

## **Buyouts**

### **Buy-In Community Planning, Inc.: Tools for a Better Buyout**

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Buy-In is building a better buyout process. A better buyout is voluntary, equitable, and transparent. Buyouts should result in an improved quality of life for everyone in the community, not just individuals. Buyouts should assist residents in relocating into safe and affordable housing. And, buyouts should improve local environmental quality. Buy-In's vision is a world where every person is empowered to live where they feel secure and whole (people); a world where affordable homes, jobs, and transportation are available in safe locations (housing); and a world where flood-prone areas have been transformed into ecological amenities instead of liabilities (land). Our mission is to break down adaptation silos by building more buy-in to the buyout process. We facilitate collaboration in buyout programs to help conservation organizations, governments, and communities get what they want at the same time. Buy-in is developing the social, economic, and technological infrastructure to make this happen. Using deep community engagement, strategic partnerships, and map-based spatial analytics, Buy-In is building a robust decision-making support tool to ensure buyouts are more equitable, transparent, time efficient, and cost effective. Rather than turning to buyouts as a post-disaster and reactionary strategy, Buy-in approaches buyouts proactively by asking three core questions of high-risk residential areas: [1] Who wants to move? [2] Where will they go? And, [3] what happens to the land that gets left behind? These questions serve as a foundation for communities seeking permanent solutions to environmental risk. Each question presents its own opportunities and challenges, driving the need for robust trust building, collaboration, and commitment to environmental stewardship and conservation goals. This workshop will be split into two parts: First, an oral presentation that will provide Buy-In's assessment of the state of home buyout programs and policy, describe our better buyout process, share lessons learned from our first pilot program in De Soto, MO, and provide a demo of our tools. The second segment will be an interactive workshop directly responding to Buy-In's proposed "better buyout" process. Workshop participants will have the opportunity to interface with the Buy-In platform; take our community survey; offer feedback on the UI/UX, data management and output tools, and provide concrete recommendations for improvements to the Buy-In platform. The feedback provided in this workshop will directly improve Buy-In's platform development and improve the buyout process for our ongoing community partnerships. It will also expose workshop participants to buyouts as a potential strategy for helping communities adapt to increasing climate risk and develop opportunities for new partnerships across this growing field.

### **Drivers of Variations in U.S. Floodplain Buyout Administration and Implications for Equity and Participant Outcomes**

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Voluntary property acquisition programs are one of the main federal tools for addressing homeowner flood risk in the United States. Federal funding has supported property acquisitions since at least 1989 and has been used to acquire properties in almost every state. Since programs are locally implemented, however, there is significant variation in how programs are administered, and these variations have implications for participant experiences and for equity. Here, we synthesize insights from interviews with 23 state and local officials in eight Midwest and East Coast states; 160 FEMA buyout case studies; and 113 academic studies and government reports on floodplain buyouts. We (a) document a range of divergent practices that have significant implications for participants (e.g., how officials prioritize which homes to acquire, how to value properties, and what additional support to provide), (b) explore how values, federal policies, state programs, and local capacity drive these divergent practices, (c) identify barriers to future improvements and present creative solutions officials have used to overcome challenges, and (d) present a publicly-accessible database of documents and case studies to inform future research. We find that inconsistencies in how federal guidelines are interpreted or enforced, occasional incompatibility between state and federal program requirements, and a lack of local expertise may lead to sub-optimal outcomes for buyout participants. Heavy procedural requirements in federal programs create significant barriers to participation, such that the presence of an expert (i.e., consultant, experienced local official, or state technical support) appears to be a precondition for local engagement with buyouts. Officials often hold divergent views on the nature of buyout funding (e.g., safety net, charity, or entitlement) and on the role of buyouts in promoting equity. Some locations, for example, prioritize acquisition of properties owned by low-income residents, while others purposefully avoid purchasing these properties: both with the goal of promoting social justice. Personal values of government officials, as well as local context, shape buyout administration in ways that affect the ability of residents to participate and the level of support they receive throughout the process. As well as documenting these divergent values and practices, we recommend amendments to federal policies that could reduce barriers to participation and change incentives for modes of administration.

### **Local Political Decision Making about Property Buyouts: Evidence from a Survey of US City and County Elected Officials**

Co-Authors: Megan Mullin (Duke University)

In the United States, local governments have a central role in managed retreat. In the case of property buyouts, they typically lead decision making about acquisition and subsequently manage the purchased land. More generally, their control over land use, their responsibilities for infrastructure and public services, and their ability to set taxes all contribute to local residents' vulnerability to climate risks and options for becoming more resilient. Local governments historically have exercised their powers in ways that benefit wealthier property owners, contributing to widespread segregation and unequal access to public services. How might this legacy manifest in their approach to managed retreat? This presentation reports on a survey conducted in spring 2020 with over 500 elected U.S. city and county officials on their attitudes about voluntary property buyouts. Recent research on the U.S. experience with buyouts indicates that they have been concentrated in low-income areas, but observational studies cannot disentangle how local government decisions contribute to this pattern independent from factors such as the extent of property damage and homeowners' willingness to accept buyouts. An experiment embedded in the survey focuses on local political decision making by testing whether politicians' support for a buyout proposal depends on identification of recipients as wealthy or low-income. Results show that recipient identity affects buyout support in patterns that seem rooted not in electoral incentives, but instead in perceptions of impacts on recipients and the community. The study advances

understanding about how political response to climate risk may further entrench local inequality and also provides evidence on the buyout benefits and drawbacks that local elected officials consider most important.

### **Managed Retreat: Examining Homeowners Relocation within the NY Rising Buyout and Acquisition Program**

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The submission discusses research conducted within the Agency (New York State Governor's Office of Storm Recovery) aimed at exploring relocation patterns among the participants in the NY Rising Buyout and Acquisition Programs. Both programs have collectively purchased more than 1,200 properties on a voluntary basis from residents in flood-prone neighborhoods of Long Island and Staten Island. While there is a consistent body of research on the impact of the program on residents and communities, and on the benefits of supporting and incentivizing the relocation of residents from the most vulnerable coastal areas, there is little research on the actual relocation of the homeowners. Several studies have been conducted on some NYS-GOSR buyouts areas in Staten Island, such as Ocean Breeze and Oakwood beach, with partial surveys to local residents, mainly focused on the reasons for leaving and willingness to relocate but not on the relocation itself. The present study shows how government agencies can use internal program data and auxiliary tools to examine applicants' relocation patterns without the need for direct surveys to homeowners. With a specifically designed methodology, applied to the NY Rising Buyout and Acquisition Programs applicants who received awards, this research is able to show relocation patterns among the homeowners, such as: moving to areas with similar characteristics to the original home area (i.e. proximity to the water), moving to areas with lower flood risk, buying properties at a comparable value to the original home. Additionally, the study investigates the role of demographic variables (i.e. income, ethnicity/race, age) in the aforementioned identifiable relocation patterns. Multiple steps in data collection were conducted to create a database of valid records with significant results (such as removing undeveloped sites/vacant land, corporate owners, rental-only properties). Several statistical analyses were also conducted, such as fuzzy match techniques and manual matches with public available databases and logistic regressions on identifiable relationships among variables. The research shows how, with a customized methodology, it is possible to confirm predicted relocation patterns and reveal unpredicted behavior which can be useful to inform policymakers when trying to incentivize participation in buyouts programs. For example, a further understanding of the relocation preferences and spending behaviors in buying a new property could inform the policy design of relocation incentives for future buyout programs. Outcomes for this study can inform about the impact and the legacy of buyout programs for managed retreat strategies and suggest recommendations for similar disaster recovery programs and policies statewide, and throughout the US.

### **Relocation outcomes for participants in U.S. property buyouts: a systematic, nationwide analysis**

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As the climate continues to change, managed retreat from hazardous areas will become increasingly important and inevitable in some locations. Voluntary property buyouts are one example of managed retreat, where homeowners sell their properties to the government, and land is restored to open space. Buyouts of flood-prone properties funded by the U.S. Federal Emergency Management Agency (FEMA) are among the longest-running and largest examples of managed retreat globally. While over 40,000 properties have been acquired in 49 different states, little is known about how buyouts affect the safety or wellbeing of participating households. We combine address-level data with a nationwide real-estate dataset of property deed transactions to identify around 9,500 buyout deed transactions in 500 counties in 46 states. For more than 3,000 buyouts, we have determined the relocation destinations, making this the largest assessment of buyout outcomes for participating homeowners to date. To assess the effects of the relocations for participating homeowners, we determine the distance of the move and explore ways in which the relocation may have changed homeowners' flood risk, neighborhood-level social vulnerability, and add analysis of home purchase value to explore socioeconomic implications at the household level. We use Census data such as income, racial diversity, and population density as potential indicators of social vulnerability of neighborhoods. Initial results suggest that, in line with previous research, many buyout participants relocate locally, and the majority of homeowners relocate out of the floodplain. This analysis represents a first crosscutting analysis of how buyouts affect the participating households. Assessment of the full experience of retreat for all affected communities is critical for improving buyout processes and programs, including at potentially greater scales into the future.

### **State and Local Buyout Programs – What Lessons on Equity and Ecological Restoration for Future Floodplain Management?**

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Climate-exacerbated flooding has renewed interest in home buyouts as a pillar of managed retreat from coastal zones and floodplains. However, federal buyout programs funded by FEMA, HUD, and USDA have drawn widespread criticism for being socially insensitive, socio-economically and racially inequitable, and for leaving behind vacant lots rather than restored ecosystems. In response, we are studying state, county, and local buyout programs to understand whether they offer alternative approaches that can inform future federal policy reform or expansion of subnational buyout and floodplain management programs. New Jersey, Harris County, and Tulsa (OK) rely on federal funding, while Washington State, Charlotte-Mecklenburg County, and Austin (TX) also draw on state or local resources to fund additional buyout projects independent of federal funding and requirements. Our research asks: 1) How do these subnational programs frame and operationalize goals for human well-being, fairness, and ecological restoration? Does their smaller, contextualized scale enable greater social and environmental responsiveness? 2) How does the source of funding impact the spatial, demographic, and ecological outcomes of buyout projects and sites? Do independently funded projects that do not face federal funding constraints achieve better social and ecological outcomes? 3) What is the relationship between social and ecological policies and outcomes? The presentation will share the early findings from the first and second sets of questions and anticipated findings from the third. This research – a multi-year collaboration between Cornell University and The Nature Conservancy – adopts a mixed-methods approach. We developed in-depth case studies on each of the programs, drawing on interviews with managers and field staff and project documentation. We reviewed and synthesized the literature for the

limitations of existing buyout programs, most of which have focused on FEMA-funded projects, and developed a framework for the types of social well-being and fairness issues that challenge buyouts. We then systematically analyzed programs' goals, objectives, operational strategies, funding, and evaluations metrics to consider how they frame issues of social well-being and fairness, which types of social concerns their strategies respond to, and what innovations they have developed as compared to federal programs. This spring, we plan to interview and organize focus group discussions with managers, case workers, and external stakeholders (like activists, NGOs, academics) to gather reflections on why programs' goals are what they are, barriers to deepening equity and justice dimensions of programs, and elicit practitioner proposals for strategies to overcome these challenges. Early results suggest that subnational programs, particularly those with independent sources of funding, have a greater focus on humane approaches to resident relocation, with larger compensations packages to help afford a comparable replacement home locally, a longer timeframe in which buyouts can occur, and investment in case workers. However, despite this more sensitive approach, subnational programs have similarly neglected how historic legacies of segregation, infrastructure disinvestment, and lack of political voice contribute to inequitable buyouts. Alongside the focus on social well-being and fairness, we are interested in the restoration outcomes achieved by our case study buyout programs. Beginning with each programs' stated goals, we find that those that use less federal money are more likely to make ecological goals for buyout lands a high priority. We gathered spatial (GIS) data on buyout parcels and project sites, funding sources, and demographics. We reviewed literature to define a set of floodplain restoration metrics including: vegetative cover, floodplain connectivity, flood storage and water quality mitigation, connectivity with other buyouts, connectivity with existing open space and conservation areas, and area impervious cover removed. Using a mix of LANDSAT imagery, supplemented by select site visits, we use these metrics to approximate the current site conditions and their relative state of "restoration." In addition to program goals and current site conditions, we also evaluate plans to manage buyout sites longer term. Previous research by TNC has shown that buyout programs that incentivize retreat are more likely to avoid checkerboarding and thus can achieve more connectivity and greater ecological value. Connected clusters of floodplain buyouts are also more likely to have formal management plans in place with stated goals and outcomes. We hypothesize that buyouts with clear management strategies are likely to increase both ecological and social value within community floodplains. These findings point to the need to learn from subnational experiments in buyout for floodplain management. We anticipate the following major takeaways. First, social policies are key to ecological restoration because they permit programs to achieve greater participation rates with less checkerboarding and enable engagement with remaining community residents to steward sites post-buyout. Ecological restoration programs also encourage residents to accept a buyout knowing their sacrifice contributes to environmental and public benefits, and watershed-scale planning programs are better able to identify sites that maximize potential for restoration. Second, programs that use local funds in addition to federal funds are more attuned to social well-being, contributing to reduced checkerboarding. However, they – like federal programs – similarly need to address issues of racial and socio-economic inequality in program goals, implementation, and assessment. Moreover, since only wealthier states and cities can afford such supplemental funding, federal reforms that incorporate local and state experiments are essential to assure more widespread improvement of experiences. Third, barriers to improving both ecological and social outcomes emphasize the need to structure programs that integrally address floodplain health, regional affordable housing production, and socio-ecological relationship between human and environmental well-being.