

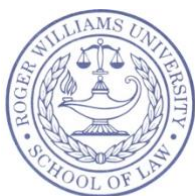


Analysis of Priority Topics Identified as Inconsistent Between Title 17 of the Newport Code of Ordinances and the 2017 City of Newport Comprehensive Plan

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1. Report Introduction

In February 2017, the City of Newport finalized its Comprehensive Land Use Plan (CP), setting out the current state of the City, goals for the City's future, and plans on how to reach those goals. One step to achieving those goals is to amend the City's Zoning Ordinance (Title 17) to bring it into conformity with the CP.¹

The City, through the Roger Williams University Community Partnerships Center at Roger Williams University, partnered with the Marine Affairs Institute at Roger Williams University School of Law for assistance with identifying ways to make Title 17 more consistent with the CP's goals. This project has three parts: (1) identify the inconsistencies, consistencies, and ambiguities between Title 17 and the CP; (2) analyze key inconsistencies or ambiguities identified in Part 1 as selected by the City; and (3) present draft language options for amendments to Title 17.

After reviewing the report of Part 1 with the City, a series of topics to focus on for Part 2 were identified. Three topics were identified as high priority or time sensitive: (1) development plan review; (2) creation of a parking surface ordinance; and (3) analysis of the potential for a coastal overlay. This report examines these three topics, and a second forth-coming report will discuss the remaining topics of interest from Part 1.

This research is intended for informational purposes only and is not legal advice. The City should consult with its attorneys and planners to best determine changes to Title 17.

2. Development Plan Review

2.1 Background

In Part 1 of this project, Chapter 88 of the Newport Zoning Ordinance was identified as ambiguous in relation to the Newport CP because it does not directly address climate change hazards, and one of the CP's key focuses is making the City more resilient to climate change.² This section will address the basis for Development Plan Review (DPR), the current framework in Newport, ways that other municipalities in Rhode Island have incorporated climate change effects into their planning, and options on how Newport could amend its ordinance to do so as well.

As defined in the Rhode Island General Laws, DPR is "[t]he process whereby authorized, local officials review the site plans, maps, and other documentation of a development to determine the compliance with the stated purposes and standards of the ordinance."³ The Rhode Island Zoning Enabling Act authorizes municipalities to include DPR in their zoning ordinances in relation to land development and subdivisions⁴ as well as for development requiring special use permits, variances, zoning ordinance amendments, or zoning map changes.⁵

¹ See CITY OF NEWPORT, R.I., COMPREHENSIVE LAND USE PLAN 14-3, 14-4, tbl. 13-3 #7 & 10, Goals & Actions WA-7(B), LU-1(A) (Feb. 2017) [hereinafter COMPREHENSIVE PLAN].

² See COMPREHENSIVE PLAN, *supra* note 1, at 1-8, 1-9, 9-3 through 9-11, Goal LU-2.

³ R.I. GEN. LAWS § 45-24-31(21) (2017).

⁴ *Id.* § 45-23-50(a).

⁵ *Id.* § 45-24-49(a).

Newport has acted upon this authority and adopted a DPR process in Chapter 88 of Title 17 of the Newport Codified Ordinances. Newport’s DPR process “affords local permitting authorities the opportunity to review the nature and extent of the development that is being proposed—in order that the project’s impact upon the community can be assessed prior to the issuance of any building permits.”⁶ The DPR ordinance lists several specific intents of the review process: “to minimize traffic hazards and congestion; to provide a more healthful and aesthetically pleasing environment; to guarantee the adequate provision of water, sewerage, police, fire and other public services, and to promote the overall public health, safety, and general welfare of the community and its citizens.”⁷ The Rhode Island Supreme Court has expressly recognized that the goals of Newport’s DPR ordinance include safety and maintenance concerns.⁸

Several of the specific requirements of Newport’s DPR ordinance relate to development considerations that are expected to be influenced by climate change, such as addressing stormwater management, which will be impacted by increased storm intensity.⁹ If applicable to the site in question, a site plan must identify wetlands on the proposed site as well as flood hazard information.¹⁰ A stormwater management plan must also be explained in detail.¹¹ A final catch-all of “[a]ny information deemed necessary by city staff,” such as projected water needs and wastewater flow, may also be required.¹² The ordinance also permits the City to require improvements to aspects of the development plan, such as improving drainage capacity or adding erosion control measures.¹³ However, nothing in the DPR ordinance specifically states that the effects of climate change should be considered in the review process or that the specified factors to be considered should be evaluated in the context of future expected levels.

2.2 Examples from Other Municipalities in Rhode Island

Other Rhode Island municipalities have DPR ordinances that can provide helpful guidance for how to incorporate climate change concerns into the Newport ordinance. Some of these ordinances are designed to address climate change effects, while others are targeted to different goals but can be used as models and adjusted to address anticipated climate change effects.

⁶ *Cohen v. Duncan*, No. Civ.A.2002-599, Civ.A.2001-380, 2004 WL 1351155, at *17 (R.I. Super. Ct. June 9, 2004).

⁷ NEWPORT, R.I., CODIFIED ORDINANCES § 17.88.010 (MuniCode 2018).

⁸ *Cohen v. Duncan*, 970 A.2d 550, 567 (R.I. 2009) (citing NEWPORT CODE § 17.88.010). This case concerns a Newport hotel operating as a nonconforming use. *Id.* at 552-53. A series of renovations at the hotel sparked a legal dispute with a neighbor, which eventually reached the R.I. Supreme Court. *Id.* at 553. Part of the renovations in dispute was a plan to upgrade an overflow parking lot, previously rented for beach-goers, to turn the lot into the primary parking for the hotel. *Id.* at 555. The City’s zoning officer determined that the parking change required a DPR, which was successfully completed. *Id.* at 556. In discussing the DPR process, the Court recognized that the City’s requirements of “new paving, providing for runoff, and installing lights and walkways are all related to Newport’s safety and maintenance concerns as set forth” in the DPR ordinance. *Id.* at 567.

⁹ See NEWPORT CODE § 17.88.030(T).

¹⁰ *Id.* § 17.88.030(R).

¹¹ *Id.* § 17.88.030(T). The Rhode Island General Laws require zoning ordinances to address stormwater runoff. R.I. GEN. LAWS § 45-24-33(a)(4)(viii). Municipalities are allowed to require compliance with the Rhode Island Stormwater Design and Installation Standards Manual for development, and many municipalities have embraced that option. See *id.* § 45-61.2-2(b).

¹² NEWPORT CODE § 17.88.030(U).

¹³ *Id.* § 17.88.040.

Examples of potential DPR ordinance modifications are diverse, and changes can begin at the root of the DPR process—the types of development that are subject to review. In deciding which proposed development projects are subject to DPR, the town of Burrillville has a requirement that “[a]ny other development which may, in the opinion of the building official, significantly alter local drainage patterns and may require development of **environmentally sensitive areas**” is subject to DPR.¹⁴

In contrast, Newport’s ordinance specifically delineates that the following development will be subject to the DPR process:

- A. Transient guest facilities.
- B. Any multifamily dwelling use of six units or greater.
- C. Any commercial use of ten thousand (10,000) gross square footage or greater.
- D. Any individual restaurant of four thousand (4,000) gross square footage or greater.
- E. Any professional or medical office of ten thousand (10,000) gross square footage or greater or combination of professional or medical office in conjunction with other commercial uses such that the total gross square footage is ten thousand (10,000) or greater.
- F. Hospitals, convalescent and rest homes; schools, colleges and universities, including dormitories; museums; libraries; churches; alcohol research and rehabilitation facilities.
- G. Parking areas for more than ten automobiles.
- H. Vacation guest facilities.
- I. Guest houses.
- J. Public utilities—Private electrical services.¹⁵

However, development projects outside the scope of this list do not require DPR, even if they are located at potentially sensitive sites.¹⁶ Adding a provision like Burrillville’s scope could help ensure that all development in vulnerable coastal areas would get a full DPR. Newport could follow Burrillville’s broad “environmentally sensitive areas” example or carve out a more specific provision, such as identified flood hazard areas.¹⁷ The City should consult with its planners, attorneys, environmental scientists, and engineers to determine the best scope of DPR for Newport.

Another broad provision that is treated differently by some municipalities is the purpose section of the various DPR ordinances. While Newport does provide some specifics in its purpose, the core of the purpose section is “to promote the overall public health, safety, and general welfare

¹⁴ BURRILLVILLE, R.I., REV. GEN. ORDINANCES § 30-201(c)(9) (MuniCode 2017) (emphasis added).

¹⁵ NEWPORT CODE § 17.88.020.

¹⁶ *See id.* § 17.88.020.

¹⁷ The Rhode Island Supreme Court has recognized the “general principle...that the government’s power to interfere with the general rights of a landowner by restricting the character of his use is not unlimited, and any restriction upon his use cannot be imposed unless it bears a ‘substantial relation to the public health, safety, morals, or general welfare.’” Bourque v. Dettore, 589 A.2d 815, 820 (R.I. 1991) (quoting State of Washington ex rel. Seattle Title Trust Co. v. Roberge, 278 U.S. 116, 121 (1928)). Therefore, the more closely rooted an ordinance is to public health and safety, the more likely that ordinance is to survive a challenge. *See id.*

of the community and its citizens.”¹⁸ However, in Bristol, the DPR ordinance specifically states that the purpose

shall be the reasonable application of the police power of the town to protect the public **from possible detrimental impacts of certain types of development and certain large scale development** and maintain consistency with the Comprehensive Plan, while at the same time reasonably accommodating the goal of economic development within the town.¹⁹

By specifically focusing on protection from the detrimental effects of large scale development, there is a greater potential to consider climate change effects, such as limiting hardened structures in the coastal zone due to increased erosion risk or minimizing infrastructure needs within anticipated high tide flood areas.²⁰

Similarly, in Burrillville’s ordinance, the stated purpose is “to assure that, to the fullest extent feasible, the **best design and planning practices and best available technology are used to avoid or minimize impacts of development** on the **natural and manmade environment** of the Town of Burrillville.”²¹ This specific call for use of best design and planning practices as well as best available technology requires more than just meeting static standards but also requires meeting industry standards as those standards are updated in light of new science and technology. Adding a similar requirement to Newport’s purpose could further expand the City’s ability to consider adaptation scenarios while reviewing development plans.

Moving into more substantive options to modify the Newport DPR ordinance, Narragansett provides a model for detailed requirements related to flood risk. While Newport requires that a development plan include “flood hazard information” for the site,²² Narragansett requires that development plans include: (1) elevation of the area above mean sea level; (2) elevation of the lowest building floor, including the basement; (3) elevation of floodproofing of all structures; and (4) elevation of all streets, sidewalks, and underground utilities.²³ Newport could follow this example and set more specific requirements to ensure that the applicant has fully considered elevation and flood risk. The City could either itself look at the sea level rise projections when considering the application or add a requirement that the applicant identify the projections, even just to ensure that the applicant is aware of the risk.

Narragansett takes flood concerns even further and prohibits development in the floodplain, requiring that these areas be preserved as open space.²⁴ Similarly, South Kingstown prohibits locating hazardous waste management facilities in the 100-year flood zone.²⁵ State law calls on municipalities to include in their zoning ordinances whether the municipality will “permit[

¹⁸ NEWPORT CODE § 17.88.010.

¹⁹ BRISTOL, R.I., CODE § 28-181(1) (MuniCode 2017) (emphasis added).

²⁰ High tide flood is the new term that NOAA has accepted to replace nuisance flood as it more accurately represents the anticipation of regular flooding at high tide. Jamie Carter, Nat’l Oceanic and Atmospheric Admin., Presentation at the 2018 N.H. Coastal Climate Summit: The Latest Science on Sea-Level Rise and High Tide Flooding Trends and Projections (June 20, 2018).

²¹ BURRILLVILLE ORDINANCES § 30-201(a) (emphasis added).

²² NEWPORT CODE § 17.88.030(R).

²³ NARRAGANSETT, R.I. CODE OF ORDINANCES app. A, § 18.2(b)(4) (MuniCode 2018).

²⁴ *Id.* app. B, § XIII(G)(3)(c).

²⁵ SOUTH KINGSTOWN CODE OF ORDINANCES app. A, § 505.4(C) (MuniCode 2018)

prohibit[], limit[], or restrict[] development in flood plains or flood hazard areas and designated significant natural areas,” based on “reasonable objective standards and criteria.”²⁶

Newport could follow these examples and partially or completely restrict development in identified flood zone areas. Many municipalities base their determination of the flood zone off of the Federal Emergency Management Agency’s (FEMA’s) maps, but Newport could also utilize the flood inundation maps that it developed for the CP. An engineer could be consulted to determine the specific risks of placing various structures in Newport’s floodplain in order to aid determination of whether to follow Narragansett’s broad example of full restriction or South Kingstown’s narrower restriction of high risk structures. Evaluation of public health and safety risks will be important in making this determination in order to withstand potential challenge from prospective developers.²⁷ Newport should consult its engineers, planners, and attorneys in evaluating this and other options.

Several municipalities throughout Rhode Island explicitly require that development plans must be in conformance with the design standards listed elsewhere in their zoning ordinances.²⁸ Newport’s Zoning Ordinance lists design standards,²⁹ but there is no provision in the DPR chapter that requires consideration of these standards. A reasonable implication may be that the City’s design standards should be adhered to in all development projects, but there is no direct reference in the DPR chapter to that effect. Adding a direct requirement that the development plan conform to Newport’s design standards could strengthen the City’s ability to apply these standards to its DPR process.

Beyond just incorporating the design standards into the DPR ordinance, some municipalities have different design standards that Newport could consider adding to its design standards. Several Rhode Island municipalities require consideration of ecological sensitivity in their design standards. For example, Hopkinton’s design standards specifically require that development insofar as practicable...result in minimal degradation of unique or irreplaceable land types and in minimum adverse impact upon the critical areas such as streams, wetlands, areas of aquifer recharge and discharge, steep slopes, highly erodible soils, areas with a high water table, mature stands of vegetation, and extraordinary wildlife nesting, feeding, or breeding grounds.³⁰

²⁶ R.I. GEN. LAWS § 45-24-33(a)(5).

²⁷ See Bliss v. City of Woonsocket, No. PC 2004-2357, 2005 WL 957729, at *5 (R.I. Super. Ct. Apr. 22, 2005) (citing Mesolella v. Providence, 439 A.2d 1370, 1374 (R.I. 1982)) (recognizing that a municipality’s zoning power is a valid exercise of its local authority only if it is rooted in the health, safety, and welfare of the public).

²⁸ See, e.g., BURRILLVILLE ORDINANCES § 30-201(a); CRANSTON, R.I., MUN. CODE § 17.84.140 (MuniCode 2018); HOPKINTON, R.I., CODE OF ORDINANCES app. A, § 15(A) (MuniCode 2017).

²⁹ Newport’s zoning ordinance delineates performance standards in Chapter 96 and development standards in Chapter 100.

³⁰ HOPKINTON CODE § 13.5-73(C)(1). Jamestown has a similar provision requiring that “the developer shall also note the location of any of the following natural and cultural features of the landscape: mature woodlands, significant wildlife habitats, prime farmland or open meadows and their defining treelines, hedgerows and/or stone walls, historic structures or community landmarks, and scenic views to, from or within the property. These features add character and value to the community, and help maintain the rural character. Efforts shall be made by the developer to minimize adverse impacts to these areas by use of design which is sensitive to existing site conditions.” JAMESTOWN, R.I., REV. CODE OF ORDINANCES § 82-1006.3 (MuniCode 2017). Narragansett requires that “[p]roposed measures to mitigate

Newport could consult with an engineer or ecologist to identify the types of areas that are most vulnerable to coastal hazards and designate those as critical areas that must be left unharmed by development to the greatest extent practicable.

Cranston’s design standards include a requirement that the development plan “[p]rovide for cooling of air and land through shading in order to offset radiational heating.”³¹ In light of projected increased summer temperatures, this required consideration of cooling would help reduce the effects of radiant heating. Radiant heating may not pose as great a problem for Newport as it does for Cranston given Newport’s coastal environment and frequent high winds.³² The City should consult with its planners, environmental scientists, attorneys, and other experts to determine whether radiant heating is a concern worthy of addressing for Newport.

Exeter’s DPR ordinance includes highly detailed design standards, down to prohibiting “[m]ansard, flat and shallow-pitched roofs.”³³ While this particular design restriction would not impact Newport’s resilience to climate change or coastal hazards, consultation with an engineer may reveal other design features that would be particularly applicable as coastal hazards intensify, such as requiring elevation or prohibiting certain design features that are highly susceptible to wind damage. Once identified, the Newport ordinance could be amended to require or prohibit those design features, as applicable.

All of the examples given above are utilized in other Rhode Island municipalities and allow for greater consideration of climate change impacts in the DPR process. As Newport works through amendments to its DPR ordinance, these changes could be considered to bring Chapter 88 in-line with the CP’s goal of addressing climate change risks.

3. Parking Surfaces Ordinance

3.1 Background

As noted in Part 1 of this project, the CP calls on the City to create a parking surfaces ordinance in order to address stormwater impacts.³⁴ Newport is under a consent decree with Environment Rhode Island, the United States Environmental Protection Agency (US-EPA), and the Rhode Island Department of Environmental Management (DEM) to address Clean Water Act violations attributed to inadequate treatment of discharged water from the City’s combined sewer overflow (CSO).³⁵ The initial consent decree was entered on October 18, 2011, and the City agreed, among other things, to implement improvements to its wastewater treatment system.³⁶ Since entering into the original consent decree, Newport has performed extensive work to reduce overflow from the

the environmental impacts of the project on significant natural resources” be included in the development plan. NARRAGANSETT CODE app. A, § 18.2(b)(4).

³¹ CRANSTON CODE § 17.84.140(A)(6).

³² CITY OF NEWPORT, NATURAL HAZARD MITIGATION PLAN § 3.2.2.4 (2016).

³³ EXETER, R.I., CODE OF ORDINANCES app. A, § 2.5.2.2(B) (MuniCode 2018).

³⁴ COMPREHENSIVE PLAN, *supra* note 1, at Policy WA-10.3.

³⁵ Consent Decree Modification at 1-2, Environment Rhode Island et al v. City of Newport (D.R.I. 2015) (No. 08-265S).

³⁶ *Id.* at 3; COMPREHENSIVE PLAN, *supra* note 1, at 12-13.

CSO, including disconnecting some catch basins from the CSO system as well as completing sanitary sewer improvements.³⁷

A modified consent decree was entered in 2015, extending the deadline for the City to meet the agreement to June 30, 2033 but also increasing the required actions for the City, including implementation of a Master Plan.³⁸ In addition to addressing sewage treatment, the Master Plan has a large emphasis on stormwater management to improve water quality.³⁹ While the Master Plan does not directly call for a parking surfaces ordinance, alterations to parking surfaces can have a large impact on stormwater control.⁴⁰ Therefore, creating a parking surfaces ordinance could contribute to the goals of both the Master Plan and the consent decree.

The CP expressly calls for creation of a parking surfaces ordinance, although it does not provide any details on what that would entail.⁴¹ The policy to create this ordinance is nested below the CP goal “[t]o meet all applicable Federal, State and other laws, regulations, standards and other requirements for stormwater quality.”⁴² The CP further recognizes that the “chief threat” to water quality in Newport is non-point source pollution.⁴³ Stormwater picks up pollutants as it runs along the ground and, in Newport, the stormwater is currently directed through pipes and swales directly into water bodies without being treated.⁴⁴

Newport’s ordinance on parking can be found in Chapter 104 of Title 17. The identified purposes of the ordinance do indicate a concern for stormwater runoff, including the desire to “[m]inimize the negative impacts of stormwater runoff to enhance and protect surface and groundwater quality; [] promote effective flood management[; and]...control damaging impacts of sheet runoff and resultant surface water contamination.”⁴⁵ The current ordinance speaks to both parking area design and parking surface composition.

In regard to design, a minimum number of spaces are required for each identified use, such as requiring a minimum of two parking spaces per dwelling unit for residential uses.⁴⁶ The ordinance also sets size minimums for parking spaces of 9x18 feet, but parking lots with fifty or more spaces may designate up to half of the spaces as compact spots measuring 8x16 feet.⁴⁷ For parking areas with 40 or more spaces, at least one divider is required, which can be a permanent barrier,

³⁷ COMPREHENSIVE PLAN, *supra* note 1, at 12-9.

³⁸ Consent Decree Modification, *supra* note 35, at 4-5.

³⁹ See CH2MHILL, COLLECTION SYSTEM CAPACITY ASSESSMENT AND SYSTEM MASTER PLAN FOR THE CITY OF NEWPORT, R.I. ES-11 (2012). The Master Plan does call on the City to continue to consider Green Technologies to better manage its stormwater drainage system. *Id.* at ES-15.

⁴⁰ See *id.* at 5-13 (noting that catch basins and curb inlets are major stormwater inputs within the City).

⁴¹ See COMPREHENSIVE PLAN, *supra* note 1, at Policy WA 10.3.

⁴² *Id.* at Goal WA-10.

⁴³ See *id.* at 12-6, 12-11. Non-point source pollution is “pollution that comes from unidentifiable sources in the atmosphere and from the land’s surface...[that] is washed by stormwater into storm drains and water bodies.” *Id.* at 12-11.

⁴⁴ *Id.* at 12-11. From Memorial Day through Labor Day, stormwater outfalls near Easton’s Beach are treated with an ultraviolet light disinfection system. *Id.*

⁴⁵ NEWPORT CODE §§ 17.104.010(I), (J).

⁴⁶ *Id.* § 17.104.020.

⁴⁷ *Id.* § 17.104.040(A).

landscaped area, rain garden, or raised walkway.⁴⁸ Finally, for single-, two-, or multi-family properties of 5,000 square feet or greater, no more than 80% of the lot can be covered with impervious surface.⁴⁹

The current Newport ordinance also controls surface material type. Parking areas must be “improved, graded, stabilized and maintained so as to cause no nuisance or danger from dust or from stormwater runoff.”⁵⁰ The preference is for stormwater control using natural techniques or pervious surface “where possible.”⁵¹ However, parking areas for more than ten automobiles must have an “all-weather surface,” such as asphalt or concrete.⁵² Alternative materials, such as crushed stone, shells, or porous pavers, may be utilized in residential, waterfront business, or traditional maritime zoning districts, provided that the property owner demonstrates that the surfaces will be properly marked and maintained.⁵³

3.2 The Rhode Island Stormwater Design & Installation Standards Manual⁵⁴

The Rhode Island General Assembly has recognized the water quality risks of stormwater runoff and acknowledged that development often increases stormwater runoff “by increasing the size and number of paved and other impervious surfaces...and decreasing the amount of natural surface areas that naturally control stormwater runoff through natural filtration and groundwater recharge systems.”⁵⁵ In Rhode Island, the key resource for stormwater management is the Rhode Island Stormwater Design & Installation Standards Manual (R.I. Stormwater Manual or the Manual). This manual was last updated in July 2008 in response to the Smart Development for a Cleaner Bay Act of 2007.⁵⁶ The manual was created jointly by DEM and the Rhode Island Coastal Resources Management Council (CRMC),⁵⁷ and municipalities are authorized to require compliance with this manual for all development, redevelopment, and land disturbance projects.⁵⁸

The R.I. Stormwater Manual provides extensive detail on options to manage stormwater, ranging from controlling soil erosion during construction to designing bioretention systems to address

⁴⁸ *Id.* § 17.104.040(F).

⁴⁹ *Id.* § 17.104.040(E).

⁵⁰ *Id.* § 17.104.050(B).

⁵¹ *Id.*

⁵² *Id.* § 17.104.050(C).

⁵³ *Id.*

⁵⁴ This section is written based upon the current state of the law. However, it is worth note that DEM announced a proposed regulation on August 31, 2018 addressing stormwater design. The proposed rule was open for public comment until October 1, 2018. Accordingly, the City should consult with its attorneys to ensure that any rule updates are considered. *See* Stormwater Management, Design, and Installation Rules, 250-RICR-150-10-8 (proposed Aug. 31, 2018), available at <https://rules.sos.ri.gov/promulgations/part/250-150-10-8>.

⁵⁵ The Smart Development for a Cleaner Bay Act of 2007, R.I. GEN LAWS §§ 45-61.2-1(a)(1), (3). In fact, “a one-acre parking lot can produce 16 times more stormwater runoff each year than a one-acre meadow.” R.I. DEP’T OF ENVTL. MGMT. & R.I. COASTAL RES. MGMT. COUNCIL, R.I. STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL 2-1 – 2-2 (2010) (citing T.R. Schueler, *The Importance of Imperviousness*, 1:3 WATERSHED PROTECTION TECHNIQUES (1994)) [hereinafter R.I. STORMWATER MANUAL].

⁵⁶ *See* R.I. GEN. LAWS § 45-61.2-2.

⁵⁷ *See* R.I. STORMWATER MANUAL, *supra* note 55, at effective date page, 1-3 - 1-4.

⁵⁸ R.I. GEN. LAWS § 45-61.2-2(b).

stormwater runoff needs for the life of the project.⁵⁹ The Manual lists eleven minimum standards that are required to be met for all development projects:⁶⁰

- Minimum Standard 1: Low-impact Development (LID) Site Planning and Design Strategies
LID designs must be utilized to the greatest extent practicable with the goal of new runoff volume being as close as possible to pre-development runoff volume.⁶¹
- Minimum Standard 2: Groundwater Recharge
To the maximum extent practicable, stormwater should be maintained onsite to allow groundwater recharge at the pre-development rate.⁶²
- Minimum Standard 3: Water Quality
An identified portion of runoff containing the majority of pollutants must be treated before discharge from the site.⁶³
- Minimum Standard 4: Conveyance and Natural Channel Protection
Stormwater drainage must account for at least the peak flow of a 10-year, 24-hour storm event.⁶⁴
- Minimum Standard 5: Overbank Flood Protection
Onsite retention and gradual release of stormwater is required if the post-development stormwater peak discharge rate during large storms would be more than the pre-development rate.⁶⁵
- Minimum Standard 6: Redevelopment and Infill Projects
During redevelopment and infill projects, stormwater treatment and recharge must be maintained at no less than pre-project levels.⁶⁶
- Minimum Standard 7: Pollution Prevention
Source control and pollution prevention measures are required to minimize detrimental impacts on runoff water quality.⁶⁷
- Minimum Standard 8: Land Uses with Higher Potential Pollutant Loads

⁵⁹ See R.I. STORMWATER MANUAL, *supra* note 55, at 3-9, 5-45.

⁶⁰ *Id.* at 3-1. All applicable development proposals must create a stormwater management site plan addressing these minimum standards. *Id.*

⁶¹ *Id.* at 3-2.

⁶² *Id.*

⁶³ *Id.* at 3-3. Options for stormwater treatment include wet vegetated treatment systems, infiltration (trenches, chambers, dry wells, infiltration basins, permeable paving), filtering practices (sand filter, organic filter, bioretention), green roofs, open channels (dry swale, wet swale), or other options as proposed by the applicant. *Id.* at 3-3 and tbl. 5-1.

⁶⁴ *Id.* at 3-3.

⁶⁵ *Id.* at 3-4.

⁶⁶ *Id.*

⁶⁷ *Id.* at 3-6 - 3-7.

There are specific source control and pollution prevention measures that are required for these projects.⁶⁸

- Minimum Standard 9: Illicit Discharges
Illicit discharges to stormwater management systems are prohibited.⁶⁹
- Minimum Standard 10: Construction Activity Soil Erosion, Runoff, Sedimentation, and Pollution Prevention Control Measure Requirements
Soil erosion control measures are required during any land disturbing activities.⁷⁰
- Minimum Standard 11: Stormwater Management System Operation and Maintenance
The stormwater management system is required to have an operation and maintenance plan.⁷¹

Among these standards, the LID site planning and design strategies have the greatest influence on parking design. The first objective of LID design, as identified in the Manual, is to avoid disturbing natural features to the greatest extent practicable.⁷² The second objective is to minimize impervious surface in order to reduce runoff and increase groundwater recharge.⁷³

Reduction of impervious surface can be achieved by reducing parking lot area by “eliminating unneeded spaces, providing some compact car spaces, minimizing stall dimensions, incorporating efficient parking lanes, utilizing multi-storied parking decks, using permeable surfaces, and reducing parking ratio requirements.”⁷⁴ Permeable surfaces include not only pavers and crushed stone, but also porous asphalt or concrete which is structurally designed to allow infiltration of stormwater into the subsoil.⁷⁵ Other LID designs include using pervious surface to break up stretches of impervious surface, diverting runoff into pervious surface areas, bioretention, or restoring natural wetlands.⁷⁶

3.3 The Maryland Smart Growth Parking Best Practices Guide

A useful resource to consult in designing a parking surfaces ordinance for Newport is the guide Driving Urban Environments: Smart Growth Parking Best Practices created by the Maryland Governor’s Office of Smart Growth (Maryland guide or the guide).⁷⁷ This guide provides insight on designing parking in urban areas while minimizing the negative impacts of traditional parking lots.

⁶⁸ *Id.* at 3-7.

⁶⁹ *Id.* at 3-9.

⁷⁰ *Id.*

⁷¹ *Id.* at 3-10.

⁷² *Id.* at 1-9.

⁷³ *Id.* at 1-9, 3-11.

⁷⁴ *Id.* at 4-7.

⁷⁵ *Id.* at 5-33.

⁷⁶ *Id.* at 4-7 - 4-8.

⁷⁷ MD. GOVERNOR’S OFFICE OF SMART GROWTH, DRIVING URBAN ENVIRONMENTS: SMART GROWTH PARKING BEST PRACTICES (2016), available at <https://www.mass.gov/files/documents/2016/07/xb/parking.pdf> [hereinafter MD. GUIDE].

The first suggestion from this guide is to minimize the amount of parking required. It suggests that cities should re-evaluate their minimum parking requirements as the calculations for these figures are often based on maximum parking demand without consideration for other contributing factors like available transportation or shifts in time and season of demand.⁷⁸ In addition to re-evaluating minimum parking requirements, the guide suggests consideration of maximum parking limits to avoid creating underutilized large lots.⁷⁹ Additionally, in reaching figures for minimum and maximum parking, a shared parking concept is suggested, which considers that neighboring properties may experience peak demand at different times of day and could share parking.⁸⁰ Providence has adopted a shared parking system.⁸¹

The guide also addresses location of parking. It suggests providing parking lots on the City's periphery and offering some form of public transportation into and around the urbanized areas.⁸² This could be combined with provision of on-street parking within the urbanized areas to allow for short-term parking as on-street parking utilizes less impervious surface than parking lots.⁸³ Parking structures are also favored over large, expansive lots.⁸⁴

Where parking lots are required, the guide provides some suggestions to decrease runoff from the lots. First, utilize alternative pavers, such as gravel, cobble, wood mulch, brick, grass pavers, turf blocks, natural stone, pervious concrete, or porous asphalt, which all allow some extent of water infiltration.⁸⁵ If an entire parking area cannot be surfaced with pervious options, use them for cross-walks, overflow parking areas, or other areas that are not as frequented by traffic.⁸⁶ When impervious lots are unavoidable, create multiple smaller lots broken up by pervious or natural surfaces to aid infiltration and groundwater recharge.⁸⁷ Finally, utilize LID techniques to encourage infiltration and groundwater recharge rather than merely diverting stormwater into waterways.⁸⁸

3.4 Sample Options for Newport to Consider

After reviewing the guidance provided by both the R.I. Stormwater Manual and the Maryland guide, a few broad themes emerge that could be applied as part of Newport's parking surfaces ordinance. In considering these options, Newport should consult with its engineers, planners, and attorneys.

The overall goal of parking redesign is to reduce impervious cover, and this is essential because "once impervious cover in a watershed reaches between 10 and 25 percent, ecological health is

⁷⁸ *Id.* at 2-4.

⁷⁹ *Id.* at 5.

⁸⁰ *Id.* at 6. For example, a restaurant open in the evening may share parking space with a municipal building that is only open during the day. *See id.*

⁸¹ PROVIDENCE, R.I., CODE OF ORDINANCES ch. 27, § 1411 (MuniCode 2018).

⁸² MD. GUIDE, *supra* note 77, at 13.

⁸³ *Id.* at 21.

⁸⁴ *Id.*

⁸⁵ *Id.* at 22.

⁸⁶ *Id.*

⁸⁷ *Id.* at 22-23.

⁸⁸ *Id.* at 23.

greatly stressed,” and at 25 percent, “stream stability decreases, habitat disappears, water quality declines, and biological diversity dwindles.”⁸⁹ A typical medium-density residential area is 25 to 60 percent impervious surface.⁹⁰ Reduction of impervious cover is a major theme in both the Rhode Island and Maryland documents.⁹¹

3.4.1 Reduce Improved Parking Areas

For residential properties, Newport currently permits coverage of up to 80% of lots with impervious surface, but this figure could be reduced to help meet the goal of reducing impervious surface cover.⁹² Additionally, Newport could re-evaluate its calculations for minimum parking space requirements, either re-evaluating requirements per business or creating a shared parking calculation.⁹³

3.4.2 Increase Parking in the City’s Periphery

Another option would be to follow the model presented in the Maryland guide suggesting a large provision of parking on the periphery of the City with public transportation available into the more urban areas.⁹⁴ Parking availability in Newport is a recognized problem in the harbor area where there is high-density development.⁹⁵ One of Newport’s goals in regard to parking is to increase parking space availability outside of the main tourist area and then encourage use of public transit for tourists to explore the City.⁹⁶ The City has already taken steps towards this design through provision of parking at the Newport Gateway Transportation and Visitors Center, a transportation hub with reduced daily parking rates.⁹⁷ Further expansion or promotion of this option could decrease the parking demand within the urbanized areas of the City.

3.4.3 Increase Use of Permeable Surfaces

Finally, the City could re-evaluate permissible surface cover of parking lots. Both the R.I. Stormwater Manual and the Maryland guide encourage use of pervious pavement options.⁹⁸ Newport currently allows for pervious surfaces in smaller lots, but lots for ten automobiles or more require an “all-weather surface.”⁹⁹ Asphalt or concrete are allowed in these instances by default, and any proposal to use a pervious alternative requires a showing of the ability to maintain the surface.¹⁰⁰ However, there is no explicit provision in the Newport ordinance for porous asphalt or

⁸⁹ R.I. STORMWATER MANUAL, *supra* note 55, at 2-2 (citing NATURAL RESOURCES DEFENSE COUNCIL (NRDC), STORMWATER STRATEGIES: COMMUNITY RESPONSES TO RUNOFF POLLUTION (1999)).

⁹⁰ *Id.* at 2-3 (citing U.S. DEP’T. OF AGRIC. SOIL CONSERVATION SERVICE, TECHNICAL RELEASE NO. 55: URBAN HYDROLOGY FOR SMALL WATERSHEDS (1986)).

⁹¹ *See id.* at 1-9; MD. GUIDE, *supra* note 77, at 2-3.

⁹² *See* NEWPORT CODE § 17.104.040(E).

⁹³ *See* MD. GUIDE, *supra* note 77, at 2-4, -5, -6.

⁹⁴ *See id.* at 13.

⁹⁵ COMPREHENSIVE PLAN, *supra* note 1, at 7-14.

⁹⁶ *Id.* at 14-20, Goal T-5(A).

⁹⁷ *See id.* at 7-6.

⁹⁸ R.I. STORMWATER MANUAL, *supra* note 55, at 5-33; MD. GUIDE, *supra* note 77, at 22.

⁹⁹ NEWPORT CODE § 17.104.050(C).

¹⁰⁰ *Id.*

pervious concrete, which would allow water infiltration without losing the all-weather aspect.¹⁰¹ Additionally, alternative surfaces could be encouraged in areas that will not be frequented by traffic, such as crosswalks or overflow parking areas.¹⁰² Newport has a unique opportunity to utilize pervious surface alternatives because of its highly seasonal peak traffic demands, which occur in the summer when snow removal and ice treatment are not of concern.¹⁰³

As the City begins working on a parking surfaces ordinance, it is worth noting that the CP also identifies a goal to develop and implement a comprehensive parking plan.¹⁰⁴ For the sake of efficiency and consistency, the City could develop this parking plan in tandem with a parking surfaces ordinance.

With so many options and strategies available to the City, it is essential to consult with engineers, environmental scientists, planners, attorneys, and/or other experts to determine which option(s) would fit best for Newport's geology, topography, and culture. Only with the assistance of these experts can the proper parking surface plan be designed.

4. Coastal Overlay

4.1 Background

In Part 1 of this project, a potential new overlay was identified: a coastal overlay. Part 1 noted that the CP has a large emphasis on preparing for climate change, including concerns of sea level rise and storm surge.¹⁰⁵ Despite this emphasis, there is nothing in Newport's current Zoning Ordinance to address these coastal hazard effects. As sea level rise and coastal inundation will impact specific locations throughout the city, an overlay with special zoning regulations would be one option to address the climate change effects. This report will examine what rules Newport has in place to address coastal hazards, examine what other municipalities in Rhode Island and beyond are doing to address these hazards, and discuss paths that Newport might follow to strengthen its Zoning Ordinance in light of climate change concerns.

As noted in Part 1, Newport's Zoning Ordinance is absent of any rules specific to development in the coastal zone. However, Newport does have a separate Flood Hazard Area Development chapter within the City's Codified Ordinances' building and construction provisions.¹⁰⁶ Under this chapter, all construction in identified special flood hazard areas (SFHAs) requires a permit.¹⁰⁷ The special flood hazard areas are areas designated as Zones A, AE, AH, AO, A99, V, or VE on the Newport County Flood Insurance Rate Map (FIRM) issued by FEMA.¹⁰⁸ The Newport Flood

¹⁰¹ R.I. STORMWATER MANUAL, *supra* note 55, at 5-33.

¹⁰² MD. GUIDE, *supra* note 77, at 22.

¹⁰³ See COMPREHENSIVE PLAN, *supra* note 1, at 7-14.

¹⁰⁴ *Id.* at Goal T-5(B).

¹⁰⁵ *Id.* at 1-8, 1-9, 9-3 - 9-11, Goal LU-2.

¹⁰⁶ NEWPORT CODE tit. 15, ch. 24.

¹⁰⁷ *Id.* § 15.24.020(B). Historic structures are evaluated under their own provision where they are evaluated by the City's various historic preservation entities. *Id.* § 15.24.020.

¹⁰⁸ *Id.* § 15.24.020(A).

Hazard Area Development provisions closely follow FEMA’s National Flood Insurance Program (NFIP), even specifically referencing within the ordinance what is required by the NFIP.¹⁰⁹

4.2 The National Flood Insurance Program

As part of the NFIP, FEMA produces FIRMs identifying SFHAs, which have a 1% annual chance of flooding, and lower risk areas, which have a 0.2% annual chance of flooding.¹¹⁰ These maps are provided to “municipalities that agree to regulate development in high risk flood areas.”¹¹¹ The SFHAs are broken down into A and V zones, but these zones do not extend into the lower risk (0.2%) areas.¹¹² Properties within the A and V zones must have flood insurance in order to get a mortgage.¹¹³ Additionally, all new construction must meet the latest building codes, which take flood risk into account.¹¹⁴

4.3 Rhode Island Requirements

Within Rhode Island, the State Building Code is a major contributor to development regulations. The Rhode Island General Assembly enacted a statewide building code in order to “establish adequate and uniform regulations governing the construction and alteration of buildings and structures within the state.”¹¹⁵ Because of the expressed uniformity, municipalities are not permitted to adopt local building codes but must instead conform to the State Building Code.¹¹⁶ However, at times, provisions of the State Building Code and local zoning codes may conflict. In this instance, the building code will control in regard to “structural strength, adequate egress facilities, sanitary conditions, equipment, light and ventilation, and fire safety,” but the zoning ordinance will control in regard to “location, use and type, permissible area, and height.”¹¹⁷ For flood hazard areas, the State Building Code closely follows the NFIP, applying unique regulations to development in the A and V zones.¹¹⁸

Beyond the building code, Rhode Island agencies also have influence over development in flood hazard areas. DEM and CRMC have jurisdiction over all development in and around wetlands, DEM over inland wetlands and CRMC over coastal wetlands.¹¹⁹ Municipal wetlands ordinances must conform to state statutes and regulations.¹²⁰ Municipalities may petition DEM or CRMC to

¹⁰⁹ *Id.* § 15.24.020.

¹¹⁰ R.I. Emergency Mgmt. Agency, *Floodplain Mapping*, <http://www.riema.ri.gov/resources/citizens/mitigation/mapping.php> (last visited Sept. 7, 2018).

¹¹¹ *Id.*

¹¹² *Id.*; see also U.R.I. COASTAL RES. CENTER/R.I. SEA GRANT, R.I. COASTAL PROPERTY GUIDE 8 (2014), available at <http://climatechange.ri.gov/documents/rhode-island-coastal-property-guide-2014.pdf> [hereinafter COASTAL PROPERTY GUIDE].

¹¹³ COASTAL PROPERTY GUIDE, *supra* note 112.

¹¹⁴ See *id.* The NFIP additionally requires that renovations after storm damage must meet new building codes. *Id.* at 19.

¹¹⁵ R.I. GEN. LAWS § 23-27.3-100.1.2.

¹¹⁶ *Id.* § 23-27.3-100.1.7.

¹¹⁷ *Id.* § 23-27.3-101.3.

¹¹⁸ 10 R.I. CODE R. § 322.1 (2018); COASTAL PROPERTY GUIDE, *supra* note 112, at 20.

¹¹⁹ R.I. GEN. LAWS § 2-1-20.1(a).

¹²⁰ *Id.* § 2-1-28.

increase the size of buffer requirements around wetlands, but they are not authorized to take any action themselves.¹²¹

Finally, CRMC has jurisdiction over development below mean high water and landward for 200 feet from the coastal physiographic feature.¹²² If an applicant is seeking to develop in this identified coastal zone, s/he must first apply to the City for any necessary building permits, variances, or other approvals and then must submit an application for a CRMC assent to the proposed development.¹²³ CRMC requires that all development in the FIRM-identified flood zone conforms to the State Building Code's flood provisions.¹²⁴ If a structure is damaged by a storm and requires substantial improvements, CRMC requires that the construction meet updated CRMC standards.¹²⁵

4.4 Samples from Other Municipalities

4.4.1 Other Rhode Island Municipalities

Like Newport, many other Rhode Island municipalities have adopted flood hazard ordinances that mirror the requirements of NFIP and the State Building Code.¹²⁶ However, the Towns of Narragansett and New Shoreham go beyond these base requirements. New Shoreham has a NFIP-style flood control overlay like many of the other municipalities,¹²⁷ but the Town has also created a coastal zone district (not an overlay) that covers environmentally vulnerable coastal bluffs, dunes, and wetlands as well as the adjacent land up to 100 feet from the coastal feature.¹²⁸ Within this district, permitted uses are largely limited to recreation, open space, wind energy systems, and water-dependent uses, even with a special use permit.¹²⁹

Narragansett instead establishes a coastal resources overlay and applies special standards to locations from the coast up to 200 feet from the coastal feature, mirroring CRMC's jurisdiction.¹³⁰ The core of this overlay is that no development is permitted by right within the 200 foot buffer.¹³¹ The Narragansett ordinance defines specific development that is permitted with a special use permit within the coastal overlay, including filling, dredging, construction of structures,

¹²¹ See *id.* § 2-1-20.1(c).

¹²² *Id.* § 46-23-6(2).

¹²³ COASTAL RES. MGMT. COUNCIL, COASTAL RES. MGMT. PROGRAM § 1.3.1(C)(2)(a) (2017).

¹²⁴ *Id.* § 1.3.1(C)(6).

¹²⁵ COASTAL PROPERTY GUIDE, *supra* note 112, at 19.

¹²⁶ See, e.g., SCITUATE, R.I., CODE OF ORDINANCES app. A, art. IV, § 9 (MuniCode 2005); SOUTH KINGSTOWN CODE ch. 21; TIVERTON, R.I., CODE OF ORDINANCES app. A, art. XI (MuniCode 2016); WARREN, R.I., CODE OF ORDINANCES ch. 32, art. XVII (MuniCode 2017); WARWICK, R.I., CODE OF ORDINANCES app. A, § 310 (MuniCode 2018). Warren has one unique provision that requires special permitting and standards to all development within 200 feet of a water course **and** allows the Town to apply those same procedures and standards to properties "which can be demonstrated by competent engineering survey to lie within any flood fringe lands." WARREN CODE ch. 32, art. XVII, § 32-100.

¹²⁷ NEW SHOREHAM, R.I., REV. ORDINANCES app. E, § 302(B).

¹²⁸ *Id.* app. E, § 314(A).

¹²⁹ *Id.* app. E, §§ 314(B), (C).

¹³⁰ NARRAGANSETT CODE app. A, § 4.4(a).

¹³¹ Decof v. Town of Narragansett Zoning Bd. of Review, No. C.A. WC 98-0542, 1999 WL 813686, at *4 (Super. Ct. R.I. Sept. 29, 1999).

constructing shoreline protection measures, and more.¹³² A site plan is required before a special use permit can be granted, and the applicant must demonstrate that the project meets all local design, building code, and CRMC standards.¹³³

Special development standards are also laid out in Narragansett’s overlay ordinance: (1) the proposed project will not interfere with public access; (2) the proposed project will not degrade the aesthetic or recreational values of the area; (3) the proposed project will not degrade the natural features such as water quality, water circulation, or habitat; (4) the proposed project will not increase rates of stormwater runoff, erosion, or flooding; (5) the proposed project will not decrease any shoreline feature’s function as a storm buffer; (6) all land alteration will be the minimum amount necessary for the project; (7) the proposed project will not pose any threat to public health, public safety, or property; and (8) a 100-foot-wide buffer (150-foot in specific high-risk areas) is required for all natural shoreline features.¹³⁴

Further examples of coastal overlays exist outside of Rhode Island and are widely varied. Below are four examples from various states.

4.4.2 Tisbury, Massachusetts

In Tisbury, Massachusetts, a coastal overlay restricts development options for land located within a 10-foot elevation above mean sea level or within 500 feet of mean high water of a waterbody 10 acres or larger.¹³⁵ The overlay is then further broken down into the “Shore Zone” and the “Inland Zone.” The Shore Zone “[c]onsist[s] of the land from mean low water to one hundred (100) feet inland of the inland edge of any beach or marsh grasses, and one hundred (100) feet inland of the crest of any bluff exceeding a height of fifteen (15) feet,” and the Inland Zone is the rest of the overlay area.¹³⁶ Uses permitted by right in both zones include “those uses permitted in the respective Zoning Districts which are consistent with the fragile nature of the area, such as outdoor recreation, conservation purposes and agricultural purposes.”¹³⁷ Single-family dwellings and non-habitable accessory structures are also permitted in the Inland Zone.¹³⁸ Certain additions to residential structures are permitted in the Shore Zone with a special use permit.¹³⁹ All special use permits require a site plan review.¹⁴⁰ If there is conflict between the overlay and the underlying zoning district, the more limiting regulation will control.¹⁴¹

Tisbury’s coastal overlay was created under state authority. The Massachusetts legislature created the Martha’s Vineyard Commission, which was charged with promulgating guidelines and

¹³² NARRAGANSETT CODE app. A, § 4.4(b).

¹³³ *Id.*

¹³⁴ *Id.* app. A, § 4.4(c).

¹³⁵ TISBURY, MASS., ZONING BY-LAWS § 9.01.02 (2017). There are a few specific areas enumerated for inclusion or exclusion in addition to this general delineation. *Id.*

¹³⁶ *Id.* § 9.01.03.

¹³⁷ *Id.* § 9.01.04.

¹³⁸ *Id.*

¹³⁹ *Id.* § 9.01.05.

¹⁴⁰ *Id.* § 9.01.07.

¹⁴¹ *Id.* § 9.00.

regulations for coastal resource protection.¹⁴² Municipalities on Martha's Vineyard were then given the option to enact coastal overlays in line with those established regulations,¹⁴³ which Tisbury did.

4.4.3 Greenwich, Connecticut

Greenwich, Connecticut also has a coastal overlay. The physical boundary of the overlay is defined in state law as

a continuous line delineated on the landward side by the interior contour elevation of the one hundred year frequency coastal flood zone, as defined and determined by the National Flood Insurance Act...or a one thousand foot linear setback measured from the mean high water mark in coastal water, or a one thousand foot linear setback measured from the inland boundary of tidal wetlands mapped under section 22a-20, whichever is farthest inland.¹⁴⁴

The Town of Greenwich adopted this boundary for its overlay.¹⁴⁵ The identified purposes of the zone are to continue development while also protecting the natural environment, minimizing erosion, and minimizing flooding.¹⁴⁶ Another goal is to limit the shorefront area to residential, water-dependent, and water-enhanced commercial uses.¹⁴⁷

Specified proposed developments within the coastal boundary are subject to a site plan review.¹⁴⁸ Applicants must identify in the site plan: (1) the location and spatial relationship of coastal resources; (2) a full description of the proposed project; (3) “[a]n assessment of the capability of the resources to accommodate the proposed use;” (4) suitability of the project for the site; (5) evaluation of the benefits and harms brought by the project and any proposed mitigation; (6) a “demonstration that the adverse impacts of the proposed activity upon coastal resources and future water dependent development activities are acceptable;” and (7) a demonstration of consistency with state coastal law.¹⁴⁹ In reviewing the site plan, the Town, in coordination with state agencies and hired experts, will determine whether the proposed activity: (1) accords with the Land Use Plan; (2) preserves open space and the natural environment; (3) preserves significant waterfront views; (4) does not unreasonably affect storm drainage, sewerage disposal, or other municipal services; (5) is consistent with the State Coastal Management Act; and (6) if there are negative environmental impacts, they are outweighed by the benefits of the proposed activity.¹⁵⁰

¹⁴² Higby/Fulton Vineyard, LLC v. Bd. Of Appeals of Tisbury, No. 10-P-237, 2011 WL 1048201, at *1 (Mass. App. Ct. Mar. 24, 2011).

¹⁴³ *Id.*

¹⁴⁴ CONN. GEN. STAT. § 22a-94(b) (2018).

¹⁴⁵ GREENWICH, CONN., MUNICIPAL CODE ch. 6, art. 1, § 6-111(b) (2018), available at http://www.greenwichct.org/government/departments/planning_and_zoning/building_zone_regulations/.

¹⁴⁶ *Id.* ch. 6, art. 1, § 6-111(a).

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* ch. 6, art. 1, § 6-111(c)(A).

¹⁴⁹ *Id.* ch. 6, art. 1, § 6-111(c)(C).

¹⁵⁰ *Id.* ch. 6, art. 1, § 6-111(c)(D).

Like Tisbury, the Town of Greenwich’s coastal overlay is supported by the authority of state law. However, the Connecticut Coastal Management Act actually mandates that coastal municipalities conduct a site plan review within the designated coastal boundary.¹⁵¹

4.4.4 Dana Point, California

The City of Dana Point first adopted its coastal overlay in 1993. Under the City’s ordinance, all development within the overlay requires a coastal development permit.¹⁵² All development is prohibited in beach areas with the exception of features to service public access (such as restrooms, concessions, or armoring) and residences within established residential areas.¹⁵³ Development on coastal bluffs is limited to open space, recreation, and erosion control purposes.¹⁵⁴ In areas identified as “environmentally sensitive,” the only permitted uses are those that are dependent upon the habitat or resource that makes the area environmentally sensitive.¹⁵⁵

In addition to these broad restrictions, during the permit application review process, the City applies a large laundry list of development standards that are applicable to development in the coastal overlay in addition to the development standards in the underlying zoning district.¹⁵⁶ Any inconsistencies between the overlay and the underlying zoning district will be resolved in favor of the provision that is most protective of coastal resources and public access.¹⁵⁷

Dana Point’s overlay is authorized by the California Coastal Act of 1976 and other state authority.¹⁵⁸ Once a municipality has a state approved local coastal program, the state accedes development review authority within the coastal zone to that municipality.¹⁵⁹ In fact, the California Coastal Act even permits municipalities to “adopt and enforce additional regulations, not in conflict with this act, imposing further conditions, restrictions, or limitations with respect to any land or water use or other activity which might adversely affect the resources of the coastal zone.”¹⁶⁰ Therefore, California coastal communities, like Dana Point, have broad authority to regulate development within their coastal zones.

4.4.5 Norfolk, Virginia

The most recent and most extensive example of a coastal overlay can be found in the City of Norfolk, Virginia. In January 2018, the City council adopted a new zoning ordinance that creates a “resilient point system” for developments within the entire City, with certain exceptions such as

¹⁵¹ CONN. GEN. STAT. § 22a-105(a).

¹⁵² DANA POINT, CAL., MUNICIPAL CODE § 9.27.010 (2018).

¹⁵³ *Id.* § 9.27.020(a).

¹⁵⁴ *Id.* § 9.27.020(c).

¹⁵⁵ *Id.* § 9.27.020(d).

¹⁵⁶ *Id.* § 9.27.030.

¹⁵⁷ *Id.* § 9.27.010.

¹⁵⁸ *Id.* Several provisions within Dana Point’s ordinance are lifted directly from the California Coastal Act.

¹⁵⁹ CAL. PUB. RES. CODE § 30519(a) (2018). A local coastal program is defined as “a local government’s (a) land use plans, (b) zoning ordinances, (c) zoning district maps, and (d) within sensitive coastal resources areas, other implementing actions, which, when taken together, meet the requirements of, and implement the provisions and policies of, [the California Coastal Act] at the local level.” *Id.* § 30108.6.

¹⁶⁰ *Id.* § 30005.

for historic properties.¹⁶¹ Likely due to the City’s extensive coastal area,¹⁶² this zoning applies City-wide rather than as a partial overlay. However, the City does also have a coastal hazard overlay that follows the NFIP-model discussed above.¹⁶³

The coastal overlay ordinance requires that each development application¹⁶⁴ undergo a site plan review that addresses flood risks, stormwater management, energy resilience, water conservation, water quality, multi-modal concerns (walkability), promotion of healthy and safe environments and lifestyles, and providing mixed-use and mixed-income residences.¹⁶⁵ There are also minimum elevation and stormwater retention requirements for all properties.¹⁶⁶

A developer of a multi-family or non-residential development may elect to utilize the resilient point system rather than the normal site plan review procedures described above.¹⁶⁷ Under the resilient point system, a series of development options are laid out that will improve the resilience of the property, and each option is assigned a point value.¹⁶⁸ The proposed development will need to earn a certain number of points, determined by the number of units for a residential development and the square footage for a non-residential development.¹⁶⁹ The points are grouped into three categories: risk reduction, stormwater management, and energy resilience, and each property will also have a minimum point requirement per category.¹⁷⁰ The point system is provided in Appendix A for reference. Applicants may also submit alternative resilience techniques for consideration for assignment of a point value.¹⁷¹

Norfolk’s ordinance does not cite to its enabling authority for this coastal overlay. However, based on the Virginia municipal legal system, it is possible that Norfolk was acting under state authority. Unlike Rhode Island’s Home Rule framework for municipal action,¹⁷² Virginia utilizes a system known as the Dillon Rule. Under the Dillon Rule, municipalities are limited to powers “expressly

¹⁶¹ NORFOLK, VA., ZONING ORDINANCE § 5.12.2 (2018), available at <https://www.norfolk.gov/index.aspx?NID=3910>.

¹⁶² Norfolk is a “low-lying coastal city [with] more than 144 miles of shoreline along lakes, rivers, and the Chesapeake Bay.” U.S. Global Change Research Program, *Norfolk Establishes Strategy for Coastal Resilience*, U.S. CLIMATE RESILIENCE TOOLKIT (Dec. 11, 2017, 12:04 PM), <https://toolkit.climate.gov/case-studies/norfolk-establishes-strategy-coastal-resilience>.

¹⁶³ See NORFOLK ZONING ORDINANCE §§ 3.9.7, 5.12.5(A)(1), 5.12.6(B)(1), 5.12.7(B)(1).

¹⁶⁴ There is a carve-out for single family detached dwellings. These properties can by-pass the site plan review if they have (1) a sixteen-inch elevation of the lowest habitable floor, (2) a stormwater detention system with a capacity of at least 200 gallons, and (3) electrical systems pre-installed for connections to a generator or a locally-generated electricity source, such as wind or solar. *Id.* § 5.12.5(A).

¹⁶⁵ *Id.* § 5.12.4(A).

¹⁶⁶ *Id.* §§ 5.12.6(B), 5.12.7(B).

¹⁶⁷ *Id.* §§ 5.12.6(C), 5.12.7(C).

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.* § 5.12.8.

¹⁷² Under a Home Rule scheme, a state legislature grants municipalities certain independent authority to manage local affairs. Terrance P. Hass, *Constitutional Home Rule in Rhode Island*, 11:3 ROGER WILLIAMS U. L. REV. 677, 683-84 (2006). The Rhode Island Constitution includes a Home Rule provision that grants cities and towns the right to “adopt a charter, amend its charter, enact and amend local laws relating to its property, affairs and government not inconsistent with this Constitution” or state law. R.I. Const. art. XIII, § 2.

granted [by the state], those necessarily or fairly implied from expressly granted powers, and those that are essential and indispensable.”¹⁷³

Virginia has granted its municipalities authority to carry out many adaptation procedures to address coastal resilience, including building structural flood controls, establishing setbacks, downzoning,¹⁷⁴ and condemnation.¹⁷⁵ The Virginia General Assembly has identified flooding as a significant state risk and has authorized municipalities to address that risk.¹⁷⁶ While there are limitations on that authority, those limitations are Virginia-specific and are beyond the scope of this report.¹⁷⁷ Based upon the limitations of local authority in a Dillon Rule state, Norfolk’s authority to create its coastal overlay was limited to some level of state-issued authority, although the city did not expressly identify that authority in the ordinance language.¹⁷⁸

4.5 Sample Options for Newport to Consider

Newport has a plethora of options on how to move forward to promote coastal resilience within the City, with varying degrees of efficacy and difficulty. A few examples are provided here, and consultation with engineers, environmental scientists, planners, and attorneys could help the City evaluate and select the best option.

4.5.1 Status Quo

The first option would be to make no changes to the City’s Codified Ordinances. As noted above, the City currently has a Flood Hazard Area Development chapter within its Codified Ordinances that requires a permit for construction in FEMA-identified flood zones.¹⁷⁹ This provision provides some protection against damage to property within the high flood risk areas of the City.

4.5.2 Create a Coastal District

The City could follow New Shoreham’s model and create a coastal district as a new zoning district. This would be created through the well-established zoning procedures, and it would therefore be less likely to be challenged as beyond the City’s authority. However, by creating a new zoning district, the variability of the underlying districts would be lost within the newly created district.

4.5.3 Create a Coastal Overlay

Another option would be to create a coastal overlay, applying it to either the current special flood hazard areas, areas identified for future sea level rise inundation, 200 feet from the coastal feature,

¹⁷³ Marble Technologies, Inc. v. City of Hampton, 690 S.E.2d 84, 88 (Va. 2010).

¹⁷⁴ Downzoning involves voluntary agreements with property owners to limit development on their lots below the established zoning requirements. Mary-Carson Saunders, *The Dillon Rule & Norfolk Sea Level Rise: An Analysis of the Limited Impact of the Dillon Rule on Planning for Sea Level Rise in Norfolk*, VA. COASTAL POLICY CLINIC, 5 (2013), available at <https://scholarship.law.wm.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1008&context=vcclinic>.

¹⁷⁵ *Id.* (citing VA. CODE ANN. §§ 15.2-970, 15.2-2279, 15.2-2286, 15.2-1901.1).

¹⁷⁶ *Id.* at 6 (citing VA. CODE ANN. §§ 10.1-658, 10.1-659).

¹⁷⁷ *See id.*

¹⁷⁸ *See Marble Technologies*, 690 S.E.2d at 88.

¹⁷⁹ NEWPORT CODE § 15.24.020.

or some other identifying demarcation. Once the boundaries of the coastal overlay are determined, there are several options for how the City could choose to regulate within the overlay.

One common theme among the various coastal overlays examined is requiring a permit for all development within the overlay and mandating a site plan review in order to obtain that permit.¹⁸⁰ This would allow the City to individually review each proposed development to determine whether it meets with City and State standards.

Another common theme in coastal overlays either alone or in conjunction with a site plan review is establishing additional development standards applicable only within the overlay.¹⁸¹ Examples of these standards include elevation,¹⁸² stormwater retention,¹⁸³ public access,¹⁸⁴ wetlands protection,¹⁸⁵ shoreline protection,¹⁸⁶ water quality protection,¹⁸⁷ flooding,¹⁸⁸ and public health and safety.¹⁸⁹

Finally, Newport could go beyond just establishing broad design standards and instead adopt a more concrete regulatory scheme like the resilient point system laid out by Norfolk, Virginia. This is the most progressive form of coastal management identified by this report.

If Newport decided to adopt a coastal overlay, it could model any of the overlays discussed in this report, identify additional options, or create its own plan. Consultation with engineers, environmental scientists, planners, attorneys, and other experts will be critical in creating any overlay scheme. Since there is no explicit authorization from the Rhode Island General Assembly to create a coastal overlay, the design of the overlay needs to clearly originate in the City's local authority in order to have any chance of withstanding challenge.¹⁹⁰

4.5.4 Seek Action from the General Assembly

Narragansett created its overlay without explicit state authority. However, the majority of similar programs were created through or with the authority of state statutes.¹⁹¹ Without express state authority, any zoning actions must be based in the City's local authority, which leaves the City

¹⁸⁰ NARRAGANSETT CODE app. A, § 4.4(b); GREENWICH CODE ch. 6, art. 1, § 6-111(c)(A); NORFOLK ZONING ORDINANCE § 5.12.4(A); TISBURY BY-LAWS § 9.01.07.

¹⁸¹ NARRAGANSETT CODE app. A, § 4.4(c); DANA POINT CODE § 9.27.030; GREENWICH CODE ch. 6, art. 1, § 6-111(c)(D); NORFOLK ZONING ORDINANCE §§ 5.12.5(A), 5.12.6(B), 5.12.7(B).

¹⁸² NORFOLK ZONING ORDINANCE §§ 5.12.5.(A)(1), 5.12.6(B), 5.12.7(B).

¹⁸³ GREENWICH CODE ch. 6, art. 1, § 6-111(c)(D); NORFOLK ZONING ORDINANCE §§ 5.12.5(A)(2), 5.12.6(B), 5.12.7(B).

¹⁸⁴ NARRAGANSETT CODE app. A, § 4.4(c); DANA POINT CODE § 9.27.030.

¹⁸⁵ DANA POINT CODE § 9.27.030.

¹⁸⁶ NARRAGANSETT CODE app. A, § 4.4(c); DANA POINT CODE § 9.27.030.

¹⁸⁷ NARRAGANSETT CODE app. A, § 4.4(c); DANA POINT CODE § 9.27.030.

¹⁸⁸ NARRAGANSETT CODE app. A, § 4.4(c).

¹⁸⁹ *Id.*

¹⁹⁰ See New England Expedition-Providence, LLC v. City of Providence, 773 A.2d 259, 262 (R.I. 2001) (recognizing that zoning is a valid exercise of the state's police powers); Bliss, 2005 WL 957729, at *5 (citing Mesolella, 439 A.2d at 1374) (recognizing that a municipality's zoning power is a valid exercise of its local authority only if it is rooted in the health, safety, and welfare of the public).

¹⁹¹ See, e.g., Higby/Fulton Vineyard, LLC, 2011 WL 1048201, at *1; CAL. PUB. RES. CODE § 30519(a); CONN. GEN. STAT. § 22a-105(a).

more vulnerable to a challenge to the newly created ordinance.¹⁹² Instead, Newport could advocate for the Rhode Island General Assembly to enact a law that authorizes municipalities to create coastal overlays with special zoning regulations. With state authorization, the City is far less likely to face a challenge to its enactment of a coastal overlay.

5. Conclusion

This report has examined three steps that the City of Newport could take towards implementing its CP: (1) incorporating coastal resilience concerns into its DPR process; (2) creating a parking surfaces ordinance; and (3) designing a coastal overlay. As none of these steps are expressly required under state law, the City would be taking action through its local authority, particularly rooting its actions in protection of public health and general welfare.¹⁹³ However, it is imperative that these actions be based on sound science and engineering principles. To that end, the City should consult with engineers, environmental scientists, planners, attorneys, and other relevant experts when considering or designing standards to employ in any new ordinances.

¹⁹² See Marran v. Baird, 635 A.2d 1174, 1177 (R.I. 1994) (recognizing that municipalities are not permitted to act upon “matters of statewide concern”); Town of East Greenwich v. O’Neil, 617 A.2d 104, 107 (R.I. 1992) (recognizing that a conflict between state legislative enactments and municipal ordinances will always be resolved in favor of the state legislature).

¹⁹³ See New England Expedition-Providence, LLC, 773 A.2d at 262 (recognizing that zoning is a valid exercise of the state’s police powers); Bliss, 2005 WL 957729, at *5 (citing Mesolella, 439 A.2d at 1374).

Appendix A

This Appendix contains the language of Norfolk, Virginia’s Resilient Point System for residential and non-residential developments.¹⁹⁴

5.12.6 Resilience Quotient Compliance for Multiple Dwelling Unit Residential Development

C. Alternative Minimum Requirements

Any multiple dwelling unit residential development may elect to comply with the resilience quotient standards for residential development in this subsection in lieu of the portion of the site plan review process established in Section 5.12.4, Compliance with Resilience Quotient Standards, above. The point system provides options within each of three components and each development shall achieve a minimum number of points from the menu of options shown in Table 5.12.6, Resilient Point System for Residential Development, based on the number of dwelling units within the development as shown below.

- (1) 1 to 5 units: 4 points total, no less than 1 point per component.
- (2) 6 to 29 units: 5 points total, no less than 1.5 points per component.
- (3) 30 to 89 units: 6 points total, no less than 1.5 points per component.
- (4) 90 to 199 units: 8 points total, no less than 2 points per component.
- (5) 200 or more units: 10 points total, no less than 2 points per component.

Any actions taken to meet the general requirements of Section 5.12.6.B for which points are available shall be included when tabulating the number of points achieved within each component.

| TABLE 5.12.6: RESILIENT POINT SYSTEM FOR RESIDENTIAL DEVELOPMENT | |
|--|---|
| Resilient Development Activity | Points Earned |
| Component 1: Risk Reduction | |
| Construct building to meet 110-mile wind load design requirements of the VUSBC | 2.00 |
| Elevate the ground story finished floor and all significant electrical and mechanical equipment no less than 3 feet above highest adjacent grade | 1.00, plus 0.50 per ft. above 3 ft. |
| Construct an impact-resistant (hail, tree damage) roof | 0.50 |
| Install impact (hurricane or wind) resistant windows | 0.50 |
| Install operable storm shutters | 0.50 |
| Establish operating procedures for how the project will handle loss of off-site or grid power, transition to a backup source of power, and transition back to normal operation | 0.50 |
| Component 2: Stormwater Management | |
| Install a <u>green roof</u> on at least 50 percent of the total roof area (25 percent for renovated buildings) and only plant materials permitted in <u>Section 5.2, Landscaping Standards</u> | 2.00 |
| Install a green roof on at least 25 percent of the total roof area and only plant materials permitted in <u>Section 5.2, Landscaping Standards</u> | 1.00 |

¹⁹⁴ NORFOLK ZONING ORDINANCE §§ 5.12.6(C) (residential), 5.12.7(C) (non-residential).

TABLE 5.12.6: RESILIENT POINT SYSTEM FOR RESIDENTIAL DEVELOPMENT

| | |
|--|----------------------------------|
| Provide <u>rain gardens</u> , street-side swales, soil and turf management or other appropriate storm water infiltration system(s) to capture and infiltrate a minimum of 25 percent of site-generated stormwater | 1.00 |
| Use pervious or grass paving systems on at least 50% of parking lot and driveway area in the development | 1.00 |
| Provide a fenced, centrally-located community garden space (which may be located as a rooftop garden) for residents and for urban gardening purposes at a ratio of 50 square feet per residential <u>dwelling unit</u> | 1.00 |
| Retain at least 20 percent of existing pre-development natural, non-exotic vegetation | 0.75 |
| Provide a percentage of open space greater than that required in <u>Table 5.5.4(A), Required Open Space Set-Asides</u> | 0.50 per additional 5% preserved |
| For new tree plantings, enhance tree pits with specially engineered soils and native plants to absorb and filter runoff | 0.25 |
| Preserve large, non-exotic <u>trees</u> on site (large tree defined as 20 feet or greater in height and 24 inches or greater <u>DBH</u>) | 0.10 per tree preserved |
| Component 3: Energy Resilience | |
| Generate no less than 75% of the electricity expected to be used by the development from on-site solar and/or wind energy sources | 3.00 |
| Generate no less than 50% of the electricity expected to be used by the development from on-site solar and/or wind energy sources | 2.00 |
| Install a <u>cool roof</u> on at least 50 percent of the total roof area of the development | 1.50 |
| Generate no less than 25% of the electricity expected to be used by the development from on-site solar and/or wind energy sources | 1.00 |
| Generate no less than 25% of the electricity needed expected to be used by the development from on-site solar and/or wind energy sources | 1.00 |
| Install a geothermal energy heating & cooling system serving all residential units and common areas | 1.00 |
| Install a conditioned crawlspace under each primary structure | 1.00 |
| Install <u>green walls</u> on a minimum of 50 percent of the primary building's walls | 1.00 |
| Adopt an energy efficient site lighting budget (based on the International Dark Sky Association's designations for allowable lumens per square foot of specified use or type of hardscape) | 1.00 |
| Equip the project with at least one alternative, independent source of electricity supply so that the project is capable of fully operating if a primary source of power experiences interruption | 1.00 |
| Pre-wire all <u>dwelling units</u> to accept power provided by on-site solar panels and/or wind turbines | 1.00 |
| Install a 20+ SEER HVAC system in each dwelling unit | 1.00 |
| Re-use or repurpose an historic building that is listed on a national, state, or local register, or at least 75% (based on surface area) of existing historic structures | 1.00 |
| Install a cool roof on at least 25 percent of the total roof area of the development | 0.75 |
| Install a 16-19 SEER HVAC system in each dwelling unit | 0.50 |

TABLE 5.12.6: RESILIENT POINT SYSTEM FOR RESIDENTIAL DEVELOPMENT

| | |
|---|-----------------------------|
| Install multi-room mini-split heating and cooling systems in each dwelling unit | 0.50 |
| Install a solar or tank-less water heating system in each dwelling unit | 0.50 |
| Install no fewer than 2 operable windows on no fewer than two exterior walls in each dwelling unit | 0.50 |
| Install a generator for power generation to keep critical functions (refrigerator, freezer, basic lighting, healthcare appliances, etc.) working in the event of power failure | 0.50 |
| Provide shade, open-grid pervious pavement, or solar-reflective paving on 50% of total area of roads, sidewalks, and parking areas in the development | 0.50 |
| Provide electric vehicle (EV) level 3 charging stations, located in a parking structure or off-street parking lot, that are made available for use by residents | 0.50 for every two stations |
| Plant vegetation so that 50% of the eastern and western building facades are shaded at noontime on the summer solstice within 10 years of planting | 0.50 |
| Use vegetation or vegetated structures to shade each dwelling's HVAC unit | 0.25 |
| Automatically turn off all outdoor signage and lighting between the hours of 10:00 p.m. and 7:00 a.m. except for security lighting | 0.25 |
| Provide a minimum of five percent of required automobile parking spaces that are signed and reserved for hybrid/electric/low energy vehicles in preferred locations near primary building entrances | 0.25 |
| Provide electric vehicle (EV) level 2 charging stations, located in a parking structure or off-street parking lot, that are made available for use by residents | 0.25 for every two stations |
| Re-use or repurpose an existing non-historic building, or at least 75% (based on surface area) of existing structures | 0.25 |
| Install highly-reflective blinds/shades to reduce solar gain | 0.25 |

5.12.7 Resilience Quotient Compliance for Non-Residential Development

C. Alternative Minimum Requirements

Any non-residential development may elect to comply with the resilience quotient standards for non-residential development in this subsection in lieu of the portion of the site plan review process established in Section 5.12.4, Compliance with Resilience Quotient Standards, above. The point system provides options within each of three components and each development shall achieve a minimum number of points from the menu of options shown in Table 5.12.7.

- (1) Less than 10,000 sq. ft.: 3 points total, no less than 1 point per component.
- (2) 10,000 to 25,000 sq. ft.: 4 points total, no less than 1.5 points per component.
- (3) 25,000 to 50,000 sq. ft.: 6 points total, no less than 1.5 points per component.
- (4) Above 50,000 sq. ft.: 10 points total, no less than 2 points per component.

Any actions taken to meet the general requirements of Section 5.12.7.B, Generally, for which points are available shall be included when tabulating the number of points achieved within each component.

TABLE 5.12.7.: RESILIENT POINT SYSTEM FOR NON-RESIDENTIAL DEVELOPMENT

| Resilient Development Activity | Points Earned |
|--|-------------------------------------|
| Component 1: Risk Reduction | |
| Construct building to meet 110-mile wind load design requirements of the VUSBC | 2.00 |
| Equip the project with at least one alternative, independent source of electricity supply so that the project is fully capable of operating if a primary source of power experiences an interruption | 1.50 |
| If the project involves a critical facility that is intended to remain operational in the event of a flood, or whose function is critical for post-flood recovery, design the facility to be protected and operable at the water levels represented by a 0.2% annual chance (500-year) flood | 1.00 |
| Elevate the ground story finished floor and all significant electrical and mechanical equipment no less than 3 feet above highest adjacent grade or to an elevation of 11 (NAVD '88) | 1.00, plus 0.50 per ft. above 3 ft. |
| Install a generator for power generation in the event of power failure sufficient to keep critical operations functional | 0.50 |
| Establish operating procedures for how the project will handle loss of off-site or grid power, transition to a backup source of power, and transition back to normal operation | 0.50 |
| Component 2: Stormwater Management | |
| Install a <u>green roof</u> on at least 50 percent of the total roof area (25 percent for renovated buildings) and only plant materials permitted in <u>Section 5.2, Landscaping Standards</u> | 2.00 |
| Install a green roof on at least 25 percent of the total roof area and only plant materials permitted in <u>Section 5.2, Landscaping Standards</u> | 1.00 |
| Provide <u>rain gardens</u> , street-side swales, turf and soil management or other appropriate storm water infiltration system(s) to capture and infiltrate a minimum of 25 percent of site generated stormwater | 1.00 |
| Use pervious pavement on at least 50% of parking lot and driveway area in development | 1.00 |
| Retain at least 20 percent of existing pre-development natural, non-exotic vegetation | 0.75 |
| Provide a percentage of open space greater than that required in <u>Table 5.5.4.A, Required Open Space Set-Asides</u> | 0.50 per additional 5% preserved |
| For new <u>tree</u> plantings, enhance tree pits with specially engineered soils and native plants to absorb and filter runoff | 0.25 |
| Preserve large, non-exotic trees on site (large tree defined as 20 feet or greater in height and 24 inches or greater <u>DBH</u>) | 0.10 per tree preserved |
| Component 3: Energy Resilience | |
| Generate no less than 75% of the electricity expected to be used by the development from solar and/or wind energy sources | 3.00 |
| Generate no less than 50% of the electricity expected to be used by the development from solar and/or wind energy sources | 2.00 |
| Install a <u>cool roof</u> on at least 50 percent of the total roof area of the development | 1.50 |
| Generate no less than 25% of the electricity expected to be used by the development from solar and/or wind energy sources | 1.00 |

TABLE 5.12.7.: RESILIENT POINT SYSTEM FOR NON-RESIDENTIAL DEVELOPMENT

| | |
|---|-----------------------------|
| Install a geothermal heating and cooling system serving all parts of the project | 1.00 |
| Install a conditioned crawlspace under each primary structure | 1.00 |
| Install <u>green walls</u> on a minimum of 50 percent of the primary building's walls | 1.00 |
| Install 20+ SEER HVAC systems throughout the project | 1.00 |
| Re-use or repurpose an historic building that is listed on a national, state, or local register, or at least 75% (based on surface area) of existing historic structures | 1.00 |
| Preserve or provide trees on the site which will within 10 years growing time will provide tree canopy over no less than 50% of the total site | 1.00 |
| Install a cool roof on at least 25 percent of the total roof area of the development | 0.75 |
| Install 16-19 SEER HVAC systems throughout the project | 0.50 |
| Install mini-split heating and cooling systems throughout the project | 0.50 |
| Install solar or tank-less water heating systems throughout | 0.50 |
| Provide shade, open-grid pervious pavement, or solar-reflective paving on 50% of total area of roads, sidewalks, and parking areas in the development | 0.50 |
| Provide electric vehicle (EV) level 3 charging stations, located in a parking structure or off-street parking lot, that are made available for use by users of the project | 0.50 for every two stations |
| Plant vegetation so that 50% of the eastern and western building facades are shaded at noontime on the summer solstice within 10 years of planting | 0.50 |
| Orient buildings within 20 percent of east-west axis for maximum solar exposure | 0.50 |
| Provide operable windows on at least 2 façades on each floor which provide flow-through ventilation | 0.25 |
| Use vegetation or vegetated structures to shade HVAC units | 0.25 |
| Automatically turn off all outdoor signage and lighting between the hours of 10:00 p.m. and 7:00 a.m. except for security lighting | 0.25 |
| Provide a minimum of five percent of required automobile parking spaces that are signed and reserved for carpools, hybrid, electric, and low energy vehicles in preferred locations near primary building entrances | 0.25 |
| Provide electric vehicle (EV) level 2 charging stations, located in a parking structure or off-street parking lot, that are made available for use by users of the project | 0.25 for every two stations |
| Re-use or repurpose an existing non-historic building, or at least 75% (based on surface area) of existing structures | 0.25 |
| Install highly-reflective blinds/shades to reduce solar gain | 0.25 |
| Provide skylights in an amount necessary to ensure natural lighting is provided to at least 25 percent of the habitable rooms in the structure | 0.25, plus |