

Local Challenges, Local Solutions

The Work and Impact of the First Resilient
Land Use Cohort



About the Urban Land Institute

The Urban Land Institute is a global, member-driven organization comprising more than 45,000 real estate and urban development professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide.

ULI's interdisciplinary membership represents all aspects of the industry, including developers,

property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics. Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific regions, with members in 80 countries.

More information is available at uli.org. Follow ULI on Twitter, Facebook, LinkedIn, and Instagram.

About the ULI Urban Resilience Program

ULI's Urban Resilience program is focused on how buildings, cities, and communities can be more resilient to the impacts of climate change and other environmental vulnerabilities. The program works

with ULI members to provide technical assistance, advance knowledge through research, and catalyze the adoption of transformative practices for real estate and land use policy.

About the Resilient Land Use Cohort

This report is part of a larger series of resilience technical assistance and learning opportunities called the Resilient Land Use Cohort (RLUC). The RLUC is a network of ULI district councils, member experts, and community partners in seven cities working together to identify strategies to be more resilient in the face of climate change and other vulnerabilities, including floods, extreme storms, drought, wildfire, and extreme heat, as well as the related social, environmental, and economic impacts. RLUC provides on-the-ground technical assistance through ULI's flagship technical assistance models—Advisory Services panels and technical assistance panels. These panels leverage ULI member expertise

to advise on complex real estate and land use challenges related to climate resilience, addressing planning, zoning, land use, development strategy, housing, and infrastructure. ULI's Urban Resilience program convenes the cohort regularly to learn from national best practices and discuss peer cities' next steps advancing resilience through land use policies and development strategies. Funding for this engagement and the cohort is provided by the ULI Foundation with support from JPMorgan Chase. The first Resilient Land Use Cohort included the following ULI district councils: ULI Chicago, ULI Dallas–Fort Worth, ULI Houston, ULI Nashville, ULI New York, ULI Philadelphia, and ULI Tampa Bay.

Cover: City of Chicago. (*Shutterstock*)

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Introduction

In early 2020, seven ULI district councils—ULI Chicago, ULI Dallas–Fort Worth, ULI Houston, ULI Nashville, ULI New York, ULI Philadelphia, and ULI Tampa Bay—began a long-term effort to tackle land use and climate resilience issues. From flood and extreme heat mitigation at the neighborhood scale to the intersection of racial equity and development, to retrofitting buildings to better adapt to future climate risks and more, the district councils collaborated with the ULI Urban Resilience program to inspire action and promote tangible solutions to complex real estate and land use challenges.

While climate change remains a global-by-nature crisis that knows no geographical boundaries, place-based approaches will pave the way to ensure that climate change adaptation meets the needs of local communities in an equitable manner. As highlighted by [Ten Principles for Building Resilience](#) and multiple studies at the [federal](#) and [U.S. census tract](#) level, communities of low income and Black, Indigenous, and people of color (BIPOC) facing historic disinvestment and structural barriers reinforcing inequality have the most to gain when it comes to advancing climate resilience. Recognizing this, and responding to the racial reckoning in the United States in the summer of 2020, many district councils in the [Resilient Land Use Cohort](#) (RLUC) chose to approach their panels with equitable climate adaptation at the core of their analyses and recommendations.

The Resilient Land Use Cohort is a network of ULI district councils, member experts, and community

partners in seven cities working together to identify strategies to be more resilient in the face of climate change and other vulnerabilities, including floods, extreme storms, drought, wildfire, and extreme heat, as well as the related social, environmental, and economic impacts. RLUC provides on-the-ground technical assistance through ULI’s flagship technical assistance models: Advisory Services panels (ASPs) and technical assistance panels (TAPs).

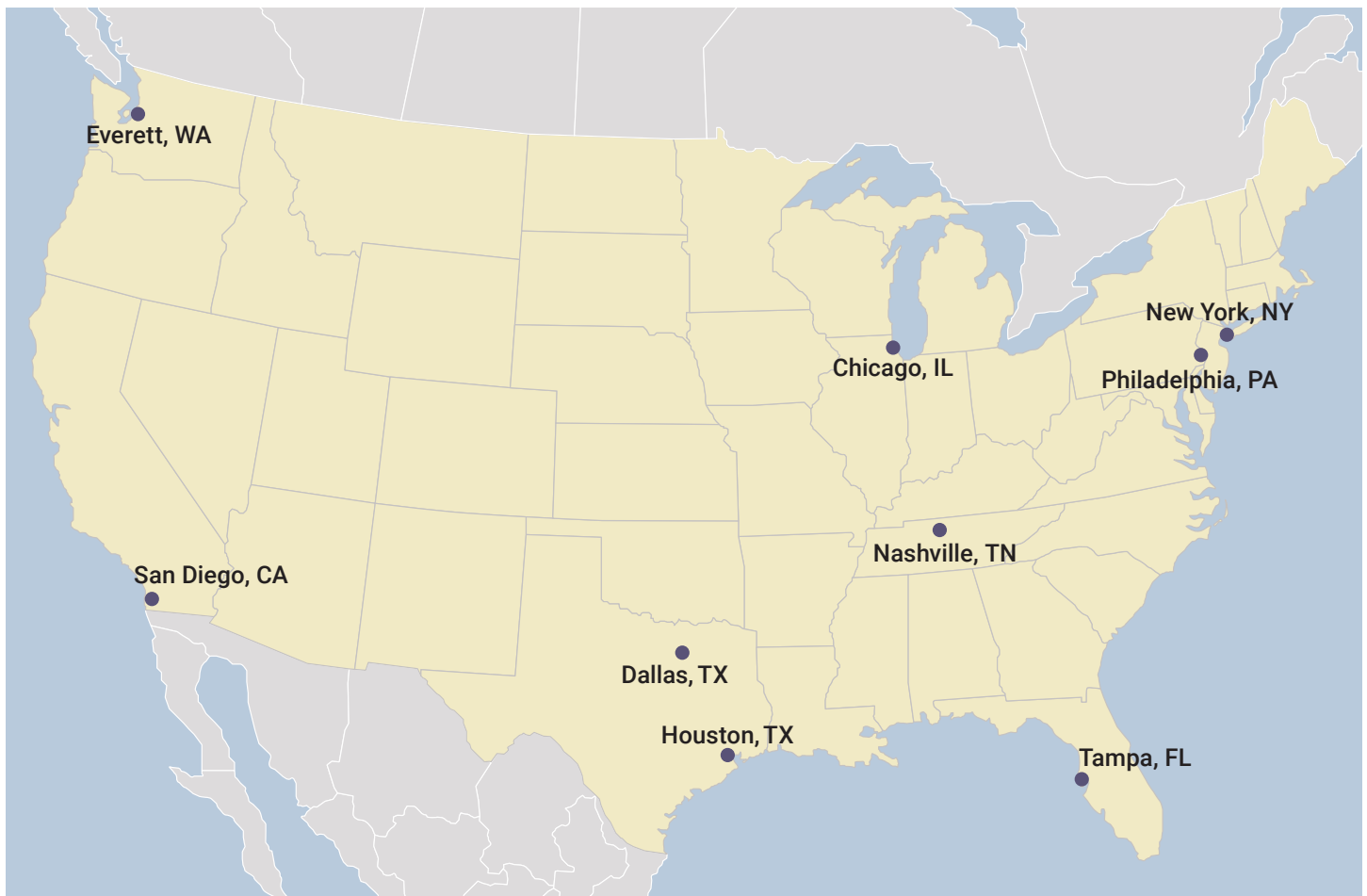
These panels leverage ULI member expertise to advise on complex real estate and land use challenges related to climate resilience, addressing planning, zoning, land use, development strategy, housing, and infrastructure. ULI’s Urban Resilience program convenes the cohort regularly to learn from national best practices and discuss peer cities’ next steps advancing resilience through land use policies and development strategies. Funding for this engagement and the cohort is provided by the ULI Foundation with support from JPMorgan Chase.

The purpose of this report is to summarize the progress and milestones of the seven RLUC panels held throughout 2020 and 2021. It provides an overview of each district council/city panel, notes the recommendations laid out by panelists, and highlights their community-level impacts and outcomes, as well as national impacts through ongoing ULI Urban Resilience thought leadership, national cohort gatherings, and other ULI convenings.

Overview of the Resilient Land Use Cohort Panels

As a starting point, ULI district councils collaborated with the Urban Resilience program, their local partners, and ULI member experts to define the area of study and relevant climate vulnerabilities of focus. Following a pre-TAP/ASP briefing, the panel of experts conducted stakeholder interviews and workshops before synthesizing their findings to present a set of key recommendations for the local partners to pursue. Despite having to reprogram

traditionally in-person cohort activities to an online format because of the COVID-19 pandemic, cohort participants adapted and carried out their panels making use of virtual site tours, interviews, and briefings. To this day, the cohort members continue to connect with their panel collaborators and one another to strategize on carrying out panel recommendations. The following section details the highlights of each of the RLUC panels.



U.S. cities that participated in the first Resilient Land Use Cohort. Additional information about cohort activities is available on [ULI's website](#). (Emily Zhang/ULI)

ULI Chicago—Our City, Our Future: Recommendations for Building Resilient Chicago Neighborhoods

While Chicago may have been nicknamed “the City That Works,” it does not work for everyone. Underserved communities of color experience persisting socioeconomic and environmental inequalities because of decades of neglect and a severe lack of investment. The result is a city split into two distinct worlds: one with bustling new development, thriving businesses, and ample access to open space and parks; and the other with broken infrastructure, vacant land, and a lack of economic opportunities.

In partnership with the city of Chicago, ULI Chicago saw an important opportunity in RLUC to develop its [Resilience Initiative](#), recognizing that climate resilience can work only if root causes of racial inequality are addressed in a community-based manner. Launched in October 2020, the initiative convened over 60 ULI member leaders in four task force groups focused on housing diversity, economic opportunity, physical infrastructure, and social infrastructure.

At task force convenings, members shared their perspectives on Chicago’s existing barriers to equity and resilience and prepared a set of recommendations, noting that Chicago’s many and diverse neighborhoods require more than a one-size-fits-all strategy. In particular, the task force groups recommend the following:

- Focusing on preserving and creating housing units that are affordable and that support the health and safety of residents at all stages of life;
- Investing in residents and entrepreneurs to help create a diverse, robust economic base;
- Prioritizing projects for investment by engaging community stakeholders in the planning process and creating a longer-term capital infrastructure plan that underscores the need for physical infrastructure to serve all residents; and
- Promoting contextual neighborhood development that enhances access to services and resources such as fresh foods, health care, recreational spaces, and the arts, and that also celebrates the rich architectural and cultural heritage of Chicago’s neighborhoods.



More than 60 members and partners of ULI Chicago participated in a series of virtual workshops organized by task force groups to develop the shared values and recommendations presented in the report *Our City, Our Future: Recommendations for Building Resilient Chicago Neighborhoods*. (ULI Chicago)

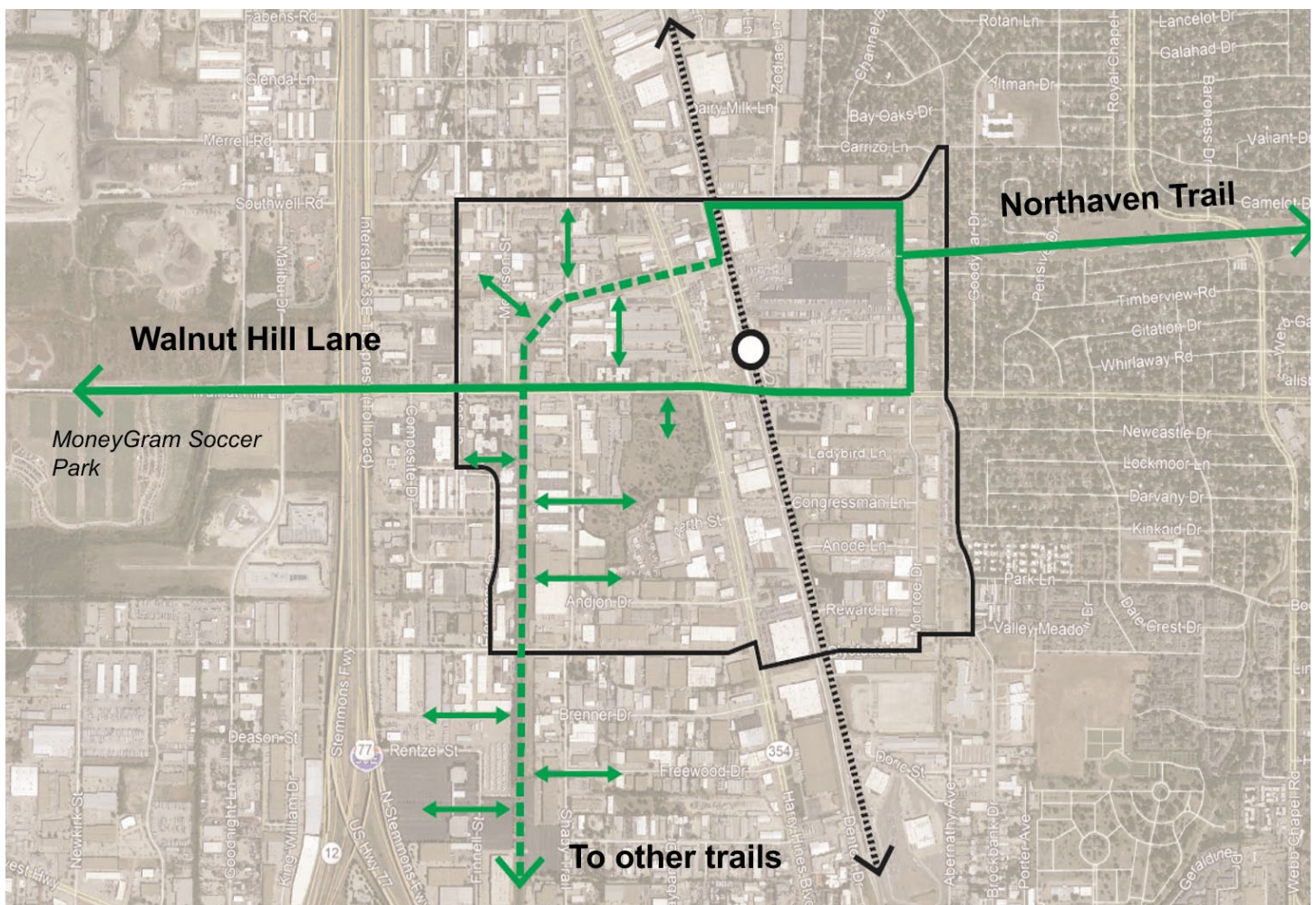
ULI Dallas—Tornado Recovery Emphasizing Urban and Climate Resilience around the Walnut Hill/Denton Drive Dallas Rapid Transit Station

In October 2019, a destructive tornado passed through northern Dallas, directly affecting an approximately 16-mile radius of the city. Homes, businesses, public facilities, and the area's tree canopy were heavily damaged, and by [city estimates](#), the destruction was the costliest tornado event in the state's history at \$1.55 billion.

In addition to the physical and built-environment strategies that drive climate resilience, social connections form a strong foundation when it comes to community-level climate hazard preparedness. With that in mind, the city of Dallas asked ULI to convene a virtual ASP (vASP) to provide recommendations on how to foster social cohesion in the neighborhood surrounding the Walnut Hill/Denton Drive Dallas Area Rapid Transit station. This geographical focal point was heavily impacted by the western edge of the tornado's path.

After deliberations and stakeholder interviews, the panel posed a set of recommendations, including the following:

- Conducting consumer and business owner surveys to understand the needs and preferences related to businesses and services in the study area;



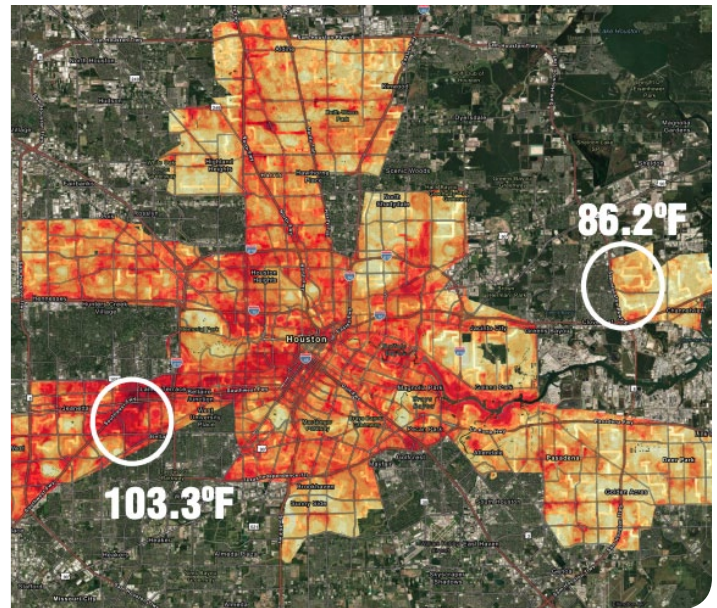
With the area of study heavily affected by a 2019 tornado, the ULI Dallas panel focused on promoting greater social cohesion and pinpointed several options for improved connectivity, as demonstrated on this map. (Google Earth, Riki Nishimura/ULI)

- Identifying and publicizing a safe and accessible resilience hub, and providing resources and toolkits to help support emergency preparedness and recovery planning;
- Activating green infrastructure (GI) by highlighting the connection between local drainage utility and impervious surfaces to encourage greater GI investment, and implementing a replanting program to replace the trees destroyed by the tornado; and
- Exploring development finance tools to leverage current opportunities on large, underused lots to provide inclusive community programming that appeals to the area's businesses and residents.

ULI Houston—Urban Heat Island Mitigation

Extreme heat kills more people annually than any other climate hazard in the United States. If not proactively addressed, by 2050 Houston can expect 22 more days exceeding 100°F, 50 more nights exceeding 80°F, and the hottest day of summer being 7°F warmer than today. Despite heat being a rather ubiquitous climate hazard across the country, southern states like Texas face more present and pressing dangers from extreme heat that require immediate interventions to ensure residents' health and safety.

The city recognizes the immediacy of the issue at hand, and its [resilience goals](#) include a short-term goal to “make Houston neighborhoods greener and cooler to combat extreme heat.” At the request of the city of Houston's chief resilience officer, ULI convened a virtual TAP (vTAP) to identify heat resilience design and construction approaches to help reduce the city's urban heat island (UHI) effect. After convening city staff, developers, heat experts, and other local stakeholders for deliberations and interviews, the panel recommended as follows:



A recurring strategy in ULI Houston's panel recommendations looks to make use of GIS and mapping techniques as well as existing resources to better understand the variety of land use factors influencing urban heat island effect disparities across the city. (www.H3AT.org)

- Raising awareness about severity of the UHI effect and extreme heat, and helping residents understand actions they can take to help mitigate its effects and protect their health;
- Layering various geographic data (tree canopy, ground vegetation, surface albedo, and demographics) to create and conduct heat map assessments to identify areas of the city in need of urgent interventions;
- Creating accessible economic vehicles to assist in funding heat mitigation strategies and offsetting costs associated with such improvements (i.e., tax abatement programs for green infrastructure projects); and
- Enhancing the city's energy resilience by delivering equitable heat mitigation tools, working with property owners, and addressing competing code priorities across multiple jurisdictions.

ULI Nashville—Enhancing Heat Resilience and Equity in the Wedgewood-Houston and Chestnut Hill Neighborhoods

Nashville is experiencing a significant boom—in building, in-migration, and business opportunities. As a city on the rise in terms of popularity both as a place to live and as a place for business, Nashville is acutely aware of its responsibility to be resilient and sustainable amid this rapid growth. The Metropolitan Government of Nashville and Davidson County has been crafting policy goals related to sustainability and climate resilience to protect its current and future residents. Through this effort, ULI Nashville collaborated with the Metropolitan Government and the Greater Nashville Regional Planning Council to understand the steps needed to improve heat mitigation in the city.

ULI convened a vTAP composed of design, development, resilience, finance, and public planning experts to conduct in-depth briefings and interviews with Metro staff and local stakeholders. In particular, the panel sought to address building and site-scale landscape design interventions, building retrofits, and equitable heat financing opportunities. Following the panel's in-depth interviews and briefings, it proposed the following:

- Removing barriers to GI development by redefining green roofs as permeable surfaces and updating



A walkway between two buildings allows air circulation and natural light, thereby promoting plant health and cooling the space for users. The example was one of many shared by experts to help the Wedgewood-Houston and Chestnut Hill neighborhoods of Nashville equitably address extreme heat risk. *(Kate Hyde/ULI)*

current building codes to require reflective roofs in new construction and significant building upgrade projects;

- Conducting a pilot program to test water cooling devices such as spray pads, misters, and cool pavements to alleviate the effects of extreme heat;
- Facilitating the full use of economic development incentives to fund resilient and sustainable real estate development that focus on creating positive community impacts; and
- Identifying community buildings in neighborhoods and equipping them to serve as resilience hubs for residents during extreme weather events.



ULI New York—Resilience in NYCHA’s Marlboro Houses

Marlboro Houses is home to over 4,000 New Yorkers across 28 residential buildings. Because of its semi-coastal location in the Gravesend neighborhood of South Brooklyn, the campus is vulnerable to flooding and storm surges, and in 2012 it was heavily affected by Hurricane Sandy. Post-Sandy, the New York City Housing Authority (NYCHA) received a record \$3 billion in Federal Emergency Management Agency relief funds to restore its properties. The funds have been a catalyst for action to build resilience across NYCHA’s portfolio, and since then the agency has been integrating climate resilience into planning and capital work to ensure that its developments are prepared for coastal storms and other climate hazards.

However, because of Marlboro’s public-private funding model, it was deemed ineligible for those federal funds. In February 2021, NYCHA requested a ULI vTAP as part of its ongoing efforts to examine how Marlboro Houses could be made more resilient to climate-induced hazards with those funding constraints in mind. The interdisciplinary panel that was brought together conducted in-depth interviews and briefings with local stakeholders to help inform a set of key recommendations. The panel’s subsequent analyses led to four key recommendations:

- Enhancing Marlboro’s landscape assets by using green infrastructure to support stormwater management and reduce urban heat island effect;
- Pursuing net zero/passive house and floodproofing retrofits to maximize Marlboro’s potential to offer healthy, resilient, and net zero carbon affordable housing while minimizing exposure to extreme heat and poor air quality;
- Creating a long-term resilience plan and prioritizing key data to guide future investment and decision-making to ensure that both short- and long-term resilience needs of residents are met; and
- Using NYCHA’s newly implemented organization-wide funding strategies to cover costs of resilience measures.

ULI Northwest—Equitable and Resilient Transit-Oriented Development

As the city of Everett, Washington, prepares for the arrival of light rail in the Westmont-Holly-Evergreen-Boeing (WHEB) Triangle, it sought guidance from ULI Northwest to preserve affordable housing and promote social resilience while addressing community- and climate-related challenges.

ULI Philadelphia—Washington Avenue Waterfront Piers and District

In the 10 years since Philadelphia adopted the [Master Plan for Central Delaware](#), the Delaware River Waterfront Corporation (DRWC) has made significant strides on its implementation. DRWC has ensured that public access is introduced along the river’s former industrial and privately owned waterfront space. The Master Plan did not, however, articulate a detailed redevelopment strategy for abandoned maritime piers and did not anticipate the complexity of ownership and stewardship challenges

“We are grateful to ULI and the TAP for their guidance and the recommendations derived from their analysis of Marlboro Houses. It will be instructive as we work towards integrating flood and heat protection measures across all of our developments.”

—Greg Russ, chief executive officer and chair, New York City Housing Authority



ULI staff and members involved in ULI Philadelphia's RLUC panel participated in a site tour of the panel's study area to develop recommendations for incentivizing resilient waterfront development and the development of the master plan for Central Delaware's finger piers (right). (Leah Sheppard/ULI)

related to these once iconic elements of maritime infrastructure, nor how their repurposing would respond to rising sea levels and increasing storms.

To address these challenges, DRWC requested ULI to convene a vASP to zero in on the redevelopment and reinvestment of the study area along the southern reach of the river. The panel aimed to create recommendations that would not only ensure a vibrant and active riverfront, but one that is also resilient to the effects of sea-level rise on waterfront developments. Following a virtual site tour, a subsequent in-person site visit, and stakeholder interviews, the panel elevated a set of core recommendations including the following:

- Creating a comprehensive infrastructure plan to bring DRWC and private owners to consensus around sea-level rise, coastal inundation, flooding, and infrastructure design assumptions.
- Immediately creating an association of existing private landowners to foster partnerships and coordination across the public and private sectors.
- Continuing to acquire abandoned piers and shorelines for use in establishing public access to the formerly industrial waterfront space.
- Exploring the use of land value capture within Philadelphia to facilitate the creation of the city's newest mixed-use waterfront neighborhood and position it to be eligible for resilient infrastructure funding from philanthropic, city, state, and federal sources.

ULI San Diego/Tijuana—Heat Adaptation Planning in San Diego County

Temperatures in the U.S. Southwest have increased markedly in the past two decades. San Diego County is projected to see an increase in the frequency and intensity of heat waves, from the current two to three times per year to as many as 16 times per year, with prolonged durations. Addressing diverse urban and rural community needs, ULI San Diego/Tijuana convened a technical assistance panel that recommended building- and site-scale heat resilience strategies to mitigate impacts for vulnerable populations, as well as regulations and financing mechanisms to incentivize local property owners and developers to address extreme heat risk.

ULI Tampa Bay—Reinventing Stormwater Retention Areas as Green, Equitable Community Assets

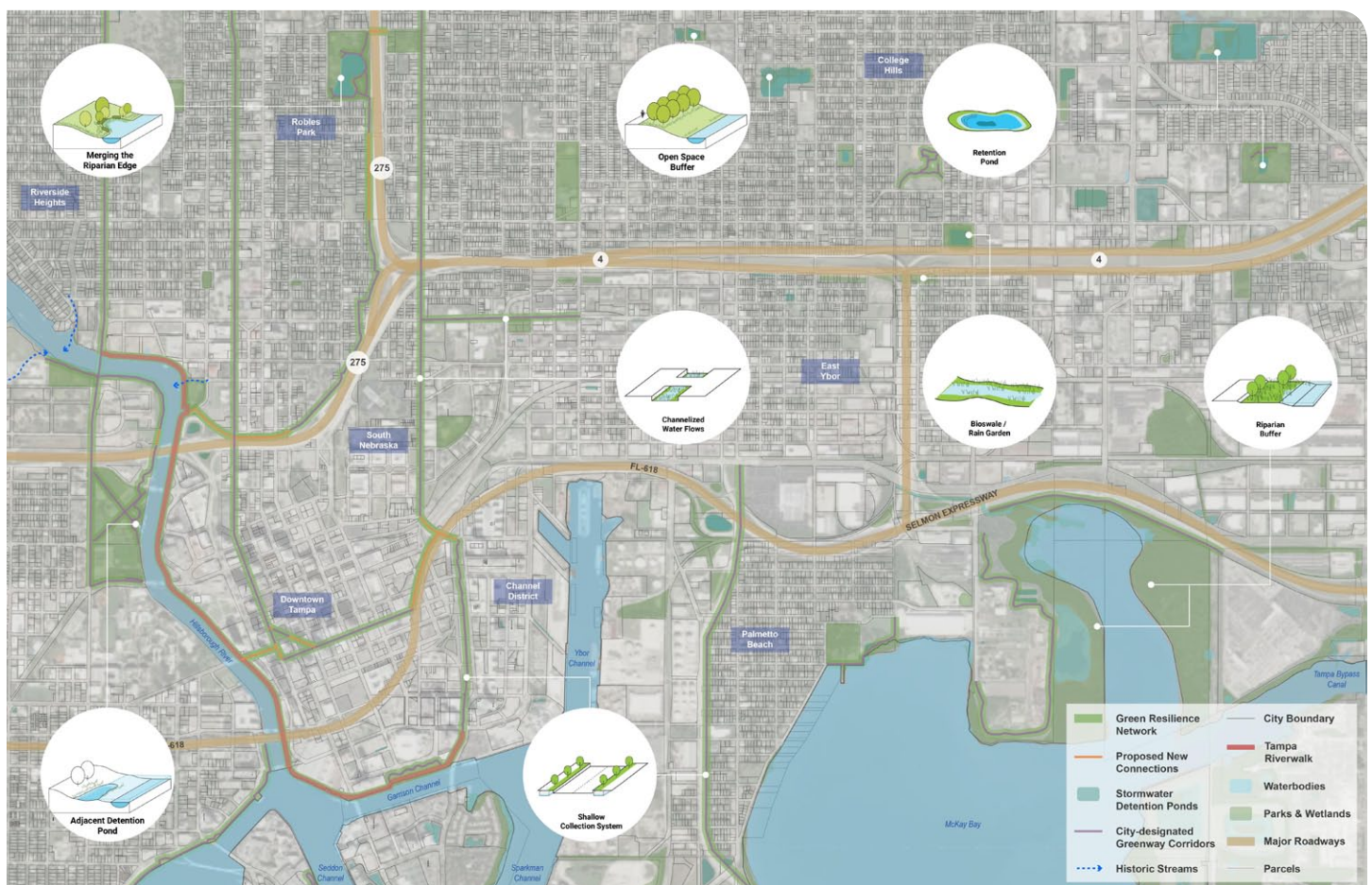
Deeply ingrained in the Tampa lifestyle, water is one of the city's strongest assets. But like many coastal cities, Tampa's waterfront location makes it vulnerable to climate hazards like flooding. As the city forges a new strategic direction along the lines of the [Resilient Tampa](#) road map, an iterative and cross-departmental approach that addresses flood

mitigation and other impacts from water with cost-effective and multibenefit solutions is in demand. While the city has made impressive progress on its stormwater management, the lack of a shared vision across all government departments hinders a greater effort that moves to a larger watershed-scale approach to climate and community resilience.

The city of Tampa asked ULI to convene a vTAP to develop recommendations aimed at reinventing city-owned and managed stormwater retention areas as green and equitable community assets. The panel decided to expand its initial scope to examine equitable community engagement as a way to enhance its efforts toward advancing climate and community resilience, and in a way that equitably serves its residents.

The panel's high-level recommendations include the following:

- Developing and coalescing around a “big idea” that addresses the city’s need for stormwater infrastructure and that recognizes the many benefits of green infrastructure for the community;
- Designing and organizing stormwater management solutions that provide co-benefits such as flood protection, economic development, public spaces for gathering, restored ecological functions, and trail connections;
- Creating and internalizing a new holistic and scalable approach to ranking and prioritizing projects based on multibenefit analyses; and
- Building and institutionalizing a scalable and intentional citywide community engagement plan to develop buy-in and inform decision-making on stormwater management projects.



A key recommendation from ULI Tampa Bay’s panel was to implement a robust, citywide green infrastructure network that can help generate multibenefit solutions for stormwater management, mobility, and urban performance. (Sherwood Design Engineers)

Cohort Impact and Outcomes

This section explores the cohort’s impact and outcomes through the respective ULI district council’s post-panel and technical assistance activities. It also illuminates the ways in which the panel recommendations have informed ULI’s Urban Resilience program’s ongoing research and programs.

Post-Cohort Activities Encouraging the Longevity of Climate Resilience Work in U.S. Communities

Although the focus of each RLUC panel was local, being part of a larger cohort has enabled participants to build connections and share knowledge across ULI’s national network. The cohort demonstrated that despite the challenges of conducting much of what was originally meant to be in-person work online, knowledge sharing and co-learning opportunities are abundant. The national cohort model continues to provide a medium for participants to engage in dialogue and share lessons learned well past the duration of a single panel.

“On behalf of the city of Chicago, the Mayor’s Office and the We Will Chicago Planning Team, we are grateful for the road map that [the ULI Chicago Resilience Initiative] outlined for us. Work like this reminds us of what is possible for a more equitable future.”

—Skyler Larrimore, first deputy director of policy, Mayor’s Office, city of Chicago



ULI New York’s RLUC recommendations were featured in the New York City Housing Authority’s 2021 [Climate Adaptation Plan](#) (pictured), highlighting that the panel’s work will be integrated into requests for proposals (RFPs) for comprehensive modernization efforts at Marlboro Houses.

The ULI district councils and their panel peers have also made it a priority to continue their climate resilience work after panel completion: in late 2021, the ULI Urban Resilience program awarded implementation grants to several district councils that are using the follow-on funding to bring panel recommendations to life. Following are several examples of how RLUC cities have carried on this work.

In Chicago, a three-year, citywide planning initiative led by Mayor Lori Lightfoot, [We Will Chicago](#), is currently underway and will take into account the findings from ULI Chicago’s Resilience Initiative. For its initial task force groups, ULI Chicago was intentional about reaching out to organizations and individuals across the city, especially those who have not traditionally been a part of ULI, to participate in the initiative. Moving forward they plan to continue to



In February 2022, volunteer panelists and experts participated in a technical assistance workshop hosted by ULI New York and the ULI Urban Resilience program that focused on cloudburst infrastructure solutions for NYCHA's campuses. (Chris Karakul/ULI)

uplift and include diverse perspectives that are truly representative of the city in their climate resilience and social equity work.

In Dallas, a local stakeholder involved in the vASP vocalized the panel's recommendations in a City Council meeting to advocate for a zoning change that would enable a workforce development project in a neighborhood adjacent to the panel's study area. The city of Dallas is considering the panel's recommendations in light of its upcoming Comprehensive Plan update, and a professor at Southern Methodist University also used the ULI Dallas panel as inspiration for a graduate course project.

Acting on a key recommendation to raise awareness about the effects of extreme heat, ULI Houston is using follow-on funding to host a roadshow to increase understanding among the land use development community about extreme heat and

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“Being a panel sponsor for the first Resilient Land Use Cohort provided an excellent opportunity for DRWC to engage with an impressive group of professionals that brought fresh eyes and a breadth of knowledge to the challenges we’re facing here in Philadelphia. This experience both reinforced certain areas in which we’ve already been focused on while helping us see where and how we can widen our scope with a renewed sense of urgency and relevance as we ensure resiliency is a key focus area in our work.”

—Karen Thompson, director of planning, Delaware River Waterfront Corporation

to share best practices on incorporating resilience strategies that address heat in building development. ULI Houston plans to connect its roadshow with the national ULI report [Scorched: Extreme Heat and Real Estate](#) by bringing in member expertise from ULI district councils such as Arizona to amplify their expertise on heat mitigation and jump-start action on some of the recommendations of the ULI Houston RLUC panel.

The work of Nashville’s panel has served as input for the mayor and other public officials to follow as they continue to strategize on making the city more sustainable and resilient for residents and visitors alike. It has also served as a springboard for continued collaboration between ULI Nashville and the city on these issues. Paving a path forward, ULI Nashville’s Building Healthy Places Action Council is planning a series of events to build on the RLUC vTAP’s insights with an overarching goal of making its recommendations actionable. The first event was held in early April 2022 at the Nashville Public Library and focused on the return on investment of resilient design. The council is using follow-on funding to bring in a national expert to build the capacity of local members and public officials, highlighting example case studies and best practices for extreme heat mitigation.

The recommendations from the ULI New York panel focused on Marlboro Houses were spotlighted in NYCHA’s [Climate Adaptation Plan](#), which outlines NYCHA’s approach to mitigating climate hazards that will affect its portfolio, which includes more than 300 campuses and 400,000 residents. The agency plans to integrate the panel’s flooding, heat, and passive house recommendations into upcoming requests for proposals for comprehensive modernization efforts of NYCHA’s mixed-finance assets. In addition, ULI New York, the ULI Urban Resilience program, and NYCHA hosted a follow-up workshop to the original vTAP in February 2022 to explore innovative cloudburst green infrastructure solutions to reduce flood risk across NYCHA’s portfolio.

ULI Philadelphia is using its implementation grant to host multiple events building on the recommendations

from the vASP. The first, a panel discussion on flood-prepared riverfront redevelopment that attracts private investment while maintaining public access to the water, which was moderated by the original panel chair, helped raise awareness and identify strategies for private- and public-sector collaboration. Further, an in-person tour for ULI Philadelphia members of the areas discussed in the panel was hosted as an engagement opportunity. The tour helped form foundational knowledge for participants in preparation for the upcoming convening exploring how to operationalize and incentivize resilient best practices along the Delaware River waterfront.

“Almost immediately after receiving the final vTAP report, ULI Tampa Bay and the city were able to leverage the findings to fund a neighborhood-level design charrette to reimagine repetitive flood loss properties not just as flood mitigation sites, but as community amenities and educational opportunities about climate risks.”

—Whit Remer, sustainability and resilience officer, city of Tampa

ULI Tampa Bay is collaborating with a consultant and ULI’s Urban Resilience program on an implementation project that will pilot new approaches to enhance the community engagement process around stormwater management and the potential of adding multibenefit solutions to the city’s stormwater management strategies as outlined in its vTAP. In October 2021—less than six months after ULI Tampa Bay’s vTAP studied the opportunity to reinvent stormwater retention areas as green, equitable community assets—the city of Tampa made the momentous announcement of a [\\$36.6 million bond](#) for stormwater management and to encourage green infrastructure development. Building off the city’s momentum and its own implementation project, ULI Tampa Bay plans to provide feedback on potential projects for inclusion in the bond.

Informing ULI Urban Resilience Thought Leadership and Broader ULI Programming

The ULI Urban Resilience program seeks to keep members and the broader land use community at the cutting edge of climate adaptation and resilience thought leadership. Leaning into the learnings and recommendations outlined in previous sections of this report, the program has sought to expand upon and further examine key themes that have arisen from the RLUC through new research reports focused on resilient retrofits and neighborhood-scale resilience strategies.

Retrofits to help minimize buildings' vulnerability to physical climate risks emerged as a common strategy in the New York, Nashville, and Houston panels, and the 2022 report [Resilient Retrofits: Climate Upgrades for Existing Buildings](#) draws in part from lessons learned from the cohort. The report introduces real estate actors, designers, policymakers, and finance professionals to the opportunities and challenges of preparing existing buildings for climate shocks. While retrofitting for resilience is an emerging strategy facing design, policy, and cost challenges, building-level solutions are critical to ensuring existing buildings' preparedness and ability to adapt in the face of climate shocks.

Expanding beyond the individual building scale, the Philadelphia, Dallas, Tampa, and Chicago panels shed light on another guiding principle for the cohort—that neighborhood-scale resilience strategies are vital to community-level climate change adaptation. [Enhancing Resilience through Neighborhood-Scale Strategies](#) introduces the fundamentals of neighborhood-scale resilience strategies for multiple physical climate hazards. These strategies require multiple levels of coordination and execution

between public and private entities but present a promising and valuable means of ensuring that communities are equipped to bounce back from and adapt to climate hazards.

In addition, the cohort's insights will be shared widely by way of other ULI outreach and knowledge-sharing mediums. Through global webinars, district council events, Spring and Fall Meeting events, and *Urban Land* online articles, RLUC's learnings and the previously mentioned research reports will continue to shape the organization's offerings focused on preparing communities for the impacts of climate change. Other flagship organizational convenings, like the 2022 BOMA Conference, will feature a panel organized by ULI on the challenges and opportunities around retrofitting existing buildings for resilience, thereby expanding ULI's reach and the impact of RLUC.

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"The grant allowed ULI Nashville to leverage the expertise of national experts and local knowledge to bring attention to the importance of extreme heat. . . . The vTAP process and report have given ULI Nashville a launching point for furthering conversations with communities and policymakers to ensure we address this critical issue."

—John Vick, vTAP chair, Tennessee Department of Health

Of special importance is the cohort's encouragement of knowledge sharing and opportunities to build connections across jurisdictions and for longer periods of time. While TAPs and ASPs provide essential technical expertise, continued efforts to sustain knowledge are a necessary ingredient for climate resilience capacity building. Outside of their own panel activities, the cohort members



Atop Omni Ecosystems' living rooftop in the Bronzeville neighborhood of Chicago, the RLUC participants gathered in person after more than a year of virtual convenings to reflect upon their respective panels' learnings, celebrate progress made on resilience in their communities, and gain a local perspective from Omni Ecosystems on building climate resilience through green infrastructure. (Emily Zhang/ULI)

participated in four virtual gatherings to hear from subject matter experts on select resilience topics and connect with one another and ULI staff.

The cohort finally had the chance to connect in person at the 2021 ULI Fall Meeting atop Omni Ecosystems' "living" rooftop in the Bronzeville neighborhood of Chicago. With most of the group's activities taking place online until then, convening in person provided the opportunity to solidify the relationships and knowledge sharing that began virtually.

Within ULI's content and research center, programs like RLUC reiterate the power of the cohort model. These programs garner enduring impact in communities globally, build capacity locally, and foster meaningful relationships across borders. With each cohort ULI improves the model for even greater impact. Insights gained from RLUC will help inform future ULI cohorts such as the [Cohort for Park Equity](#), the [Net Zero Imperative](#), and the second round of the Resilient Land Use Cohort, creating healthier, more equitable, more sustainable, and more resilient communities across the globe.

Conclusion

The first Resilient Land Use Cohort produced seven panels in communities across the United States, with a special focus on advancing resilience to climate change vulnerabilities and its associated economic impacts and social inequities. Panels focused on each community's climate risks and developed solutions in tune with their local contexts, recognizing that there is no one-size-fits-all approach to preparing for the effects of climate hazards.

By working together as a cohort, the RLUC built connections with peers, member experts, and ULI staff to elevate their panel recommendations and brainstorm avenues for advancing recommendations

through follow-on implementation funding and events. Moving forward, the district councils and communities involved in this first cohort plan to build on this momentum and spark actionable change to help make their communities more resilient to the impacts of climate change.

The second round of the Resilient Land Use Cohort will explore deeper collaboration with community-based and advocacy organizations to further ground the program in the intersections of climate risk and social equity. To learn more about RLUC and follow along in the progress and work of this second cohort, visit uli.org/resilient-land-use-cohort/.



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