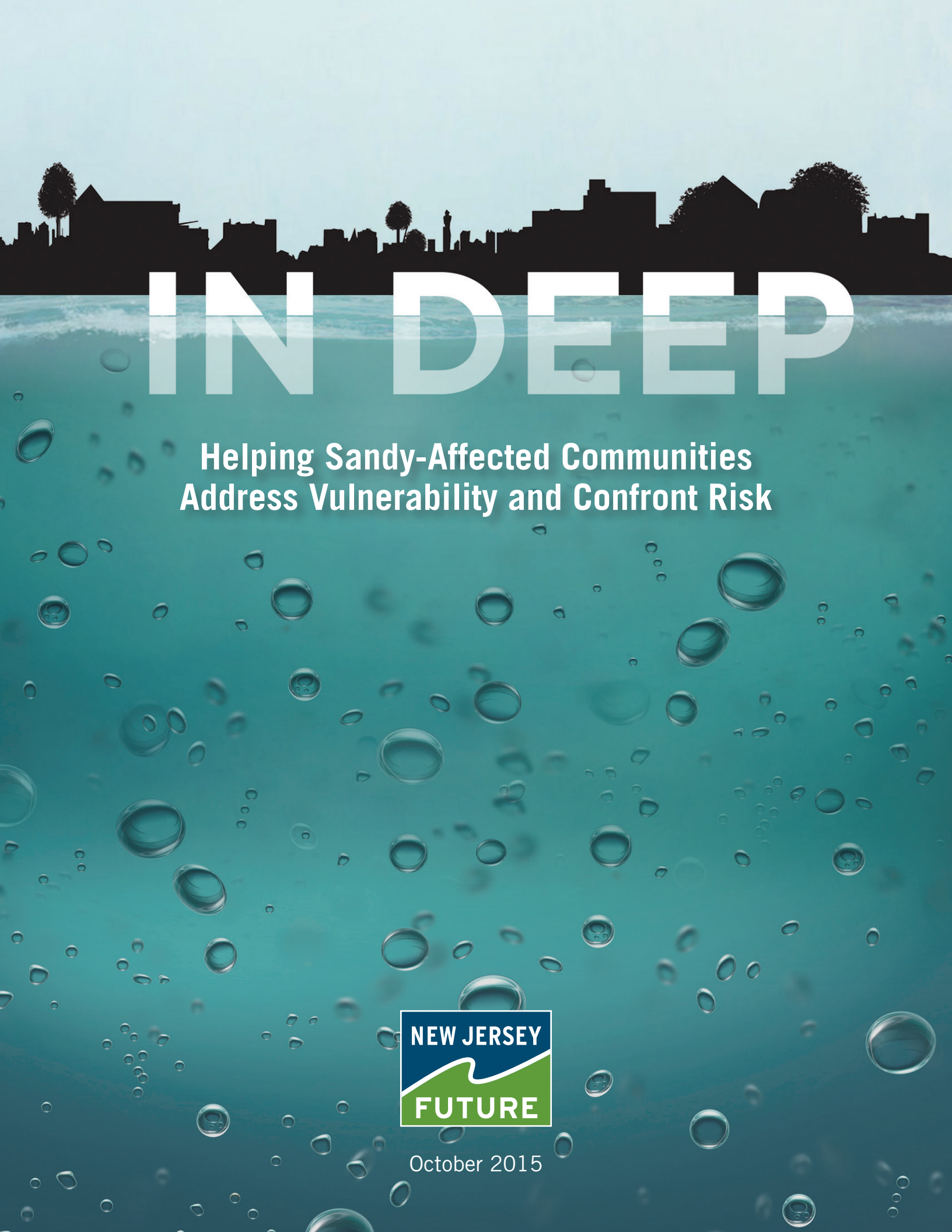

IN DEEP

Helping Sandy-Affected Communities Address Vulnerability and Confront Risk

NEW JERSEY FUTURE

October 2015

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Address Vulnerability and Confront Risk

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MANTOLOKING BRIDGE, 2012

FOREWORD

In 2011, the Federal Emergency Management Agency published its National Disaster Recovery Framework (NDRF),[1] which was based on the agency's experiences with disasters throughout the country. The NDRF acknowledges that local governments have primary responsibility to plan and manage all aspects of a community's recovery, but that local officials often become overwhelmed with the demands of disaster response and need additional leadership, staff support, and expertise to manage recovery efforts effectively. This capacity deficit is the principal reason the NDRF "… *strongly recommends that State Governors as well as local government … prepare as part of their disaster recovery plans to appoint Local Disaster Recovery Managers to lead disaster recovery for the jurisdiction*."[2]

On December 7, 2012, a little more than one month after Hurricane Sandy, New Jersey Future and Monmouth University's Kislak Real Estate and Urban Coast institutes sponsored "Rebuilding a Resilient New Jersey Shore," a half-day conference exploring the impacts of the storm.[3] Representatives from local, state and federal agencies, including FEMA, were among the attendees. FEMA was already building its recovery support teams and Denise Gilliam, a program specialist at the Department of Homeland Security and FEMA's representative for federal disaster recovery coordination, was meeting with key stakeholders around the state. Recognizing that private philanthropy could provide funds much more quickly than federal sources and that a local nonprofit partner might be more agile and knowledgeable about the needs of local governments, Ms. Gilliam connected New Jersey Future with the Merck Foundation. In mid-December 2012, with FEMA's encouragement, the Merck Foundation committed the funding to support New Jersey Future's local recovery planning manager (LRPM) program.

The Merck Foundation was not the only philanthropic institution gearing up for long-term recovery work. About two months after the storm, a group of 26 charitable groups, corporations and philanthropic organizations pooled their resources to create the New Jersey Recovery Fund,[4] led by the Geraldine R. Dodge Foundation and the Community Foundation of New Jersey. New Jersey Future proposed the LRPM program to the fund, and at the end of May 2013 the fund awarded one of its largest grants to New Jersey Future's effort. This enabled the organization to create four LRPM positions, one of which would be responsible for overall program coordination and management as well as local project-specific support, and three that would be embedded with towns for at least 18 months.

This report chronicles New Jersey Future's LRPM program, including initial goals, successes and challenges, and lessons learned that can inform future disaster recovery initiatives both in New Jersey and across the country.

INTRODUCTION

Hurricane Sandy revealed uncomfortable truths about the way New Jersey's municipalities, and in particular its coastal towns, are built and governed. Patterns of concentrated development along the state's coastal edge have left too many people and structures dangerously vulnerable to storm damage and floods. In addition, resistance to regional solutions that has grown out of New Jersey's home rule form of governing have left many small coastal communities – often the ones that suffered the worst damage from Sandy – without sufficient capacity to recover or rebuild in a manner that would make them less vulnerable. To be sure, many of the challenges communities faced existed prior to Sandy, and to varying degrees towns throughout New Jersey have long struggled to address them. The storm merely cast these issues in sharper relief.

SEA BRIGHT BOROUGH, OCT. 29, 2012
(COURTESY KRISTI JACOBS)

New Jersey Future, whose mission is specifically focused on "smart" development and redevelopment, was in a position to provide the extra assistance through local recovery planning managers (LRPMs), helping the towns to move people and assets out of harm's way and leaving them with more resources to prepare for the next storm.

And yet these uncomfortable truths also presented a unique opportunity, if there were a way to take advantage of it. Damage in many towns was so extensive that it had the potential to provoke a more realistic acknowledgement of the vulnerability inherent in dense, intense coastal development. This realization might in turn encourage these towns to question whether they were best served by merely restoring themselves to their pre-storm state or, in light of New Jersey's history of coastal flooding and projections of rising sea levels, whether it might be more prudent to rebuild differently.

The reality was that Sandy-damaged towns were so consumed with managing their immediate recovery that they had neither the time nor the resources to consider the systemic changes that would be needed to help protect against future storms. The towns and their existing consultants could have guided their efforts if merely putting things back the way they were before the storm had been the goal. However, if the goal was to re-think completely how towns were planning to rebuild given their history of repetitive flood damages, they needed more help. An organization like New Jersey Future, whose mission is specifically focused on "smart" development and redevelopment, was in a position to provide the extra assistance through local recovery planning managers (LRPMs), helping the towns to move people and assets out of harm's way and leaving them with more resources to prepare for the next storm.

WHICH TOWNS?

As generous as the grants were to New Jersey Future, the funding to develop and implement the LRPM program would clearly not be sufficient to meet all, or even a significant portion, of the needs of the 130-plus coastal towns that experienced damage from the storm, or even the 30 communities that were hardest hit.[5] A method was needed to prioritize and focus resources to ensure the funding that was provided would have the greatest possible impact and provide useful and transferable lessons.

The initial plan was to assign the three recovery managers to one town each, enabling each recovery manager to cultivate the relationships and trust needed to perform the LRPM role effectively. However, in an effort to make the most out of the available funding, New Jersey Future concluded that if selected municipalities were geographically proximate and had somewhat similar needs, it would be possible for the recovery manager to serve two towns simultaneously. By having each of its LRPMs work in two neighboring towns, New Jersey Future might also be able to encourage the municipalities to work together during the recovery process. It also seemed possible that, through cooperation and linked projects, municipalities might begin to think regionally, a perspective necessary to address vulnerability to natural disasters that are unconstrained by political jurisdictional boundaries.

To help determine where it would focus its resources, New Jersey Future collected a variety of municipal data, including FEMA's community storm damage assessments, housing tenure and value data and State Planning Area designations. In addition, the organization reviewed a FEMA Community Data-Based Analysis, which detailed government type and unemployment rate, and evaluated damage costs, availability of emergency services (police, fire, etc.), and hazard mitigation plan status. Ultimately three criteria were used to determine where the LRPM program would focus its efforts:

1. Whether the community experienced widespread storm damage based on FEMA assessments;
2. Whether the majority of the community's resident population was year-round, based on housing tenure;

THREE MONTHS POST-SANDY, LITTLE EGG HARBOR TOWNSHIP
(COURTESY MICHAEL FROMOSKY)

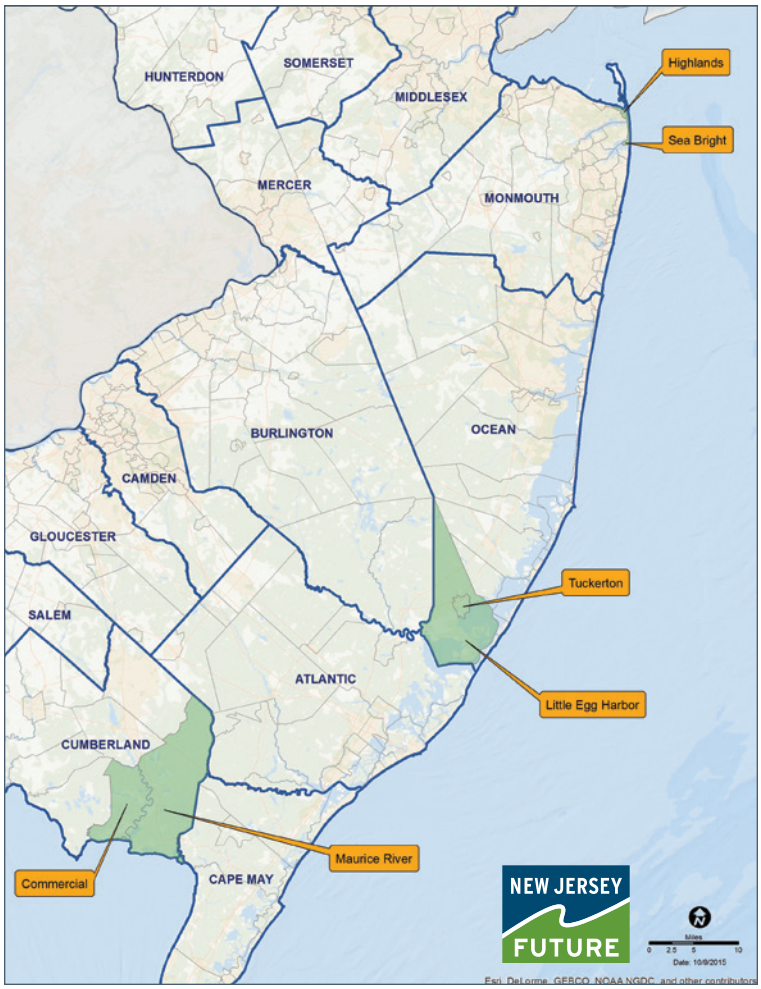
SANDY STORM DAMAGE, TUCKERTON BOROUGH
(COURTESY JENNY GLEGHORN, BOROUGH MANAGER)

SANDY STORM DEBRIS REMOVAL, SEA BRIGHT
(COURTESY KRISTI JACOBS)

3. Whether the municipality had limited in-house capacity due to an absence of either planning staff or outside consultants.

Using these criteria, 13 communities were identified as potential candidates for direct assistance.

The next step was to conduct community interviews to determine whether services that New Jersey Future was equipped to offer would be welcomed by any of the identified municipalities. These interviews took place during the spring and summer of 2013, a particularly chaotic period for community officials. Many organizations, agencies and institutions were offering a varied but uncoordinated mix of assistance. The communities were desperately focused on recovery: getting residents back in their homes, getting businesses back in operation, and disposing of the enormous quantities of debris that had smothered residential areas, downtown business districts, beaches and roadways since the storm. Officials in these communities were overwhelmed by the magnitude of the demands they faced and some were unable to sort out whether the assistance New Jersey Future was offering would benefit them; some towns never responded to the outreach.



PARTICIPATING MUNICIPALITIES

Each town that was interested in hosting a LRPM was asked to adopt a resolution of engagement, formally requesting the services. The objective of the resolution was to ensure that the municipality's governing body was truly supportive of the program. The resolution also committed the municipality to 11 aspirational actions, including considering the impacts of sea-level rise; collaborating with neighboring municipalities to address region-wide issues; assuring that hazard mitigation plans would be integrated with local plans and regulations; and involving the community in the decision-making process (see *Appendix A*, Resolution of Engagement).

Once the resolution of engagement was adopted, a memorandum of agreement (MOA) between the municipality and New Jersey Future was executed. The MOA established a chief point of contact in the municipality and assured the local recovery planning manager access to municipal staff, local officials and residents of the town. It also obligated the municipality to provide the LRPM with a work space. The agreement provided assurance that the costs of the LRPM would be the responsibility of New Jersey Future; it set forth the term of engagement and provisions for termination of the agreement; and it stipulated that following a thorough assessment of needs the LRPM would draft a detailed scope of work that would be made part of the MOA. New Jersey Future deemed these three documents to be necessary in order to manage a participating municipality's expectations.

Eventually, New Jersey Future came to an agreement with six towns: Sea Bright and Highlands in Monmouth County; Little Egg Harbor and Tuckerton in Ocean County; and Commercial and Maurice River in Cumberland County (*see Participating Municipalities map)*.

MILESTONES

October 29, 2012	Hurricane Sandy strikes the Northeast United States, causing significant damage along all of New Jersey's coastline.
Winter 2012-2013	Private philanthropy jump-starts a pilot local recovery planning manager program through the nonprofit New Jersey Future.
Spring 2013	Lead local recovery planning manager hired by New Jersey Future. Participating coastal towns screened and selected.
Summer 2013	Engagement agreements negotiated with participating towns. Embedded local recovery planning managers hired.
Fall/Winter 2013-2014	Local recovery mangers begin active engagement in participating towns, including local outreach, meetings, assessments and identification of new resources. New parcel-based risk assessment tool is developed. First of the local steering committees holds kickoff meeting.
Spring 2014	First towns move through the "Getting to Resilience" self-assessment process. First new grants garnered for towns by local recovery planning managers, including multi-million dollar shoreline restoration/stabilization grant. First local risk assessment completed.
Summer 2014	Risk assessment information shared with local officials and steering committee members. Community engagement process developed and established with steering committee and town leaders. First town adopts risk assessment as a baseline for future decision-making.
Fall 2014	Additional grants are secured for towns, including a major Sandy disaster-relief grant for historic properties and shoreline stabilization. Shored Up documentary screening takes place and kicks off first public meetings.
Winter 2014-2015	New Jersey Future facilitates regional meeting of municipal managers. Community Risk Perception study conducted with Carnegie Mellon University completed. One town begins Hazard Mitigation Plan update. One town initiates a Health Impact Assessment for property buyouts.
Spring 2015	Local recovery planning manager work inspires the George Street Playhouse creation and presentation of *Gabi Goes Green!*, a children's play about climate change. At least 12 significant local projects under management by local recovery planning managers.
Summer 2015	Public meetings take place, focused on topics ranging from adaptation strategies to planning for the future. New Jersey Future extends local recovery manager planning services to several participating towns as funding support dwindles but important projects are proceeding.
Fall 2015	Local recovery planning managers begin reducing their time commitments as funding cycle comes to an end.
Winter 2015-2016	Without additional funding, local recovery planning managers will need to end their assignments. Unfinished projects include: • Community Rating System certification to reduce insurance costs • Implementation/management of upcoming and ongoing resiliency projects • Integration of risk assessments into municipal land-use process • Integrating risk into development plans and policies • Advancing the public discussion and acceptance of new risk levels

Note: This is a general timeline of milestones for all six towns. Some towns reached specific milestones earlier or later than others.

BUILDING TRUST

Gaining the trust of elected officials and community members was essential if the LRPM program were going to achieve lasting success. New Jersey Future had few pre-existing relationships with the community leaders of the selected municipalities, and many of their long-serving engineering consultants viewed the program with suspicion. It would take a good deal of time – at least a year – for communities to develop confidence in New Jersey Future, one of the program's earliest lessons learned. Some activities that proved instrumental in helping to develop those relationships:

- **Initial Focus on Short Term Accomplishments:** The LRPMs began by working on short-term successes – smaller-scale projects they could accomplish that would address the towns' most urgent rebuilding needs. Making progress with these projects demonstrated that New Jersey Future had the towns' best interest at heart.
- **Mutually Agreed-Upon Scope of Assistance:** Setting the bounds of involvement through the resolution of engagement, the memorandum of agreement and a carefully delineated scope of services was important to manage the expectations and define the responsibilities of all parties.
- **Regular Visibility:** The LRPMs were regularly available and readily accessible to municipal officials and staff and often spent time working within the municipal offices. Constancy, reliability and visibility were essential ingredients to building lines of communication. In many cases municipal representatives increasingly came to rely on the LRPMs to wade through the regulatory maze and communicate directly on the community's behalf with the wide array of organizations and state and federal agencies that were offering recovery funding. Community officials have increasingly accorded the LRPMs considerable latitude to manage and act as chief municipal contact for implementation of several significant projects. This depth of relationship is only possible through long-term and regular community involvement.
- **Steering Committees:** The LRPMs encouraged their towns to establish steering committees that would include not just elected leaders but stakeholders from across the community, to help guide the long-term recovery process. The objective was to emphasize and ensure that the community, not the LRPM, was in charge of how the municipality would recover and that the LRPM would provide continuous support and technical guidance. Where committees were created, input from members provided increased understanding of community needs and issues and valuable assistance with community outreach. However, not every community was accustomed to working through or with committees of unelected representatives, which considerably narrowed efforts to generate effective resident engagement.

Across the six towns the LRPMs secured approximately $8 million in grants from a variety of sources to fund such diverse projects as living shoreline restoration, streetscape upgrades, lagoon dredging, repair of wastewater facilities, flood protection of a historic lighthouse and acquisition of emergency radio communication equipment.

- **Funding Local Projects:** When New Jersey Future's LRPM program first began it was clear that the communities' highest priority was immediate recovery rather than future resiliency. To help address that priority, the LRPMs focused on a wide range of projects that were intended to respond to particular municipal needs. The LRPMs led the development of each town's Strategic Recovery Planning Report, which was required in order to gain access to other state planning funds (see p. 11). Across the six towns the LRPMs secured approximately $8 million in grants from a variety of sources to fund such diverse projects as living shoreline restoration, streetscape upgrades, lagoon dredging, repair of wastewater facilities, flood protection of a historic lighthouse and acquisition of emergency radio communication equipment. Securing the funds for, and managing the implementation of, these projects were essential to building relationships of trust with local officials and key community leaders.

PIVOTING TOWARD RESILIENCE: REACHING A COMMON UNDERSTANDING ABOUT RISK

As New Jersey Future began its municipal engagements, it was clear that the municipal attention would be understandably fixed on returning community life to as "normal" a state as possible. Mindful of this, the LRPMs began by focusing on securing funding to undertake a wide range of projects tailored to serve the municipalities' short-term needs. But New Jersey Future also recognized that communities would eventually need to grapple with how they could move forward from immediate relief to long-term recovery. In doing so, it would be critical to identify the current vulnerabilities and future risks these communities would likely be facing, in order to ensure that investments of scarce resources for recovery did not merely put people and property back in harm's way.

Yet the fact remains that in a home-rule state such as New Jersey, virtually all land-use decisions are made at the local level, and without a local understanding of future risk there can be no realistic long-term resiliency planning.

Not surprisingly, both local and state elected officials were very reluctant to engage in discussions about vulnerability to severe weather, flooding and the threat of projected sea-level rise. In part this was because acknowledging these vulnerabilities might make real estate in affected communities less attractive, with resulting negative effects on property values and, consequently, the towns' tax bases.

Part of the blame for this reluctance at the local level can also be attributed to an absence of substantive direction from state government about how and whether to address future risk. For the most part the state has focused on rebuilding damaged areas to pre-storm conditions, and state policies have yet to consider scientific projections of rising sea levels and climate change. In the absence of state guidance, local officials are largely unequipped to address these issues on their own, primarily because they affect areas much larger than any single municipal jurisdiction. Furthermore, under the state's direction the first round of federal Sandy recovery funds included such a meager allocation for planning that recipient towns couldn't afford to expend adequate resources on exploring this critical question.

Yet the fact remains that in a home-rule state such as New Jersey, virtually all land-use decisions are made at the local level, and without a local understanding of future risk there could be no realistic long-term resiliency planning. In the absence of a long-term planning context it was also unlikely that a municipality could develop a strategic rationale for prioritizing critical infrastructure investments that wouldn't leave the community just as exposed as it was before Sandy.

Forward-Looking Risk Assessment

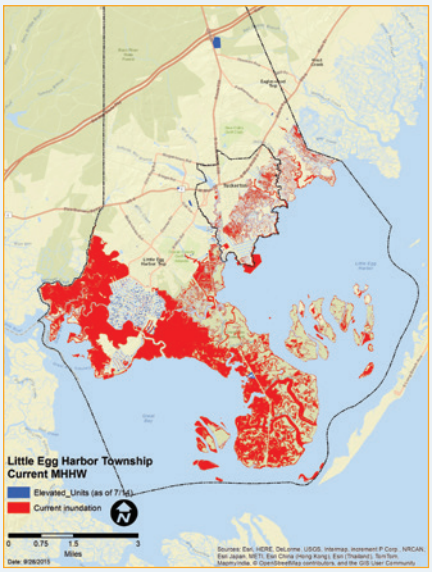
Given the importance of understanding future risk and the general reluctance to facing it, New Jersey Future needed to devise an evaluation method that would speak directly to the concerns of local officials and residents. The expectation was that if the analysis were presented in a sufficiently compelling manner, local officials would be emboldened to open difficult but essential public-policy discussions with their residents about vulnerability.

Working with the environmental engineering firm Princeton Hydro, New Jersey Future developed a vulnerability and risk analysis (see sidebar, Understanding Risk) explicitly intended to relate convincingly the impacts of sea-level rise. This parcel-based mapping analysis predicts depths of inundation throughout a community under various future scenarios, then models resulting structural damage and calculates both the property owners' financial exposure and the towns' related potential tax revenue losses. This level of detail is essential in helping the community to appreciate the economic risks of future flooding and sea-level rise, and to reach a realistic determination of how and where to allocate scarce personnel and financial resources. Describing the economic implications of sea-level rise also captures and focuses the attention of local officials very effectively.

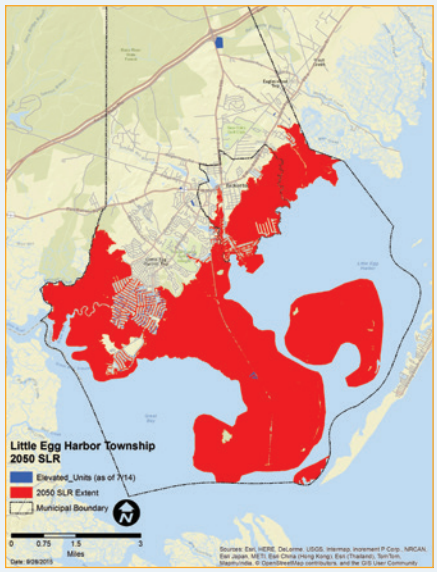
UNDERSTANDING RISK

New Jersey Future's vulnerability and risk analysis examines current and future flooding conditions given projected sea-level rise, and evaluates the impact of those conditions on the assessed value of the community. Future sea-level-rise scenarios were based on projections developed by the Department of Earth and Planetary Sciences at Rutgers University and modeled using precise digital elevation data. A 2050 planning horizon was selected, roughly reflecting the period of a conventional home mortgage if taken out today, in an effort to make the analysis more relevant to local property owners. Impacts are evaluated under three scenarios: current conditions, 2050 sea-level rise and 2050 sea-level rise with a 1-percent storm (equivalent to Hurricane Sandy).

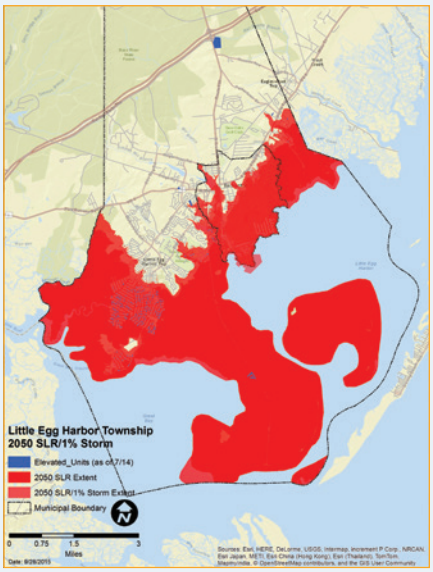
For example, in Little Egg Harbor, the exposure analysis indicates that by 2050, sea-level rise will inundate 31 percent of the area of the municipality, encompassing 9 percent of its assessed value. In comparison, by 2050, sea level rise coupled with a 1-percent storm will inundate 34 percent of the area of the township, and encompass as much as 31 percent of its assessed value. The maps below illustrate these impacts.



CURRENT CONDITIONS



2050 SEA-LEVEL RISE



2050 SEA-LEVEL RISE + 1% STORM

The state's Post-Sandy Planning Assistance Grant (PAG) program,[6] administered by the New Jersey Department of Community Affairs, was intended to provide municipalities the necessary funding to hire experts to help formulate a long-term rebuilding strategy and codify it into a document the state called a Strategic Recovery Planning Report. A completed report opened the door to additional funds to update community master plans, hazard mitigation plans, capital investment strategies and development regulations. At its minimum, the report needed to include a baseline evaluation of community impacts from Hurricane Sandy that highlighted existing and potential vulnerabilities, and an outline of initiatives the community could undertake to improve public safety and stimulate recovery. However, the PAG guidelines provided no specifics about evaluating existing vulnerability or required any analysis of future risk. New Jersey Future deemed such analysis essential to a realistic understanding of future storm and flood-related risks and insisted that this analysis be included in reports it prepared for the communities participating in the LRPM program. The reports were an indispensable starting point for beginning the discussions about community risk.

Beginning the Public Conversation

New Jersey Future's risk analyses, which highlight the potential for significant property damage, loss of property value and declining municipal tax revenues, offer a strong argument that rebuilding in place will not serve to make coastal communities safer. The results suggest that it will be necessary to consider reshaping coastal development patterns considerably and rethinking much of how the shore will contribute to the state's tourism economy in the future. Making this argument as straightforwardly as possible has been instrumental to New Jersey Future's efforts to help communities begin both the internal and public conversations about steps they will need to take in order to make themselves more resilient to growing climate-related threats.

Prior to preparing the risk analysis, each participating community engaged in the "Getting To Resilience" (GTR) process,[7] which was facilitated by the LRPM and led by staff from the Jacques Cousteau National Estuarine Research Reserve. This exercise introduces community officials to flood risks and guides them through a series of questions about the municipality's plans and regulations to determine where changes may be warranted to help reduce vulnerability. GTR was a helpful way to start

BOROUGH OF SEA BRIGHT PUBLIC MEETING OCT. 9, 2014, MAYOR DINA LONG DISPLAYING WADERS SHE WEARS DURING REGULAR FLOOD EVENTS

CONSIDERING BUYOUT AS A RECOVERY STRATEGY

In the disaster-recovery world, buyouts refer to government programs that purchase at-risk properties in order to help move people out of harm's way. New Jersey's Blue Acres program, administered through the New Jersey Department of Environmental Protection, targets flood-prone properties and, following Hurricane Sandy, received an allocation of federal disaster recovery funds specifically to give homeowners the option to sell houses that were flooded during the storm. Homes are purchased at pre-storm value and then demolished and the land is permanently preserved as open space, accessible to the public for recreation or conservation. Preserved lands can serve as natural buffers against future storms and floods. Many local officials have considerable reservations about buyouts, fearing the loss of taxable property and the effect this loss could have on the local economy.

With support from the Health Impact Project, a collaborative between the Pew Charitable Trusts and the Robert Wood Johnson Foundation, New Jersey Future and Rutgers University are conducting a health impact assessment (HIA) to evaluate the effects of a coordinated buyout strategy in the Mystic Island section Little Egg Harbor Township. Preliminary findings show that there are persistent and widespread fiscal, physical and mental health issues at play, and that buyouts could help address these issues by purchasing the most vulnerable houses and replacing them with shoreline protections specifically designed to make the area less flood-prone and more secure. In addition to the work in Ocean County, New Jersey Future is completing a fiscal impact analysis on behalf of the Borough of Sea Bright in Monmouth County, that evaluates the effect of purchasing approximately 200 of the community's most flood-prone homes (representing 16 percent of the municipality's total housing stock). Findings show that purchasing properties that experience severe repetitive losses from flood damage would result in significant financial benefits for this highly vulnerable, low-lying barrier-island community.

conversations with municipal representatives about risk and vulnerability and contributed to preparing them for broader community outreach.

The public discussion of the impacts of future sea-level rise needed to be crafted carefully, to overcome skepticism and encourage a reasoned evaluation of risks, responses and adaptation strategies. To help make these conversations as productive as possible, New Jersey Future teamed with a psychologist[8] from the Department of Engineering and Public Policy at Carnegie Mellon University whose specialty is communicating risk. She worked with New Jersey Future for more than a year, helping to frame the community discussions about sea-level rise and climate change. She distributed a survey to residents in all the LRPM program participating municipalities, the responses to which helped her and New Jersey Future understand how residents perceive flooding and flood risk. Among the key insights: Survey respondents acknowledged that flood risk is increasing but that long-time residents have high tolerance for flooding and would have to experience a far greater probability of risk before they would consider relocating from vulnerable coastal areas. Respondents also indicated that long-term preparation is important but some believed that such activity might create a stigma that would discourage investment in their communities. This information was instrumental in shaping the content of the public presentations and the manner of communication and outreach. A full report on the results of her work is expected by November 2015.

ADVERTISEMENT FOR SCREENING OF *SHORED UP* IN SEA BRIGHT

In September 2014, Sea Bright Mayor Dina Long kicked off the public meetings on vulnerability with a screening of the film Shored Up, an award-winning documentary about coastal development and risk in New Jersey and North Carolina. After the screening a panel discussion and a question-and-answer session was conducted featuring the film's director and three local coastal and environmental experts. Subsequent to the film-screening event, the mayor led a special town-hall meeting at which New Jersey Future presented the borough's full vulnerability and risk analysis. Although the information was difficult for residents to hear because so much of the municipality is at risk of future inundation, attendees expressed their appreciation

PUBLIC MEETING, JUNE 20, 2015
LITTLE EGG HARBOR COMMUNITY CENTER

for the opportunity for a fact-based discussion. Sea Bright plans to schedule subsequent public meetings about risk and mitigation as it completes its hazard mitigation plan, which is currently in development.

The first of a series of three public meetings for residents of Little Egg Harbor Township and Tuckerton Borough, entitled "Planning for Our Coastal Future," was conducted in April 2015. Almost 70 residents from the two municipalities turned out to hear the results of the vulnerability and risk analyses that New Jersey Future prepared for both towns. A follow-up meeting in May focused on reviewing short-term adaptation strategies and recovery projects the municipalities have already started. The final meeting in the series took place on a Saturday in June in order to obtain input from seasonal as well as year-round homeowners in the area. Unlike the prior meetings, participants in the final meeting were divided into facilitated breakout groups that enabled extensive discussion about their experiences during and after the storm and the types of initiatives in which they thought their elected officials should be engaging to reduce future risks. This proved to be a particularly productive meeting format. At the conclusion of the meeting residents unanimously and enthusiastically agreed that community discussions regarding coastal risks, community vulnerability and mitigation and adaptation strategies should continue.

In August 2015 New Jersey Future conducted a public presentation of the risk and vulnerability analyses for the Commercial Township Committee. Having reviewed their SRPR, officials from Maurice River Township invited New Jersey Future to present the findings of the risk and vulnerability analysis in September 2015 with an expectation of formal adoption before the end of the year.

GABI GOES GREEN!

New Jersey Future collaborated with the issue-oriented Educational Touring Theatre of the George Street Playhouse, an organization that commissions and produces touring theatre with themes relevant for young audiences. The plays are also used as a foundation for workshops and for engaging classroom discussions that fulfill the New Jersey Core Curriculum Content Standards for the performing arts. Each year these workshops attract more than 200 teachers. This year, the playhouse built a performance, inspired in part by New Jersey Future's community recovery assistance work, entitled *Gabi Goes Green!*, which focused on climate change. Following the performance, New Jersey Future presented the risk analysis findings during panel discussions with educators to help them shape their environmental-education classes for elementary- to high school-level students.

CONCLUSION

After more than two years working hand-in-hand with Sandy-affected communities, New Jersey Future has seen that the local recovery planning manager program is a very effective approach to helping towns respond to the immediate impacts of a disaster while at the same time building a platform for smarter, longer-term decisions in light of future risk. This strongly reinforces FEMA's contention that building local capacity is a critical ingredient of recovery and resiliency longer term. The LRPM program model that New Jersey Future has developed is highly transferable and the hope is that state and federal policy makers will take the lessons learned in New Jersey and establish a mechanism for replicating, expanding and supporting the program elsewhere.

> "I can't afford not to have New Jersey Future."
> — Jenny Gleghorn, Administrator
> Tuckerton Borough
>
> "We need a co-pilot."
> — Hon. Judson Moore, Mayor
> Maurice River Township

Lessons Learned

In thinking about the challenges and success of the LRPM program, New Jersey Future has identified valuable lessons about how the program can best be administered going forward, the key elements of which include:

- **It takes time.** It takes at least several months, and maybe as much as a year, to earn a community's trust and to develop relationships with key community representatives, including its retained planning and engineering professionals, who were initially unsure of the LRPM's role and how it affected their own standing within the communities.
- **Start with the short-term needs to get to longer-term changes.** Addressing short-term needs can help build the trust necessary to deal with larger, longer-term issues.
- **Check in regularly.** It is very difficult to capture the undivided attention of local administrators and elected officials, particularly during a crisis. At the start of the engagement, either through the MOA or some other formal arrangement, regularly occurring meetings between the LRPM and key decision-makers should be required and scheduled to provide opportunities to discuss issues, obstacles and progress. This is particularly important since the LRPM program was provided at no cost to the municipality, which makes it easier for officials to distance themselves from discussions of risk.
- **Manage expectations.** It is critical to manage a community's expectations through detailed scopes of services that define tasks and deliverables clearly.
- **Become the central point of contact for recovery matters.** The LRPM must assume the role of principal intermediary on behalf of the town for recovery and rebuilding matters, to help make the best use of the torrent of offers of assistance from outside organizations and institutions.
- **Build stakeholder support for the work.** Establishment of a steering committee representing a broad cross-section of community interests is a very helpful way to learn quickly about community needs and to build support for and engagement in the recovery and planning process. However, steering committee functions and community outreach must be undertaken in coordination with, and optimally involvement of, local elected officials.
- **Have a transition plan.** LRPM assistance should be designed to help build local capacity where possible and, as program funding begins to reach its limits, a detailed transition plan should be developed to enable the participating towns to take over administration of ongoing programs.

More Work to be Done

There is still a considerable amount of work to be done to help towns recover from the storm. Experience with Hurricane Katrina in New Orleans suggests that it takes

as much as a decade before it's possible to approach full recovery from a major natural disaster.

For the towns participating in the LRPM program, there are several important initiatives under way on which New Jersey Future would like to continue working to help achieve successful outcomes. However, because the available funds to support LRPM activity are almost depleted, the level of involvement will have to be scaled back considerably. Significant projects already under way that should be carried through include:

- **Community Rating System (CRS) certification.** Each of the participating communities has taken the preliminary step of enrolling in the National Flood Insurance Program's (NFIP) CRS program,[9] which offers reduced flood insurance premiums for the town and its residents in exchange for the adoption of municipal strategies that address vulnerability to flooding. There are different levels of certification and none of them is easy to achieve, requiring extensive paperwork and a lasting commitment to addressing flood risk. New Jersey Future views this program as a tremendous incentive to encourage municipalities to move forward with innovative resilience and adaptation approaches.
- **Integrating vulnerability and risk analysis into local plans and policies.** Now that the risk assessments for all six towns are completed, a critical next step is to embed the findings in the complete range of plans and regulations on which each municipality relies to guide its land use and development decisions. Specifically, the assessments must be integrated with municipal master plans; land use, zoning and subdivision regulations; building codes; design guidelines; and capital investment plans. With additional funding, New Jersey Future would have the necessary time and resources to develop a plan for each municipality that identifies how the risk assessments and local land use controls and plans, including the county hazard mitigation plan, can be integrated.
- **Advancing the public discussion of risk.** Perhaps the most difficult task ahead is continuing to engage residents in the discussion about what the future of the community should be. This is essential to building broad support for coastal community recovery and resilience. One of the most important roles that New Jersey Future has played, and can continue to play, is instigator and facilitator of discussions about the risks and implications of sea-level rise. A sustained effort is needed to help move those affected away from emotional and sometimes skeptical reaction toward rational discussions, and to help set a course for necessary and fundamental changes that enable the inhabitants of these towns to develop and live safely in shoreline areas.

THREE YEARS AFTER SANDY, MANY HOMES REMAIN VACANT OR HAVE YET TO BE REPAIRED.
MYSTIC ISLAND, LITTLE EGG HARBOR TOWNSHIP

More Towns Need Assistance

To respond effectively to the impending risks of sea-level rise, patterns of regular flooding and severe storms, it will be necessary to move beyond New Jersey Future's six participating LRPM towns and into more communities. New Jersey's history of repetitive storm damage and loss over the past two decades is an unambiguous indicator that such conditions will continue to plague the state's coastline. Only a few communities have the staffing depth or expertise to grapple with this problem and begin to devise effective long-range plans and implementation strategies that will address predicted impacts of a changing climate. A forward-looking analysis of vulnerability and risk for every community in the state that borders tidally influenced waters is needed to support and promote preparedness, mitigation, and planned adaptation rather than far costlier emergency response and disaster relief. However, absent another major storm event and/or major shifts in current state and federal policies (see Afterword), it will be difficult to muster the resources necessary to provide this critical information and guidance.

AFTERWORD

As effective as the LRPM program has been in the six towns that have participated in it, the program could have been leveraged to an even greater degree had state and federal policies been better aligned to support these local efforts. Below are some suggestions for bringing state and federal disaster-recovery policies and programs into alignment with the goals of both the LRPM program and with FEMA's National Disaster Recovery Framework.

State Policies

Confronting the reality of future flooding risks along New Jersey's coast is difficult, because the stakes are high and the prognosis is not good. New Jersey Future's analyses in the communities engaged in the LRPM program show that as sea levels rise, large areas will be under water or damaged by regular flooding. Many of these areas will no longer be viable and over time property values will decline and property tax revenues will shrink dramatically. These are particularly difficult discussions for local officials in New Jersey because (unlike in neighboring states) few of our state policies have acknowledged this issue and there is a dearth of voices at the state level insisting on addressing it.

The official priority to date has been to rebuild as quickly as possible, irrespective of future consequences. But as New Jersey Future's local vulnerability and risk analyses have shown, all coastal communities need to map areas at risk, set appropriate policy – whether to fortify, accommodate or retreat – and then act accordingly. Requiring the inclusion of projected sea-level rise in all post-Sandy project planning, or in forward-looking county hazard mitigation plans that include detailed assessments of risk for each municipality, would have put New Jersey's coastline much further down the path of increased resilience than it is now. The state should consider the following actions that would make it easier for vulnerable communities to make difficult but necessary decisions about rebuilding:

- **Adopt official sea-level rise projections.** The state and each county and municipality should map areas likely to be flooded today and in 2050 and adopt these maps as part of their land-use plans (via either the State Development and Redevelopment Plan or county and municipal master plans) and hazard mitigation plans, in order to guide public and private investments.
- **Fund forward-looking municipal planning.** As a prerequisite to the use of any recovery planning funds that may be made available, either through current or future sources, the state should require risk mapping for coastal communities. Furthermore, risk assessments are likely to be increasingly important as the effects of sea-level rise become more pronounced. Consequently, the state should establish a source of adequate funding to allow all coastal communities to perform risk-based mapping. In addition, to build community capacity to plan for and respond to natural disasters, the state should allocate more grant funds to enable broader implementation of such initiatives as the LRPM program.

The state and each county and municipality should map areas likely to be flooded today and in 2050 and adopt these maps as part of their land-use plans.

- **Revise and coordinate hazard mitigation planning.** The state should revise its Hazard Mitigation Plan (HMP) to explain how it will upgrade state-owned infrastructure – tunnels, roads, parks, rail storage and other assets – by using vulnerability as one of the key factors in prioritizing its capital investments, and it should require local governments to do the same. Furthermore, the state HMP should require that counties consider sub-regional affiliations based on boundaries defined by common exposure to risk, and encourage the formation of municipal cooperatives to address these common issues. The state should also require that municipalities be far more active partners in developing county hazard mitigation plans by ensuring representation from municipal planners, who would then work with their local planning boards to ensure hazard mitigation/master plan coordination. Finally, the state HMP should require

that state agencies and county and local governments develop effective mitigation strategies. Such strategies should reduce vulnerability to the impacts of natural hazards, minimize future damages – particularly in repetitive-loss areas – and confront directly the threats that sea-level rise poses in all tidally-influenced areas throughout New Jersey.[10]

- **Increase freeboard standards.** The state's Flood Hazard Area Control Act currently mandates for all structures one foot of "freeboard," or additional clearance, above the 100-year flood level. But projections show that won't be enough in 2050 when sea levels could be significantly higher than today. The state should increase these freeboard standards for coastal areas by a minimum of two feet to a total of three feet, with a finer-grained analysis required for large public infrastructure assets and areas subject to wave action. The state should engage Rutgers University to refine the infrastructure standards and then embed them into grant programs like the new Energy Resilience Bank and into state regulations such as for water and wastewater treatment plants.

ADVOCATING FOR THE EFFECTIVE USE OF FEDERAL RECOVERY FUNDS

Work under the LRPM program provided extensive knowledge of the issues local governments were facing and offered unusual insight into how state and federal assistance could be applied most effectively. That insight helped to inform New Jersey Future's advocacy efforts in several areas, including:

- **CDBG-DR Spending:** The majority of federal funds available to New Jersey were funneled through HUD's Community Development Block Grant Program – Disaster Recovery (CDBG-DR). Because the state had considerable latitude to determine how these dollars were allocated, New Jersey Future pressed decision-makers at HUD and the state, including those at the NJDCA, NJDEP and the Governor's Office on Recovery and Rebuilding, to innovate and make the most out of the available funding. In response to several letters and outreach from New Jersey Future, sometimes in concert with planning and fair-housing partners, HUD strengthened its requirements for the second round of CDBG-DR funding, and the subsequent New Jersey Action Plan Amendment that detailed how the funding would be deployed included language about the need to consider future risks, including sea-level rise, in infrastructure decision-making. The plan applied the new federal requirement for risk assessment to two categories of infrastructure projects – the Flood Hazard Risk Reduction and Resiliency Measures Program and the Energy Resilience Bank – and required infrastructure projects to perform a "risk analysis" as part of evaluating projects.
- **State Hazard Mitigation Plan:** To provide input into New Jersey's 2014 State Hazard Mitigation Plan, New Jersey Future met and communicated regularly with state officials over several months. Once a draft plan was released, New Jersey Future coordinated a joint comment letter from state and national planning and environmental organizations. The resulting plan placed a greater emphasis on risks associated with climate change and rising sea levels than its predecessor, but did not incorporate this information into decision-making. The plan was also drafted prior to public input and many of the comments received were noted in the "Next Steps" chapter rather than implemented in the plan itself.
- **NJDCA Planning Assistance Grant Program:** New Jersey Future advocated for expansion of the scope of the Strategic Recovery Planning Report, required under the NJDCA Post-Sandy Planning Assistance Grant program, to include comprehensive, forward-looking risk assessments; assistance to encourage participation in NFIP Community Rating System and Getting to Resilience programs; use of green infrastructure; strategies to address combined-sewer overflow issues in order to reduce chronic flooding; and a comprehensive update of the state's Shore Protection Master Plan. New Jersey Future also provided a detailed scope for a risk and vulnerability analysis which the state has provided to eligible municipalities as a model for conducting such assessments.

- **Revise the Municipal Land Use Law (MLUL)** to require that hazard mitigation planning be incorporated into master plan elements. Municipalities should also be provided with technical guidance to align the community's policies, codes and programs and natural hazard information and mitigation strategies, and through such integration encourage collaborative planning and inter-agency coordination.
- **Promote strategies that shift development from areas at risk**. The state needs to consider developing revenue-sharing strategies that can offset ratable losses related to buyouts, and should consider developing regional transfer-of-development rights and life-rights programs[11] to encourage alternatives to rebuilding in vulnerable coastal areas. In addition, the state's Blue Acres buyout program, which is New Jersey's chief mechanism for acquiring properties that have been damaged by or may be prone to damage from repetitive storm-related flooding, should set acquisition priorities based on risk-based criteria and should focus buyout activity in the most vulnerable areas.

Federal Policies

Federal policy, like state, considerably influences disaster response and preparedness. The following recommendations are intended to strengthen the federal role and the impact it could have in preparing coastal areas more effectively for future flooding and storms:

- **Align federal disaster-recovery guidelines to account for sea-level rise projections.** The January 2015 White House executive order requiring all federal projects,[12] and all projects to which federal funds flow, to incorporate sea-level-rise projections into their planning was a welcome strong signal that communities in vulnerable locations cannot expect to be bailed out on a repetitive basis for disaster-related damage that they can take reasonable steps to avoid. Still, other federal guidelines on post-disaster rebuilding[13] require only that infrastructure be returned to its pre-disaster condition, which works in direct opposition to efforts to make regions less vulnerable. These guidelines need to be revised to reflect the directives of the executive order.
- **Inform communities of long-term risks.** Shortly after the storm, FEMA's Recovery Support Function teams engaged several New Jersey municipalities in a process to determine what recovery projects the towns *wanted* to undertake, with no consideration for what effect such projects would have on risk exposure. Doing this without a discussion of future risk from projected sea-level rise and severe storms left communities without a clear context for their decision-making and priority-setting, and in the cases where New Jersey Future later got involved, required the entire community conversation to be restarted once the analyses were complete. (FEMA undertakes post-disaster recovery efforts at the invitation of the state in which the disaster event has occurred and the direction and scope of its work is guided by the host state. New Jersey's recovery focus after Sandy was fixed on returning coastal communities to their pre-storm state without consideration of sea-level rise projections or the impacts of climate change. This explains in part why acknowledgement of these factors was not factored into FEMA's community recovery plans.)

The state needs to consider developing revenue-sharing strategies that can offset ratable losses related to buyouts, and should consider developing regional transfer-of-development rights and life-rights programs to encourage alternatives to rebuilding in vulnerable coastal areas.

- **Encourage regional cooperation.** FEMA guidelines, which do not currently promote regional collaborations, should be modified to give greater ranking weight when such coordination/ collaboration is appropriate and can be achieved. This is particularly important because natural disasters are not constrained by municipal boundaries and encouraging collaboration will help to ensure that individual municipal investments coalesce to achieve sufficiently comprehensive protections.
- **Revise the National Flood Insurance Program (NFIP) to reflect the true risk faced by coastal areas.** It is increasingly apparent that, based on projections of rising sea levels, the development that has characterized much

FORTESCUE, CUMBERLAND COUNTY

of New Jersey's coastal communities will not be sustainable into the future. In 2012 a major reform of the NFIP program was signed into law that was intended to shift flood insurance rates to actuary prices. However, in view of the considerable financial impacts, short phase-in period, and concerns raised by policyholders and real estate interests, in 2014 some of these reform provisions were modified to roll back certain rate increases for primary residences. Although a risk-based insurance rate system does cause considerable financial burdens to existing primary homeowners, continuing to subsidize flood insurance in inherently vulnerable areas merely continues to keep people and property at risk. Financial incentives and disincentives are likely to be the most powerful approach to discouraging development in flood-prone areas; therefore, FEMA needs to continue to explore ways to implement these changes to the NFIP.

Endnotes

1 https://www.fema.gov/national-disaster-recovery-framework

2 National Disaster Recovery Framework. FEMA. September, 2011. Pg. 25.

3 http://www.njfuture.org/events/special-events/rebuilding-the-shore/

4 http://www.cfnj.org/new-jersey-recovery/

5 Municipal impact is measured by the amount of FEMA public assistance per capita. Source: http://njdatabank.newark.rutgers.edu/sites/default/files/files/RutgersSandyImpact-FINAL-25Oct13.pdf

6 http://www.nj.gov/dca/services/lps/pspag.html

7 http://www.prepareyourcommunity.org/

8 Gabrielle Wong-Parodi, Research Scientist, Ph.D. UC Berkeley, Energy and Resources Group. Expertise: Risk theory, Risk perceptions, Risk communications; https://www.cmu.edu/epp/people/faculty/gabrielle-wong-parodi.html.

9 http://www.fema.gov/national-flood-insurance-program-community-rating-system

10 In response to a March 2014 notice posted by the New Jersey Office of Emergency Management, New Jersey Future joined with several other organizations and interested parties in April 2014 to provide recommendations for modifications to the state's Hazard Mitigation Plan. Unfortunately, the plan had already been submitted to FEMA for approval, even before the March 2014 public notice was posted. New Jersey Future requested that FEMA delay, but they indicated it would have resulted in a gap in coverage of an approved plan, potentially jeopardizing the availability of emergency assistance in the event of a disaster. All of the April 2014 recommendations remain applicable and are still worthy of consideration.

11 Life rights or life tenancy programs grant a current property owner the right to remain living in a home for the duration of the owner's life but once that owner no longer inhabits the property it cannot be resold or reused. In exchange, the owner is paid a fair market value for the property at the time he or she signs the life-rights agreement.

12 https://www.whitehouse.gov/the-press-office/2015/01/30/executive-order-establishing-federal-flood-risk-management-standard-and-

13 This includes the Water Resources Development Act – the authorizing legislation for the Army Corp of Engineers; the National Flood Insurance Program; Community Development Block Grant – Disaster Recovery funding; transportation funding; and wastewater and drinking water infrastructure funding

APPENDIX A: RESOLUTION OF ENGAGEMENT

_____ Township/Borough

Resolution Number _____

Resolution Requesting Assignment of
a Local Recovery Planning Manager

Whereas, the Township/Borough of _____, New Jersey, and its neighboring communities, experienced major devastation as a result of Superstorm Sandy that struck the area on October 29, 2012; and

Whereas, the federal and state governments will be providing billions of dollars of aid and thousands of hours of technical support to towns in New Jersey that were affected by the storm; and

Whereas, the Township/Borough of _____ has a limited municipal staff and in-house resources to:

1. Access federal and state support and manage the recovery and rebuilding process following the storm
2. Perform the planning and community engagement necessary to address future storm events; and

Whereas, the Township/Borough of _____ is committed to rebuilding in a manner that anticipates and responds to future storm events and sea level rise and helps the community to be more resistant to damage from such events and is more sustainable for future generations;

Therefore, be it resolved that the Township/Borough of _____:

1. Requests that New Jersey Future assign a Local Recovery Planning Manager to work with the municipality to provide direct, ongoing assistance to help municipal staff develop and implement its long-term recovery and rebuilding process as quickly as possible;
2. Authorizes the **Township/Borough Administrator** to enter into the appropriate agreements with New Jersey Future to have a Local Recovery Planning Manager work with the town on a regular basis for at least one year at no contract cost to the town;
3. Agrees to the ***Planning Principles*** set forth herein below to guide planning and rebuilding activities;
4. Supports active outreach and community engagement throughout the planning process to inform recovery response and mitigation planning and decision-making;

Further be it resolved that, the Township/Borough Council of the Township/Borough of _____ encourages all citizens and staff to participate in the recovery and rebuilding activities coordinated through the Recovery Planning Manager, the County of _____, the State of New Jersey, FEMA's Long-Term Community Recovery group and other recovery partners.

Planning Principles

The following principles are intended to guide development and implementation of strategies associated with recovery from damage that resulted from Superstorm Sandy. The objective of these principles is to: encourage recovery planning and implementation in a manner that anticipates and responds to sea level rise and future storm events; balance the need for development and redevelopment with the necessity to protect critical natural resources; and avoid, minimize or mitigate risk and break cycles of repetitive loss.

1. Consider the system-wide implications of sea level rise and future weather-related events on the built and natural environment.
2. Where the potential of system wide impacts extend beyond jurisdictional boundaries, consider collaborating and coordinating efforts on a multi-jurisdictional basis.
3. Assure that mitigation plans, programs and strategies are integrated with the local plans and regulations.
4. Promote mixed-use development that is compact and conserves land. Build with suitable designs and densities that support walking, biking and public transportation.
5. Assign priority to redevelopment and reuse and of existing sites and structures. Encourage development that incorporates green design and construction principles and opportunities for clean and renewable energy and efficiency measures.
6. Enhance community character and design, especially in historic areas, by reusing significant buildings, reinforcing architectural styles, incorporating art, and providing pedestrian-friendly streetscapes.
7. Maintain and enhance transportation options that improve access, safety, affordability and air quality for all users: pedestrians, bicyclists, transit-users, ride-shares and drivers.
8. Support construction and rehabilitation of homes that meet the needs of households of all sizes and income levels.
9. Protect and restore the environment, sensitive lands, ecosystems and natural resources.
10. Protect agricultural lands, and historic sites and landscapes. Provide accessible neighborhood parks and recreational systems.
11. Engage and involve the community throughout the planning and land use decision-making process. Gather and consider public input during program implementation.

Certification

I, _____, Municipal Clerk of _____ Township/Borough, a Municipal Corporation of the State of New Jersey, located in the County of _____, do hereby certify that the foregoing is a true and accurate copy of a Resolution adopted by the Township/Borough Council of _____ Township/Borough at a regular meeting held in _____, _____, NJ _____ on _____, _____ at 7:30 p.m.

Signed _____

_____, Township/Borough Clerk

APPENDIX B: OVERVIEW OF ACCOMPLISHMENTS

Following is an overview of the activities in which New Jersey Future's local recovery planning managers (LRPMs) have been engaged on behalf of the six participating communities since the program's inception in March 2013.

Community outreach and communication

- Presented risk analyses, at a public meeting in Sea Bright and to the Commercial and Maurice River township committees
- Conducted "Planning for Our Coastal Future" public meeting series – implications of long-term risk, sea level rise – in Little Egg Harbor and Tuckerton
- Facilitated Mayor's Town Hall, screened *Shored Up* documentary in Sea Bright
- Continuing to work with all communities to expand outreach and communication through social media
- Completed government operations/organization evaluation ($15,000), Sea Bright

Community mitigation/adaptation, resilience planning

- Prepared Strategic Recovery Planning Report and detailed vulnerability assessment for each participating community
- Secured NJDCA Planning Assistance Grant for detailed risk assessment and to identify adaptation and mitigation strategies ($20,000), Tuckerton Borough
- In conjunction with the Jacque Cousteau National Estuarine Research Reserve, helped facilitate "Getting to Resilience" process in all participating municipalities
- Completed property buyout Health Impact Assessment, Little Egg Harbor
- Obtained NJDEP Sustainable and Resilient Coastal Communities grant to evaluate risk-based criteria for Coastal Area Facilities Review Act center designations ($287,000), Little Egg Harbor, Tuckerton, Toms River

Shoreline stabilization and enhancement (green and gray infrastructure)

- Secured and managing National Fish and Wildlife Foundation Hurricane Sandy Coastal Resiliency Grant (Marsh Restoration and Replenishment). Work includes application development, overall management of engineering services, permit preparation and coordination with federal and state agencies, ($2,130,000), Little Egg Harbor and Tuckerton
- Coordinated thin layer deposition project monitoring ($46,752), Little Egg Harbor and Tuckerton
- Secured NJDEP Municipal Public Access Grant to provide access to tidal waterways ($15,000), Tuckerton
- Secured NJDEP Municipal Public Access Grant ($15,000), Little Egg Harbor

Community economic development

- Facilitated branding and marketing project in Sea Bright
- Participated in Tourism and Economic Development and Infrastructure and Shoreline Protection sub-committees, Maurice River and Commercial
- Facilitated tourism development workshops, Sea Bright and Highlands

Community redevelopment

- Prepared redevelopment plan, Maurice River
- Currently developing commercial and residential area design standards in Maurice River
- Currently managing bikeway plan, Sea Bright
- Secured NJEDA Streetscape grant ($1,500,000), Highlands
- Secured NJEDA Streetscape grant, Ocean Avenue ($1,300,000), Sea Bright
- Secured Transportation Alternative Program grant for North Beach Multi-Use Path ($800,000), Sea Bright

Infrastructure improvements

- Secured CDBG-DR grant for South Green Street Park restoration ($1,481,900), Tuckerton
- Currently managing USDA Special Evaluation Assistance for Rural Communities and Households (SEARCH) Grant – Leesburg and Dorchester wastewater disposal solutions ($30,000), Maurice River
- Currently managing USDA SEARCH Grant – Port Elizabeth wastewater disposal solutions ($30,000), Maurice River
- Currently managing USDA SEARCH Grant – wastewater disposal solutions ($30,000), Commercial
- Secured funding for police personnel (enforcement of crosswalk lanes), ($10,000) Sea Bright

Community disaster preparedness

- Currently assisting each community to participate in and become certified under the NFIP Community Rating System program
- Secured emergency radio communications grant ($50,000), Little Egg Harbor and Tuckerton
- Developed debris management plan ($25,000), Sea Bright
- Secured USDA emergency vehicle acquisition grant ($35,000), Maurice River
- Secured USDA grant for police vehicle purchase ($50,000), Tuckerton
- Developed geographic information system for asset management ($25,000), Sea Bright

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ABOUT NEW JERSEY FUTURE

New Jersey Future is a nonprofit, nonpartisan organization that brings together concerned citizens and leaders to promote responsible land use policies. The organization employs original research, analysis and advocacy to build coalitions and drive land-use policies that help revitalize cities and towns, protect natural lands and farms, provide more transportation choices beyond cars, expand access to safe and affordable neighborhoods and fuel a prosperous economy.

ABOUT THE AUTHOR

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David manages New Jersey Future's Local Recovery Planning Manager program, which provides direct, long-term assistance to municipalities seeking to rebuild from the devastating damage of Hurricane Sandy. David is a licensed professional planner with more than 30 years of land use and environmental planning experience working in the private sector as a planning consultant and the public sector for local, county and state planning agencies in New Jersey, Massachusetts, New York, Pennsylvania, and Florida.

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