

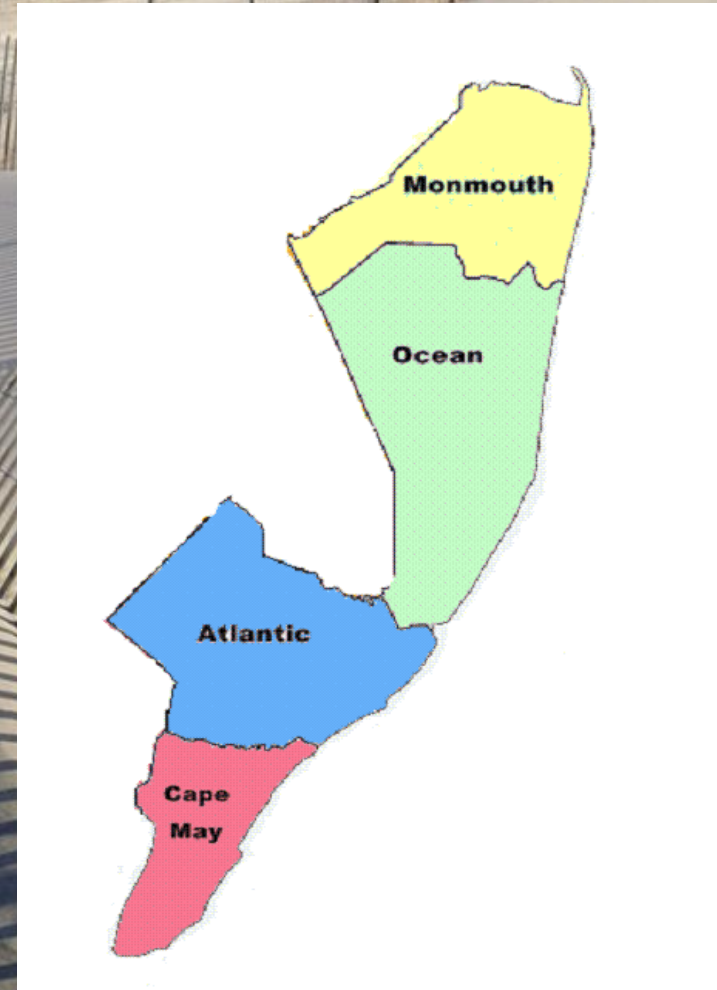


Economic Values Generated by the New Jersey Shore for Climate Change and Coastal Hazards Conference

**Professor Joseph J. Seneca
Bloustein School of Planning and Public
Policy, Rutgers University
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New Jersey Shore Counties

- **127 miles of shoreline**
- **7,837 acres of beach**
- **456,000 acres of estuary & tidal bay**
- **300,000 acres of coastal shelf**
- **191,000 acres of saltwater wetlands**

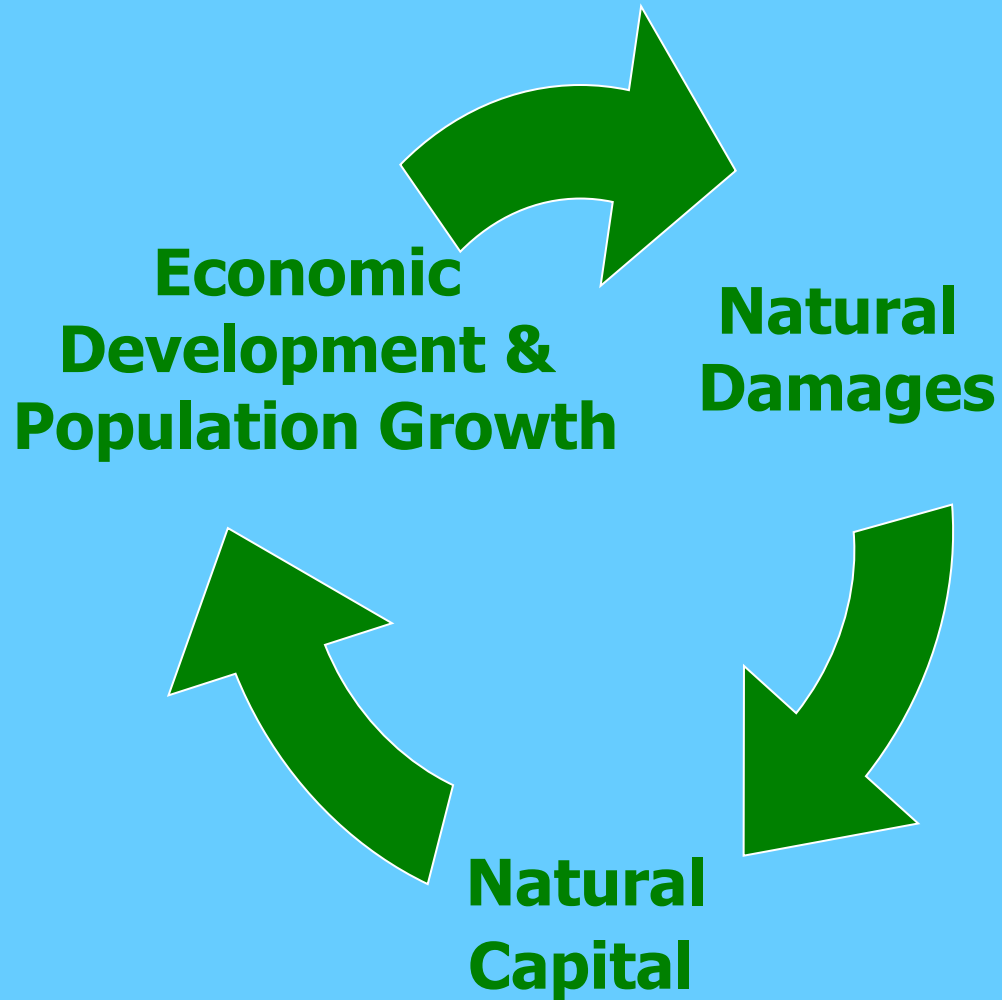


Source: "Valuing New Jersey's Natural Capital," NJ Dept. of Environmental Protection, April 2007.

NJ Shore Counties Population Change: 2000 - 2010

<u>Geography</u>	<u>2000 (Census)</u>	<u>2010 (Census)</u>	<u>Change</u>
Monmouth	615,301	630,380	2.5%
Ocean	510,916	576,567	12.8%
Atlantic	252,552	274,549	8.7%
Cape May	102,326	97,265	-4.9%
Shore County Total	1,481,095	1,578,761	6.6%
New Jersey (Balance)	6,933,255	7,213,133	4.0%

Economic Development & Demographic Pressures on the Jersey Shore



Economic Flows from Natural Capital (examples)

GOODS-

- Commercially harvested fish & shellfish
- Minerals
- Plants

SERVICES-

- Outdoor recreation (beach visits, fishing, bird watching, etc.)
- Nutrient recycling
- Water filtration
- Buffering from floods & storms
- Aesthetic amenities
- Maintenance of biodiversity

Capitalization of Annual Benefit Flow

Asset Yields \$5,000 per year

Interest rate = 5% (alternative yield)

Value of Asset = \$100,000

(\$5,000 / .05) (Present Value of flow of \$5,000 in perpetuity)

Surf Fishing on Long Beach Island



Source:

<http://www.basspro.com/webapp/wcs/stores/servlet/CFPage?storeId=10151&catalogId=10001&langId=71&mode=article&objectID=32616>

Bird Watching



The Jersey Shore



Barnegat Bay Tidal Marshes



Great Egg Harbor Inlet



Source: http://www.hi-techboats.com/Website_Pics/NEW_JERSEY_INLETS/07_Great_Egg_Harbor_Inlet.JPG

Methods to Infer Annual Economic Value of Natural Capital Flows

Travel Cost Method

Contingent Valuation

Hedonic Price Method

Avoided Cost Method

Annual Beach Visitations (2000)

Selected States	# of Participants (millions)	# of Days (millions)
New Jersey	3.965	40.881
Florida	15.246	177.153
California	12.598	151.429
North Carolina	3.185	27.936
Only Florida, California and Hawaii have more beach days than New Jersey!		

Beach Day



Annual Value of New Jersey Beach Visits

Method	\$ Value per Day	# of Days (millions)	Annual Value (\$Mln, 2007)
Travel Cost	\$31.45 ¹	40.881	\$1,286
Contingent Valuation	\$5.36	40.881	\$219
<p>1. New Jersey estimate : Leeworthy and Wiley, "Recreational Use Value for Island Beach State Park," Technical Report, National Oceanic and Atmospheric Administration, Strategic Environmental Assessments Division, Office of Ocean Resources and Conservation, 1991.</p> <p>2. Massachusetts estimate: Kline and Swallow, "The Demand for Local Access to Coastal Recreation in Southern New England," <i>Coastal Management</i>, Vol. 26, Issue 3, July-September 1998.</p>			

Asset Value of New Jersey Beaches

Method	Annual Value (\$Mln, 2007)	Discount Rate	Asset Value (\$Mln, 2007)
Travel Cost	\$1,286	5%	\$25,720
Contingent Valuation	\$219	5%	\$4,380

References

The National Ocean Economics Program at the Monterey Institute of International Studies offers a wide range of resources on measuring non-market values of natural resources, including:

- Valuation Estimates**
- Descriptions of Valuation Methodologies**
- References and Links to Academic Analyses and Technical Reports**
- <http://oceaneconomics.org/nonmarket/>**

References

The National Survey on Recreation and the Environment (2000) provides comprehensive data and projections on marine recreation participation patterns

- **<http://marineeconomics.noaa.gov/nsre/nsre2000.html>**

References

“Valuing New Jersey’s Natural Capital: An Assessment of the Economic Value of the State’s Natural Resources”

This study provides a comprehensive assessment of the value of all of New Jersey’s natural resources.

- **<http://www.state.nj.us/dep/dsr/naturalcap/>**