

OPEN SPACES *Natural Places*

*A Vision for Conserving
Delaware's Precious Natural Lands*



Delaware

- **Karen A. Bennett**
 - Program Manager
 - Natural Heritage, Endangered Species, Private Lands Programs
 - Division of Fish and Wildlife, Department of Natural Resources and Environmental Control (DNREC)
 - Supervised development of Wildlife Action Plan (Olin Allen, WAP Coordinator)
- **Ron Vickers**
 - Manager
 - Land Preservation Office (Open Space, Natural Areas, Nature Preserves)
 - Division of Parks and Recreation, DNREC
 - Supervised update of Open Space Maps (with Olin Allen)

Delaware Quick Facts (2000)

- 1,250,000 acres; 2,000 sq miles
- Population 800,000
- Growth rate 8.9% (U.S. 6.4%)
- New Castle: 5%; Kent: 16%; Sussex: 15%)
- Pop'n Density 401/sq mi (79.6)
- 3 Counties
- 57 incorporated municipalities

What's at Stake?

Delaware's native plants and animals are seriously imperiled

40% of native plants are rare or uncommon

More than 40% of animals are of conservation concern

Forest habitats are the most threatened type of natural habitat in Delaware

29% of the state is forested

20,000 acres of forest were lost between 1986-1999

4,500 acres of forest were lost in 2005 alone

54% of Delaware's native plants are forest-dependent species

40% of Delaware's rare bird species are forest-dependent species

Cost of services is greater than tax revenues

For every \$1.00 in tax revenue gained from residential development, we spend \$1.20 for services (roads, sewer, water, police, schools)

What's At Stake?

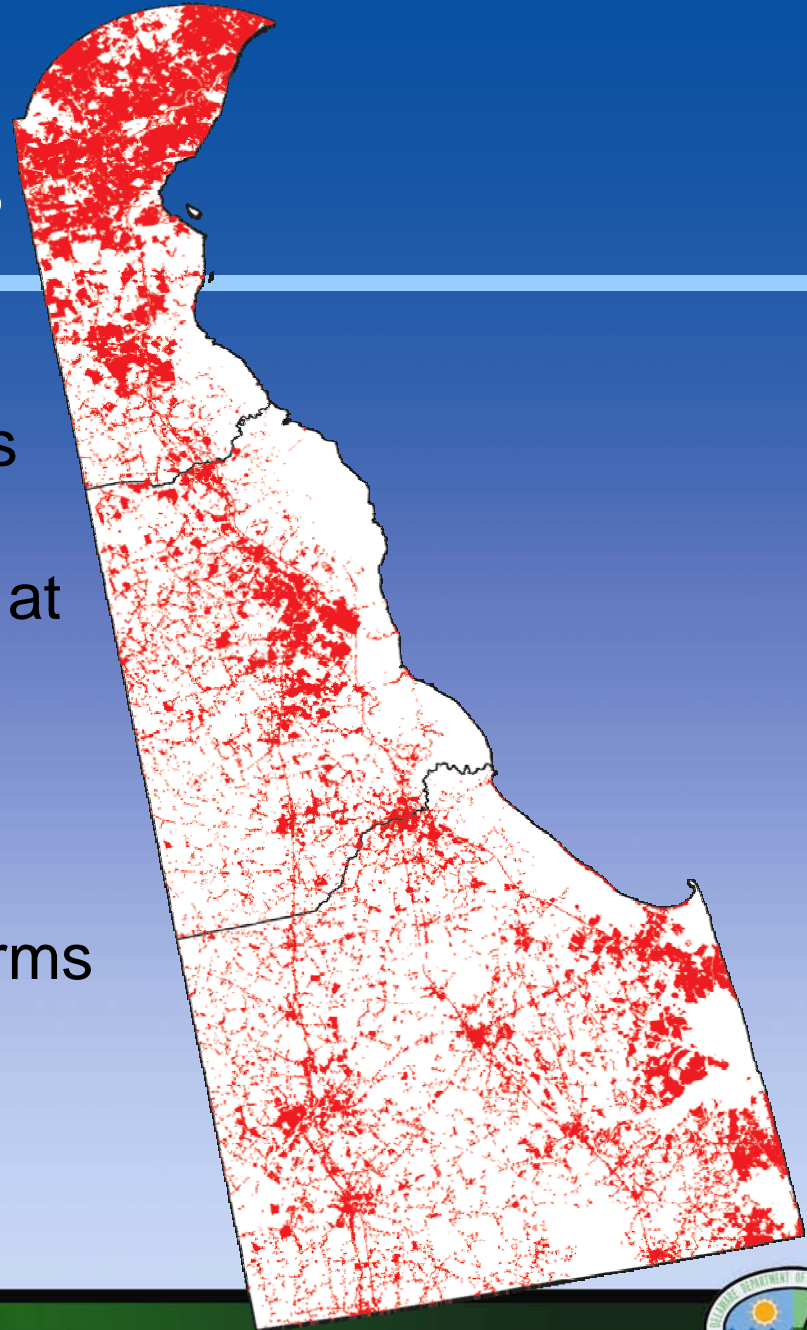
DE Economy

Agriculture	\$800 million/yr.
Outdoor Recreation <i>(Fishing, Hunting, Wildlife Watching)</i>	\$127 million/yr.
Timber	\$3-4 million/yr.
Tourism <i>(DE State Parks)</i>	5.9 million visitors/yr.

Failure to responsibly conserve Delaware's Open Spaces & Natural Places will negatively impact our economy.

Developed Areas

- Delaware's development pattern is scattered across the landscape
- Development is occurring at a pace of approximately 6,000 units per year
- As a consequence our forests, wetlands, recreational lands, and farms are disappearing



Framework for Conserving Open Spaces & Natural Places

Natural Areas Preservation System (1978)

- Maintains inventory of best natural lands of scientific or educational value
- Created Natural Areas Advisory Council
- Highest level of protection for natural resources

The Land Protection Act (1990)

- Establishes a system for identifying “State Resource Areas” as valuable open space lands worth preserving
- Created Open Space Council
- Provides a framework for county land use requirements for protection of State Resource Areas

Delaware's Open Space Overview

- Administered by Division of Parks and Recreation (DNREC)
- Protected 47,000 acres to date, primarily fee simple with few conservation easements
- Expended approx. \$225,000,000 to date
- \$9,000,000 available annually through realty transfer tax

Delaware Open Space (cont'd)

- Biodiversity mandate:
 - “To protection and conserve the biological diversity of plants and animals and their habitat;”
- Power to Prioritize:
 - “Review and recommend....a ranking system to establish land acquisition or permanent protection priorities.”

Delaware Open Space (cont'd)

- Develop “State Resource Area” maps
 - Identify open space lands for protection
 - Natural, historic or other open space values
 - Update every 5 years (1990, 2006)
- Priority ranking system for acquisition
- Shall provide maps to Counties for Comp Land Use Planning

Priority Ranking System

■ 20 attributes

- ✓ Plants
- ✓ Animals
- ✓ Tidal wetlands
- ✓ Nontidal wetlands
- ✓ Riparian habitat
- ✓ Water recharge
- ✓ Geologic
- ✓ Cultural/Historic
- ✓ Forest
- ✓ Natural communities
- ✓ Research science & educational
- ✓ Unusual conservation interest
- ✓ Proximity to state resource areas
- ✓ Proximity to existing rec./cultural lands
- ✓ Sufficiency to protect primary resources
- ✓ Public access
- ✓ Size of property
- ✓ Recreational development
- ✓ Passive recreation
- ✓ Water-based recreation

Points assigned...

ATTRIBUTES	OUTSTANDING 6	SIGNIFICANT 4	AVERAGE 2	INSIGNIFICANT OR NO ANSWER 0	SOURCE/DATE	COMMENT	POINTS
PLANTS (1)	SPECIES OF FEDERAL CONCERN	5 SPECIES OF STATE CONCERN	< 5 SPECIES OF STATE CONCERN				
ANIMALS (1)	SPECIES OF FEDERAL CONCERN	SPECIES OF STATE CONCERN S1	SPECIES OF STATE CONCERN S2 S3	S4, S5			
TIDAL WETLANDS (2)	7+ FUNCTIONS	5 FUNCTIONS	3 FUNCTIONS	LESS THAN 3 FUNCTIONS			
NONTIDAL WETLANDS (2)	7 + FUNCTIONS	5 FUNCTIONS	3 FUNCTIONS	LESS THAN 3 FUNCTIONS			
RIPARIAN HABITAT	PRISTINE	SOME DISTURBANCE	MODERATELY DISTURBED	SUBSTANTIALLY DISTURBED			

Open Space Acquisitions

- Suggestions or opportunity brought forward for consideration
- Interagency Working Group
 - DNREC, Dept of Ag (Forest Service), DeIDOT, Dept of Economic Development, Historical and Cultural Affairs
 - Review rating sheet
 - Recommend action to Council

Delaware Wildlife Action Plan

- Completed in 2005
 - Coincided with initiative to update SRA maps
- Identifies > 450 Species of Greatest Conservation Need
- > 50 Habitats of Conservation Concern



*Our Approach
to Conserving
Open Spaces &
Natural Places*

Courtesy of Kevin Fleming

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Building Blocks for Conserving Open Spaces & Natural Places

State Resource Areas (SRAs)

Open space lands valued for:

- Natural, cultural or geological significance
- Wildlife habitat
- Outdoor recreation
- Scenic beauty
- Conservation of water resources
- Buffering or connecting existing “open space investment areas”

Building Blocks for Conserving Open Spaces & Natural Places

Open Space Investment Areas

Land purchased for permanent protection through acquisition or easement by Federal, State, County or local agencies and private non-profit groups:

- Wildlife areas and refuges
- Nature preserves
- Parks and other recreation areas
- Cultural, historic or archaeological sites

How We Conserve Open Spaces & Natural Places

Open Space and Natural Areas Advisory Councils...

- Review and recommend for adoption SRA and NA maps
- Recommend land for permanent protection or nature preserve dedication by State

DNREC...

- Produces SRA/NA maps
- Adopts maps upon recommendation of Councils
- Provides maps to Counties for use in comprehensive land use plans

OPEN SPACES & Natural Places Natural Maps

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How the maps were created...

- Better technology since 1990
 - 2002 and 1937 aerial photography (2007 aerial available in 2008)
 - GPS location data
 - GIS mapping capabilities widespread

How the maps were created...

- Updated natural resource / landscape information
 - Existing Natural Areas, State Resource Areas, Green Infrastructure and Wildlife Action Plan maps
 - 250-acre minimum forest/wetland patch (2 counties)
 - 150-acre minimum forest/wetland patch (1 county)
 - Rare species locations
 - Natural community ground truthing
 - Forest quality assessment
 - Stream sampling data
 - Land use/land cover
 - Cultural resource information
 - Geologic information

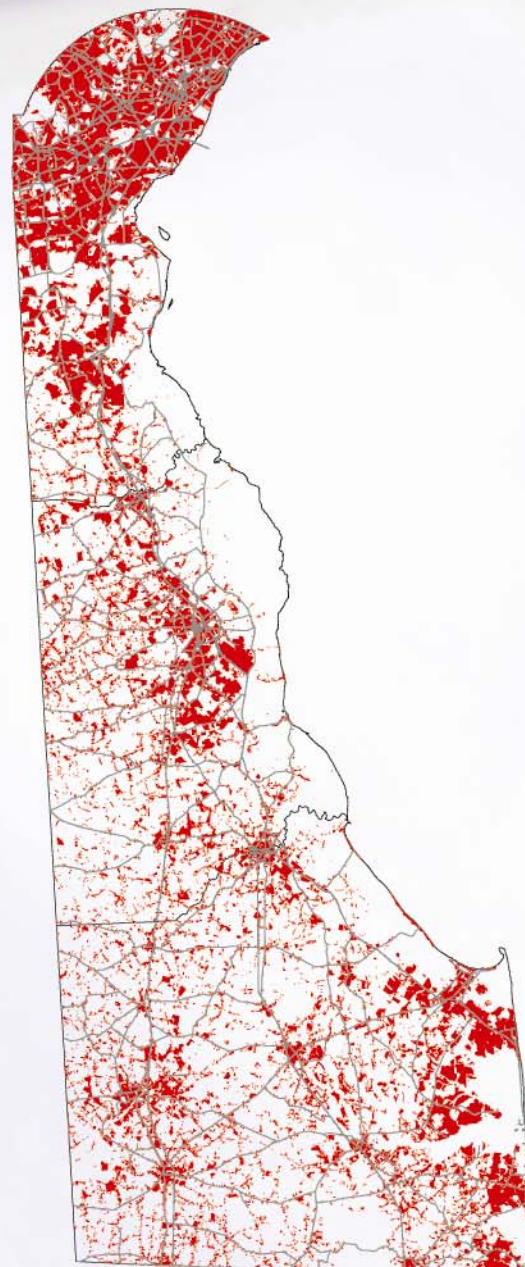


Open Spaces & Natural Places Maps

Developed Lands

Developed
Lands:
24%
of the State

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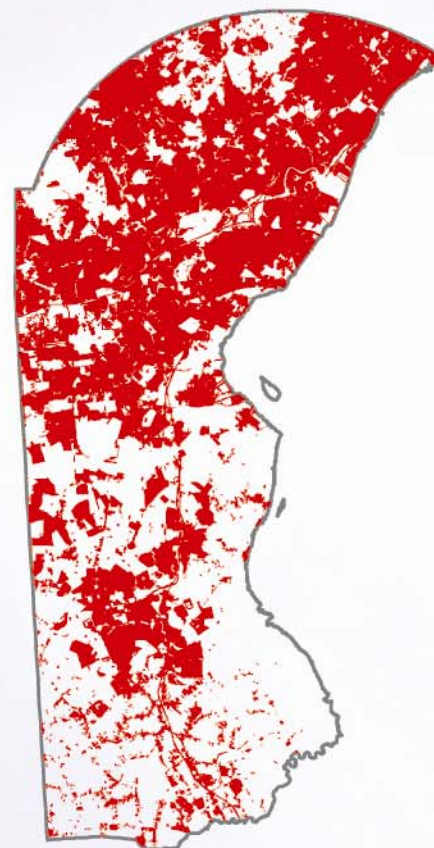




Open Spaces & Natural Places Maps

Developed Lands, New Castle County

Developed
Lands:
48%
of New
Castle
County

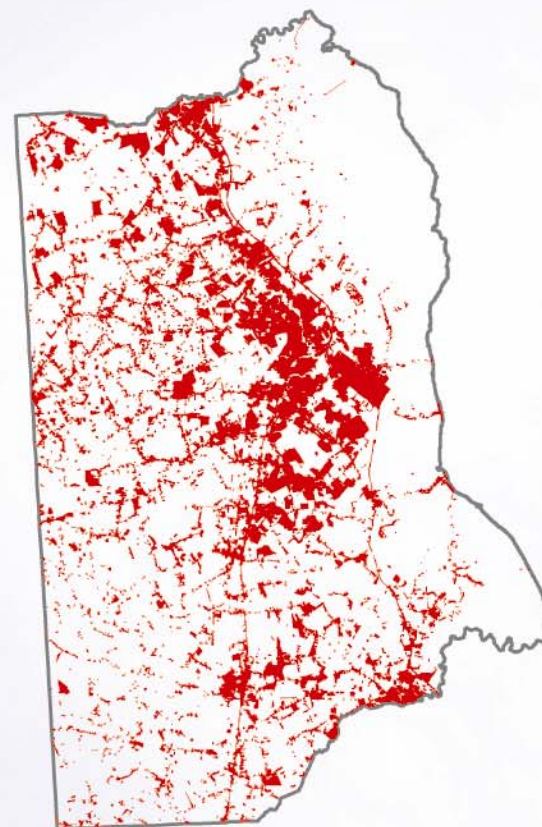




Open Spaces & Natural Places Maps

Developed Lands, Kent County

Developed
Lands:
18%
of Kent
County

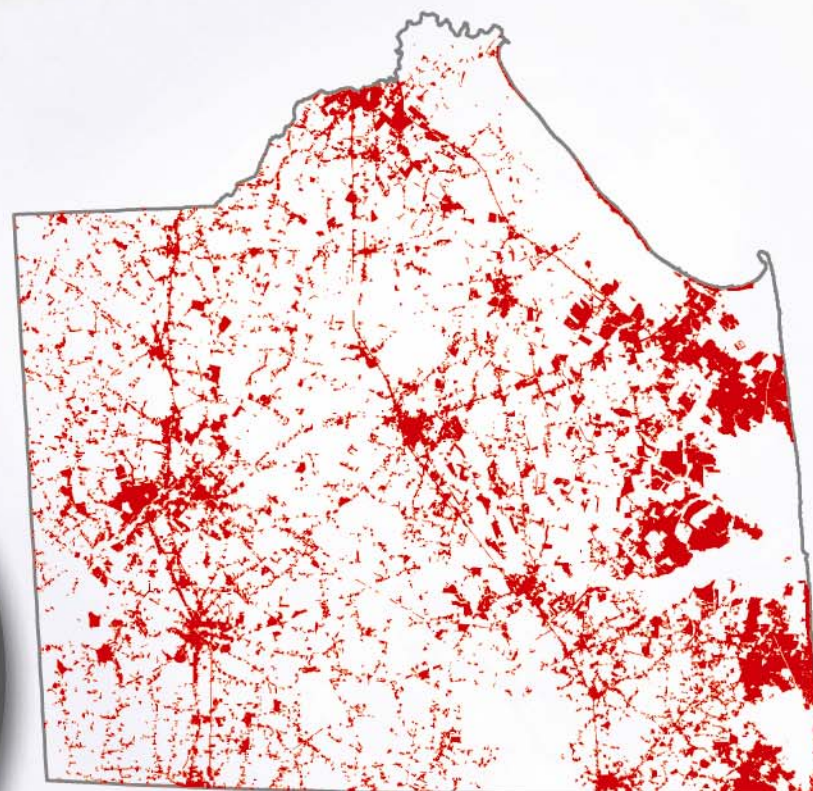




Open Spaces & Natural Places Maps

Developed Lands, Sussex County

Developed
Lands:
18%
of Sussex
County





*Open Spaces &
Natural Places Maps*

Current State Resource Areas

Current
SRA:
21%
of the State

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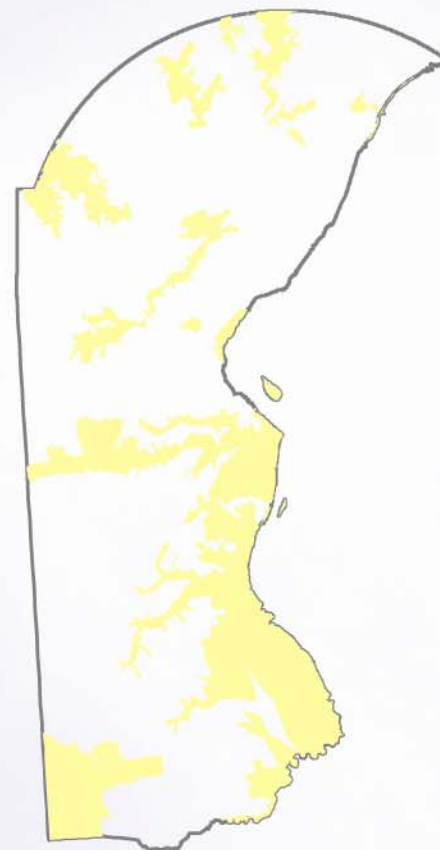




Open Spaces & Natural Places Maps

Current State Resource Areas, New Castle County

Current
SRA:
24%
of New
Castle
County

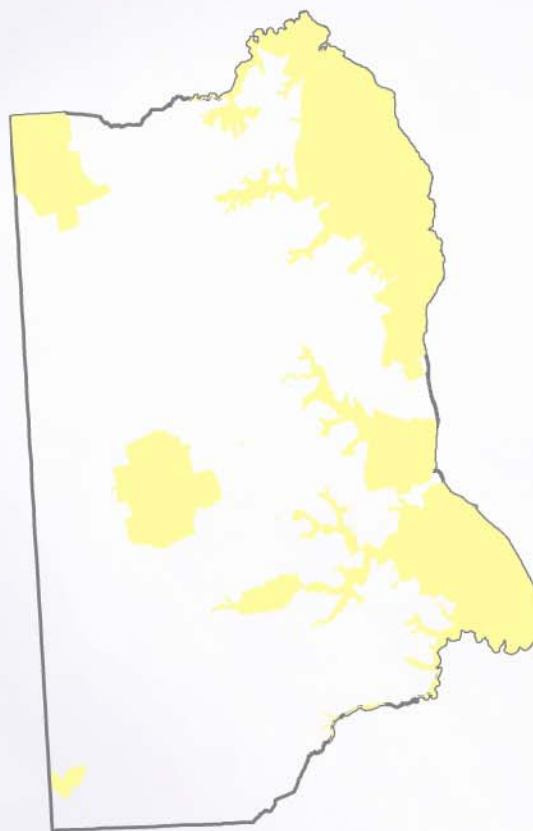




Open Spaces & Natural Places Maps

Current State Resource Areas, Kent County

Current
SRA:
26%
of Kent
County

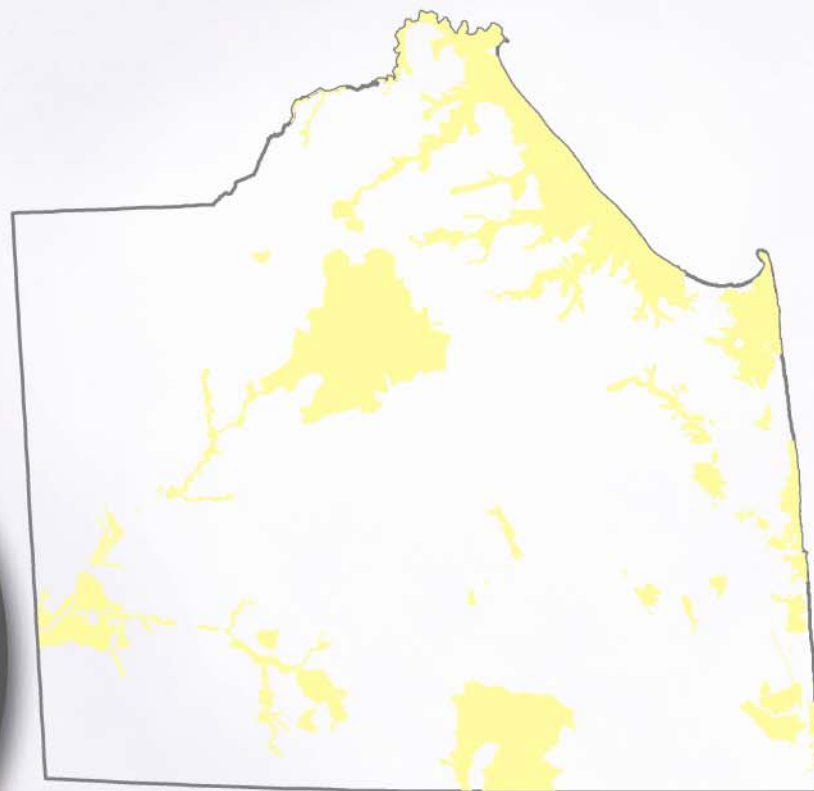




Open Spaces & Natural Places Maps

Current State Resource Areas, Sussex County

Current
SRA:
16%
of Sussex
County





Open Spaces & Natural Places Maps

Proposed State Resource Areas

Proposed
SRA:
23%
of the State

**(Current:
21%)**

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*Open Spaces &
Natural Places Maps*

Current State Resource Areas

Current
SRA:
21%
of the State

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Open Spaces & Natural Places Maps

Proposed State Resource Areas, New Castle County

Proposed
SRA:
25%
of New Castle
County

(Current: 24%)





Open Spaces & Natural Places Maps

Proposed State Resource Areas, Kent County

Proposed
SRA:
27%
of Kent
County

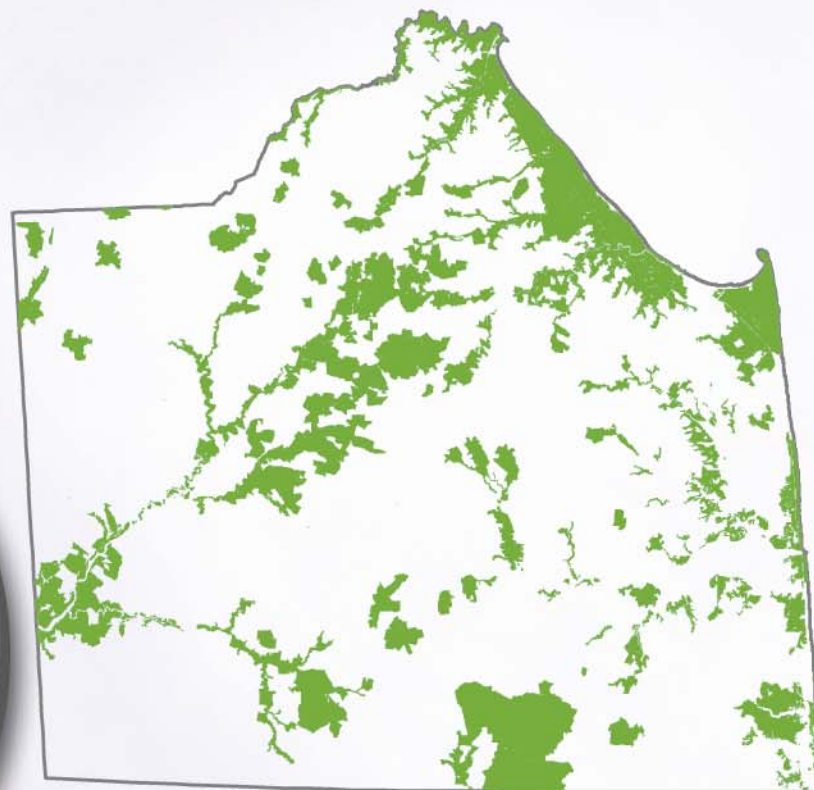
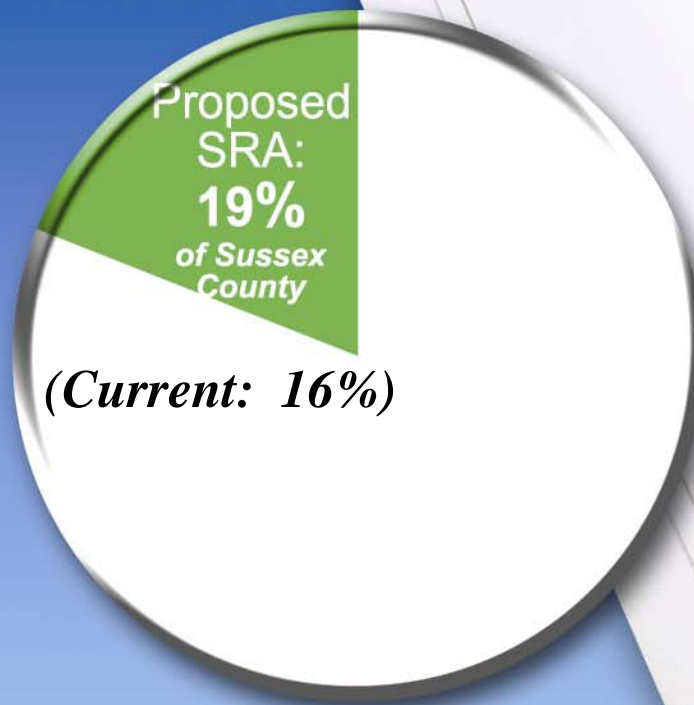
(Current: 26%)





Open Spaces & Natural Places Maps

Proposed State Resource Areas, Sussex County



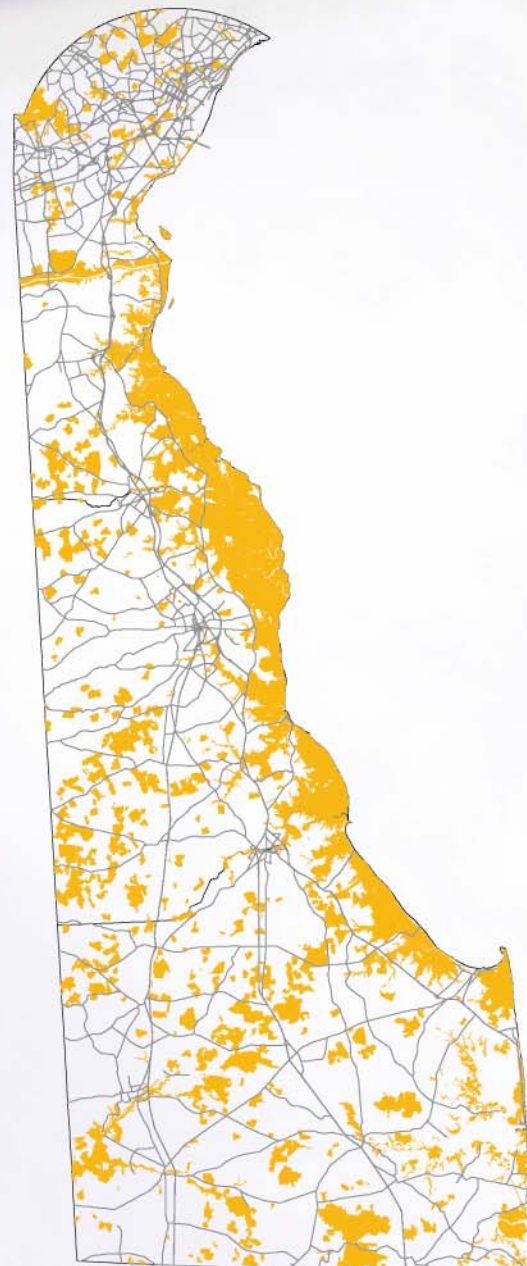


Open Spaces & Natural Places Maps

Protected Lands

Protected
Lands:
22%
of the State

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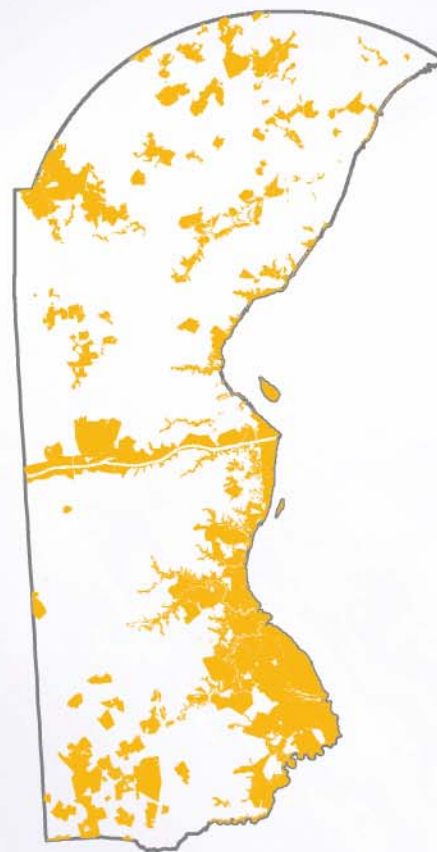


Open Spaces & Natural Places Maps

Protected Lands, New Castle County

Protected
Lands:
21%
of New Castle
County

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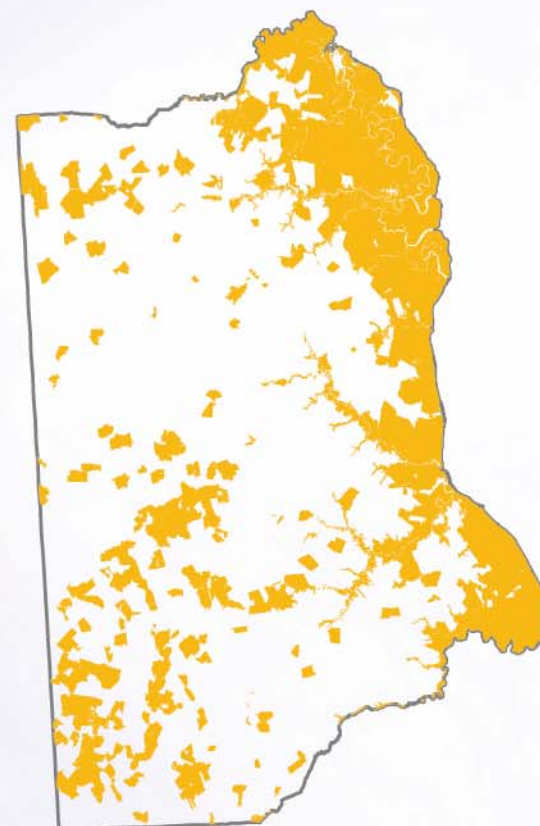




Open Spaces & Natural Places Maps

Protected Lands, Kent County

Protected
Lands:
28%
of Kent
County



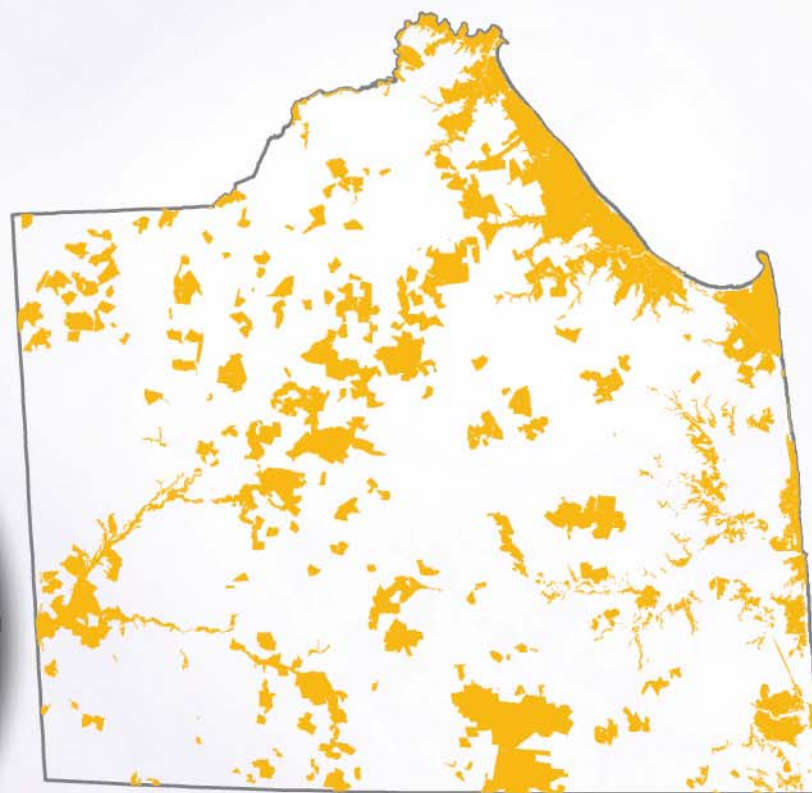
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Open Spaces & Natural Places Maps

Protected Lands, Sussex County

Protected
Lands:
19%
of Sussex
County

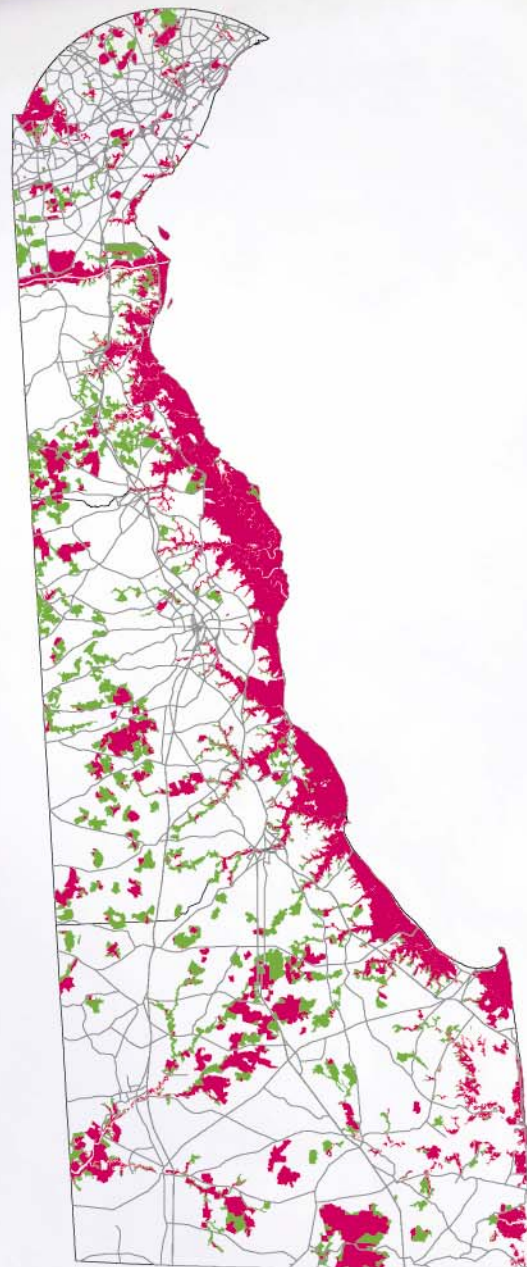
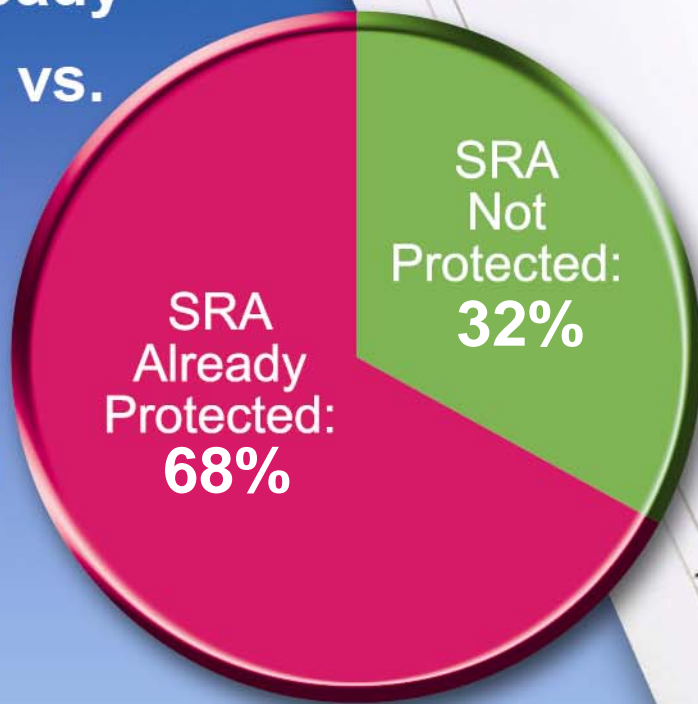


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Open Spaces & Natural Places Maps

**Proposed
SRAs Already
Protected vs.
Proposed
SRAs
Outside
Protected
Areas**

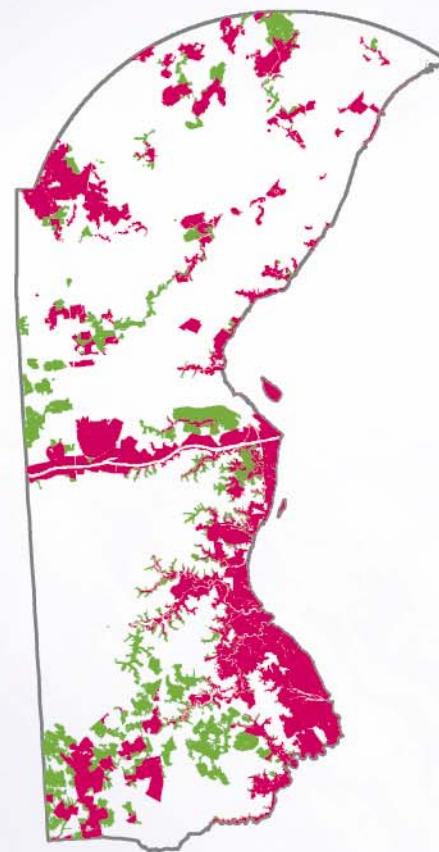
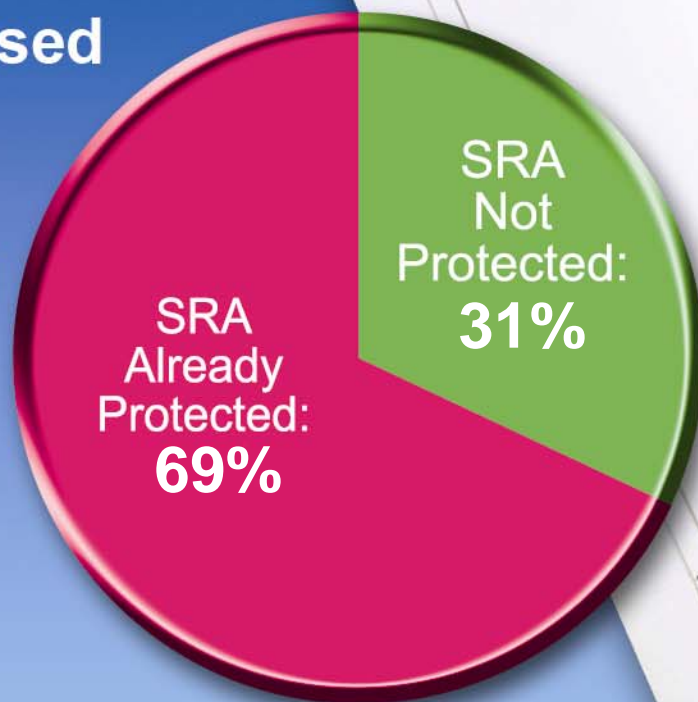


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Open Spaces & Natural Places Maps

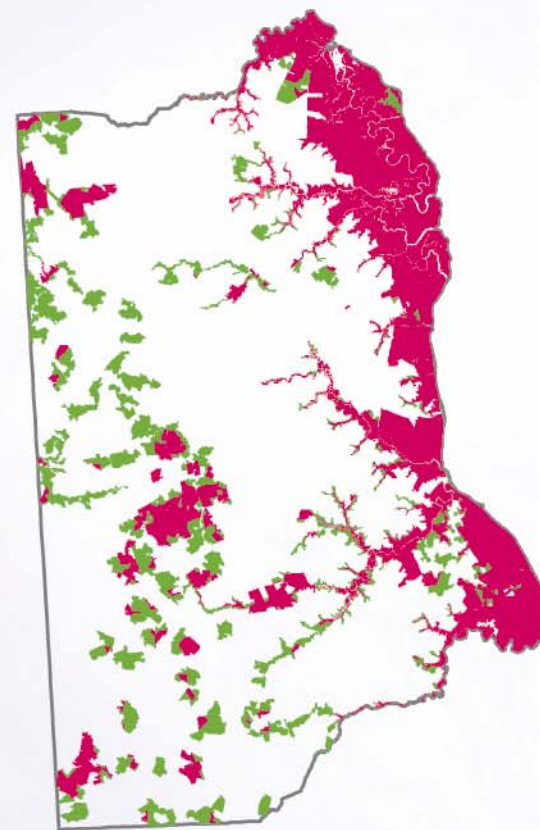
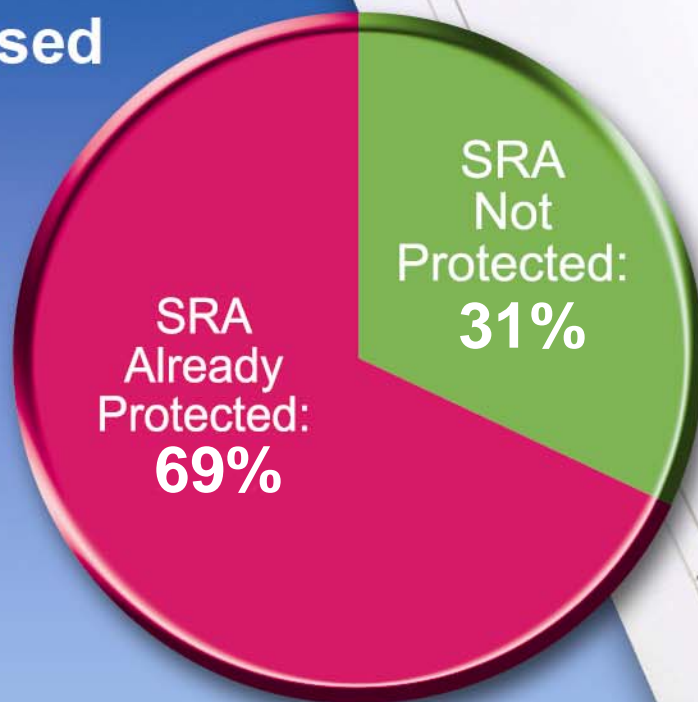
**Proposed SRAs
Already Protected
vs. Proposed
SRAs
outside
Protected
Lands,
New
Castle
County**





Open Spaces & Natural Places Maps

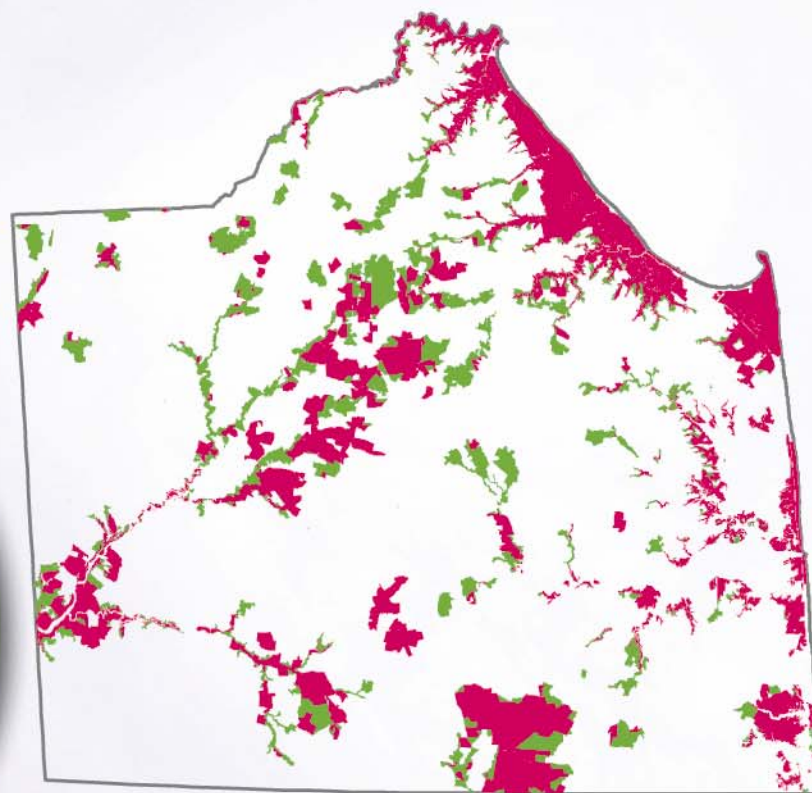
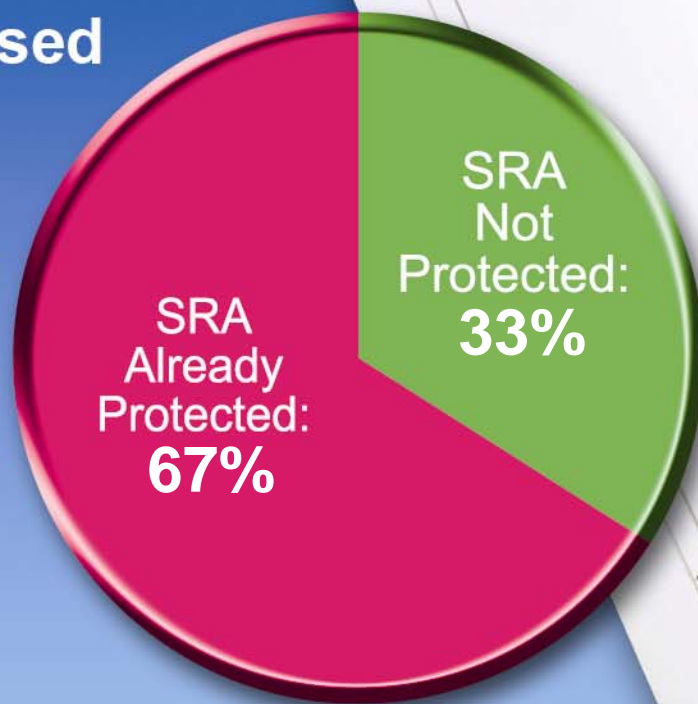
**Proposed SRAs
Already Protected
vs. Proposed
SRAs
outside
Protected
Lands,
Kent
County**





Open Spaces & Natural Places Maps

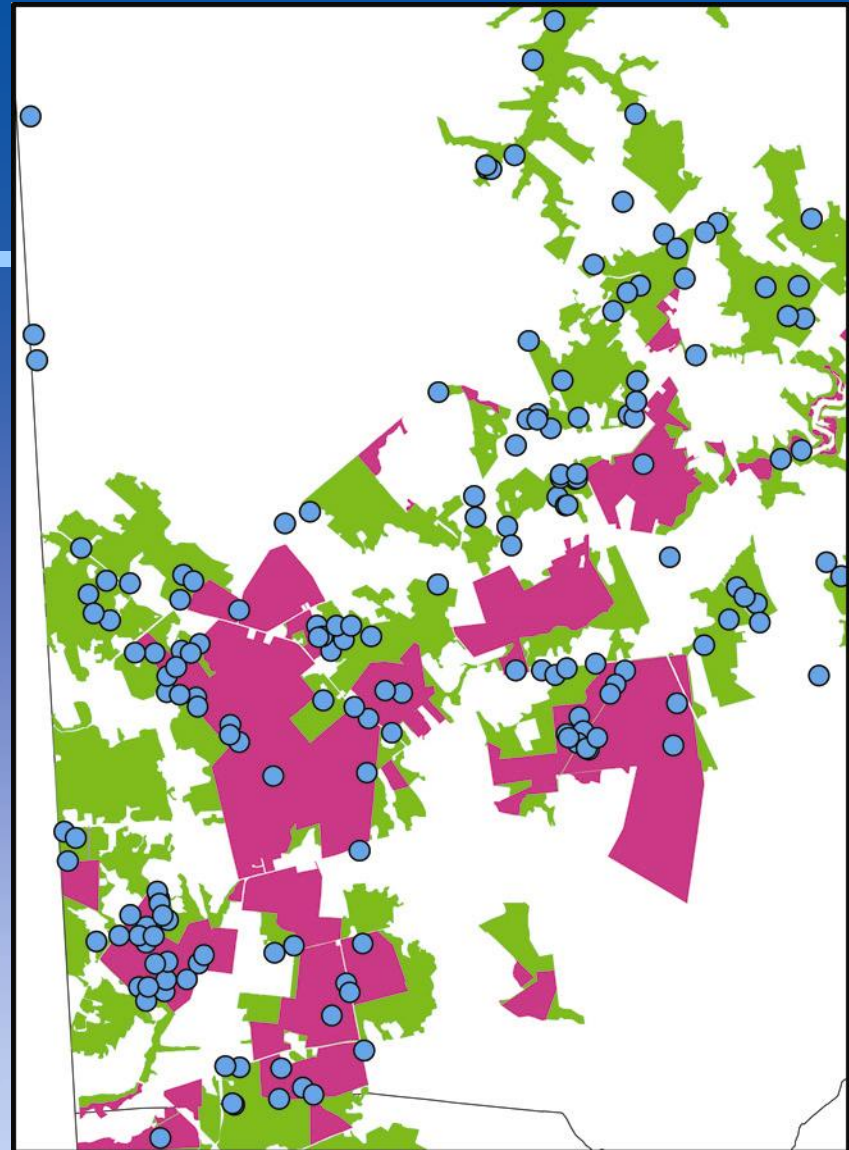
**Proposed SRAs
Already Protected
vs. Proposed
SRAs
outside
Protected
Lands,
Sussex
County**



Detail Maps

New Castle County: Blackbird Forest Area

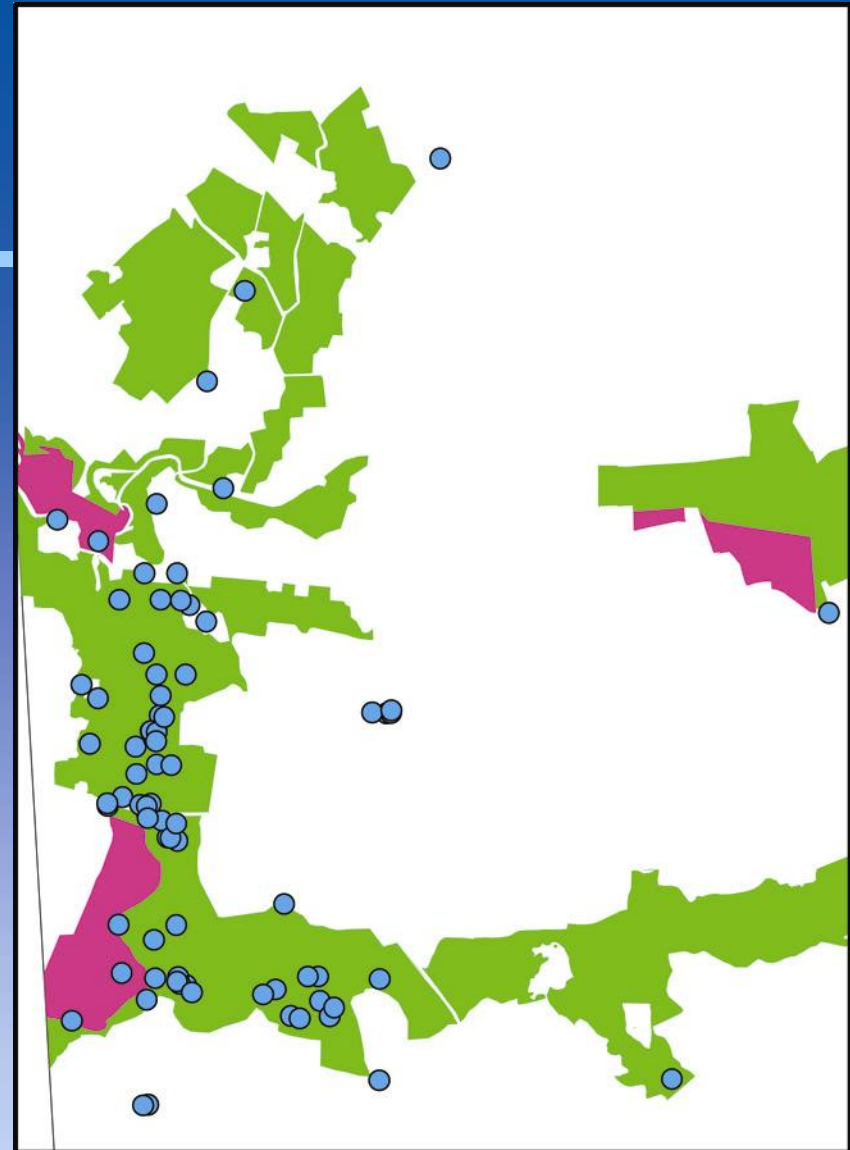
- *PROPOSED SRA*
- *PROTECTED SRA*
- *Rare Species Location*



Detail Maps




Kent County: Choptank River Area

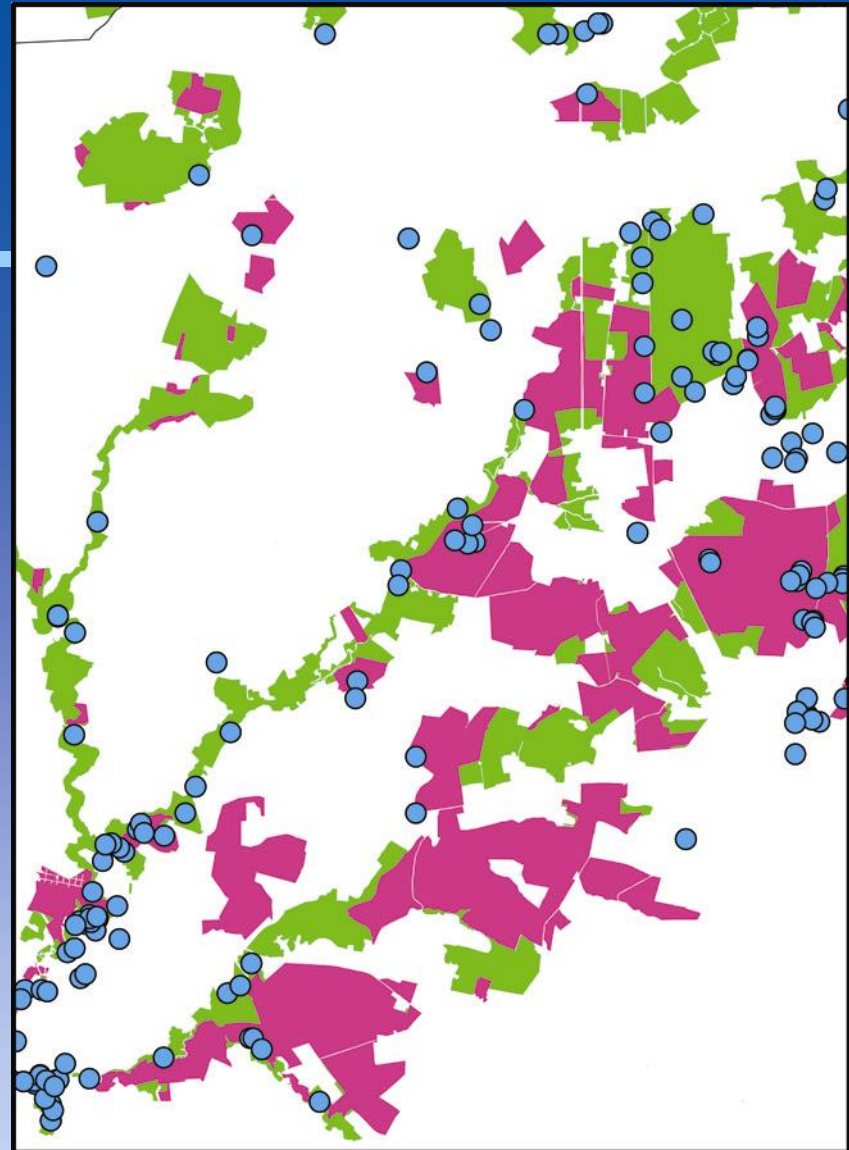
-  **PROPOSED SRA**
-  **PROTECTED SRA**
-  **Rare Species Location**



Detail Maps

Sussex County: Nanticoke River Watershed Headwaters Forests

-  *PROPOSED SRA*
-  *PROTECTED SRA*
-  *Rare Species Location*



*Encouraging
Conservation
&
Managing Growth*

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Counties Play a Key Role

Counties are responsible for:

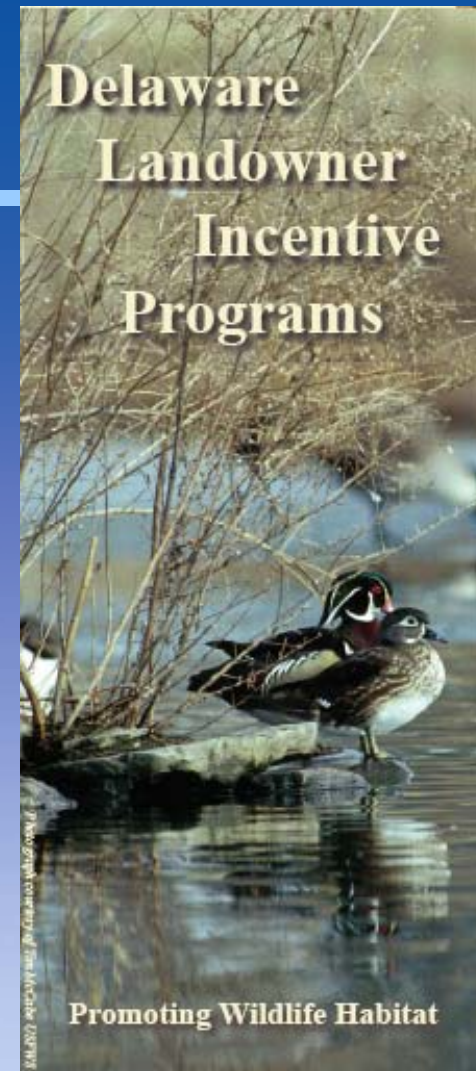
- Working with developers to design communities that fit with the local character and minimize the impact on open space lands
- Creating clear zoning laws, ordinances, specific environmental performance standards and design criteria

The Path Forward...

- Local Government Assistance
- County Comprehensive Plan Development and Review
- Landowner Assistance
- Improving the Integration of State and County Regulations and Standards
- Maintaining the Accuracy of the State Resource Area Delineations

Delaware Landowner Incentive Programs

- DNREC Division of Fish and Wildlife
- DE Department of Agriculture
- Delaware Forest Service
- USDA Natural Resource Conservation Service
- U.S. Fish and Wildlife Service
- The Nature Conservancy
- National Wild Turkey Federation
- Ducks Unlimited Incorporated
- DNREC Division of Soil and Water Conservation
- County Conservation Districts



Schedule

- Public workshops in each county: **April 25, 26, 27, 2006**
- Public hearing on proposed maps: **May 1, 2006;**
- Open Space and Natural Areas Advisory Council provides recommendation on proposed maps to DNREC Secretary
- DNREC Secretary adopts maps and provides them to the counties: **May 2006**
- Final Comprehensive Plans due: New Castle-**January 2007**; Kent-**March 2007**; Sussex-**October 2007**
- Counties adopt ordinances based on SRA maps **within 18 months** of receiving maps

*For the quality of our lives...
and that of our children*

Photo Credits:

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