2018 DESCRIPTIVE CASE STUDY

Home Buyouts in New York State

Strategies for Maximizing Homeowner Participation

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TOPIC

Flood-related Disasters, Recovery and Resiliency, Home Buyouts, Managed Retreat

SUBTOPICS

Community Development Block Grant Disaster Recovery (CDBG-DR), New York State

TIMEFRAME

2013–2018

LEARNING GOALS

- Understand the benefits of managed retreat for the environment, residents, and government.
- Understand the challenges of voluntary relocation from various perspectives (e.g. homeowners, government agencies, public budget, local communities, and industry actors).

PRIMARY AUDIENCE

Graduate students of public policy, planning, and environmental studies, as well as practitioners working in disaster recovery–related fields.

PREREQUISITE KNOWLEDGE

Policy analysis, disaster recovery and resiliency; sources of funding for responding to major floods.

SUMMARY

Government response to repetitive flood events has been predominantly reactive, including in rebuilding, repair, and mitigation measures. Recently, managed retreat has gained more attention as a viable alternative: The government buys properties in a hazardous area from willing homeowners, who then relocate out of harm's way. This case study discusses home buyouts in New York State after Superstorm Sandy. It lays out the structure of the buyout program, including its primary requirement that homeowners volunteer to sell their properties and relocate. It then describes potential obstacles to maximum participation from the standpoints of various actors and asks how those obstacles can be overcome and how managed retreat could become more efficient by relocating more residents out of hazardous areas.

DEFINITION OF THE PROBLEM

In the recent decades, major coastal floods have increased in frequency and intensity, and climate change and sea-level rise have gained international attention. In 2017 alone, the United States was hit by three major storms—Hurricanes Harvey, Irma, and Maria—which caused unprecedented damage and cost to the peoples of Texas and Puerto Rico. As a result, the costs associated with repetitive flood events in coastal areas are of increasing concern to state governments.

Despite the growing threat of flood damage, U.S. coastal areas have experienced significant population growth and increases in development and economic activity over this same period. With access to amenities such as beaches, moderate climates, and large urban centers, coastal areas throughout the United States have attracted continuous development, especially after World War II. Today, more than half of the country's population lives in coastal zones, which constitute only about 17 percent of the total U.S. land area (Dyckman, St. John, and London 2014).

These two parallel trends—increasing flood risk and growing coastal development—present a conundrum for the various actors and stakeholders involved with flood-prone communities: Continuous economic and population growth in coastal areas exposes more people and infrastructure to flood risks, and imposes growing costs on communities, local economies, and governments in the event of coastal floods. The challenge, then, is to devise a strategy that mitigates the real risk of flood loss in future events, while protecting communities' viability and coherency.

Multiple parties are involved in addressing the issue of repetitive flood events in the United States. Long-term recovery from major coastal disasters is primarily the responsibility of the federal government, given that the scale and scope of damage is usually beyond budgetary and logistical capacities of individual state and local governments. The two main agencies involved in the immediate response and longer-term recovery are the Federal Emergency Management Agency (FEMA) and the Department of Housing and Urban Development (HUD). FEMA primarily focuses on response operations in the immediate aftermath of disasters (e.g., debris removal, evacuations, and restoration of critical facilities), rather than long-term recovery. HUD, on the other hand, administers the largest source of funding for longer-term recovery and resiliency via the Community Development Block Grant (CBDG) program and its Disaster Recovery subsidiary, CDBG-DR. Once the urgent-response phase is past, HUD allocates CDBG-DR funds to state and local governments—which together comprise another group of actors and stakeholders—based on the scope and severity of the damage. Other actors with potentially significant roles in the solutions to the issue of repetitive flood loss include flood-impacted property owners, community associations, business owners, insurance companies, and developers. This case study focuses on the managed retreat program that New York State established after Hurricane Sandy using CDBG-DR funding and on the role of different actors in the program's performance.

In the aftermath of Superstorm Sandy in 2012, New York State and local governments faced the challenge of responding to massive and widespread destruction. Total damage estimates exceeded $60 billion, with more than 300,000 housing units damaged or destroyed (GOSR 2014). In New York State, more than 200,000 residents registered at least minor damage to their homes through FEMA's individual assistance program. On the south shore of Long Island and in parts of New York City, the storm surge encroached inland for more than a mile and inundation levels reached 17 feet. The state subsequently received a $4.4 billion CDBG-DR to assist in its long-term recovery efforts and decided to set aside a part of the allocation specifically for home buyouts.

POSSIBLE STRATEGIES AND SOLUTIONS

While there are various nuances in the disaster-recovery framework, risk-reduction strategies can be broadly grouped into two approaches: (1) keeping people and communities in place while mitigating risks, and (2) relocating people out of harm's way.[1] The first approach aims to reduce exposure to future floods by introducing rebuilding and mitigation measures; the second is based on the premise that relocation is more cost-effective and more beneficial to the environment, when all aspects of repetitive flood loss are considered.

Rebuilding and Mitigation

Historically, policy responses to repetitive flood events have prioritized protective measures to rebuild and recover properties and to assist neighborhoods in preparing for and mitigating the effects of future events. Mitigation strategies include reinforcing or elevating existing structures and building berms, seawalls, green roofs, levees, and large-scale structures to absorb large quantities of water (Regional Plan Association 2015). By introducing such protective measures, these strategies aim to rebuild more resilient coastal communities while maintaining their existing coherency.

Over the past several decades, the federal government has been heavily involved in rebuilding and recovery assistance, primarily through FEMA's post-disaster efforts. In addition, it has significantly invested in mitigation through the National Flood Insurance Program (NFIP), established in 1968 for homeowners in flood-prone areas. NFIP imposes mandatory coverage on all properties or construction activities in floodplain areas. By design, NFIP's costs should be covered by homeowners' premiums; however, the major disasters in the last decade have incurred costs beyond the program's revenue capacities and forced it to borrow funds. For example, Hurricane Katrina and Superstorm Sandy together generated $24 billion of debt for NFIP, which led to rising premium costs, making NFIP coverage unaffordable for many homeowners (Bryner 2017). FEMA also initiated grant programs to assist mitigation of flood risk; the longest-running of these is the Hazard Mitigation Grant Program (HMPG), which provides funds for cost-effective post-disaster projects at the community level.[2]

[1] As an example, Regional Plan Association lists "5 Rs" in its 2015 report: rebuild, resist, restore, retain, and retreat. However, these strategies could also be collapsed into the two main categories discussed in this case study.

More broadly, the planning framework also provides strategies to help structures and residents stay in place while mitigating future flood risks, such as updated building codes, floodplain and land-use regulations, and zoning modifications in high-risk areas to disincentivize further development. These approaches, however, usually receive conflicting responses, as local governments' short-term goals give them little incentive to limit economic activity in high-demand coastal areas (Dyckman, St. John, and London 2014).

Managed Retreat

A second strategy is managed retreat, whereby governments purchase properties from willing property owners who then relocate outside of hazardous areas and away from the risk. This fosters long-term storm resiliency by encouraging the preservation and restoration of natural coastal ecosystems that provide a natural barrier to cities from storms. It also saves homeowners, insurers, and government agencies from the recurring costs of future flood losses.

Managed retreat's success depends strongly on maximum relocation of at-risk properties—in fact, partial relocations have several disadvantages. Homeowners who decide to remain in the flood-prone area may end up living in depopulated or blighted neighborhoods; in the event of future floods, they remain at risk of property and other losses and have fewer neighbors to turn to for assistance. Local, state, and federal governments still bear the costs of providing services such as electricity and sewerage to these households and properties, and, in the event of another disaster, the costs of recovery, repair, or relocation as well. However, the use of discretionary governmental powers like eminent domain to compel families to relocate can face legal challenges. Therefore, a successful managed retreat program is reliant on maximum voluntary participation of property owners.

Relocation can be challenging to property owners for a variety of reasons: moving can be costly and burdensome; they may have long-lasting attachments to their original homes or communities; they may have work or education ties to their neighborhoods that make relocation impossible; they may not find comparable and affordable housing nearby; or, the perceived value of living by the water could overshadow their concerns about the probability of future storms.

Managed retreat can impose challenges on other stakeholders too. Local governments may oppose it because it has potential to reduce their tax revenue by removing properties from the tax rolls. Private developers may also oppose the strategy, as it could reduce the stock of developable land, especially in coastal areas where properties are more desirable. Local businesses might be worry managed retreat could depopulate their service areas, and residents, neighborhoods associations, and community groups could take issue effects on the social coherency of their neighborhoods. They may argue that, besides being costly, relocation could detach families from their communities and lead to various undesirable social issues.

[2] For a full list of FEMA mitigation programs, see https://www.fema.gov/media-library-data/1424983165449-38f5dfc69c0bd4ea8a161e8bb7b79553/HMA_Guidance_022715_508.pdf

Because of these challenges, and despite providing many short- and long-term benefits, managed retreat has often faced opposition, and communities and government agencies have largely dismissed it as an adaptation strategy.

SOLUTION AND IMPLEMENTATION

In response to the widespread damage from Superstorm Sandy, Governor Andrew Cuomo established the Governor's Office of Storm Recovery (GOSR) and tasked it with administering the $4.4 billion grant that HUD allocated to New York State through its CDBG-DR program. GOSR established a variety of assistance programs, categorized broadly as housing, economic development, infrastructure, and community reconstruction assistance programs. The NY Rising Buyout and Acquisition Program started in 2013 as a housing assistance sub-program, and, at the time of this writing in 2018, it administers over $680 million to acquire properties in flood-impacted areas in New York State. The program is referred to as the Buyout and Acquisition Program in this case study.

The Buyout and Acquisition Program consists of two components: home buyouts and property acquisitions, both on a voluntary basis. The buyout component purchases homes within the 100-year floodplain (i.e., areas with at least a one percent chance of flooding each year, at pre-storm values), demolishes the structures, and restores the land to its natural state. The acquisition component expands the eligible areas to 500-year floodplains (i.e., areas with at least a one percent chance of flooding every five years), purchases properties at post-storm values, and allows for regulated development on the land by either auctioning it to new homeowners or developers with the requirement that they redevelop the homes more resiliently within three years, or by transferring it to municipalities and public agencies to create local amenities or open space. In addition to paying pre-storm Fair Market Values (FMV) for properties, the program provides additional incentives for participation by making offers as close as possible to pre-storm property values.[3]

The average participating homeowner joined the program about 18 months after Superstorm Sandy. Homeowners progressed through the program in a series of phases: During Phase 1, participants submitted their application and met with program staff to provide basic paperwork such as proofs of residence or other benefits received[4] and to establish eligibility for receiving assistance. In Phase 2, the program conducted Environmental Site Assessments and FMV appraisals of properties and in Phase 3 calculated the amount awarded to the respective owners. Homeowners received award offers in Phase 4, and those who decided to accept their offers relocated and surrendered the property deeds to the program in Phase 5. The program then determined a disposition strategy for

[3] Buyout awards are based on pre-storm FMVs, and those who apply in clusters of adjacent properties, or relocate within the same county, would receive an additional 10, and 5 percent, of the pre-storm FMV, respectively. Acquisition awards, on the other hand, are based on post-storm FMVs. For these applicants, if the storm has led to more than 50 percent loss in property value, an award could be increased by up to 50 percent of the post-storm FMV.

[4] Following the Stafford Act of 1983 that applies to all CDBG-DR-funded recovery and resiliency programs, applicants should not receive duplicate benefits from federal, state, or local sources.

the property in Phase 6, and conducted inspections, demolitions, and closeouts in Phase 7. For buyout applicants, Phase 8 included conversion of the lots to wetlands and for acquisitions Phase 8 was auctioning properties to new owners or transferring them to public agencies. During Phase 9, the program monitors the properties to ensure they maintain the expected uses. Figure 1 provides a simplified summary of the process. Homeowners eligible for the Buyouts and Acquisitions Program may have also been eligible for other programs to assist in rebuilding their homes or for competing buyout programs; these and other alternatives to participating in the NY Rising program are highlighted in orange.

Out of the initial pool of 3,047 properties identified for the NY Rising program, 2,034 were eligible to receive assistance from New York State.[5] Eligible applicants are predominantly located in Richmond, Suffolk, and Nassau Counties. Figure 2 provides an overview of the areas impacted by Superstorm Sandy in these counties and the properties acquired by New York State in each county as of May 2018.

5 Ineligibility could have different reasons. For example, second homes, non-residential properties, or properties located in areas where federal funding is not allowed are not eligible. For a detailed discussion of the eligibility criteria, see the NY Rising Buyouts and Acquisitions' Policy Manual, available at *https://stormrecovery.ny.gov/sites/default/files/crp/community/documents/PO_20171023%20Buyout%20Acquisition%20Manual_6_1.pdf*

Figure 1
NY Rising Buyout and Acquisition Process

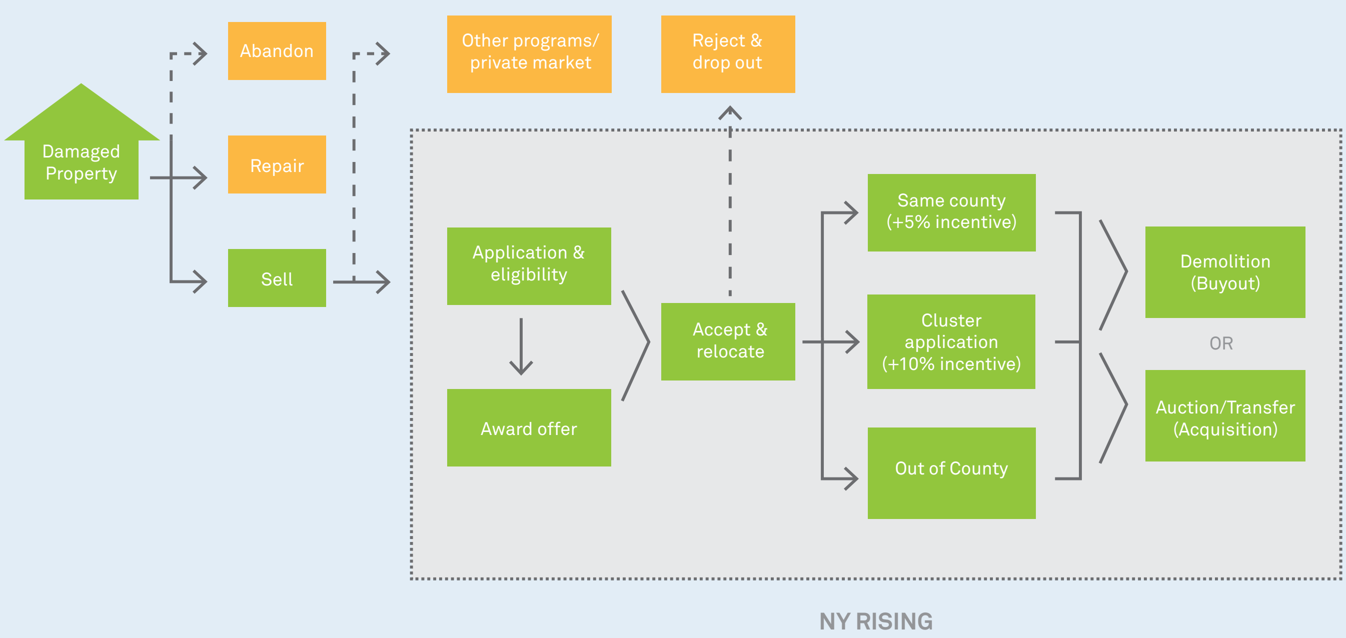
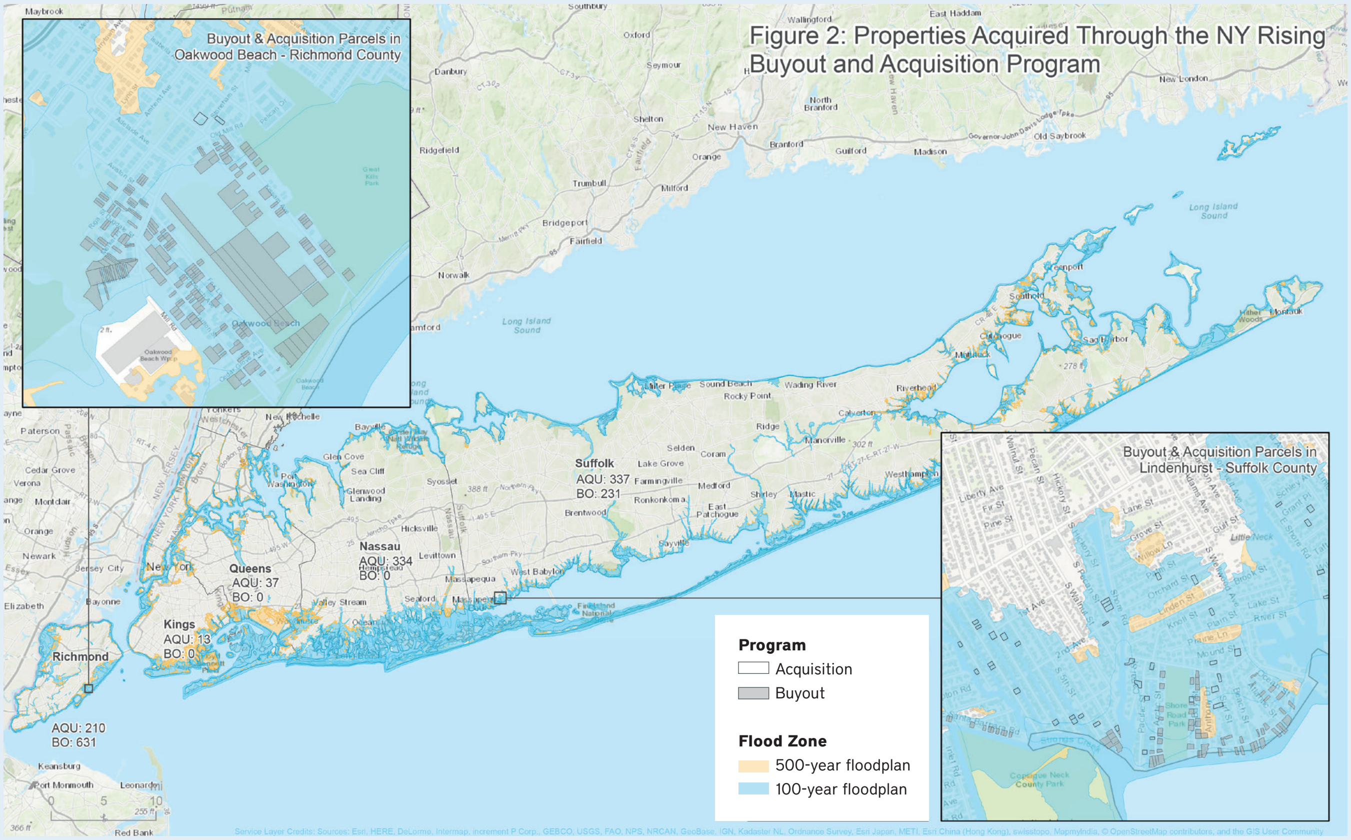


Figure 2

Areas Impacted by Superstorm Sandy and Acquired Properties



ANALYSIS AND EVALUATION

Four years into implementation, NY Rising has closed or is processing the buyout or acquisition of 1,519 (about 75 percent) of the eligible properties located in its designated areas, while 516 (about 25 percent) did not participate. Table 2 provides the geographic distribution of participating properties. The "continued" label shows the number of property owners that chose to sell their properties and move elsewhere; "opted out" shows those who, for a variety of reasons, chose not to participate.

While the program's overall success rate is about 75 percent, the rate varies both among counties and within individual ones. For example, the Oakwood Beach area on Staten Island had a participation rate of 67 percent, whereas the Village of Lindenhurst in Suffolk County attracted only 24 percent of targeted properties. Variation in success rates could be a product of different actors' characteristics or response to the program. Some of these responses are discussed in the following pages.

Table 1

Number of eligible properties participating in NY Rising Buyout and Acquisition

County	Acquisitions	Buyouts	Total
Kings County	13	0	13
Queens County	37	0	37
Rockland County	1	72	73
Delaware County	2	131	133
Nassau County	334	0	334
Suffolk County	337	231	568
Richmond County	210	631	841
Other Counties	22	13	35
Total	956	1,078	2,034

Table 2

Number of participating and drop-out properties in NY Rising Buyout and Acquisition by county

County	Acquisitions		Buyouts		Total
	Continued	Opted Out	Continued	Opted Out	
Kings County	4	9	0	0	13
Queens County	13	24	0	0	37
Rockland County	1	0	71	1	73
Delaware County	1	1	131	0	133
Nassau County	225	109	0	0	334
Suffolk County	211	126	160	71	568
Richmond County	118	92	557	74	568
Other Counties	15	7	12	1	35
Total	588	368	931	147	2,034

Homeowners

Property owners who had previous experience of flood loss or who lived in areas with such history participated in the NY Rising program significantly more than their counterparts in other areas. Richmond County in general and Oakwood Beach in particular (see figure 2), provide helpful examples. Before Superstorm Sandy, Oakwood Beach had received historic damage from several flood events, including a nor'easter in 1992 and Hurricane Irene in 2011 (Freudenberg et al 2016). In response to these floods, residents of this neighborhood had organized committees to raise their issues to government agencies and petition for protective action (Koslov 2014). This history of previous floods and subsequent collective efforts had prepared them for organization after Superstorm Sandy and to proactively ask for a state buyout.

Related to this observation is the positive local feedback on participation. Findings from other studies assert that property owners are more likely to voluntarily sell their properties and relocate when more of their neighbors are doing so (Binder, Baker, and Barile 2015). This effect was observed in neighborhoods eligible for NY Rising, too: For each percentage point increase in the average Census Block Group's share of housing units that participated in the program, there was an eight-point increase in the participation likelihood for all eligible properties in that tract.[6] In other words, owners of damaged properties were much more likely to voluntarily participate when more of their neighbors did.

Government and Market Competition

As figure 1 lays out, homeowners in areas at risk of repetitive flood events had a number of options subsequent to storm damage. One option was to participate in government repair and rehabilitation programs, which provided assistance for both repair and reconstruction of damaged properties as well as for mitigation measures such as elevation. These repair programs could present compelling alternatives to managed retreat, as they lack the difficulties associated with relocation. The other option was to sell the property and relocate; in addition to NY Rising, many property owners could also turn to New York City's Acquisition Program[7] or find buyers in the private real-estate market. Of the applicants that chose not to continue with NY Rising, more than 58 percent ended up either repairing their properties or selling them to private buyers anyway.

[6] The Census block group is used to approximate the immediate neighborhood in this case study. In New York State, the average block group has a population of about 1,200 people.

[7] This option was only available to property owners within New York City, and thus would have been available to NY Rising applicants within Kings, Queens, and Richmond Counties. For a brief overview of the NYC Acquisition program see *http://www.nyc.gov/html/recovery/downloads/pdf/Single%20Family%20Program%20Handouts/new_york_city_acquisition_program.pdf*

In addition to competition from repair and rehabilitation programs, county and municipal governments play a definitive role in the success or failure of buyout programs. As several studies have shown, buyouts can face opposition from localities that primarily depend on property tax revenues, especially in dense urban areas, and thus might view the relocation of existing properties out of their jurisdictions as detrimental to those revenues (see, e.g., Freudenberg et al 2016; Dyckman, St. John, and London 2014). When New York State invited Nassau County to participate in the buyout and acquisition program, for instance, the county only agreed to participate in the acquisition component, as acquisitions allow for future developments and would not threaten the county's tax base. Suffolk and Richmond Counties, on the other hand, participated in both buyouts and acquisitions, returning over 717 land parcels to their natural state (table 2).

Compensation Structure and Policy Orientations

As described in section 3, NY Rising calculates buyout awards based on the property's market value prior to Superstorm Sandy. Acquisition compensation is based on post-storm values, because those parcels then remain on the market for future development, but acquisition applicants that experienced severe damage can take advantage of the program's lost-value compensation and receive up to 50 percent more than their properties' post-storm values. These are in addition to the incentives that NY Rising also offers to participants who relocate within the same county, as well as those who participate as a cluster of adjacent properties, rather than as individuals.

The buyout awards and extra incentive payments are meant to allow property owners find comparable housing of their choice when relocating; however, that process can be challenging in housing markets like those of the New York metropolitan area. In the pool of NY Rising applicants, the average award was about $392,000 for buyouts and $375,000 for acquisitions, while the median home value in the counties involved in the program was over $455,000 in 2013, one year after Superstorm Sandy. If applicants intended to find comparable properties in beachfront areas of these counties, they would face median home values upwards of $578,000. This hardship could potentially deter property owners from relocation and make other alternatives, such as rebuilding, more compelling to them.

LESSONS LEARNED

As of May 2018, 1,519 properties have participated in the NY Rising Buyout and Acquisition program, and 600 properties were returned to the nature or sold to private developers and other third parties. While the program is still ongoing at the time of this writing, there are a number of lessons that New York State can already offer to other managed retreat programs:

- **Convey benefits of relocation to property owners:** Homeowners have various attachments to their properties and communities. Buyout program staff should aim to show them a comprehensive array of benefits relocation brings to a whole community, especially when conducted in clusters.

- **Address affordability issues in award calculation:** When repetitive flood loss occurs in relatively expensive housing markets, homeowners may face hardship in finding comparable housing within the award's purchasing power. For many, this could mean that repair and rehabilitation are more affordable options. Factoring current local market values in the award calculation allows more homeowners to find comparable housing out of harm's way and makes buyouts compelling for more homeowners.

- **Seek maximum stakeholder buy-in:** Buyouts are most successful when different stakeholders buy into them. Programs should work with local governments, business associations, community groups, and industry representatives to make sure all parties are convinced of the advantages of relocations. With acquisitions, program staff should inform the parties involved about the development restrictions and potentials in acquired parcels.

- **Moderate competition from alternative options:** In areas subject to repetitive flood loss, where repair and rehabilitation assistance are also offered to homeowners, buyout programs should consider additional relocation incentives to deter homeowners from choosing other options. Furthermore, in areas with two or more competing buyout programs, efforts should be made to consolidate them and offer one coherent process that simplifies homeowners' access to buyouts.

- **Provide incentives to housing-market actors:** In expensive housing markets or those with shortage of supply, incentives should be provided to the market (e.g., real estate and housing finance industries) to accommodate relocating homeowners. These could be in form of matching compensation or tax incentives in return for providing affordable options to buyout applicants.

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