



Natural Areas and State Resource Areas

A brief history and update

Path forward

- **DNREC will work with the Open Space Council to develop and adopt new criteria, in accordance with Chapter 75 and the Chancery court ruling**
 - We will be using newest orthophotography maps (2007)
- **DNREC will work with this stakeholders group on issues of concern:**
 - Provide feedback as criteria are developed
 - Communication with landowners and the public
 - Appeals processes
 - Reasonable implementation at the local level

Natural Area program

Title 7, Chapter 73 (1978)

- **Established as a voluntary program that encourages DNREC and other agencies, organizations and individuals to preserve areas of “unusual natural significance”**
- **Establishes Natural Areas Advisory Council and Office of Nature Preserves in Parks**
- **New Castle County chose to use state’s Natural Areas maps to delineate and protect “Critical Natural Areas”**
 - Under the UDC, CNA boundaries are not changed without approval by DNREC/Advisory Council



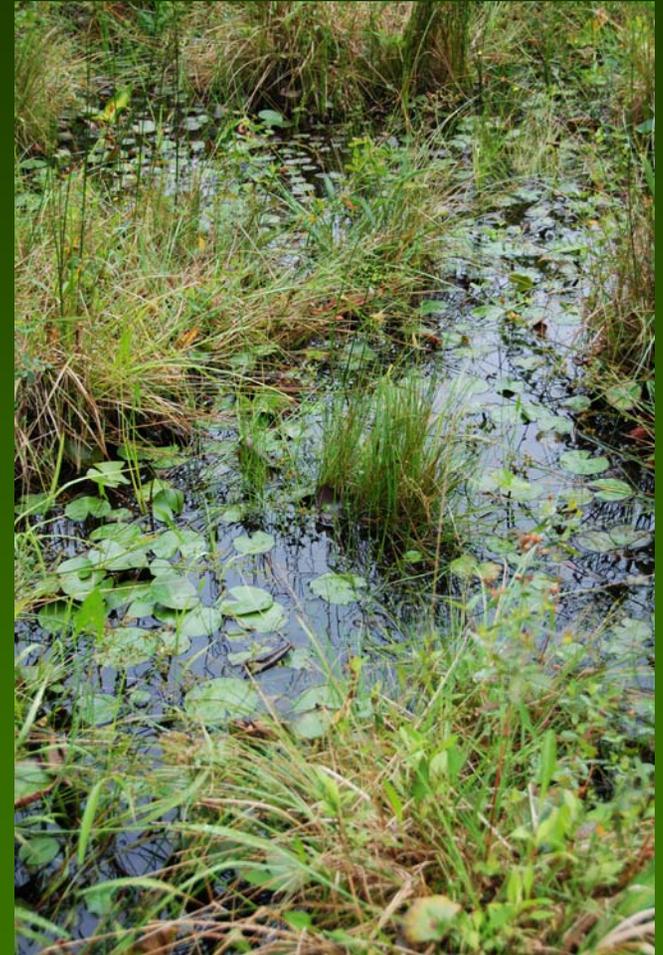
State Resource Areas

Title 7, Chapter 75 (Delaware Land Protection Act - 1990)

- **Establishes Open Space Council to pursue acquisition of lands for public recreation and conservation of natural and cultural resources (Sections 7505-06)**
- **Requires Council and the state to develop standards and criteria for identifying state resource areas and transmit maps to counties for inclusion in land-use plans (7507)**
- **Very specifically directs counties to establish protective ordinances and “environmental performance standards” for these areas (7508)**

SRAs promote sustainable growth*

- **By supporting the economy and increasing and protecting property values**
- **By enhancing livability and quality of life**
- **By providing wildlife and plant habitat**
- **By maintaining natural landscape processes**
- **By protecting water and air quality**



* "Guidelines for Counties and Municipalities to Protect Ecological Features of State Resource Areas" – DNREC, March 2008

Misunderstandings about SRAs

1. **Aglands affected**
2. **Can't be developed**
3. **Law intended only for acquisition**
4. **No real criteria for 2006 update of maps – “indiscriminate land grab”**
5. **They are a taking**



1. Aglands are exempt from land-use regulation related to SRAs

“The guidelines, performance standards, design criteria of this subsection shall not apply to lands producing agricultural commodities (*including silvaculture*) as defined in Chapter 7 of Title 3 or lands under state agency ownership.”

- Chapter 75, Section 7508 (b)

2. SRAs can be developed

DNREC and its consultants chose case studies for each county and conducted a design charrette with the goal of being “yield-neutral” while protecting significant ecological features.

- DNREC GIS staff identified several sites for potential use as case studies. Three sites were ultimately chosen, based on their size (over 250 acres) and presence of SRAs and natural resources (e.g., wetlands, streams, floodplains, rare species, groundwater recharge areas).

Example: Sussex case study

Total site area	General site description	Development proposal	County ordinances applied
365 acres	<p>Over 90% of the site lies within an SRA. The majority of the site is forested, with a utility line easement bisecting the center and a small agricultural field in the southern portion of the site. The north, east, and west edges of the site contain tidal wetlands. Two groundwater recharge areas lie near the central portion of the site. One small, isolated non-tidal wetland lies in the northern portion of the site (Figure 4-1).</p>	<p>Single family subdivision. Spray irrigation was chosen as the most environmentally sensitive method of treatment on this particular site, although it is more land-consumptive.</p>	<ul style="list-style-type: none">• Sussex• Development prohibited in tidal wetlands.• Allowable density based on gross tract acreage - two units per acre with individual well and septic and greater density with public sewer.• 30 foot setback requirement where the property boundary abuts active agriculture.

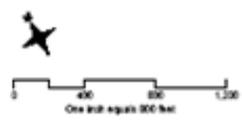
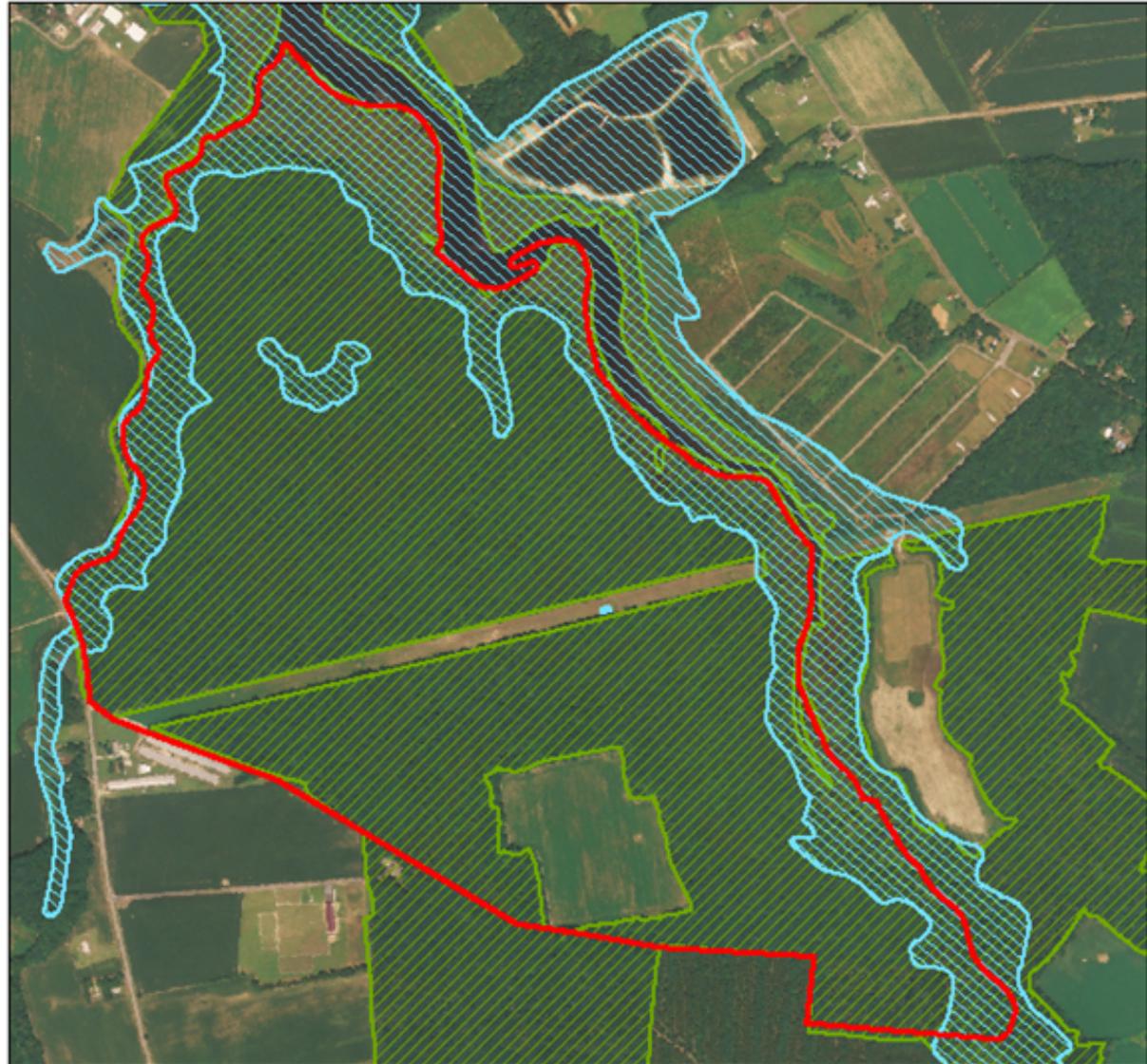
Sussex – Existing conditions

State Resource Areas
Options for Development of
Property Containing SRAs
Site 1 Existing Conditions

Legend

- Proposed Development (365 Acres)
- State Resource Areas
- Wetlands and 100 year Floodplains

365 acres –
>90% within SRA



Map produced by the Department of Natural Resources and Environmental Control (DNREC). The information depicted is provided as a graphical representation only. DNREC provides no guarantee, expressed or implied, as to the accuracy of any boundary lines.



Sussex – conventional option

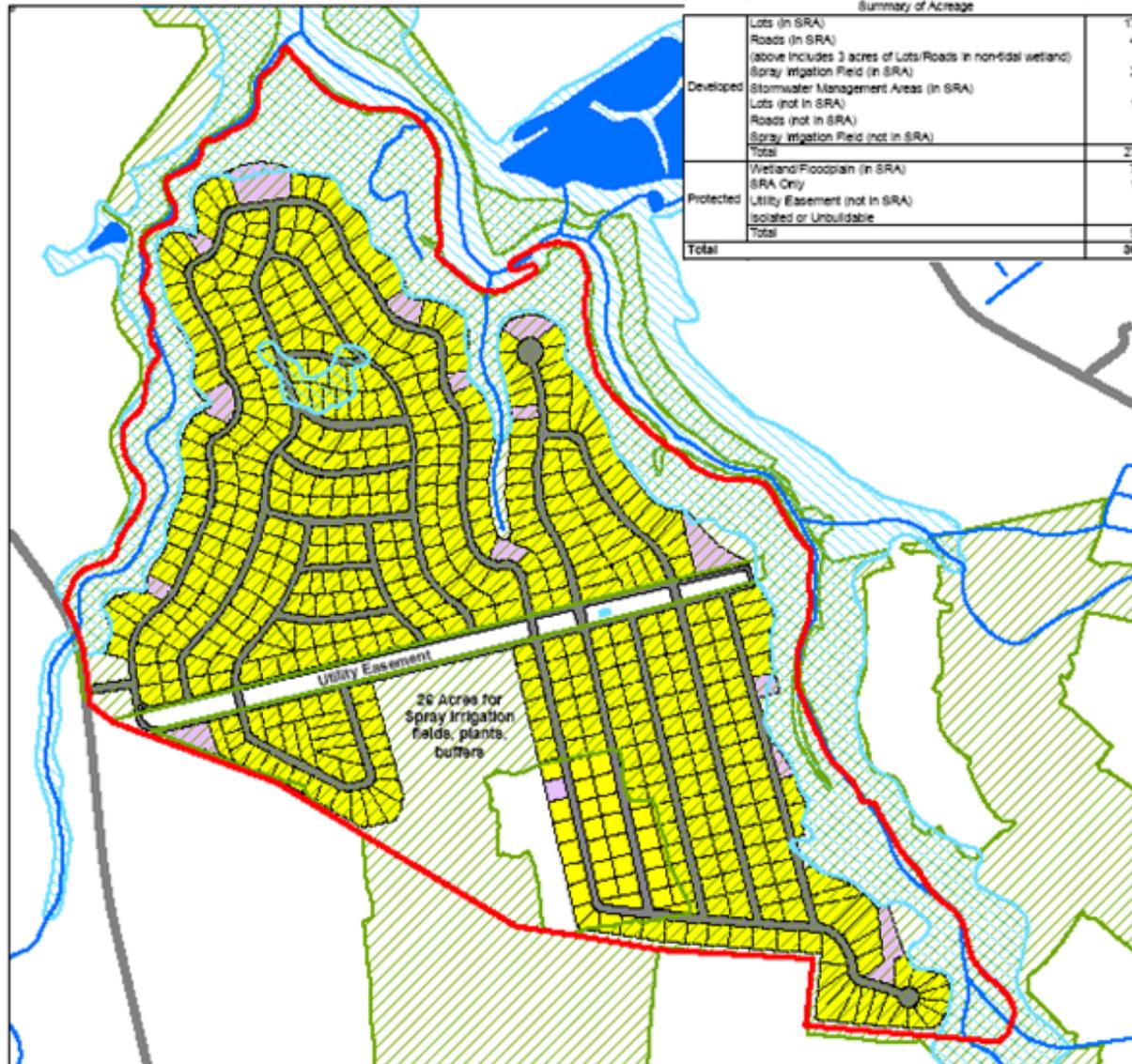
State Resource Areas Options for Development of Property Containing SRAs

Conceptual Site Layout #1A
Conventional Option

- 545 units
- Average lot size: 15,000 square feet
- Range: 10,000 - 26,000 SF
- Tidal wetland and floodplain avoided
- No SRA protection
- No internal open space

Legend

- Proposed Development (365 Acres)
- Lots
- Roads
- Stormwater Management
- State Resource Areas
- Wetlands and 100 year Floodplains
- Rivers and Streams



Summary of Acreage	
Developed	272
Lots (in SRA)	179
Roads (in SRA)	42
Spray Irrigation Field (in SRA)	26
Stormwater Management Areas (in SRA)	9
Lots (not in SRA)	11
Roads (not in SRA)	3
Spray Irrigation Field (not in SRA)	6
Total	272
Protected	93
Wetland/Floodplain (in SRA)	73
SRA Only	11
Utility Easement (not in SRA)	8
Isolated or Unbuildable	1
Total	93
Total	365

545 units
No SRA protection
No internal open space
Average lot – 15,000 SF

0 400 800 1,200
One inch equals 300 feet

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Sussex – Resource protection option

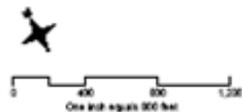
State Resource Areas Options for Development of Property Containing SRAs

Conceptual Site Layout #1B Resource Protection Option

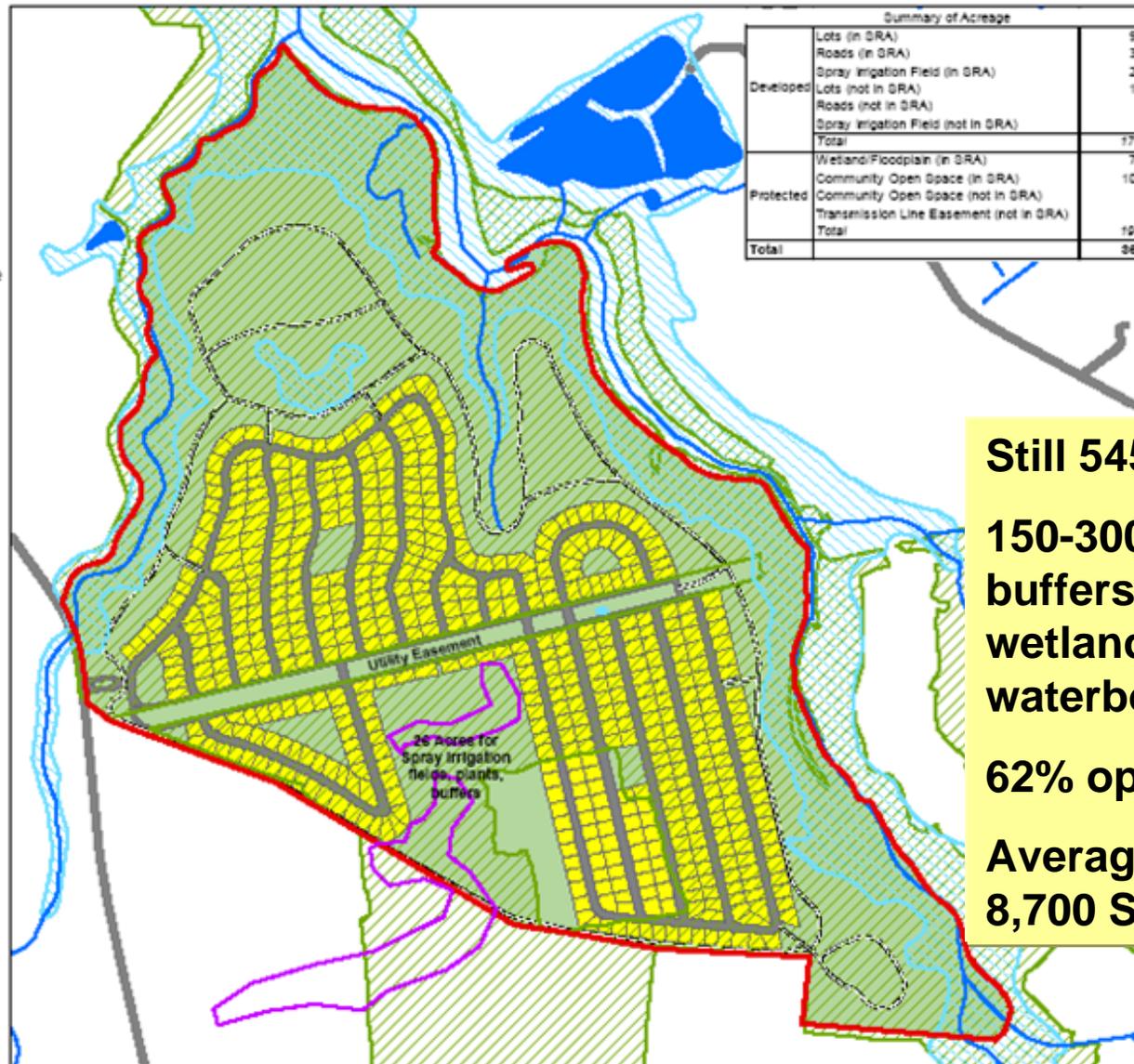
- 545 units
- Average lot size: 8,700 square feet
- 150-300' buffer around all water bodies and wetlands
- Wells, septic, and stormwater management areas in community open space
- 62% of site is open space
- Many homes front or back to open space
- All floodplains, wetlands, agricultural buffers, forest and recharge areas protected

Legend

- Proposed Development (365 Acres)
- Lots
- Community Open Space
- Roads
- Trails
- State Resource Areas
- Wetland-Floodplain
- Streams
- Recharge Areas



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Summary of Acreage		
Developed	Lots (in GRA)	99
	Roads (in GRA)	30
	Spray Irrigation Field (in GRA)	23
	Lots (not in GRA)	10
	Roads (not in GRA)	3
	Spray Irrigation Field (not in GRA)	6
Total		177
Protected	Wetland/Floodplain (in GRA)	77
	Community Open Space (in GRA)	108
	Community Open Space (not in GRA)	1
	Transmission Line Easement (not in GRA)	8
Total		194
Total		386

Still 545 units
150-300 ft buffers on wetlands and waterbodies
62% open space
Average lot – 8,700 SF

3. Chapter 75, Section 7508 goes beyond targeting lands for acquisition

- “Each county government shall adopt and incorporate overlay zoning ordinances, guidelines and specific technically based environmental performance standards, design criteria and mitigation requirements . . . that shall apply to significant ecological functions and identified historic and archeological sites on these lands.”
- “Such natural resource protection requirements shall restrict land use activity by means of enactment and enforcement of technically based environmental performance standards, design criteria and mitigation requirements consistent with state law and regulations.”

4. SRA maps were technically derived

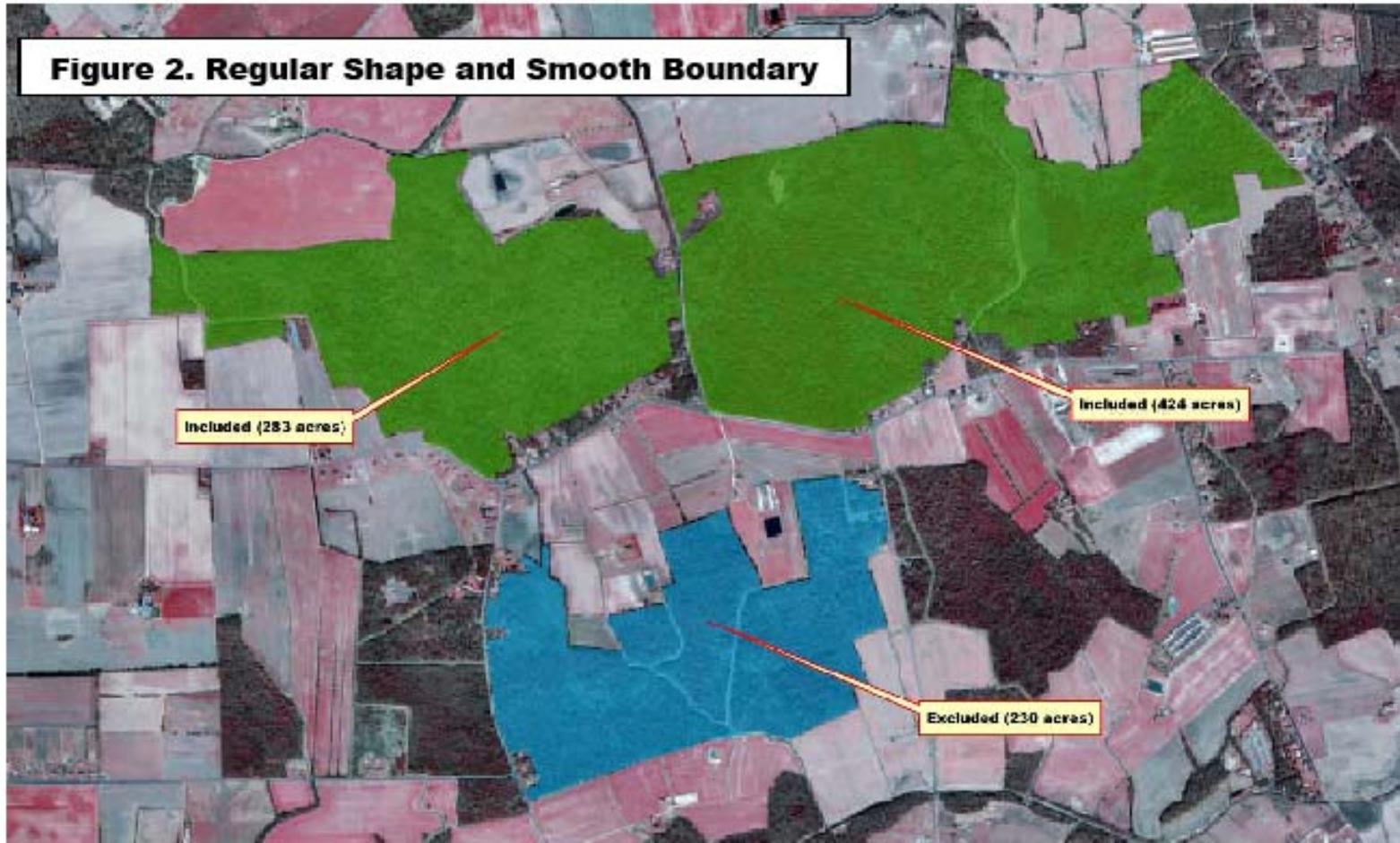
- **They went through several iterations and reality checks**
- **New SRAs were established at a minimum of 250 acres for Kent and Sussex and 150 acres for New Castle**
- **Lands were only included if they had fairly regular shapes**
- **Agricultural fields and working forests were excluded unless entirely surrounded by natural habitats**

4. Derivation of maps (cont'd)

As the “best of the best” undeveloped lands, Natural Areas are a subset of SRAs. Also included:

- **Riparian corridors that connected larger SRAs**
- **Some concentrations of rare or endangered species, but not all occurrences**
- **Besides all protected lands, the following categories were included if they met the size and shape criteria**
 - 2005 key wildlife habitats from Delaware Wildlife Action Plan
 - 1996 wetlands from State Wetland Mapping Project (meet the federal definition of jurisdictional wetlands under Clean Water Act)
 - 2005 Green Infrastructure Natural Resource and Recreation Lands Focus Areas

A Guide to the Methods Used in the 2006 Update of State Resource Area Maps



An example of how sites were included/excluded

Some SRA arithmetic

Level of Current Protection	New Castle County (acres/%)	Kent County (acres/%)	Sussex County (acres/%)	State of Delaware (acres/%)
Total land area	277,383	382,276	626,136	1,285,795
SRA area	67,480/ 24%	101,600/ 27%	116,010/ 18%	285,090/ 22%
SRA already protected by ownership/easement ¹	43,102	61,765	67,028	171,895
SRA already protected by existing ordinance/regulation ²	35,135	72,805	24,800	132,740
Total protected SRA ³	56,794/ 84%	89,715/ 88%	77,864/ 67%	224,373/ 79%
SRA not protected as proportion of SRA land area	10,686/ 16%	11,885/ 12%	38,146/ 33%	60,717/ 21%
SRA not already protected as proportion of county land area	4%	3%	6%	5%

2006 SRA lands not already protected by ownership, easement, regulation or ordinance: 5% of state acreage

5. Protecting SRAs is not a “taking”

- **SRA sites can still be developed, even at the same yield**
- **Developing in an environmentally sensitive manner can enhance property values**
- **Court rulings allow for reasonable setbacks and other zoning restrictions, and protection of natural resources**

