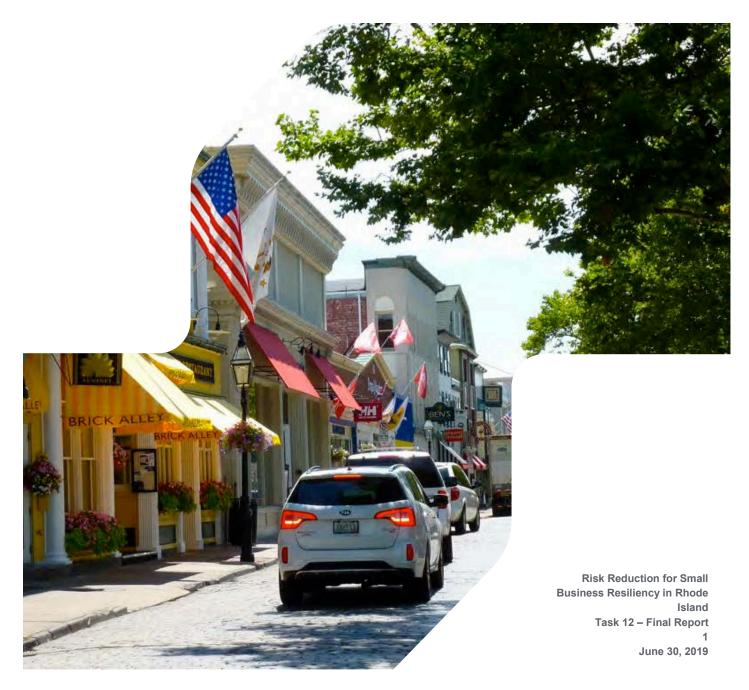


TASK 12 – FINAL REPORT

Project Executive Summary and Final Task Reports





TASK 12 – FINAL REPORT

Document status					
Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
1	Final Report	Gabrielle McGrath	Roberta Groch	Roberta Groch	2019-06-30
Approva	al for issue				
Roberta Groch 20			2019-06-30		

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NOTE: Task 1 was the Project Initiation and did not require a report. Task 7 was a matrix of business types, typologies, and jurisdictional/permitting requirements. Task 10 was the actual Risk Reduction Guides. The Rhode Island Department of Administration Division of Statewide Planning maintains these files.

RISK REDUCTION FOR SMALL BUSINESS RESILIENCY IN RHODE ISLAND

Project Executive Summary

Nationally, over ninety percent of small businesses fail within two years of being impacted by a disaster (U.S. Small Business Administration). In Rhode Island, ninety-nine percent of businesses are small, and these businesses employ fifty-three percent of the private workforce (U.S. Small Business Administration Office of Advocacy 2018 Small Business Profile Rhode Island). In an effort to improve the resiliency of these businesses to extreme weather events, the State of Rhode Island Office of Housing and Community Development and the U.S. Department of Housing and Urban Development sponsored a project led by the Rhode Island Division of Statewide Planning. The overall goal of the project was to create risk reduction guides for different small business types in order to help owners learn how they can mitigate risk. "Small business" for this project was defined as businesses with less than fifty employees.

Intended outcomes of the project were to:

- Create tailored risk prevention guides with relevant, actionable risk reduction measures;
- Promote understating of how to prepare for and minimize potential future losses from extreme weather events;
- Engage business owners in the statewide climate adaptation strategy;
- Educate municipal decision makers on how the local business community can become more resilient to natural disasters; and

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Identify recommendations for state and local agencies to support small business resilience.

While the project was overseen by the Division of Statewide Planning, it was guided by a Steering Committee made up of both state and local agencies, including the Rhode Island Emergency Management Agency (RIEMA), the Rhode Island Department of Emergency Management (DEM), the Rhode Island Office of Housing and Community Development (OHCD), the Rhode Island Commerce Corporation (Commerce RI), the Rhode Island Coastal Resources Management Council (CRMC), the Rhode Island Department of Business Regulation (DBR), the Rhode Island Division of Public Utilities and Carriers (DPUC), the State Chief Resilience Officer, the Newport Chamber of Commerce, and the Town Manager of South Kingstown. The consultant team who completed the work on the project was led by RPS Group located in South Kingstown. Other members of the consultant team included Milone and MacBroom, Inc. (MMI), the University of Rhode Island Coastal Resources Center (URI CRC), the Rhode Island Small Business Development Center (RISBDC), the Climate Action Business Association (CABA), and Spaulding Environmental Associates.

To ensure that the efforts of the project were well-received by the small businesses of Rhode Island, an important task was to conduct outreach statewide to understand the needs of the business owners. Due to the busy nature of these owners' schedules, the Project Team discovered that it was very difficult to gain the opportunity to speak with them. Of seven scheduled focus groups, only four were held. The other three were cancelled due to lack of participation. However, the team continued outreach by presenting at previously scheduled meetings of key groups, scheduling interviews with key informants, and conducting "on the ground" outreach directly with businesses by going door to door and speaking with owners. In total, the Project Team met with eighty-three

total individuals made up of forty-three business owners and forty professional group members. One key point discovered during this outreach was that small business owners did not like to hear the term "climate change." In their day-to-day operations, climate change is thought to be too far in the future to be concerned with. The owners are worried about their supply chain, making payroll, and keeping their business in operation. In addition to reaching out directly to individuals and groups, fliers were produced, and a press release was distributed to advertise the project throughout the state. More details on this aspect of the project can be found in the "Task 5: Outreach Report."

The next phase of the project was to consider what areas of the state are the most exposed to the impacts of extreme weather events, including flooding and power outages. After learning from the DPUC that all areas of the state are considered to be equally exposed to power outages, the Project Team decided to use floodplains as the differentiating factor to determine the most exposed areas. Moderate and severe scenarios for both coastal and inland flooding were selected. For the moderate scenario, the 25-year water level was used for coastal flooding, and the 100-year flood was selected for inland flooding. For the severe scenario, the 100-year flood plus two feet of sea level rise was used for coastal flooding and the 100-year flood plus three feet of freeboard was selected for inland flooding. The Project Team gathered business data from the Secretary of State's office and the E911 database that contains actual business physical addresses. The business data was overlain with the floodplains to determine areas of highest exposure.

After defining these areas, the Steering Committee selected Pilot Areas where Vulnerability Assessments would be conducted with small businesses. The Committee considered the most impacted areas, as well as areas with a "community champion" to support the project's efforts: an active Chamber of Commerce or Town Planner or Manager, areas with

a supportive local business community, and areas that were tied to a named disaster, such as Superstorm Sandy, Hurricane Irene, or Winter Storm Nemo. The Steering Committee chose (1) Newport/Middletown; (2) the South Coast, including coastal areas of Westerly, Charlestown, and South Kingstown; (3) Warren/Bristol; and (4) the Woonasquatucket River Watershed, including areas along the river in Providence, North Providence, Johnston, and Smithfield. Warwick/Cranston was selected as an alternate Pilot Area in the event that an additional area was needed to complete the goal of one hundred Vulnerability Assessments. The "Task 2: Exposure Analysis Report" contains more detail on this entire process.

For the Vulnerability Analysis task, the Project Team developed a comprehensive six-page checklist to collect information on the small business' operations, physical structure and location, and experiences with extreme weather events. The checklist ensured that all businesses who went through an assessment were asked the same questions. The Project Team attempted to use the business data from the Exposure Analysis to contact businesses to visit: however, this process proved very difficult, as some of the businesses from the database were no longer open and most businesses who were open did not respond to contact over email or telephone. Project Team members were required to go door-to-door to seek out small businesses with owners who were willing to meet for approximately an hour to cover the checklist. Through an extensive work effort, 102 assessments were completed: twenty-five in Newport/Middletown; twenty-three on the South Coast; twenty-five in Warren/Bristol; , twenty-six in the Woonasquatucket River Watershed; and three in Warwick/Cranston. The team learned that storms impacted multiple facets of businesses, including access to property and clients, lost time while making claims, and operation interruptions. Business owners were generally aware of risks and were working to increase resiliency to the best of their ability, but, overall, many businesses expressed a lack of knowledge of their insurance policies concerning what

would be covered and what would not in the event of a disaster. More information on this task can be found in the "Task 3: Vulnerability Analysis Report".

The Vulnerability Analysis fed directly into several other tasks intended to help inform the Risk Reduction Guides. The first of these tasks considered what types of risk reduction options could be implemented by small business owners to help their operations become more resilient. The Project Team conducted a literature review on what options might be available. These twenty risk reduction measures were combined with twenty-one measures observed at small businesses in Rhode Island during the Vulnerability Analysis. The "Task 4 Report: Risk Reduction Options" includes one-page summaries of each of these options capturing the cost, time, and space required to implement the measure. Required permitting or jurisdictional issues are also noted in these summaries.

The next task completed to inform the guides involved identifying the business typologies present in Rhode Island. Typologies captured both the business types commonly observed during field collection and differences in the expected vulnerabilities and risks of different businesses based on their features of concern. "Features of concern" could include the business site, its structure, its inventory, or the business operations. Eight different business typologies were identified:

- On-Site Customer Experience
- On-Site Intangible Goods
- Off-Site Intangible Service Provider
- Off-Site Tangible Service Provider
- Specialized Equipment
- Water-Dependent or Aquaculture
- Items in Risk Zone (basements or outdoors)

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• High-Value Assets Off-Site.

More details on the business typologies identified for this project can be found in the "Task 6: Business Typologies Report."

The final step of the project involved building on the previously-developed typologies by examining them in conjunction with business location, which inherently incorporates flood risk and hazard exposure type. This exercise resulted in a suite of "risk profiles" that provided the foundation for recommending specific risk reduction strategies to businesses and types of risk reduction guides. As with the business typologies, these risk profiles were informed by the vulnerability assessments and common scenarios observed in the field. The profiles and subsequent risk reduction strategies were designed to be applicable throughout the state. This process considered high-flood risk profiles and low-flood risk profiles where hazards other than flood, such as wind or snow, were the most significant. After determining the risk profiles, the Project Team recommended to the Steering Committee that Risk Reduction Guides be categorized by business type. The Steering Committee concurred with this recommendation because they believed business owners would be more drawn to a guide specific to their exact operations, such as a restaurant or construction. Using business typologies could require an owner to need multiple guides to cover all factors of his/her business. The "Task 8: Report on Risk Profiles" contains details on the process used and the risk profiles developed.

Each of these tasks informed the creation of the Risk Reduction Guides. Guides were created for eight different business types found throughout the state of Rhode Island.

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The guide types are:

- Lodging/Accommodations
- Construction
- Manufacturing
- Real Estate/Property Management
- Restaurant/Food
- Retail Businesses
- Service Provider
- Water-Dependent Businesses.

Each guide is tailored to its industry and provide direction to business owners on how to analyze both vulnerabilities and strengths in order to determine the best risk reduction options they should implement, based on available time, funds, and space. Two pages of the guide focus on insurance information. Many business owners expressed a need for a greater understanding of what is covered and what is not covered following a disaster.

To determine the effectiveness and quality of the guides, the draft guides were distributed to small business owners and others with knowledge about risk reduction measures. Qualitative and quantitative questions were asked, using both electronic and paper surveys. Detailed feedback was received from fifty-seven evaluations, and this feedback was used to make significant improvements to the guides. The "Task 11: Report of Marketing and Evaluation" contains details on the process used to collect feedback, tables of data on the quantitative responses received, and responses to the open-ended questions posed.

Although the creation of the Risk Reduction Guides was the ultimate outcome of this project, another important task was to develop a report capturing actionable

recommendations for state agencies, Recovery Support Function (RSF) teams, and local governments to support small business recovery after extreme weather events. For state agencies, these recommendations include: providing training for both small business owners and municipalities on topics such as preparedness, substantial damage, and substantial improvement; providing short-term, interest-free loans; expediting permitting processes following a disaster; and working with utilities to strengthen the grid. For the RSF teams, some recommendations include: funding local disaster recovery managers; creating statewide support networks; and staffing insurance professionals to help those in need. Local governments were advised to consider small businesses in local plans and zoning ordinances, to better communicate storms to local citizens; to maintain sidewalks during snowstorms; to consider the use of zoned snow parking bans; and to ensure local regulations address variances for historic buildings. The full list of recommendations can be found in the "Task 9: Resiliency and Recovery Recommendations Report."

Finally, a matrix was created that outlines the business types and typologies with the risk profiles and different jurisdictional and permitting for a future online tool. This tool would allow a business owner to input his/her business type, location, strengths, and vulnerabilities and would produce recommended risk reduction strategies, as well as any permitting or jurisdictional issues for the location.

Ultimately, this project met its intended outcomes by creating useful Risk Reduction Guides to assist Rhode Island small businesses in becoming more resilient to extreme weather events. The next steps for the state will be to launch the project to the small business community. This launch will include distributing five hundred hard copies of each guide statewide, maintaining the online presence of the project at <u>www.climatechangeri.gov</u>, and advertising the project at all possible opportunities to small business owners.

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