

Life on the Mid-Atlantic Coast 2009

*A 5-state survey of coastal community residents
(New York, New Jersey, Delaware, Maryland, Virginia)*

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SUMMARY

In March 2009, the governors of New York, New Jersey, Delaware, Maryland, and Virginia initiated an effort to develop an interstate agreement on ocean and coastal management for the Mid-Atlantic region. The governors acknowledged that this regional approach “must address the important role of humans within those systems.”

Monmouth University, through the initiative and interdisciplinary resources of its Urban Coast Institute and Polling Institute, conducted a public opinion survey of coastal residents in the Mid-Atlantic region in April 2009. This current effort is a follow-up to a benchmark Mid-Atlantic coastal community survey conducted in 2007. Monmouth University is pleased to be able to contribute to this important dialogue by providing data on the human role in coastal and ocean management – data that is available from no other source.

The sample for this study was divided into eight coastal regions: New York East (Suffolk county), New York West (Nassau county), New Jersey North (Monmouth and Ocean counties), New Jersey South (Atlantic and Cape May counties), Delaware (Sussex county), Maryland (Worcester county), Virginia North (Accomack and Northampton counties) and Virginia South (Virginia Beach). A total of 1,006 permanent residents of coastal towns were interviewed by telephone in April 2009. The survey results have a $\pm 3.1\%$ margin of error.

– Coastal Community Life –

The coast and ocean are an integral part of Mid-Atlantic coastal community residents’ lives.

- *Nearly all residents spend time on the beach or swimming in their local waters (90%), and about half regularly go fishing, crabbing, and clamming (51%) or boating (50%).*

Most residents recognize the impact their daily activities can have on the coast and ocean environment.

- *About half (49%) of Mid-Atlantic residents say that emptying motorboat toilet waste directly into the ocean poses a serious risk to water quality.*
- *Two-thirds of residents understand that storm run-off flows directly into water sources rather than being filtered at a treatment plant.*
- *In general, 7-in-10 residents say that the daily activities of people like them affect the quality of their coastal environment, including 28% who say these individual actions can have a great deal of impact.*

– Community Issues and Coastal Awareness –

The vast majority of Mid-Atlantic coastal residents say that protecting the coast should be a high priority for their town, although this competes with other priorities in some states. Among specific environmental issues in their communities, pollution and beach erosion top the list.

- *Fully 3-in-4 residents say that protecting the coastal environment (76%) should be a high priority for their town. This is somewhat larger than the number who would give a high priority to improving the economy (69%), lowering taxes (65%), improving education (64%), or controlling growth (56%).*
- *Nearly 9-in-10 Mid-Atlantic coastal residents say that the condition of the ocean and beaches is very important to their area's economy.*
- *A majority of Mid-Atlantic coastal residents are very concerned about water pollution (57%), beach erosion (56%), and shoreline pollution (53%) in their towns. Just under half are seriously concerned about coastal development (47%) and habitat loss (47%), and 4-in-10 are very concerned about storm risk from sea level rise (41%).*

Most residents have some, although not a great deal of knowledge about coastal and ocean issues in their local community and the impact that local environmental issues can have along the entire length of the Mid-Atlantic coast.

- *One-in-four Mid-Atlantic coastal residents (27%) say they know a great deal about coastal environmental issues in their local area. Another 48% have some knowledge.*
- *Two-thirds acknowledge that coastal issues in their own area can have an impact on the entire Mid-Atlantic region, including 32% who say this can have a great deal of impact and 37% who say local coastal issues can have some impact across the region.*

– Coastal Policy –

Mid-Atlantic coastal residents tend to give the government poor marks on protecting the environment. But they say they are willing to pay more in taxes in order to protect coastal waters, shorelines and beaches.

- *About half (49%) of Mid-Atlantic residents say the current level of effort put into protecting both local coastal waters and beaches is about right, while another 39% say there is not enough effort.*
- *Six-in-ten residents (61%) say they would support greater efforts to protect their local coasts even if it required tax increases. Only 28% oppose this.*
- *Less than half of Mid-Atlantic coastal residents say government has done a good job protecting coastal habitats (46%) and maintaining clean water (45%). About 3-in-10 say it has done a good job managing marine life (35%), protecting coastal property from storm damage (33%), and managing coastal development (29%).*

Most Mid-Atlantic coastal community residents are convinced that coastal areas will be at a greater risk for flooding and damage from sea level rise in the next 25 years, although they are split on whether the primary cause of sea level rise has been human activity or natural changes in the environment. In general, residents support the use of a number of measures to reduce the risk from sea level rise, but they draw the line at measures which may interfere with the rights of

current property owners. There are some differences of opinion over who should pay most of the cost for reducing coastal hazards.

- *Half (51%) of coastal residents say that reports of the risks of future sea level rise are generally accurate while another 10% say they have been underestimated. On the other hand, one-third (34%) feel that such risks have been exaggerated, which is up slightly from the 1-in-4 who said the same in 2007.*
- *More residents feel that sea level rise has been caused largely by natural changes (47%) in the environment rather than by the effects of human activities (38%), while 10% say that both have contributed equally.*
- *Large majorities support a variety of measures for reducing storm damage risk, including public purchase of existing open space (80%), building hard retaining structures (65%), and preventing new construction in high risk areas (65%). They also feel that beaches that are washed away by storms should be replenished (65%). However, residents are much less supportive of government purchasing private homes in high risk areas (28%).*
- *Just under half (45%) of Mid-Atlantic coastal residents say that government should pay most of the costs for projects to reduce coastal hazards, 33% say the burden should mainly be carried by coastal property owners, and 16% say that both government and property owners should share the costs equally.*

In terms of using the oceans for energy production, a majority support placing wind farms off their local coast, even if the windmills are visible from the shoreline. On the other hand, opinion is divided over drilling for oil or gas in the Mid-Atlantic Ocean. However, resident support for each of these ocean energy resource options has increased in the past two years.

- *Specifically, 82% of residents say that they would support placing energy-generating windmills beyond the horizon and 67% would support wind farms that can be seen from the shore.*
- *On the question of drilling for oil or gas, 46% of coastal residents now support this – up from 33% in 2007 – compared to 37% who are opposed and 12% who have no opinion.*

– State-Level Findings –

Competing public priorities in each of the Mid-Atlantic states can have a decided impact on the ability to implement a regional approach to coastal and ocean management. The survey identified some differences in how protecting the coast and ocean ranks among common community issues, as well as which environmental issues are of greater concern:

New York: *Protecting the coast and ocean is a high priority for 82% of coastal residents in this state, outpacing taxes (70%), the economy and jobs (69%), education (65%), and controlling development (59%). All are high priorities for most coastal New York residents, but not as widespread a concern as coastal and ocean management.*

In eastern New York, beach erosion (65%) is the most serious concern among the six coastal and ocean environmental issues asked about in the survey. About half name the other issues – water pollution (53%), shore pollution (50%), habitat loss (49%), coastal development (48%), and sea level rise (48%) – as very serious concerns in their area. In western New York, water pollution (64%), shore pollution (58%), and beach erosion (61%) are about equally as likely to be

identified as the top concern, while half are very concerned about sea level rise (50%) and 4-in-10 say the same about habitat loss (40%) and coastal development (40%).

New Jersey: While coastal and ocean protection is nominally the top priority for residents statewide, there are some variations within New Jersey. For residents of the northern coast, taxes (71%), the economy and jobs (70%), and coastal and ocean protection (69%) are equally as likely to be named as a top priority, with education (65%) and controlling development (60%) close behind. Along the southern coast of New Jersey, though, protecting the coast and ocean (78%) is the most widespread concern, followed by taxes (68%) and the economy and jobs (66%), with education (59%) and controlling development (53%) rounding out the list of high priorities.

Water pollution (64%) and shore pollution (63%) are the top environmental concerns in northern New Jersey, while half are very concerned about beach erosion (53%), coastal development (52%), and habitat loss (50%), but only one-third feel the same about sea level rise (32%). In southern New Jersey, beach erosion (62%) and water pollution (57%) are top concerns, while about half are very concerned about shore pollution (50%), coastal development (47%), habitat loss (47%), and sea level rise (45%).

Delaware: Protecting the coast and ocean is a high priority for 82% of coastal Delaware residents. In the next tier of concern are controlling development (68%), the economy and jobs (66%), and education (62%). Only 4-in-10 (42%) Delaware residents say lowering taxes is a high priority.

Beach erosion (65%) leads the list of environmental concerns among coastal Delaware residents, with more than half saying they are very concerned about habitat loss (59%), coastal development (56%), and water pollution (52%). Fewer than 4-in-10 are very concerned about sea level rise (39%) and shore pollution (37%).

Maryland: Protecting the coast and ocean (75%) is basically tied with improving the economy and creating jobs (73%) as the highest priority for coastal Maryland residents. These priorities are followed by taxes (65%), controlling development (56%) and education (51%).

For coastal Maryland residents, shore pollution (60%) is the top concern, with about half saying they are very concerned about water pollution (50%), coastal development (49%), beach erosion (48%), and habitat loss (48%). Fewer than 4-in-10 feel the same amount of concern over sea level rise (37%).

Virginia: Protecting the coast and ocean competes with other concerns as a top priority, with differences seen between the northern peninsula and Virginia Beach. Along the Delmarva part of the Virginia coast, most residents name improving the economy and creating jobs (81%) as a high priority, closely followed by education (75%). Protecting the coast and ocean follows these at 69%. About half of northern coastal Virginia residents say controlling development (52%) and lowering taxes (48%) are high priorities. In southern coastal Virginia, protecting the coast and ocean (76%) ties with education (76%) as the top priority, followed by the economy and jobs (66%). Fewer than half say the same about taxes (47%) and controlling development (45%).

Residents of the northern Virginia coast tend to be less concerned about any of these environmental issues than any other Mid-Atlantic coast residents, with about 4-in-10 or fewer expressing very serious concerns about habitat loss (42%), water pollution (39%), shore pollution (39%), beach erosion (37%), coastal development (36%), and sea level rise (36%). Southern coastal Virginia residents are most concerned with water pollution (52%) and habitat loss (50%), while 4-in-10 are very concerned with coastal development (44%), shore pollution (41%), and beach erosion (40%), while only 3-in-10 say the same about sea level rise (32%).

Other regional differences found in the survey include:

- *Residents of coastal Maryland (42%) and Delaware (39%) are more likely to say they have a great deal of knowledge about local coastal issues when compared to residents of coastal New York (25%), New Jersey (26%), and Virginia (25%).*
- *Those who say local coastal issues have a great deal of impact on other states in the Mid-Atlantic region ranges from 41% in Maryland and 38% in Delaware to 34% in Virginia, 33% in New Jersey, and 29% in New York.*
- *In general, residents of coastal Maryland, southern New Jersey, and southern Virginia tend to be more positive about government efforts to protect coastal and ocean environments, while those in northern New Jersey, northern Virginia, and Delaware hold a relatively less positive opinion. Residents of coastal New York tend to mirror the average Mid-Atlantic opinion.*
- *Residents of eastern New York (45%) are less supportive of efforts to build seawalls, jetties and other hard structures, whereas Maryland (52%) and northern Virginia (50%) coastal residents are somewhat less supportive of restrictions on new development in high risk areas.*
- *Western New Yorkers (57%) are the most likely to say that government should pay most of the costs for projects to reduce coastal hazards, whereas residents of southern Virginia (51%) are the most likely to say that coastal property owners should shoulder the primary responsibility. Residents of coastal Delaware are the most divided on who should pay the costs of these projects.*
- *A majority in each of the survey regions favor placing wind farms within sight of the shoreline, although the level of support varies from 82% in Delaware and 76% in northern Virginia to 53% in southern Virginia. Support stands at about 2-in-3 residents in Maryland (70%), New Jersey (69%), and New York (63%).*
- *A majority of residents in coastal Maryland (65%), Delaware (52%), and New Jersey (51%) support drilling for oil in the Atlantic Ocean, while fewer Virginia (42%) and New York (37%) coastal residents share that view.*

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I. Introduction

In June 2007, the Urban Coast Institute and the Polling Institute at Monmouth University embarked on a pioneering survey of residents who live in coastal communities along the Mid-Atlantic bight in New York, New Jersey, Delaware, Maryland, and Virginia. The purpose of this initial effort was to foster awareness of the Mid-Atlantic coast as an inter-related environment, and to assess similarities and differences among residents' views.

Since that time, the governors of the five states covered in the initial survey have agreed to work together to develop ocean and coastal management strategies for the Mid-Atlantic region. The governors acknowledged that this regional approach “must address the important role of humans within those systems.”¹

Environmental science has long recognized that coastal and ocean environments are, by their nature, interrelated. However, policy implementation is sometimes constrained by the concerns and priorities of local communities. The 2007 Monmouth University survey effort was the first to systematically measure similarities and differences in public attitudes toward ocean issues among residents who live in coastal communities across all five states. Establishing a grounded understanding of local concerns and public opinion on critical ocean issues will help the states effectively develop targeted strategies for working with local populations and government entities to advance regional solutions.

To that end, Monmouth University, conducted another survey in April 2009 to update and expand our understanding of the attitudes and behaviors of coastal residents in the Mid-Atlantic region. In addition to tracking changes since the initial survey, the current survey includes new question items to address public opinion on priority areas outlined by the governors, specifically “energy development, climate change, water quality, and habitat protection.”²

Monmouth University, through the initiative and interdisciplinary resources of its Urban Coast Institute and Polling Institute, is pleased to contribute to this important dialogue by providing data on the human role in coastal management – data that is available from no other source.

¹ March 6, 2009 letter from Governors Paterson, Corzine, Markell, O'Malley, and Kaine to Nancy Sutley, Chair of the White House Council on Environmental Quality.

² *Ibid.*

The sample for the survey was divided into eight coastal regions: New York East (Suffolk county), New York West (Nassau county), New Jersey North (Monmouth and Ocean counties), New Jersey South (Atlantic and Cape May counties), Delaware (Sussex county), Maryland (Worcester county), Virginia North (Accomack and Northampton counties) and Virginia South (Virginia Beach).³ In order to statistically compare responses among regions, a unique sample was drawn for each region; 150 coastal residents for each of the four New York and New Jersey regions and approximately 100 each for the remaining four regions, creating a total sample of 1,006 residents. Interviews were conducted by telephone in April 2009. Results for the total sample have a statistical margin of error of $\pm 3.1\%$.

The survey sample was drawn to reflect the views of permanent residents who live in communities that geographically abut the Atlantic Ocean. The survey covered the relative priority of coastal and ocean issue concerns in local communities; evaluations of the coastal and ocean environment; assessments of government performance in protecting the coast and ocean; and opinions on different coastal and ocean policy issues, including climate change, sea level rise, hazard risk reduction, and ocean-related energy resources.

– Acknowledgments –

The survey was designed and analyzed by Patrick Murray, Director of the Monmouth University Polling Institute. The overall project effort was directed by Tony MacDonald, Director of the Urban Coast Institute at Monmouth University.

The authors wish to express their appreciation to the staffs of the state coastal management programs in New York, New Jersey, Delaware, Maryland, and Virginia for their assistance in reviewing the proposed topics and questions for the survey.

This project was partially funded through a federal grant from the National Oceanic and Atmospheric Administration (NOAA). However, this report and the interpretation of the survey findings are the sole responsibility of the Urban Coast Institute and the Polling Institute at Monmouth University.

³ Due to its relatively small geographic size and unique urban quality, the coastal portion of Queens county in New York was not included in this study.

The 2007 survey did not include Virginia Beach in the geographic sample. An analysis of the 2009 survey findings excluding this region found that the results for each question in the survey did not change by more than a single percentage point because of the enlarged sample area. Thus, all trend findings noted in this report are valid for the full five state region.

II. Coastal Community Life

This section covers survey information on Mid-Atlantic coastal community life. This includes demographic information on community residents; participation in coast-related activities; and general knowledge of some common activities that can impact environmental quality.

Key Findings:

- While nearly all residents spend time on the beach or swimming in their local waters, about half regularly go fishing, crabbing and clamming or boating.
- About half (49%) of Mid-Atlantic residents say that emptying motorboat toilet waste directly into the ocean poses a serious risk to water quality. Only 12% say it poses little to no risk.
- Among residents who actually own a boat with a toilet – representing about 1-in-14 coastal Mid-Atlantic residents – 41% say emptying toilet waste directly into the water poses a serious risk to water quality, while 28% believe it poses little to no risk.
- About half of homeowners in the region use chemical fertilizers or pesticides on their yards. Two-thirds of residents understand that storm run-off flows directly into water sources rather than being filtered at a treatment plant. However, it is unclear whether residents connect lawn chemical use to potential non-point source pollution.
- In general, 7-in-10 residents say that the daily activities of people like them affect the quality of their coastal environment, including 28% who say these individual actions can have a great deal of impact.

– Coastal Demographics –

The region's current demographic characteristics are basically similar to those in the 2007 survey. More than 6-in-10 survey participants live within a few blocks of the ocean or bay, including 15% who live on a waterfront property. About 3-in-4 residents own their coastal community home. The percentage of home ownership is fairly similar across all eight Mid-Atlantic coastal regions surveyed.

Nearly half of those surveyed report being long-term residents, having lived more than 20 years in their town. This includes 19% who are life-long residents. On the other hand, a sizable 1-in-5 (21%) have lived in their town for five years or less.

Other interesting demographics show that about 1-in-3 (32%) adult coastal residents are age 60 or older, 36% are age 40 to 59, and 30% are age 18 to 39. Three-in-ten Mid-Atlantic coastal homes include a child under the age of 18. Most residents (86%) report their racial background

as white, while 5% are black, 4% are Hispanic, and 2% are Asian or Native American. These demographic distributions differ slightly, but not significantly, across the eight survey regions.

– Coastal Residents’ Activities and Behaviors –

The survey asked residents how often they utilize three different recreational opportunities offered by their local coast, specifically within five miles of their home. The most popular activity is swimming, sunbathing, or walking along the shoreline – 90% have done this in the past year. About half also report that they have gone fishing, clamming, or crabbing (51%) or boating, canoeing, kayaking, or jet-skiing (50%).

Coastal Activities			
<i>Have you done any of the following activities within five miles of your home in the past year?</i>			
	Swim, walk, sunbathe	Fish, crab, clam	Boat, canoe, kayak, jet-ski
Total	90%	51%	50%
<u>Region</u>			
--New York	87	47	52
--New York East	89	50	54
--New York West	85	42	50
--New Jersey	94	50	47
--New Jersey North	91	51	49
--New Jersey South	96	49	45
--Delaware	85	53	54
--Maryland	91	61	65
--Virginia	85	59	55
--Virginia North	77	67	62
--Virginia South	94	49	46
<u>Distance from Coast</u>			
--Waterfront	91	63	59
--A few blocks	93	49	51
--Farther away	86	48	46
<u>Age</u>			
--18 to 39	95	55	55
--40 to 59	92	57	59
--60 and older	83	39	36
<u>Gender</u>			
--Male	93	59	55
--Female	88	43	45

Regionally, swimming and sunbathing are popular activities for residents along the entire Mid-Atlantic coast. Nearly 9-in-10 residents in each region say they have done this in the past year. The only exception is along the northern Virginia coast, where the prevalence of this activity is slightly lower at 77%. The number of residents who participate in other activities covered in the survey, specifically fishing and boating, stands at about half in most regions. The only exceptions are Maryland and northern Virginia where both activities are enjoyed by more than

6-in-10 local residents. The survey findings also indicate that participation in any of these activities is generally lower for female residents as well as for those age 60 and older.

Fewer than 1-in-4 residents (23%) report that they own a motorboat, including 7% who report they have a boat with an on-board toilet. Residents of the Delmarva peninsula (38%) are most likely to report owning a motorboat, albeit usually without a toilet facility. Overall, about half (49%) of Mid-Atlantic coastal residents feel that emptying a boat's toilet waste directly into the ocean poses a serious risk to water quality. Another 36% say it poses a moderate risk and 12% say such action poses little to no risk. Among residents who actually own a boat with a toilet, 41% say dumping the waste directly into the water poses a serious risk, 29% say it poses a moderate risk, and 28% say it poses little to no risk at all to water quality.

Most Mid-Atlantic coastal residents report that they have a yard, lawn or garden at their home. This stands at about 9-in-10 homes in most regions, but only 8-in-10 in western New York and 3-in-4 in southern New Jersey and Maryland. Prevalence of a yard is also lower – at about 6-in-10 – among residents who have a waterfront property.

Approximately half (48%) of all homeowners with a yard report applying chemical fertilizers or pesticides. This number is slightly under half for those living within a few blocks of the coast and slightly above half for those farther from the water. Regionally, residents of western New York, northern New Jersey, and southern Virginia are more likely to report the use of lawn chemicals.

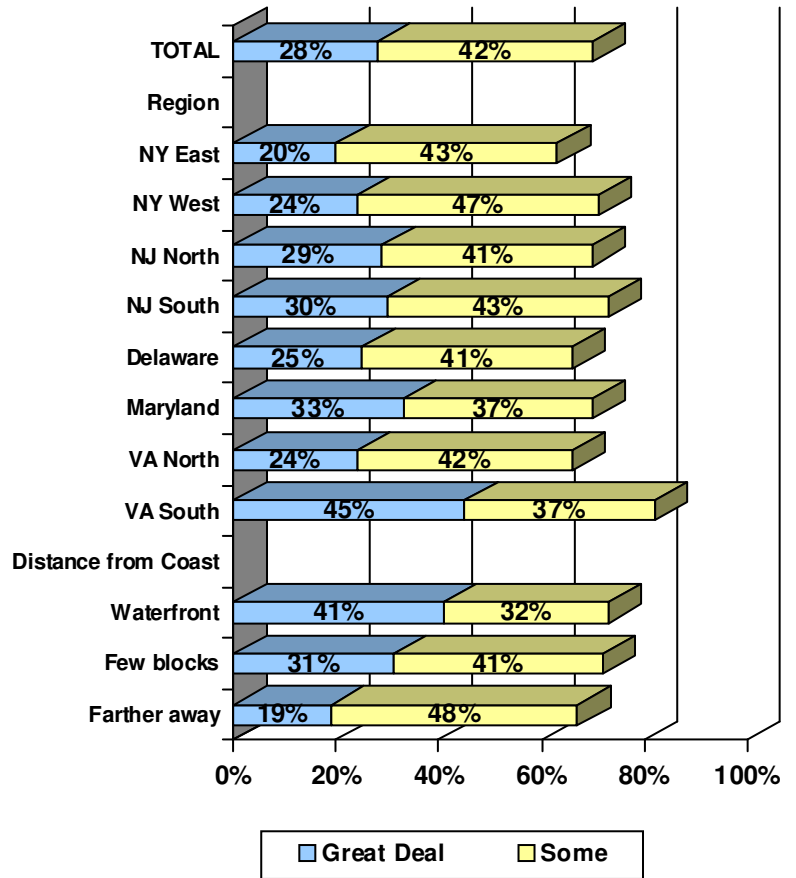
Most residents (66%) understand that storm water and other street run-off flow directly into lakes, streams, or the ocean. Only 19% believe it gets cleaned or filtered at a treatment plant and 15% admit they are not sure what happens to run-off. Residents of northern New Jersey (79%) are most likely to recognize that run-off flows directly into water sources while those in western New York (51%) are least likely. Between 60% and 71% of residents in the other six survey regions say that run-off flows directly into lakes, streams, or oceans. There are no differences in knowledge of run-off flow based on whether the resident uses lawn chemicals or not. However, it is not clear from the survey whether residents connect the application of lawn chemicals with their potential distribution by storm run-off.

The survey asked residents along the Mid-Atlantic coast how much the daily activities of people like them affect the coastal environment in general. Just over 1-in-4 (28%) say individual actions have a great deal of impact on the local environment and 42% say that the everyday activities of people have some impact. Another 1-in-4 say that individual actions have little (20%) or no (8%) impact on the coastal environment.

In each of the eight survey regions, two-thirds or more residents say that the daily activities of people like them have at least some impact on the coastal environment. However, residents of the southern Virginia coast (45%) are the most likely to say their actions have a great deal of impact. For the other seven regions this number varies from 20% in eastern New York to 33% in Maryland.

Also, the proximity to coastal waters seems to affect the view that individual actions can impact the environment. Residents who live in waterfront properties (41%) are more likely than those who live a few blocks from the coast (31%) to say people’s daily activities have a great deal of impact on the coastal environment. Both these groups are more likely than residents who live a mile or more from the water (19%) to hold that view.

Impact that Individual Actions can have on Coastal Environment



III. Community Issues and Coastal Awareness

This section discusses Mid-Atlantic residents' priorities relative to the coastal and ocean environment. This includes how the preservation of the coastal environment ranks among a variety of issues that affect these communities; residents' top concerns for their communities' coastal environments; knowledge of coastal and ocean issues; and the sense of the interconnectedness of local issues across the region.

Key Findings:

- In terms of a range of local issues, protecting the coastal and ocean environment (76%) is deemed a somewhat higher priority than the economy and jobs (69%), taxes (65%), education (64%), and growth (56%).
- In some states, specifically New York and Delaware, protecting the coast and ocean is clearly the highest priority of the five that were asked about in the survey. In the other three states, protecting the environment competes with other issues for residents' top priority, such as the economy in Maryland, the economy and taxes in New Jersey, and the economy and education in Virginia.
- Nearly 9-in-10 Mid-Atlantic coastal residents say that the condition of the ocean and beaches is very important to their area's economy.
- A majority of Mid-Atlantic coastal residents are very concerned about coastal pollution and beach erosion in their towns, just under half are seriously concerned with development and habitat loss, and 4-in-10 are very concerned about storm risk from sea level rise.
- Beach erosion is the top coastal concern in eastern New York, water pollution in western New York, water and shoreline pollution in northern New Jersey, beach erosion in southern New Jersey, beach erosion in Delaware, shoreline pollution in Maryland, habitat loss in northern Virginia, and water pollution and habitat loss in southern Virginia.
- One-in-four (27%) Mid-Atlantic coastal residents say they know a great deal about coastal environmental issues in their local area. Another 48% have some knowledge.
- Overall, two-thirds of residents acknowledge that coastal issues in their own area can have an impact on the entire Mid-Atlantic region, including 32% who say they can have a great deal of impact and 37% who say local coastal issues can have some impact across the region.

– Priority Issues for Coastal Communities –

When asked to rate the importance of five different policy issues facing their town, more residents choose protecting the coast as a high priority than say the same about jobs, education, taxes, and development. Three-in-four residents (76%) feel that protecting the coastal and ocean environment should be a high priority for their town. This compares to 2-in-3 residents who give

a high priority rating to improving the local economy and creating jobs (69%), lowering taxes (65%), and improving public education (64%). Just over half say their town should make controlling growth and development (56%) a high priority. These results are basically unchanged from 2007 (with the caveat that the economy and jobs was not asked in the prior survey).

High Priority Issues for Your Town					
<i>Here are some issues that your town may have to deal with. After I read each one, please tell me whether it should be a high, medium, or low priority.</i>					
<i>Percentage saying "high priority":</i>	Protecting the coastal and ocean environment	Improving the local economy and creating jobs	Lowering taxes	Improving public education	Controlling growth and development
Total	76%	69%	65%	64%	56%
<u>Region</u>					
--New York	82	69	70	65	59
--New York East	80	66	64	57	61
--New York West	85	73	78	73	56
--New Jersey	74	68	69	62	56
--New Jersey North	69	70	71	65	60
--New Jersey South	78	66	68	59	53
--Delaware	82	66	42	62	68
--Maryland	75	73	65	51	56
--Virginia	73	74	47	76	49
--Virginia North	69	81	48	75	52
--Virginia South	76	66	47	76	45
<u>Distance from Coast</u>					
--Waterfront	74	61	66	56	49
--A few blocks	79	67	67	66	59
--Farther away	74	75	63	66	56

Across the different parts of the larger Mid-Atlantic region, protecting the coastal and ocean environment is the highest priority in Delaware (82%), southern New Jersey (78%), and both eastern (80%) and western (85%) New York. The economy (81%) and education (75%) are somewhat higher priorities than the environment (69%) in northern Virginia, education (76%) is tied with the environment (76%) as top priority in southern Virginia, the economy (73%) is nearly tied with the environment (75%) in Maryland, and both taxes (71%) and the economy (70%) are basically tied with the environment (69%) as top priority in northern New Jersey.

Most residents see linkages between the quality of their local environment and the economic health of their community. Nearly 9-in-10 (86%) Mid-Atlantic coastal residents say that the condition of the ocean and beaches is very important to their area's economy. Another 12% say it is somewhat important and only 2% say it is not important. The vast majority of coastal residents in each state – New York (81%), New Jersey (88%), Delaware (94%), Maryland (92%),

and Virginia (86%) – agree that ocean and beach conditions are very important to their local economy.

– Environmental Concerns –

Focusing specifically on the coastal environment, the survey asked residents to evaluate the seriousness of six different concerns in their own communities. More than half of all Mid-Atlantic coastal residents feel that coastal and ocean water pollution (57%), beach erosion (56%), and beach and shoreline pollution (53%) are very serious concerns in their area. Just under half say the same about the amount of development along the coast (47%) and the loss of wetland and coastal habitats (47%). About 4-in-10 say that sea level rise and increasing risks from storms (41%) is a very serious concern in their area.

Compared to the 2007 survey, concerns about water pollution, habitat loss, and sea level rise have remained about constant. However, the level of concern over coastal development has actually decreased – by 11 points – from the 58% who were very concerned about this issue two years ago. There are no trend results for questions on beach erosion and shoreline pollution as these items are new to the 2009 survey.

Environmental Concerns of Local Communities						
<i>Please tell me if you think each of the following is a very serious, somewhat serious, not too serious, or not at all serious concern in your area.</i>						
<i>Percentage saying "very serious":</i>	Coastal and ocean water pollution	Beach erosion	Pollution along the beaches and shoreline	Amount of development along the coast	Loss of wetlands and coastal habitats	Sea level rise and increasing risk from storms
Total	57%	56%	53%	47%	47%	41%
Region						
--New York	58	63	54	44	45	49
--New York East	53	65	50	48	49	48
--New York West	64	61	58	40	40	50
--New Jersey	61	57	56	49	48	39
--New Jersey North	64	53	63	52	50	32
--New Jersey South	57	62	50	47	47	45
--Delaware	52	65	37	56	59	39
--Maryland	50	48	60	49	48	37
--Virginia	45	38	40	40	45	34
--Virginia North	39	37	39	36	42	36
--Virginia South	52	40	41	44	50	32
Distance from Coast						
--Waterfront	49	54	45	47	43	38
--A few blocks	60	58	54	46	52	44
--Farther away	56	55	54	47	43	38

In eastern New York, beach erosion is the top environmental concern of the six issues covered in the survey – 65% of coastal residents they are very seriously concerned about this. About half are very seriously concerned about the other five issues. In western New York, water pollution (64%), beach erosion (61%), and shoreline pollution (58%) are very serious concerns of about 6-in-10 coastal residents. About half there are very concerned about sea level rise and 4-in-10 feel the same about the amount of development as well as habitat loss.

Most coastal residents of northern New Jersey identify water pollution (64%) and shoreline pollution (63%) as a top concern in their area. Half say the same about beach erosion, development, and habitat loss, but only 1-in-3 are very concerned about sea level rise and storms. In southern New Jersey, coastal residents are most concerned about beach erosion (62%) and water pollution (57%) in their area. Nearly half are very concerned about the other four issues asked about in the survey.

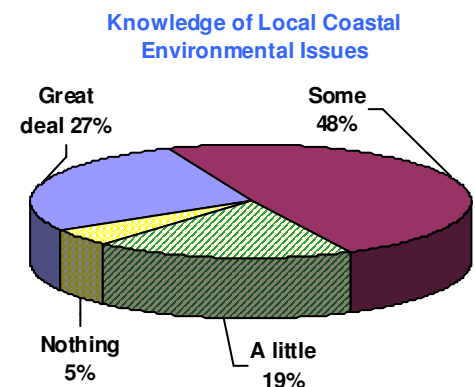
For coastal residents of Delaware, beach erosion (65%) is the top concern, followed by habitat loss (59%), development (56%), and water pollution (52%). Shoreline pollution and sea level rise is a serious concern for just 4-in-10 of these residents.

Maryland coastal residents are most concerned with shoreline pollution (60%). About half are very seriously concerned with water pollution, beach erosion, development, and habitat loss. Fewer than 4-in-10 feel the same about sea level rise.

Along the southern Virginia coast, the top concerns are water pollution (52%) and habitat loss (50%), although these tend to be less serious overall than the top concerns in other states. Only about 4-in-10 southern Virginia residents have very serious concerns about beach erosion, shoreline pollution, and development, and only 1-in-3 feel the same about sea level rise. By comparison, fewer residents of the northern Virginia coast – between 36% and 42% – see any of these six issues as very serious concerns in their area.

– Awareness and Connections –

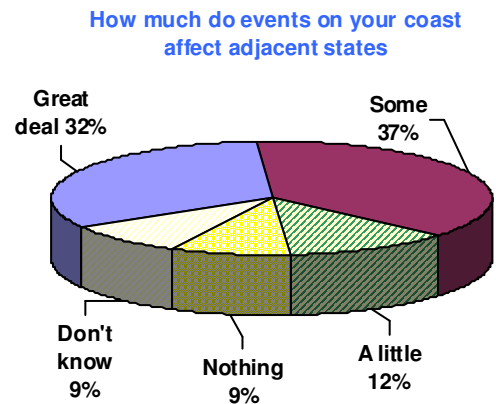
Three-quarters of Mid-Atlantic Coastal residents say they are aware of the environmental issues in their local area. However, just 27% feel they know a great deal about these issues while 48% say they have some knowledge. Another 19% say they know just a little and 5% know nothing at all about environmental issues that affect their local coasts.



Across all five Mid-Atlantic states, about 3-in-4 residents say they have at least some knowledge of coastal environmental issues. However, residents of coastal Maryland (42%) and Delaware (39%) are more likely to say they have a great deal of knowledge about local coastal issues when compared to residents of coastal New York (25%), New Jersey (26%), and Virginia (25%).

Also, waterfront residents in general (45%) are more likely than those who live a few blocks (23%) or farther (24%) from the shore or bay to feel they know a great deal about local coastal environmental issues.

Mid-Atlantic coastal residents were also asked how much the issues on their own coast affect what happens along the coasts of adjacent states.⁴ Overall, two-thirds of residents acknowledge that coastal issues in their own area can have a regional impact. This includes 32% who say they have a great deal of impact and 37% who say they have some impact. Another 12% say that the impact is minimal, 9% feel there is no impact at all, and another 9% say they don't know whether what happens along their local coast affects what happens along the coasts of adjacent states.



Interestingly, these results remain stable regardless of whether residents are asked about the impact on states to the north or south of them, and whether they are asked about the impact on border states or on states farther away. In other words, residents who feel that local coastal issues affect other coasts see no geographic limits to those impacts.

There are few regional differences among residents of different parts of the coast in their assessment of how local environmental issues affect other Mid-Atlantic states' coastlines. Those who say local coastal issues have a great deal of impact on other states ranges from 41% in Maryland and 38% in Delaware to 34% in Virginia, 33% in New Jersey, and 29% in New York. Likewise, those who say the regional impact of local coastal issues is a little, nothing, or have no opinion ranges between 26% and 33% in each of the states surveyed – which is not statistically different for this survey's regional samples.

⁴ The survey question included the names of adjacent states in a random distribution among the survey respondents.

IV. Coastal Policy

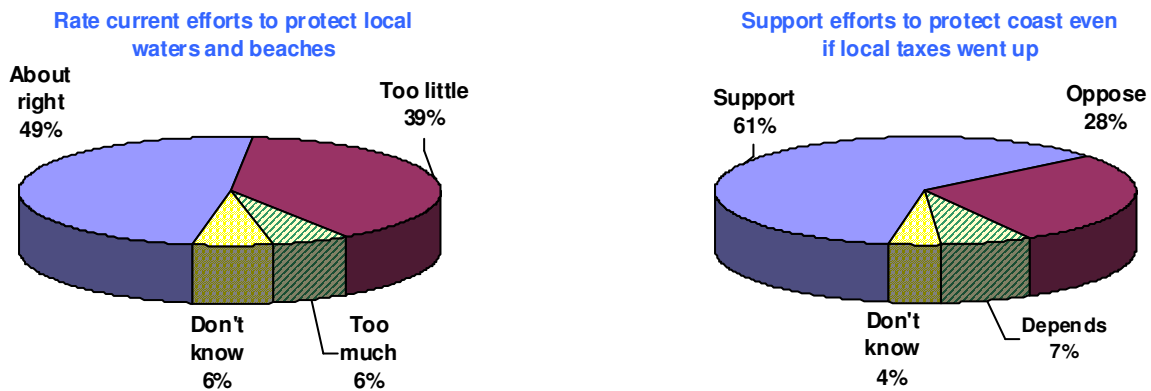
The final section of this report focuses on coastal policy. Specifically, this covers residents' assessments of government efforts to protect the coast; support for increased coastal protection efforts; perceptions of sea rise risk and policy views on reducing damage from coastal hazards; and views on using coastal resources for energy production.

Key Findings:

- About half of Mid-Atlantic residents say the current level of effort put into protecting both local coastal waters and beaches are about right. About 4-in-10 say there is not enough effort in these areas.
- Six-in-ten residents say they would support greater efforts to protect their local coasts, even if it required tax increases.
- Residents of the Mid-Atlantic coast tend to give the government poor marks on protecting the environment. Less than half of Mid-Atlantic coastal residents say government has done a good job protecting coastal habitats and maintaining clean water. About 3-in-10 say it has done a good job managing marine life, protecting coastal property from storm damage, and managing coastal growth and development.
- Residents of coastal Maryland, southern New Jersey, and southern Virginia tend to be the more positive about government efforts. Those who live in northern New Jersey, northern Virginia, and Delaware tend to be less positive. Residents of coastal New York tend to mirror the average Mid-Atlantic opinion.
- About 6-in-10 residents feel that sea level rise and flooding risk will increase substantially over the next 25 years. Another third feel that such risks have been exaggerated, which is up slightly from the 1-in-4 who said the same in 2007. More residents feel that sea level changes over the past generation have been caused largely by natural changes in the environment rather than by the effects of human activities.
- Large majorities support a variety of measures for reducing storm damage risk, including public purchase of existing open space, building hard retaining structures, and preventing new construction in high risk areas. They also feel that beaches that are washed away by storms should be replenished. However, residents are much less supportive of any policies that would allow government purchase of private homes in high risk areas.
- Just under half of Mid-Atlantic coastal residents say that government should pay most of the costs for projects to reduce coastal hazards, 1-in-3 say the burden should mainly be carried by coastal property owners, and 1-in-6 say that government and property owners should share the costs equally.
- A large majority of coastal residents support the placement of electricity-generating wind farms off their local coasts, even if the windmills would be visible from the shoreline. On the other hand, opinion is divided over drilling for oil or gas in the Atlantic Ocean. However, support for all these ocean energy resource options has increased in the past two years.

– Assessing Government Efforts –

About half (49%) of Mid-Atlantic coastal residents say that the level of effort currently put in to protect coastal waters and beaches in their area is about right. Another 39% say the effort is too little, while only 6% say there has been too much effort to protect local waters and beaches. Coastal residents of southern New Jersey (29%) and Maryland (32%) are somewhat less likely than those in other areas – ranging from 40% to 45% – to say that there is too little effort put into protecting their local waters and beaches.



The survey found widespread support among coastal residents for greater efforts to protect coastal waters, shorelines, and beaches in their town, even if they would have to pay more in local taxes. Overall, 61% would support such efforts, 28% would oppose them, and 11% are unsure or have no opinion. These results are unchanged from the 2007 survey.

Support for increased efforts to protect the coast come from 6-in-10 or more resident in every region, except for eastern New York where it stands at 49% (down from 60% in 2007).

When asked to assess specific policies, though, Mid-Atlantic coastal residents generally give “government”⁵ only fair or poor evaluations for managing the coast and ocean. For example, just under half feel that government is doing either an excellent or good job protecting coastal wetlands and wildlife habitats (46%) and keeping coastal and ocean waters clean (45%). Similar numbers feel their government is doing only a fair or poor job in these two areas (46% for protecting habitats and 48% for keeping waters clean).

About 3-in-10 residents give government positive marks for managing fish and other marine life (35%), protecting property from storm damage (33%), and managing growth and development

⁵ Note: this question did not specify a specific level of government, but asked about “government” in general.

along the coast (29%). A majority say they are doing only a fair or poor job in these areas (52% for managing marine life, 55% for storm damage protection, and 63% for managing growth).

Government Performance on Coastal Issues					
<i>How good a job is government doing at each of the following? Please respond with excellent, good, only fair, poor, or tell me if you don't have an opinion on this.</i>					
<i>Percentage saying "excellent" or "good":</i>	Protecting coastal wetlands and wildlife habitats	Keeping coastal and ocean waters clean	Managing fish and other marine life	Protecting coastal property from storm damage	Managing growth and development in coastal communities
Total	46%	45%	35%	33%	29%
<u>Region</u>					
--New York	44	44	29	31	31
--New York East	41	46	33	30	32
--New York West	46	41	26	34	28
--New Jersey	48	48	36	32	28
--New Jersey North	36	42	22	23	21
--New Jersey South	59	53	48	41	35
--Delaware	36	29	36	40	20
--Maryland	58	61	55	52	30
--Virginia	41	36	40	34	29
--Virginia North	38	30	29	25	24
--Virginia South	45	44	51	45	35

In general, residents of coastal Maryland, southern New Jersey, and southern Virginia tend to be more positive than others about government efforts to protect coastal and ocean environments. Those in northern New Jersey, northern Virginia, and Delaware tend to hold a relatively less positive opinion. Residents of coastal New York tend to mirror the average Mid-Atlantic opinion.

Specifically, majorities of coastal residents in Maryland (58%) and southern New Jersey (59%) say that government is doing a good job protecting coastal wetlands and habitats, whereas fewer than 4-in-10 residents of Delaware (36%), northern New Jersey (36%), and northern Virginia (38%) feel the same.

Similarly, majorities of coastal residents in Maryland (61%) and southern New Jersey (53%) say the government is doing a good job keeping coastal and ocean waters clean, whereas only 3-in-10 residents of Delaware (29%) and northern Virginia (30%) feel the same.

Just over half of coastal residents in Maryland (55%) and southern Virginia (51%) and just under half in southern New Jersey (48%) give the government positive marks for marine life management, whereas fewer than 3-in-10 residents of coastal northern New Jersey (22%), northern Virginia (29%), and western New York (26%) feel the same.

A majority of coastal Maryland residents (52%) and just under half of southern Virginia residents (45%) say that government is doing a good job on storm damage protection, compared to just 1-in-4 residents of northern New Jersey (23%) and northern Virginia (25%) who feel the same.

Finally, one-third of coastal residents in southern New Jersey (35%) and southern Virginia (35%) give the government positive marks for managing coastal growth and development, while one-fifth of residents in coastal Delaware (20%) and northern New Jersey (21%) agree.

These questions were also asked in the 2007 survey. In general, there is little change in Mid-Atlantic coastal residents' opinion on government performance in the past two years. Among coastal New York residents, it appears that views of government have improved slightly in western New York, but this is offset by a slight decline in government evaluations from eastern New York residents.

– Sea Level Rise and Storm Risk –

About 6-in-10 residents accept the premise that sea level rise will substantially increase storm and flood risk within a generation's time. This includes 51% who say that such reports are generally accurate and another 10% who feel that the risk is actually being under-estimated.

Perceptions of Sea Level Rise Risk				
<i>Some reports predict that sea levels will rise substantially in the next 25 years and that many coastal areas will be in much greater risk from storm damage and flooding. Based on what you have heard, do you think that this risk is generally accurate, generally underestimated, or generally exaggerated?</i>				
	Accurate	Under-estimated	Exaggerated	Don't know
Total	51%	10%	34%	5%
<u>Region</u>				
--New York	60	12	24	3
--New York East	61	14	20	4
--New York West	59	9	29	2
--New Jersey	48	9	38	5
--New Jersey North	44	9	42	5
--New Jersey South	51	10	35	4
--Delaware	52	12	30	7
--Maryland	46	7	41	6
--Virginia	48	10	36	6
--Virginia North	47	8	40	5
--Virginia South	49	12	31	8
<u>Distance from Coast</u>				
--Waterfront	41	11	44	3
--A few blocks	55	8	33	5
--Farther away	51	13	31	5

Another 34% of residents feel reports of risk from sea level rise are generally exaggerated. This number has increased by 7 points in the past two years, from 27% in the 2007 survey. This change is largely due to increased skepticism among northern New Jersey and Delmarva residents and may be a byproduct of relatively mild winters with little storm damage over the past few years, although it is impossible to determine from the survey.

Overall, residents of coastal Maryland (41%), New Jersey (38%), and Virginia (36%) tend to be somewhat more skeptical than coastal Delaware residents (30%) about the reported risks of sea level rise. Coastal New Yorkers (24%) continue to be the least skeptical Mid-Atlantic residents as to those risks.

More Mid-Atlantic residents feel that sea level changes over the past generation have been caused largely by natural changes in the environment (47%) rather than the effects of human activities (38%). Another 10% say both have contributed equally.

Those who say that sea level change is due to human activity – either primarily or equally with natural environmental change – includes 60% of coastal New Yorkers and just under half of residents in coastal Delaware (46%), Virginia (45%), Maryland (44%), and New Jersey (43%).

Human Role in Sea Level Rise				
<i>And from what you have read or heard, do you believe changes in sea levels over the past 25 years are due more to the effects of human activities or more to natural changes in the environment?</i>				
	Human activities	Natural changes	Both equally	Don't know
Total	38%	47%	10%	5%
<u>Region</u>				
--New York	45	34	15	6
--New York East	44	32	16	9
--New York West	46	37	13	4
--New Jersey	36	52	7	4
--New Jersey North	29	59	6	6
--New Jersey South	43	46	8	3
--Delaware	33	47	13	7
--Maryland	29	51	15	4
--Virginia	35	49	10	7
--Virginia North	35	54	6	6
--Virginia South	35	43	14	8
<u>Distance from Coast</u>				
--Waterfront	34	54	7	5
--A few blocks	42	44	10	5
--Farther away	36	47	11	6

The survey also asked coastal residents about their views on four possible policies for preserving coastal habitats and reducing storm damage. As in the 2007 survey, the results show majority support for most solutions, as long as they don't involve government purchase of private homes. Eight-in-ten Mid-Atlantic coastal residents support the public purchase of existing natural areas for preservation (80%). Two-thirds also support building hard structures, such as jetties or seawalls (65%) and preventing any new construction in areas of high flood risk (65%). Fewer than 3-in-10, though, favor government purchase of private homes in high risk areas (28%).

Coastal Protection Preferences				
<i>I'm going to read you some possible ways to preserve coastal habitats and reduce storm damage. Please tell me whether you would support or oppose these efforts in your local area.</i>				
<i>Percentage saying "support":</i>	Public purchase of existing natural coastal areas for preservation	Building bulkheads, jetties, seawalls and other hard structures	Prevent any new construction or development in high flood risk areas	Public purchase of private homes located in high risk areas
Total	80%	65%	65%	28%
<u>Region</u>				
--New York	83	56	69	32
--New York East	84	45	74	34
--New York West	81	70	64	29
--New Jersey	78	69	64	27
--New Jersey North	80	62	63	27
--New Jersey South	77	76	65	28
--Delaware	81	64	67	31
--Maryland	80	67	52	25
--Virginia	80	65	58	24
--Virginia North	78	68	50	25
--Virginia South	83	62	68	22
<u>Distance from Coast</u>				
--Waterfront	76	70	59	21
--A few blocks	79	66	62	30
--Farther away	82	61	70	29

There are no regional differences in the amount of public support for policies that would involve the public purchase of existing natural coastal areas for preservation. Support stands at about 8-in-10 in all five states. There are also no regional differences in the amount of public support for policies that would involve the public purchase of private home in high risk areas. Support for this potential policy stands at only about 3-in-10 in all five states.

There are also few regional differences in support for the other two policies asked about in the survey. Residents of eastern New York (45%) are less supportive of efforts to build seawalls, jetties and other hard structures. However, support for this policy ranges from 62% to 76% in the

other seven survey regions. Also, Maryland (52%) and northern Virginia (50%) coastal residents are somewhat less likely than others to support restrictions on new development in high risk areas. In the other six survey regions support ranges from 63% to 74%.

When asked what should be done with beaches that have been washed away by storm damage, most Mid-Atlantic residents (65%) say that the sand should be replenished, compared to only 24% who feel the beaches should be left as they are after such damage.

Support for beach replenishment is relatively higher in Maryland (80%), western New York (71%), southern New Jersey (70%), and Delaware (70%), when compared to southern Virginia (65%), northern New Jersey (60%), northern Virginia (59%), and eastern New York (57%).

Who Should Pay for Coastal Hazard Reduction				
<i>Who should pay for most of the cost for projects designed to reduce damage from storms and other coastal hazards – government or coastal property owners?</i>				
	Government	Coastal property owners	Both equally	Don't know
Total	45%	33%	16%	6%
<u>Region</u>				
--New York	48	28	19	4
--New York East	40	32	22	6
--New York West	57	25	16	2
--New Jersey	46	33	13	8
--New Jersey North	48	32	14	6
--New Jersey South	44	33	12	11
--Delaware	34	38	25	3
--Maryland	45	21	30	4
--Virginia	37	44	18	1
--Virginia North	46	38	15	0
--Virginia South	26	51	22	2
<u>Distance from Coast</u>				
--Waterfront	52	27	17	4
--A few blocks	48	29	15	8
--Farther away	38	40	18	4

A key issue in the coastal hazards debate is who should pay for projects designed to reduce damage from these risks. Just under half (45%) of Mid-Atlantic coastal residents say that government should carry most of the costs for these projects, 33% say the burden should mainly be carried by coastal property owners and 16% say that government and property owners should share the costs equally. The number saying that government should primarily be responsible for the cost of coastal hazard projects is about the same as the 48% who felt that way in the 2007 survey. However, the number that say property owners should carry the bulk of the cost has

increased slightly from 24% in 2007, while those saying that government and property owners should share the burden equally has decreased from 23% two years ago.

Western New Yorkers (57%) are the most likely to say that government should pay most of the costs for projects to reduce coastal hazards, whereas residents of southern Virginia (51%) are the most likely to say that coastal property owners should shoulder the primary responsibility. Residents of coastal Delaware are the most divided on who should pay the costs of these projects, with 34% who say it should be government, 38% coastal property owners, and 25% who say both should bear the burden equally.

– Utilizing Coastal Energy Resources –

The vast majority of coastal Mid-Atlantic residents support placement of energy-generating wind farms off their coast, even if the windmills are visible from the shoreline. Specifically, 82% of residents say that they would support placing energy-generating windmills beyond the horizon and 67% would support wind farms that can be seen from the shore. Only 8% oppose non-visible wind farms and 16% oppose visible wind farms. Support for placing electricity generating windmills is up by 10 percentage points from the 2007 survey.

Support for Using the Coastal Energy Resources			
<i>Would you support or oppose or do you have no opinion either way:</i>			
<i>-Placing electricity-generating windmills off your coast as long as they are not visible from the shoreline?</i>			
<i>-Placing these windmills off your coast if you could see them in the distance?</i>			
<i>-Drilling for oil or gas in the ocean off the Atlantic coast?</i>			
<i>Percentage saying "support":</i>	Non-visible windmills	Visible windmills	Drilling for oil and gas
Total	82%	67%	46%
<u>Region</u>			
--New York	77	63	37
--New York East	76	63	39
--New York West	77	63	33
--New Jersey	83	69	51
--New Jersey North	84	64	52
--New Jersey South	83	73	51
--Delaware	90	82	52
--Maryland	91	70	65
--Virginia	83	65	42
--Virginia North	84	76	46
--Virginia South	82	53	37
<u>Distance from Coast</u>			
--Waterfront	81	64	50
--A few blocks	82	66	48
--Farther away	83	69	43

There are few regional differences in support for non-visible wind farms, including 77% in New York, 83% in New Jersey and Virginia, and 90% in Delaware and 91% in Maryland. There is some regional variation in support levels for placing wind farms within sight of the shoreline. While a majority in each of the eight survey regions favor this, the level of support varies from 76% in northern Virginia and 82% in Delaware to 53% in southern Virginia. Support stands at about 2-in-3 residents in Maryland (70%), New Jersey (69%), and New York (63%).

Opinion is a more divided on the question of drilling for oil or gas off the Atlantic coast, although support for this option has increased in the past two years. Just under half of coastal residents (46%) would support drilling in the ocean for energy resources, compared to 37% who are opposed and 12% who have no opinion. Two years ago, coastal resident support for drilling in the Atlantic stood at 33%, opposition at 40%, and no opinion at 24%. It appears that the increased support found in the current survey has come from a decrease in those who were on the fence about the issue in 2007.

The increase in support has also come more from some regions than others. Only 37% of coastal New York residents support drilling for oil in the Atlantic, about the same as the 35% who favored this in 2007. However, a majority (51%) of New Jersey coastal residents now support ocean drilling, up from 30% two years ago. Support from Delmarva residents is also higher in the current survey than two years ago. However there are some differences within that region – a majority of residents in coastal Maryland (65%) and Delaware (52%) support ocean drilling, while fewer Virginia (42%) coastal residents share that view.

APPENDIX:

**MONMOUTH
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Located in West Long Branch, New Jersey, **Monmouth University** is a leading comprehensive, private institution that offers coeducational undergraduate and graduate degrees and 50 distinctive curricular programs. Sprawled across a magnificent, historic campus, the University is approximately one hour from both Manhattan and Philadelphia and is within walking distance of the beaches of the Atlantic Ocean. Monmouth University combines the state-of-the-art facilities and vibrant environment of a large institution with the individual attention of a small, liberal arts college. For more information, visit www.monmouth.edu.

Urban Coast Institute; Tony MacDonald, Director
www.monmouth.edu/urban_coast_institute

The **Urban Coast Institute** (UCI) was established in September 2005 as one of Monmouth University's "Centers of Distinction." UCI's mission is to serve the public interest as a forum for research, education, and collaboration in the development and implementation of science-based policies and programs that support stewardship of healthy, productive, and resilient coastal ecosystems and communities.

The UCI builds on the University's program in Marine and Environmental Biology and inter-departmental strengths in marine biology, environmental science, business, economics and real estate, public policy, and the arts and social sciences. The UCI maintains a principal focus on the interactions between humans and the coastal and ocean environment, and sustainable coastal development along New Jersey's coasts and watersheds. Monmouth County and the New Jersey-New York region is an ideal "laboratory" for study of these issues.

The UCI has a unique focus on how good science can inform public policy and the human dimensions of coastal ecosystem-based management, including the impacts of human use and development on coasts. The UCI seeks to foster collaboration among citizens, watershed and community organizations, governmental agencies, business, the scientific community, and other parties interested in coastal and watershed management, conservation, and restoration.

Polling Institute; Patrick Murray, Director
www.monmouth.edu/polling

The **Polling Institute** at Monmouth University is a full service research center that conducts surveys and focus group research for federal, state, and local agencies, as well as other organizations that cover social, political, and related issues of public policy. This is in addition to our mission of conducting public interest polls to track opinion on vital issues of the day.

The Monmouth University Polling Institute was established to be a leading center for the study of public opinion on important state, regional, and national issues. In its inaugural year, the institute was named a "Winner" by New Jersey Politifax for the accuracy of its polling in the 2005 gubernatorial election. The Polling Institute conducts and disseminates public opinion research to foster greater public accountability by ensuring that the voice of the public is part of the policy discourse. The Polling Institute strives to go beyond the headlines to cover quality of life issues that affect residents in their daily lives.

The Polling Institute's activities include research services for government agencies and private organizations that assist with policy planning and assessment. The institute also collaborates with faculty and students to enhance research and training opportunities in survey research. The Polling Institute's research capabilities include: large and small-scale survey projects; telephone, mail, and in-person interview designs; quantitative data analysis; and qualitative research techniques such as focus group facilitation and analysis.

Life on the Mid-Atlantic Coast 2009

SURVEY METHODOLOGY

The questionnaire for this survey was drafted by the Monmouth University Polling Institute (MUPI) and Urban Coast Institute (UCI) research staff in consultation with research concerns raised by stakeholders from the affected states covered in the survey. Approximately half of the questionnaire items were asked in a similar 2007 survey, thus allowing for comparisons of trends in public attitudes.

A random probability sample was used to select Mid-Atlantic coastal community residents 18 years of age and older to participate in this study. The sample was divided into eight coastal regions: New York East (Suffolk county), New York West (Nassau county), New Jersey North (Monmouth and Ocean counties), New Jersey South (Atlantic and Cape May counties), Delaware (Sussex county), Maryland (Worcester county), Virginia North (Accomack and Northampton counties) and Virginia South (Virginia Beach).¹ In order to statistically compare responses among regions, a unique sample was drawn for each region; 150 coastal residents for each of the four New York and New Jersey regions and approximately 100 each for the remaining four regions, creating a total sample of 1,006 residents.

The telephone sample was drawn by first selecting communities that geographically abut the Atlantic Ocean. Utilizing census tract information to map telephone coverage, the sample process first selected from among all the three-digit telephone exchanges that serve these communities. The remaining four digits of the sampled phone number were randomly generated. This procedure ensures that those with unlisted or new telephone numbers were included in the sample. Each working phone number was called a minimum of five times, at different times of the week, in an effort to reach people who were infrequently at home.

The questionnaire was programmed into a CATI (Computer Assisted Telephone Interviewing) system and the interviews were conducted by telephone April 21-28, 2009 by experienced professional interviewers at Braun Research, Inc.

¹ Due to its relatively small geographic size and unique urban quality, the coastal portion of Queens county in New York was not included in this study.

The survey included questions to screen out respondents who did not live or maintain a primary home in these coastal communities. Thus, the final survey results represent the views of “permanent” residents of these communities.

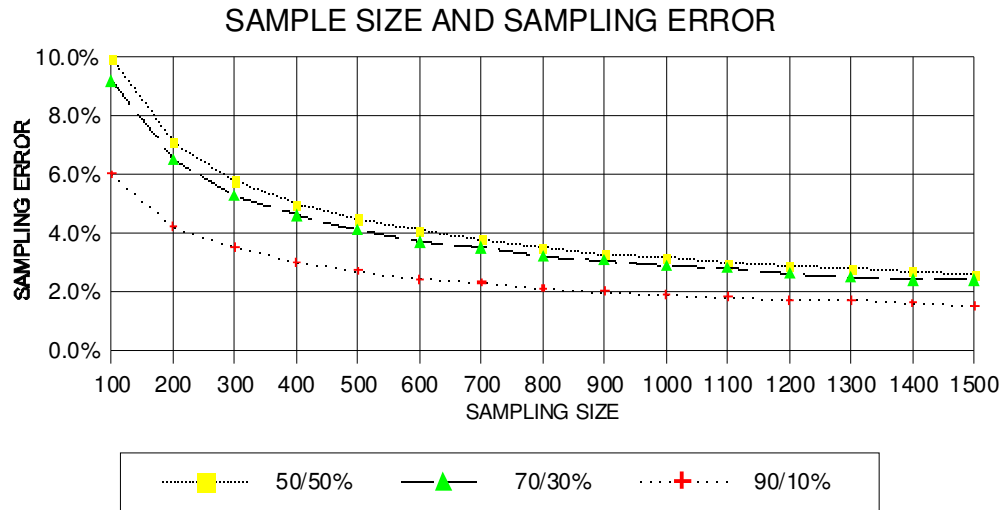
While those interviewed in a survey ideally will have the same characteristics as the population they represent, samples frequently may under-represent groups that are more difficult to interview, such as the elderly or those with less than a high school education. To correct this imbalance, a statistical technique known as “weighting” is used. The weighting procedure for this survey compared population figures for age and education based on census data with those of the sample and weighted the sample to more accurately reflect the population. For example, if census figures show 39 percent of residents 18 years and older have a high school education, and the sample consists of 32 percent with a high school education, each respondent in this category would be counted as 1.22 persons to adjust for this difference. This weighting system was applied within each of the five sample regions.

Since the survey sample was drawn disproportionately from each region, the final weighting step was to adjust the survey weight of each of the eight regions to better represent their proportional share of the Mid-Atlantic coastal community population (as defined by this survey).

The percentages obtained in a sample survey are estimates of what the distribution of responses would be if the entire population had been surveyed. “Sampling error” is a statistical term which describes the probable difference between interviewing everyone in a given population and a sample drawn from that population. For example, the sampling error associated with a sample of this size is ± 3.1 percent at a 95 percent confidence interval. Thus, if 47 percent in this sample are found to agree with a particular statement, the percentage of agreement within the population from which the sample was drawn would be between 43.9 and 50.1 percent (47 $\pm 3.1\%$) 95 times out of 100.

Sampling error increases as the sample size is reduced. For, example, if statements are made based on a sub-group of 300 (as with the New York and New Jersey state samples), the sampling error is ± 5.7 percent. For percentages based on the smallest geographic areas ($n=100$), the sampling error is ± 9.8 percent. This factor must be kept in mind when comparing the

responses of different groups within the total sample. Readers should note that sampling error does not take into account other possible sources of error inherent in any study of public opinion. The following chart shows the relationship between sample size and sampling error:



SURVEY INSTRUMENT

Life on the Mid-Atlantic Coast 2009

*A 5-state survey of coastal
community residents*

[*New York; New Jersey; Delaware; Maryland; Virginia*]

April 21-28, 2009
(n=1,006)



Urban Coast Institute
Polling Institute

A. LIVING ON THE COAST

A1. Do you own or rent this apartment or house?

- 77% Own
- 18% Rent most of the year
- 5% Live year round, rent-free with family/friends

A2. Is this home a waterfront property right on the beach or bay, within a few blocks of the beach or bay, within one mile, within five miles, or farther away?

- 15% Front beach or bay
- 46% Within a few blocks
- 19% Within one mile
- 20% Within five miles

A3. How much of the year do you live in this home – 10 to 12 months, 6 to 9 months, or less than 6 months?

- 96% 10 to 12 months
- 4% 6 to 9 months
- 1% (VOL) Don't know/Ref

A4. How many years have you lived in this town, or have you lived here all your life?

- 4% Less than 1 year
- 17% 1 to 5 years
- 18% 6 to 10 years
- 15% 11 to 20 years
- 28% More than 20 years
- 19% All my life
- 0% (VOL) Don't know/Ref

B. COASTAL COMMUNITY ISSUES

B1. Here are some issues that your town may have to deal with. After I read each one, please tell me whether it should be a high, medium, or low priority.

	<u>High</u>	<u>Medium</u>	<u>Low</u>	<u>DK/Ref</u>
A. Improving public education	64%	24%	10%	2%
B. Controlling growth and development	56%	29%	12%	3%
C. Lowering taxes	65%	24%	9%	1%
D. Protecting the coastal and ocean environment	76%	19%	5%	0%
E. Improving the local economy and creating jobs	69%	21%	9%	1%

B2. How much do you feel you know about coastal environment issues in your local area – a great deal, some, just a little, or nothing at all?

27% Great deal
 48% Some
 19% Just a little
 5% Nothing at all
 0% (VOL) Don't Know/Refused

B3. Do you think current efforts to protect coastal waters and beaches in your local area are too much, too little, or about right?

6% Too much
 39% Too little
 49% About right
 6% (VOL) Don't Know/Refused

B4. How important is the condition of the ocean and beaches to the economy in your area -- very, somewhat, not too, or not at all important?

86% Very important
 12% Somewhat important
 1% Not too important
 1% Not at all important
 1% (VOL) Don't Know/Refused

B5. In general, how much of an impact do the daily activities of people like you have on the coastal environment in your area – a great deal, some, just a little, or nothing at all?

28% Great deal
 42% Some
 20% Just a little
 8% Nothing at all
 1% (VOL) Don't Know/Refused

B6. Please tell me if you think each of the following is a very serious, somewhat serious, not too serious, or not at all serious concern in your area?

	<u>Very</u>	<u>Somewhat</u>	<u>Not too</u>	<u>Not at all</u>	<u>DK/Ref</u>
A. Coastal and ocean water pollution	57%	26%	11%	5%	1%
B. The loss of wetlands and coastal habitats	47%	31%	12%	7%	3%
C. Sea level rise and increasing risk from storms	41%	36%	14%	7%	2%
D. The amount of development along the coast	47%	25%	20%	7%	2%
E. Beach erosion	56%	29%	8%	6%	1%
F. Pollution along the beaches and shoreline	53%	25%	16%	5%	1%

B7. How much do you think what happens along your local coast affects what happens along the coast of [READ IN NAME OF ADJACENT STATE(S)] – a great deal, some, just a little, or nothing at all?

- 32% Great deal
- 37% Some
- 12% Just a little
- 9% Nothing at all
- 9% (VOL) Don't Know/Refused

C. COASTAL POLICY

C1. How good a job is government doing at each of the following. Please respond with excellent, good, only fair, poor, or tell me if you don't have an opinion on this.

	<u>Excellent</u>	<u>Good</u>	<u>Only fair</u>	<u>Poor</u>	<u>DK/Ref</u>
A. Keeping coastal and ocean waters clean	8%	37%	32%	16%	7%
B. Managing fish and other marine life	6%	29%	33%	19%	13%
C. Protecting coastal wetlands and wildlife habitats	8%	38%	29%	17%	8%
D. Protecting coastal property from storm damage	5%	28%	38%	17%	12%
E. Managing growth and development in coastal communities	5%	24%	38%	25%	8%

C2. Would you support or oppose efforts to protect the coastal waters, shoreline, and beaches in your town if it meant you would have to pay more in local taxes?

- 61% Support
- 28% Oppose
- 7% (VOL) Depends
- 4% (VOL) Don't know/Ref

C3. In general, when beaches are washed away from a storm, should they be replenished with new sand or should they be left as is?

- 65% Replenished
- 24% Left as is
- 5% (VOL) Depends
- 5% (VOL) Don't Know/Refused

C4. I'm going to read you some possible ways to preserve coastal habitats and reduce storm damage. Please tell me whether you would support or oppose these efforts in your local area.

	<u>Support</u>	<u>Oppose</u>	(VOL) <u>Depends</u>	<u>DK/Ref</u>
A. Building bulkheads, jetties, seawalls and other hard structures	65%	27%	6%	3%
B. Public purchase of existing natural coastal areas for preservation	80%	13%	3%	4%
C. Public purchase of private homes located in high risk areas	28%	63%	4%	5%
D. Prevent any new construction or development in high flood risk areas	65%	32%	1%	2%

C5. Who should pay for most of the cost for projects designed to reduce damage from storms and other coastal hazards – government OR coastal property owners?

- 45% Government
- 33% Coastal property owners
- 16% (VOL) Both equally
- 6% (VOL) Don't know/Ref

C6. Some reports predict that sea levels will rise substantially in the next 25 years and that many coastal areas will be in much greater risk from storm damage and flooding. Based on what you have heard, do you think that this risk is generally accurate, generally exaggerated, or generally underestimated?

- 51% Generally accurate
- 34% Generally exaggerated
- 10% Generally underestimated
- 5% (VOL) Don't Know/Refused

C7 And from what you have read or heard, do you believe changes in sea levels over the past 25 years are due more to the effects of human activities or more to natural changes in the environment?

- 38% Human activities
- 47% Natural changes
- 10% (VOL) Both equally
- 5% (VOL) Don't Know/Refused

Some people have proposed using coastal resources to help meet our energy needs.

C8. Would you support or oppose placing electricity-generating windmills off your coast as long as they are NOT visible from the shoreline, or do you have no opinion either way?

- 82% Support
- 8% Oppose
- 10% No opinion either way
- 1% (VOL) Depends/Don't know/Ref

C9. And would you support or oppose placing these windmills off your coast if you could see them in the distance, or do you have no opinion either way?

- 67% Support
- 16% Oppose
- 15% No opinion either way
- 2% (VOL) Depends/Don't know/Ref

C10. Would you support or oppose drilling for oil or gas in the ocean off the Atlantic coast, or do you have no opinion either way?

- 46% Support
- 37% Oppose
- 12% No opinion either way
- 4% (VOL) Depends/Don't know/Ref

D. PERSONAL BEHAVIORS

D1. Have you done any of the following activities *within five miles of your home* in the past year, or not?

	<u>Yes</u>	<u>No</u>	<u>DK/Ref</u>
A. Gone fishing, crabbing or clamming	51%	49%	0%
B. Taken a boat, canoe, kayak or jet-ski out for pleasure	50%	49%	0%
C. Gone swimming or sunbathing, or walked along the shore	90%	9%	0%

D2. Do you have any type of yard, lawn or garden at this home? If YES: Have you used any fertilizers, pesticides or other chemicals on your lawn, yard or garden in the past year?

- 36% Have used
- 44% Have not used
- 16% No yard
- 3% (VOL) Don't know/Refused

D3. What do you think happens to the rainwater run-off that goes down storm drains in your neighborhood – Does it get cleaned or filtered in a treatment plant or does it flow directly into lakes, streams or the ocean?

- 17% Cleaned or filtered in a treatment plant
- 66% Flows directly into lakes and streams or the ocean
- 2% (VOL) Some of both/Depends
- 15% (VOL) Don't know/Refused

D4. Do you own a boat with a motor? IF YES: Does the boat have a toilet facility?

- 7% Yes, has toilet
- 16% Yes, but no toilet
- 78% No motorboat
- 0% (VOL) Don't know/Refused

D5. Do you think emptying toilet waste from boats directly into the ocean poses a serious risk, a moderate risk, or very little risk to overall water quality or not?

- 49% Serious risk
- 36% Moderate risk
- 10% Very little risk
- 2% (VOL) No risk at all
- 4% (VOL) Don't know/Refused

E. DEMOGRAPHICS

Now just a few final questions so we can classify your answers --

E1. What was the last grade in school you completed?

- 40% High school or less
- 26% Some college
- 33% 4 –year college graduate (Bachelor's degree)
- 1% (VOL) Don't know/Ref

E2. What was your age on your last birthday?

- 30% 18 - 39
- 36% 40 - 59
- 32% 60 or over
- 1% (VOL) No answer/Refused

E3. How many people live in your household, including yourself?

- 18% One, live alone
- 37% Two
- 44% Three or more
- 1% (VOL) Don't know/Ref

E3A. How many are children under the age of 18?

- 30% One or more
- 69% None
- 1% (VOL) Don't know/Ref

E4. Are you of Latino or Hispanic origin?

E5. Are you white, black or of Asian origin?

- 86% White
- 5% Black
- 1% Asian
- 4% Hispanic
- 1% (VOL) Other
- 4% (VOL) Don't Know/Refused

E6. So that we can group all answers, is your total annual family income before taxes: Under \$50,000; from \$50,000 to just under \$100,000; from \$100,000 to just under \$150,000; or \$150,000 or more?

- 27% Under \$50,000
- 33% \$50,000 - \$99,999
- 13% \$100,000 - 149,999
- 12% \$150,000 or more
- 2% (VOL) Don't Know
- 13% (VOL) Refused

E7. Respondent gender?

- 50% Male
- 50% Female

E8. Regional Distribution (*weighted*):

- 15% New York East
- 13% New York West
- 24% New Jersey North
- 27% New Jersey South
- 4% Delaware
- 3% Maryland
- 8% Virginia, north of bay
- 6% Virginia Beach