

### FOR IMMEDIATE RELEASE

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# URBAN LAND INSTITUTE NEW YORK RELEASES RECOMMENDATIONS FOR MITIGATING URBAN HEAT ISLAND EFFECT IN GOWANUS, BROOKLYN

Report highlights strategies that could be implemented during an anticipated rezoning process to address the impacts of UHI and help transform Gowanus into a greener, healthier, cooler community

**NEW YORK, NY** – The Urban Land Institute New York (ULI NY) today released a comprehensive report outlining how the anticipated rezoning of Gowanus, Brooklyn can be used to address and mitigate a phenomenon known as the urban heat island (UHI) effect. UHI can have serious economic and health impacts on residents living in communities where it occurs.

UHI happens when structures and concrete replace natural vegetation and as cars and air conditioners convert energy to heat, releasing it into the air. As noted in its report, *A Vision for a Greener, Healthier, Cooler Gowanus: Strategies to Mitigate Urban Heat Island Effect*, the extreme heat from UHI drives up energy costs and increases air pollution and greenhouse gas emissions.

Urban heat islands are also a threat to public health and they disproportionately impact environmental justice communities, which suffer the cumulative impacts of environmental burdens. Residents in these communities often live in highly polluted areas, with significantly less tree coverage and open space, as well as a lack of access to affordable, healthy foods that leaves them more vulnerable to the effects of UHI. Currently, extreme heat events <u>cause more deaths</u> in the United States than all other weather-related events combined and studies show heat-associated mortality particularly impacts low-income and environmental justice communities.

Gowanus, which was developed as an industrial area and whose canal was designated a US Environmental Protection Agency Superfund site in 2010, is more vulnerable to extreme heat than its surrounding communities in part because of its poor air and water quality, heavy traffic, older housing stock, and lack of parks and open space. Gowanus is expected to experience increased development in the coming years due to an anticipated Gowanus rezoning in support of Mayor de Blasio's housing plan, *Housing New York: A Five-Borough, Ten-Year Plan* and recent *Housing New York 2.0*, to help accommodate the city's growing population and address its long-standing affordable housing crisis.

The UHI effect could worsen in Gowanus if higher density buildings are permitted in the area without comprehensive plans to implement green infrastructure and other investments that can help promote localized cooling, which is consistent with *OneNYC: The Plan for A Stronger & Just City*.

To identify strategies that address the impacts of UHI in the South Brooklyn neighborhood, ULI NY members partnered with the South Brooklyn community-based non-profit and advocacy group, Fifth Avenue Committee (FAC), to convene a 10-member Technical Assistance Panel (TAP) in April. The

group of environmental, real estate, and transportation experts visited the study area, interviewed community stakeholders, analyzed existing conditions, and offered a series of recommendations designed to address UHI in the context of a potential rezoning, and improve the health and quality of life of Gowanus residents.

"Offsetting the impacts of this UHI phenomenon should be a high priority during any redevelopment plan for Gowanus," said **TAP Chairman James Lima, president of James Lima Planning + Development.** "In fact, Gowanus faces a series of complex challenges ranging from UHI effect to Superfund site toxicity, and poor air quality, among other public health concerns. The anticipated rezoning process presents a timely opportunity to coordinate and implement numerous important measures that can help ensure the health and vitality of Gowanus residents for years to come."

"The ULI NY TAP process brings together expert land use professionals who volunteer their time to provide objective advice and practical solutions to address some of the most difficult issues facing communities," said ULI NY Chairman Marty Burger, Chief Executive Officer, Silverstein Properties. "By consulting with residents from the study area, TAPs provide an opportunity for residents to share their concerns as well as ideas for how to make their own neighborhoods more vibrant and livable. I commend the Gowanus UHI TAP panel for producing such a thorough report and I look forward to seeing these proposals move forward."

The Gowanus UHI TAP panel identified a series of measures to mitigate the UHI effect, including increasing vegetative coverage wherever possible, undertaking a series of transit improvements, and significantly increasing building efficiency.

Key proposals in the report include:

- o **Increase vegetation in the area by 20 percent**: Increasing vegetative coverage could reduce air temperatures by approximately 3 degrees. It also would support stormwater retention and help mitigate flooding. Vines could be added to the external walls of existing buildings, helping to reduce outside temperatures and cooling the buildings themselves, while making the pedestrian experience more vibrant. Also, planters could be added in areas where soil contamination or groundwater levels prevent trees from being planted.
- o Incentivize green building in new development: Ensure new buildings have green infrastructure technology installed so they can reduce the UHI effect rather than contribute to it. Strategies include installing green roofs, using double or triple-pane windows, and implementing envelope improvements such as insulation to minimize energy waste. Breezeways can provide natural ventilation and encourage airflow that helps keep buildings cooler. In addition, builders should redirect and reuse the solar heat that is captured in buildings, which, if allowed to be wasted, can contribute to higher temperatures.
- O Design areas and paths of respite: Major thoroughfares in Gowanus currently offer few places for pedestrians to escape the heat. Areas or paths of respite would provide routes featuring cooling green infrastructure, as well as pedestrian amenities designed to address urban heat island. To maximize impact, the areas could follow the area's prevailing winds, and daylight the community's hidden network of creeks. Infrastructure investments could also include vegetative coverings on external walls, trees, and other amenities to provide shade to residents while encouraging social activity.
- Make the transportation system in the area more efficient: Encourage more people to use public transit rather than driving to help reduce congestion and decrease emissions, which

contribute to the urban heat island effect. The panel recommends more frequent bus service, sufficient bike parking, and stop sign and traffic light improvements at key intersections. The addition of a new pedestrian bridge over the Gowanus Canal on Degraw Street would allow residents to traverse the canal without using public transit.

O Turn the Con Edison lot between Baltic and Butler streets into a temporary park: With the only public park in the area, Thomas Greene Park, slated to be closed temporarily for Manufactured Gas Plan (MGP) remediation efforts in support of the Superfund clean-up, transforming the Con Edison lot into a temporary park will help residents stay cool while also serving as a place for recreation. Recommendations include a pool to compensate for the closure of the community's only public pool, installing a pop-up tree nursery to grow trees for neighborhood streets, and adding shade elements such as trellises with vines.

"This report provides the insights and policy recommendations needed to create a thriving and sustainable Gowanus community while minimizing the impacts of the Urban Heat Island effect," said **ULI NY Executive Director Felix Ciampa**. "I commend the Gowanus UHI TAP panel for their creative proposals and the Fifth Avenue Committee for its role in elevating the importance of UHI and for encouraging that any rezoning be used as an opportunity to transform Gowanus into a sustainable and energy-efficient neighborhood."

"Gowanus is a unique community with both incredible assets and challenges," said Michelle de la Uz, Executive Director of Fifth Avenue Committee. The TAP panel made it possible for residents to voice their concerns before any zoning changes are approved and to ensure that recommendations that leverage the rezoning and its investments are included to transform one of New York City's most toxic and environmentally challenged communities into an example of sustainability and resilience," I would like to thank ULI NY and the panel for addressing the community's challenges and for recommending measures to make it a more environmentally friendly, healthier and livable area."

The ULI NY Gowanus report also provides recommendations for the funding and implementation of the panel's proposals. One option is the creation of a green infrastructure fund administered by the NYC Department of Environmental Protection to pay for UHI-mitigating measures such as trees and linear parks. Other ideas include offering rebates and reductions in sewer fees to businesses that install green roofs or other mitigation measures. More details on funding options and mitigation measures can be found in the full report, which is available on ULI NY's website.

The Gowanus UHI TAP was made possible by a grant from The New York Community Trust awarded in July 2016. ULI NY also conducted a two-day TAP in Sleepy Hollow, New York in November to identify strategies that will encourage development within the core of the Village's downtown commercial streets. The goal is to create new retail businesses and multi-family residential housing in the Westchester community through adaptive reuse, renovation of existing properties, and new construction and to find strategies to connect the new Edge-on-Hudson development with the Village's downtown. ULI NY anticipates releasing a report detailing the findings of the Sleepy Hollow TAP in the spring.

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## **About the Urban Land Institute New York**

ULI New York provides leadership in the responsible use of land and in the creation of sustainable, thriving communities. ULI New York promotes an open exchange of ideas, information, and experience among industry leaders and policy makers dedicated to creating better neighborhoods. ULI offers in-depth analysis of current land use issues and educates real estate professionals on the impact of land use policies

on the City's future. The organization also invests in the professional and personal development of the next generation of community and real estate industry leaders. ULI New York carries out, at the local level, the mission of ULI, a global non-profit headquartered in Washington D.C with almost 40,000 members worldwide. For more information, visit <a href="https://newyork.uli.org/">https://newyork.uli.org/</a>.

# About the Urban Land Institute's Urban Resilience Program

ULI's Urban Resilience Program provides ULI members, the public, and communities across the United States with information on how to be more resilient in the face of climate change and other environmental vulnerabilities, building stronger, more adaptive buildings and cities, while also preserving the environment, boosting economic prosperity and fostering a high quality of life. The program's work includes advisory services, research, convenings and support of resilience projects initiated by ULI's member networks. For more information, visit https://americas.uli.org/urbanresilience.

### **About Fifth Avenue Committee**

Fifth Avenue Committee, Inc. (FAC) is a nationally recognized South Brooklyn based non-profit comprehensive community development corporation formed in 1978 whose mission is to advance economic and social justice by building vibrant, diverse communities where residents have genuine opportunities to achieve their goals as well as the power to shape the community's future. FAC works to transform the lives of over 5,500 low- and moderate-income New Yorkers annually so that we can all live and work with dignity and respect while making our community more equitable, sustainable, inclusive and just. To achieve our mission FAC develops and manages affordable housing and community facilities, creates economic opportunities and ensures access to economic stability, organizes residents and workers, offers student centered adult education, and combats displacement caused by gentrification. FAC has developed nearly 900 units of affordable housing, currently manages more than 500 units and has an affordable housing pipeline of more than 1,300 units. FAC is also leading *Turning the Tide (T3): A Community Based Collaboration for Public Housing Residents to Thrive in a Changing Climate* to engage and empower South Brooklyn's public housing residents in the climate movement and inform significant resilience and sustainability investments in Gowanus and Red Hook. FAC is also a chartered member of NeighborWorks America. For more information about FAC go to <a href="https://www.fifthave.org">www.fifthave.org</a>.