

Table S3 Supplemental GIS Data Layers Suggested by Local Planners

State	Data Layer Description	Used to Identify ^A :				Policy-Based Reclassification? ^B
		Developed	Intermediate	Undeveloped	Conservation	
Several States	MA ¹ , RI ² , CT ³ , NY ⁴ , VA ⁵ , FL ⁶ : Shoreline Armoring	√				√
	Military Lands ^{7, 8, 9, 10 C}		√			
MA	1985 Land Use ^D	√	√			√
	Undeveloped barrier beaches ²³			√		√
	Recreation Lands		√			√
RI	Historic Districts ¹¹	√				
	Undeveloped Barrier Beaches ¹²			√		
	Rock Outcrops ¹³				√	√
CT	Sewer Service Areas ¹⁴	√				
	Neighborhood Conservation Areas ¹⁵	√				√
	Land Use in Southeastern Region ¹⁶	√	√	√		
	Tribal Settlement Areas ¹⁷	√				
NJ	Salem County: State Plan ¹⁸		√			
	Salem County: urban areas ¹⁹	√				
	Salem County: open spaces ²⁰				√	
DE	New Castle agriculture preservation ²¹			√		
	New Castle approved development ²²	√				
	100-year floodplain ^{23,24,}			√		
MD	Worcester County Conservation Lands ²⁵			√	√	
	Calvert County Cliff Categories ²⁶				√	√
	Baltimore County land use ²⁷	√	√	√		
	Baltimore County parks ²⁸			√		√
	Dorchester County: digital orthophotoquads ^{29,66}	√				
DC	Buffers along Anacostia River ³⁰			√		√
VA	City of Alexandria Tax Parcel Data ³¹	√				
	Stafford County Land Use ³²	√	√			
	King George County Land Cover ³³	√	√			
	Richmond refuge data ³⁴				√	
	Arlington County Parks ³⁵			√		
NC	Perquimans County Subdivisions ^{36,87}	√				
	Pender County: Areas of Piping			√		

	Plover Habitat ³⁷					
	Pasquotank County Zoning ³⁸	√	√	√		
	Camden County Zoning ³⁹	√	√	√		
	Dare County Zoning ⁴⁰	√	√	√		
	Existing and Planned Dikes ^{41, 42}	√				√
	CoBRA Zones ⁴³		√	√		√
SC	Berkeley County: Conservation Easements ⁴⁴			√		
GA	Evacuation Routes ¹⁰²	√				√
	Chatham County: Future Land Use ⁴⁵	√	√			
Treasure Coast FL	Water & Sewer Service Areas ^{46, 47}		√			
	CoBRA Zones ⁴⁸		√			√
South FL	Hurricane Evacuation Zones ^{49, 50}		√	√		√
	Water & Sewer Service Areas ^{51, 52}		√			
	Canals and Levees ⁵³	√				√
	Urban Development Boundary ⁵⁴		√			
	CoBRA Zones ⁵⁵		√			√

- A. These supplemental data sets were used to improve the accuracy of our land categorization. We started with the data in Table S2, and later used the supplemental data sets listed here to identify lands in the category that is checked. For example, in CT, an area with sewer service is identified as *developed* regardless of what the (older) land use data showed. Conversely, in South Florida, a residential area *without* sewer service is identified as *intermediate*.
- B. These supplemental data sets were used to identify lands for the policy-based reclassification of the likelihood of shore protection. See Table S5 for enumeration of the policies considered in that reclassification.
- C. For other states, military lands are shown by the land use data described in Table S2
- D. Shoreline armoring is prohibited for post-1978 homes. We used these data to estimate development in 1978.

¹ National Oceanographic and Atmospheric Administration and Massachusetts Executive Office of Environmental Affairs. 1999. *Environmental Sensitivity Index*. Seattle: Hazardous Materials Response Division, NOAA.

² Research Planning, Inc. (RPI) 2002. *Environmental Sensitivity Index*. Seattle: National Oceanic and Atmospheric Administration Hazmat Office.

³ Research Planning, Inc. (RPI) 2002. *Environmental Sensitivity Index (ESI)*. Seattle: National Oceanic and Atmospheric Administration Hazmat Office.

⁴ Nassau County GIS Department. 2002. *Nassau County Bulkheads*

⁵ Northern Neck Planning District. 1998. *Northern Neck Armoring*.

⁶ Florida Marine Research Institute (now *Fish and Wildlife Research Institute*) 2001. *Environmental Sensitivity Index* St. Petersburg, Florida

⁷ ESRI, 2004. Federal and Indian Land: Connecticut. In: *National Atlas of the United States*. Environmental Systems Research Institute

⁸ ESRI, 2004. Federal and Indian Land: Delaware. In *National Atlas of the United States*. Environmental Systems Research Institute.

⁹ Bureau of Transportation Statistics, 2001. *Military Installations*. Washington, D.C. United States Department of Transportation.

¹⁰ South Carolina Department of Natural Resources, 1999. *Military Installations*. Columbia, South Carolina.

¹¹ Rhode Island Geographical Information System. 1989. *Historic Districts*. University of Rhode Island. Providence, Rhode Island.

¹² Rhode Island Geographical Information System. 1999. *Barrier Beaches*. University of Rhode Island. Providence, Rhode Island.

¹³ Rhode Island Geographical Information System. 1988. *Wetlands*. University of Rhode Island. Providence, Rhode Island.

¹⁴ Connecticut Department of Environmental Protection. 1998. *Sewer Service Areas*. Hartford: Bureau of Water Management.

¹⁵ Connecticut Department of Environmental Protection. 2005. *Development Priority Areas*. Hartford: Office of Policy and Management.

¹⁶ Southeastern Connecticut Council of Government (SCCOG), 2000. *Land Use in Southeastern Connecticut*. Norwich, Connecticut.

¹⁷ Connecticut Department of Environmental Protection. 2005. *Tribal Settlement Areas*. Hartford: Office of Policy and Management.

¹⁸ Salem County. 2004. *Salem County State Plan*.

¹⁹ Salem County. 2001. *Salem County: urban areas*.

²⁰ Salem County. 2001. *Salem County: Open Spaces*.

²¹ New Castle County Department of Land Use. 2005. *New Castle Agriculture Preservation*

²² New Castle County Department of Land Use. 2005. *New Castle Approved Development*

²³ New Castle 100-year floodplain. New Castle Department of Land Use. 1996

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- ²⁴ Federal Emergency Management Agency. 2005. *Kent County 100-year floodplain*. ESRI
- ²⁵ Worcester County Conservation Lands. 2003. Worcester Regional GIS. Snow Hill, Maryland.
- ²⁶ Calvert County Planning Department, 2001. *Calvert County Cliff Categories*.
- ²⁷ Baltimore County, 1998. *Baltimore County Land Use*.
- ²⁸ Baltimore County, 2004. *Baltimore County Parks*
- ²⁹ Maryland Department of Natural Resources. 1991. Digital Orthophotoquads.
- ³⁰ District of Columbia Office of Planning, 2003. *The Anacostia Waterfront Framework Plan*.
- ³¹ City of Alexandria, 2004. City of Alexandria Tax Parcel Data
- ³² Stafford County, 2003. Stafford County Land Use
- ³³ King George County, 2000. King George County Land Cover
- ³⁴ Richmond County, 2004. Richmond refuge data
- ³⁵ Arlington County, 2003. Arlington County parks
- ³⁶ Perquimans County, Department of Planning and Zoning. 2002. Perquimans County Subdivisions.
- ³⁷ Federal Register Vol. 66, No. 132, Tuesday, July 10, 2001, Rules and Regulations, at 36087.
- ³⁸ Pasquotank County Zoning. Pasquotank County Planning Department. 2003.
- ³⁹ Camden County Zoning. Camden County Planning and Code Enforcement Department. 2003.
- ⁴⁰ Dare County Zoning. Dare County Planning Department. 2003.
- ⁴¹ "Swan Quarter Supplemental Watershed Plan and Environmental Assessment". Natural Resources Conservation Service, U.S. Department of Agriculture. 2002.
- ⁴² Tyrell County. 2002. Gum Neck Dike (hard copy map).
- ⁴³ Coastal Barrier Resources System. Maps. US. Fish and Wildlife Service. 1992.
- ⁴⁴ Conservation easements. Berkeley Charleston Dorchester Council of Governments (BCD COG)/ 2004
- ⁴⁵ Metropolitan Planning Commission (MPC) 2005. *Future Land Use*. Savannah, Georgia.
- ⁴⁶ Public Water Use Permits. 2003. St John's River Water Management District.
- ⁴⁷ Public Water Use Permits. 2003. SJRWMD
- ⁴⁸ Coastal Barrier Resource Protection Act (CBRA) zones within Special Flood Hazard Areas. 2003. NOAA Coastal Services Center, Charleston, SC.
- ⁴⁹ Hurricane Evacuation Zones. 1997. Miami-Dade County.
- ⁵⁰ Hurricane Evacuation Zones. 1997. Broward County
- ⁵¹ Water & Sewer Service Areas 1998 Miami-Dade County.
- ⁵² Water & Sewer Service Areas 1998 Broward County.
- ⁵³ Canals and Levees. 1997. South Florida Water Management District. West Palm Beach, FL.
- ⁵⁴ Urban Development Boundary. Miami-Dade, 2003.
- ⁵⁵ Coastal Barrier Resource Protection Act (CBRA) zones within Special Flood Hazard Areas. 2003. NOAA Coastal Services Center, Charleston, SC.