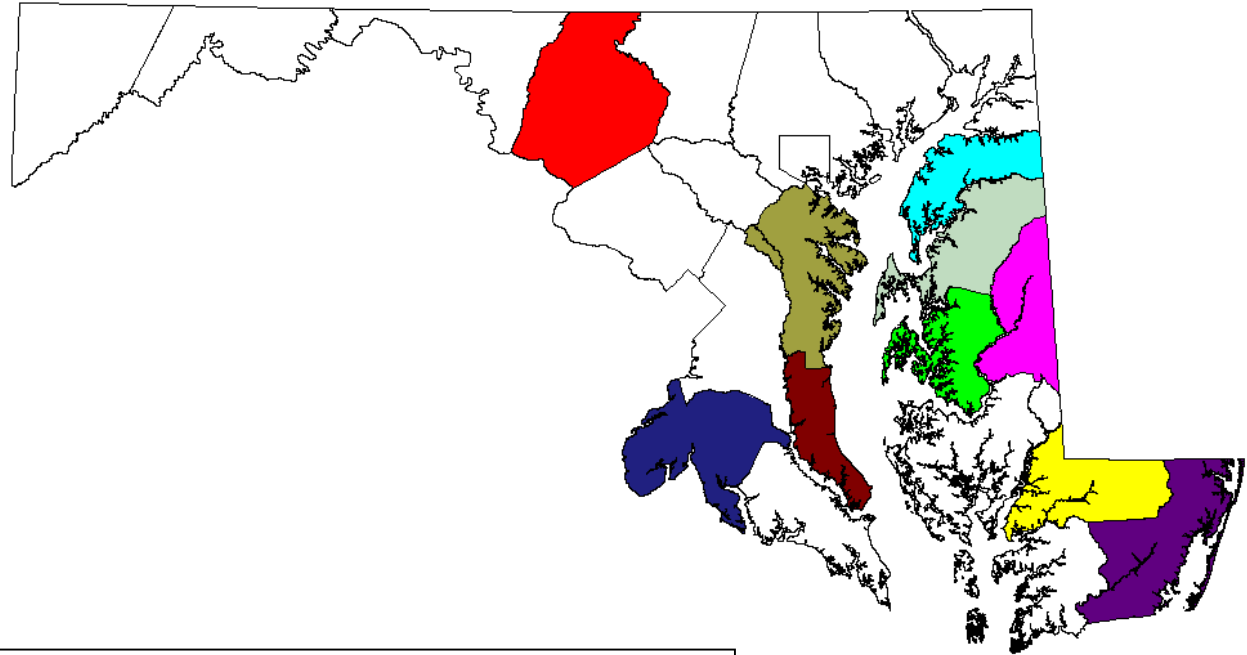
**Queen Anne's County**  
\$287,000

**Caroline County**  
\$144,000

**Talbot County**  
\$1,168,000

**Wicomico County**  
\$771,000

**Worcester County**  
\$1,142,000



**Total Number of Systems to  
be installed: 772**

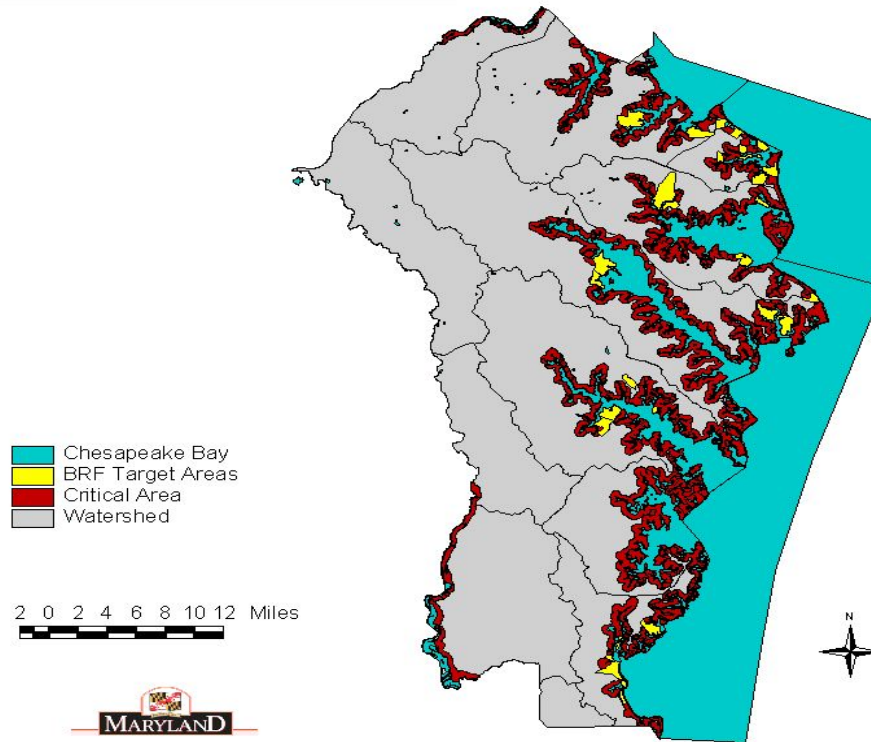
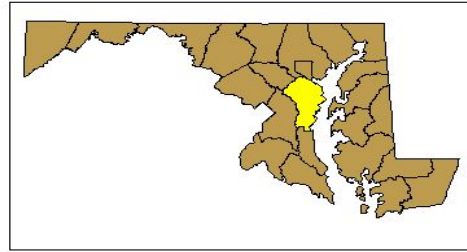


# Anne Arundel County

- Submitted by the Health Department
- \$2,644,000
- 124 units



# Anne Arundel County



Maryland Department of the Environment  
1800 Washington Blvd,  
Baltimore, MD 21230  
Map Production Date: 05/19/2006

Data Sources:  
County, Watersheds and Streams - DNR  
Anne Arundel's County Critical Area - MDE  
Septic Problem Area's - AA County Health Dept

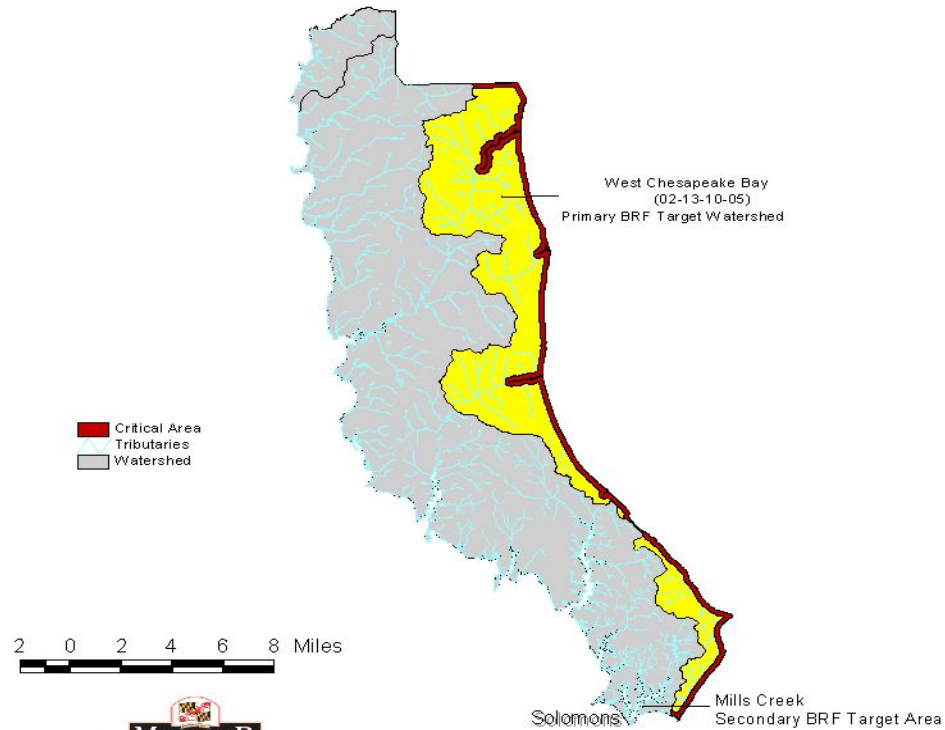
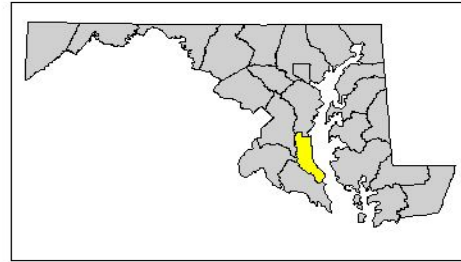


# Calvert County

- Submitted by the Department of Planning and Zoning
- \$932,000
- 75 units



# Calvert County

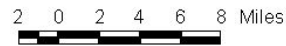
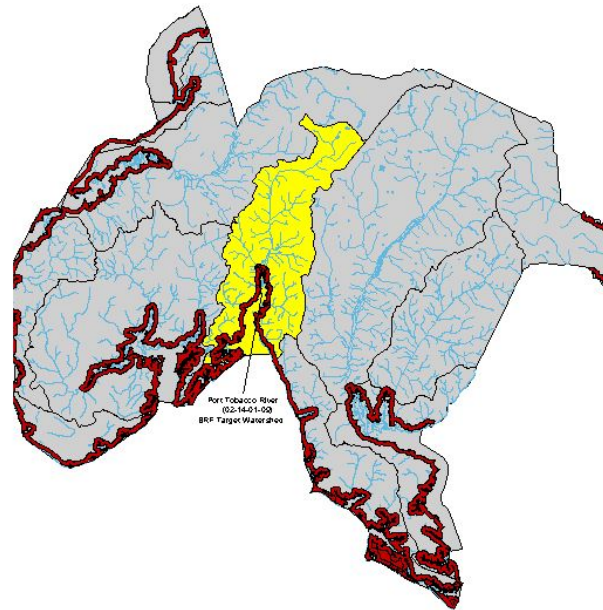
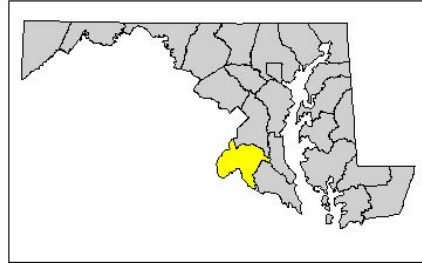


# Charles County

- Submitted by the Health Department
- \$604,000
- 48 units



# Charles County



- Critical Area
- Tributaries
- Watershed



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Data Sources:  
County, Watersheds and Streams - DNR  
Charles County's Critical Area - MDE

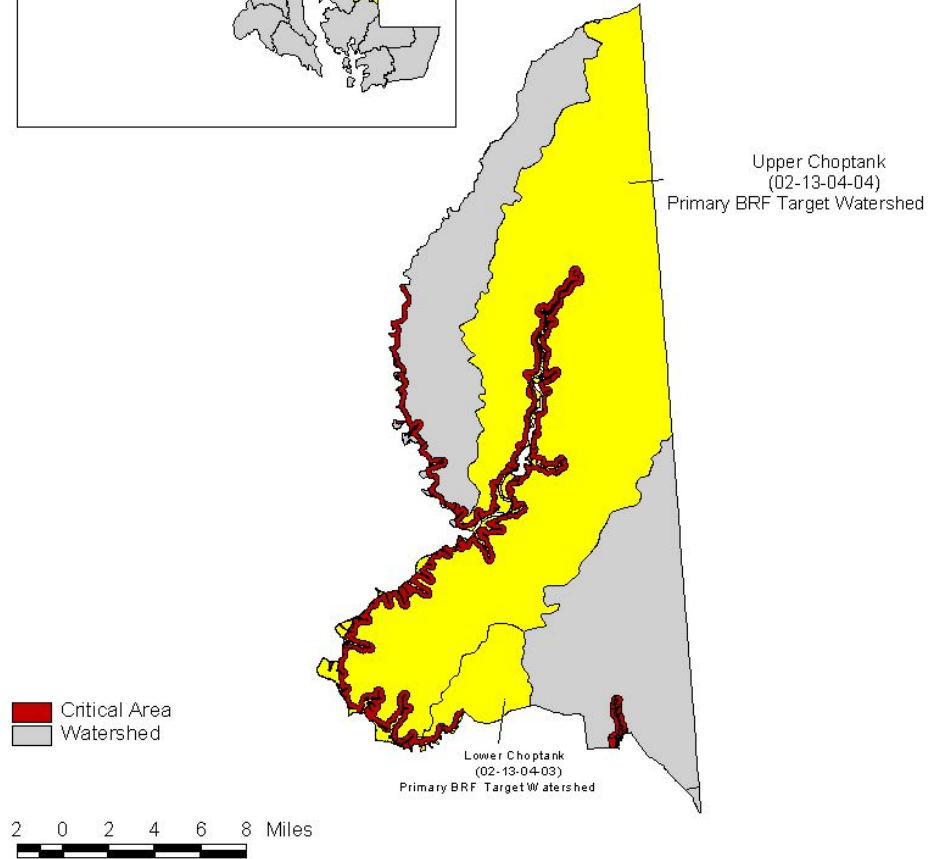
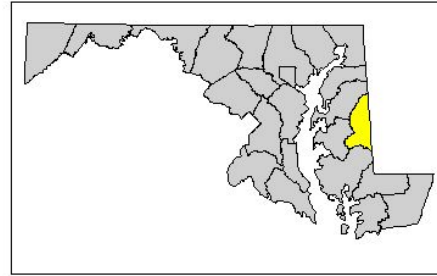


# Caroline County

- Submitted by Health Department
- \$143,000
- 7 units



# Caroline County



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Map Production Date: 05/25/06

Data Sources:  
County, Watersheds and Streams - DNR  
Caroline County's Critical Area - MDE

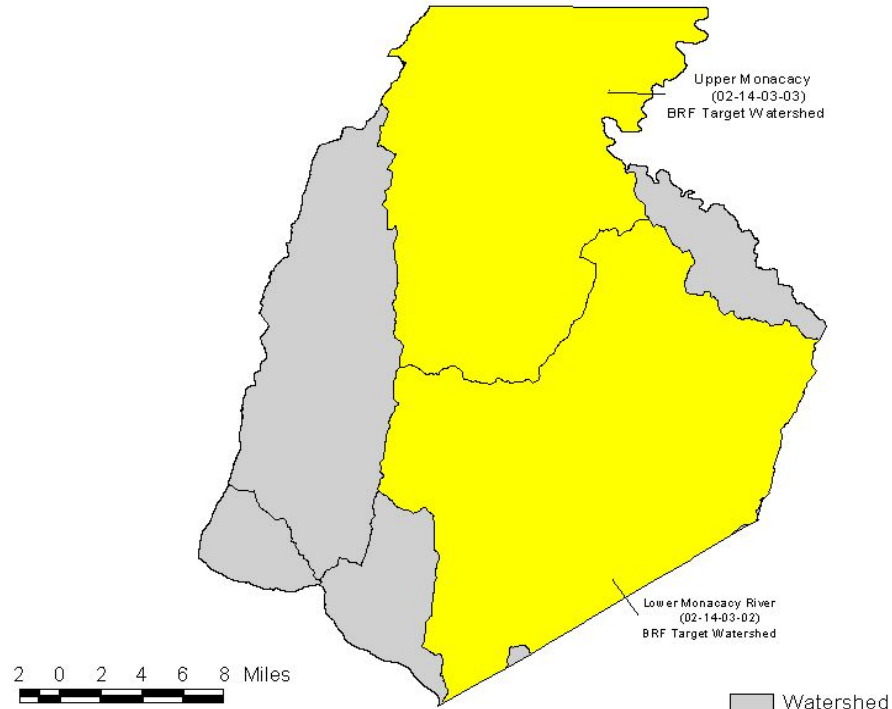
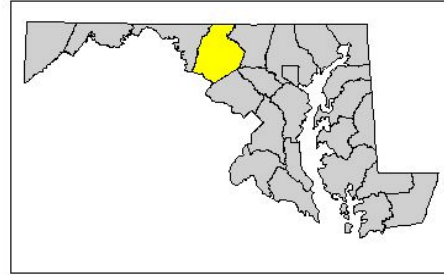


# Frederick County

- Co-Submitted by the Health Department and the Canaan Valley Institute
- \$712,000
- 68 units



# Frederick County



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Map Production Date: 05/25/06

Data Sources:  
County, Watersheds and Streams - DNR  
Kent County's Critical Area - MDE

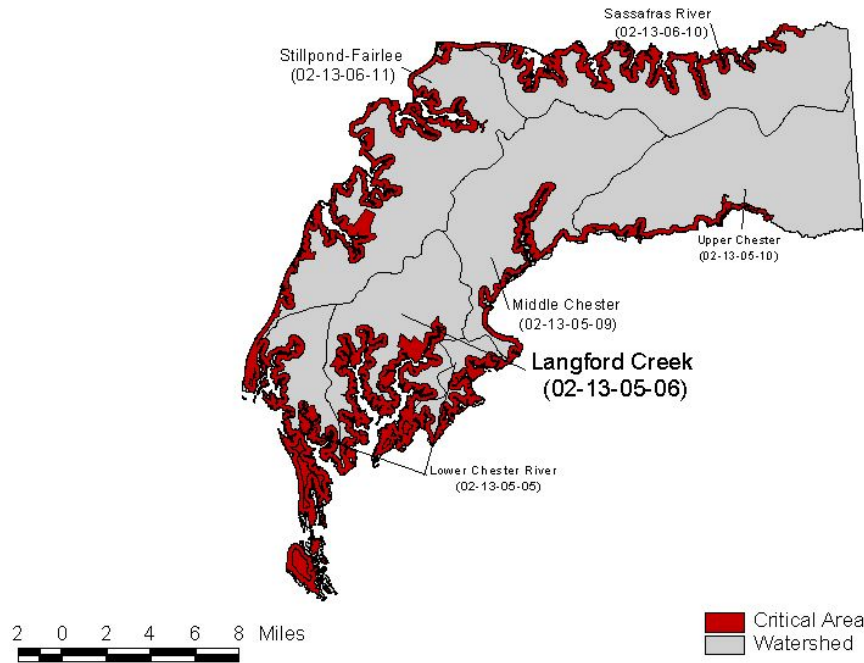
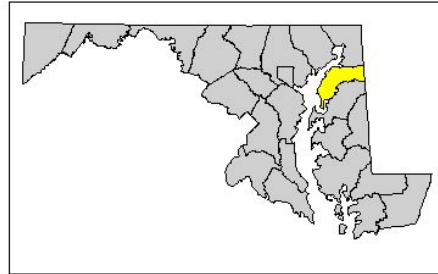


# Kent County

- Submitted by the Department of Water & Wastewater
- \$597,000
- 48 units



# Kent County

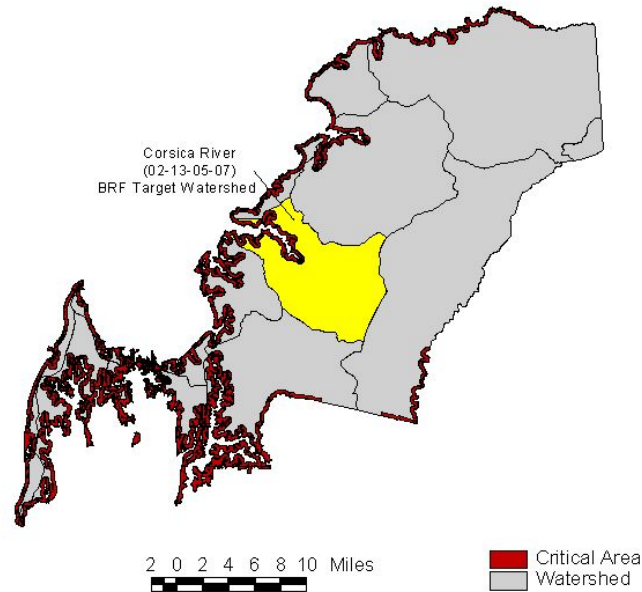
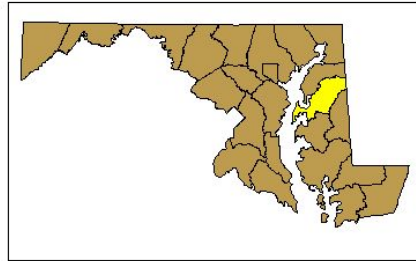


# Queen Anne's County Corsica River Targeted Watershed Project

- Submitted by the Maryland Department of Natural Resources
- \$287,000
- 26 units



# Queen Anne's County



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Data Sources:  
County, Watersheds and Streams - DNR  
Queen Anne's County Critical Area - MDE

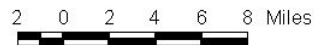
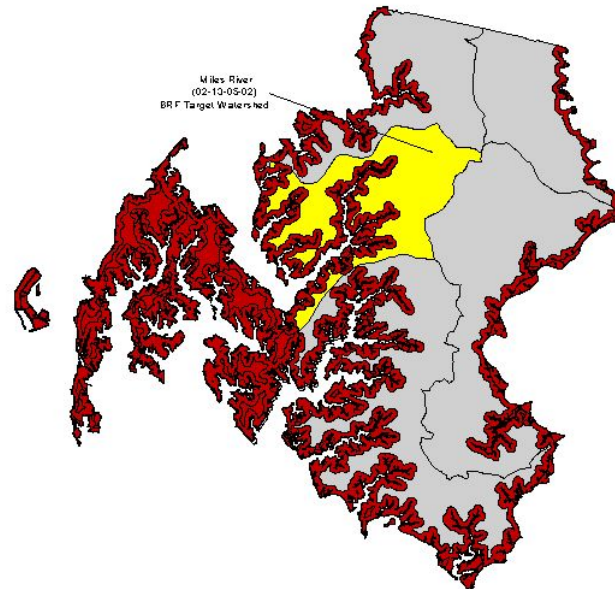
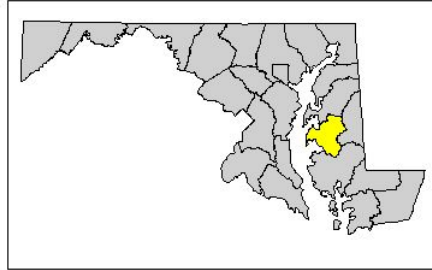


# Talbot County

- Submitted by the Department of Public Works
- \$1,168,000
- 62 units



# Talbot County



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Data Sources:  
County, Watersheds and Streams - DNR  
Talbot County's Critical Area - MDE

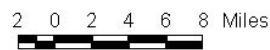
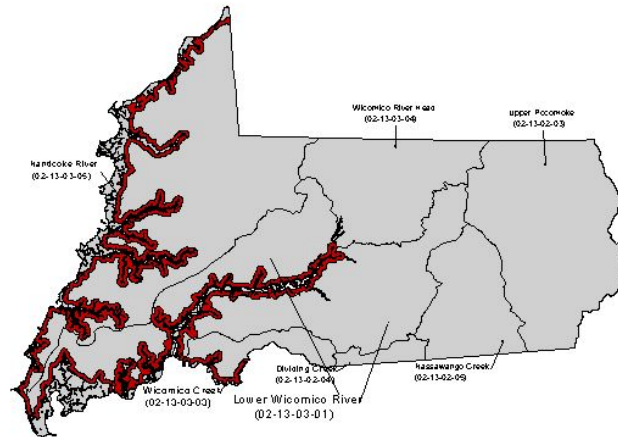
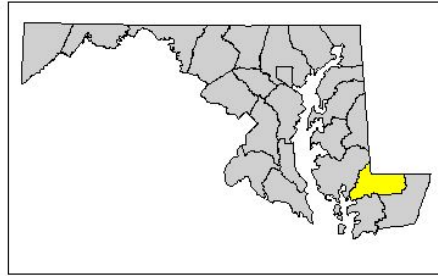


# Wicomico County

- Submitted by the Health Department
- \$770,628
- 62 units



# Wicomico County



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Map Production Date: 05/25/06

Data Sources:  
County, Watersheds and Streams - DNR  
Wicomico County's Critical Area - Wicomico Dept. of Planning and Zoning

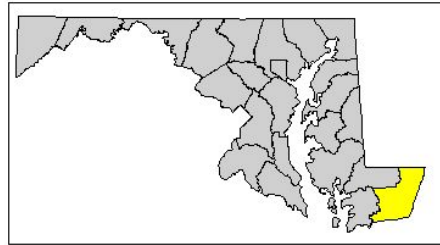


# Worcester County

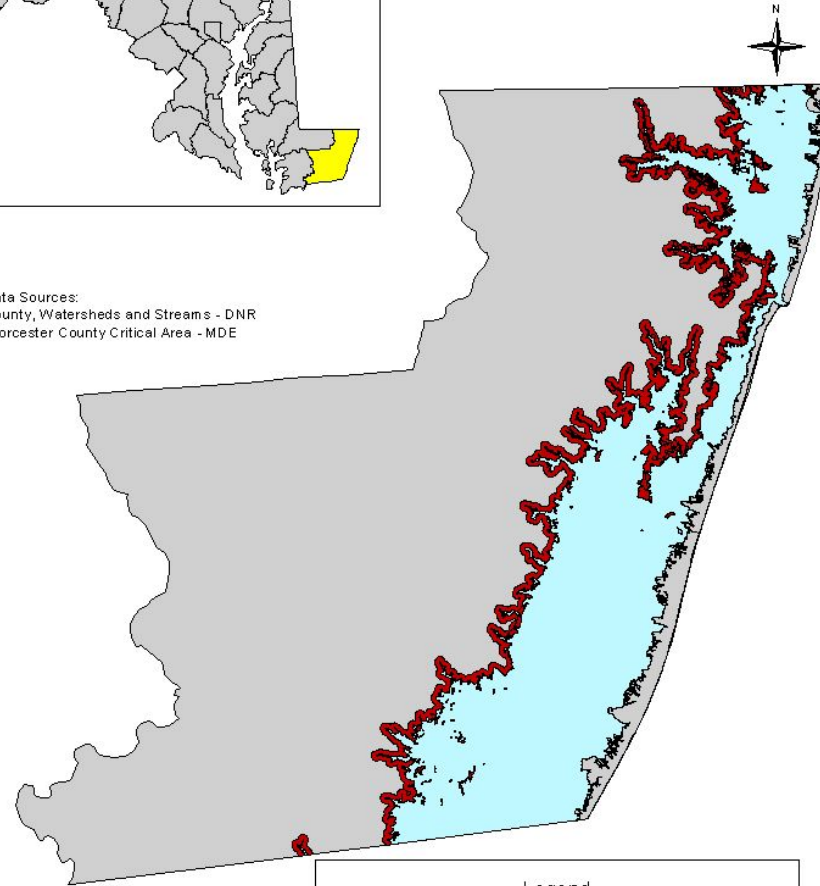
- Submitted by the Department of Environmental Programs on behalf of the County Commissioners
- \$1,142,169
- 91 units




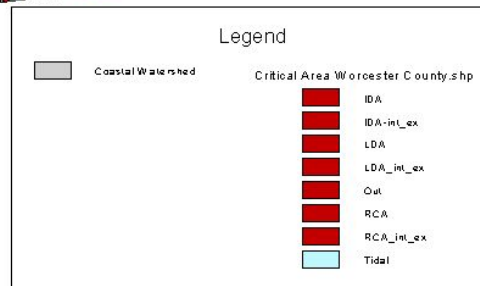
# Worcester County



Data Sources:  
 County, Watersheds and Streams - DNR  
 Worcester County Critical Area - MDE



2 0 2 4 6 Miles



# Best Available Technology (BAT)

## BAT for removing Nitrogen from OSDS

### ▪ **BAT Review Team**

- Dr. Ching-Tzone Tien, P.E. (MDE/WMA)
- Dr. Ta-Shon Yu, P.E. (MDE/WMA)
- Donald Wilson (Director, Caroline County Environmental Health)
- Shan Abeywickrama (MDE/WMA)

### ▪ **Goals of team**

- Determine onsite sewage disposal nitrogen reducing technologies that are BAT and grant eligible under the Bay Restoration Fund.

### ▪ **Eligibility**

- Technologies must have undergone an evaluation at least as stringent as required by the EPA's Environmental Technology Verification (ETV) Program.





# NSF/EPA ETV Systems

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- **AQUAPOINT, Inc.**  
***Bioclere™ Model 16/12***
- **BioConcepts, Inc.**  
***ReCip® RTS ~ 500 System***
- **Bio-Microbics, Inc.**  
***RetroFAST® 0.375 System***
- **F.R. Mahony & Associates, Inc.**  
***Amphidrome™ Model Single Family System***
- **SeptiTech, Inc.**  
***SeptiTech® Model 400 System***
- **Waterloo BioFilter Systems, Inc.**  
***Waterloo Biofilter Model 4 Bedroom***

Source:<http://www.epa.gov/etv/verifications/vcenter9-3.html>





# Additional Systems

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Systems presented to BAT team under review:

- **Norweco, Inc.**  
**Singular<sup>®</sup> Bio-Kinetic<sup>®</sup> System.**
- **Bio-Microbics, Inc.**  
**FAST<sup>®</sup> System.**
- **BIONEST, Inc.**  
**BIONEST<sup>®</sup> System.**
- **Lombardo Associates, Inc.**  
**NITREX<sup>™</sup> Nitrogen Removal Treatment System.**



# Committee Reports

- Administrative Costs to Local Government
- Committee Findings and Recommendations

# Administrative Costs to Local Government (due by 12/31/06)

- Reasonable Costs up to 5 percent
  - Maryland Association of Counties and the Maryland Municipal League
  - Evaluate Summary Tables from the Comptrollers Office

# Committee Findings and Recommendations

(yearly beginning January 1, 2006)

- Cost Analysis
- Appropriate fees for SFY 2008
- OSDS Education and Outreach

# Committee Findings and Recommendations

(yearly beginning January 1, 2006)

- Availability of funds for Supplemental Assistance to smaller disadvantaged communities
- Adoption of Regulations