

Coastal Resiliency Needs Assessment in Sussex County

May 2017

Prepared for
Delaware Coastal Programs

Written by
Philip Barnes, Ph.D., Associate Policy Scientist

Prepared by
Institute for Public Administration
School of Public Policy & Administration
College of Arts & Sciences
University of Delaware



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Preface

As the Director of the University of Delaware's Institute for Public Administration (IPA), I am pleased to provide this timely report, Coastal Resiliency Needs Assessment in Sussex County. The report makes an important contribution to the ongoing and critical discussion of how best to mitigate natural hazards and support resilient development practices at the community level while remaining mindful of fiscal limitations. By interviewing city managers, civic leaders, councilmembers, and planning commission members in Sussex County communities, the assessment demonstrates that Delaware state agency resources supporting local resiliency-building efforts could be rearranged and reprioritized to enhance effectiveness. The interview-based approach was immensely important because it demonstrated a commitment on behalf of state agencies to listen to municipal concerns and tailor their services to better serve community needs.

IPA is grateful for funding from Delaware Coastal Programs that supported this research. I would like to thank the lead researcher and author, IPA's Philip Barnes, as well as IPA staff members Lisa Moreland for editing support and Sarah Pragg for designing and formatting the document.

Jerome R. Lewis, Ph.D.

Director, Institute for Public Administration

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Acronyms

ACT – Association of Coastal Towns

DCP – Delaware Coastal Programs

DDFRC – Delaware Database for Funding Resilient Communities

DelDOT – Delaware Department of Transportation

DEMA – Delaware Emergency Management Agency

DNERR – Delaware National Estuarine Research Reserve

DNREC – Delaware Natural Resources and Environmental Control

IPA – Institute for Public Administration

IRB – Institutional Review Board

RASCL – Resilient and Sustainable Communities League

SCAT – Sussex County Association of Towns

Introduction

Communities in Sussex County, Delaware, must address their vulnerability to natural hazards and climate change impacts such as frequent flood events, sea level rise, and increased temperatures. To assist communities along the way, many Delaware state agencies and organizations offer a range of resources to local municipalities for hazard mitigation and resiliency-building. An important question is whether these state-level resources, which include technical and financial assistance programs, align with and serve the local needs of Sussex County communities. To help answer that question, a needs assessment was conducted at the municipal level to evaluate the level of fit between state offerings and the hazard mitigation and resiliency-building demands of Sussex County towns.

Delaware Coastal Programs (DCP) partnered with the Institute for Public Administration (IPA) at the University of Delaware to conduct research on the local hazard mitigation and resiliency needs of Sussex County municipalities. Information on local needs was acquired through interviews with municipal leaders in several Sussex County towns. The interview data was analyzed, local needs were identified, and they were compared to a recently completed inventory of state agency service offerings to determine gaps.

This report provides a summary of the completed research. It begins with a description of the research context, including discussion of a newly formed resiliency partnership comprising representatives of various state agencies. The report outlines the research methodology, describes the findings, and concludes with a set of recommendations to improve and enhance the effectiveness of resiliency-building activity in Sussex County municipalities.

Research Context

Supporting resilient development practices in Sussex County is a priority for Delaware Coastal Programs. DCP offers financial assistance and educational programs to local governments for activities such as resiliency planning. In addition to their own in-house efforts to directly engage with communities and build resiliency, DCP also supports coordination of state-level agencies. Three recent projects highlight the commitment of DCP to improving state service delivery in the resiliency area.

First, DCP commissioned a focus group study in 2015 to help improve service delivery. Conducted by Responsive Management, the study brought together a “mixture of community leaders and individuals from the private sector with an interest in coastal management...to obtain qualitative information about Delaware decision-makers’ knowledge, experience, opinions, concerns, and needs on a variety of coastal management issues.” The study found that local decision-makers were frequently unaware of certain state services and opportunities to receive assistance from DCP and other state agencies.

This finding led, in part, to the second project supported by DCP to improve service delivery, namely the creation of an online database composed of all state and federal resiliency-building financial assistance programs that are available to local governments. IPA partnered with DCP to create the Delaware Database for Funding Resilient Communities (DDFRC) website. The website/database is intended to facilitate information flow to local governments and help municipalities quickly identify funding sources for their resiliency-building needs, thus avoiding time-consuming and potentially unfruitful research.

The third project supported by DCP is the active involvement in forming and administering a new partnership of state agencies called the Resilient and Sustainable Communities League, or RASCL. The group comprises state employees from various agencies who meet periodically (about three times per year) to share information and coordinate service delivery. RASCL started in 2015 and includes representatives from the Delaware Department of Natural Resources and Environmental Control, Delaware Emergency Management Agency, Delaware Department of Transportation, IPA, Delaware Geological Survey, Delaware Sea Grant, the Office of State Planning Coordination, and Office of the State Climatologist. Because there is no formal state-level financial support for the effort, DCP commits human resources to maintaining the RASCL partnership and advancing coordination among state agencies operating in the

resiliency-building space. The group has completed an internal survey of each agency's resiliency-focused programs and compiled an inventory of service offerings. While direct interaction between RASCL and communities has been limited to date, the partnership is planning to host a symposium in which municipalities will be invited to learn best practices and share experiences.

When the survey and inventory of RASCL partner programs was completed in 2016, a key question arose: Do the resiliency-building services offered by state agencies align with and meet the needs of local governments? This is a critical concern, since there is a growing urgency for more resilient communities in the face of natural hazards and climate impacts, but also because state resources are limited and they must be used to the maximum effect. Naturally there is a follow-up question: If there is a mismatch between the availability and application of state resources and local needs, then what can be done to improve effectiveness and the efficient use of those resources?

Research Design and Methodology

To help answer these research questions, DCP partnered with IPA to conduct a needs assessment of Sussex County municipalities located in areas highly vulnerable to natural hazards and climate impacts. Data was collected through in-person interviews with local leaders and decision-makers who are knowledgeable on community resiliency needs. City and town managers satisfy the criteria since their work requires them to balance the interests of residents, businesses, developers, and state agencies against the constraints of time and financial resources.

Interview questions were drafted and designed to elicit useful responses from interviewees. The questions focused on three primary subject areas: current and future hazard mitigation and resiliency-building challenges faced by the municipality, past community participation in state-sponsored programs to address those challenges, and suggestions for how state resources could be tailored to better meet current and future needs. The third question—tailoring state services—incorporates recommendations to change ineffective or misdirected programs, but also incorporates logistical concerns such as how best to communicate those changes to local decision-makers or schedule meetings to meet with decision-makers. A draft of the questionnaire was sent to the RASCL steering committee for comment and feedback. A number of email exchanges followed and, after several rounds of revision, an interview questionnaire was finalized (Appendix A). Because in-person interviews were the means of generating usable data, it was necessary to submit the research proposal and questionnaire to the University of Delaware's Institutional Review Board (IRB). The subject matter would not cause personal discomfort or raise major ethical concerns, so a Human Subjects exemption was requested in mid-December of 2016. The IRB reviewers granted the exemption on December 21, 2016 (Appendix B).

Initially, nine municipalities were targeted for interviews along the three major transportation corridors of Sussex County: Route 1, Route 13, and Route 113. Along Route 1 are Lewes, Rehoboth Beach, Bethany Beach, and Broadkill Beach. Along Route 13 are Seaford and Laurel. Along Route 113 are Milford, Georgetown, and Millsboro. DPC suggested that both Sussex County government and South Bethany should be included, raising the number of potential interviews to 11. Time and financial constraints limited the scope of work to these 11 municipalities. A single email was sent to one individual in each jurisdiction to solicit his or her participation in the research effort. City/town managers were prioritized due to the reasons

cited above. If the jurisdiction did not employ a city or town manager, an email was sent to a council member, planning commission member, or local civic leader. Within a week of sending the email requests, affirmative responses were received from ten of the eleven communities expressing a willingness to participate, Sussex County being the exception. The interviews were scheduled to accommodate the interviewees' availability and were conducted in locations of their choosing. In all, the interviewees consisted of seven city/town managers, one councilmember, one civic leader, and two planning commission members. The two planning commission members, who sit on the same commission, were interviewed together at their suggestion. Interviewees were promised anonymity to elicit more candid discussion. During the interviews, hand-written notes were taken, and audio was recorded using a small digital recorder. The audio was transcribed to enable more in-depth analysis of the interview data.

A content analysis was executed to evaluate and interpret the interview data. The transcripts were combed and coded for similarities such as challenges faced, availability of municipal resources, attitudes toward state agencies, and concerns about future development prospects. After the interview data was categorized and community resiliency needs were articulated, the RASCL inventory of state services was superimposed to cross-check and identify what is useful and effective for enhancing municipal resiliency. Quotations offered in this report were chosen based on their ability to succinctly encapsulate common themes heard across interviews.

This research method proved to be challenging. There are indeed some similarities and patterns in the interview data among municipalities, but there is equally a diverse and often divergent approach to community management and development. Also, as mentioned earlier, time and financial constraints limited the scale of interviews, so the variability of data could simply be a product of a small sample size. It could be that a more consistent message of resiliency needs would be identified if more interviews were conducted across Sussex County and, indeed, the state as a whole. It could also be that consistency of municipal needs is a convenient notion for public administrators, but an unrealistic expectation in practice. The limitations of the present research approach and methodology are insufficient to provide an answer to the critical question. This uncertainty does not invalidate the research findings however, but rather reinforces the importance of remaining sensitive to local context when extending state services to satisfy community needs.

Contextual Differences Between Municipalities

Important information was acquired through this research process that was not intended to be captured as part of the original scope of work but that nevertheless is important for improving state service delivery. Some of these contextual differences are self-evident (e.g., beach communities face different coastal hazards than inland towns), but they are reiterated here to reinforce the variability of place in Sussex County and the challenge that state agencies face when designing programs to enhance municipal resiliency.

The research found that there exists a wide array of municipal contexts and demographic dimensions. The sharpest contrast is between the Route 1 municipalities and those along inland Routes 13 and 113. Many inland communities are experiencing population growth at rates exceeding the beach communities. This is partially because beach towns are mostly built-out to their boundaries, whereas the municipalities along Routes 13 and 113 can annex adjacent Sussex County land. The inland towns also have a reserve of new development potential within existing municipal boundaries.

There are significant differences in fiscal capacity between the beach communities and their inland counterparts. For the most part, municipalities along the shore and the Delaware Bay have more financial resources than those that are inland. This allows beach towns to more easily leverage resources to meet match requirements on grants or pay for self-funded studies and plans. At the same time, the beach communities are more vulnerable to natural hazards than the inland towns, with sea level rise and flooding threats serious risks along the coast and the Delaware Bay.

Differences in the level of human resources, organizational cooperation, and citizen-led involvement also exist. Route 1 communities experience a more transient population, as the summer months bring seasonal residents and visitors to the beaches. This poses a unique challenge to maintaining consistency of awareness of coastal issues. One interviewee, speaking about educational programs that the municipality offers to seasonal residents and visitors, noted that:

One of the problems that we face as a coastal community is we have a revolving door of residents. It's almost like every year you got a new crop of people coming in that don't know that [the main] road floods. We end up doing the same thing over and over and over again... Do you do nothing and

not do your education as to here's your emergency kits, here's your evacuation routes, here's where your pets are going to go?...You have to keep doing it because you're hitting those new people each time.

While the inland towns are more likely to have stable, year-round residents (although they, too, have a transient population), they are less engaged on resiliency-related issues than the coastal communities. Along the beaches and the Delaware Bay, permanent residents are more willing to actively lobby and push their municipal governments to act on flooding and sea level rise. They may raise the issues at public meetings, bring grant opportunities to the attention of local government, and actively participate in awareness-raising. One interviewee in a beach town characterized the interest that residents take in coastal resiliency in this way:

They're retired, they're educated, they're informed, they're inquisitive... They get involved in the community. It's not just the planning commission. It's just Joe Blow that lives on XYZ Road is interested in this and he sees it and he goes and attends it and then he'll have a conversation with the mayor or whoever walking down the street walking his dog. "Hey I went to this thing the other day, you guys ought to look into this." I mean it happens all the time. You're almost overwhelmed with information sometimes.

The Route 1 beach communities, as an entire unit, are better organized politically and they advocate in a unified voice for their collective interests. The Association of Coastal Towns (ACT), a once-dormant lobbying group comprising members from Lewes, Rehoboth Beach, Dewey Beach, Bethany Beach, South Bethany, and Fenwick Island, recently re-formed in early 2017 around the stated goal of a comprehensive full-coast beach replenishment program that avoids community-by-community patchwork efforts. The Sussex County Association of Towns (SCAT) is a parallel group that advocates and coordinates a county-wide message for all municipalities, including those along Route 1. There are no dedicated alliances exclusively voicing concerns for inland towns. This would indicate that the Route 1 municipalities will be more successful at securing state resources for resiliency-building than their inland counterparts.

There is a significant range of direct local experience at the management level across all towns. Some town managers are newly arrived professionals, having worked and lived outside of Delaware for their entire careers. Others are born and raised in Delaware and have decades of town management experience in the state. While the experienced managers have institutional and historical knowledge of their towns and state programs, are intimately familiar with the

state agencies, and know how to navigate the bureaucracies in the state capital, managers with less experience in Delaware are still learning whom to call when needs arise. Even some experienced managers stated that interactions with state agencies could be difficult and confusing. One manager, who recently served outside the state, said:

For me, I'm still learning the difference, the different approach to doing things in Delaware with only three countries and the state having much more responsibility for certain things than I would have found in [my old state]... That's partially why sometimes I don't know what I don't know yet and when I ask, I sometimes do get a couple of different answers or not the answer I expected, but still a good answer or a reasonable one.

Findings on Municipal Needs

The concept of resiliency is understood and acted on differently at the municipal level than it is at the state level. For the towns and cities of Sussex County, resiliency is more narrowly viewed as a public works challenge that encompasses effective and efficient stormwater and wastewater management as well as traffic flow. Interviewees viewed their resiliency challenges primarily through the lens of inundation—whether through flood events, storm surge, or sea level rise—and its impact on municipal systems and transportation infrastructure. Broader areas such as local economies, the environment, energy, or housing were not associated with municipal resiliency to the same extent. From the community perspective, therefore, the resiliency needs center on the resolution of issues tied to the intersection of inundation and public works or municipal infrastructure. Yet resiliency is not a common criterion that is automatically applied to decision-making on public-works projects. When development opportunities or infrastructure projects arise, whether through normal course of community growth or through the upgrading of outdated/failing systems, municipal managers must meet competing demands such as fiscal reality, time, the rights of private property owners, and minimum construction/design standards. Resiliency can become an afterthought in this context. Inattention to resiliency is also due to misguidance from the state. The Delaware Department of Transportation (DelDOT) was mentioned as a state agency that does not always advance resilient practices, for example by designing road elevations at a low level even in areas known to be vulnerable to inundation:

That road floods all the time... When there's high tide the water will come up and if there's a nor'easter of any sort, it'll flood...So part of the discussion was, is DelDOT going to, you know, raise that road. And that's not in the works...Now we're going to be spending dollars, we being the state and then the city, which doesn't include any raising of the road...They're aware of what our concerns are with the flooding and all that. They have to be because they know it floods too.

In terms of internal resources available to advance resilient practices, interviewees were consistent in their responses. There was near-unanimity that financial constraints limited their communities' ability to build resiliency. Municipalities rely heavily on state and federal dollars for major public-works projects and cannot self-fund all that is required, especially if more resilient outcomes are also costlier. Interviewees felt that they had enough internal knowledge

and human resources to enforce existing development standards such as building codes and ordinances, but that their technical capacity to develop and implement higher standards were generally lacking.

In-house, long-range planning expertise was largely absent at the municipal level. Having a professional, dedicated planner on staff is an exception and not a rule. Municipalities pay external consultants such as planners and engineers whenever large projects arise. Whether those consultants offered a resiliency agenda seemed to depend, in large part, on whether funding was available from the state to add an explicit resiliency dimension to any plan or project. If so, municipalities would apply for and attempt to seize the opportunity to work through their external consultants to incorporate those considerations. The opposite is also true. Absent dedicated funding for resiliency, municipal plans and projects were more typical of traditional practices. They were not unilaterally spending in-house resources to proactively advance resilient practices in the municipality.

Use of state-sponsored education and information efforts was decidedly mixed. In general, access to portals and aggregators for resilient practices was low. Interviewees reported that they were unfamiliar with, or else did not use, resources such as DNREC's online sea level rise scenario mapper and climate portal or IPA's Complete Communities Planning Toolbox. On the other hand, in-person workshops and training sessions were well-known and well-attended by interviewees. Interviewees noted that IPA's municipal training workshop series and Delaware National Estuarine Research Reserve's (DNERR) coastal training program were popular and useful. One issue voiced was a lack of knowledge of available programs, grant opportunities, and other state services. An interviewee stated:

I think one of the struggles is that if you don't know what's out there, you don't know what you're missing...And I think a lot of times people hear the name of a program and they don't think that applies but once you hear about it, there are actually parts of it that are applicable to your community.

Concerns about state agency fragmentation were common. Interviewees reported that the state's information and message are not centralized or well-coordinated, which leads to mixed signals or contradictory claims. The boundaries of state agency responsibilities and authorities were also unclear. This confusion was identified by the focus group analysis in 2015 and was also identified by the RASCL partnership as a significant barrier to more effective service

delivery. Communities need a more consistent and coordinated message from the state and its various agencies working in the resiliency area.

In summary, the interviews revealed that there are several key municipal needs to advance more resilient practices in Sussex County. First, financial assistance is always needed. This is not a novel finding, nor a very encouraging one for state agencies that face financial constraints and potential budget cuts of their own. But the fact remains that municipalities are more likely to move forward with a resiliency approach when they receive money to finance their efforts. State agency funding programs have done more to advance resiliency at the municipal level than municipalities have done on their own. Technical assistance is also needed, especially related to both long-term planning and developing more rigorous codes and standards for development. Municipalities are looking for a consistent message from state partners, whether that comes through a centralized body in charge of resiliency efforts or through better coordination among agencies. The research also finds that municipalities argue they would benefit from clearer information on state-sponsored programs.

Comparison to RASCL Inventory of State Programs

In the summer of 2016, the RASCL partnership surveyed its affiliated members and asked which programs or services they offer are aimed at supporting community-level resiliency. Survey responses were received from a representative of Delaware Emergency Management Agency, DNREC Division of Watershed Stewardship, IPA, Delaware Sea Grant, DNREC Division of Energy and Climate, DNERR, DNREC Division of Watershed Stewardship, Office of State Planning Coordination, Delaware Coastal Management Program, Delaware Geological Survey, Office of Delaware State Climatologist, DNREC Environmental Finance, and DNREC Division of Air Quality. A representative from DelDOT started the survey but did not input any entries.

The survey asked respondents to identify the resiliency-focused programs their agency offers and classify each one according to five different types of services: planning and visioning, ordinance and zoning assistance, implementation and earth-moving, community-based programs (working with community groups/members), and education and outreach. Each entry was then further classified by five methods of service delivery: trainings, outreach and education, technical assistance, financial assistance, and tools or educational materials.

The inventory shows that planning and visioning programs, along with ordinance and zoning assistance programs, make up half of the RASCL partnership's service offerings. This is consistent with the greatest needs in the community. Technical assistance being the most prominent. However, as noted earlier, interviewees expressed a lack of information on which forms of technical assistance were available and what value they would have in their own communities. Trainings are a moderately prominent method of service delivery, as were tools and materials. While interviewees noted their participation in trainings, they also stated that the self-help tools and materials offered by state agencies were not used.

Direct financial assistance programs are the least prominent method of service delivery. The state does offer a number of programs that fund resilient practices and outcomes—surface water matching planning grants, flood mitigation assistance, water quality improvement grants, energy efficiency investment fund, green energy program, resilient community partnership, pre-disaster mitigation assistance, and the new sustainable communities planning grant. Two of the programs—the resilient community partnership and the sustainable communities planning grant—could be used to comprehensively evaluate and assess municipal-wide resiliency. The others are specific to subsets of community resiliency (energy, water quality, etc.). Like

sustainability, municipal-wide resiliency requires a comprehensive approach that addresses not only public works and infrastructure but also environmental quality, local economic activity, housing, energy, and transportation. For the most part, the state does not project and convey this essential comprehensive approach with its financial assistance programs. Direct financial assistance is the resource in highest demand, yet it is also the scarcest method of service delivery and it is piecemeal. This is not to suggest that funding attached to a narrow scope is ineffective or unimportant, simply that it does not demonstrate to municipal leaders that community resiliency should be approached in comprehensive terms. The perception of state-level fragmentation voiced by these same leaders makes intuitive sense in this context.

Recommendations

Municipalities are more likely to take proactive steps to enhance community resiliency when their efforts are partially funded by the state, and those efforts should ideally take a comprehensive view. The two grant programs that do take that view—DCP’s resilient community partnership and Division of Energy and Climate’s sustainable communities planning grant program—should be continued and, if resources are available, expanded further. Any agency looking to develop a new comprehensive grant or loan program in the future should consult with the administrators of these two programs to avoid further fragmentation of state resources and messaging.

It is debatable whether municipalities would make use of more resiliency-focused tools, guides, websites, and self-evaluation processes. Interviewees showed little interest in being proactive and utilizing the existing suite of informational, educational, or procedural resources produced by state agencies unless there was an explicit promise of supplemental financial assistance. This is not to suggest that these items are not needed, simply that their effectiveness at the municipal level appears to be limited by the low usage rate by local decision-makers and planners.

Municipalities clearly need technical assistance, especially for hazard vulnerability analyses, planning, ordinance development, engineering, and implementation. External consultants currently satisfy this need for communities, yet the RASCL survey indicates that it is a popular method of service delivery from many state agencies. The RASCL partners who offer technical assistance should convene, discuss, and coordinate their efforts so that it is clear what areas are covered and which are not. Are certain RASCL partners simply funding municipalities to hire external consultants to provide resiliency-focused technical assistance? Are certain RASCL partners performing the same function as the external consultant and directly providing the assistance? Internal coordination and collaboration among state agencies would address these questions and clarify the state’s role for municipalities.

With respect to avoiding fragmentation and delivering a more consistent message of community resiliency, state agencies should continue to improve coordination and information-sharing through involvement in RASCL, which is currently the only venue that brings together the range of state assets and resources. Ideally RASCL would become, in turn, a central point of contact for municipal leaders. This is appealing theoretically, but practically RASCL is an

informal association and has no official government status or state support. Who would a municipality call if they wanted to contact RASCL? Until the RASCL partnership is formally recognized and receives additional support, it is recommended that an existing agency voluntarily seize the spotlight and serve as the state's headquarters and primary messenger for resiliency matters. DCP is a logical choice because of the breadth of resiliency-related work already undertaken by the team.

The unit that takes charge of the resiliency landscape cannot be a passive participant waiting to respond to requests for assistance or information. Municipalities need the state to be more proactive in marketing the range of services, especially technical assistance, because many are unclear of the range of services available and what value those services bring to their communities. Marketing should target municipal leaders, especially those who are new to their posts and recently arrived from out-of-state, but also the external consultants who provide technical assistance to communities. This is an important consideration. If consultants propose and advocate for resilient outcomes when they work with municipalities (regardless of whether state funds are attached to a project), it helps normalize the practice.

Interviewees stated that they would benefit from simple education opportunities to learn about resiliency-focused state programs. One strategy is to communicate the RASCL survey of partner programs to municipalities. An easy, inexpensive, and practical option for delivering the survey information to municipal leaders is via a webinar, as many interviewees indicated that travel to and from their communities to attend in-person workshops was logistically difficult and time-consuming. A webinar should therefore be designed, scheduled, and announced to town managers. The managers should invite their core staff to attend as well and leave time at the end to discuss internally whether any of the state services communicated during the event make sense for their towns. This way, the conversation continues after the webinar concludes. There is an email list for Delaware town and city managers that can be used to announce webinars and communicate the request that core town and city staff also attend. The Delaware League of Local Governments may be helpful in communicating about events.

The core message of the above recommendations is that the state agencies do not necessarily need to develop new programs to advance resilient practices at the municipal level. Instead, they need to develop and communicate a consistent message that explains the value of existing programs. This involves more direct and proactive engagement with local leaders and decision-makers. If there is room for expansion (or redirection) of state services, it should target direct

technical assistance and guidance to municipalities for resiliency-related projects. Implementing these recommendations will increase the effectiveness and efficiency of state service delivery.

Appendix A – Interview Protocol

1) Current Challenges

- a) What types of municipal projects are you currently working on, and how much does hazard mitigation and risk reduction factor into those projects?
- b) What major challenges/barriers to more resilient development does your municipality face?
 - i) How do you become aware of those challenges?
 - ii) Do you use state-sponsored information portals/websites/tools?
 - iii) Are there information gaps?
- c) How are you addressing those challenges?
 - i) Does your municipality have land use and development standards addressing those challenges?
 - ii) If so, do you feel have adequate capacity – technical and financial – at the municipal level to implement and enforce those standards?

2) Existing State Services/Programs

- a) How has your municipality participated/engaged/used state-sponsored services to foster more resilient development?
 - i) Were you satisfied with those experiences?
 - ii) Were they effective at improving community resiliency?

3) Future Services/Program Needs

- a) How could state agencies better meet and serve your municipality's resilient development needs?
 - i) Provide research, information, vulnerability assessments?
 - ii) Assistance for implementation such as ordinance/code development?
 - iii) Cooperate on planning/visioning projects?
 - iv) Deliver outreach/education/trainings?
 - v) Work with and build capacity for community partners?
- b) What is the best channel for delivering the services identified in 3a?
 - i) Trainings, workshops, webinars?
 - ii) Outreach/education
 - iii) Technical assistance?
 - iv) Online (or print) tools, checklists, information portals
- c) Are there practical considerations that should be considered for increasing effectiveness of state efforts, such as time of day/year for trainings?

Appendix B – Institutional Review Board Exemption Letter



RESEARCH OFFICE

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DATE: December 21, 2016

TO: Philip Barnes, Ph.D.
FROM: University of Delaware IRB

STUDY TITLE: [1000573-1] Research for Coastal Resiliency Needs Assessment in Sussex County

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: December 21, 2016

REVIEW CATEGORY: Exemption category # (2)

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or nicolefm@udel.edu. Please include your study title and reference number in all correspondence with this office.



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