

## Life in Hampton Roads Survey Press Release #5

### Under Water? Sea Level Rise and Environmental Risks

*This report examines regional and sub-regional measures of environmental risk perceptions from the 2014 Life In Hampton Roads survey (LIHR 2014) conducted by the Old Dominion University Social Science Research Center. For additional information on survey methodology, and analyses of other issues, please see the SSRC website at [www.odu.edu/ssrc](http://www.odu.edu/ssrc).*

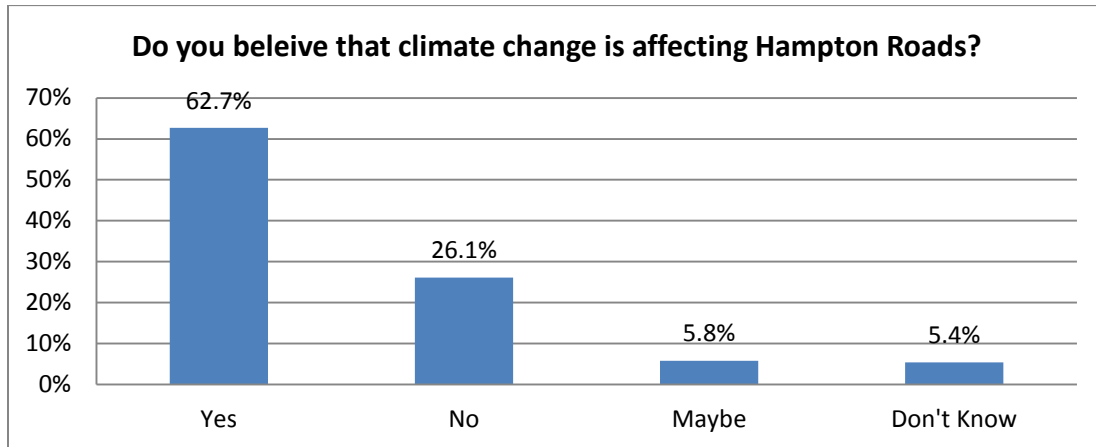
The 2014 Life in Hampton Roads survey conducted by the Old Dominion University Social Science Research Center (SSRC) contained an extensive battery of questions to determine how people in Hampton Roads felt about several environmental issues, with a major focus on Sea Level Rise and Flooding to support the work of faculty affiliated with the ODU Mitigation and Adaptation Research Institute (MARI). Survey results overall suggest that solid regional majorities are concerned about the local impact of flooding and sea level rise, including both economic and environmental effects.

However, while results indicate that while most people believe climate change and increased flooding due to sea level rise is affecting Hampton Roads, only a small percentage reported that recurrent flooding was a problem in their neighborhood. Additionally, while respondents thought there was a high probability of a catastrophic storm in the next ten years, and a large chance that such a storm would flood their home, only 34.8% of respondents reported having flood insurance, and many of these appear to think they have flood coverage when they do not.

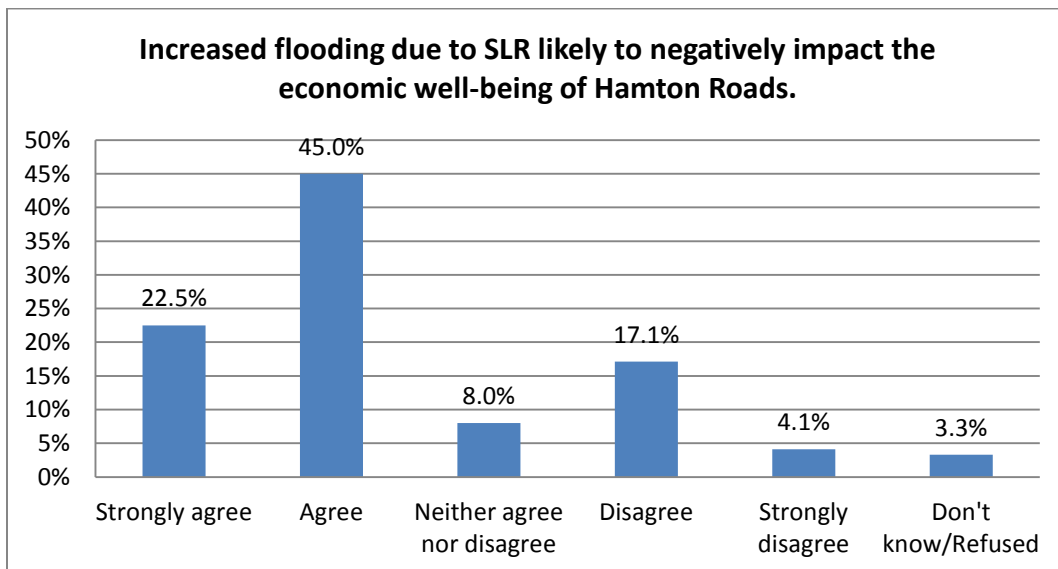
The 853 respondents were asked to give their opinion on a variety of questions ranging from climate change and sea level rise and the effect on Hampton Roads to prevalence of recurrent flooding and other flood related topics. Responses analyzed below were weighted by city population, race, gender, age, and phone use (cell versus landline) to be representative of the Hampton Roads population. Details of survey methodology are included in the 2014 LIHR demographics and methodology section ([www.odu.edu/ssrc](http://www.odu.edu/ssrc)). The margin of error for the 2014 LIHR survey is 3.7 percent (95 percent confidence interval).

## Climate Change and Sea Level Rise

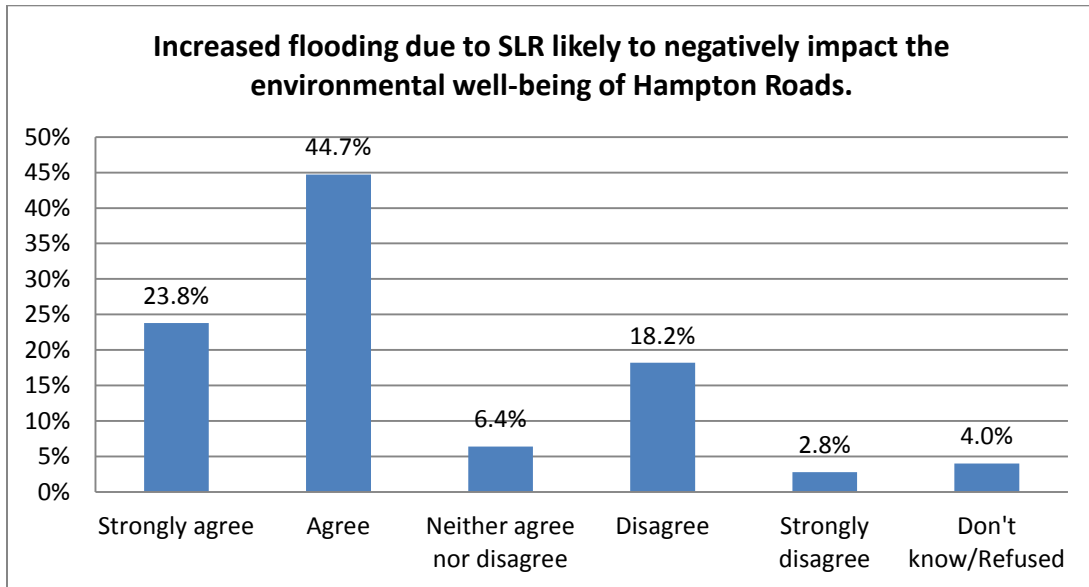
When respondents were asked whether or not they believe climate change is affecting Hampton Roads, 62.7% said yes. Only 26.1% stated that they do not believe climate change is affecting Hampton Roads, while 5.8% said climate change may be affecting Hampton Roads.



Respondents were also asked whether or not they felt that increased flooding due to sea level rise is likely to negatively impact the economic well-being of Hampton Roads. The majority of respondents (67.5%) reported that they strongly agree or agree, while only 21.2% strongly disagree or disagree that increased flooding due to sea level rise is likely to impact the economic well-being of Hampton Roads. Additionally, 8% stated that they neither agree nor disagree and 3.3% either didn't know or refused.

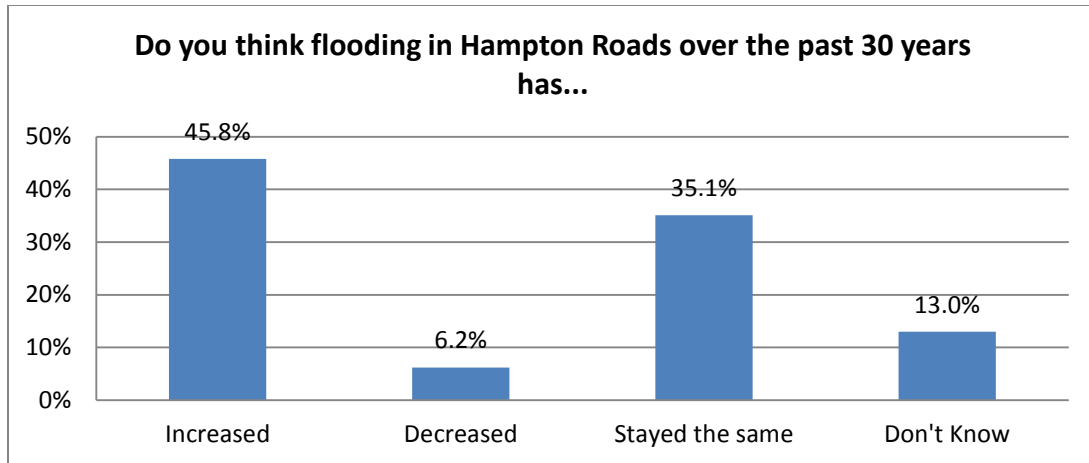


Another question was asked about whether or not increased flooding due to sea level rise was likely to impact the environmental well-being of Hampton Roads. Again, the majority of respondents (68.5%) strongly agreed or agreed that the environmental well being of Hampton Roads would be negatively impacted by increased flooding due to sea level rise. Only 21% strongly disagreed or disagreed, while 6.4% neither agreed nor disagreed. Another 4% either didn't know or refused.

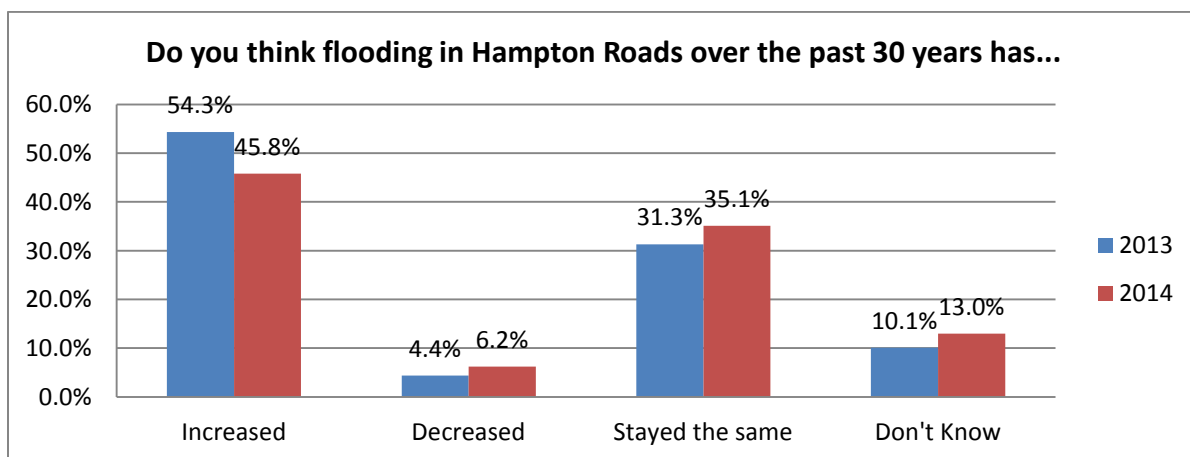


### **Flooding and Flood Risks**

Respondents were asked whether they believe that recurrent flooding in Hampton Roads has increased, decreased, or stayed the same in the past 30 years. The overwhelming majority of respondents stated that flooding has either increased (45.8%) or stayed the same (35.1%) in Hampton Roads over the past 30 years. Only 6.2% stated that flooding has decreased and 13% claimed they didn't know.



Comparing respondent’s answers to the question “Do you think flooding in Hampton Roads over the past 30 years has increased, decreased, or stayed the same,” there are some considerable differences. In 2013, 54.3% of respondents reported that they believe flooding had increased in Hampton Roads over the past 30 years, whereas in 2014 that figure is down to 45.8%. Additionally, a larger percentage believed flooding has decreased in Hampton Roads over the past 30 years in 2014 (6.2%) than in 2013 (4.4%). There were also more respondents in 2014 who reported that flooding has stayed the same in 2014 (35.1%) compared to respondents in 2013 (31.3%). These differences may reflect the lack of major flooding events in the past year, compared to 2013 when memories of flooding caused by Hurricane Sandy may have been more readily available.

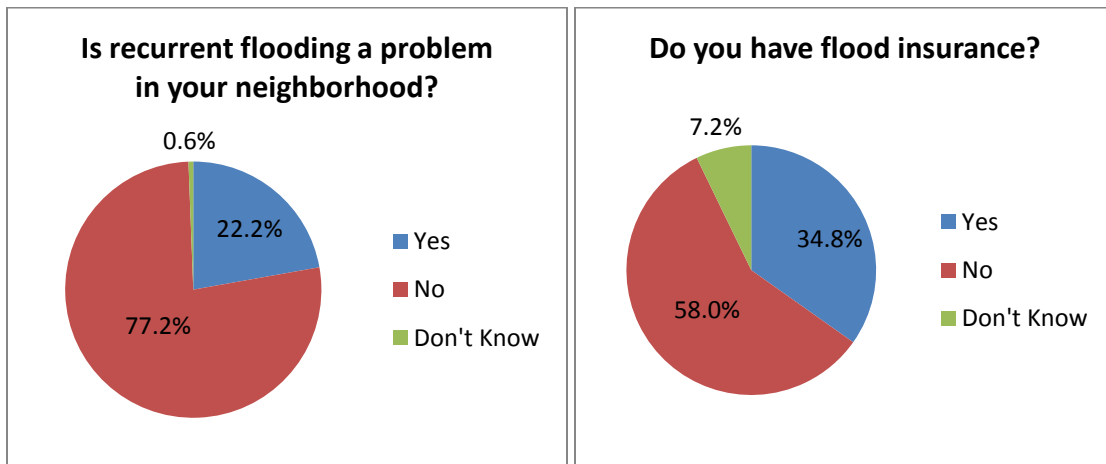


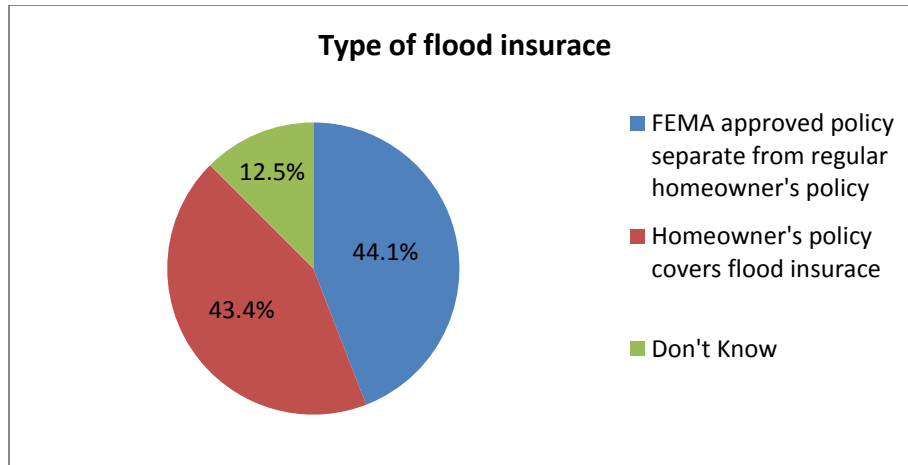
Respondents were also asked whether or not recurrent flooding is a problem in their neighborhood. Although 45.8% reported that they think flooding has increased in Hampton Roads over

the past 30 years, only 22.2% reported that recurrent flooding is a problem in their neighborhood.

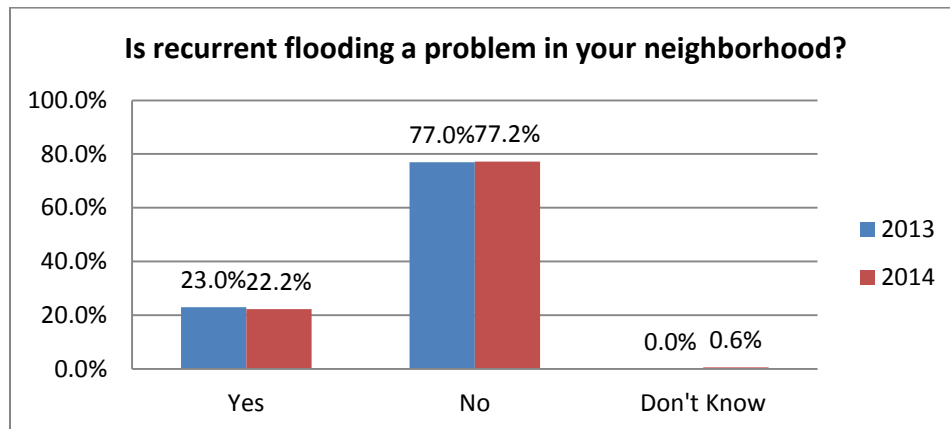
Conversely, 77.2% reported that recurrent flooding is not a problem in their neighborhood.

Respondents were asked to answer the question, "Do you have flood insurance?" It is not surprising that with only 22.2% reporting that recurrent flooding is a problem in their neighborhood that only 34.8% reported having flood insurance. The majority of respondents (58%) claimed not to have flood insurance and another 7.2% did not know if they had flood insurance. Of those that reported having flood insurance, 44.1% indicated that they have a FEMA approved policy separate from their regular homeowner's policy, while 43.4% thought that their homeowner's policy covers flooding, and 12.5% were not sure what type of flood insurance they have. Since almost no homeowner's insurance policies cover flooding in the U.S., it is likely that nearly half (43.4%) of respondents who think they have flood insurance are actually without flood coverage. Problems with mistaken beliefs about flood coverage are common in the wake of major floods in the US according to ODU insurance expert Michael McShane.



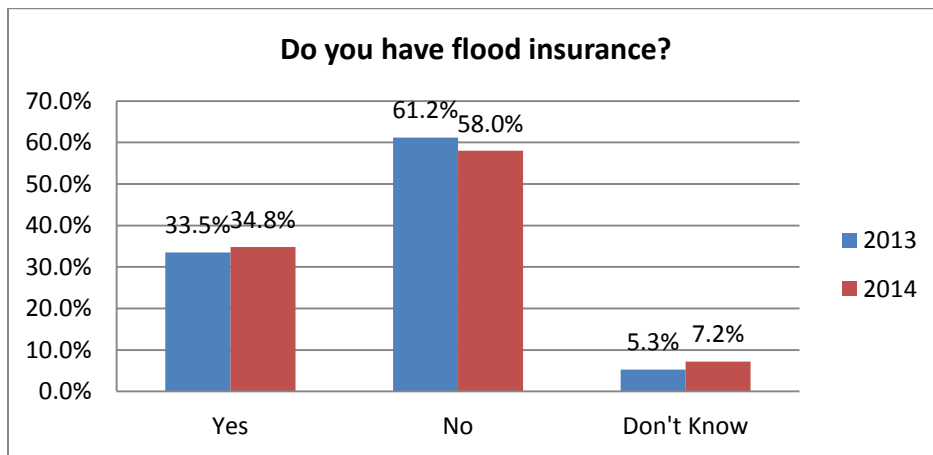


Comparing this year's data to 2013, the percentages were almost identical regarding recurrent flooding in the neighborhood. In 2013, 23% said recurrent flooding was a problem in their neighborhood, compared to 22.2% in 2014. Similarly, 77% of respondents said recurrent flooding was not a problem in their neighborhood in 2013, compared to 77.2% in 2014.



Respondents gave very similar answers last year as they did in 2014 as to whether or not they have flood insurance. In 2013, 33.5% of respondents reported having flood insurance compared to 34.8% in 2014. Additionally, 61.2% of respondents reported not having flood insurance in 2013, while 58% reported not having flood insurance in 2014. Despite being asked slightly differently between 2013 and 2014, the percentages were considerably lower this year for those reporting that their flood insurance was

a FEMA approved policy separate from their homeowner’s policy.<sup>1</sup> The percentage of those reporting that their flood insurance was a FEMA approved policy separate from their homeowner’s policy in 2013 was 58.7%. This year that percentage dropped to 44.1% reporting that they had a FEMA approved policy separate from their homeowner’s policy.



### Emergency Likelihood and Warning Preferences

Respondents were asked what the percent probability, with 0 meaning definitely will not happen and 100 meaning definitely will happen, that Hampton Roads will be struck by a catastrophic hurricane in the next ten years. The average percent probability given was 81.6% indicating that respondents think it very likely that a catastrophic hurricane will strike Hampton Roads in the next ten years. However, when asked to report the percent probability that their home would flood in the case of such an event, the average was only 59.1%.<sup>2</sup> Respondents were also asked what the percent probability is that their home would be damaged by winds or falling debris and the average was higher( 77.9%), indicating that

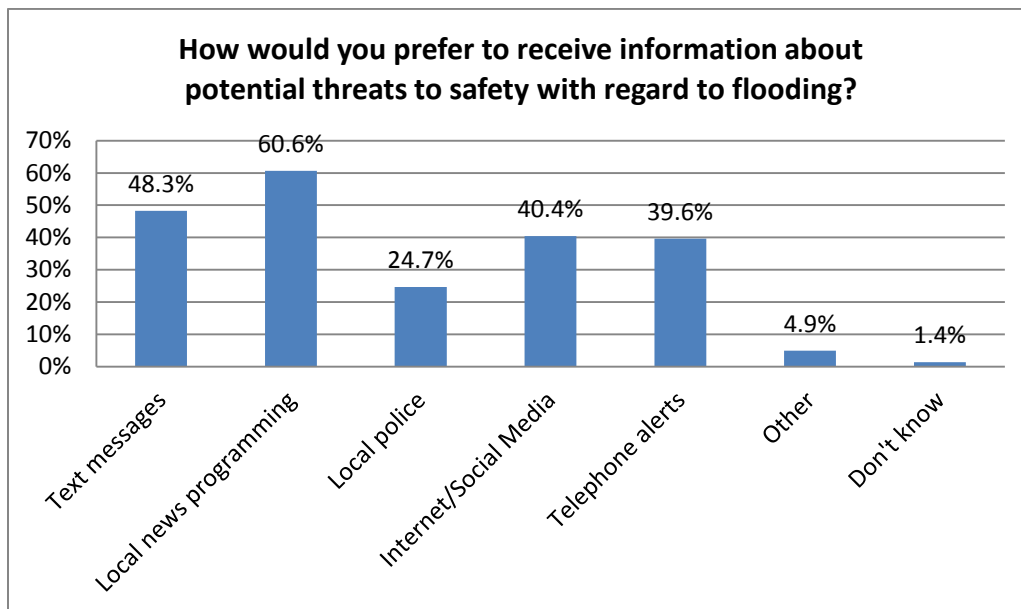
<sup>1</sup> In 2103, the question read, “You said that you have flood insurance. Is it a FEMA approved policy separate from your regular homeowners' policy?” This year’s question read, “You said that you have flood insurance. Is it a FEMA approved policy separate from your homeowner’s policy or does your regular homeowner’s policy cover flood insurance.”

<sup>2</sup> Respondents who reported at least a 1.1% probability of a catastrophic event were asked about their home flooding and damage due to debris (n=805).

Hampton Roads residence are more concerned with damage from winds and falling debris than they are with flooding.

| Percent Probability Questions   | Average % Probability |
|---|-----------------------|
| Hampton Roads will be struck by a catastrophic hurricane in next ten years. | 81.6%                 |
| Home would flood in case of such an event.                                  | 59.1%                 |
| Home would be damaged by wind and falling debris in case of such an event.  | 77.9%                 |

Finally, respondents were asked how they would prefer to receive information about potential threats to safety with regard to flooding. The most popular answers were local news programming (60.6%), text messages (48.3%), internet/social media (40.4%), and telephone alerts (39.6%). Only 24.7% reported they would like to receive information about potential threats to safety with regards to flooding from their local police. Another 4.9% gave some other way they would like to receive information and 1.4% stated they don't know.



Summary: Sea level rise and flooding are perceived to be significant risks by Hampton Roads residents, but action to address those risks currently lags risk perception. A majority of respondents see climate change and sea level rise as a threat to the Hampton Roads region as a whole, both economically



and environmentally, but a much smaller percentage reported having recurrent flooding in their neighborhood or having flood insurance. Even many of those that reported having flood insurance under their homeowner's policy are not truly covered in the case of a flood or flood damage. It is also noteworthy that while the average percent probability reported for Hampton Roads being struck by a catastrophic event was 81.6%, that average dropped down to 59.1% when asked if they believe that their home would flood in the case of such an event. It would appear that while Hampton Roads residents are aware that climate change and sea level rise are risks for the greater region, few are experiencing first hand problems in their neighborhood at this point, in spite of a high perceived probability of a catastrophic storm, and a high perceived probability that such a storm would cause flooding, many respondents appear to not be expecting personal problems and many have not taken steps to protect their property in the case of such problems such as purchasing flood insurance.

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All Life In Hampton Roads Data Analyses will be placed on the Social Science Research Center website as they are released ([www.odu.edu/ssrc](http://www.odu.edu/ssrc)). Follow-up questions about the 2014 Life In Hampton Roads survey should be addressed to:

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