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**LOCAL LAW PROVISIONS
FOR CLIMATE CHANGE
ADAPTATION**

By Justin Gundlach and P. Dane Warren

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The Sabin Center for Climate Change Law develops legal techniques to fight climate change, trains law students and lawyers in their use, and provides the legal profession and the public with up-to-date resources on key topics in climate law and regulation. It works closely with the scientists at Columbia University's Earth Institute and with a wide range of governmental, non-governmental and academic organizations.

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INTRODUCTION

In September 2014, New York enacted the Community Risk and Resiliency Act (CRRA), which requires in part that the New York Department of State (DOS) and the Department of Environmental Conservation (DEC) create model local laws relating to climate change adaptation for use by local governments. In an effort to assist the State with drafting model local laws for adaptation; to encourage the State to incorporate a broad range of adaptation strategies, including retreat from areas of high flood risk; and to assist local governments with implementation of these programs. The Sabin Center for Climate Change Law has assembled existing and suggested local law provisions that reflect diverse approaches to adaptation to climate-enhanced flood risk. While many of the approaches reflected in this paper deal with coastal local laws, local governments could adopt similar strategies and language in riverine floodplains.

This document is not a single, comprehensive “model local law” that a local government might adopt in full. Rather, it is a collection of useful statutory options—one that takes note of local law provisions enacted by local governments in New York State, as well as relevant state laws enacted in New York and other jurisdictions. Where different local governments have used similar statutory language, this paper only includes one version. Throughout, citations to particular laws and regulations are hyperlinked for ease of access. The paper is organized into three sections: Permitting Review, Targeted Development Restrictions and Prudent Development, and Protection/Armoring. Those sections follow a brief description of model legislative language that relates to sea level rise.

1. General Provision on Sea Level Rise and Flood Maps

In addition to the model adaptation local law, the CRRA requires the State to adopt sea level rise projections to aid in adaptation planning. The following overarching provision would require local planners and regulators to take into account the updated CRRA sea level rise projections and the most up-to-date Federal Emergency Management Agency (FEMA) flood maps for all planning documents, zoning rules, and any other local laws dealing with flood

prone areas. For municipalities not near a coastline, only the provision about FEMA flood maps would be appropriate.

Beginning on or before [Insert Date], all local planning decisions, zoning decisions, and other regulatory decisions in respect to land use or construction, in [Insert Local Government] that require review under the State Environmental Quality Review Act [and are classified as either Type I or II actions under the State Environmental Quality Review Act or as Unlisted actions that require preparation of an Environmental Impact Statement] shall take into account the most recent sea-level rise projections adopted by the State of New York, pursuant to its obligations under the Community Risk and Resiliency Act, and the most recently adopted FEMA flood maps available.

2. Permit Review

Many local governments require completion of an environmental review process before granting permits for development in flood prone areas, including coastlines and floodplains. This section includes model language to ensure that such reviews adequately account for sea level rise and climate change-related flood risk.

2.1. Wetlands

Natural wetlands provide a barrier to sea level rise, storm surge, and extreme precipitation events—all dangers that will increase as a result of climate change. An environmental review process designed to protect wetlands as part of a permitting system can therefore provide substantial protection for local communities. As a general matter, the New York State Department of Conservation regulates freshwater and tidal wetlands in the state under Articles 24 and 25 of the Environmental Conservation Law. Local governments, however, can also regulate activity in wetlands in their jurisdiction.

The Town of Lewisboro, for example, imposes an environmental review process that discourages development in wetlands, watercourses, and buffer areas, and that requires consideration of the benefits that wetlands provide vis-à-vis climate change. Sections 217-5 and 217-8 outline prohibited, allowable, and regulated activities and the standards for reviewing permit applications. Section 217-8(A)(3) (Standards for Reviewing Permit Applications)

requires local permit authorities to consider: “The impact of the proposed activity and reasonably anticipated similar activities upon flood flows, flood storage, storm barriers, and water quality.” See [Town of Lewisboro, N.Y., Code §§ 217-5–217-8](#) (2004).¹ The following model language draws on Lewisboro’s example:

In reviewing permit applications, the [Insert Permit Authority – e.g. Planning Board] shall consider the ecological benefits (including but not limited to providing natural barriers against sea level rise, storm surge, and extreme precipitation) of wetlands, watercourses, and/or buffer areas.

2.2. Environmental Review Commissions

Where a particular agency or commission is responsible for reviewing building permit applications, a local government might follow the example of the Village of Port Chester and charge that agency or commission with integrating consideration of environmental factors, priorities, and legal requirements into its regular business. See [Village of Port Chester, N.Y., Code §§ 332-5–332-6](#) (1992). For instance, Port Chester created a Waterfront Commission to review building permit applications for consistency with the Local Waterfront Revitalization Program and the State Coastal Management Program. The village’s local laws direct the Waterfront Commission to “Minimize flooding and erosion hazards through proper siting of buildings and structures; protection of natural protective features; construction of carefully selected, long-term structural measures; and the use of appropriate nonstructural means.” *Id.*

2.3. General Flood Avoidance

Local laws can also steer local governments’ own development decisions away from flood prone areas, in addition to requiring that a local government consider sea level rise and flood risk when undertaking or reviewing a project. Specifically, a local law could require the local government’s planning and review process to include consideration of alternative development locations away from coastal areas and floodplains. The following model language provides one means of doing so:

¹ Throughout this document, citations to authorities, including laws, ordinances, regulations, and guidance documents are hyperlinked to allow for quick access to their source.

The [Insert Permit Authority – e.g. Planning Board] shall not issue permits for development in a wetland or riverine or coastal floodplain without first considering alternative non-flood-prone locations that could serve the purpose of the development.

3. Targeted Development Restrictions and Prudent Development

The term “targeted development restrictions” is used in this paper to refer to policies designed to move people and structures out of areas made vulnerable to flooding by increasing incidences of sea-level rise, storm surge, and/or heavy precipitation. Targeted development restrictions or “retreat” policies that promote natural storm barriers tend to serve environmental goals better than armoring programs.² However, various political and economic obstacles often impede adoption and implementation of targeted development restrictions, especially in more heavily developed areas. This section describes various tools local governments can use to implement targeted development restrictions and prudent development policies.

3.1. Planning Documents

Planning documents guide local development, inform investor decision-making, and are vital for prudent coastal and floodplains development. New York State’s [Coastal Management Program](#) encourages and facilitates local governments’ use of planning documents and rewards localities that do so with funds and technical assistance. Participation begins with submission of a Local Waterfront Revitalization Program proposal—a planning and decision-making document—that accords with Coastal Management Program (CMP) guidelines and enforceable coastal policies. The LWRP development process, as authorized by Article 42 of the Executive Law, provides localities with an opportunity to refine implementation of CMP policies required by state law in their particular jurisdictions. A completed LWRP guides local governments and developers’ compliance with the CMP and ensures that localities integrate resiliency considerations into their planning documents. It also makes the process involved in compliance

² See Managed Retreat Strategies, NOAA, U.S. Department of Commerce, <http://1.usa.gov/IEB7F1> (last visited Oct. 5, 2015); Anne Siders, Managed Coastal Retreat: A Legal Handbook on Shifting Development Away from Vulnerable Areas (Oct. 1, 2013), <http://bit.ly/1lpRU2o>.

more efficient. The following paragraphs are model language for introducing a Local Waterfront Revitalization proposal:

- A. [OPTION ONE] The [Insert Relevant City Agency – e.g. City Council] of [Insert Local Government] hereby authorizes [Insert Relevant Government Body – e.g. City Planner] to develop a Local Waterfront Revitalization Program in accordance with Title 19 of NYCRR Part 600, 601, 602, and 603.
- A. [OPTION TWO] On or before [Insert Date], the [Insert Relevant Government Body – e.g. City Planner] shall develop a Local Waterfront Revitalization Program in accordance with Title 19 of NYCRR Part 600, 601, 602, and 603.
- B. The objectives of a newly created Local Waterfront Revitalization Program shall be achieved by the adoption of implementing legislation and provisions in the relevant planning documents, zoning restrictions, and other local requirements related to flood prone areas by the [Insert Relevant Department – e.g. City Planner, Zoning Commission, etc.] on or before [Insert Date
- C. [Insert Relevant Government Body – e.g. City Planner] shall, in accordance with Executive Law article 42, submit the Local Waterfront Revitalization Program to the New York Department of State for review on or before [Insert Date –].

Option One would authorize a locality to develop and implement a Local Waterfront Revitalization Program. Option Two would *require* a locality to do so *by a certain date*. Subsections B and C are compatible with either Option One or Two.

3.2. Information Disclosure

Local governments can use the flood maps produced by FEMA or the sea level rise projections adopted by New York’s DEC³ to identify vulnerable areas and can require disclosure of that vulnerability to current property owners and prospective buyers. The goal of

³ CRRA requires DEC to develop and update sea level rise projections. DEC promulgated the first set of projections in draft form on [insert date] 2016 and will update them every five years.

the following model language is to require local governments to make updated New York flood maps and sea level rise projections available via town websites.

- A. On or before [Insert Date three months after the state releases sea level rise projections], [Insert Local Government Entity] shall:
 - 1. Make publically available updated sea level rise projections provided by the Department of State and Department of Environmental Conservation pursuant to the Community Risk and Resiliency Act online by [Local Government Entity] at [Insert Local Government Webpage].
 - 2. Make publically available the most up to date Federal Emergency Management Agency (“FEMA”) flood maps online by [Insert Local Government Entity] at [Insert Local Government Webpage].
- B. Nothing in this section shall be construed to create a cause of action against any local government department or agency. The Disclosure Requirement contained herein is for informational purposes only. [Insert Local Government] assumes no responsibility for the accuracy of the information provided or for actions taken or not taken in reliance on the information disclosed within this section.

3.2.1. Property Condition Disclosure Statements

Statutes in all states specify items that the seller of a property must disclose to a potential buyer. As discussed below, localities can supplement such requirements.

[N.Y. Real. Prop. § 462 \(2002\)](#) requires all sellers of residential real property in New York to fill out and sign a “[Property Condition Disclosure Statement](#)” form and deliver it to the buyer or buyer’s agent prior to the sale. If the seller fails to fill out the Disclosure Statement form then the seller must give the buyer a \$500 credit at closing. The form instructs sellers to disclose, among other things, *known* contamination on the property from asbestos, petroleum products, lead, and other hazardous materials. The form also instructs sellers to disclose whether (to their knowledge) the property lies in a designated floodplain or designated wetland. Importantly, however, it allows sellers to indicate “Unknown” in answer to “Is any or all of the property located in a designated flood plain?” and states that “Buyer is encouraged to check public records concerning the property (e.g., tax records and wetland and flood plain maps).”

In South Carolina, state law requires sellers of real property to disclose erosion and, where appropriate, coastal risks based on the setback lines most recently adopted by the state's Department of Health and Environmental Control. See [S.C. Code § 48-39-330 \(1993\)](#). Similarly, [Cal. Civ. Code § 1103 \(2005\)](#) requires California real estate agents or individual sellers acting without an agent to disclose whether a property is located within a flood hazard area designated by FEMA.

Local governments could encourage the owners and potential buyers of real property to consider such risks more carefully in the following ways. Local governments could require a seller to disclose known flood history of the property, or the flood history the seller *knows or can reasonably be expected to know*.⁴ Alternatively, rather than just adding that item to the list of disclosures, local governments could require such a disclosure and not permit a seller to avoid it by providing a \$500 credit to the buyer. Local governments could also require sellers to disclose not only their knowledge but also to indicate what public records they consulted, if any, prior to making the required disclosure. Finally, local law can also ensure that liability for detrimental reliance on a seller's disclosures accrues to the seller only by disclaiming any liability on the part of local government agencies for actions taken or not taken in reliance on information disclosed pursuant to such provisions.

3.3. Land Acquisition

In an effort to promote movement away from the coastline in certain circumstances, local governments have sometimes successfully turned to acquisition of land in fee simple. Because land acquisition programs generally must be large in scale in order to be effective, such programs are often quite expensive. Examples of recent large-scale buyout programs include the New York Post-Hurricane Sandy Acquisition Program⁵ and the Hurricane Katrina buyout program. Three notable features of New York's programs deserve mention here: first, they

⁴ Note that there are, as of September 2015, four proposed amendments to this law that would extend the disclosure requirement to cover various things such as mold and methamphetamine exposure.

⁵ Governor's Office of Storm Recovery, NY Rising: Buyout and Acquisition Policy Manual, (Apr. 7, 2014), <http://on.ny.gov/1YoeHJN>.

encourage property owners to resettle within the same county, which helps maintain the local tax base; second, they encourage property owners to sell their property in groups, which helps avoid piecemeal acquisition; and third, both programs were funded by FEMA and administered by the state.

Local governments, following the Town of Warwick’s example (discussed below), can also make land acquisition part of their storm recovery strategy. This sort of approach provides local governments with full control over the land acquired and avoids regulatory takings claims.

The Town of Warwick created a land acquisition fund and advisory board that accepts applications from homeowners looking to sell agricultural or open land to the Town. Sections 54-3 through 54-6 of Warwick’s code establish the advisory board, set out its duties, and establish the land acquisition fund. Those measures do not pertain to coastal or other flood prone areas, however. The following model language adapts the Town of Warwick’s Agricultural Land Acquisition Fund local law to pertain to flood prone areas. See [Town of Warwick, N.Y., Code §§ 54-3–54-6](#) (2001).

- I. [INSERT FUND TITLE]
 - A. The [INSERT FUND TITLE – Suggested “Flood Prone Areas Fund” or “the fund”] is hereby established.
 - B. Deposits into the fund may include revenues of the Town from whatever source and shall include, at a minimum, [INSERT TITLE] Bond Funds and any revenues from a real estate transfer tax which may be established.
 - C. The fund shall also be authorized to accept gifts. Interest accrued by monies deposited in the fund shall be credited to the fund.
 - D. In no event shall monies deposited in the fund be transferred to any other fund or account.
 - E. Nothing contained in this chapter shall be construed to prevent the financing, in whole or in part, pursuant to the NYS Local Finance Law, of any acquisition authorized by this chapter. Monies from the fund may be utilized to repay any indebtedness or obligations incurred pursuant to the Local Finance Law, consistent with effectuating the purposes of this chapter.
- II. Purposes of the fund
 - A. The exclusive purposes of the Fund shall be:

1. To implement the [INSERT LOCALITY] [INSERT FUND TITLE] and acquisition program.
 2. To acquire interests or rights in real property, including development rights, for the preservation and restricted development of flood prone lands within the [INSERT LOCALITY]
- B. The acquisition of interests and rights in real property under the fund shall be in cooperation with willing sellers.

3.4. Conservation Easements

Conservation easements that preserve coastal storm barriers and flood plains are another potentially useful climate adaptation tool. They reward landowners that donate land for conservation—i.e., permanent non-development—with a tax deduction, and in some cases a property tax reduction. Once created, conservation easements are typically held by a land trust or local government. Like land acquisition, however, conservation easement programs can result in a fragmentary approach to improving climate adaptation.

The portions of New York’s Environmental Conservation Law (ECL) pertaining to conservation easements do not expressly contemplate climate adaptation, but they provide for conservation easements that can maintain wetlands or preserve flood prone areas and open space from development. Such uses are compatible with the purposes outlined by the statute. See [N.Y. Env’tl. Conserv. § 49-0301](#) (2008).

Several New York towns have enacted conservation easement laws based on the ECL. Those local laws generally require a landowner to apply to their local government for a conservation easement on their land. See, e.g., [Town of Eden, N.Y., Code §§ 95-2 & 95-6–95-8](#) (2001); [Town of Gardiner, N.Y., Code §§ 220-20 & 220-21](#) (2008); [Town of East Hampton, N.Y., Code §§ 16-3–16-7](#) (1987) (distinct from Eden and Gardiner for accepting easements via exactions as well as application by a property owner). None of these local laws expressly contemplate climate adaptation or easements on coastal or riverine flood prone areas. The following model conservation easement language does so; it is adapted from the Town of Eden’s local law:

- A. It is the purpose of this chapter to provide for the acquisition of interests or rights in real property for the [preservation of flood prone areas to prevent flooding or serve as an ecological buffer zone] which shall constitute a public purpose for which public funds may be expended or advanced after due notice and a public hearing, by which the Town [NAME] may acquire by purchase, gift, grant, bequest, devise, lease or otherwise the fee of any lesser interest, development right, easement, covenant or other contractual right necessary to acquire [flood-prone areas] as the same is defined in [Section B] herein.
- B. “Floodplain” or “Flood-prone area” means any land area susceptible to being inundated by water from any source.

3.5. Zoning and Regulation

New York’s General City Law gives local governments in New York State broad authority to enact zoning regulations “to secure safety from fire, flood and other dangers and to promote the public health and welfare,” N.Y. Gen. City Law § 20 (McKinney)—purposes that encompass promoting resilience in coastal or riverine flood prone areas.⁶ Zoning regulations vary widely in their particulars, and this section takes note of several different examples, including restricted hazard zones, environmental overlay districts, and others.

The Town of Poughkeepsie uses zoning requirements to protect aquatic resources by regulating, permitting, and prohibiting various activities in the vicinity of water bodies and wetlands. See [Town of Poughkeepsie, N.Y., Code § 113 & 116](#) (2003). The Town of Irondequoit’s zoning laws create environmental protection overlay districts to regulate development on or around wetlands, floodplains, watercourses, and coastal erosion regions. See [Town of Irondequoit, N.Y., Code §§ 235-41–235-57](#) (1986). The Town of Mendon’s local law takes a similar approach but creates ten separate overlay districts to Irondequoit’s six. See [Town of Mendon, N.Y., Code §§ 200-21–200-32](#) (2007).

⁶ Localities’ authority to issue zoning regulations is preempted where it conflicts with the general law of the state, unless some special legislative provision resolves the conflict. 1 N.Y. Zoning Law & Prac. § 4:22.

3.5.1. Erosion Control Hazard Area Regulations

ECL Article 34 calls upon DEC to designate “coastal erosion hazard areas” and assigns localities the lead role in specifying how best to restrict development and promote natural erosion protections in those areas. See [N.Y. Env'tl. Conserv. § 34-0105](#) (1985). Should a locality fail to enact a local law of which DEC approves, either by not timely enacting anything for the purpose or by enacting something insufficient under Article 34’s substantive requirements, the DEC regulations that impose minimum erosion control standards, namely [6 NYCRR §§ 505.4–505.15](#), apply to the locality. *Id.* § 34-0107. Port Jefferson is an example of a locality that has enacted a local law – approved by DEC – that prohibits construction in its “erosion control hazard area” unless that construction satisfies “coastal erosion management” permitting requirements. See [Village of Port Jefferson, N.Y., Code § 111](#) (2013).

3.5.2. Downzoning

Downzoning is a strategy by which local governments limit development and redevelopment to low-density or low-intensity uses. Downzoning can be useful for limiting development in areas where managed retreat from a coastline or waterway is appropriate. Downzoning could theoretically prohibit coastal development altogether, though such an approach could invite legal challenge on the grounds that it imposed a regulatory taking.

The Town of Perinton’s downzoning law, for instance, limits uses within the Limited Development District to agriculture, open space, and recreation uses. See [Town of Perinton, N.Y., Code §§ 208-46–208-50](#) (1999).

3.6. Setbacks

Although most existing setback requirements in New York localities concern rights of way and lot lines rather than environmental features or flood risk, *see, e.g.*, [Setback & Lot Area Law for the Town of Summerhill, New York](#), setbacks can serve adaptation efforts by proscribing development on parcels of land that are especially vulnerable to flooding, *see, e.g.*, [Brattleboro\[, Vermont\] Land Use and Development Regulations](#), Public Hearing Draft §§ 212, 333, 335 (Aug. 10, 2015); [Grant County, Washington Unified Development Code](#)

§ 23.12.070(k)(2)(C). As these examples from New York, Vermont, and Washington illustrate, localities have the authority to impose setback requirements through zoning law. Thus setbacks generally do not raise difficult questions about the scope or nature of local authority vis-a-vis state authority over land use.

The examples cited above also show that localities can apply their authority to draft setbacks in a variety of ways. “Maximum practicable setbacks,” for instance, require that structures be set back as far landward or upland on a site as feasible, and so can serve either aesthetic or practical and environmental purposes. Formulaic setback programs systematically push owners of the largest, most vulnerable structures to move them upland. Maine provides one example of this approach. Its setback requirement provides that structures larger than 2,500 square feet may not be constructed in the coastal sand dune area unless the developer shows: “(1) The site will remain stable after allowing for a two foot rise in sea level over 100 years, and (2) the increased height will not have an unreasonable adverse effect on existing uses that rely on access to direct sunlight including, but not limited to: native dune vegetation and recreational beach use.” See [06-096 Me. Code R. Ch. 355, § 5\(D\)](#) (2008).

3.7. Limits on Structures’ Size, Height

Local laws that permit only smaller structures in a given area limit potential damage from flooding and storms by ensuring that fewer people and assets are at risk, and that assets in the most vulnerable spots can be moved with relative ease. However, because height limits can also prevent home owners from undertaking the elevations that would protect against flooding, they should be imposed with consideration for all the ways they might influence adaptation efforts.

After Hurricane Sandy, New York City’s Mayor issued two Executive Orders limiting the size and height of structures that could be rebuilt along the coastline. N.Y. Exec. Order [No. 230](#) & [No. 233](#) (2013). Those provisions were codified in 2013 in the zoning text. [New York, N.Y., Flood Resilience Text Amendment](#) (Oct. 9, 2013).

3.8. Freeboard

In addition to setbacks and downzoning, local laws can also require that structures' lowest floor be built above a particular height—for instance, the height of a projected 100-year flood. Such requirements are called “freeboard.” Precautionary freeboard requirements can protect structures in vulnerable areas, even from direct and indirect effects of sea level rise, and even where flood maps are out of date.

In all parts of New York State other than New York City, freeboard requirements are set by the statewide Uniform Fire Prevention and Building Code. The freeboard requirements in the local laws of the Towns of Brookhaven, Gardiner, and Bellport, consistent with these statewide rules, require structures in certain flood zones to be elevated above predicted 100-year flood levels. See [Brookhaven, N.Y., Code §§ 33-5](#) (2009); [Gardiner, N.Y., Code § 121](#) (2009); [Bellport, N.Y., Code § 6](#) (2009). In the Village of Freeport, which was granted an exception from the statewide rules in 2013, freeboard requirements are greater. See [Freeport, N.Y. § 87-16\(D\)\(1\)\(a\) & \(E\)\(1\)\(a\)](#) (requiring that (i) equipment maintained by substantially damaged utilities, (ii) residential structures located in particular flood zones, and (iii) similarly located non-residential structures be “elevated to a minimum of four feet above the base flood elevation or two feet above the New York State freeboard requirement, whichever is greater.”).

Freeport’s standard aligns with a potential source of standards for use in a freeboard provision, namely the Obama Administration’s January 2015 executive order calling for establishment of a new federal flood risk management standard. See [Exec. Order No. 13,690](#), 80 Fed. Reg. 6425–28 (Jan. 30, 2015) (amending Exec. Order No. 11,988). In addition to setting forth a process for arriving at such a standard, the order states that flood risk projections shall be based on: (1) a flood hazard area derived from the most up to data on hydraulics and future climate risks, (2) the existing flood hazard area plus two feet of freeboard for non-critical structures and three feet for critical structure, or (3) 500-year flood projections (or a 0.2% annual chance of flooding). New York State’s building code has yet to incorporate this federal standard. Nonetheless, localities should expect to encounter this new federal requirement and so might consider following Freeport’s lead and seeking approval to impose it now.

3.9. Building and Rebuilding Restrictions

Local governments can limit development in vulnerable areas by restricting new construction and prohibiting redevelopment of repetitive -loss structures. Restricting rebuilding of at-risk structures is often more politically palatable than proactive restrictions on development.

The National Flood Insurance Program (NFIP), administered by FEMA, provides something of a baseline for local laws governing rebuilding in presidentially-declared disaster areas. *See* Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121 et seq. (assigning FEMA responsibility for various activities in such areas). In localities that contain special flood hazard areas (SFHAs), residents are ineligible for NFIP policies if those localities do not enact local laws restricting development in SFHAs. *See* [New York State Department of Environmental Conservation, *Joining the National Flood Insurance Program*](#). These include provisions that specify what constitutes “substantial improvement” and “substantial damage” to a structure, and set the numeric threshold for “substantial” at 50% of the property’s pre-disaster market value. *See* [FEMA, *NFIP Substantial Improvement/Substantial Damage: Requirements and Definitions 3-5*](#) (2013); *see also* [New York State Department of Environmental Conservation, *Floodplain Management Requirements After a Flood*](#).

Some New York localities impose additional restrictions. The Town of Gardiner’s zoning laws require permits for development in floodplains and specify factors the permit issuer must consider when deciding to grant or deny permits. *See* [Town of Gardiner, N.Y., Code § 220-19](#) (2008). East Hampton imposes restrictions on construction and reconstruction of non-conforming buildings and structures. *See* [East Hampton, N.Y., Code §§ 255-1-42 & 255-1-43](#) (2007). Other localities could follow their lead by requiring permit issuers to consider impacts arising from a development’s location in a floodplain and by prohibiting any development that exacerbates the nonconformance of a nonconforming structure located in a floodplain.

3.10. Exactions

When granting permits for commercial development in flood prone areas, regulators can use exactions to allow for development while preserving legal grounds to compel retreat in the

future. State or local authorities can use exactions to gain a conservation easement, impact fees, or other concessions from a developer. As explained below, the U.S. Supreme Court has articulated constitutional limits on exactions, and New York State law imposes relatively tight additional restrictions on what forms of exaction state and local authorities may impose.

Importantly, the U.S. Supreme Court has said through three decisions that exactions—even monetary exactions such as impact fees—must meet particular criteria to be constitutional. The Court’s 1987 decision in *Nollan v. California Coastal Comm’n*, 483 U.S. 825 (1987) held that a government may exact a conservation easement from a property owner as a condition for granting a development permit the government was entitled to deny, so long as the exaction substantially advanced the same government interest that provided a basis for denying the permit. Without this sort of “nexus” with the basis for permit rejection, the exaction violates the Takings Clause of the Fifth Amendment. In *Dolan v. City of Tigard*, 512 U.S. 374 (1994) the Court refined this requirement, holding that such an exaction is permissible only if it is “‘roughly proportional’ . . . both in nature and extent to the impact of the proposed development.” More recently, the Court held that the *Nollan-Dolan* standard applies to some monetary exactions as well as exactions of an interest in real property. *Koontz v. St. Johns River Water Mgmt. Dist.*, 133 S. Ct. 2586 (2013). However, the language of the opinion does not make clear whether it applies to *all* monetary exactions, or only to those applied by a locality in ad hoc fashion. Put another way, it remains unclear whether impact or permit fees imposed generally by legislation or regulations must comply with the *Nollan-Dolan* standard to avoid constituting an impermissible taking.

New York courts have not yet applied *Koontz* in the land use context, but they have issued an important pair of interpretations of the *Nollan-Dolan* rubric. One of these issued in 2003, when New York’s highest court held that the Town of Monroe had not committed an unconstitutional taking by requiring payment from a developer in lieu of compliance with a local parkland declaration. *Twin Lakes Dev. Corp. v. Town of Monroe*, 1 N.E.2d 821, 822 (Ct. App. 2003). The court interpreted the required payment to a town-administered recreation trust fund to be an exaction, because it stood in for a requirement that the developer give up a possessory interest in land it owned and sought to develop. *Id.* at 824–25. But the court also found that this

exaction passed the *Dolan* proportionality test and so was not a taking. *Id.* at 825. *Twin Lakes* thus clarifies that, although the *Cimato Bros.* decision had characterized some impact fees as unconstitutional takings, not all impact fees would be so characterized. See *Cimato Bros. v. Town of Pendleton*, 270 A.D.2d 879, 879 (App. Div. 2000) (rejecting as unconstitutional an impact fee imposed without consideration for actual costs to public).

The second case, decided a year later, arose over the Town of Mendon’s “development restriction,” which the Town of Mendon and the New York Attorney General, writing as amicus curiae, largely conceded to be a partial conservation easement. *Smith v. Town of Mendon*, 822 N.E.2d 1214, 1225 (2004) (Read, J., dissenting). The *Town of Mendon* majority nonetheless determined that the town’s restrictions on how the Smiths developed their property were not exactions, because they did not diminish the property’s value and gave no one but the Smiths any right to exclude others from the property. *Id.* at 1216, 1219 (citing *City of Monterey v. Del Monte Dunes at Monterey, Ltd.*, 526 U.S. 687 (1999) and explaining that it “placed a key limitation on *Dolan*”).

This pair of cases clarifies how the *Nollan-Dolan* rubric applies to New York localities: not all restrictions that arguably diminish property values shall be considered exactions, and not all impact fees and other exactions shall be found to be unconstitutional. However, these cases also imply that actual or arguable exactions in New York are potential targets for litigation. It follows that a locality should expect that any exactions it imposes to promote resilience could receive judicial scrutiny, should the exaction impede the goals of a developer or property owner in a financially significant way.

3.11. Building Moratoria

As local governments prepare for sea level rise, storm surge, and extreme precipitation, they can consider placing a temporary moratorium on building in flood prone areas. Though this would be a stopgap measure, a building moratorium could help kick off the transition to a more thorough update of zoning and other laws. Brookhaven took this approach to its regulation of telecommunications facilities, imposing a moratorium for the time required to update its comprehensive plan. See *Town of Brookhaven, N.Y., Code § 17 (2003)* ([repealed Feb.](#)

[2, 2015](#)). North Castle did the same with respect to residential subdivisions, *see* North Castle, N.Y., Code § 213-72 et seq. ([expired Dec. 31, 2006](#)), as did Tarrytown for the purpose of revising environmental and historic preservation review requirements for its historic streets. *See* Tarrytown, N.Y., Code § 8-2014 ([expired Nov. 14, 2014](#))

An extended moratorium can sometimes qualify as a regulatory taking, although a short term construction ban with an appropriate appeals process would likely pass muster.⁷ New York has created a moratoria drafting guide for use by local governments that considers a range of issues, including the takings problem. *See* New York Division of Local Government Services, [Land Use Moratoria](#) (2013).

3.12. Transferrable Development Rights

Transferable Development Rights (TDRs) restrict development in certain areas but in a way that attempts to shift development to other areas. To implement a TDR program, a government designates vulnerable areas as “sending areas” and less vulnerable upland areas as “receiving areas.” It invites landowners in a sending area to forgo the right to develop there in return for payment from landowners in a receiving area. By purchasing a TDR from landowners in the sending area, landowners in the receiving area acquire the right to develop in excess of the maximum density allowance there. Thus, governments can encourage landowners in areas at high risk of coastal or inland flooding to transfer development rights to areas outside the flood risk area.

New York law authorizes localities to establish TDR programs, *see* [N.Y. Town § 261-a](#) (1998); Village Law § 7-701; *and* General City Law § 20-f, and New York’s Department of State has created a drafting guide for local governments that wish to establish a TDR program. *See* New York Division of Local Government Services, [Transfer of Development Rights](#) (2015). For example, such programs have been established by the Towns of Clifton Park and Lysander.

⁷ The Supreme Court considered the constitutionality of moratoria in *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 535 U.S. 302 (2002), and held that a three-year building moratorium was not a Taking. According to the Court, review of moratoria “requires careful examination and weighing of all the relevant circumstances.” *Id.* at 304.

Clifton Park’s “Open Space Zoning Initiative,” which operated from 2005 until 2010, steered changes to density through a TDR scheme that combined limits and incentives on the development of buildings and amenities. [Town of Clifton Park, Article VB: Open Space Initiative Zoning \(2005\)](#). Lysander’s TDR program “is designed to maintain an economically viable agricultural presence and to preserve open space” in particular areas. [Town of Lysander, § 139-72 \(2008\)](#).

A number of New York localities have also participated in the state-level Pine Barren Transferrable Development Credit program, which was created by the Long Island Pine Barrens Preservation Act of 1993, amending ECL Article 57, to preserve the Long Island Pine Barrens, an aquifer recharge zone and important natural habitat. [See *Tuccio v. Central Pine Barrens Joint Planning & Policy Commission*, 978 N.Y.S. 2d 350 \(App. Div. 2014\) \(upholding denial of challenge to Commission’s allocation of Pine Barrens Credits for petitioner’s property\)](#).⁸ For instance, the Town of Brookhaven’s TDR program is expressly intended to avoid inappropriate development and preserve natural resources and open spaces. [See *Brookhaven, N.Y., Code §§ 85-718, 85-773 through -779*](#) (2014). It does so by establishing a Core Preservation Area, where development is limited to agricultural, horticultural, and open space recreational uses. *Id.*

3.13. Floodplain Management

FEMA⁹ and the Association of State Floodplain Managers¹⁰ both provide valuable guidance for localities looking to take measures to address the risks arising from their location in or near a floodplain. So too does the New York Department of Environmental Conservation, which has published helpful information about the Federal National Flood Insurance Program, the Flooding Mapping Program, and relevant case studies.¹¹ Many New York localities have

⁸ For additional details, *see* Edward Sullivan, New York Appellate Court Limits Transferable Development Rights Credits, Northwest Land Law Forum (Aug. 2, 2014), <http://bit.ly/24Tajtz>.

⁹ FEMA, Floodplain Management Guidebook (May 1, 2014), <http://1.usa.gov/1OqddZO>.

¹⁰ Association of State Floodplain Managers, No Adverse Impact Toolkit and Guides, <http://bit.ly/221KORL> (last visited Oct. 12, 2015).

¹¹ *See* New York State Department of Environmental Conservation, Floodplain Management, <http://on.ny.gov/1TRZ4js> (last visited Oct. 12, 2015). For additional information, *see* New York State

adopted local damage prevention laws in keeping with this advice. *See, e.g.,* [Village of Owego, Ch. 117: Flood Damage Prevention \(2012\)](#), [Town of Waterford, Ch. 91: Flood Damage Prevention \(1995\)](#), [City of Rensselaer, Ch. 105: Flood Damage Prevention \(1987\)](#). These local laws place limits on how various structures may be built, depending on their location in or near FEMA-defined flood zones, as specified in flood insurance rate maps. They also provide for variances and appeals of decisions by local authorities.

3.14. FEMA’s Hazard Mitigation Assistance Program

FEMA’s Hazard Mitigation Assistance Program is the umbrella for several grant programs that provide funding for various purposes, including acquisition of flood prone properties, elevation of flood prone structures, and acquisition and relocation of flood prone structures. In particular, the Hazard Mitigation Grant Program (HMGP) assists in implementing long-term hazard mitigation measures following a major disaster; the Pre-Disaster Mitigation Grant Program provides funds for hazard mitigation planning and projects on an annual basis; and the Flood Mitigation Assistance Program provides funds for projects to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program (NFIP) on an annual basis.

As FEMA explains in its HMGP application guide, “States, territories, or federally-recognized tribal governments administer the HMGP program and prioritize projects.”¹² This means that local governments seeking pre-disaster HMGP funds must present their application to state officials. In New York State, the Division of Homeland Security and Emergency Services is generally responsible for reviewing applications and deciding which to forward on to FEMA for approval. FEMA does not award Hazard Mitigation Grant Program funding to states,

Department of Environmental Conservation, Floodplain Management Requirements After a Flood, <http://on.ny.gov/1TRZ5gf> (last visited Oct. 12, 2015).

¹² For additional information about eligibility under the Hazard Mitigation Assistance Program, see Federal Emergency Management Agency, Hazard Mitigation Assistance, (last updated Oct. 6, 2015), <http://1.usa.gov/1OIX5y2>.

counties, or localities that have not developed a Hazard Mitigation Plan (HMP).¹³ FEMA has published guides for creating and reviewing HMPs.¹⁴ New York City, for instance, updates its HMP annually.¹⁵

The following model language could be used in a proposed Hazard Mitigation Plan:

- A. [OPTION ONE] The [Insert Relevant City Agency – e.g. City Council] of [Insert Local Government] hereby authorizes [Insert Relevant Government Body – e.g., City Planner] to create a Hazard Mitigation Plan in accordance with Title 44 Code of Federal Regulations (CFR) §201.6.
- A. [OPTION TWO] On or before [Insert Date], the [Insert Relevant Government Body – e.g. City Planner] shall create a Hazard Mitigation Plan in accordance with Title 44 Code of Federal Regulations (CFR) §201.6.
- B. [Insert Relevant Government Body – e.g., Town Board] shall submit the Hazard Mitigation Plan to the New York Department of Homeland Security and Emergency Services for review on or before [Insert Date].
- C. On or before [Insert Date], [Insert Relevant City Agency – e.g. City Council] shall review the relevant land use ordinances and determine what changes, if any, are required based on any pertinent provisions of the newly created Hazard Mitigation Plan.

¹³ Federal Emergency Management Agency, Hazard Mitigation Planning Frequently Asked Questions, <http://1.usa.gov/1YorYC7> (“Communities must have a plan to apply for or receive a [Mitigation Grant](#). These grants can augment local mitigation activities already being done. Ultimately, these actions reduce vulnerability, and communities are able to recover more quickly from disasters.”)

¹⁴ See FEMA, Local Mitigation Planning Handbook (Mar. 2013), <http://1.usa.gov/1jOpGGG>; FEMA, Local Mitigation Plan Review Guide (Oct. 2011), <http://1.usa.gov/1KSt5SY> (used by State and Federal officials to assess local HMPs for consistency with applicable federal laws and regulations).

¹⁵ See NYC Emergency Management, Hazard Mitigation, <http://on.nyc.gov/1O2WePP> (last visited Sept. 30, 2015).

Option One above would authorize a relevant local governing body to create a Hazard Mitigation Plan. Option Two would *require* a local governing body to create a Hazard Mitigation Plan *by a certain date*. Subsections B and C are compatible with both.

4. Shoreline Armoring

Shoreline armoring refers to engineering activities in flood prone areas that aim to reduce the adverse effects of flooding, erosion, and inundation on land and structures. Shoreline armoring can include both “soft” and “hard” measures. “Soft” armoring measures use naturally-occurring materials such as cobbles, or sand, or wetlands grasses to restore, protect, or strengthen existing natural infrastructure. “Hard” measures use artificial, man-made structures to armor and stabilize an eroding shoreline—either by keeping the shoreline in a fixed position or by preventing flooding when water levels are higher than normal. Examples include seawalls, bulkheads, retaining structures, revetments, dikes, tide gates, levees, and other structures. These types of hard armoring projects apply primarily to coastal areas. Importantly, any armoring project will need approval from the Department of Environmental Conservation, the Department of State, and the Army Corps of Engineers. Approval by the Army Corps will require an environmental review process under the State Environmental Quality Review Act or the National Environmental Policy Act, regardless of whether the Army Corps or some other entity undertakes the project. If an entity other than the Corps undertakes the project, then the Corps must first determine the project’s consistency with enforceable coastal policies. Should the project be found to be inconsistent, the Corps may not issue a permit until final resolution of an appeals process in the applicant’s favor.

Armoring, in any of the forms discussed above, can protect structures vital to the community. However, the benefits of armoring are often counterbalanced by its adverse impacts, such as increased erosion in non-protected areas (by altering wave patterns), habitat destruction, and high up-front cost. Nonetheless, where vital infrastructure has already been developed and cannot easily be relocated, armoring often represents the most practical solution to the problem of vulnerability to flooding and storm surges. This section discusses armoring best practices as well as regulatory barriers to armoring, including outright bans and

environmental review requirements. For the purpose of climate change adaptation, targeted development restrictions are generally superior to soft armoring, and soft armoring is generally superior to hard armoring, from an environmental perspective.

4.1. Armoring Best Practices

Where armoring programs are the only practical solution to flood risk, local governments should first consider softer armoring projects, such as wetland or dune maintenance, over hard armoring, such as bulkhead or levee construction. When hard armoring is the only viable solution to averting flood damage, local governments should follow best practices to limit the damage that armoring causes to local ecosystems.

The New York DEC's website suggests "best practices" for shoreline stabilization and guides local authorities through the process of deciding whether and how to employ armoring.¹⁶ New York City's Waterfront Revitalization Program, an LWRP which implements several of those best practices, instructs that New York City developers may "[u]se hard structural erosion protection measures, such as bulkheads, only where avoidance of the hazard is not practical using non-structural measures," and that such measures must be accompanied by "mitigation where structural measures will increase severity of the hazard to surrounding public and private property." As explained in that Program's Policy 6, "[i]t is a goal of this policy to employ measures most suited to the use and condition of differing locations in order to avoid haphazard use of structural measures that can exacerbate erosion."¹⁷

4.2. Armoring Restrictions

Some local governments in New York State have restricted or completely prohibited armoring projects. These restrictions are meant to protect local ecosystems and to encourage people to voluntarily leave flood prone areas rather than undertaking ultimately ineffective armoring measures. East Hampton, for instance, restricts hard armoring in coastal erosion

¹⁶ See New York Department of Environmental Conservation, Shoreline Stabilization Techniques, <http://on.ny.gov/1T8z0L2> (last visited Oct. 12, 2015).

¹⁷ See New York City Department of City Planning, New Waterfront Revitalization Program 20–21 (Sept. 2002), <http://on.nyc.gov/1VUVeT9>.

hazard areas limiting the erosion control structures permitted within those districts' bounds. See [East Hampton, N.Y., Code §§ 255-3-81–255-3-85](#) (2007). This restriction complies with New York Department of Environmental Conservation's coastal erosion regulations. [6 NYCRR §§ 505.4–505.15](#). Pursuant to the same regulations, Port Jefferson also restricts armoring by requiring developers to show that the construction, modification, or restoration of an erosion-protection structure will not increase erosion at other locations and must not have adverse impacts on naturally protective erosion structures. See [Port Jefferson, N.Y., Code § 111-15](#) (1989). Bellport imposes further steps on developers, requiring them to seek approval of a management board for construction, alteration, extension, or modification of a hard armoring project. The board is authorized to require the developer to grant an exaction in return a permit. See [Bellport, N.Y., Code §§ 23-3 & 23-4](#) (2005).

The governments of several coastal states have also imposed restrictions on armoring. South Carolina did so to protect local sand dunes, and to force conservation and retreat. See [S.C. Code §§ 48-39-290\(A\) § 48-39-290\(B\)\(2\)](#) (2011). Texas requires developers to obtain certification for armoring projects and only permits certification if the project is consistent with the goals enumerated in the Texas Natural Resources Code. See [Tex. Nat. Res. § 61.013](#) (1991). Rhode Island's restrictions define various types of armoring and "favor[] non-structural methods for controlling erosion such as stabilization with vegetation and beach nourishment." See [R.I. Admin. Code 16-2-1:300.7](#) (2015). Massachusetts's restrictions on armoring prioritize storm damage prevention and flood control in coastal dunes and coastal bank areas. See [310 Mass Code Regs. §§ 10.28 & 10.30](#) (2014). Finally, Maine protects its sand dunes by restricting construction of new seawalls or similar structures. See [06-096 Me. Code R. Ch. 355, § 5\(E\)](#) (2008).