



Newport



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Municipal Resilience Program Community Resilience Building Workshop Summary of Findings September 2020



City of Newport

Community Resilience Building Workshop

Summary of Findings

Overview

The need for municipalities, regional planning organizations, states and federal agencies to increase resilience and adapt to extreme weather events and a changing climate is strikingly evident amongst the communities of the state of Rhode Island. Recent events such as Tropical Storm Irene and Super Storm Sandy have reinforced this urgency and compelled leading communities like the City of Newport to proactively collaborate on planning and mitigating risks. Ultimately, this type of leadership is to be commended because it will reduce the vulnerability and reinforce the strengths of people, infrastructure, and ecosystems and serve as a model for other communities across Rhode Island, New England, and the nation.

In the spring of 2020, the City of Newport embarked on certification within the newly established state of Rhode Island's Municipal Resilience Program (MRP). As an important step towards certification, Rhode Island Infrastructure Bank (RIIB) and the Nature Conservancy (TNC) provided the City with a community-driven process to assess current hazard and climate change impacts and to surface projects, plans, and policies for improved resilience. In August 2020, Newport's Core Project Team organized a Community Resilience Building Workshop lead by TNC in partnership with RIIB. The core directive of this effort was the engagement with and between community stakeholders to define strength and vulnerabilities and the development, planning, and ultimately, implementation of priority resilience actions for Newport.

The Newport Community Resilience Building Workshop's central objectives were to:

- Define top local natural and climate-related hazards of concern;
- Identify existing and future strengths and vulnerabilities;
- Identify and prioritized actions for the City of Newport;
- Identify opportunities to collaboratively advance actions to increase resilience.

The City of Newport employed a unique “anywhere at any scale”, community-driven process known as Community Resilience Building (CRB) (www.CommunityResilienceBuilding.org). The CRB’s tools, reports, and maps were integrated into the workshop process to provide both decision-support and visualization around shared issues and priorities across Newport. The Newport Natural Hazard Mitigation Plan (2016), Comprehensive Plan (2017), and Chapter 1 of Resilient Rhody were particularly instructive. Using the CRB process, rich with information, experience and dialogue, the participants produced the findings presented in this summary report including an overview of the top hazards, current concerns and challenges, existing strengths, and proposed actions to improve Newport’s resilience to hazards and climate change today, and in the future.

The summary of findings transcribed in this report, like any that concern the evolving nature of risk assessment and associated action, are proffered for comments, corrections, and updates from workshop attendees and other stakeholders alike. The leadership displayed by the Newport on community resilience building will benefit from the continuous participation of all those concerned.

Summary of Findings

Top Hazards and Vulnerable Areas for the Community

Prior to the CRB Workshop, the Core Project Team identified the top hazards for Newport. The hazard of greatest concern was major storms including hurricanes and Nor’easters. They also identified immediate concerns about pandemics and longer-term concerns about sea level rise. Additional key hazards discussed during the workshop included precipitation-driven flooding (that causes stormwater runoff) as well as heavy wind events. These hazards have direct and increasing impacts on Newport’s residents, tourists, and resources such as its neighborhoods, natural areas (rivers, wetlands, shorelines, beaches, salt marshes), roads, harbor, bridges, historic assets, municipal facilities, social support services for disproportionately disadvantaged populations, and other critical infrastructure and community assets.

Top Hazards and Areas of Concern for the Community

Top Hazards

- Hurricanes
- Seal Level Rise
- Pandemics

Areas of Concern in Newport* - Several categories and locations were identified as being particularly vulnerable by workshop participants including:

Infrastructure: The Gateway Center, Fire Station 1 (flood zone), Stormwater Infrastructure, Thames Street Forced Main, City Hall (within urban fire zone), Newport Police Station, Residential Structures (1,142 in flood hazard areas), Commercial Structures (341 in flood hazard areas), Wastewater Treatment Facility, Nursing & Elderly Care Facilities, Historic & Cultural Structures, Station 1 Water Treatment Plant, Sewer Pumping Station, National Historic Landmark Districts, Communications & Power Distribution System, Seawalls, Flat Roofs.

Ecosystems: Elizabeth Brook (daylighting), Gardner's Pond, Easton's Pond, Green End Pond, Fort Adams State Park, Freshwater Wetlands, Cherry Neck Creek, Newport Harbor, Narragansett Bay, Saltwater Resources, Cliff Walk, Beaches, Brenton Point State Park, Roadside Trees.

Roads, Bridges, and Road Network: Memorial Blvd at Easton's Beach, Ocean Drive Intersections, Bedlow Avenue, Sakonnet River Bridge, Mount Hope Bridge Jamestown Verrazano Bridge, Newport Claiborne Pell Bridge.

Neighborhoods/Areas: National Historic Districts, North End, Downtown Waterfront.

Vulnerable Populations: Elderly/Senior Citizens, Renters (50% of residents), Special Needs Residents, Disabled, Students, Visitors and Tourists, Local Business Owners, Veterans, Low-Income Residents, Working Waterfront Community.

*Information from workshop participants augmented with the Newport NHMP (2016). *See Appendix A for mitigation actions from the Newport NHMP (i.e. Section 5.4 - Table 5.3, 5.4, 5.5).*

Current Concerns and Challenges Presented by Hazards

The City of Newport has several concerns and faces multiple challenges related to the impacts of natural hazards and climate change. In recent years, Newport has experienced a series of highly disruptive and damaging weather events including March 2010 floods, Tropical Storm Irene (August 2011), Tropical Storm Sandy (October 2012), winter Nor'easter Nemo (February 2013), and other less impactful but more frequent events. Impacts from Irene included heavy, rain-included, inland flooding and wind damage. Sandy caused extended coastal erosion and power outages across portions of Newport. The winter storm Nemo dropped 19-20" of snow on the City knocking out power and isolating residents and neighborhoods due to extended road closures. The magnitude and intensity of these events and others across Rhode Island has increased awareness of natural hazards and climate change, while motivating communities like Newport to proactively and comprehensively improve resilience.

This series of extreme weather events highlights that for Newport the impacts from hazards are diverse; ranging from coastal flooding of critical infrastructure, bridges, roads, and low-lying areas near coast and inland during intense storms and heavy precipitation events to property damage from trees, wind, snow, and ice. Longer periods of elevated heat, particularly in July and August, have raised concerns about vulnerable segments of the population including the elderly and disabled. The combination of these issues presents a challenge to preparedness and mitigation priorities and requires comprehensive yet tailored action for particular locations and/or areas across Newport.

The workshop participants were generally in agreement that Newport is experiencing more intense and frequent storm events and heat waves. Additionally, there was a general concern about the challenges of being prepared with contingency plans for worst case scenarios (i.e. major disasters, storms, major hurricanes (Cat-3 or above)) throughout the year, but particularly in the fall/winter months due to more intense storms.



(Credit: NewYorkTimes)



(Credit: tripsavvy.com)



(Credit: savebay.org)

Specific Categories of Concerns and Challenges

As in any community, Newport is not uniformly vulnerable to hazard and climate change, and certain locations, resources, and populations have and will be affected to a greater degree than others. Workshop participants identified the following items as their community's key areas of concern and challenges across three categories - Infrastructure, Societal, and Environmental.

Infrastructure Concerns and Challenges

Roads, Bridges, and Road Networks:

- Low-lying coastal roads and select inland roads subjected to erosion and routine flooding from storm surge and stormwater runoff.
- Concerns about bridge closures for one or more bridges due to high winds and hurricanes resulting in isolation of Aquidneck Island municipalities and Naval Station from the mainland.
- Need to elevate ramp for new Pell Bridge proposal out of current/future flood zones.
- Island community dependent on bridges for access to food, health care, employment, etc. on the mainland.

Stormwater Management:

- Urban neighborhoods have small lots with poor-draining soil and high concentration of impervious surfaces.
- Stormwater runoff impacts water quality across Aquidneck Island.
- Relatively small precipitation events overwhelm the stormwater drainage system.
- There is a lack of understanding regarding the specific challenges to improving the stormwater system, particularly when combined with high tides, sea level rise, and major weather events.
- Lot coverage regulations do not include impervious surfaces - only the building footprint.
- Topography results in development with high percentages of impervious surfaces up on the ridges causing stormwater runoff impacting residents in low lying "downhill" areas.

Septic Systems:

- Privately owned and maintained on-site wastewater treatment systems in certain areas are subject to flooding in high flood and in high groundwater areas.

Specific Categories of Concerns and Challenges (cont'd)

Infrastructure Concerns and Challenges

Emergency Management and Preparedness:

- Need to continuously work to improve greater inter-department coordination.
- Existing evacuation routes are in need of updating.
- Ongoing concerns regarding communications and assistance effectively reaching the majority of residents during a major event - particularly those with special needs and/or mobility issues, including the elderly.
- Limited areas for debris storage and management post-disasters.

Housing:

- Direct impacts to structures from storms - flooding coupled with wind.
- Isolation of homes when road network is compromised for extended periods.
- Education of residential and commercial property owners about potential for current and future impacts to structures from wind, snow, and water.
- High percentage of Newport's built area is situated in the floodplain.

Societal Concerns and Challenges

Vulnerable Places/Populations:

- Low-lying waterfront that is center of social, tourism, and economic activities.
- Implications to local residents and visitors in neighborhoods susceptible to flooding and isolation due to compromised/limited access and egress (i.e. elderly, working poor, disabled individuals, veterans).
- Implications on disproportionately disadvantaged populations (i.e. elderly, working poor, etc.) due to flooding, winter storms, and heat waves.
- No plan in place to guide rebuilding of housing stock post-storm to improve resilience and accessibility, particularly for low income families (designs, guidelines, overlays).
- Limited engagement with and involvement of leaders from disproportionately disadvantaged neighborhoods.
- City struggling to attract a younger, vibrant, diverse workforce due to lack of affordable housing (i.e. wealth disparity).
- Aging population that is steadily shrinking over time.

Power:

- Power outages to residential homes and businesses, particularly during the winter months, increases risks to key groups, such as elderly and working poor families.

Specific Categories of Concerns and Challenges (cont'd)

Commercial/Historic Areas:

- Historic resources and sites located in flood zones.
- Commercial district located in flood zones.

Economy:

- Access to affordable high-speed broadband is a challenge.
- Heavy reliance on hospitality and tourism limits the upward, economic mobility of the workforce.
- Lack of adequate business continuity and recovery planning for major events.
- Boating industry vulnerable to impacts from storms.

Environmental Concerns and Challenges

Open Space:

- Lack of affordable opportunities to increase amount and distribution of open space for passive recreation and small-scale farming across City.

Beaches:

- Ongoing routine and episodic (e.g. Tropical Storm Sandy) erosion and loss of beaches has potential impacts on attraction of visitors and tourists.

Trees and Forests:

- Increasing impacts to tree health from pests and pathogens resulting in large population of dead and damaged standing trees that pose risks to power lines and increase blockage of roads during emergencies.
- Aging street trees - many over 100 years old - increasing risk of storm damage.

Salt Marsh:

- Loss of critical natural infrastructure in certain areas which reduces the protection of people and property from the impacts of climate change (e.g. loss of marsh leading to increased flooding and storm surge heights).



(Credit: Rhode Island Sea Grant)

Current Strengths and Assets

Just as certain locations, resources, and populations in Newport stand out as particularly vulnerable to the effects of hazards and climate change, other features are notable as affirmative assets to Newport's resilience efforts. Workshop participants identified the following items as their community's key strengths and expressed interest in using them as the core of future resilience building interventions.

- Clearly, the responsive and committed leadership exhibited by officials and staff is a very appreciated strength within Newport. Ongoing collaboration between the City, the business community, faith-based organizations, NGOs, Aquidneck Island municipalities, and state-level organizations will help advance comprehensive, cost-effective, community resilience building actions.
- The City has highly experienced staff with access to resources for common emergency situations. The coordination amongst various departments including leadership, Police, Fire, and EMS was cited as a highly valued community strength despite the ongoing need to maintain volunteers over time.
- City has a track record of effective planning alongside a community that is both engaged and generally aware of the of extreme weather and climate related issues.
- Up-to-date set of policy and planning documents including the Local Hazard Mitigation Plan and Comprehensive Plan that are being integrated by City Staff to ensure interconnectedness between documents.
- The positioning of Newport as a nationwide, coastal destination strengthens importance within state of Rhode Island.
- Relatively small population lends itself to adaptability and flexibility as a tight-knit community that pulls together and solving issues in a supportive manner particularly in the aftermath of major emergency events.
- Newport Hospital provides a local regional healthcare center.
- Engaged and committed philanthropic community via various foundations and grant making agencies on the island and in Rhode Island that deploy resources to address needs through local non-profits with solid long-term track records of community service.
- Healthy Equity Zone and Working Cities programs in the City.

Current Strengths and Assets (cont'd)

- Historic District Commission just approved guidelines for elevation of historic properties that has included student input from Roger Williams University.
- Public drinking water system is shared across multiple municipalities.
- Existing outreach efforts across the community already have helped to increase the local knowledge concerning how the impacts of climate change are coupled with the reality of additional risks associated with being an island and oceanfront community.
- The geographic boundary created by being on an island helps create a more cohesive, accessible, and connected community that recognizes shared vulnerabilities and responsibilities.
- Newport's deep-water harbor and semi-enclosed geography keeps the downtown area protected from the worst ocean storms.
- Despite some low elevation, the overall higher topography of the City increases the resilience from flood-related hazards (storm surge, sea level rise).
- Staff across departments are deeply aware of current vulnerabilities and have been addressing specific issues related to stormwater management, wastewater management, and drinking water for many years.
- The diversity of the Newport's economy including the marine trades, hospitality, manufacturing, innovation clusters, and U.S. Navy, among others, creates a relatively robust tax base.
- The North End Redevelopment planning and subsequent projects creates opportunities for the entire City to better understand how to improve resilience via green stormwater infrastructure, stormwater management, and other issues.
- The City is already engaged in previous and ongoing investments in waterfront infrastructure and development of Comprehensive Plan geared towards improving resilience longer-term.

Recommendations to Improve Resilience

A common thread throughout the workshop discussions was the recognition that Newport needs to be better prepared through longer term, community-based, contingency planning across all areas of concern. This need and additional ones surfaced and prioritized by the workshop participants are provided below across several sub-categories including capacity building, projects, plans/preparedness/studies/outreach, and policy. Mitigation actions from Newport NHMP (2016) are provided in Appendix A.

The workshop participants collectively identified several key areas stated here and reflected in the lists of potential actions below:

- Infrastructure improvements (as informed by longer-term strategic planning) to wastewater treatment system and facilities, stormwater management systems, and the transmission of drinking water supply.
- Enhancement of ecological assets within watersheds and neighborhoods via protection, restoration, and better management to improve the resilience of the City.
- Emergency preparedness, facilities, communications, sheltering, and continuation of services - both locally and regionally (i.e. Aquidneck Island).

Higher Priority Actions

Capacity Building:

- Leverage opportunities to collaborate on a regional basis with other municipalities on Aquidneck Island, as well as the U.S. Navy.
- Develop and establish a framework for commissions, boards and committees at the city level to ensure resilience is systemically integrated in operations and capital expenditures as well as increase planning staff capacity to manage effort.
- Reduce economic disparity by addressing economic challenges and by supporting more economic diversity across Newport. This includes making the issue the underpinnings for all needed infrastructure improvements, promotion of upward mobility across multiple economic sectors, and creation of more affordable housing to attract and/or retain younger residents.

Higher Priority Actions (cont'd)

Projects:

- Move Fire Station #1 in the flood zone to North End.
- Look to add a parking lot at the base of the Bridge as part of the Pell Bridge Ramp Realignment project.
- Identify and construct additional multi-modal transportation facilities across Newport as part of a network.
- Continue to work towards coordinated and dedicated, city-wide, municipal messaging network for emergency and non-emergency situations for diverse audiences include property owners, business community, renters, and visitors.
- Repurpose vacant, city-owned buildings as affordable apartments to attract new residents and help diversify the workforce.
- Invest in broadband access for all in Newport so families, individuals, businesses and schools have reliable internet access to function in the 21st century.
- Design and install green stormwater infrastructure and flood accommodation projects where deemed critical and needed to prevent ongoing and future flooding due to stormwater runoff.



(Credit: Lola Herrera-Ximinez (Bedlow Avenue 7/14/20))

Plans/Preparedness/Studies/Outreach:

- Look to use and leverage the ongoing North End Urban program as a model for future resilience efforts across Newport.
- Continue to implement policies and actions cited in Chapter 12 Water of the City's 2107 Comprehensive Plan, to accomplish Goals WA-1, WA-2, WA-3, WA-4 and WA-5 pertaining to potable water and the resilience of the drinking water supply.
- Design curriculum and conduct outreach within school system (all levels – kindergarten to college) on resilience to help empower young people with greater understanding and awareness of positive actions they can take to improve Newport.

Higher Priority Actions (cont'd)

Plans/Preparedness/Studies/Outreach:

- Develop and advance a cohesive and aggressive public outreach campaign focused on preventative actions that residents, businesses, and government can take to improve the overall resilience of Newport in the short and long term.
- Conduct prioritization and cost estimates for capital improvements flood management infrastructure such as sea walls, pump stations, and check valves across the City.

Policy:

- Develop interconnected and reinforcing design guidelines, regulations, and improved zoning to ensure current and future development and redevelopment are contributing to a more resilient future for Newport in the face of more extreme weather events coupled with a changing climate.
- Recognize economic value of environmental assets and prioritize their protection through stricter development regulations and capital improvement projects.
- Continue to evolve and update the regulatory process to ensure ongoing stormwater impacts are mitigated at the source and along the path of stormwater conveyance (i.e. ridge to low lying areas).
- Consider moratorium on additional impervious surfaces.
- Explore opportunities for establishing a stormwater utility within the municipality to provide an ongoing and matchable source of funding for infrastructure upgrades (i.e. gray and green stormwater infrastructure).

Community Resilience Building Workshop Recommendations

Priority Actions

Capacity Building:

- Provide capacity to help create plans to aid and restart businesses immediately after future major storm events.
- Increase the capacity of staff to effectively conduct maintenance and install improvements to the stormwater management systems.
- Initiate and establish a “Resiliency Commission” to improve coordination and accelerate execution of resilience-related actions across departments, boards, and other commissions.
- Continue to capitalize on leadership and expertise by routinely bringing Departments, Commissions, Council, and City Manager’s Office together to discuss current and future resilience of Newport.
- Explore possibility of setting up a Neighbor-helping-Neighbor network at the neighborhood level to help improve connectedness before, during, and after events.

Projects:

- Advance improvement to existing infrastructure and new development via a Green and Complete Streets program that also incorporates increased resilience to public amenities for residents and tourists.
- Reduce pollution in the Harbor to ensure long-term resilience of resource.
- Incorporate resilience designs to reduce vulnerability of structures in coastal downtown/historic area to better withstand future climate impacts.
- Generate list of top ten actions for individuals to take to increase household resilience and include in welcoming packets and community interaction points (i.e. store fronts, restaurants, real estate offices, library, City Hall, etc.).
- Advance designs and engineering plans for daylighting segments of the brook running down Malbone to the Bay (i.e. Elizabeth Brook).

Priority Actions (cont'd)

Projects:

- Expand green stormwater infrastructure projects in parking lots and front-yards.
- Expand bicycle infrastructure and sidewalks to promote health and alternative transportation, while encouraging residents to use sustainable transportation methods.
- Continue to replace trees removed during previous storms to help strengthen the overall tree canopy and reduce heat island effects in the downtown area.

Plans/Preparedness/Studies/Outreach:

- Develop neighborhood specific resiliency plans with an initial focus on low-lying neighborhoods including Thames Street, The Point, America's Cup Boulevard, and the 5th Ward.
- Examine the level of risk associated with insufficient food supply and storage facilities for all municipalities on Aquidneck Island in event that one or more bridges are rendered unusable (e.g. due to high winds and hurricanes).
- Improve outreach with senior citizens, particularly those in private facilities.
- Increase level of understanding and awareness amongst residents about the linkages between "uphill" and "downhill" (topographically) stormwater management issues in the Wellington area.
- Conduct more public education and outreach to residents on rain garden benefits and installation guidance.
- Conduct a reevaluation of the Comprehensive Plan and Hazard Mitigation Plan to ensure resilience is an integrated and core focus of these guiding documents.
- Conduct assessment of potential funding sources to advance projects that improve resilience in Newport.



Priority Actions (cont'd)

Plans/Preparedness/Studies/Outreach:

- Conduct detailed assessment of risk to historic and cultural assets from hazards and consideration of alternate locations for relocation, if feasible.
- Seek ways to link stormwater management plans (i.e. impervious surfaces and home gardens) with food system security/resilience improvements.
- Explore options to minimize contributions from Newport to statewide landfill currently managed by Rhode Island Resource Recovery in Johnston, Rhode Island as that landfill reaches capacity by 2034.
- Begin the process of developing potential responses and actions to various sea level rise scenarios that will ultimately require re-envisioning critical locations in Newport, such as the waterfront area.
- Provide city-wide forums in partnership with the Chamber of Commerce to better understand post-storm recovery obstacles and pre-storm preparedness steps to improve the resilience of Newport's business under short- (storm surge) and long-term (sea level rise and storm surge) scenarios.
- Conduct educational awareness training on examples of resilience practices, policies, and projects for Committees, Boards, and Commissions across City.

Policy:

- Promote and fund implementation of new ordinance designed to increase tree cover, reduce impervious cover, and attempt to accommodate widespread drainage issues.
- City Council to appoint task force to develop (in a collaborative fashion) design guidelines for development and redevelopment both pre- and post- major storm events.

Priority Actions (cont'd)

Policy:

- Initiate zoning code review and update, including overlays and/or special flood zone considerations, to ensure resilience is fully integrated into development and redevelopment activities and improvements.
- Explore options and define steps to establish a municipal “local business recovery fund” to provide, immediately after a disaster, critical funds for recovery of small businesses - prior to availability of state and federal assistance.
- Aggressively merge contiguous substandard lots of record as a means to help limit the increase of impervious surfaces across the City.
- Build more affordable housing to accommodate professionals and market Newport and Aquidneck Island as a coastal community that offers an attractive lifestyle within a vibrant, forward-looking destination.
- Change federal rules (Economic Development Administration) so that the Newport Chamber qualifies as an Economic Development District and is eligible to manage a revolving loan fund under the CARES Act.
- Explore opportunities and benefits of establishing resilience investment incentives to encourage proactive retrofits rather than letting businesses wait for assistance after a costly, major disaster or ongoing incremental increases in sea level rise.
- Modify zoning codes for parking lot and driveway materials to allow for more pervious surfaces to assist with greater infiltration of stormwater runoff.

CRB Workshop Participants: Department/Organization

City of Newport - Mayor's Office

City of Newport - City Manager's Office

City of Newport - Planning and Economic Development

City of Newport - Planning Department

City of Newport - Community Resilience

City of Newport - Public Services

City of Newport - Utilities

City of Newport - Police Department

City of Newport - Fire Department

City of Newport - Emergency Operations

City of Newport - Parks, Grounds & Forestry

City of Newport - Preservation Planning

City of Newport - Tree & Open Space Commission

City of Newport - Zoning Board

City of Newport - Planning Board

Newport Housing Authority

Aquidneck Island Planning Commission

Newport Health Equity Zone

Newport Restoration Foundation

Clean Ocean Access

Aquidneck Community Table

Fifth Ward Neighborhood Association

Newport Chamber of Commerce

Newport Core Project Team

Sarah Atkins - Community Resilience Specialist

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Ellen Nichols - Newport Energy & Environment Commission Member

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The Nature Conservancy - Adam Whelchel (Lead Facilitator)

The Nature Conservancy - Sue AnderBois (Lead Coordinator)

The Nature Conservancy - Drew Goldsman (Facilitator)

URI Coastal Resources Center - Teresa Crean (Facilitator)

URI Coastal Resources Center - Pam Rubinoff (Facilitator)

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Appendix A

Newport Natural Hazard Mitigation Plan (2016)

Mitigation Strategies - 2016-2021 Action Plan

Table/Matrix

(Section 5.4 - Table 5.3, 5.4, 5.5)

Table 5-3. Natural Hazard Mitigation Primary Actions

ACTION #	PRIORITY	HAZARD TYPE	POTENTIAL PROGRAM	DESCRIPTION OF STRATEGY	AFFECTED LOCATION	TYPE OF ACTIVITY	RELATED GOAL(S)	FUNDING SOURCES	TIMEFRAME (Section 5-1)	RESPONSIBLE DEPARTMENT	STATUS	NEW CONTINUED, MODIFIED FROM 2008
1	MEDIUM	ALL HAZARDS	EVACUATION SERVICE FOR ELDERLY, SPECIAL NEEDS, AND HOMEBOUND	CREATION OF EVACUATION SERVICE AND SUPPORT MECHANISMS FOR CITIZENS UNABLE TO SELF-EVACUATE.	CITY WIDE	HEALTH, SAFETY, AND WELFARE EMERGENCY RESPONSE	1, 3	POLICE DEPARTMENT BUDGET	NEAR-TERM	POLICE DEPARTMENT	POLICE AND FIRE HAVE ESTABLISHED PROCEDURES. NEMA & FIRST STUDENT ACT AS BACKUP. EXPANSION OF SERVICE TO BE EXPLORED.	CONTINUED
2	MEDIUM	ALL HAZARDS	SHELTER STUDY AND ACQUISITION OF ADDITIONAL FACILITIES IF NEEDED	EVALUATE EXPECTED SHELTER DEMAND AND EXISTING CAPACITY TO ASSURE NEED WILL BE MET	CITY WIDE	HEALTH, SAFETY, AND WELFARE EMERGENCY RESPONSE	1, 3	FIRE DEPARTMENT BUDGET	NEAR-TERM	FIRE DEPARTMENT	RED CROSS SHELTER STUDY COMPLETE. FURTHER STUDY NEEDED TO ASSES DEMAND VS. EXISTING CAPACITY.	CONTINUED
3	HIGH	ALL HAZARDS	PURCHASE GENERATOR TO INCREASE RESILIENCY OF HEALTH CARE FACILITIES DURING HAZARD EVENTS	PURCHASE HIGH OUTPUT EMERGENCY GENERATORS TO ENSURE HOSPITAL FACILITIES REMAIN OPERABLE WHEN POWER IS LOST	NEWPORT HOSPITAL	HEALTH, SAFETY, AND WELFARE	1, 3, 5, 7	PUBLIC/PRIVATE PARTNERSHIP, FEMA PREPAREDNESS GRANT	NEAR-TERM	CIVIC INVESTMENT	NOT COMPLETED. REQUIRES FUNDING	CONTINUED
4	MEDIUM	ALL HAZARDS	PUBLIC EDUCATION/ INFORMATION DISSEMINATION	IMPLEMENT EDUCATION & OUTREACH WORKSHOPS FOCUSING ON HAZARD MITIGATION READINESS AND PREPAREDNESS	CITY WIDE	HEALTH, SAFETY, AND WELFARE PROPERTY PROTECTION	1, 2, 3, 4, 6, 7, 8, 9	FIRE PREVENTION BUDGET	NEAR-TERM	CIVIC INVESTMENT ENGAGE NEWPORT	"CODE RED" EMERGENCY COMMUNICATION COMPLETE. FURTHER STUDY RECOMMENDED EXPLORING OTHER OUTREACH OPPORTUNITIES.	MODIFIED
5	HIGH	ALL HAZARDS	IMPLEMENT PROTECTIVE MEASURES TO PROTECT HISTORIC STRUCTURES AND COLLECTIONS	DEVELOPMENT AND IMPLEMENTATION OF A PLAN TO PROTECT HISTORIC STRUCTURES, COLLECTIONS, AND PUBLIC RECORDS	CITY WIDE	PROPERTY PROTECTION RESOURCE PRESERVATION	2, 4, 5, 6, 7, 8	PUBLIC/PRIVATE PARTNERSHIP, GRANTS	NEAR-TERM	CIVIC INVESTMENT ENGAGE NEWPORT	NEW ACTION	NEW
6	LOW	FLOOD EVENTS	CATEGORIZE PRIORITY ACTIVITIES FOR CITY OWNED FLOOD RISK STRUCTURES	MITIGATE STRUCTURES MOST LIKELY TO BE DAMAGED DURING A HAZARD EVENT	CITY WIDE & FLOODPLAIN	PROPERTY PROTECTION	2, 3, 5, 6, 7, 8	TBD DEPENDENT ON FACILITY	MEDIUM-TERM	BUILDING OFFICIAL	NOT COMPLETED	MODIFIED

ACTION #	PRIORITY	HAZARD TYPE	POTENTIAL PROGRAM	DESCRIPTION OF STRATEGY	AFFECTED LOCATION	TYPE OF ACTIVITY	RELATED GOAL(S)	FUNDING SOURCES	TIMEFRAME Section 5-1	RESPONSIBLE DEPARTMENT	STATUS	NEW, CONTINUED, MODIFIED FROM 2008
7	MEDIUM	ALL HAZARDS	REVISE ZONE CODE	REVISE, AMEND AND ENFORCE ZONING CODE TO MANAGE LAND IN VULNERABLE AREAS	CITY WIDE	PROPERTY PROTECTION RESOURCE PRESERVATION	2, 4, 5, 6, 7, 8	NONE REQUIRED	MEDIUM-TERM	ZONING OFFICIAL	NEW ACTION	NEW
8	HIGH	STORM SURGE	SEA WALL SUSTAINMENT	PREVENTATIVE MEASURES FOR SEA WALLS AND CLIFF WALK TO MINIMIZE DAMAGE FROM STORM SURGE	COASTAL	PROPERTY PROTECTION	2, 3, 4, 6, 7	FEMA MITIGATION GRANT	NEAR-TERM	PUBLIC SERVICES DEPARTMENT	NOT COMPLETED	MODIFIED
9	LOW	FLOOD EVENTS	ELIMINATE FLOOD RISK TO REPETITIVE LOSS PROPERTIES	DETERMINE APPROPRIATE ACTIONS TO MITIGATE FLOOD RISK TO REPETITIVE LOSS STRUCTURES.	FLOODPLAIN	PROPERTY PROTECTION	2, 4, 7	BUILDING DEPARTMENT BUDGET	MEDIUM-TERM	BUILDING OFFICIAL	NOT COMPLETED: WORKING WITH CRC/CRMC TO DETERMINE IMPROVEMENTS	MODIFIED
10	MEDIUM	URBAN FIRE	CONDUCT A VULNERABILITY ASSESSMENT OF PRE-CODE STRUCTURES	PERFORM STUDY TO DEVELOP ACTIONS WHICH WILL REDUCE FIRE SPREAD POTENTIAL IN URBAN FIRE ZONE	URBAN FIRE ZONE	PROPERTY PROTECTION	1, 2, 3, 4, 5, 6, 7, 8	FIRE DEPARTMENT BUDGET	MEDIUM-TERM	FIRE DEPARTMENT	COMPLETE REVISION OF RI FIRE CODE BUILDING CODE UPDATES & REMOVAL OF GRANDFATHER LAWS. ZONING CODE UPDATES RECOMMENDED	MODIFIED
11	HIGH	FLOOD EVENTS	PROTECT WASTEWATER SYSTEM	SEPARATE REMAINING COMBINED SEWER AND STORM WATER DRAINAGE SYSTEMS. PROTECT WASTEWATER TREATMENT FACILITY	COASTAL	HEALTH, SAFETY, & WELFARE RESOURCE PRESERVATION	1, 2, 5	OPERATING BUDGET, GRANT	LONG-TERM	UTILITY DEPARTMENT	WORKING WITH RIDEM & EPA TO DEVELOP A SYSTEM MASTER PLAN FOR LONG TERM CONTROL OF COMBINED SEWER OVERFLOWS	NEW
12	HIGH	FLOOD EVENTS/SURGE	PROTECT POTABLE WATER SUPPLY	USE RESULT OF REGIONAL STUDY TO DEVELOP AND IMPLEMENT MITIGATION ACTIONS TO REDUCE VULNERABILITY	CITY WIDE	HEALTH, SAFETY, & WELFARE RESOURCE PRESERVATION	1, 3, 5	FEMA MITIGATION GRANT	MEDIUM-TERM	UTILITY DEPARTMENT	NEW ACTION	NEW

ACTION #	PRIORITY	HAZARD TYPE	POTENTIAL PROGRAM	DESCRIPTION OF STRATEGY	AFFECTED LOCATION	TYPE OF ACTIVITY	RELATED GOAL(S)	FUNDING SOURCES	TIMEFRAME Section 5-1	RESPONSIBLE DEPARTMENT	STATUS	NEW, CONTINUED, MODIFIED FROM 2008
13	MEDIUM	ALL HAZARDS	IMPLEMENT EMERGENCY PLANNING AND PERMITTING PROCEDURES	ALLOW FOR A STREAMLINE PROCESS TO ASSURE EFFICIENCY IN THE REBUILDING PROCESS AFTER A DISASTER	CITY WIDE	EMERGENCY RESPONSE	3, 4, 7, 10	NONE REQUIRED	NEAR-TERM	PLANNING & ZONING DEPARTMENT	NOT COMPLETE	CONTINUED
14	LOW	ALL HAZARDS	DEVELOP AN ACQUISITION PROGRAM	CREATE A BUYOUT PROGRAM TO ALLOW FOR ACQUISITION OF LOCAL AT-RISK RESIDENTIAL STRUCTURES	CITY WIDE	EMERGENCY RESPONSE	3, 4, 6, 8, 9, 10	OPERATING BUDGET FEMA HMGP	MEDIUM-TERM	PLANNING & ZONING DEPARTMENT	NOT COMPLETE	CONTINUED
15	HIGH	ALL HAZARDS	DEVELOP A DISASTER RECOVERY PLAN	AN EFFECTIVE DISASTER RECOVERY PLAN INCREASES PREPAREDNESS AND ACCELERATES THE RECOVERY PROCESS	CITY WIDE	EMERGENCY RESPONSE	1, 2, 3, 4, 6, 7, 10	OPERATING BUDGET FEMA PREPAREDNESS GRANT	NEAR-TERM	PLANNING & ZONING DEPARTMENT	NOT COMPLETE	NEW
16	HIGH	ALL HAZARDS	INCREASE LOCAL SHELTER CAPACITY	DEVELOP ADDITIONAL LOCAL SHELTERING CAPACITY TO SUPPORT YEAR-ROUND AND SEASONAL POPULATION	CITY-WIDE	EMERGENCY RESPONSE	1, 3, 5, 7, 10	OPERATING BUDGET FEMA PREPAREDNESS GRANT	NEAR-TERM	PLANNING & ZONING DEPARTMENT	NOT COMPLETE	NEW

Table 5-4. Natural Hazard Mitigation Continuity Actions

SUSTAINMENT ACTION #	PRIORITY	HAZARD TYPE	POTENTIAL PROGRAM	DESCRIPTION OF STRATEGY	AFFECTED LOCATION	TYPE OF ACTIVITY	RELATED GOAL(S)	FUNDING SOURCES	TIMEFRAME Section 5-1	RESPONSIBLE DEPARTMENT	STATUS	NEW, CONTINUED, MODIFIED FROM 2008
17	HIGH	ALL HAZARDS	IMPROVEMENT OF EVACUATION ROUTES	STUDY OF EXISTING EVACUATION ROUTES PAYING CLOSE ATTENTION TO HIGH TOURIST VOLUME	CITY WIDE	HEALTH, SAFETY, AND WELFARE	1, 2	POLICE DEPARTMENT BUDGET	NEAR-TERM	POLICE DEPARTMENT	EVACUATION ROUTE CREATED & POSTED BY RIEMA. ONGOING MAINTENANCE AND IMPROVEMENTS DESIRED.	CONTINUED
18	HIGH	ALL HAZARDS	ROAD RECONSTRUCTION	SPECIAL PROJECTS FOR CRITICAL ROADS TO BE USED DURING EVACUATION TO ENSURE OVERALL READINESS	CITY WIDE	HEALTH, SAFETY, AND WELFARE	1, 2	PUBLIC SERVICES BUDGET	NEAR-TERM	PUBLIC SERVICES DEPARTMENT	ONGOING PAVEMENT MANAGEMENT SYSTEM INSTITUTED TO MONITOR PROGRESS AND GIVE PRIORITY TO DAMAGED ROADS	CONTINUED
19	HIGH	ALL HAZARDS	REDUCE VULNERABILITY TO POWER AND COMMUNICATION INFRASTRUCTURE	MAINTAIN ROADSIDE TREES TO FACILITATE QUICKER ROADWAY CLEARING	CITY WIDE	EMERGENCY RESPONSE MEASURES	1, 2, 4, 5, 7	CITY ARBORIST BUDGET PUBLIC/PRIVATE PARTNERSHIP	NEAR-TERM	CITY ARBORIST	ONGOING	CONTINUED
20	MEDIUM	ALL HAZARDS	MAINTAIN DEBRIS MANAGEMENT PLAN	MAINTAIN DEBRIS MANAGEMENT PLAN AND EXERCISE PLAN TO ASSURE RESOURCES ARE IN PLACE FOR RAPID DEBRIS REMOVAL FROM ESSENTIAL ROADWAYS	CITY WIDE	EMERGENCY RESPONSE MEASURES	1, 2, 7	PUBLIC SERVICES BUDGET	NEAR-TERM	PUBLIC SERVICES DEPARTMENT	ONGOING	CONTINUED

5.5 Supporting Activities

The following table contains actions that were included in the 2008 Plan. While they are important components of the overall mitigation strategy, the actions in this table are now viewed as supporting activities.

Table 5-5. Supporting Activities – 2008 Hazard Mitigation Plan

EXIST. PROGRAM	DESCRIPTION	COVERAGE	ENFORCEMENT	EFFECTIVENESS	IMPROVEMENTS
DRAIN MAINTENANCE	REPAIR & CLEAN PIPES & STRUCTURES	CITY WIDE	UTILITIES DEPT.	REFER TO DPS DIR.	MORE BONDS & PERSONNEL
DRAINAGE INVENTORY	HARD COPY MAPS WITH PROJECT LIST	CITY WIDE	UTILITIES DEPT.	MODERATE	NONE
ROAD INVENTORY	LIST OF ROAD LENGTHS AND CONDITION	CITY WIDE	DPS ENG. DIVISION	MODERATE	MAINTAIN CURRENT LIST USING PAVEMENT MANAGEMENT PROGRAM
ROAD RECONSTRUCTION	ANNUAL PAVING PROGRAM THRU BIDDER	CITY WIDE	DPS	VERY EFFECTIVE	INCREASE PAVING BUDGET
SIGNAGE INVENTORY	LIST OF TRAFFIC REGULATIONS @ DPW	CITY WIDE	DPS TRAFFIC DIVISION	MODERATE	NONE.
SLOPE PROTECTION	SOIL EROSION AND SEDIMENT CONTROL PERMITS	CITY WIDE	BUILDING DEPT.	MODERATE	NONE
SNOW PLOWING	PLOWING CITY STREETS DURING SNOW STORM	CITY WIDE	DPS STREETS AND SIDEWALKS	EFFECTIVE	NONE
STORM WATER	DESIGN AND INSTALL DRAINAGE SYSTEMS	CITY WIDE	UTILITIES	EFFECTIVE	MORE FED/STATE GRANTS
VEHICLE MAINTENANCE	MAINTAIN MUNICIPAL VEHICLES; STAFF CALL LIST	CITY WIDE	DPS EQUIPMENT OPERATIONS	VERY EFFECTIVE	NONE
SOIL AND SLOPE PROTECTION REGS	REMOVAL OF SOIL OR CHANGING CONTOUR	CITY WIDE	DPS AND BLDG. DEPT	HIGH	NONE
BUILDING CODE FOR MULTI-FAMILY, COMMERCIAL AND INDUSTRIAL BUILDINGS	FOLLOW RISBC 1 2007	CITY WIDE	BLDG. DEPT INSPECTION DIVISION	HIGH	NONE
RESIDENTIAL 1 & 2 FAMILY CODE	FOLLOW RISBC 2 2006	CITY WIDE	BLDG. DEPT INSPECTION DIVISION	HIGH	NONE

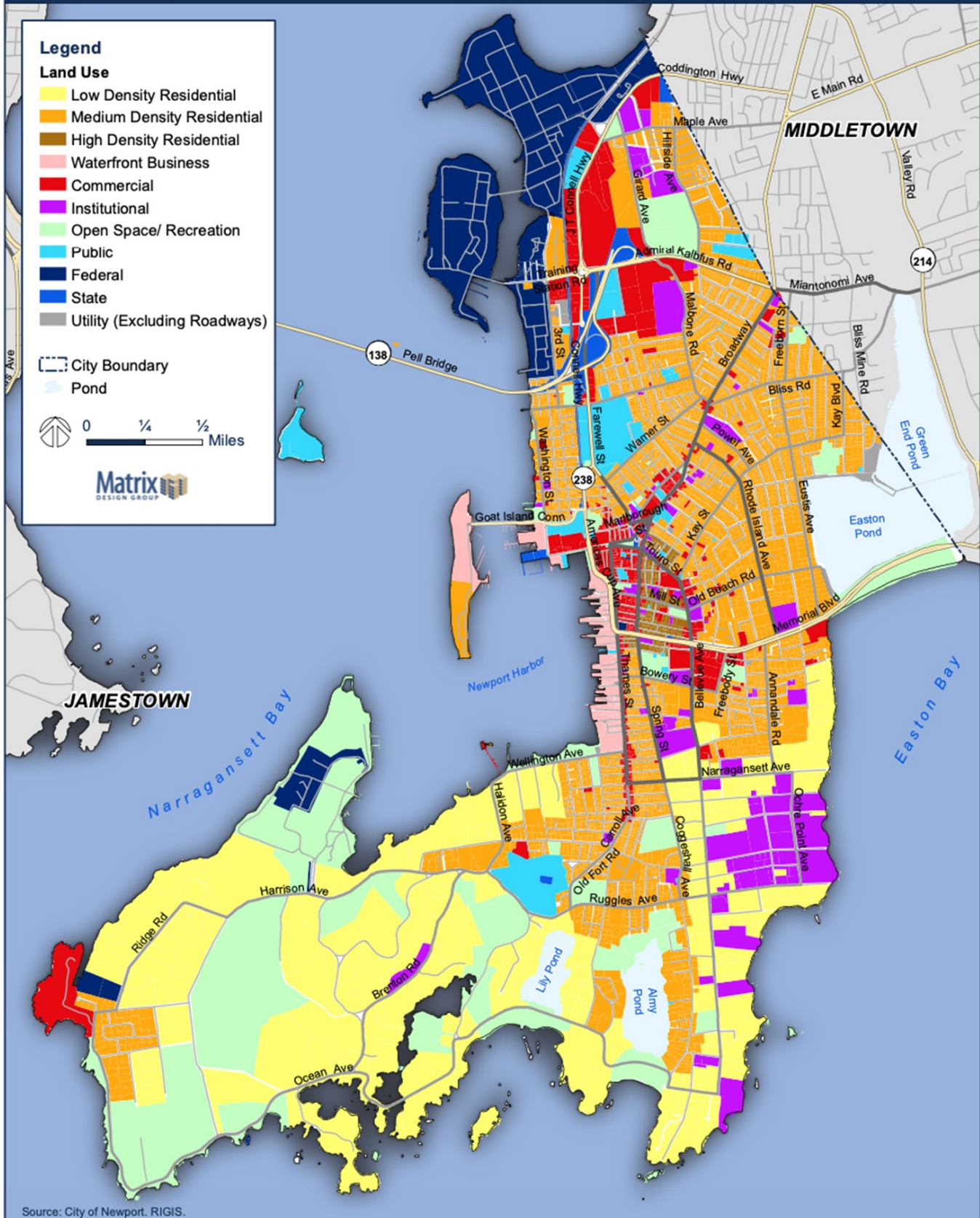
Table 5-5. Supporting Activities (continued)

EXIST. PROGRAM	DESCRIPTION	COVERAGE	ENFORCEMENT	EFFECTIVENESS	IMPROVEMENTS
ZONING ORDINANCE MAX. BUILDING HEIGHT	MAX 45 FT. HEIGHT FOR STRUCTURES	CITY WIDE	ZONING	HIGH	NONE
MIN. HOUSING CODE PROPERTY MAINTENANCE	FOLLOW RHODE ISLAND GENERAL HOUSING AND OCCUPANCY CODE	CITY WIDE	BLDG. DEPT MINIMUM HOUSING INSPECTOR	HIGH	NONE
EVACUATION ROUTES	MAINTAIN EXISTING EVACUATION ROUTES	CITY WIDE	DPS STREETS AND SIDEWALKS	HIGH	NONE
EVACUATION ROAD RECONSTRUCTION	MAINTAIN CRITICAL ROADS USED DURING EVACUATION TO ENSURE READINESS	CITY WIDE	DPS STREETS AND SIDEWALKS	HIGH	NONE
INVENTORY OF ROADSIDE TREES	MAINTAIN INVENTORY OF ROADSIDE TREES TO FACILITATE QUICKER ROADWAY CLEARING	CITY WIDE	DPS & RIDOT	HIGH	NONE
DEBRIS MANAGEMENT PLAN	MAINTAIN DEBRIS MANAGEMENT PLAN	CITY WIDE	DPS & RIDOT STREETS AND SIDEWALKS	HIGH	DEVELOP A DEBRIT MANAGEMENT STRATEGY AT THE REGIONAL LEVEL. CREATE A CENTRALIZED LARGE SCALE DEBRIT MANAGEMENT SITE

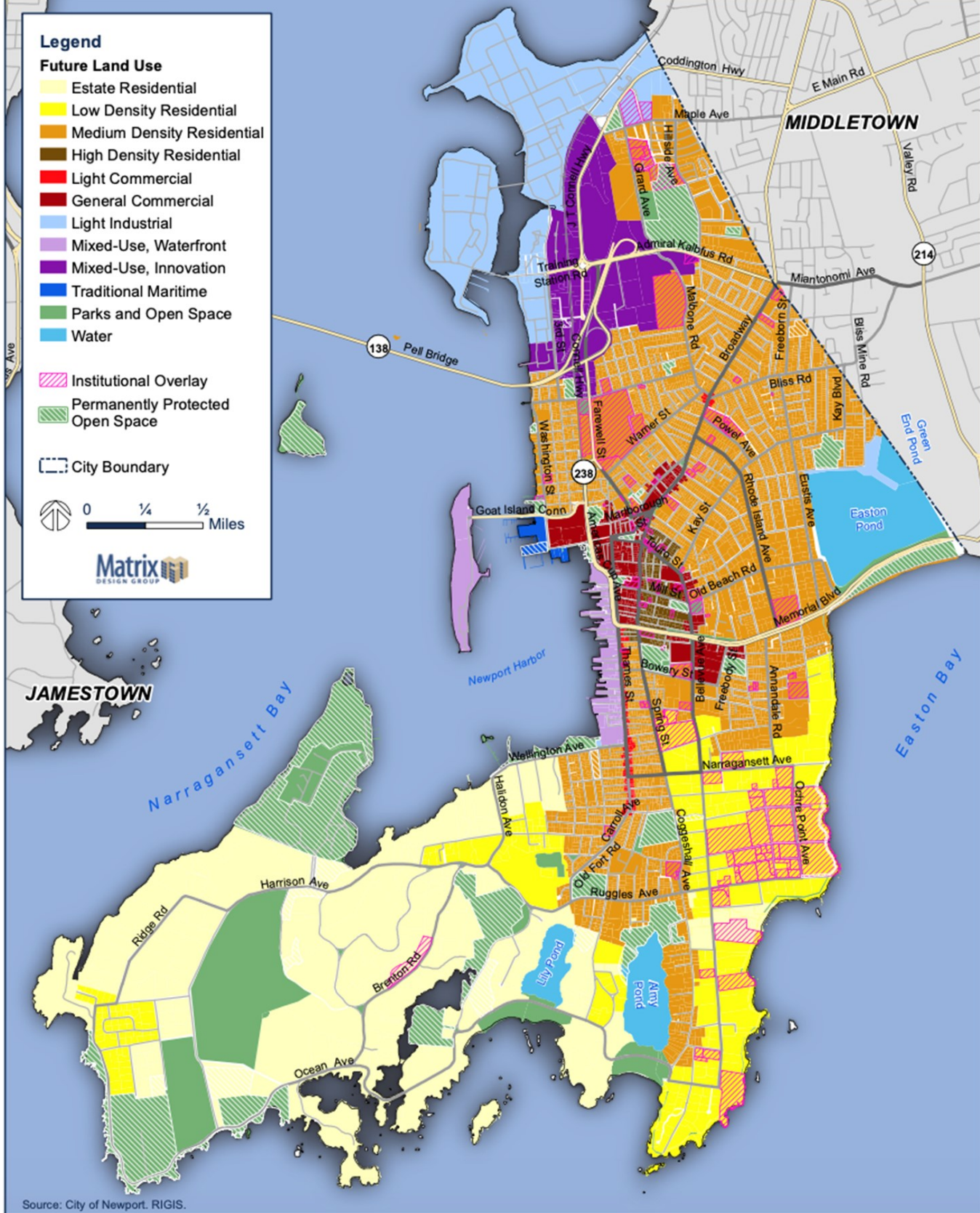
Appendix B

Newport Map Resource Packet* Used During Workshop

***Gathered from Local Hazard Mitigation Plan (2016) & Comprehensive Plan (2017)**

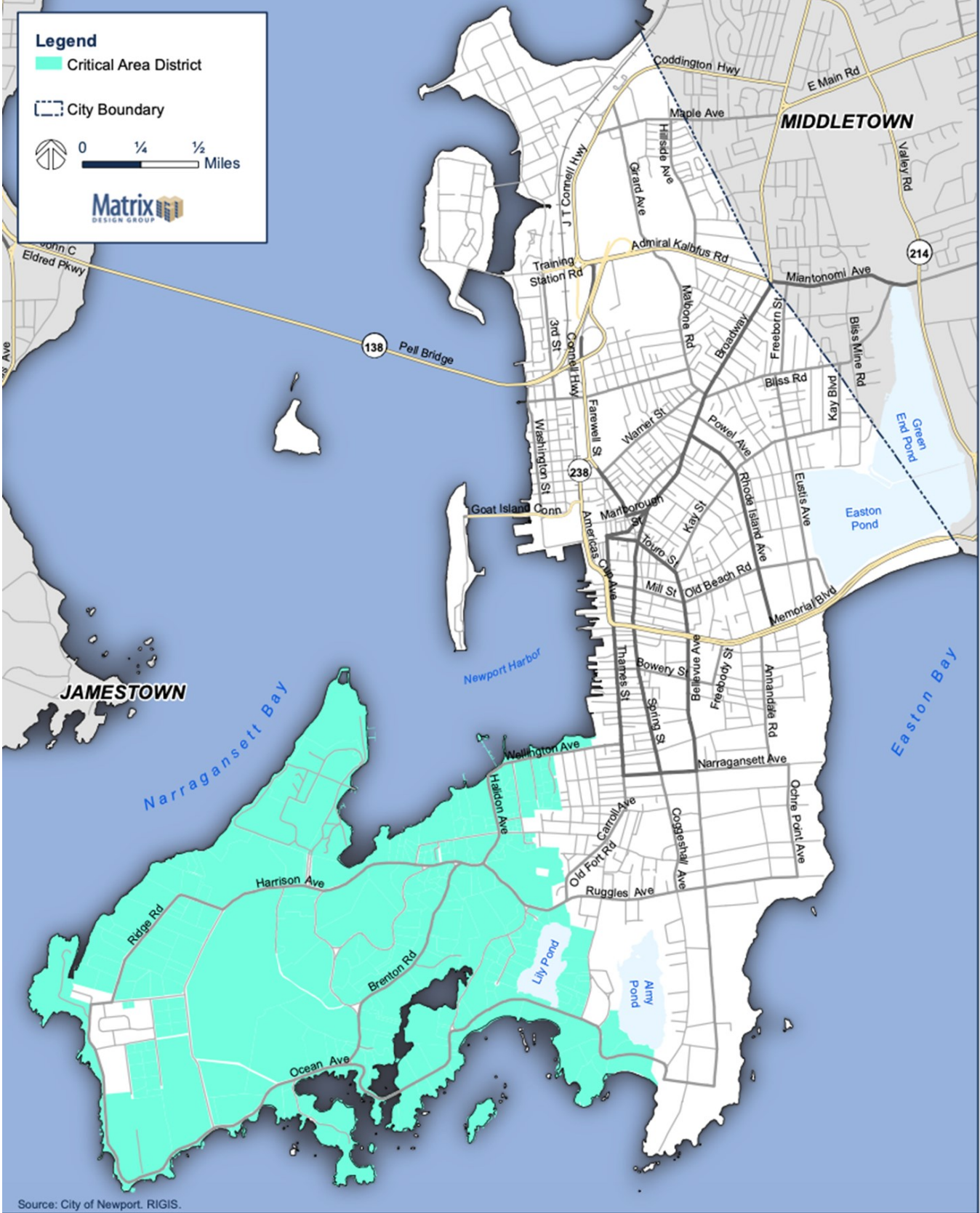


Source: City of Newport. RIGIS.



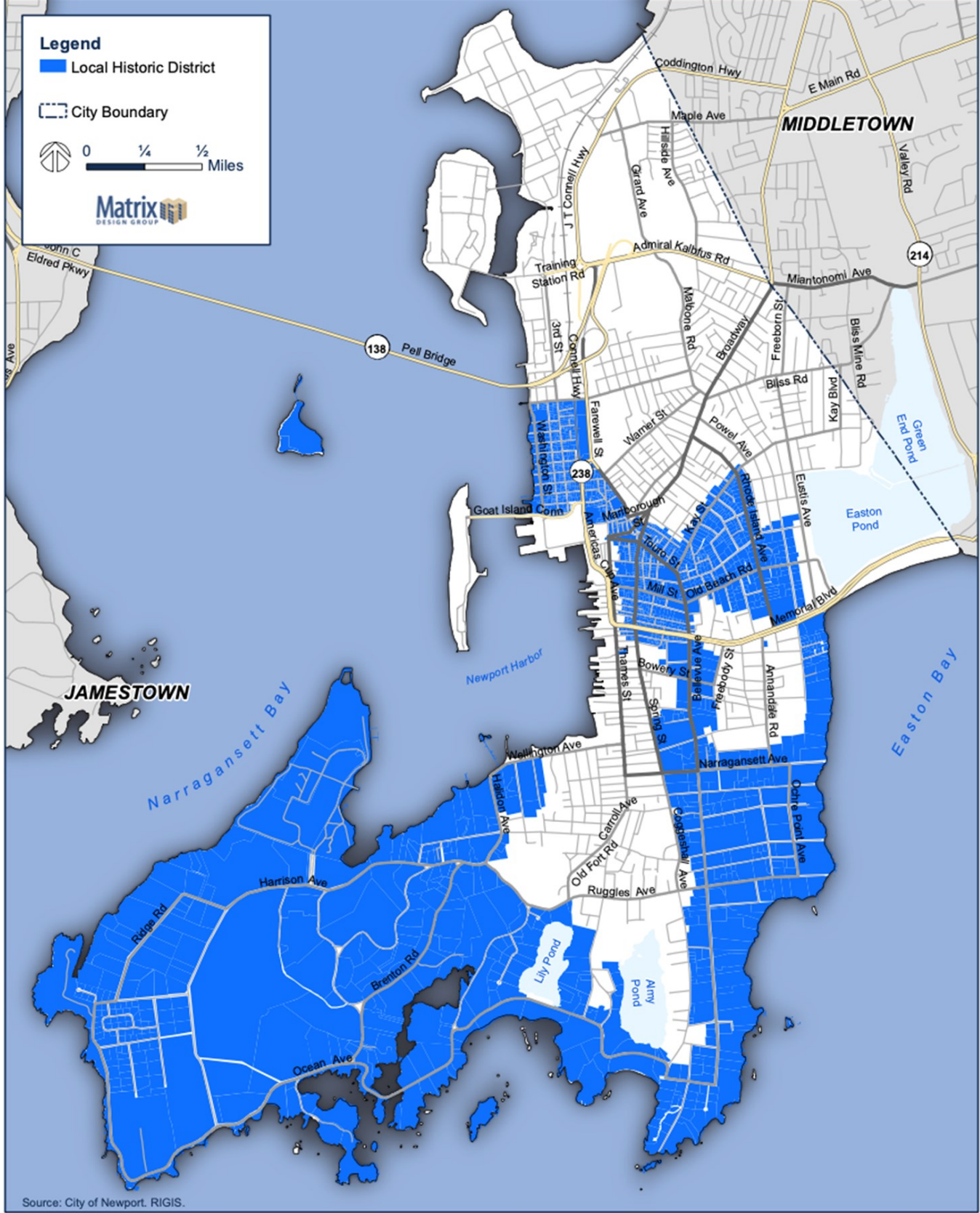


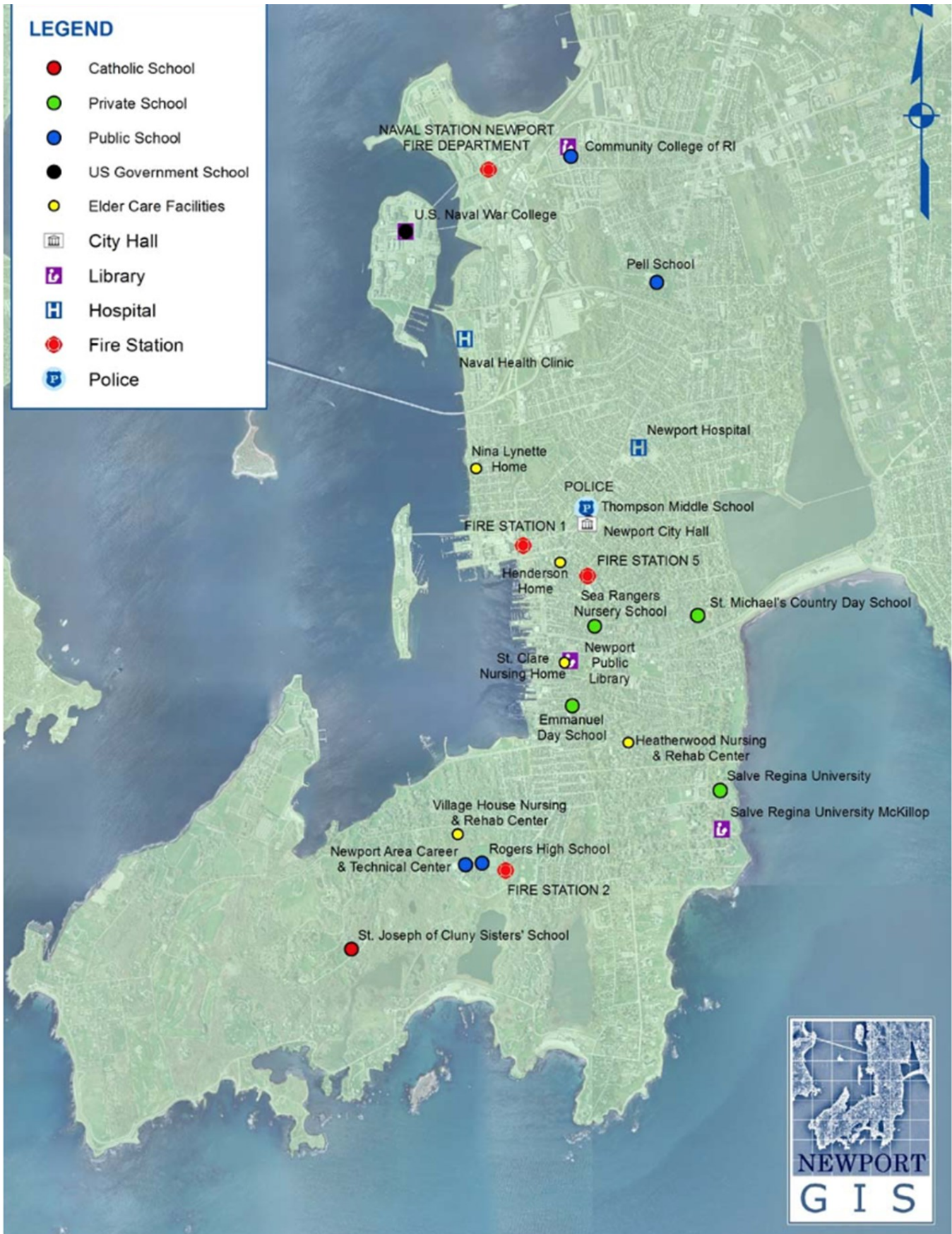
Critical Area Review – Ocean Drive District





Local Historic District Zoning

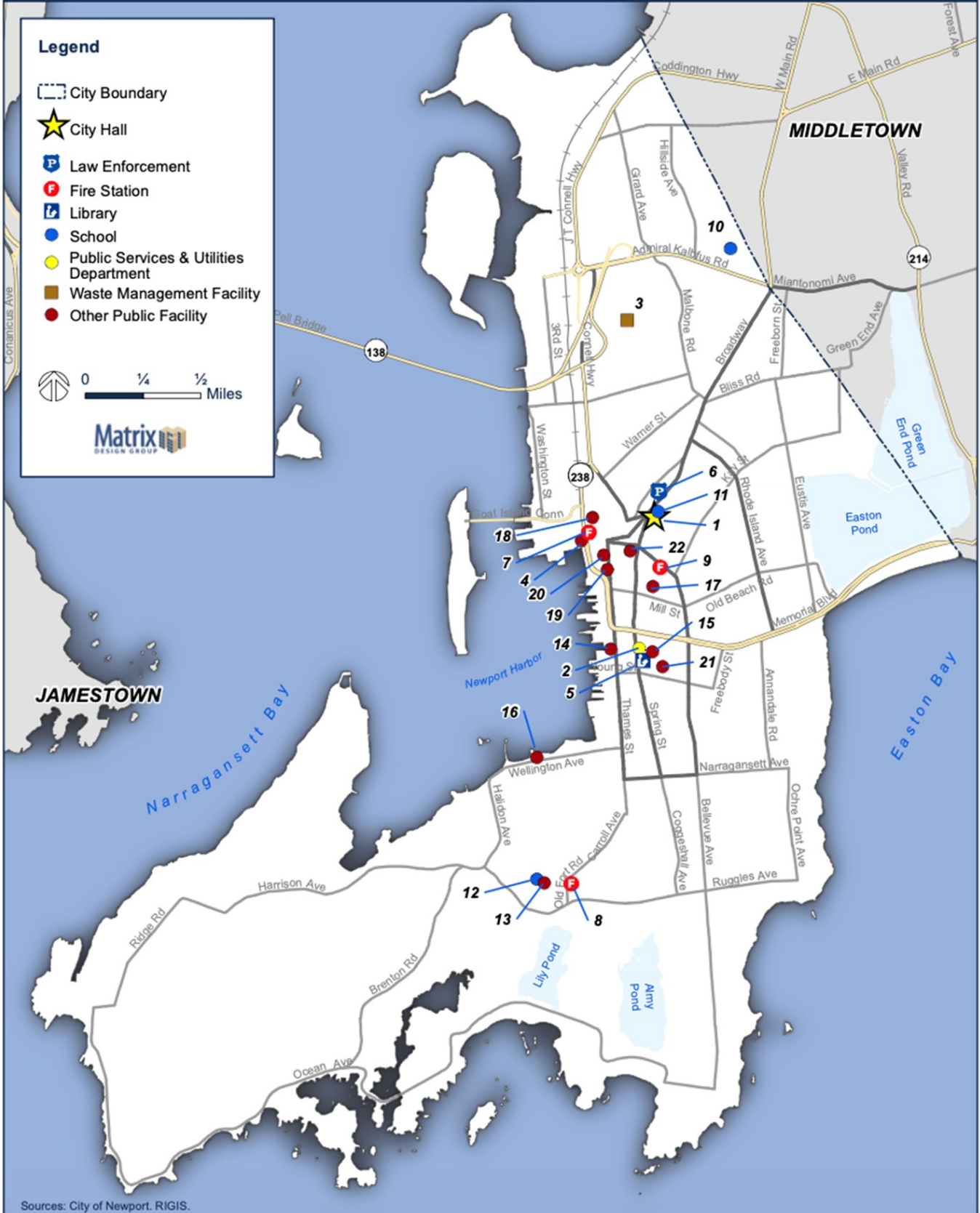




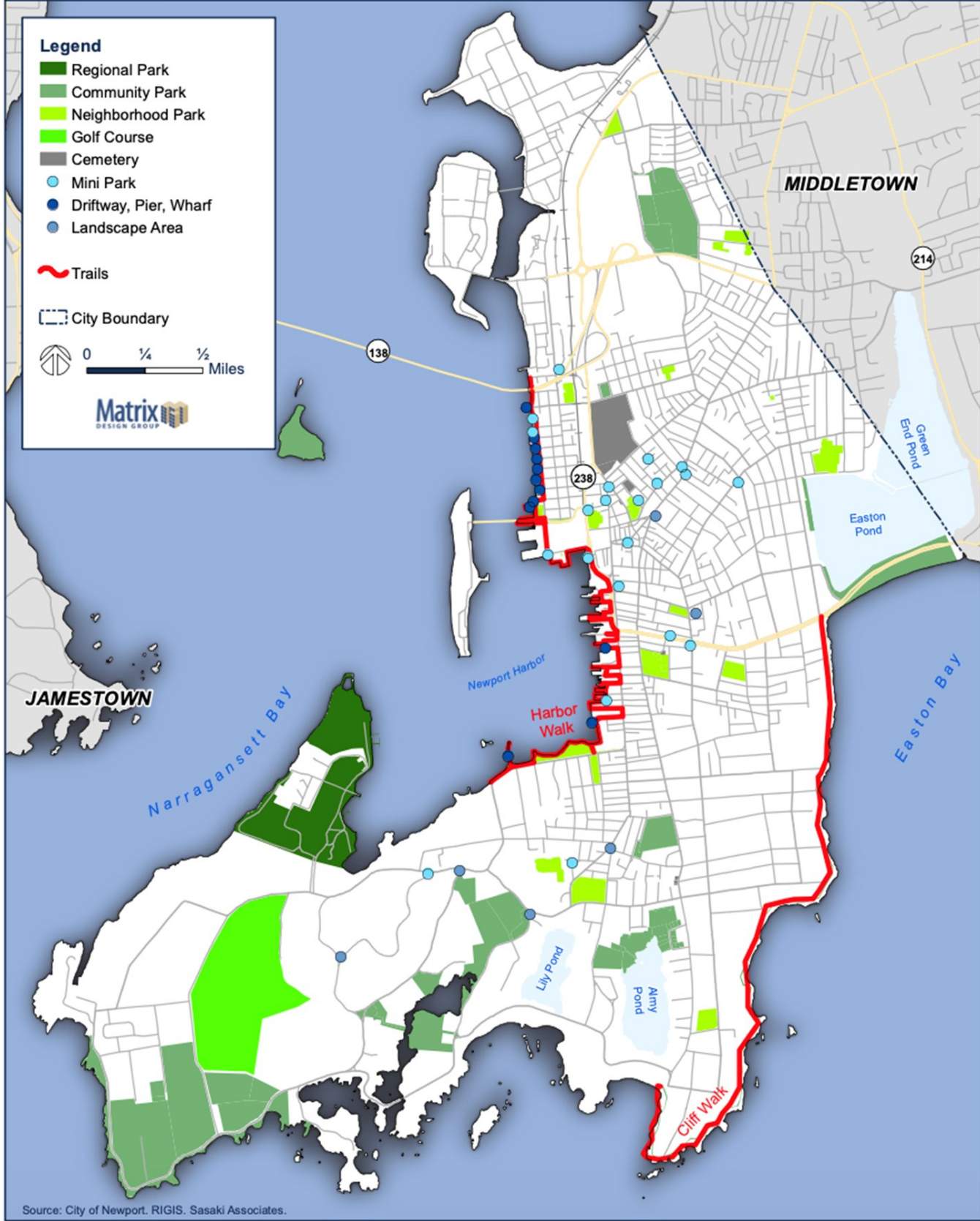
Map 1 – Critical Facilities



Newport Public Facilities Map



Sources: City of Newport. RIGIS.



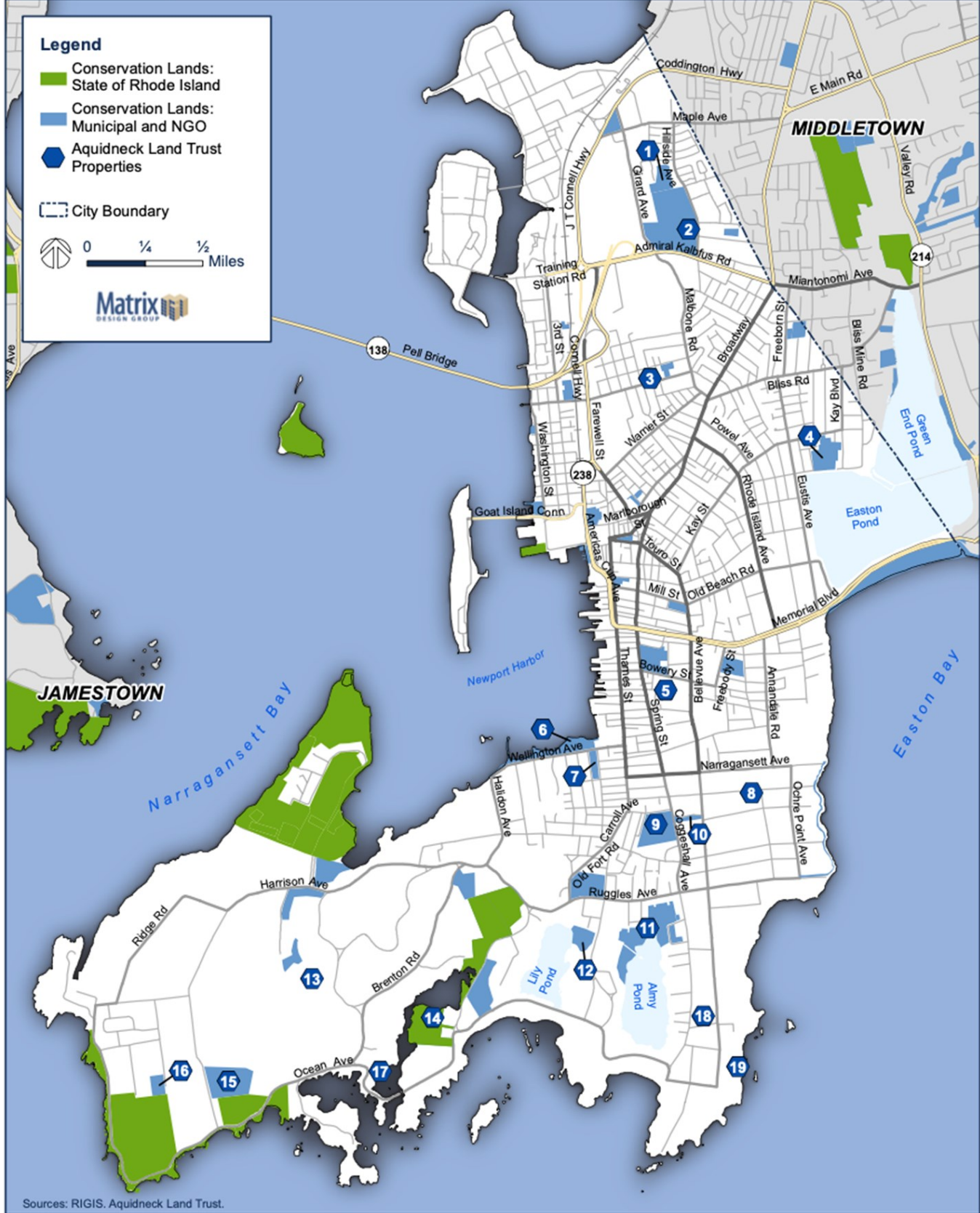
Source: City of Newport, RIGIS, Sasaki Associates.







Existing Protected Conservation Areas

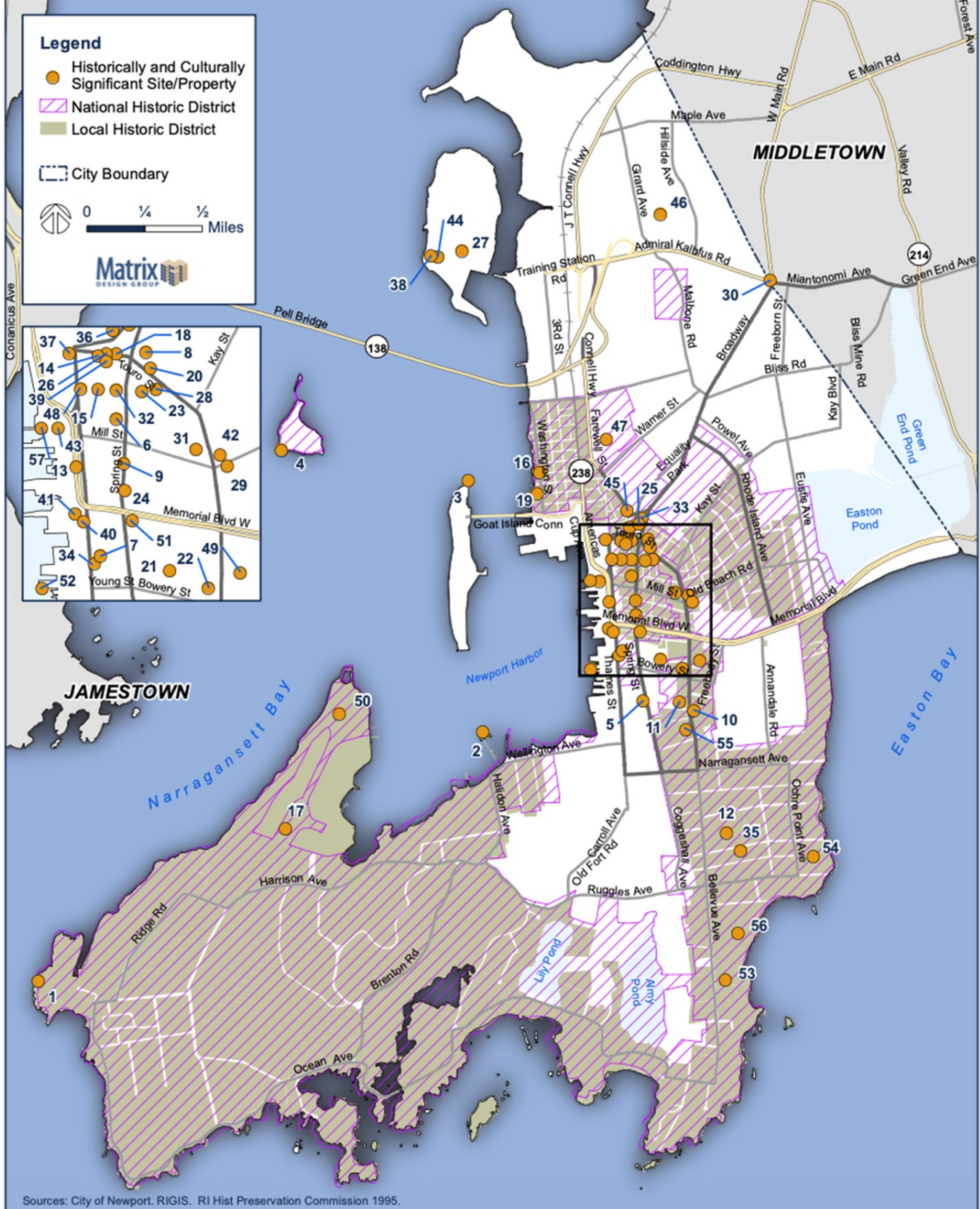
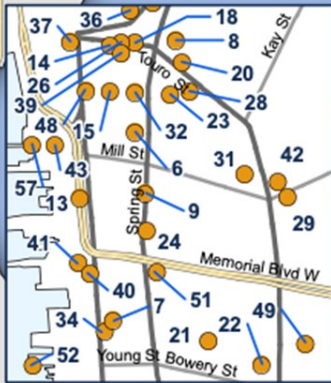




Legend

- Historically and Culturally Significant Site/Property
- National Historic District
- Local Historic District

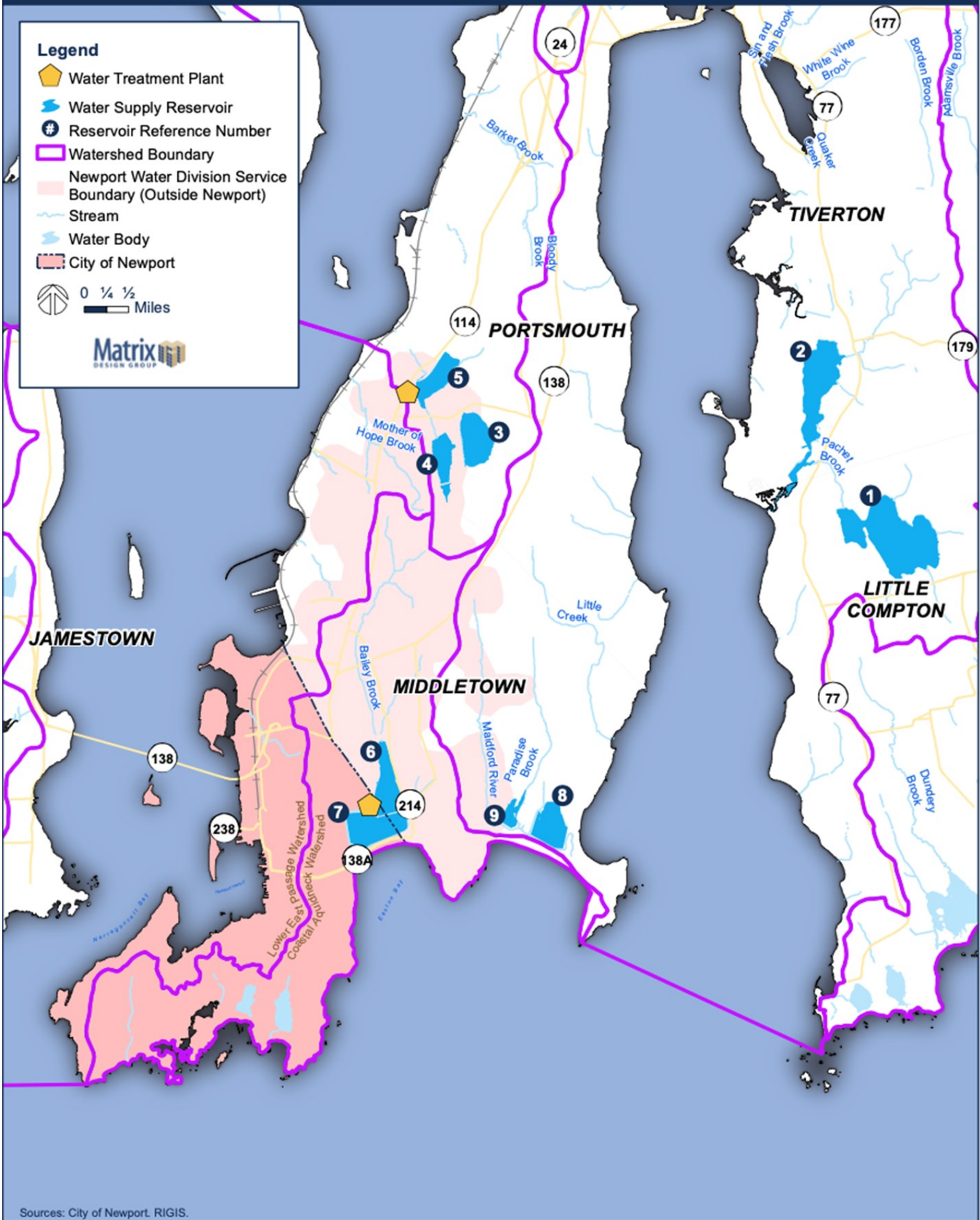
City Boundary



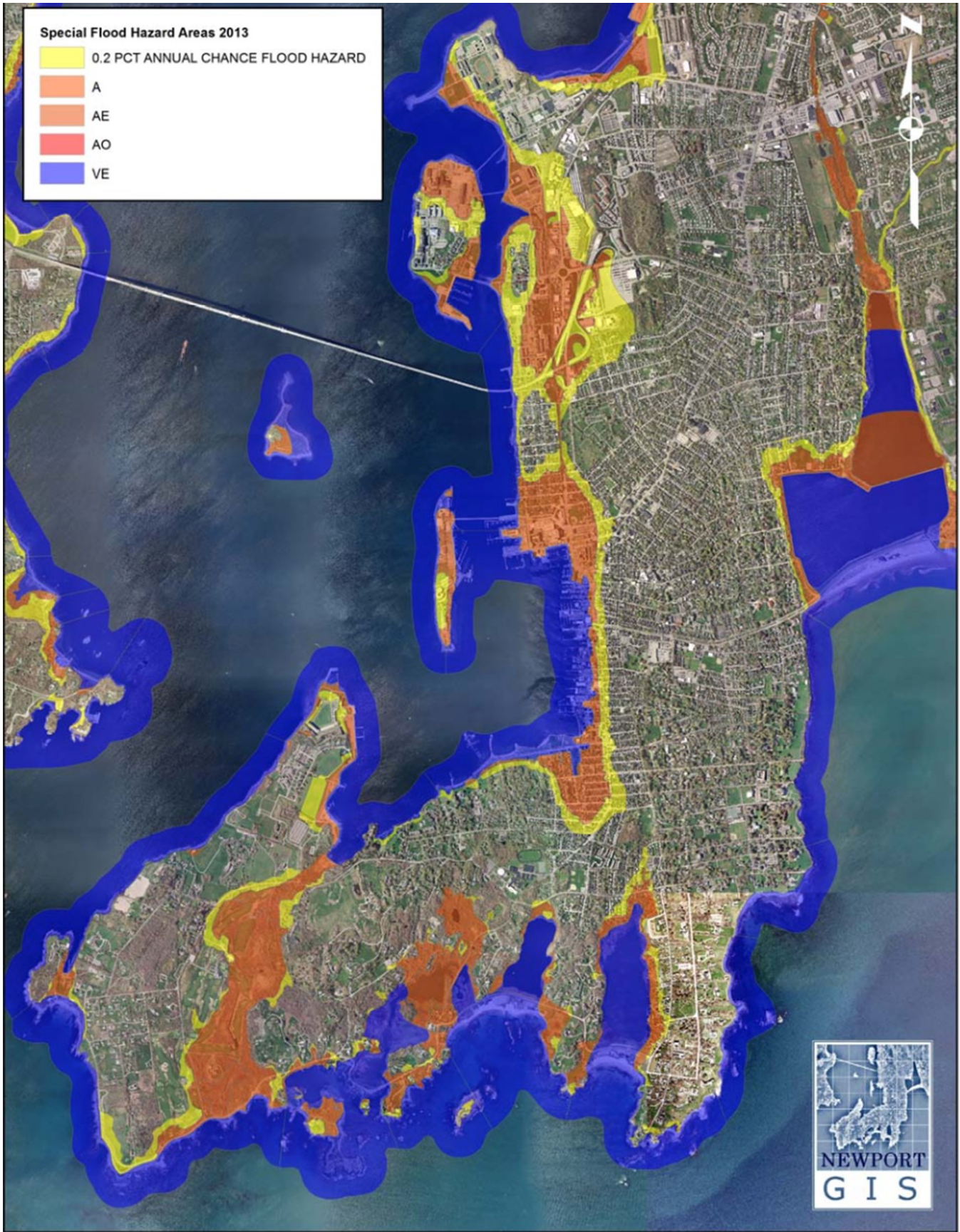
Sources: City of Newport, RIGIS, RI Hist Preservation Commission 1995.



Newport Reservoirs and Watersheds



Sources: City of Newport. RIGIS.



Map 3 – Flood Risks in Newport



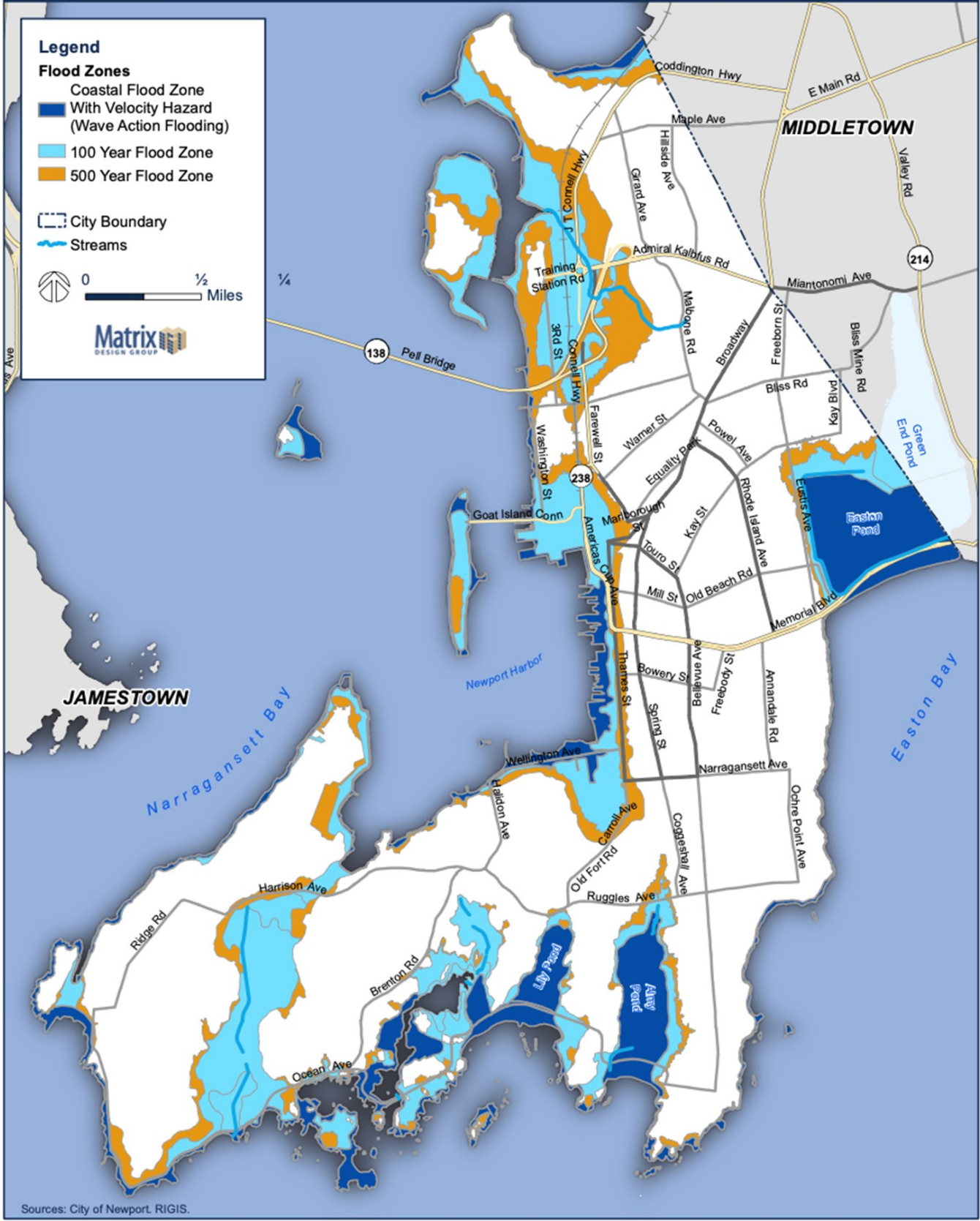
Legend

Flood Zones

- Coastal Flood Zone
- With Velocity Hazard (Wave Action Flooding)
- 100 Year Flood Zone
- 500 Year Flood Zone

City Boundary

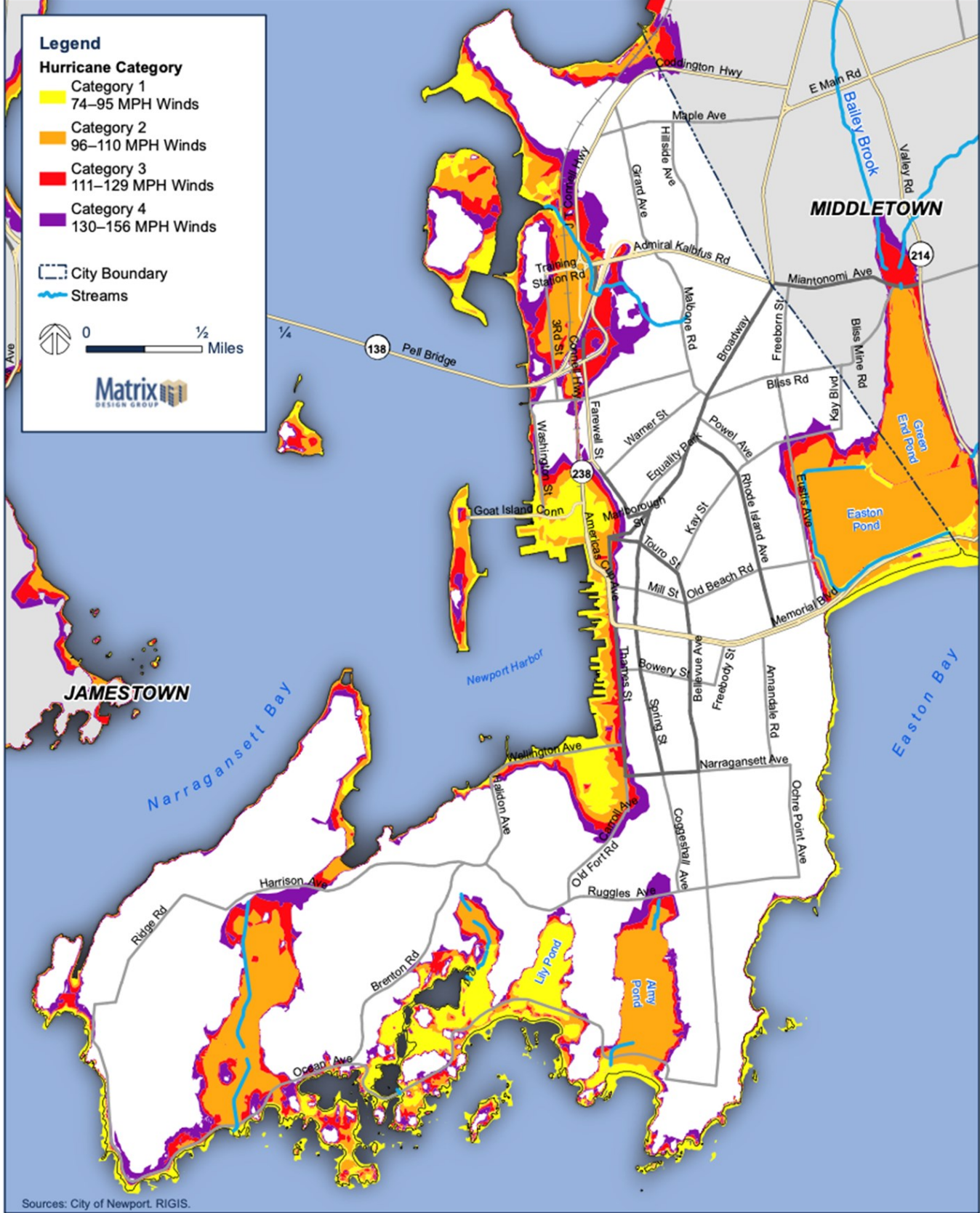
Streams



Sources: City of Newport, RIGIS.



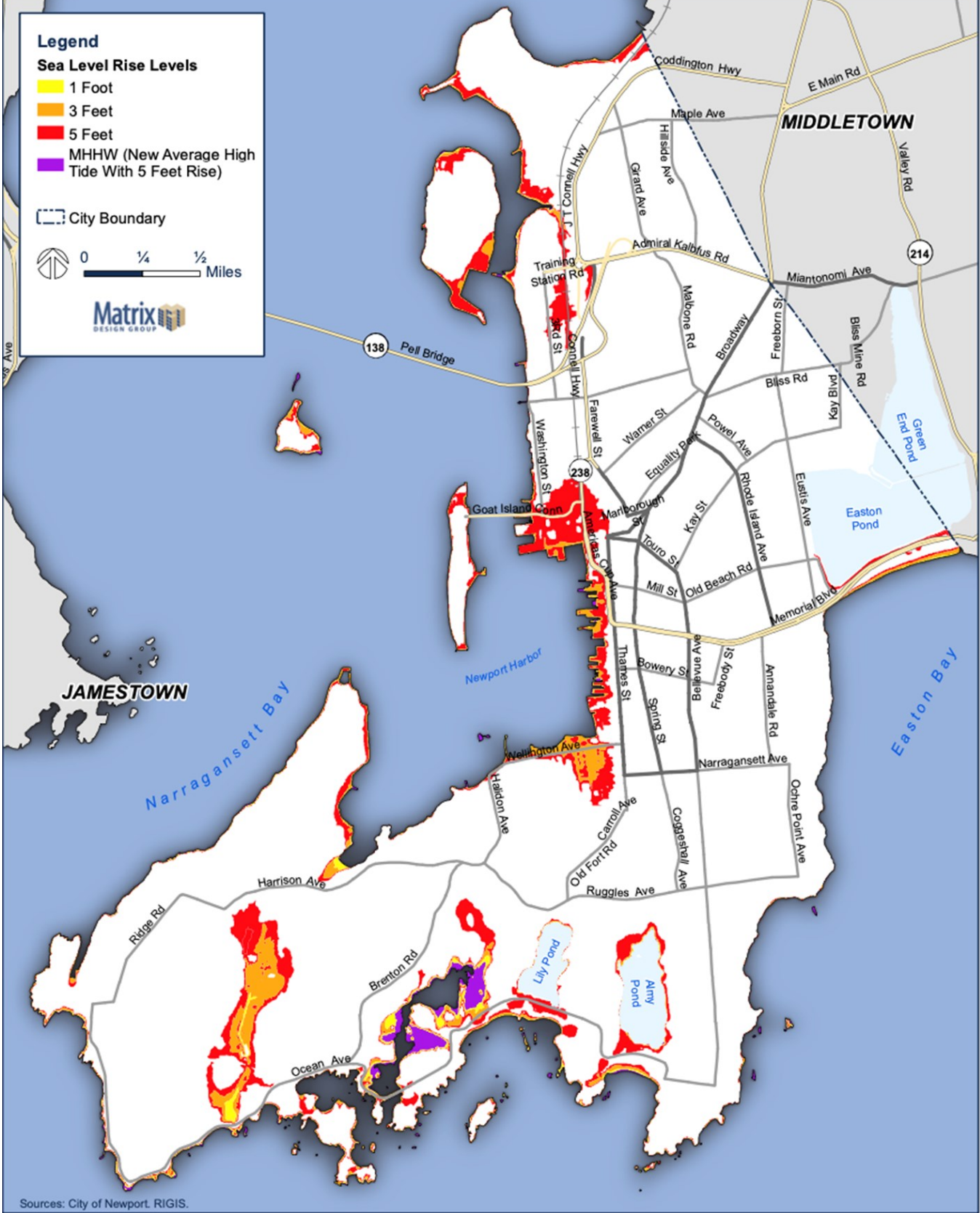
Hurricane Inundation Areas



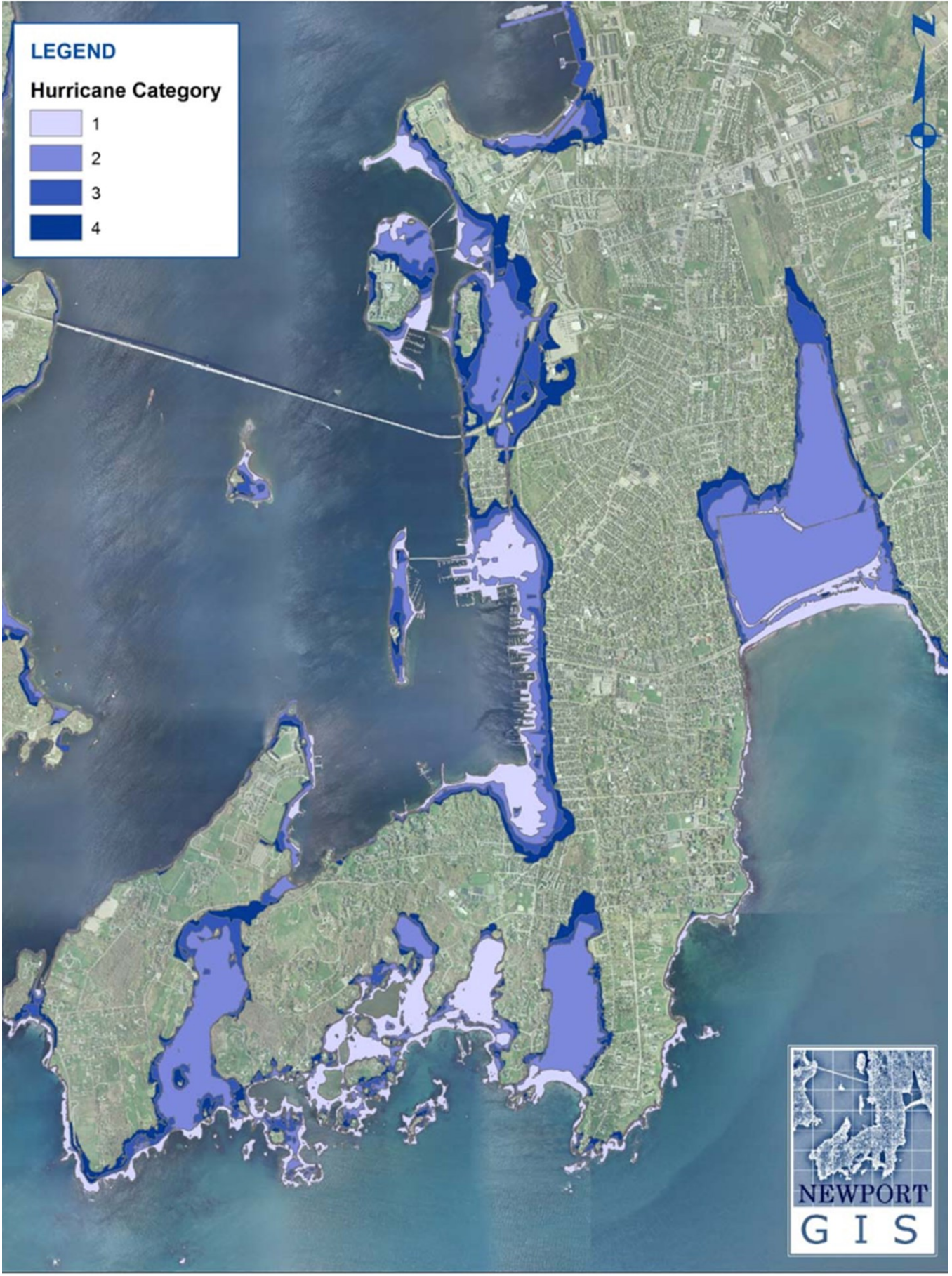
Sources: City of Newport. RIGIS.



Sea Level Rise Areas



Sources: City of Newport, RIGIS.



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