CHICAGO
MAYOR BRANDON JOHNSON

City of Chicago Green Infrastructure Strategy

2026

DOE
Department of Environment

Acknowledgments

The 2026 Chicago Green Infrastructure Strategy was developed in partnership with Greenprint Partners, Rudd Resources, City departments, community organizations, and Chicago residents. The Department of Environment extends its sincere appreciation to all who contributed their time, expertise, and perspectives to this effort.

This Strategy is the product of collaborative work across sectors, including technical experts, advocates, and residents, each bringing vital background that resulted in a more complete and equitable vision for green infrastructure in Chicago. City departments worked closely with partners to align policies and recommendations, and community organizations and Chicago residents uplifted community needs to ground the Strategy in lived experience and ensure the Strategy was responsive to urgent climate impacts like flooding, extreme heat, and environmental inequities.

The Department of Environment recognizes that impactful investments are made possible through meaningful collaboration and engagement. This collaborative process will continue to guide the City's decision-making around green infrastructure to ensure that projects are resilient and grounded in equity."

Thank you all for your contributions.

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KEY STAKEHOLDERS

These agencies provided invaluable support, thought partnership, and insights to the Strategy:

- Alliance for the Great Lakes
- Austin Coming Together
- Blacks in Green
- Center for Neighborhood Technology
- Chicago Park District
- Emerald South Economic Development Collaborative
- Faith in Place
- Far South CDC
- Friends of the Chicago River
- Greater Chatham Initiative
- Grow Greater Englewood
- Greencorps Chicago
- Healthy Schools Campaign
- Historic Pullman Empowerment Organization
- Light Up Lawndale
- Little Village Environmental Justice Organization
- Metropolitan Planning Council
- Metropolitan Water Reclamation District
- NeighborSpace
- North River Commission
- Openlands
- Southeast Environmental Task Force
- The Nature Conservancy

SPECIAL THANKS

The project team would also like to thank the following individuals for their unique and meaningful contributions to the Strategy process:"

- Pete Mulvaney
- Lyndon Valicenti
- Danielle Gallet
- Maren Gingerich
- Kathleen O'Shea

PROJECT TEAM

- Greenprint Partners
- Rudd Resources
- OAI, Inc.

GREENPRINT PARTNERS

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LAND ACKNOWLEDGEMENT

The historic Land Acknowledgement was adopted by the City on November 17th, 2021. The City of Chicago is located on land that is and has long been a center for Native peoples. The area is the traditional homelands of the Anishinaabe, or the Council of the Three Fires: the Ojibwe, Odawa, and Potawatomi Nations. Many other Nations consider this area their traditional homeland, including the Myaamia, Ho-Chunk, Menominee, Sac and Fox, Peoria, Kaskaskia, Wea, Kickapoo, and Mascouten. The City specifically acknowledges the contributions of Kitihawa of the Potawatomi in fostering the community that has become Chicago. We acknowledge all Native peoples who came before us and who continue to contribute to our city. We are committed to promoting Native cultural heritage.

This acknowledgement is offered to bring awareness and understanding of the legacy of Indigenous peoples as traditional and contemporary stewards of the local land and waterways. It is also an invitation to rethink the relationships between the city, the land, and the environment.

Unless otherwise indicated, photos are sourced from Adobe Stock.

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A MESSAGE FROM COMMISSIONER ANGELA TOVAR

Dear Chicagoans,

Twelve years ago, the City of Chicago published a Green Stormwater Infrastructure Strategy, which helped lay the groundwork for a thoughtful approach to using nature-based solutions to address flooding in the city.

The strategy outlined many solutions, like permeable paving and green alleys, that are critical tools for mitigating stormwater.

The past 12 years have also shown us areas where we can further improve our efforts. In this time, our understanding of climate change and the inequitable distribution of its effects has deepened. Data has shown that Chicago's Black and Brown communities are most impacted by the higher temperatures and heavier rainfall caused by climate change, though they contribute the least to the production of harmful emissions.

For our communities, flooding is not an abstract problem – it's an everyday issue that recurs every time it rains. Given that climate change is making flooding more frequent and severe, it's an issue that we the City especially must take steps to help address.

Today, with strong cross-departmental collaboration, the City is better equipped to take on these challenges – and to address them with an equity lens. We can more effectively collaborate internally, with sister agencies, and with partners to strategically coordinate green and gray infrastructure investments that help build resilience to climate change at the neighborhood level.

To that end, we have created the 2026 Green Infrastructure Strategy to serve as an update and to connect nature-based solutions to the places where they are most needed. The Strategy was developed in partnership with numerous Chicago residents, City departments, civic organizations, and technical experts. The outcome is a document that articulates our shared vision, in tandem with tangible recommendations, for building a safer, healthier, and more resilient Chicago for all.

In partnership,

Angela Tovar
Chief Sustainability Officer, Department of Environment Commissioner
City of Chicago

Executive Summary

The 2026 Green Infrastructure Strategy is the City of Chicago's roadmap for managing stormwater in ways that reduce flooding, strengthen climate resilience, and deliver community benefits across neighborhoods.

Green infrastructure refers to nature-based solutions that capture and absorb rainwater where it falls, reducing strain on sewer systems while providing various economic, environmental, and social benefits. This strategy outlines how the City will coordinate across departments, invest in long-term maintenance, and center equity to ensure these solutions serve residents most impacted by flooding, heat, and historic environmental disinvestment, while benefiting all Chicagoans.

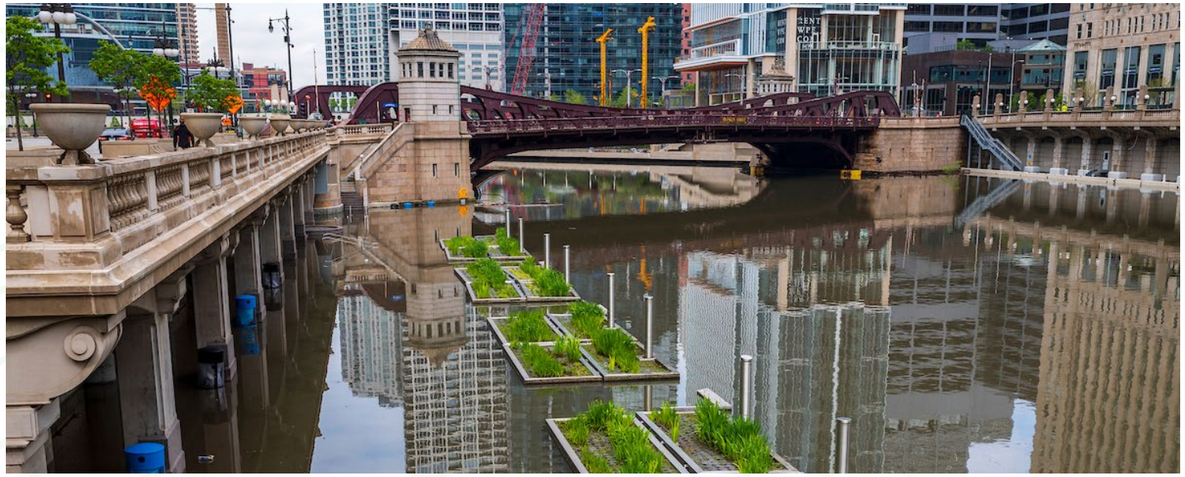
Chicago's Stormwater Challenges: Then and Now

Chicago's geography, identity, and development have long been shaped by water, from our rivers and wetlands to Lake Michigan. While Lake Michigan provides drinking water, public lakefront access, and recreational opportunities, Chicago's flat, low-lying topography and proximity to the lake make the region naturally prone to flooding. As the city urbanized, much of the area's wetlands were replaced covering approximately 66% of the city—dramatically altering natural drainage patterns and increasing flood risk.

In the mid-19th century, inadequate drainage and sewage management led to severe public health crises, including deadly cholera outbreaks. In response, Chicago undertook major engineering efforts in coordination with the Sanitary District of Greater Chicago (now called the Metropolitan Water Reclamation District), including the construction of a citywide combined sewer system and the reversal of the Chicago River to protect drinking water supplies. The MWRD's Tunnel and Reservoir Plan (TARP), initiated in 1972, has significantly reduced combined sewer overflows and improved water quality.

However, with increasingly intense rainfall events, local flooding and sewer backups continue to occur, reinforcing the need to manage stormwater where it falls and reduce strain on existing infrastructure. Studies of the region show that heavy rain events are becoming more common, in line with broader climate change trends. As a result, these challenges may grow over time.

Large storm events can cause significant property loss, health impacts, and financial hardship. These impacts are disproportionately felt by Black and Brown communities on Chicago's South and West Sides, where environmental burdens and decades of underinvestment have made it harder to recover from storms. This highlights the need to improve community resilience through equitable stormwater solutions such as green infrastructure that can reduce flooding while providing co-benefits such as improvements to air quality, urban heat, and access to natural spaces.



Chicago Riverwalk flooding. *Credit: City of Chicago*

Existing Green Infrastructure

Chicago has advanced green infrastructure through citywide plans, policies, and programs since the release of its first Green Stormwater Infrastructure Strategy in 2014. While numerous City departments, sister agencies, nonprofits, and community organizations design, build, and maintain green infrastructure, maintenance coordination and consistent data tracking have emerged as major challenges. To address this, the multi-agency Green Infrastructure Maintenance Working Group, convening since 2019, has highlighted the need for a more coordinated, equitable, and well-funded approach to sustaining these assets.

The City of Chicago partners with local agencies and community organizations to implement programs that manage stormwater, enhance environmental quality, and improve community resilience. Programs such as Green Alleys, Space to Grow, Our Roots Chicago, and the Climate Infrastructure Fund demonstrate the wide-ranging benefits of green infrastructure, including reduced heat, improved air quality, habitat creation, and community wellbeing, particularly in historically underinvested neighborhoods.

Key Challenges

The 2014 Green Stormwater Infrastructure Strategy reinforced Chicago's long-standing commitment to nature-based stormwater management, resulting in the installation of nearly 870 public green infrastructure assets such as rain gardens, green alleys, permeable pavements, and bioswales. However, ongoing challenges including fragmented coordination, unclear maintenance responsibilities, insufficient dedicated funding, and inconsistent approaches to equity have underscored the need for a more unified and sustainable approach. Building on lessons from the Green Infrastructure Maintenance Working Group and new requirements under the City's National Pollutant Discharge Elimination System (NPDES) permit, the 2026 Green Infrastructure Strategy advances three core priorities:

1. **Strengthening citywide alignment**
2. **Establishing long-term and well-funded maintenance systems**
3. **Embedding equity and community engagement across planning and implementation**

Together, these priorities position green infrastructure as essential public infrastructure that supports climate resilience, public health, and economic opportunity across Chicago.

Jardin Malinalli, a community green space in Chicago's 22nd Ward. *Credit: City of Chicago*

Shaping Our Green Infrastructure Future

The 2026 Green Infrastructure Strategy was shaped by input from nearly 70 organizations and over 100 community members across Chicago, emphasizing the voices of those most affected by urban flooding. Engagement included interviews, public meetings, roundtables, and pop-ups to ensure broad participation.

Communities highlighted that impacts of flooding disproportionately affect vulnerable neighborhoods, sometimes spreading polluted runoff from legacy industrial sites, and that one-size-fits-all approaches to stormwater management are insufficient. Residents emphasized that green infrastructure should be implemented alongside gray infrastructure and designed to deliver multiple co-benefits, including cooling, improved air quality, biodiversity, and community health, while also prioritizing education, equity, and local job creation.

Currently, maintenance responsibilities of existing green infrastructure may sometimes fall on homeowners or small organizations without sufficient funding, and the City lacks a coordinated asset management system to track and sustain green infrastructure projects. Further, equitable distribution of green infrastructure was stressed to ensure benefits reach neighborhoods most burdened by flooding, heat, and environmental inequities while minimizing financial and regulatory burdens on residents and local organizations.

Recommendations: From Vision to Action

The 2026 Green Infrastructure Strategy prioritizes **Cross-Agency Coordination** to integrate green infrastructure into Chicago's broader infrastructure systems. Key recommendations focus on establishing shared goals, language, and coordination across City departments to treat green infrastructure as critical infrastructure. Actions include creating centralized coordination structures, convening interagency working groups, leveraging existing programs, integrating green infrastructure into capital projects, and adjusting policies and regulations to incentivize green infrastructure on public and private properties.

Maintenance is critical to ensuring green infrastructure functions effectively over time. Recommendations highlight creating a centralized, interactive asset inventory, integrating green infrastructure into citywide asset management systems, and designing projects with long-term maintenance in mind. Consistent funding, clear standards, workforce training, public education, and equitable contracting practices are essential for sustaining performance. Lessons from local programs and peer cities can inform best practices, while recognizing that the first 3–5 years of maintenance are particularly crucial.

Equity and Engagement ensure co-benefits reach communities most impacted by flooding, heat, and environmental disinvestment. Recommendations include incorporating equity considerations and co-benefits into project siting and master planning, offering robust public engagement opportunities, providing localized support, and building public awareness through education campaigns. Workforce development is central, with a coordinated, inclusive approach connecting training programs, employers, and government to create equitable green jobs across career stages. Mapping tools using environmental, social, and infrastructure datasets guide high-impact green infrastructure investments to maximize benefits for flood reduction, heat mitigation, and community well-being.

Moving Forward Together

This 2026 Green Infrastructure Strategy provides a shared roadmap for Chicago to manage stormwater and deliver community co-benefits through a coordinated, equitable approach. Near-term actions focus on five priorities:

- **Establishing a comprehensive inventory** of existing public green infrastructure to identify gaps and track progress;
- **Securing sustainable, long-term funding** for planning, construction, maintenance, and workforce development;
- **Strengthening cross-department coordination** to streamline processes and maximize impact;
- **Engaging communities and advocates**—especially in high-need areas—in planning, design, and stewardship; and
- **Integrating mapping and data tools** into ongoing planning to guide evidence-based, equity-focused investments.

Together, these steps position the City to implement green infrastructure effectively and equitably at scale.

Green Infrastructure 101: Terms and Concepts

Terms to Know

What is green infrastructure?

Green infrastructure refers to a range of practices and features that can help capture and slow stormwater, reducing the burden on combined sewer systems.

Green infrastructure provides rich economic, community, and environmental benefits including reduced flooding, heat mitigation, improved air quality, and expanded access to green space & recreational opportunities. Some examples of green infrastructure include native plants, trees, rain gardens, green roofs, permeable pavement, and other landscape features designed to help absorb and manage stormwater on-site.

Bioinfiltration systems: Features such as basins or trenches that collect stormwater from surrounding impervious areas and pass it through a shallow depressed area containing plants and a prepared soil (modified from DWM's Stormwater Manual). A rain garden is an example of a bioinfiltration system.

Climate change: Long-term changes in average weather patterns over decades or longer, including shifts in precipitation, rising temperatures, and changes in frequency and intensity of extreme weather events. In Chicago, climate change is increasing the risk of heavy rainfall, flooding, and extreme heat.

Co-benefit: Additional positive outcomes that go beyond the primary goal of an action, project, or installation. For green infrastructure, these include benefits such as heat mitigation, increased access to green space, and habitat creation.

Combined Sewer Overflow (CSO): An event that occurs when heavy rainfall overwhelms a sewer system that carries both stormwater and wastewater, causing a mixture of stormwater runoff and untreated sewage to overflow into nearby waterways.

Combined sewer system: A sewer system that collects stormwater runoff, domestic sewage, and industrial wastewater in the same pipe.

Community resiliency: The ability of a community to reliably use available resources to respond to, withstand, and recover from natural and social crises. This allows for the adaptation and growth of a community after disaster strikes.

Cumulative impact: The combined effect of multiple environmental, social, and health stressors — such as pollution exposure, flooding, extreme heat, and underlying health conditions — that build up over time and disproportionately affect certain communities.

Equity: Defined by the City of Chicago as both an outcome and a process that ensures fair and just access to opportunity and resources, so all residents have the ability to thrive.

Gray infrastructure: Engineered systems such as pipes, drains, and treatment plants that collect and move stormwater away from where it falls.

Green Infrastructure Typology: A classification system used in this strategy to describe different categories of green infrastructure practices, such as rain gardens, bioswales, permeable pavement, and green schoolyards.

Impervious surface: A surface made of materials such as concrete or asphalt that prevents rainwater from soaking into the ground. Roads, sidewalks, driveways, and parking lots are common impervious surfaces that increase stormwater runoff.

NPDES permit: A permit issued under the National Pollutant Discharge Elimination System that regulates the discharge of pollutants into U.S. waters. These permits set limits, monitoring requirements, and reporting obligations for municipal, industrial, and other regulated discharges to protect water quality and public health.

Regional intercepting sewer: A large sewer that collects wastewater and stormwater from many neighborhood sewer lines and carries it to treatment plants or to MWRD's Tunnel and Reservoir Plan (TARP). In Chicago, these intercepting sewers play a critical role during heavy rain by directing excess water into TARP's deep tunnels and reservoirs, helping reduce flooding and basement backups.

Stormwater runoff: Rain or snowmelt that flows over streets, sidewalks, rooftops, and other hard surfaces instead of soaking into the ground. In Chicago, stormwater runoff enters the combined sewer system and regional intercepting sewers, and during heavy storms can contribute to flooding, basement backups, and water pollution. Green stormwater infrastructure helps manage runoff by slowing it down, soaking it in, and using it where it falls.

Urban heat island: Urban heat islands are areas that absorb and retain heat due to dense concentration of pavement, buildings, and other urban features. These areas are hotter than surrounding areas and have limited natural land cover to reduce temperatures.

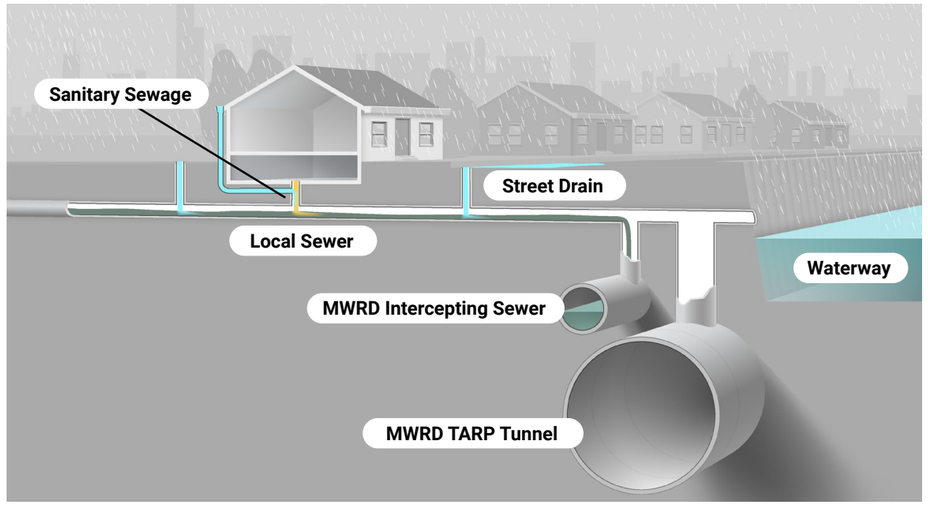


Diagram depicting a combined sewer system. *Credit: MWRD*

Green with Gray

Green infrastructure refers to a range of practices that keep rain where it falls by mimicking natural systems and allowing it to soak into the ground. Gray infrastructure, in contrast, helps manage stormwater through the use of traditional systems like pipes, drains, and treatment plants.

The City of Chicago and MWRD have invested billions of dollars in gray infrastructure projects including deep tunnel, reservoir, and sewer construction projects to reduce the impacts of flooding. Gray infrastructure plays an essential role in stormwater management—effectively capturing and conveying water during precipitation events.

However, as climate change exacerbates impacts of urban flooding and extreme heat," simply relying on gray infrastructure may not be sufficient. Natural solutions such as green infrastructure have the potential to support existing infrastructure and meet our communities' stormwater management needs. Supplemental green infrastructure investments that build community and climate resilience citywide can support strategies for protecting Chicago's future.

Gray infrastructure directs stormwater somewhere else. Examples: Storm sewer systems, wastewater treatment plants. *Credit: Greenprint Partners*

Green infrastructure keeps rain where it falls, allowing it to soak into the ground. Examples: Rain gardens, bioswales, green roofs. *Credit: Space to Grow*

Co-Benefits of Green Infrastructure

Green infrastructure captures and manages stormwater runoff and improves water quality while delivering other environmental, social, and economic benefits.

Improved Water Quality: Green infrastructure removes pollutants from surface runoff such as sediment, grease, nutrients, heavy metals, and debris.

Reduced Stormwater Runoff Volume: Green infrastructure has the potential to reduce the amount of stormwater being sent to sewer systems during certain rain events by retaining stormwater on-site. Retained stormwater can then be managed by infiltration, storage, and controlled conveyance to gray infrastructure as capacity allows.

Carbon Sequestration: Green infrastructure uses natural systems like plants and soil to capture carbon from the air and store it as organic material. By adding vegetation and supporting healthy soils, features like rain gardens, green roofs, and swales help pull carbon dioxide out of the atmosphere and keep it stored over time.[i]

Enhanced Mental Health: Studies show that access to green spaces is positively correlated with improved mental health outcomes. The nature-based aspect of most types of green infrastructure can facilitate increased access to green spaces. According to the National Recreation and Park Association, "views or brief experiences of nearby nature help to restore the mind from mental fatigue".[ii]

Social Cohesion: Green infrastructure can bring people together by creating accessible green spaces where people can gather, spend time outdoors, and stay active. By combining practical benefits with more inviting public spaces, it helps strengthen community connections and make neighborhoods better places to live.

Enhancing Public Safety: Green infrastructure can be implemented alongside traffic calming measures such as bump outs or chicanes allowing for efficient land use. It is also proven that vegetation alongside roadways—notably tall trees—can slow down the speed of drivers.

Cost Effectiveness of Initial Investment: In some applications, green infrastructure can offer a cost competitive approach to managing stormwater at the site or neighborhood scale when implemented alongside traditional gray infrastructure.

Cost of Operations and Maintenance: Maintenance for green infrastructure can comparably be more cost-effective than other mechanisms for stormwater management for certain rain events and can be achieved with less specific training.

Increased Property Value: Similar to parks or roadside planters, proximity to green infrastructure can increase the value of a property by providing improved aesthetics and a valuable utility. "Trees and plants improve urban aesthetics and community livability, which can result in increased sale prices and rental rates for homes and commercial space".[iii]

Heat Island Reduction: Large concentrations of vegetation (including trees), reflective surfaces, and permeable pavements help lower surrounding temperatures by providing shade, evapotranspiration, evaporative cooling, and reducing heat absorption through the reflection of solar radiation.

Improved Air Quality: Large concentrations of vegetation (including trees) can improve air quality by providing fresh oxygen, capturing particulate matter, and absorbing airborne pollutants.

Reduced Energy Costs / Energy Savings: Green infrastructure has the potential to provide shading and cooling, water filtration, and flood reduction benefits that can assist and sometimes replace energy-intensive processes. This means less energy spent on cooling, pumping, and filtration. Green roofs provide better insulation than conventional roofs and reduce roof surface temperatures.

Habitat Creation for Local Wildlife: Green infrastructure can implement natural plantings and mimic native ecosystems to create habitats for local flora, fauna, and fungi. This promotes biodiversity and ecosystem health.

Increased Public Health and Active Living Opportunities: Green infrastructure creates more green spaces for residents and encourages outdoor activity, play, and connection with nature."Green infrastructure can be used to create pocket parks or green streets that increase the connection of people to greenery in urban areas.

Curb Appeal / Beautifying the Property: Whether on public or private property, engineers, landscape designers, and architects can work with landowners to design green infrastructure that provides aesthetic value alongside stormwater function.

Equitable Green Jobs Workforce: The jobs required to implement, monitor, and maintain green infrastructure can be fulfilling and stable careers for local residents.

City of Chicago Departments and Sister Agencies

Several city departments and sister agencies interact with green infrastructure.
Find a detailed description of these roles starting on page 25.

Chicago Office of the Mayor

CDOT, Chicago Department of Transportation

CPkD, Chicago Park District

CPS, Chicago Public Schools

DOB, Department of Buildings

DOE, Department of Environment

DPD, Department of Planning and Development

DSS BOF, Department of Streets and Sanitation, Bureau of Forestry

DWM, Department of Water Management

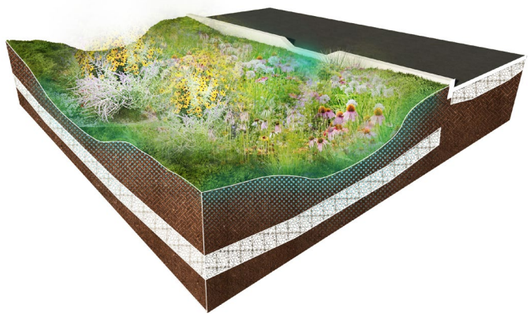
MWRD, The Metropolitan Water Reclamation District of Greater Chicago

OBM, Chicago Office of Budget Management

2FM, Department of Fleet and Facility Management

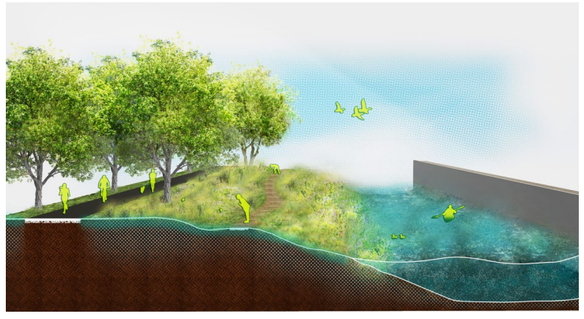
Native plants in an open green space attract pollinators.

Defining Types of Green Infrastructure



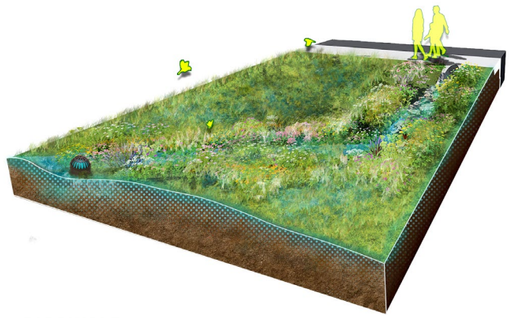
RAIN GARDEN

A landscaped depression or shallow basin designed to manage and treat stormwater runoff. Native plants and soil media intercept, slow, and infiltrate storm flows. Bioinfiltration systems and bioinfiltration planters are included in this category.



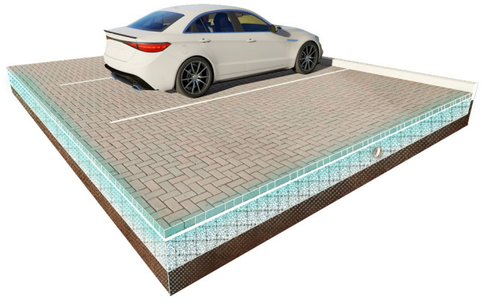
PARKS / GREEN SPACE

An area of natural or landscaped vegetation and trees designed to create nature-based spaces and increase permeable area while also providing recreational and aesthetic benefits to urban environments. This can include projects that specifically store stormwater, as well as areas that have been depaved and restoring areas with native plants.



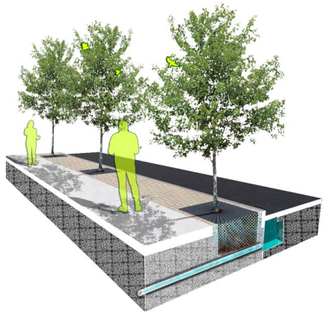
BIOSWALE

A vegetated, shallow, and sloped channel designed to convey, slow, filter, and promote infiltration of stormwater runoff, reducing pollutants and managing water flow. Includes drainage swales.



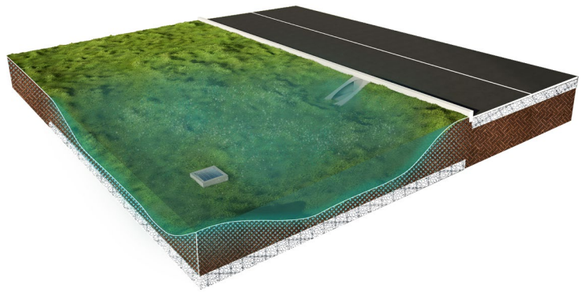
PERMEABLE PAVING

A type of paving that can replace conventional concrete or asphalt, designed to allow stormwater to permeate through and infiltrate the ground, reducing surface runoff. Includes permeable pavers, porous asphalt, porous concrete, permeable artificial turf, and permeable play surfacing.



STREET TREE

Native and adapted trees planted along streets and sidewalks in urban areas, typically within the parkway or public right-of-way.



DETENTION BASIN

An excavated area designed to temporarily detain large volumes of stormwater. Includes detention ponds.

GREEN STREET

A roadway designed with multiple green infrastructure features such as permeable paving, street trees, rain gardens, and bioswales that all work together to manage stormwater and enhance urban greening. All in the public right-of-way.

Renderings Credit: Greenprint Partners

GREEN ALLEY

An alley built in the public right-of-way utilizing porous, permeable or other pavement materials to reduce stormwater runoff into the City sewer system.

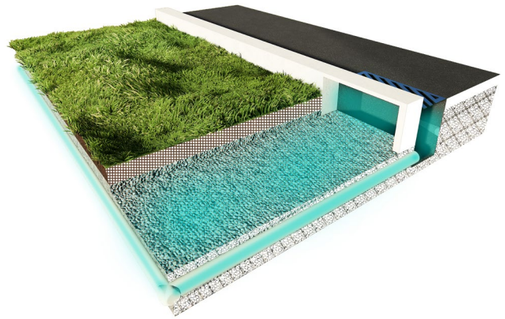
RAIN BARREL

A tank that collects and stores stormwater, typically from a roof's downspout, for rainwater harvesting/ reuse.

Defining Types of Green Infrastructure, Continued

GREEN ROOF

An architectural feature that incorporates a layer of vegetation on a building's roof to absorb rainwater.

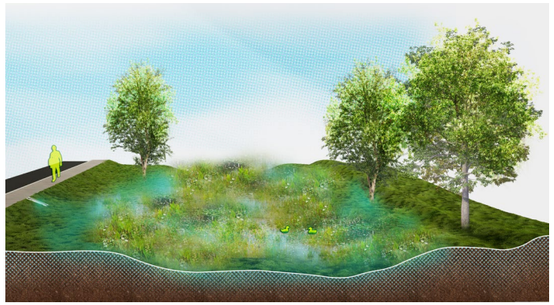


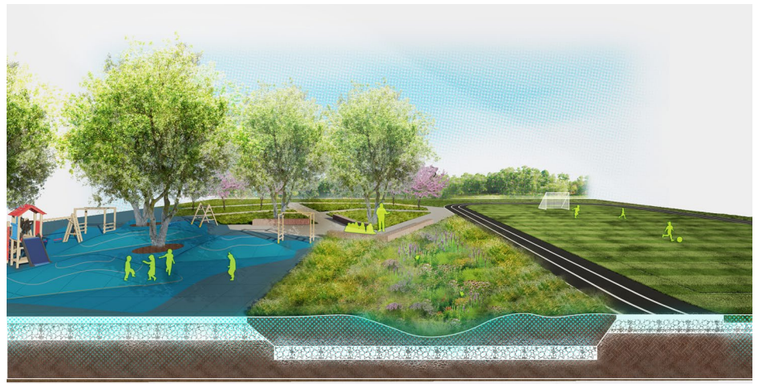
SUBSURFACE STORAGE

An engineered system that is placed underground to capture and store stormwater, and in some cases promote infiltration of stormwater. Includes chambers, tanks, and stone voids.

CONSTRUCTED WETLAND

An engineered system that mimics the natural functions of a wetland, using native plants and trees to absorb and store stormwater.





Renderings Credit: Greenprint Partners

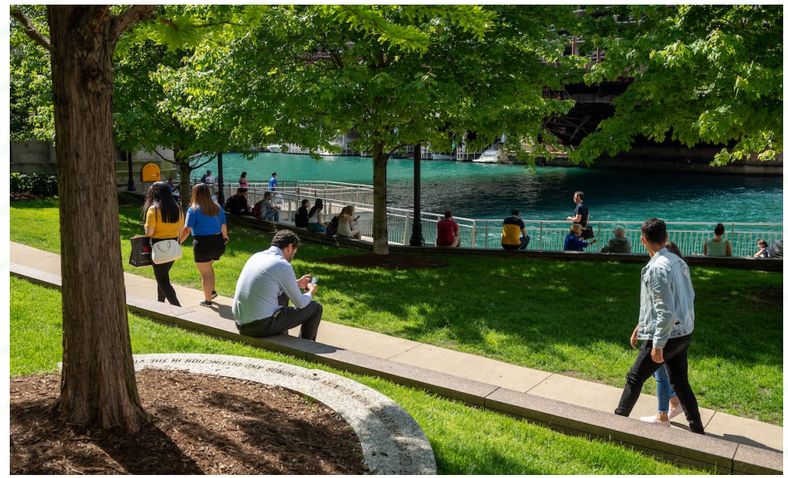
GREEN SCHOOLYARD

A nature-based learning environment that integrates multiple types of green infrastructure such as rain gardens, bioswales, trees, permeable play surfacing, subsurface storage, and green roofs. Additional features such as outdoor classrooms and improved play equipment are often included.

Chicago's Stormwater Challenges: Then and Now

Historical Context

Chicago's geography, identity, and economy are all shaped by water, from Lake Michigan's shoreline to the rivers and wetlands that wind through our communities. Beyond providing safe drinking water, these freshwater systems support recreation, business, public health, and local ecosystems. However, due to Chicago's unique proximity to the lake, as well as its flat topography, much of the Chicago region is naturally prone to flooding.



Chicagoans gathering along the Chicago Riverwalk. *Credit: City of Chicago*

Today, 66% of Chicago's land area is covered by impervious surfaces, which prevent rain from soaking into the ground.

As Chicago grew from a landscape of wetlands and prairies into a dense urban environment, the loss of natural areas and the growth of impervious surfaces like roads, sidewalks, parking lots, and rooftops transformed how water moves through the area.

Due to this low-lying swampy topography, drainage increasingly became a challenge for the City. In the mid 19th century, sewage was being directly discharged into Lake Michigan, the city's main drinking water source. This contamination resulted in mass illness and health pandemics, prompting an urgent need for proper water infrastructure."

The subsequent development of Chicago's modern sewer system to address this growing public health crisis was long and arduous. Between 1857 and 1900 a combination of public and private actors including the agency we know today as the Metropolitan Water Reclamation District of Greater Chicago (MWRD) undertook the reengineering of the sewer system and the reversal of the flow of the Chicago River, sending the city's waste away from Lake Michigan.[v] Today 99.5% of sewers remain combined and the system now covers the entire 227 square miles of the city.[vi,vii]

Between 1849 and 1867, over 3,000 people were killed in a cholera epidemic in Chicago.[iv]

— VOICES OF CHICAGOANS —

"[Flooding] can have a long-term impact on people, if they cannot afford to make repairs, invest in upgrades. This can take a mental toll and create feelings of hopelessness."

Chicago Resident

To address CSOs, the MWRD formally adopted the Tunnel and Reservoir Plan (also known as "Deep Tunnel" or TARP) in 1972. This massive, multi-decade project now consists of more than 110 miles of underground tunnels and three reservoirs designed to capture and store sewage and stormwater during heavy rain events.

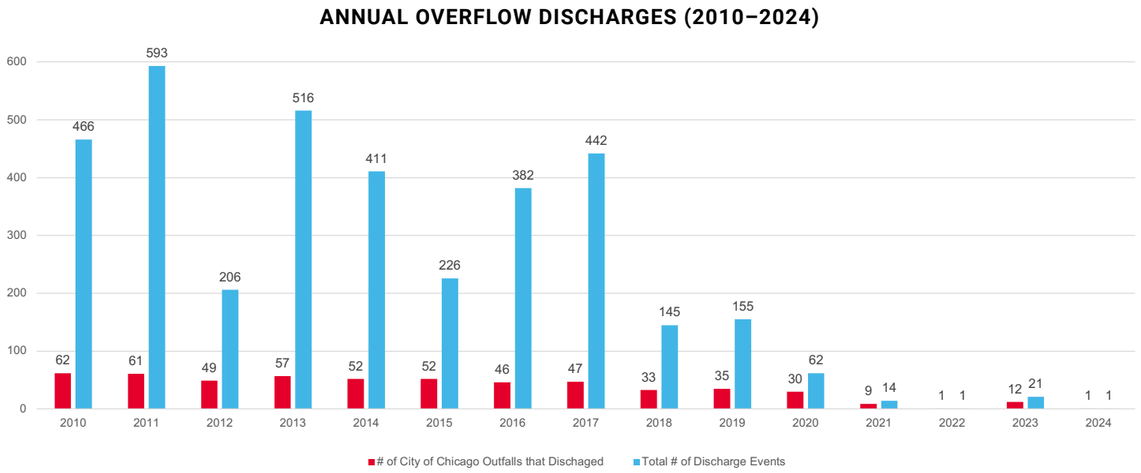
Since the completion of major TARP milestones, including the Thornton Reservoir in 2015, **Chicago has seen a drastic decrease in the number of CSO discharge events**. These investments have made critical improvements to water quality, pollution reduction, and restoration of aquatic life in the Chicago River.

Despite these successes localized flooding and basement sewer backups still occur in some areas. As high-intensity storms have become more prevalent in Chicago, water cannot always be carried effectively by the City system to the TARP system. There is still an opportunity to manage stormwater where it falls and keep it out of the sewer system for as long as possible.

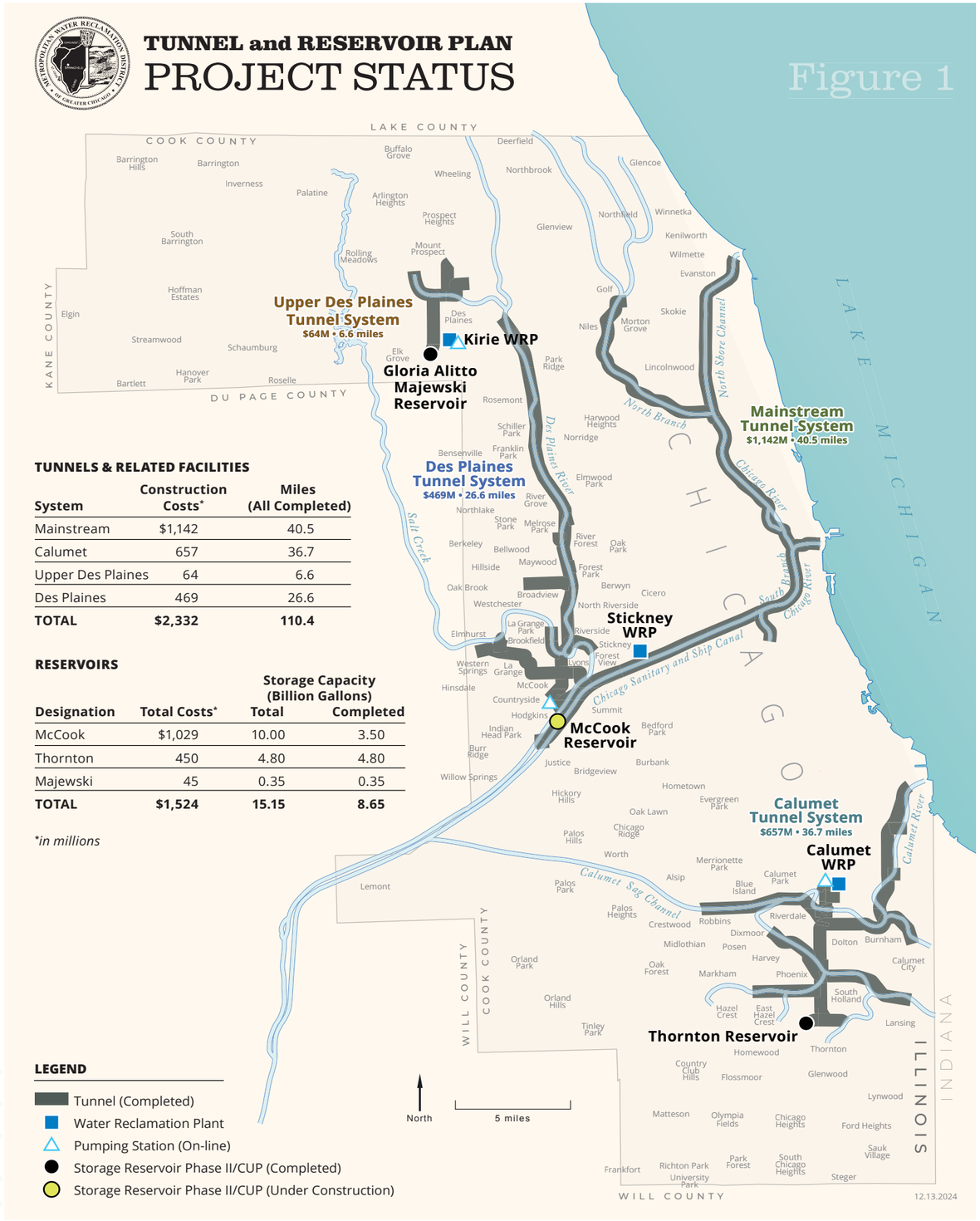
Today's Flooding Challenges

Today about 66% of Chicago's land area is covered by these impervious surfaces, which prevent rain from

Significant Reduction of Annual CSO Occurrences



Data Source: DWM



TUNNELS & RELATED FACILITIES

System	Construction Costs*	Miles (All Completed)
Mainstream	$1,142	40.5
Calumet	657	36.7
Upper Des Plaines	64	6.6
Des Plaines	469	26.6
TOTAL	**$2,332**	**110.4**

RESERVOIRS

Designation	Total Costs*	Storage Capacity (Billion Gallons) Total	Completed
McCook	$1,029	10.00	3.50
Thornton	450	4.80	4.80
Majewski	45	0.35	0.35
TOTAL	**$1,524**	**15.15**	**8.65**

**in millions*

LEGEND

- Tunnel (Completed)
- Water Reclamation Plant
- Pumping Station (On-line)
- Storage Reservoir Phase II/CUP (Completed)
- Storage Reservoir Phase II/CUP (Under Construction)

MWRD TARP System - completed and in-progress tunnels and reservoirs. *Credit: MWRD*

soaking into the ground. Instead, water drains into the City's combined sewer system, which can become overwhelmed during heavy and/or prolonged rain events, potentially leading to street flooding, basement backups, and overflows into local waterways.

Urban flooding may have significant consequences, including loss of property, valuables, and work hours, plus health and financial hardship.

For neighborhoods already dealing with other health, social, and environmental stressors, those consequences can be particularly devastating. Findings from the City of Chicago's Cumulative Impact Assessment show that the negative impacts of high-intensity heat, poor air quality, and other environmental issues are disproportionately felt by Black and Brown communities on the South and West Sides of the city.[viii]

The same pattern exists for flooding; a study by the Center for Neighborhood Technology found that 87% of flood damage insurance claims from the years 2007 through 2016 were paid in communities of color.[ix]

Historical policies and industrial development have compounded environmental burdens in these neighborhoods. Yet the same communities contribute the least to industrial pollution and gain the least economically from these industries.

These cumulative impacts make it challenging for these communities to recover from major storm events. **This unequal burden is an essential factor to consider when assessing the role and benefits of future green infrastructure in our city.** Green infrastructure has the potential to mitigate cumulative impacts by directly managing stormwater while also providing co-benefits such as improved air quality, reduced urban heat, expanded space for outdoor physical activity, and enhanced natural habitats.

Temporary street ponding can be by design

At some locations, temporary water detention on streets is intentional. During storm events, water is slowed before entering the sewer system, which can result in brief pooling on the roadway. Once sewer capacity becomes available, the water drains away. Holding water on streets for short periods helps reduce strain on the sewer system, lowering the risk of negative impacts such as basement backups.

Water from heavy rainfall flows into the sewer.

Climate Impacts on Flooding and Extreme Heat

Chicago's flooding challenges are growing as our climate changes. According to the NOAA's Illinois State Climate Summary and the 2019 Assessment of the Impacts of Climate Change on the Great Lakes, Illinois is likely to see more rain and less snowfall during the winter months. The region is also likely to see an increased number of very large storms, with longer dry spells between rain events. Summers are becoming wetter overall, with heavy rainstorms occurring more frequently and with greater intensity. These intense downpours can overwhelm sewer systems, leading to flooded streets and basement backups. In July 2023, the city's West Side experienced nearly nine inches of rainfall in a 24-hour period, causing significant impacts on infrastructure and property and displacing residents.

Climate models project substantial increases in future summer heat waves, which is expected to place additional strain on neighborhoods and infrastructure particularly in already vulnerable communities.

— VOICES OF CHICAGOANS —

"I am a lifelong resident of the Austin community and understand firsthand the impacts of basement flooding.

I often run into community members who are still trying to recover from a flooding event that occurred years ago. These same people remain at risk for other flooding events in the future, creating a never-ending problem."

Chicago Resident

Preparing for Chicago's climate future will therefore require investing equitably in solutions that not only manage stormwater but also cool our neighborhoods, clean our air, and create healthier spaces to live and play.

Quick Look: Facts and Figures Highlighting Chicago's Stormwater & Flooding Issues

99.5%
Percent of Chicago's sewered area served by a combined system[vii]

4,500+
Miles of sewer[x]

66%
Estimated percent of surfaces in Chicago are impervious*

45%
Increase in heavy precipitation events since 1950s in the Midwestern US[xi]

27%
Approximate percentage of Chicago's population in environmental justice neighborhoods is likely to be on the frontlines of community-scale climate change impacts**

*Calculation from the 30m resolution U.S. Geological Survey's 2024 Annual NLCD Collection 1 Science Products: U.S. Geological Survey data release.[xii]

**EJ communities are those designated in the Chicago EJ Index Map from the 2023 Cumulative Impact Assessment report; population data from the U.S. Census Bureau 2019-2023 American Community Survey 5-year estimates dataset[viii, xiii]

Existing Green Infrastructure Planning and Policy

Building on Chicago's Climate Leadership

Since the City's first Green Stormwater Infrastructure Strategy in 2014, major efforts like the Chicago Climate Action Plan (2022), Chicago Recovery Plan (2021), Cumulative Impact Assessment (2023), and updates to the Sustainable Development Policy (2024) have reinforced green infrastructure as a key tool for building a more resilient city and managing urban flooding. Twelve years later, new challenges, stronger equity commitments, and updated regulatory requirements are prompting an update of the 2014 strategy. While the City's vision for green infrastructure has evolved, maintenance has become a significant barrier for implementation, with a need arising for a more coordinated approach to green infrastructure.

Green infrastructure has been elevated in several citywide strategies. *Credit: City of Chicago*

— VOICES OF CHICAGOANS —

"Across the board, stakeholders from public agencies and their partners who work on green infrastructure in the Chicago region agree that there must be a shift in the way maintenance is prioritized, valued and addressed; that there is a need for a citywide green infrastructure maintenance coordination effort in Chicago; and that maintaining green infrastructure assets is critical to the city's climate resilience infrastructure."

Chicago's Green Stormwater Infrastructure Maintenance Working Group 2023 Report

City Departments, Sister Agencies, and Initiatives

Many city agencies, partners, sister agencies, and external stakeholders play an important role in driving green infrastructure development, design, construction, maintenance, and research in Chicago. Various City departments, including DWM, 2FM, CDOT, DSS BOF, and DPD, are directly involved in the design, construction, and/or maintenance aspects. Chicago Park District and Chicago Public Schools, sister agencies of the city, own and manage several sites that capture stormwater, by design or natural processes.

On the regulatory and policy front, Department of Buildings enforces the City's Stormwater Ordinance to implement green infrastructure on public and private properties, while the Department of Planning and Development promotes green infrastructure through the Sustainable Development Policy. The Department of Environment advocates for green infrastructure within the city, facilitating coordination and cross-departmental strategy.

City of Chicago Departments and Sister Agencies

Several city departments and sister agencies interact with green infrastructure, including:

Chicago Office of the Mayor
Provides executive leadership to elevate green infrastructure as a citywide priority, align departments around shared goals, and advance policies and investments that support climate resilience and equity.

CDOT, Chicago Department of Transportation
Plans, installs, and maintains green infrastructure within the public right-of-way—such as bioswales, permeable pavements, and streetscapes—by embedding stormwater solutions into transportation projects. Runs the **Green Alleys Program** (initiated in 2010) to retrofit alleys and the **Greencorps Chicago** workforce development program.

As of 2025, CDOT has a total of 501 projects that are either completed, under construction, or in design. Projects include bioinfiltration planters, trees, permeable pavements, retention trenches, and open-bottom catch basins.

Green roof in downtown Chicago. *Credit: City of Chicago.*

CPkD, Chicago Park District
Integrates green infrastructure into parks and open spaces to manage stormwater, reduce heat, and deliver community co-benefits while coordinating with City partners on design and long-term maintenance.

As of 2025, the district manages 1,955 acres of native habitats throughout the city and at least eight green infrastructure projects designed to manage stormwater.

CPS, Chicago Public Schools
Implements green infrastructure on school campuses through partnership on the **Space to Grow** program to reduce flooding, support environmental education, and provide community benefits beyond school hours.

Space to Grow's 10-year impact report highlights the program's growth from four pilot to 36 completed green schoolyard projects, which collectively capture approximately 7 million gallons of water every time it rains. That's the equivalent of 140,471 bathtubs or over 10 Olympic-sized swimming pools.

DOB, Department of Buildings
Advances green infrastructure through enforcing the **Stormwater Ordinance**, which sets requirements for volume and rate control of stormwater through best management practices for private and public developments.

To date, the Stormwater Ordinance has touched 10% of the developable area of the city. Of the over 4,600 regulated developments since 2008, 1,732 projects provided volume control onsite by capturing ½ inch of runoff.

DOE, Department of Environment
Provides citywide leadership on green stormwater infrastructure by setting strategy, coordinating interdepartmental efforts, and ensuring green infrastructure advances climate resilience, equity, and environmental goals. Implements the City's **Climate Action Plan**, ran the **Climate Infrastructure Fund** grant program, and serves as a partner on the **Space to Grow** program.

DPD, Department of Planning and Development
Advances green infrastructure through land use planning, development review, and the **Sustainable Development Policy**, which guides how public and private projects incorporate sustainable solutions support equitable growth and climate resilience. Also administers the **Landscape Ordinance**.

DSS BOF, Department of Streets and Sanitation, Bureau of Forestry
Manages and expands the City's urban tree canopy, which functions as critical green infrastructure by reducing stormwater runoff, mitigating heat, and improving environmental and public health outcomes. Leads the **Our Roots Chicago** initiative.

Our Roots Chicago, the City's tree-equity initiative aims to plant 75,000 trees by 2026. As of mid-December 2025, DSS and CDOT had planted 68,000 trees, including more than 34,000—50 percent—in priority areas.

DWM, Department of Water Management
Integrates stormwater management systems to reduce flooding, improve water quality, and complement traditional sewer infrastructure through the **Stormwater Ordinance**, as well as planning, design, and asset oversight. Serves as a partner on the Space to Grow program.

MWRD, The Metropolitan Water Reclamation District of Greater Chicago
Implements and funds large-scale green infrastructure and stormwater projects that complement City efforts by reducing regional flooding, improving water quality, and advancing watershed-scale resilience. Serves as a partner on the Space to Grow program.

OBM, Chicago Office of Budget Management
Supports citywide green and grey infrastructure solutions by aligning funding, capital planning, and budget decisions to enable coordinated, sustainable investment for implementation and long-term maintenance.

2FM, Department of Fleet and Facility Management
Through its **Sustainable Operations Plan**, manages and maintains green infrastructure located on city-owned buildings and facilities, including green roofs and landscaped stormwater features, ensuring asset longevity and functionality.

As of 2025, 2FM has 32 projects completed or underway, with many projects including more than one green infrastructure typology/ including permeable paving, green roofs, bioswales, rain gardens, and detention ponds.

Key City Programs

Green Alleys & Complete Streets Programs

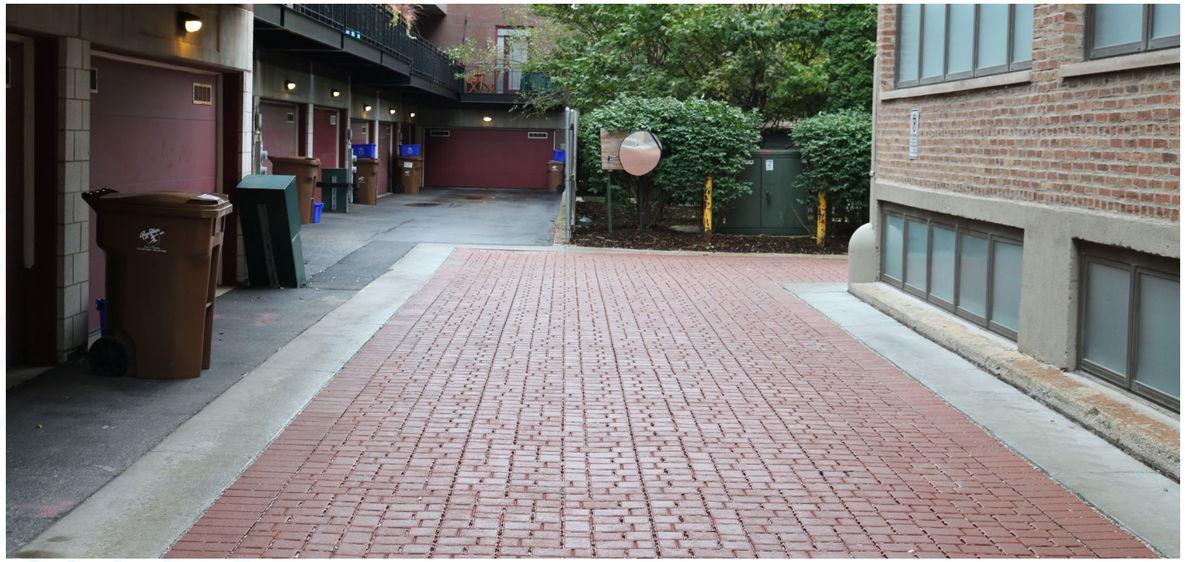
CDOT's Green Alleys program retrofits alleys to improve stormwater drainage, reduce heat, and conserve energy. CDOT has installed more than 400 green alleys in Chicago since 2007. The program is supported by dedicated funding through Chicago's Capital Bond program, which allows each ward to select one location for a retrofit per year. CDOT's Complete Streets program creates opportunities to integrate green infrastructure into roadway redesigns and capital projects.

Greencorps Chicago

CDOT's Greencorps Chicago supports long-term stewardship by training and employing individuals with barriers to employment in green industries including green infrastructure installation and maintenance.

The City of Chicago launched the Greencorps Chicago program in 1994. Greencorps has always operated in partnership with for-profit and nonprofit managing partners. Current operating partners include WRD Environmental and Greencorps Equitable and Transformative Solutions (G.E.T. Solutions), a nonprofit established to provide support to the City program. The program is funded by fee-for-service work, City tax levy dollars, workforce training grants (such as EPA's Brownfields Job Training), and philanthropic contributions. Greencorps provides a paid nine-plus month long employment model to train and certify participants in landscaping, ecological restoration, tree care, and green stormwater infrastructure.

A standout feature is its integration into public-sector career pathways—most recently providing a direct pipeline into City forestry positions for graduates—and its long-term scale: over 30 years of operation with more than 650–700 graduates, 75–80% post-program placement rates, and collaborations with over 30 public and private sector partners. Key to its success are partnerships with the Forest Preserves of Cook County, Chicago Park District, City Colleges, and OAI for recruitment and coordination; lessons learned include ensuring alignment between employer needs and training content, and the value of wraparound support services to improve retention and post-program employment outcomes.



Chicago green alley. *Credit: Chicago Department of Transportation*

Climate Infrastructure Fund

The DOE's Climate Infrastructure Fund provides grants to community organizations and developments for green infrastructure and other climate resilient improvements.

In 2022, the Office of Climate and Environmental Equity (now the Chicago Department of Environment), in partnership with the Department of Planning and Development, developed the Climate Infrastructure Fund (CIF), a climate-focused, equity-driven grant program for nonprofit organizations and small businesses. The City's total investment of $10M resulted in the selection of 54 projects across two funding rounds—with individual awards ranging from $50,000 to $250,000. These funds support projects related to renewable energy and energy efficiency upgrades, electric vehicles and charging stations, and green infrastructure—all helping advance the goals of the 2022 Climate Action Plan. In addition to evaluating project readiness and soundness of scope, applicants were initially assessed with a deliberate equity lens. Factors assessed included:

- **Climate Equity** – Project's location in or service to environmental justice communities, many of which are on Chicago's South and West Sides.
  - For electric vehicle and charging projects, location in an electric vehicle charging desert
- **Social/Economic Equity** - Economic Hardship index ranking via University of Illinois Chicago's Great Cities Institute.
- **Health Equity** – Location's proximity to areas with the poorest air quality as identified in the City of Chicago's Air Quality and Health Index.

In October 2025, CIF was highlighted in the Office of Equity and Racial Justice's FY2026 equity report for departmental commitment to equity in both project selection and ongoing implementation. Through CIF, nonprofit organizations and small business owners are taking a central role in climate action by reducing harmful greenhouse gas emissions, lowering operating costs, and increasing green space in their respective communities. Of the 49 projects moving forward, 11 green stormwater infrastructure projects were awarded a total of over $2,289,651. At the time of publishing, Climate Infrastructure Fund projects remain in varying stages, with about 36% having been completed and grant funds fully disbursed, and the remaining either in contract with construction underway or in scope finalization.

Space to Grow

The Space to Grow program transforms schoolyards into dynamic, multi-benefit green infrastructure sites that manage stormwater while serving as school and community amenities.

Space to Grow transforms schoolyards into vibrant, multifunctional spaces for play, learning, and community engagement. By incorporating green infrastructure, these schoolyards help reduce runoff and localized flooding while promoting long-term environmental sustainability. This program is driving green infrastructure investment at CPS schools and is a collaborative effort involving: Healthy Schools Campaign, Openlands, CPS, the Chicago Department of Water Management, the Chicago Department of Environment and the Metropolitan Water Reclamation District of Greater Chicago.

Space to Grow schoolyards incorporate a variety of green infrastructure typologies. All schoolyards include rain gardens, permeable paving or surfacing, and trees, and most include subsurface storage. The program also focuses on transforming asphalt lots into permeable spaces, converting schoolyards into vibrant parks and green spaces. On smaller sites, bioswales may be used in place of rain gardens.

As of April 2026, 41 schools have participated in the program, with four additional schools scheduled for construction in summer 2026. In addition to flood risk, schools are selected with an equity lens that prioritizes schools in historically underinvested communities, underscoring the program's commitment to equity and environmental justice. Combined, the total design retention capacity of all participating schools — which represents the volume of stormwater each site can retain at a given time — is approximately 8,757,530 gallons. Additionally, the total annual infiltration volume — the amount of stormwater that can be captured and infiltrated on-site each year — reaches 28,716,914 gallons. In total, the program has created 219,075 square feet of green space dedicated to managing stormwater.*

*This figure reflects only the areas intentionally designed for stormwater management (e.g., rain gardens, permeable surfaces) and does not include additional grass or landscaped spaces; as a result, the total amount of functional green space created through the program is higher."

Green schoolyard at Farnsworth Elementary School. *Credit: Space to Grow*

Our Roots Chicago

Our Roots Chicago, the City's tree-equity initiative, is a multi-department, community-driven, and data-informed effort to expand the public urban tree canopy, strengthen stewardship of public trees, and increase community engagement around the benefits of trees.

Our Roots Chicago, supported by the 2022 Climate Action Plan and a $46 million Chicago Recovery Plan investment, aims to plant 75,000 trees by 2026. As of mid-December 2025, DSS and CDOT had planted 68,000 trees, including more than 34,000 (50 percent) in priority areas. The City will continue planting trees in 2026, with a goal of planting 40 percent of those trees in communities with less canopy coverage.

Chicago's tree canopy is one of the City's most effective and multifaceted forms of green infrastructure. Trees help manage stormwater, reduce heat, clean the air, and support healthier neighborhoods. A single mature tree can absorb up to 3,000 gallons of water each year—water that then never enters the sewer system. Across the city, Chicago's street trees (about 550,000 as of 2021) intercept an estimated 149 million gallons of stormwater annually, helping reduce flooding and easing pressure on aging infrastructure.

These benefits are not distributed equally. Many historically underserved communities on the South and West Sides have significantly less tree canopy, leaving residents more vulnerable to extreme heat and flooding. Expanding the canopy in these neighborhoods is central to Chicago's tree equity strategy, which focuses on increasing canopy where it can deliver the greatest public health, climate, and social co-benefits.

Together, these efforts underscore that trees are not just environmental assets—they are critical infrastructure that help Chicago manage climate impacts, advance equity, and support thriving neighborhoods.

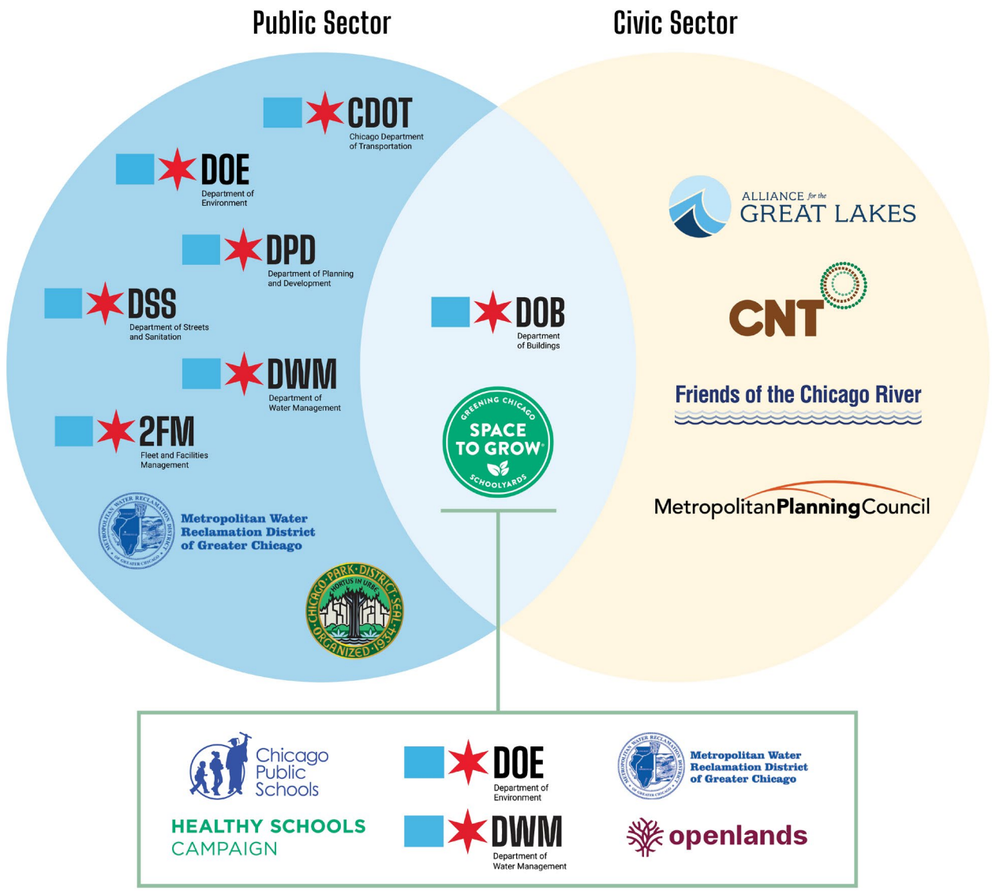
CITY POLICIES

POLICY	DEPT.	DESCRIPTION	WHAT THE POLICY APPLIES TO
Stormwater Ordinance	DWM	Ordinance requiring best management practices to control the stormwater-related impacts of regulated developments. Current regulations prevent capture from the public right-of-way.	Regulated **public and private** developments include new construction that disturbs 15,000+ sq. ft. or creates additional impervious surfaces of 7,500+ sq. ft.
Landscape Ordinance	DPD	Ordinance requiring landscape features to be incorporated into all new construction or substantially renovated businesses, commercial buildings, and large residential buildings. This includes standards for parkway plants, parking lot and vehicular use screening areas, parking lot and vehicular use internal area plantings, parking structures and garages, and other enhancements. Ordinance language does not encourage/require stormwater capture in conjunction with landscaping.	Public and private new construction or substantially renovated businesses, commercial buildings, and large residential buildings.
Sustainable Development Policy	DPD	A departmental policy that uses a point-based system to encourage innovation in sustainable development for projects receiving certain types of public funding or zoning approvals. Current policy encourages practices that help reduce the amount of stormwater that enters Chicago's sewer system, which may include green infrastructure; however, it could be strengthened by explicitly mentioning green infrastructure. **Originally implemented as a green roof policy in 2004; updated in 2007 and then again in 2017 and 2024 to be more comprehensive*	Specific types of large construction and renovation projects that receive City approvals or funding.
Sustainable Operations Plan	2FM	Guides City departments to conduct daily activities sustainably, focusing on energy, water, waste, and green building practices.	City departments and buildings
Climate Action Plan	DOE	Updated in 2022, this plan sets climate goals for Chicago (62% carbon emissions reduction by 2040) and environmental equity priorities to guide City work on climate.	City departments

Key Partner Initiatives

Partnerships with nonprofits, community organizations, and other agencies also help the City drive green infrastructure forward.

- Healthy Schools Campaign and Openlands work in partnership with MWRD, DWM, DOE, and Chicago Public Schools (CPS) to manage the award-winning Space to Grow Program, which installs green infrastructure in schoolyards across the city. Space to Grow informed the creation of the citywide Green Infrastructure Maintenance Working Group.
- Nonprofit organizations such as Friends of the Chicago River, Openlands, Metropolitan Planning Council (MPC), Alliance for the Great Lakes on behalf of the Flooding and Sewage Coalition, Center for Neighborhood Technology (CNT), The Nature Conservancy (TNC), and others are key stakeholders researching and advocating for green infrastructure.
- Community-based advocacy organizations and environmental justice groups also uplift nature-based solutions and improve the public understanding of green infrastructure.
- Eleven of the City's 49 Climate Infrastructure Fund grantees are implementing a range of green infrastructure solutions, including permeable parking lots, community garden and gathering spaces, and green rooftop gardens. DOE manages this project with the Department of Planning and Development.



Green Infrastructure Maintenance Working Group

Since 2019, the Healthy Schools Campaign (HSC) and Openlands — as an extension of the Space to Grow partnership — have worked with the Chicago Mayor's Office and now the Department of Environment to convene a multi-agency Green Infrastructure Maintenance Working Group (Working Group). The goal of this Working Group is to develop a comprehensive plan for maintaining public green infrastructure assets across Chicago.

The Working Group convenes to learn from peer cities and experts, align on strategy for sustained maintenance, deepen relationships, and identify and solve for barriers. In 2023, the Working Group published a recommendations report detailing the key barriers and opportunities to promote better coordination and funding for green infrastructure maintenance. Since then, the Working Group has been acting on those recommendations, many of which served as the foundation for this Strategy update.

The findings of the Green Infrastructure Maintenance Working Group underscore a need to reimagine how Chicago prioritizes, values, and addresses green infrastructure maintenance and calls for an approach that equitably distributes investments and benefits across neighborhoods, rather than placing the burden of maintenance on communities.[xiv]

Green Infrastructure Maintenance Working Group Members

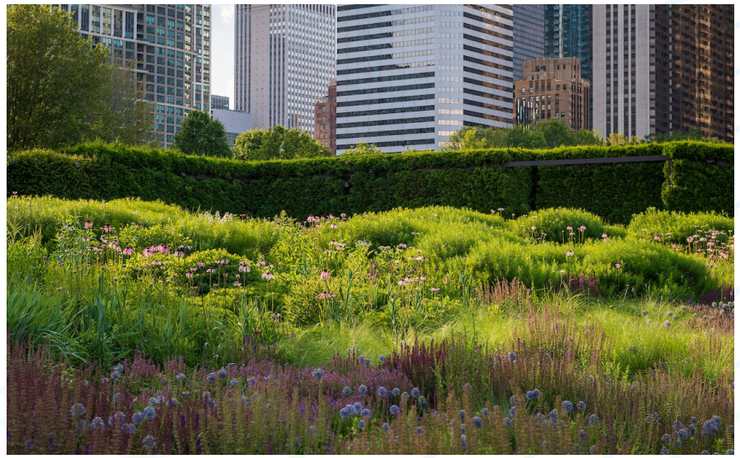
- Center for Neighborhood Technology (CNT)
- Chicago Dept. of Buildings (DOB)
- Chicago Dept. of Environment (DOE)
- Chicago Dept. of Fleet and Facility Management (2FM)
- Chicago Dept. of Planning and Development (DPD)
- Chicago Dept. Of Streets and Sanitation – Bureau of Forestry (DSS BOF)
- Chicago Dept. of Transportation (CDOT)
- Chicago Dept. of Water Management (DWM)
- Chicago Park District (CPkD)
- Chicago Public Schools (CPS)
- Cook County Bureau of Asset Management
- Current
- Friends of the Chicago River
- Greencorps Chicago NFP
- Healthy Schools Campaign
- IDNR Coastal Management Program
- Metropolitan Planning Council (MPC)
- Metropolitan Water Reclamation District of Greater Chicago (MWRD)
- Openlands

Green infrastructure maintenance working group meeting. *Credit: Lyndon Valicenti*

Green Infrastructure Owned by City and Sister Agency Departments

Appendix D gives an overview of Chicago's current green infrastructure across City departments and sister agencies — the projects in place, their impacts, maintenance needs, development processes, and workforce opportunities.

The data referenced in this section and in *Appendix D* was collected from a variety of departments and sister agencies and is not a comprehensive list of all green infrastructure efforts in Chicago. The information included is provided in the spirit of sharing knowledge and best practices as well as aligning on what projects are being managed, by whom, and in what ways.



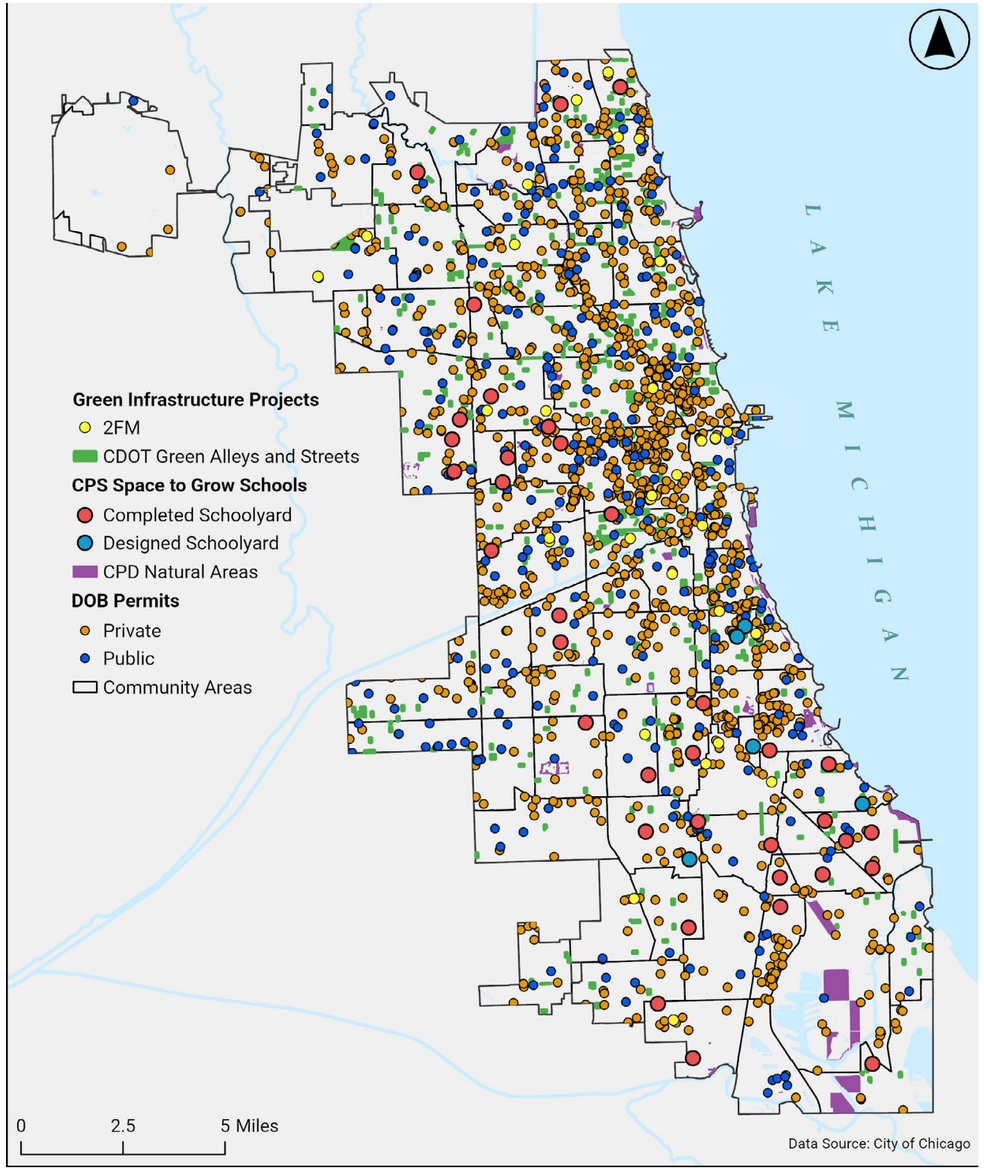
Native gardens in Millennium Park. *Credit: City of Chicago*

Data inconsistencies make it difficult to calculate cumulative impact

Right now, departments track project impacts differently, making it hard to see the full, citywide impact of green infrastructure. In addition, project data often does not clearly identify the specific green infrastructure elements being used, which makes it hard to measure their impacts.

Many project types are made up of multiple elements. For example, Green Streets can include stormwater bumpouts, bioswales, street trees, and vegetated medians. Green Schoolyards may include trees, rain gardens, green roofs, permeable surfaces, and underground storage. When project data does not capture this level of detail, it is not possible to calculate impacts accurately.

Existing Green Infrastructure Assets



Existing public and private green infrastructure assets, 2025. *Credit: Greenprint Partners*

This map shows all existing green infrastructure across the City of Chicago. Each project is organized by the City department or sister agency that manages and/or maintains the project, including 2FM, CDOT, Space to Grow, the Chicago Park District, and DOB. Projects include a wide variety of green infrastructure typologies, including but not limited to green roofs, rain gardens, green alleys, and natural park areas.

Key Challenges

The 2014 Strategy strengthened Chicago's long-standing vision for nature-based stormwater management, and the City has installed almost 870 public green infrastructure assets over the last few decades, including rain gardens, green alleys, permeable pavements, and bioswales. While these investments demonstrate Chicago's continued commitment to green infrastructure, there is a need for citywide collaboration, planning for the long-term maintenance of these assets, and a consistent approach to equity that can be followed across departments.

The Green Infrastructure Maintenance Working Group has identified several persistent challenges. Key themes that have emerged are **unclear maintenance roles and responsibilities across departments, a lack of dedicated funding for installation and upkeep, and maintenance approaches that sometimes rely on uncompensated community labor**.

Core Priorities

Building on this foundation, the 2026 Green Infrastructure Strategy expands the City's focus to create a more coordinated, equitable, and sustainable approach to green infrastructure. Leveraging insights from the Green Infrastructure Maintenance Working Group and driven by new requirements under the City's NPDES permit, the updated Strategy emphasizes three core priorities:

Cross-Agency Coordination: Establishing clear roles, shared goals, and cross-departmental coordination to integrate green infrastructure more seamlessly into the City's broader infrastructure systems.

Maintenance: Developing pathways for sustained, well-funded maintenance programs and citywide asset management systems that ensure green infrastructure performs as designed over time.

Equity and Engagement: Embedding equity across planning, implementation, and maintenance, ensuring that communities most burdened by flooding and heat also benefit the most from green infrastructure investments.

Shaping Our Green Infrastructure Future

Community Perspectives

Community members sharing feedback during a public meeting.
Credit: Greenprint Partners

This Strategy was shaped by the voices of nearly 70 different organizations and over 100 community members from across Chicago. Over a period of six months, City departments and sister agencies, community-based organizations (CBOs), and residents came together to share their experiences, challenges, and vision for the future of green infrastructure in Chicago.

The engagement approach aimed to center the needs and concerns of the stakeholders and community members most impacted by urban flooding. Engagement methods were designed to ensure broad participation and adaptability to the diverse needs of Chicagoans. The project team conducted stakeholder interviews, steering committee meetings, interest group pop-ups, CBO roundtables, and public meetings, as as described in the "Engagement" supplemental materials document on the City's webpage.

The following key takeaways summarize conversations with community advocates, residents, nonprofit organizations, neighborhood groups, and City and sister agency staff working on green infrastructure.

Flooding compounds environmental injustice

- Widespread, persistent flooding disproportionately impacts vulnerable communities. This means that flooding creates a burden for residents that may already be struggling, damaging homes, displacing residents, and causing long-term recovery issues.
- There is a need to address legacy pollution; residents of communities that disproportionately deal with industrial pollution worry flooding may carry contaminated runoff into homes, compounding environmental and health risks.

— VOICES OF CHICAGOANS —

"[There are] many vacant lots in Englewood that are brownfields. Our past industrial history means that flooding spreads polluted water across the community. It can be difficult to make the direct connection through research on the health impacts, but [our] lived experience reflects impact."

CBO Roundtable Participant

Green infrastructure is one part of a larger stormwater solution

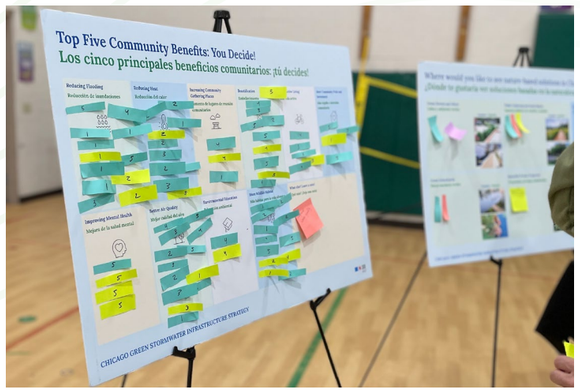
- There is a need for diverse, scalable solutions to flooding and stormwater issues, as one-size-fits-all approaches to green infrastructure typologies and funding models don't always address the varied needs across neighborhoods.
- Green infrastructure effectiveness depends on local soil elevation and hydrology. Depending on the specific stormwater issue to be solved and local site conditions, some areas require gray solutions or hybrid approaches. Therefore, green infrastructure investments should be made in tandem with investment in gray stormwater infrastructure.

Advancing co-benefits with green infrastructure

- Air quality and reduced heat are priority co-benefits.
- Communities want to see impacts that advance equity, justice, nature, biodiversity, community health, green space, jobs, and education.

Increased public engagement around green infrastructure

- Green infrastructure implementation needs to be paired with community education and engagement to ensure community-informed decision-making.



Community benefits prioritization engagement poster.
Credit: Greenprint Partners

"Historically it has been easy to get funding to build out interesting projects but difficult to get the same funding to maintain."

CDOT staff member

"We need to have an accessible inventory [for green infrastructure]."

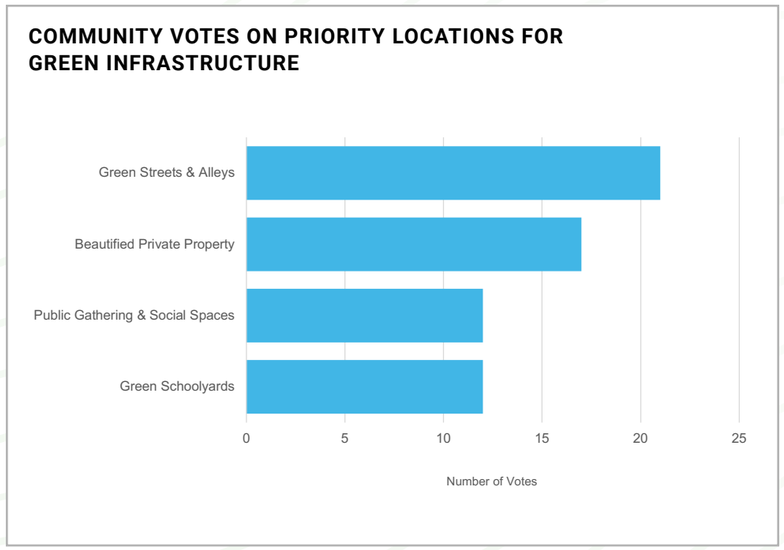
2FM staff member

Maintenance and metrics need attention

- Maintenance responsibilities often fall too heavily on individual homeowners, small businesses, or community organizations. Green infrastructure investments need to be made alongside long-term funding and planning for maintenance.
- The City currently lacks a coordinated and cohesive green infrastructure asset management system, including better data on existing and future assets that can help assess impact, secure funding, and guide maintenance.

Equitable implementation

- Green infrastructure should be equitably distributed, tailored to the local context, and maintained by public stewardship.
- Financial burden on homeowners and regulatory burden on small organizations should be limited.
- Chicagoans would like green infrastructure to be implemented as part of green streets and alleys projects.



Green infrastructure as a priority policy response to extreme heat

372 of 657 respondents (57%) to Chicago's Heat Resilience Policy and Programs Community Survey, issued by the Defusing Disasters working group (a collaboration of academic partners, community partners, and City departments), ranked greenspace prioritization, including green infrastructure, as the preferred policy response to extreme heat concerns.

COMMUNITY PERSPECTIVES

Main Themes: My vision of a Greener Chicago includes...

Equity & Justice

"Less flooding areas on the south & west sides"

"Green alleys for South and West Side"

"Indigenous knowledge!"

Nature & Biodiversity

"Fostering more regenerative ecosystems with diversity of plants, insects, soils and animals."

"Increase native prairie grass!!"

"More park/gathering spaces"

Community Health & Space

"Community centers for the youth and tweens"

"Easier community access to vacant lots"

"Protected bike lanes"

"Slower traffic, green calming"

Jobs & Education

"More green jobs"

"More economic opportunity aligned with green initiatives"

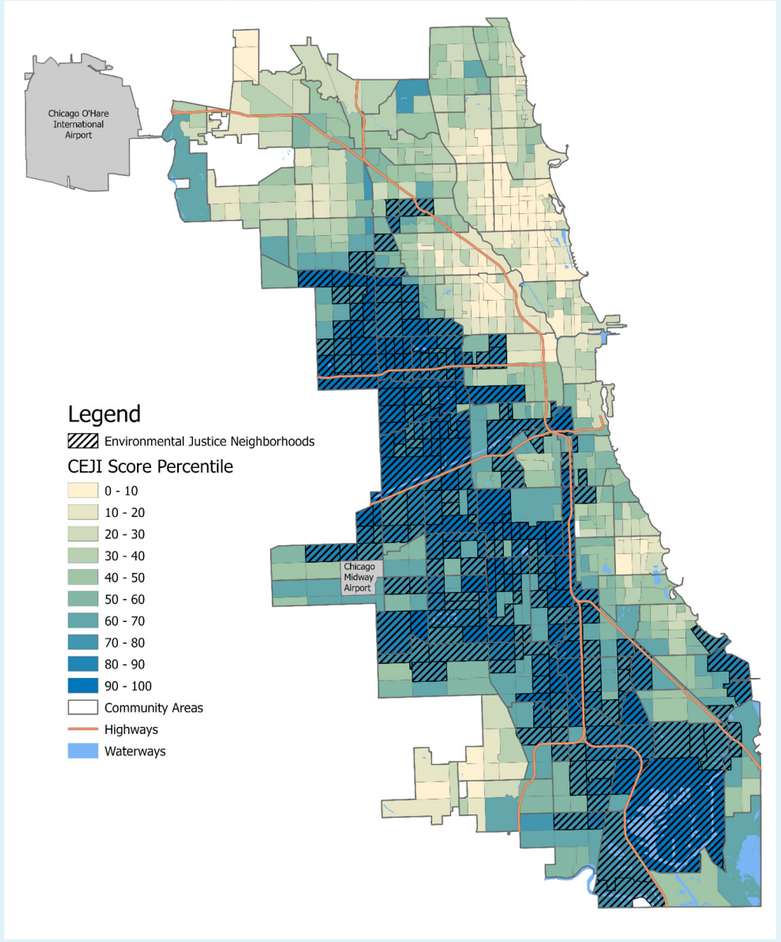
"Consistent environmental education for adults and kids alike"

Green Infrastructure & Equity in Practice

This strategy's approach to equity included looking at the green infrastructure sector, processes, engagement, policies and regulations, implementation, and maintenance through an equity lens. Specifically, this strategy uses the City of Chicago's definition of equity as "both an outcome and a process that results in fair and just access to opportunity and resources that provide everyone the ability to thrive."[xv]

Looking through an equity lens involves considering cumulative impacts. In 2023, Chicago released its Cumulative Impact Assessment report, which provided data on how environmental burdens and other stressors add up over time to affect different communities across the city. The report found that not all Chicagoans experience the same impact of burdens and stressors.[xvi]

The Chicago Environmental Justice index map, highlights significant disparities across communities, further reflecting complex and deeply entrenched causes that are rooted in historical segregation and discrimination. By applying a cumulative impact framework, we can better understand that green infrastructure is one of many strategies needed to address these inequities. Green infrastructure practitioners in Chicago can make intentional, meaningful contributions that help move the needle towards equitably addressing cumulative impacts.



Chicago EJ Index Map. *Credit:* City of Chicago

How Can Green Infrastructure Advance Equity?

When designed with intention, green infrastructure planning and implementation can advance equity. The Green Infrastructure Leadership Exchange offers the following ways that implementation of green infrastructure can contribute to equity through process and outcomes.[xvii]

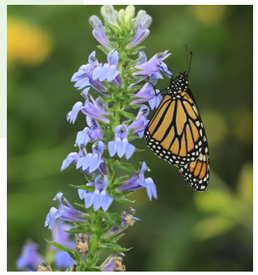
Top: Community member votes on preferred green infrastructure benefits. *Credit: Greenprint Partners.* Right: Natural areas maintenance crew. *Credit: City of Chicago Park District*

Process: Increased community participation + power

Planning processes for green infrastructure projects are an opportunity to engage residents in co-creating a vision for their community.[xiii,xix] They can serve as a vehicle to increase under engaged community stakeholders' access to and influence over decision-making.[xx]

Outcome: Expanding urban wildlife habitat + access to nature

Green infrastructure projects that utilize native plants help support access to nature by creating park-like spaces where there is limited access to green space for people to interact with native plants and pollinators. Green infrastructure also supports urban biodiversity overall by providing food and refuge for urban wildlife.[xxi]



Process: Investing in economic stability

Green infrastructure can be built by local labor and generates more local jobs and spending than traditional gray solutions. It also provides opportunities for entry-level workers and small businesses.[xxii]

A community member participates in a listening session. *Credit: Greenprint Partners*

Process: Trust-building + acknowledging past harms

Green infrastructure project planning processes that authentically center the voices of and give real decision-making power to people who have been historically silenced are an opportunity to build trust and acknowledge past harm.[xxiii,xxiv]

Outcome: Property improvements where investment is needed

Green infrastructure investments (in historically disinvested communities) create opportunities to improve properties by adding landscaping and catalyzing or supporting the replacement or repair of streetscapes, parking areas, playgrounds and other underutilized areas of a site.[xxvii]

Outcome: Increasing resilience to climate hazards, such as heat + urban flooding

Green infrastructure has been shown to reduce localized flooding, extending the lifetime of aging gray infrastructure assets.[xxv] Green infrastructure can also play an important role in reducing elevated surface temperatures caused by the urban heat island effect.[xxvi]

Installing green infrastructure in communities disproportionately impacted by these hazards can lead to more equitable environmental outcomes, relieving some of the burden on these communities.

Native Garden at George Leland Elementary School. *Credit: Space to Grow*

Community-led processes are the foundation of equity

Community input is a key step in the development of green infrastructure. Local residents are the foremost experts on the issues and priorities of their communities; a community-led prioritization process ensures that the people most impacted by the issues are driving the conversation about the best-fit solutions. This includes public involvement across the life cycle of a project, including design.

Any future green infrastructure project prioritization and selection should employ an iterative, adaptive approach that centers community voices. This may look like:

- Integrating community priorities as driving criteria into prioritization models
- Designing projects and budgets to accommodate engagement needs, including compensation for community participants
- Consistently following up to keep everyone in the loop on project progress
- Identifying and following through on opportunities for extended collaboration and engagement
- Holding initial open-door sessions dedicated to simply getting to know the people in the room and being present and listening
- Regularly attending well-established meetings and events held by community-based organizations

How It's Done: A Local Community-Led Example

Jardín Malinalli. *Credit: City of Chicago*

Neighborhood-Driven Infrastructure Investments. The Climate Infrastructure Fund supports nonprofit organizations and small businesses with neighborhood-level projects that help mitigate the impacts of climate change and accelerate Chicago's transition to a green economy.[xxiii] In the Little Village neighborhood (also known as La Villita), one of the selected projects, the National Museum of Mexican Art - Jardín Malinalli, will add green infrastructure to manage stormwater with permeable pavement, rain barrels, native plants, and a rain garden. An important community space, Jardín Malinalli celebrates youth-created art, hosts numerous community events, and offers youth programming.[xxiv]

ENVIRONMENTAL EQUITY WORKING GROUP PRINCIPLES

(adopted as Cumulative Impact Assessment Project Values)

ANTIRACISM - Actively challenge and redress racist systems through processes, policies, and strategies

EQUITY-FOCUSED - Consider who benefits and who is burdened by proposed solutions and how issues may disproportionately burden communities

FIRST-VOICE - Ability of individuals or community to express their condition in their own voice. Nothing about us without us: No policy should be decided without the direct participation of the members of the group being affected

ACCOUNTABILITY & TRANSPARENCY - Practice mutual accountability and transparency by sharing data, information, and resources, and taking responsibility

The Cumulative Impact Assessment report identified the above environmental equity principles that directly apply to the Chicago Green Infrastructure Strategy.

Vision and Goals

Based on the key themes of community perspectives, the civic community, and key challenges as identified by city green infrastructure practitioners, this strategy puts forth the following vision and goals to guide future green infrastructure efforts.

This Strategy aims to achieve this vision through identifying the key challenges preventing widespread success of green infrastructure, as well as connecting the solutions, actions, and implementation guidance needed to address the Strategy's goals.

Investments need to follow community-led processes, maintenance burdens should not fall to residents and local groups, and benefits of green infrastructure should be available to all community areas, and reach all Chicagoans, regardless of which community they live in.

The City of Chicago envisions a future where green infrastructure is an essential and celebrated investment for enhancing the City's broader climate, public health, and equity goals. These coordinated and well-maintained natural systems help ensure a more resilient, safer, greener, cleaner, and livable Chicago for all.

Meaningful, thoughtful community engagement is essential to future green infrastructure investments in Chicago. *Credit: Greenprint Partners*

Key Priorities

Cross-Agency Coordination

Establishing clear roles, shared goals, and interdepartmental coordination to integrate green infrastructure more seamlessly into the City's broader infrastructure systems.

GOALS

- Develop and support policies that encourage more green infrastructure
- Establish a collaborative approach to green infrastructure management and oversight

Maintenance

Developing pathways for sustained, well-funded maintenance programs and citywide asset management systems that ensure green infrastructure performs as designed over time.

GOALS

- Quantify existing City-owned green infrastructure assets
- Plan and fund long-term maintenance

Equity and Engagement

Embedding equity across planning, implementation, and maintenance, ensuring that communities most burdened by flooding and heat also benefit the most from green infrastructure investments.

GOALS

- Ensure green infrastructure sites provide multiple community benefits
- Center equity in siting and decision-making
- Support the equitable growth of green jobs

CROSS-AGENCY COORDINATION GOAL

Develop and support policies that encourage more green infrastructure

Policies that incentivize the development and maintenance of green infrastructure on public and private properties are critical for accelerating implementation across Chicago. There are a wide variety of policy strategies available to achieve this outcome, including but not limited to City Code amendments, tax incentives, stormwater impact fees, and new legislation. Some of these strategies may be more feasible than others and have different demands for the degree of political buy-in, coordination, and resources needed to implement them. See the "Recommendations" supplemental materials document on the City's webpage for the full list of potential policy strategies.

Dedicated funding through Chicago's Capital Bond program has allowed CDOT to accelerate the pace of green alley installation across Chicago. *Credit: Chicago Department of Transportation*

City staff and partners working together during a Maintenance Working Group meeting. *Credit: Lyndon Valicenti*

CROSS-AGENCY COORDINATION GOAL

Establish a collaborative approach to green infrastructure management and oversight

A unified team and cohesive approach to green infrastructure across City agencies and their partners is crucial for the long-term success of projects. A citywide approach to green infrastructure implementation and maintenance will help to streamline processes and costs, reduce redundancies, and improve communication and collaboration. By ensuring stakeholders and staff have shared knowledge of each other's green infrastructure assets, maintenance strategies and planned projects, the City can better measure and communicate the realized benefits of green infrastructure to policy-makers and residents, implement projects where they can maximize impact, and more effectively and efficiently maintain these projects for the long-term.

MAINTENANCE GOAL

Quantify existing city-owned green infrastructure assets

A clear understanding of the City's existing green infrastructure assets is critical to effective planning, investment, and long-term management. Quantifying city-owned green infrastructure across departments will create a shared baseline of what assets exist, where they are located, and how they function. This inventory will help departments identify gaps and overlaps and find opportunities for coordination. Over time, it will improve the City's ability to track maintenance needs and performance. This information will also help the City communicate the scale and value of its green infrastructure investments more clearly.

Chicago's Wild Mile mimics a natural wetland ecosystem, capturing and filtering out pollutants from the Chicago River. *Credit: Greenprint Partners*

Horace Mann Elementary School's green schoolyard infiltrates 889,305 gallons of stormwater runoff annually. *Credit: Space to Grow*

MAINTENANCE GOAL

Plan and fund long-term maintenance

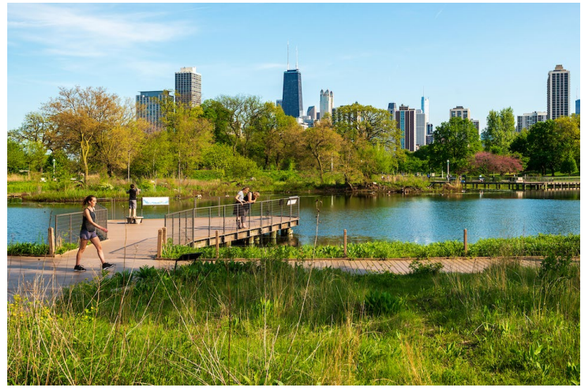
Proactively planning and identifying funding for green infrastructure maintenance is essential to protecting long-term performance and public trust. The City should define maintenance responsibilities early, estimate lifecycle costs upfront, and secure dedicated, predictable funding sources to ensure assets continue to function as designed. Integrating maintenance planning into capital and program decisions will reduce long-term costs and ensure green infrastructure continues to perform as intended.

EQUITY AND ENGAGEMENT GOAL

Ensure green infrastructure sites provide multiple community benefits

When planning green infrastructure projects, it is important to be intentional about achieving the co-benefits that are preferred by the local community. For example, the main purpose of a detention basin may be to delay stormwater from reaching the sewers; and it can also become a natural habitat and space for people to enjoy through thoughtful design, native plant selection, maintenance, and the addition of benches and a walking path. Desired community benefits identified through this process include:

- **Reduced Stormwater Runoff Volume**
- **Heat Island Reduction**
- **Improved Air Quality**
- **Habitat Creation for Local Wildlife**



North Pond. *Credit: Chicago Park District*

Mosaic Student Planning Session. *Credit: Space to Grow*

EQUITY AND ENGAGEMENT GOAL

Center equity in siting and decision-making

Centering equity in the decision-making processes for green infrastructure funding, siting, and maintenance is essential to this Strategy. Historically, infrastructure investment has not always aligned with community needs, reflecting legacy system conditions, development patterns, and evolving data and standards. Therefore, utilizing an equity lens is especially significant for areas where additional infrastructure investment is needed to ensure all Chicagoans have fair and just opportunities to thrive.

EQUITY AND ENGAGEMENT GOAL

Support the equitable growth of green jobs

Green infrastructure design, installation, and maintenance support a variety of jobs in construction, landscaping and landscape architecture, horticulture, urban forestry, hydrology and engineering. By proactively developing a robust green workforce and promoting equitable contracting practices (including Chicago's existing Greencorps program), green infrastructure programs can ensure proper maintenance of these vital assets and create sustainable employment opportunities in a way that can advance Chicago's broader equity goals.

Maintenance crews prepare native plants for planting. *Credit: City of Chicago Park District*

Case Study: Fresh Coast Green Communities (FCGC)

Milwaukee County, WI

FCGC plans, builds, and maintains multi-benefit, community-driven green infrastructure to reduce sewer overflows and limit polluted runoff entering Lake Michigan.

Fresh Coast Green Communities was initiated in 2022 as a partnership between the Milwaukee Metropolitan Sewerage District (MMSD) and Greenprint Partners. Public and private property owners are incentivized to add large-scale green infrastructure to their property by the utility fully funding all design, construction, and the first five years of maintenance. The property owner is legally responsible for an additional six years of maintenance. In some municipalities, they can also apply for stormwater credits to reduce their bills.

This program is funded out of MMSD's capital budget which draws primarily on the tax levy, but also includes non-member billings, federal and state aid, interest and other income, loans, bonds and Debt Service Sinking Fund and Other Available Funds. Key differentiators of this program is the first five years of maintenance are fully funded and the property is only legally responsible for an additional six years of maintenance. This program was made successful by MMSD being a national leader in green infrastructure implementation goals with a strong outreach department spreading the word of green infrastructure. They also designed a flexible program that reduced barriers and maximized participation.

INSIGHT

Consider funding at a minimum early maintenance on the projects to ensure vegetation establishes and continues to thrive.

Orthopaedic Hospital of Wisconsin, FCGC program participant. *Credit: Greenprint Partners*

BY THE NUMBERS

- Goal is to manage **9 to 12 million gallons** with green infrastructure by YE 2027
- Over **$31.5M budget** (primarily tax levy) invested in the program (21 projects):
  - **~$2.5M** Planning/Program Admin
  - **~$27M** Design/Construction
  - **~$2M** Maintenance
- **10.4M gallons** managed during every major rain event!
- Projects manage up to a **100-year storm**
- Projects cost **$2-$8 per gallon managed**
- **High-Impact** Priority Areas:
  - high impervious area
  - high social vulnerability index
  - combined sewer service area

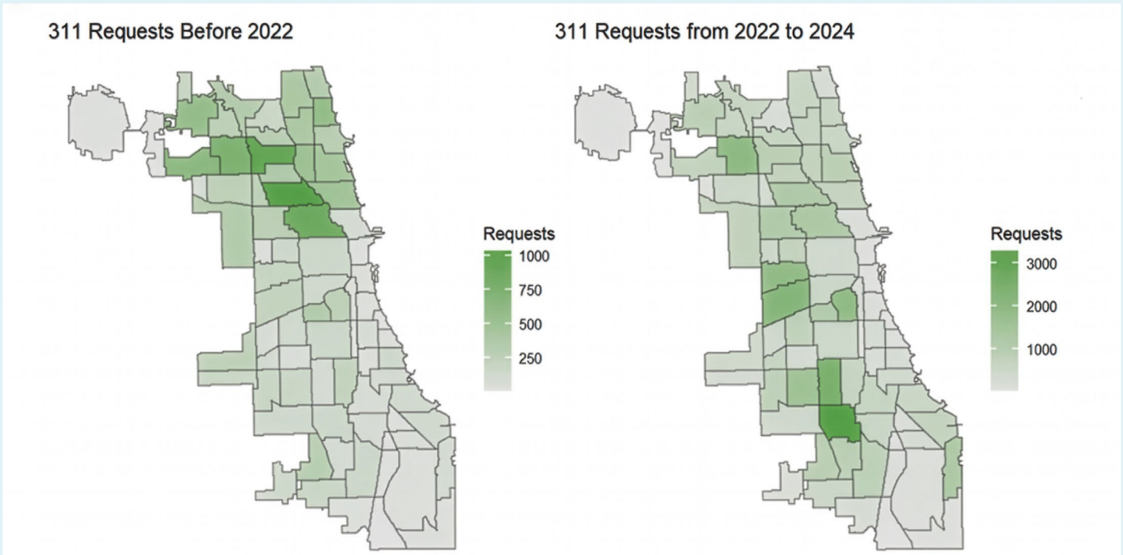
How Our Roots Integrates Equity

Our Roots Chicago is a five-year initiative to equitably grow the city's tree canopy by planting 75,000 new trees, with an emphasis on planting in communities with the greatest need for new trees.

At the outset of the program, City staff worked with residents, community groups, and outside experts to identify priority areas for tree planting using a combination of public health, environmental, social, and economic variables. The City then worked with non-profit partners to engage residents and community groups in these areas to build support for new trees and share the resources needed to improve their tree canopies.

These efforts, combined with streamlining internal processes and increasing the tree planting budget, enabled the City to not only plant significantly more trees than in past years, but also to plant more of them in the neighborhoods where they will have the greatest impact – correcting past inequities in infrastructure and open space investment.

The figure below shows the difference in tree requests received by the City before and after the Our Roots initiative began. Notably, the program also built support for trees in there areas and, through efforts like the Tree Ambassadors Program, created a new sense of pride and stewardship for the urban forest.



Resident requests for trees, mapped by neighborhood. *Credit: City of Chicago. Open Data Portal courtesy of CRTI.*

Recommendations: From Vision to Action

This section will review each of the strategy's priority areas (Cross-Agency Coordination, Maintenance, and Equity and Engagement) to provide recommendations of future actions to increase the implementation and effectiveness of green infrastructure. A more detailed list of recommendations can be found in the "Recommendations" supplemental materials document on the City's webpage.

Key Priority: Cross-Agency Coordination

Establishing clear roles, shared goals, and interdepartmental coordination to integrate green infrastructure more seamlessly into the City's broader infrastructure systems.

GOALS

- Develop and support policies that encourage more green infrastructure
- Establish a collaborative approach to green infrastructure management and oversight

Cross-agency coordination is essential to integrating green infrastructure more seamlessly into the City's broader infrastructure systems. The recommendations in this section focus on developing and supporting policies and funding opportunities that encourage expanded use of green infrastructure, while establishing a collaborative approach to management and oversight. Together, these action steps outline how Chicago can move toward a more cohesive, citywide approach—one that dedicates the resources, coordination, and accountability needed to treat green infrastructure as critical infrastructure.

Key steps to advance cross-agency coordination focus first on building a shared foundation for how green infrastructure is understood and prioritized across Chicago. Recommendations emphasize establishing common language that reframes green infrastructure as essential to public health, safety, and welfare; building buy-in and political will across City leadership; and creating formal coordination structures to support interdepartmental collaboration. Ongoing forums for problem-solving and alignment such as interagency working groups and task forces are critical to sustaining coordination and shared accountability.

Implementation and long-term success depend on consistent data, adequate staffing, and reliable funding. The recommendations below call for citywide data collection, expanded staffing, and professional development to support leadership capacity; and the integration of green infrastructure into capital projects using a balanced green–gray approach.

Opportunities to expand existing city regulations

One opportunity is the updating and expanding of existing City regulations to encourage expanded use of green infrastructure. In each of the policies listed below, we explore potential updates that could encourage the implementation of future green infrastructure.

STORMWATER ORDINANCE

The Stormwater Ordinance can be a valuable tool for expanding the use of private green infrastructure in Chicago. could build on the ordinance to promote the incorporation of such infrastructure.

LANDSCAPE ORDINANCE

Coordinate with City departments to explore **recommendations for landscape treatments** that improve stormwater capture to supplement the Landscape Ordinance and Guidelines. Coordinate recommendations with changes to the Stormwater Management Ordinance and with suggested changes from the Urban Forestry Advisory Board. Expand upon the existing precedent for stormwater capture in the Calumet Design Guidelines.

SUSTAINABLE DEVELOPMENT POLICY

An updated Strategy Menu within the Chicago Sustainable Development Policy has the potential to better prioritize green infrastructure. During the next Sustainable Development Policy update, coordinate with the policy's Stormwater examiners to consider options for awarding higher point values to more green infrastructure-friendly approaches.

Here are two examples of how that could be done:

- **Example 1:** Higher point value for rain garden/bioswale with porous soils incorporated into stormwater detention calculations than a standard gravel storage basin.
- **Example 2:** Higher point value for green roof including trees, shrubs, forbs, and graminoids; medium points for green roof with forbs and graminoids; low points for green roof with single category. Bonus points for any of the previous categories with plant diversity (>20 species) and/or >60% native plant species.

Leadership capacity

- ☐ **Define Shared Language for Green Infrastructure in Chicago**
  Using this document as a starting point, reframe green infrastructure from a 'nice-to-have' to a 'need-to-have' solution that helps maintain the health, safety, and welfare of Chicagoans.

- ☐ **Establish an Overarching Coordination Structure for Green Infrastructure in Chicago**
  Create a centralized entity within the City that is responsible for coordinating across multiple City departments and partner agencies to advance green infrastructure.

- ☐ **Create Spaces for Collaboration, Problem-Solving, + Alignment**
  Continue to convene the Interagency and Citywide Maintenance Working Groups (and establish task forces as needed) to discuss details around cooperative asset management; interagency coordination models; and funding.

- ☐ **Opportunistically Implement Green Infrastructure as Part of Proposed Infrastructure Improvements**
  Follow the priorities outlined in the "Mapping where green infrastructure delivers the greatest impact" section of this report (p. 63) to guide the implementation of new green infrastructure projects.

- ☐ **Take a Green-Gray Approach**
  Green infrastructure on its own won't address all of Chicago's stormwater challenges. There is a need for the City to continue pursuing needed gray infrastructure improvements while also exploring blue-green infrastructure and accurately communicating what green infrastructure can achieve.

Policies and regulations

- ☐ **Adjust Regulations + Permitting to Better Incentivize Green Infrastructure on Private + Public Properties**
  Adjust existing regulations such as the Sustainable Development Policy, Landscape Ordinance, Complete Streets Ordinance and Guidelines, and Stormwater Management Ordinance to better incentivize green infrastructure on private and public properties.

- ☐ **Develop Shared Agreements + Policies Across Agencies**
  Engage with City and sister agencies and organizations such as the Illinois Association for Floodplain and Stormwater Management (IAFSM) to develop shared project planning, design, maintenance, and asset management standards across the City of Chicago.

- ☐ **Leverage Existing City Programs + Planning Processes to Promote Green Infrastructure**
  Identify opportunities for promoting green infrastructure through existing City programs and processes.

- ☐ **Obtain Key Data and Then Make Data-Driven Decisions Around Siting**
  Obtain critical data to inform decision-making. Consider creating centralized, shared geographic information system (GIS) data, developing inventories of existing assets, and partnering with local universities and research organizations to expand and refine available data.

Funding

- ☐ **Consider a Stormwater Fee as a Sustainable Funding Mechanism**
  Form a coalition of partners to study peer jurisdiction stormwater impact fee programs and their ability to incentivize green infrastructure deployment in Chicago.

- ☐ **Dedicate Capital Budget to Green Infrastructure Implementation on Public Property**
  Convene City agency staff to explore capital funding options for green infrastructure and dedicate adequate portions of agency capital budgets to green infrastructure implementation.

- ☐ **Establish a Consistent + Appropriate City Maintenance Budget**
  To support long-term funding for maintenance, amend agency budgets to accommodate green infrastructure. Establish appropriate budgets by evaluating previous programs and identifying barriers, increase funding in line with new assets, and identify opportunities to reduce maintenance costs.

Further funding opportunities for green infrastructure can be found in *Appendix I*.

City staff maintain a lot in the 6th ward. *Credit: City of Chicago*

Funding maintenance through a stormwater utility fee

Current sewer rates tied to water usage may not be sustainable for managing combined sewer systems, which must convey massive volumes of runoff during storm events regardless of indoor water consumption. Stormwater utility fees provide the consistent funding required for the operation and maintenance of both traditional gray infrastructure and green infrastructure components. While grants and one-time funding mechanisms are critical for initial construction, a dedicated revenue source is essential to ensure these systems remain functional long after installation. Furthermore, relying on general funds often leads to maintenance gaps as municipal priorities shift, frequently leaving infrastructure with insufficient resources for continued upkeep.

As a widely adopted solution, stormwater utility fees directly address persistent maintenance challenges by providing stable, recurring revenue. By funding localized capture, infiltration, and improvement projects, these fees reduce the hydraulic burden on the combined sewer system, minimizing the risk of costly sewer backups and overflows. Over the long term, this revenue also serves as a reliable repayment source for financing tools such as State Revolving Fund (SRF) loans and municipal bonds.

Currently, over 2,000 municipalities across the U.S.—including more than 30 in Illinois—utilize these fees to ensure dedicated and equitable funding. Because costs are scaled based on the impervious area of a property, these fees increase equity by shifting the financial burden from residents to the large commercial and institutional properties that generate the highest volumes of runoff.

Case Study: Philadelphia's Stormwater Utility Fee

Philadelphia, PA

The Philadelphia Water Department (PWD) introduced a stormwater fee in 2010 as part of its Green City, Clean Waters program.

The dedicated revenue has been instrumental in cementing Philadelphia as a leader within the green infrastructure space. See *Appendix K* for full case study content.

Structure: The fee structure separates residential properties, which pay a flat fee based on the average impervious cover of all residential properties in the city, from non-residential properties and condominiums, which pay based on the specific square footage of the impervious cover and total area of the given property. Green spaces that help mitigate stormwater runoff, including community gardens, residential side gardens, and cemeteries, can qualify for exemptions from the fee.

Rate: The residential flat fee is currently assessed at a rate of $16.86 per month, while the monthly fee for non-residential and condominium properties is $0.526 per 500 sq ft gross + $4.145 per 500 sq ft impervious + $2.30.[xxx]

Credits and Incentives: There are extensive programs incentivizing new green infrastructure implementation and reducing existing charges through credits for residential and non-residential properties. The RainCheck program offers free and discounted installation of rain barrels, rain gardens, and other stormwater management practices on residential properties.[xxxi] Stormwater grants are the funding parallel offered to non-residential property owners seeking to build a stormwater retrofit project on their property. These retrofit projects, once installed, may also qualify owners for a fee reduction through the stormwater credits program. Grant funding is also available to current development projects that include stormwater management beyond what is required by PWD's stormwater regulations.

Highlights: PWD hosts an interactive online mapping tool showing commercial property owners what their current stormwater fee is and how much it would decrease with various green infrastructure installations.[xxxii] It also facilitates connections between property owners interested in installing green infrastructure and landscapers already trained in such installations.[xxxiii] This user-friendly system makes the fee assessment process transparent and streamlines steps to reduce the fee, simultaneously benefiting property owners and supporting green jobs.

Key Priority: Maintenance

Developing pathways for sustained, well-funded maintenance programs and citywide asset management systems that ensure green infrastructure performs as designed over time.

GOALS

- Quantify existing City-owned green infrastructure assets
- Plan and fund long-term maintenance

Key maintenance recommendations focus on establishing a consistent, citywide approach to operations and upkeep that supports the long-term performance of green infrastructure. This includes learning from existing local programs and peer cities, planning and designing projects with maintenance needs in mind from the outset, and clearly defining and enforcing maintenance standards, responsibilities, and monitoring practices. Together, these steps ensure that green infrastructure assets are designed to last and are managed with clear expectations across departments and partners.

Effective implementation also depends on removing operational barriers and investing in the workforce needed to maintain green infrastructure over time. Recommendations call for refining procurement processes and standardizing contracts and templates to support equitable, efficient maintenance delivery, while requiring appropriate certifications and credentials for contractors. Expanding training for City staff and supporting multiple workforce development pathways—including leveraging existing programs such as Greencorps—will build the skilled workforce necessary to maintain green infrastructure as reliable, high-performing public infrastructure.

▸ Asset management

☐ **Create a Shared Inventory**
Accelerate development of a centralized, interactive green infrastructure asset inventory coordinated citywide. Contribute data to the inventory, which should integrate geospatial location, typology, current condition, ownership, and inspection and maintenance history.

☐ **Integrate into Asset Management Systems**
Track maintenance activities using existing city systems like Cityworks or a custom green infrastructure database to support scheduling, transparency, and accountability.

☐ **Explore Contracting Solutions**
For departments with limited in-house capacity, establish term contracts with landscape and stormwater professionals who are trained in green infrastructure practices.

Case Study: Project Clear Rainscaping

St. Louis, MO

Reducing CSO Runoff at the Regional Water District Scale

The Metropolitan St. Louis Sewerage District's (MSD) Project Clear Rainscaping Program has a goal of $120 million investment in rainscaping to reduce CSO runoff volume to the River Des Peres and Mississippi River. There are two programs that property owners within the grant area can apply to: (A) large scale grants and (B) small grants. Both programs provide reimbursement to private landowners for rainscaping (green infrastructure) installation on their property.

Projects that reduce runoff volume and remove impervious surfaces receive higher ratings in the competitive application process. Also, specific types of landowners receive more points. From highest to lowest: municipal/local government, non-profits, private entities. Benefit points may also be awarded for: public education, information, and communication; innovative rainscaping opportunities; stormwater monitoring and analysis; location of CSO; project visibility; feasibility of future expansion; maintenance capability; long term sustainability; and environmental justice considerations.

INSIGHT

Green infrastructure incentive programs are a method for increasing on-site stormwater and desired community benefits.

BY THE NUMBERS

- Goal is to invest **$120 million** in green infrastructure to reduce CSO runoff volume
- In 2024, **over 100 applications** received small grant funding, totaling more than $425,000
- Rainscaping Large Grants - Development Review provides a reimbursement rate of **$180,000 per acre** of total drainage area managed

▸ Planning and design for maintenance

- ☐ **Plan and Design for Long-Term, Effective Maintenance Upfront**
  Define design standards to support long-term maintenance, create a maintenance guide, involve maintenance staff in design decision-making (including capacity and funding conversations) and train existing workforce to manage projects for the long-term.
- ☐ **Establish a Dedicated Funding Stream for Green Infrastructure Maintenance on Public Property**
  Expand existing funding, including to fund maintenance, and research green infrastructure maintenance funding models and innovative general funding mechanisms from across the county to support green infrastructure maintenance now and in the future.
- ☐ **Define + Enforce Maintenance Standards**
  Define and enforce maintenance responsibilities, procedures, and monitoring plans.
- ☐ **Identify Lessons Learned from Local Programs + Peer Cities to Inform Chicago's Approach**
  Look at existing programs and peer cities including but not limited to Space to Grow, Boston PowerCorps, and others to inform Chicago's approach to maintenance for green infrastructure.
- ☐ **Evaluate City Procurement Processes to Reduce Barriers**
  Evaluate and refine City procurement processes to reduce barriers for green infrastructure projects and adopt a pro-equity contracting approach.
- ☐ **Train Agency Staff in Green Infrastructure**
  Increase staff expertise in green infrastructure maintenance, so staff understand and know how to maintain it.

▸ Departmental roles and planning recommendations

To institutionalize green infrastructure maintenance and ensure long-term functionality, the relevant departments within the City of Chicago and partner agencies should collaborate on the following steps:

- ☐ **Designate a Green Infrastructure Maintenance Lead:** Create a centralized division, cross-department task force, or position responsible for interdepartmental coordination, scheduling, and reporting on green infrastructure maintenance within the City of Chicago.
- ☐ **Include Maintenance in Capital Project Planning:** Require that all green infrastructure projects include multi-year maintenance funding (especially for early-life costs) as part of the capital budget. Consider including the early lifecycle maintenance contract in the construction bid documents/RFP.
- ☐ **Develop and Adopt Maintenance Protocols:** Create standardized checklists and adopt citywide maintenance protocols (similar to these examples from Minnesota and Florida) aligned with the 2024 Stormwater Ordinance, Landscape Ordinance, and this updated Strategy.
- ☐ **Create a Shared Inventory:** Accelerate development of a centralized, interactive green infrastructure asset inventory coordinated citywide. Contribute data to the inventory, which should integrate geospatial location, typology, current condition, ownership, and inspection and maintenance history.
- ☐ **Integrate into Asset Management Systems:** Track maintenance activities using existing city systems like Cityworks or a custom green infrastructure database to support scheduling, transparency, and accountability.
- ☐ **Explore Contracting Solutions:** For departments with limited in-house capacity, establish term contracts with landscape and stormwater professionals who are trained in green infrastructure practice.
- ☐ **Determine Oversight of Private Property Green Infrastructure:** Develop a mechanism for oversight, inspections/reporting to ensure proper maintenance, and accountability for those properties that receive incentive program funding.

Shifting away from community maintenance agreements

Maintenance for many green infrastructure installations on public property, such as vegetated center intersection medians located throughout Chicago's residential neighborhoods, have historically been the responsibility of local communities through Community Maintenance Agreements.

While in some cases these partnerships have resulted in successful maintenance that boosts community pride, many have not been implemented consistently over time due to the burden placed on limited-capacity community-based organizations and, in some cases, individuals acting as good stewards. Local communities should not be responsible for these public infrastructure installations. While public support and supplemental maintenance from a local community can be extremely valuable, the City needs to be responsible for maintenance of public green infrastructure installations.

Stormwater bumpout at Central Baptist Church. *Credit: Greenprint Partners*

Centralizing tracking and maintenance programs

Cities of similar scale and with similar climates have implemented centralized green infrastructure tracking and maintenance programs with dedicated funding and workforces, inspection schedules, and data-driven asset management systems. Chicago should look to peer cities like New York City, Philadelphia, and Milwaukee's maintenance approaches as important models when updating its own policies (see *Appendix K* for full Case Studies content).

- **Green Infrastructure Maintenance Manual (Philadelphia)** Philadelphia Water's graphic-heavy green infrastructure Maintenance Manual provides typology-specific routines and reactive maintenance activities and procedures. General practices for surface, vegetative, and subsurface maintenance are also included.[xxxiv]
- **Fresh Coast Green Communities (Milwaukee)** Milwaukee Metropolitan Sewer District's Fresh Coast Green Communities large-scale green infrastructure incentive program fully funds all design, construction, and the first 5 years of maintenance on public and private properties; the landowner is legally required to provide an additional 7 years of maintenance.[xxxv]

As the City invests in green infrastructure moving forward, it should ensure there is a coordinated, citywide maintenance program with clear roles, reliable funding, and trained staff.

Maintenance needs of green infrastructure

Across typologies, green infrastructure systems share a common lifecycle pattern. Most require:

- High-frequency maintenance during Years 0–3, including vegetation care (especially watering and weeding), sediment removal, and functional inspection after storms.
- Stabilized maintenance needs from Years 3–10, moving toward semiannual or annual inspection cycles, with periodic sediment removal or plant replacement.

Lifecycle funding models must reflect this arc, especially for capital projects, by including line items for early maintenance during project planning phases.

Fully funding the first 3-5 years of maintenance in conjunction with the construction of each project could increase the useful life of the public's investment in green infrastructure.

Maintenance as part of capital asset costs

Considering maintenance as part of a project's capital asset budget, rather than the operating budget, would allow for the cost of the critical "establishment period" to be covered as part of the initial investment.

View the high-priority maintenance tasks and performance metrics by each typology of green infrastructure in *Appendix H*.

Key Priority: Equity and Engagement

Embedding equity across planning, implementation, and maintenance, ensuring that communities most burdened by flooding and heat also benefit the most from green infrastructure investments.

GOALS

- Ensure green infrastructure sites provide multiple community benefits
- Center equity in siting and decision-making
- Support the equitable growth of green jobs

Embedding equity and meaningful community engagement across planning, implementation, and long-term maintenance is essential to ensuring green infrastructure investments deliver benefits where they are needed most.

Communities that experience the greatest burdens from flooding, extreme heat, and environmental disinvestment should be prioritized not only in where green infrastructure is located, but in how decisions are made and how projects function over time. Advancing equity in green infrastructure means intentionally centering community needs in siting and design, ensuring projects provide multiple co-benefits beyond stormwater management, and supporting pathways to equitable green job growth tied to implementation and maintenance.

To achieve these goals, the City must pair technical planning with sustained public education, inclusive engagement, and local support. Building awareness and understanding of green infrastructure through accessible education campaigns and community-oriented programming can strengthen public trust.

At the same time, master planning and project prioritization should explicitly integrate equity considerations—such as health outcomes, climate vulnerability, public access, and co-benefits—alongside stormwater impact. Offering diverse and ongoing opportunities for public involvement, coupled with targeted resources that build community capacity, will help ensure green infrastructure investments are shaped with communities rather than for them, resulting in more effective, equitable, and resilient outcomes.

▸ Centering Equity and Community Benefits

- ☐ **Establish a Robust Public Education Campaign and Residential, Community-Oriented Programming to Build Public Interest + Support for Green Infrastructure** Build public support for green infrastructure through public education materials, informational campaigns, partnerships, and community-oriented programming.
- ☐ **Conduct Master Planning and Identify Priority Locations for Green Infrastructure, Incorporating Equity + Co-Benefits Alongside Stormwater Impact** Identify priority green infrastructure locations, using metrics including health equity, cost-effectiveness, co-benefit metrics, interconnectivity, public access, and climate projections.
- ☐ **Offer Diverse Opportunities for Public Involvement** Ensure equitable decision-making processes by engaging community members early, often and throughout project prioritization, design, implementation and the establishment period. Consider opportunities for partnerships to support engagement, build public support, and directly partner with community members on projects (e.g., through sewershed advisory boards and/or citizen science projects).
- ☐ **Provide Localized Support to Communities** Provide robust support that increases the capacity for communities to support design, review, and stewardship of green infrastructure installations. It also recommends developing a resident-facing document with funding resources for persistent flooding issues.

Case Study: Multi-community scale prioritization on the South Side

When we have limited dollars to spend, determining where green infrastructure will have the greatest impact on local flooding, and other climate risks is paramount.

As one of the leading climate risks in Chicago and Cook County, flooding poses a significant challenge to the region, especially for historically underserved neighborhoods on the South and West Sides. Two organizations seeking to address this challenge are the Emerald South Economic Development Collaborative through their Terra Firma initiative, as well as Blacks in Green (BIG) and their Sustainable Square Mile initiative.

In 2021, the Emerald South Economic Development Collaborative launched **Terra Firma**, a $50 million land care initiative to beautify, maintain, and activate over 400 acres of vacant land on Chicago's mid-South Side (Washington Park, Woodlawn, & South Shore). They see vacant land as an engine of opportunity to create jobs, grow small businesses, improve the local environment, and enhance neighbors' quality of life. Green infrastructure can play a part.

For example, they transformed vacant lots on Prairie Avenue into vibrant sunflower gardens that beautify the community and help remediate the environment by pulling lead from the soil and managing stormwater. In partnership with Sunflower City, they've hosted a Community Planting Day in Washington Park for the past four years, turning sunflower seeds into biofuel that releases less lead than the plants extract. In the program's first 3 years, Terra Firma has stabilized 102 acres of vacant land.

Washington Park residents. *Credit: Metropolitan Planning Council*

Similarly, BIG developed the **Sustainable Square Mile** framework to build walkable, self-sustaining Black communities rooted in environmental stewardship and economic resilience. Guided by the 8 Principles of Green Village Building, BIG promotes neighborhood-scale systems where local wealth, green jobs, and climate adaptation intersect.

In West Woodlawn, BIG's Botanic Garden & Village Farm Initiative exemplifies how vacant land can be transformed into productive community assets. Through practices like rain gardens, permeable paving, and local food systems, the initiative integrates green infrastructure into broader homesteading and land stewardship goals. These nature-based solutions reduce localized flooding while fostering job creation, improving public health, and reinforcing cultural heritage.

However, with limited dollars to spend across these community areas, strategic prioritization is critical. MPC's **Right Infrastructure, Right Place project** is supporting this need by developing a data-driven tool to help community partners and local governments identify where interventions like green infrastructure can have the greatest impact. Scaled to support initiatives like Terra Firma and the Sustainable Square Mile, the tool leverages equity, flood risk, and land-use data to guide investment decisions that advance environmental justice and climate resilience. Together, these approaches provide a roadmap for placing the right infrastructure in the right place, where it is needed most and where it can do the most good.

Data currently being added into this methodology includes: future risks from precipitation trends projected from downscaled climate models, equity factors (examples include current urban heat island and air quality data), and community priorities for co- benefits.

The tool will also quantify co-benefits, accounting for benefits that extend beyond typical water quality and quantity outcomes. Some examples include cost savings from avoided stormwater treatment or grey infrastructure upgrades, community savings from reduced heat stress and improved air quality, and economic benefits from recreation access and biodiversity enhancements.

Aerial view of Mamie Till Mobley Forgiveness Garden, a part of the Sustainable Square Mile. *Credit: Blacks in Green*

TERRA FIRMA — BY THE NUMBERS

- **3 community areas**
- **28.75 square miles** will be analyzed (4,778 blocks)
- **91,980+ community members** impacted
- **731 'water on street' complaints** were made in 2024
- **271 'water in basement' complaints** were made in 2024

SUSTAINABLE SQUARE MILE — BY THE NUMBERS

- **0.51 square miles** will be analyzed (88 blocks)
- **7,659 community members** impacted
- **Over 25 'water in basement' complaints** per square mile 2024

▸ Workforce development

A strong green infrastructure workforce in Chicago requires an approach that connects education, training, employers, funders, and government across the full career pathway. Workforce programs should be aligned into a cohesive system that supports individuals from early awareness through job entry and long-term retention. Organizing programs around these stages clarifies pathways for participants and helps the City and its partners better align investments with workforce demand. This coordination is essential to meeting implementation needs for green infrastructure while advancing Chicago's equity goals.

- ☐ **Strengthen Industry Leadership**
  Industry leadership is critical to building a professional, resilient green infrastructure sector. Employers, City agencies, educators, and funders should work together to define workforce needs, validate industry-recognized credentials, and co-create training programs that reflect real-world job requirements. Aligning green infrastructure with broader urban development goals such as flood mitigation, neighborhood investment, and climate resilience strengthens public support and creates more stable, long-term employment opportunities.

- ☐ **Expanding Equitable Training and Career Pathways**
  Training and education programs should support multiple pathways into and within the green infrastructure sector, extending beyond entry-level maintenance roles to include inspection, design, landscape management, and supervisory positions. Paid, work-based learning opportunities such as internships, apprenticeships, and on-the-job training are especially important for reducing barriers to entry and diversifying the workforce.

  Programs like Greencorps Chicago and PowerCorpsPHL demonstrate how integrated training, wraparound services, and strong employer connections can lead to meaningful career outcomes, particularly for individuals facing barriers to employment. Recognizing workforce training as relevant job experience during hiring can further strengthen these pathways into City and private-sector jobs.

- ☐ **Align maintenance responsibility**
  Finally, workforce development efforts must be supported by equitable contracting practices and a clear delineation of maintenance responsibility. Public green infrastructure should be maintained by the City and its contractors, not reliant on community maintenance agreements, while still fostering community engagement, stewardship, and awareness. Inclusive contracting policies can expand access for minority- and women-owned businesses and incentivize hiring from local workforce programs.

By pairing green infrastructure investment with intentional workforce strategies, Chicago can build a skilled, inclusive workforce while ensuring long-term performance of its green infrastructure assets.

PowerCorpsPHL: Integrating environmental service with targeted workforce development

Established in September 2013, PowerCorpsPHL is a workforce development initiative operated by EducationWorks in partnership with AmeriCorps and the City of Philadelphia. Targeting 18- to 30-year-olds who are out of school or work, the program offers a paid, immersive experience lasting from 4 to 24 months and provides pathways to sustainable careers in green infrastructure and public utilities. The program, which emphasizes inclusivity and actively recruits individuals impacted by gun violence, the foster system, or the criminal justice system, has a lower recidivism rate among participants—8%—compared to the citywide average of 45%. See *Appendix K* for the full case study.

ROLES AND RESPONSIBILITIES OF STAKEHOLDERS IN WORKFORCE DEVELOPMENT

ENTITY	OPPORTUNITIES
City of Chicago	☐ Support co-creation of workforce programs led by employers and workers ☐ Train agency staff + contractors in green infrastructure ☐ Support volunteering opportunities to instill community ownership ☐ Increase access to contracts for green infrastructure ☐ Leverage contracts to support equitable workforce development ☐ Consider the value of workforce training as years of experience during recruitment
Employers	☐ Support co-creation of workforce programs led by employers and workers ☐ Validate industry-recognized credentials to ensure market value ☐ Develop work-based learning experiences
Workforce Development Programs (e.g., Greencorps Chicago, Openlands, A Safe Haven)	☐ Use Greencorps as a model to build up and enhance pathways into green careers ☐ Support co-creation of workforce programs led by employers and workers ☐ Develop work-based learning experiences ☐ Design programs with intentional focus on underemployed communities ☐ Offer wraparound services for workforce training programs
Community Organizations	☐ Create opportunities such as resource fairs for community members to learn about green infrastructure career paths and training opportunities ☐ Support volunteering opportunities to instill community ownership
Educational Institutions	☐ Connect students with green infrastructure career professionals for mentorship ☐ Introduce green infrastructure career opportunities across different disciplines – trades, engineering, communications, etc. – to support entry into various career pathways ☐ Develop work-based learning experiences ☐ Support co-creation of workforce programs led by employers and workers

Co-Benefit Opportunity Areas

In addition to stormwater impacts, this strategy evaluates where green infrastructure can deliver important community co-benefits—particularly cooling and improved air quality.

As described in the Community Engagement section, Chicagoans identified reduced urban heat and better air quality as top priorities for green infrastructure investments. Residents also expressed a strong desire to see green infrastructure located on streets and in public gathering spaces.

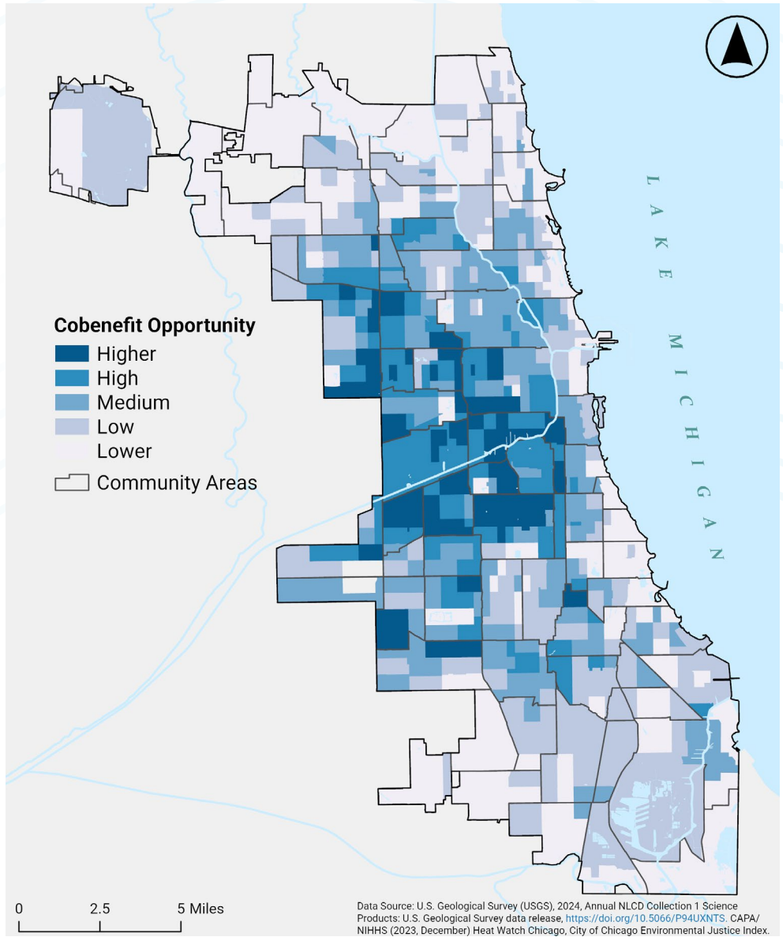
Where greening provides the greatest benefits

Green infrastructure that adds vegetation and trees can help cool neighborhoods, improve air quality, and create more comfortable public spaces. These benefits are especially strong in areas with:

- Less tree cover
- High afternoon temperatures
- High impervious surface coverage
- Air quality concerns

These conditions define significant opportunity areas for greening-focused investments such as:

- Street trees
- Depaving
- Vegetated green infrastructure, including bioswales and rain gardens



CO-BENEFIT OPPORTUNITY AREAS MAP.

This map shows where green infrastructure can have the greatest impact on reducing extreme heat and improving air quality. It combines four factors that influence how hot and unhealthy neighborhoods become during summer months:

- Chicago EJ index cumulative score
- Impervious area
- Tree canopy
- Average afternoon temperatures

INSIGHT

Areas identified as high opportunity are places where investments such as street trees, depaving, vegetated bump-outs, and bioswales can make the biggest difference—creating shade, lowering temperatures, improving air quality, and supporting healthier public spaces.

Mapping to equitably guide green infrastructure investment

The co-benefit opportunity map (pictured on p. 64) highlighted priority areas to maximize the heat and air quality impact of green infrastructure. The City and partners can use mapping and data analysis to further visualize where green infrastructure can deliver both co-benefits and stormwater capture. This mapping effort is a critical next step in advancing implementation of green infrastructure and building trust around planning efforts.

A comprehensive map to prioritize green infrastructure investment could incorporate data from the following categories:

- **Environmental conditions:** heat exposure, tree canopy coverage, extent of impervious surfaces
- **Socioeconomic factors:** environmental justice indicators, such as those used in the Chicago EJ Index
- **Flooding indicators:** basement and street flooding related service requests through 311, sewer capacity, and drainage constraints

Bringing these datasets together would allow for a more holistic understanding of where risks overlap and where green infrastructure investments can deliver multiple simultaneous benefits.

CENTERING COMMUNITY KNOWLEDGE

Mapping efforts should reflect the lived experiences of residents, especially in areas where residents are impacted by flooding, extreme heat, and historical disinvestment. Incorporating community perspectives strengthens the accuracy and relevance of mapping by grounding technical data in real world conditions.

Engaging residents in this green infrastructure mapping helps validate existing datasets, surface persistent issues that may not initially be formally captured, and build transparency and trust. This kind of "ground-truthing" is essential to ensuring that planning efforts are both equitable and responsive to community needs.

WHY THIS MATTERS

More comprehensive and integrated mapping tools can directly support:

- Stronger advocacy and political will by clearly illustrating need and impact
- More informed decision-making across agencies and stakeholders
- Strategic, long-term planning that aligns investments with future climate risks
- Resilience-focused investments that address multiple hazards simultaneously
- Improved cost-benefit analyses by accounting for co-benefits and avoided damages

Comprehensive mapping tools, like the case studies referenced on the following page, demonstrate how cities can better target investments, coordinate across departments, and ensure resources are directed to the communities that need them most. These tools also help to empower communities themselves to advocate for neighborhoods that are more resilient in the face of increased flooding and other climate change impacts.

While gaps remain, emerging mapping efforts demonstrate how more comprehensive, integrated tools can

A neighbor tends to a community garden created in a vacant lot. *Credit: City of Chicago.*

Ongoing green infrastructure mapping efforts in Chicago

Metropolitan Planning Council:
"Right Infrastructure, Right Place"

- Right Infrastructure, Right Place (RIRP) is a community-scale, data-driven prioritization tool designed to guide equitable, climate-resilient green infrastructure investments across Chicago and Cook County. This Metropolitan Planning Council (MPC) project responds to the growing urgency of climate-related inequities, particularly the disproportionate impact of flooding on historically underserved communities in the region.
- Created in collaboration with public-sector partners—including DWM and MWRD—this initiative seeks to incorporate emerging best practices and leverage nature-based solutions where they can have the greatest impact. The tool integrates both downscaled global climate models (GCMs) and socioeconomic indicators; it also draws on long-range climate projections and hydrologic & hydraulic modeling outputs.[xxxvi]
- The tool, designed to be deployed during system-scale planning, when assessing large areas of a city or community, helps users screen options and determine the right level of investment in stormwater solutions before moving toward specific project siting and design. MPC's methodology will not be completed until mid-2026; once available, this will be a helpful resource for MWRD, DWM, DOE, and other City agencies to use when planning for additional green infrastructure investments.[xxxvii]
- **Grounded in Real-Life Case Studies:** Two case studies of embedded in on-the-ground greening initiatives—such as Sustainable Square Mile and Terra Firma—will help to prototype the RIRP tool. In collaboration with community partners, MPC is applying the tool to these cases at several spatial scales. This will help to validate and refine the tool's underlying assumptions and finalize the model before broader rollout. These case studies also build a stronger investment case for green infrastructure green infrastructure that is aligned with actual capacity limitations in local sewers.

Alliance for the Great Lakes:
"Flooding and Sewage Vulnerability Tool"

- The Flooding and Sewage Coalition is conducting and co-designing with impacted community members a Flooding and Sewage Vulnerability Tool. Their ongoing co-creation process is in partnership with a Community Advisory Committee and informed by the City's Department of the Environment. Using a cumulative impacts framework, the tool will consider social equity, health, and housing, alongside environmental indicators beyond those used in this Strategy, to identify flooding vulnerability in a holistic manner.

Street trees are living public infrastructure that manage stormwater, reduce flooding, and protect water quality—while also cooling neighborhoods and improving public health. A mature street tree can capture nearly 3,000 gallons of stormwater per year.[xxxiii]

Chicago's **Our Roots Chicago** initiative aims to plant 75,000 trees by 2026, with 40 percent of those trees located in priority areas.

Street trees. *Credit: City of Chicago*

Additional site selection considerations

Beyond these analyses, regional project siting tools developed by civic partners, such as the Natural Solutions Tool and Right Infrastructure Right Place, can help identify good-fit, high-impact opportunities for green infrastructure projects.

Each potential site of green infrastructure should be vetted for basic feasibility. While there are many factors to consider, some key examples include ensuring that the site is not within a floodplain, floodway, or wetland and that there is not a high water table or contaminated soil.

Once a site has cleared this initial level of vetting, apply a prioritization index that includes factors to consider for evaluation, such as:

- To what extent the project aligns with and amplifies local community goals;
- To what extent the project filters, stores, and/or diverts water on-site;
- How feasible the implementation and maintenance are for the project; and
- How scalable and replicable the project is.

Refer to *Appendix F* for a sample site prioritization matrix.

Metropolitan Planning Council zoning effort

Metropolitan Planning Council (MPC) and the Urban Institute are conducting research on how zoning and land use impact equity, sustainability, and public health in Chicago's neighborhoods. Their assessment quantifies the extent to which zoning has contributed to Chicago's long-standing inequities across seven priority outcomes: affordable housing, strong business corridors, limited pollution exposure, accessible public transit hubs, productive land use, available groceries and healthcare, and mitigation and adaptation to climate change.

On mitigation and adaptation to climate change, some of the connections we find between this outcome and zoning include the following:

(1) Low-density residential, particularly in the Southwest, far South, Southeast, and Northwest Sides of the city, comprise the majority of the land in the areas most vulnerable to heat and flooding. Black and Latinx Chicagoans are most vulnerable to these challenges.

(2) Land zoned for Parks and Open Space is the least susceptible to urban heat and flooding.

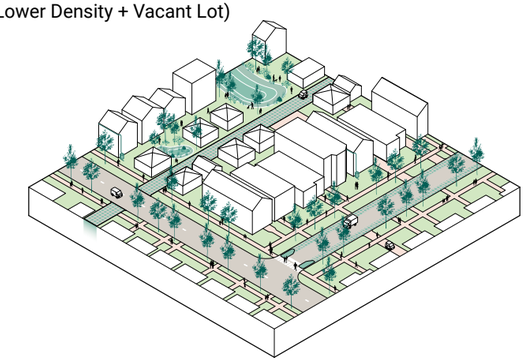
(3) Land zoned for Manufacturing is much more susceptible to urban heat and highlights concerns of industrial runoff in flood-susceptible residential areas near industry.

Green Infrastructure, Block by Block

What could Chicago look like with a focus on implementing green infrastructure in the above high-impact areas, with the above priorities? This section offers illustrative block typologies to showcase applications of green infrastructure in each of these different scenarios:

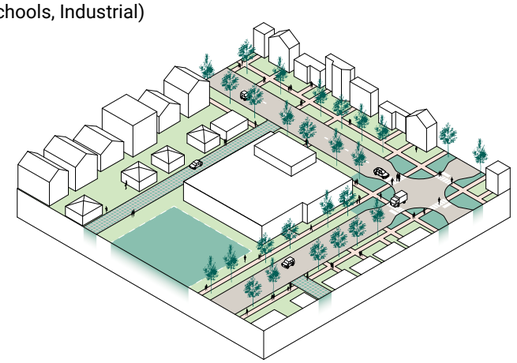
RESIDENTIAL BLOCK

(Lower Density + Vacant Lot)



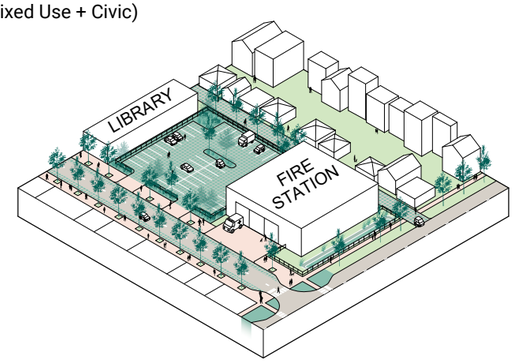
LARGER PROPERTY

(Schools, Industrial)



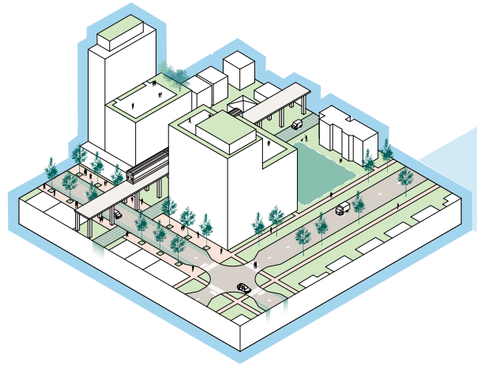
COMMERCIAL CORRIDOR

(Mixed Use + Civic)



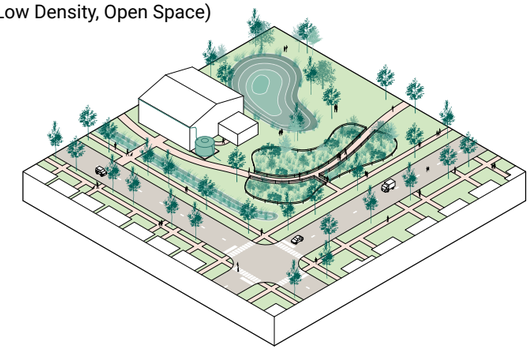
TRANSIT-ORIENTED DEVELOPMENT (TOD)

(Higher Density, Residential + Commercial)



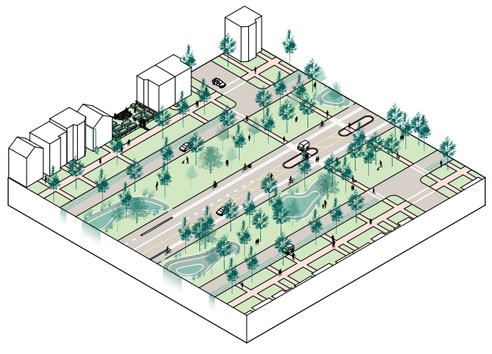
STORMWATER PARK

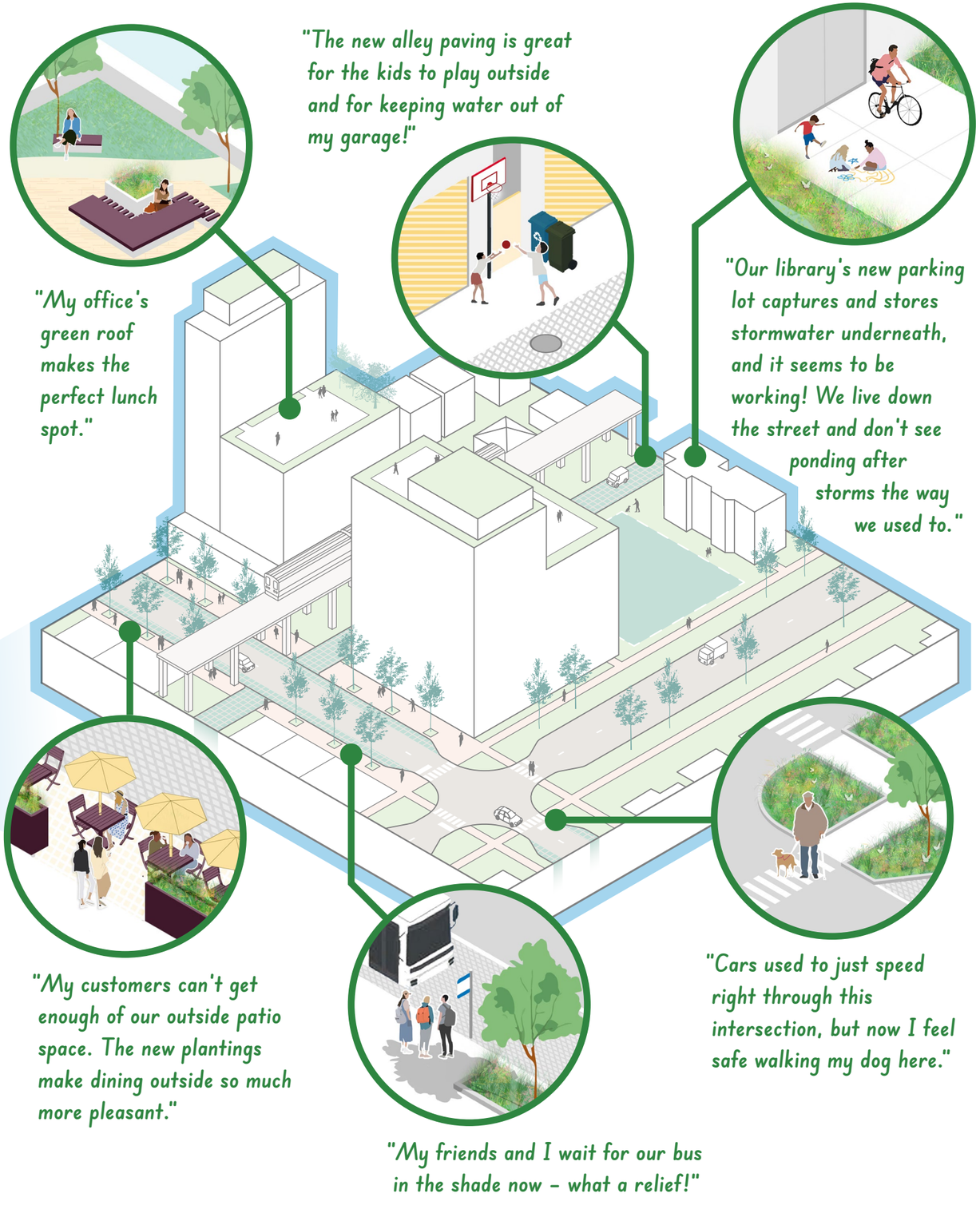
(Low Density, Open Space)



BOULEVARD

(Residential, Right-of-Way, + Vacant Lot)





Renderings Credit: Greenprint Partners

Moving Forward Together

The Green Infrastructure Strategy serve as a shared roadmap for aligning City leadership, resources, and partnerships around a coordinated, equitable approach to managing stormwater, reducing heat, and delivering desired community benefits.

These five key next steps reflect near-term actions that position the City for long-term success and accelerate the effective, equitable implementation of green infrastructure citywide.

1. Quantify current public green infrastructure and maintenance needs

The City should establish a clear baseline of existing public green stormwater infrastructure assets, including their location, type, condition, and performance. Quantifying current assets and identifying gaps will enable the City to better understand unmet needs, prioritize investments, and measure progress over time. A shared inventory also supports transparency and cross-department coordination.

2. Identify sustainable funding sources

Expanding green infrastructure at the scale needed will require reliable, long-term funding. The City should evaluate and align existing funding sources while exploring new, dedicated mechanisms to support planning, construction, workforce development, and maintenance. Sustainable funding will ensure green infrastructure investments are resilient to budget fluctuations and can be delivered equitably across neighborhoods.

3. Coordinate and unify effective stewardship across departments

Green infrastructure is implemented across multiple City departments, often with differing goals, standards, and processes. Strengthening coordination will reduce duplication, improve efficiency, and maximize impact. A unified approach enables departments to plan together, leverage shared resources, and deliver projects that meet multiple City priorities.

4. Engage community and advocates in green infrastructure planning

Meaningful community engagement is essential to the long-term success of green infrastructure. The City should establish a consistent, proactive approach to engaging residents in planning, design, and stewardship, particularly in communities most impacted by flooding and heat. Clear communication and partnership-based engagement will build trust and support of green infrastructure investments.

5. Integrate mapping efforts into future planning

Data and mapping tools should be embedded into ongoing planning and capital decision-making processes. By integrating environmental, social, and infrastructure data, the City can consistently direct investments to areas of greatest need and opportunity. This approach ensures that green infrastructure planning remains adaptive, evidence-based, and aligned with equity goals.

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Appendix

APPENDIX A

Proposed Metrics for Tracking Progress

To support accountability, transparency, and continuous improvement, these potential metrics could be used to track progress toward green infrastructure goals over time. These proposed measures are intended to illustrate how policies, investments, and outcomes may be evaluated across departments, including implementation effectiveness, long-term maintenance, community benefits, and equitable implementation. As data systems, coordination, and capacity evolve, the City may refine, prioritize, or phase in these metrics to ensure they are practical, meaningful, and aligned with available resources.

PROPOSED METRICS FOR TRACKING PROGRESS

PRIORITY	GOAL	INDICATOR METRIC
Cross-Agency Collaboration	Develop and support policies that encourage more green infrastructure	• Number of new or updated City policies, ordinances, or design standards that support green infrastructure • Percentage of policy-driven green infrastructure located in high priority areas as defined in this strategy
	Establish a collaborative approach to green infrastructure management and oversight	• Number of city departments participating in the Interagency Maintenance Working Group • Frequency of interdepartmental coordination meetings • Percentage of green infrastructure projects using shared standards for planning, tracking, and reporting
Maintenance	Quantify existing city owned green infrastructure assets	• Percentage of City-owned green infrastructure assets inventoried and mapped in a central system • Public availability of green infrastructure asset data and maps
	Plan and fund long-term maintenance	• Percentage of City-owned green infrastructure assets with a defined maintenance plan • Sustainable funding allocated to green infrastructure maintenance citywide annually • Amount of capital funding allocated to the first three to five years of maintenance (the establishment period) • Percentage of green infrastructure assets meeting defined maintenance or performance standards
Equity & Engagement	Ensure green infrastructure sites realize multiple community benefits	• Percentage of green infrastructure projects that deliver two or more community benefits • Number of green infrastructure projects that include publicly accessible features • Tree canopy increase associated with green infrastructure installations • Resident satisfaction or reported use of green infrastructure sites
	Center equity in siting and decision making	• Percentage of green infrastructure investments located in high priority areas as defined in this strategy • Number of community-based organizations engaged in green infrastructure planning and implementation • Percentage of green infrastructure projects informed by community engagement or co-design processes
	Support the equitable growth of green jobs	• Percentage of green infrastructure investments located in high priority areas as defined in this strategy • Number of community-based organizations engaged in green infrastructure planning and implementation • Percentage of green infrastructure projects informed by community engagement or co-design processes

APPENDIX B

Examples of Programs to Incentivize Green Infrastructure

After an asset management system and a sustained maintenance funding source is in place for public projects, expansion of green infrastructure can be accelerated through incentive programs that encourage landowners to develop green infrastructure on their properties.

Longer term, the development of new green infrastructure programs, including a landowner incentive program, can advance new projects on public and private properties in Chicago. Other cities and agencies (such as water treatment districts in the Milwaukee, St. Louis, and Philadelphia regions) that have comparable conditions, including similar climates and combined sewer systems, have programs in place that encourage landowners to install and maintain green infrastructure on their own properties.

KEEPING IT SIMPLE

These programs are aiming to reach relatively simple impact targets, such as depaved area, greened acres, or volume captured. Additionally, identifying good-fit locations for green infrastructure project opportunities are defined using relatively straightforward criteria, such as high imperviousness, areas with CSOs, and high social vulnerability.

DISTRICTS LEADING THE WAY

In each of the examples highlighted here, the program is housed within the relevant water treatment district. These agencies see a value to treating less water, and reducing CSO overflows, through investing in green infrastructure programs.

REPRESENTATIVE GOALS, TARGETS AND CRITERIA FROM PEER AGENCIES

Milwaukee: At its outset, Milwaukee Metropolitan Sewerage District's (MMSD) Fresh Coast Green Communities (FCGC) green infrastructure incentive program included both public and private properties that met a set of basic criteria: high imperviousness, high social vulnerability index scores, and areas in MMSD's combined sewer area (Greenprint, 2025).

St. Louis: The Metropolitan St. Louis Sewerage District's (MSD) Project Clear Rainscaping Program has a goal of $120 million investment in rainscaping (green infrastructure) to reduce CSO runoff volume to the River Des Peres and Mississippi River. Projects that reduce runoff volume and remove impervious surfaces receive higher ratings in the competitive application process. Also, specific types of landowners receive more points; benefits points may also be awarded (MSD, 2025).

Philadelphia: The Green City Clean Waters program, led by the Philadelphia Water Department (PWD), is aiming for 9,564 acres of impervious cover managed with green infrastructure (UM EFC and TNC, 2022), and an 85% reduction in CSO volume, by 2036 (PWD, 2025). Eligible projects are evaluated based on the following criteria: greening, cost-effectiveness, match funding, community impact, drainage area captured and strong property owner involvement (PWD, 2025).

GRANT PROGRAMS

Establishing a Chicago green infrastructure grant program that encourages commercial, industrial, nonprofit and multi-family property owners to voluntarily install green infrastructure on their properties (above and beyond requirements) can accelerate green infrastructure implementation. Consider emulating the Space to Grow partnership model in other green infrastructure grant programs, as well as leveraging collaborative delivery methods (including community-based public-private partnerships) to efficiently implement green infrastructure grant programs. The program can be outlined prior to having a funding source, which could be a helpful justification for securing funding.

ALTERNATIVE DELIVERY MODELS

Alternative delivery models could be useful in realizing new green infrastructure projects. Alternative delivery models refer to unconventional approaches for designing, financing, and implementing capital projects. Models include, but are not limited to, various forms of public-private partnerships, design-build contracts (combine design and construction phases under one contract) or performance-based contracting approaches. These approaches can help to improve efficiency and cost-effectiveness, allow for clear risk allocation and streamlining of project implementation. For example, Chicago could consider passing a "Green Infrastructure Bond" similar to that of the Green Social Housing Bond that would combine public investment from the bond with private sector experience to deliver equitable, community-led, high-impact green infrastructure projects.

Case Study: Chicago's Green Social Housing Bond: Passed in April 2024, Chicago's Housing and Economic Development Bond is a unique approach to diversify the City's funding for housing and community development. It is the first mission-focused bond in the City of Chicago, including $135 million to establish a public-private partnership model for Green Social Housing. This model will pair public sector investment through the bond with private sector development experience to build environmentally sustainable, permanently affordable housing. It is estimated to support the construction of 600+ rental homes every five years through a revolving fund structure (City of Chicago, 2024).

ALTERNATIVE COMPLIANCE MODELS

Broadly, alternative compliance models provide other pathways or methods of meeting a requirement that still result in equally effective and practical solutions. An in-lieu fee program provides an alternative path to meeting regulations by paying into a fee rather than complying directly with the regulation. For example, a future green infrastructure fee and program (similar to Chicago's existing Affordable Housing Trust Fund) could require projects to incorporate green infrastructure on site or pay into a fund that is used to install green infrastructure in areas with the highest need within a community area, flood region, or other designation.

APPENDIX C

Typologies: Additional Information

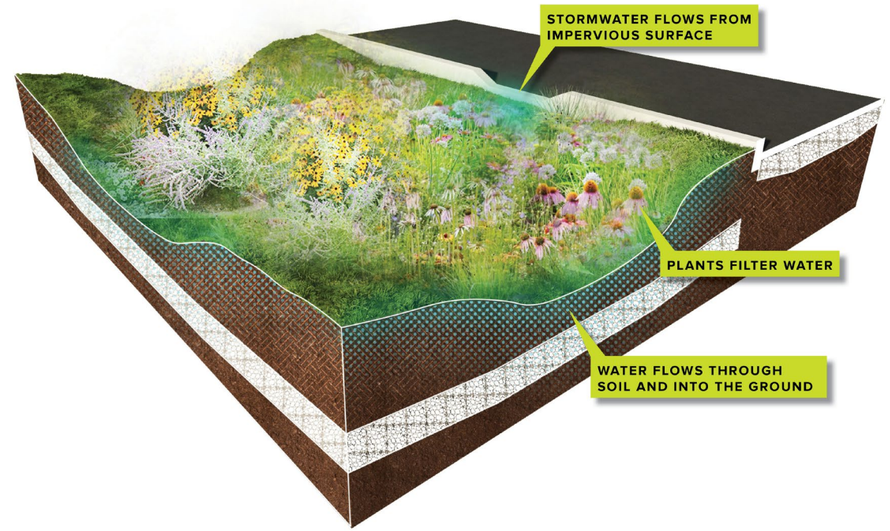
This section provides one-page overviews of major green infrastructure project types. Relative impact characterizations were informed by reported applications of these typologies in other regions and will require further assessment to determine feasibility and performance in Chicago.

Note that Special Service Areas are special tax districts in Chicago that apply a local tax levy on properties within a specific industrial, commercial, and/or residential geographic boundary. Services provided with revenue generated from these taxes go to enhanced services such as lighting, trash pickup, and snow/graffiti removal, as well as economic development programming and private property retrofit grant programs.

Anchor Institutions refers to established, large, and/or otherwise long-term investors in the community, often with large landholdings. Examples include a large employer, higher education institution, hospital, community development corporation, and place of worship.

Renderings Credit: Greenprint Partners

Rain Garden



STORMWATER IMPACTS

	LOW	MED	HIGH
Improved Stormwater Quality		●	
Reduced Stormwater Runoff Volume		●	

CO-BENEFITS

- **Heat Island Reduction**
- **Improved Curb Appeal**
- **Habitat Creation**
- **Increased Property Value**

Siting Considerations

- Rain gardens should be located a minimum 10’ away from all buildings/foundations and at or near low points of the site.
- The maximum run-on ratio for all rain gardens should be 16:1 tributary area to rain garden area.
- Soil type and groundwater table should be investigated to determine the feasibility of a bioswale installation.

Initial Cost

The initial cost of rain gardens is often lower than other green infrastructure typologies. The cost will vary based on the existing site conditions which can include whether it is to be installed in open space vs pavement, depth of soil and aggregate, distance from existing sewer, and infiltration rates of underlying soils.

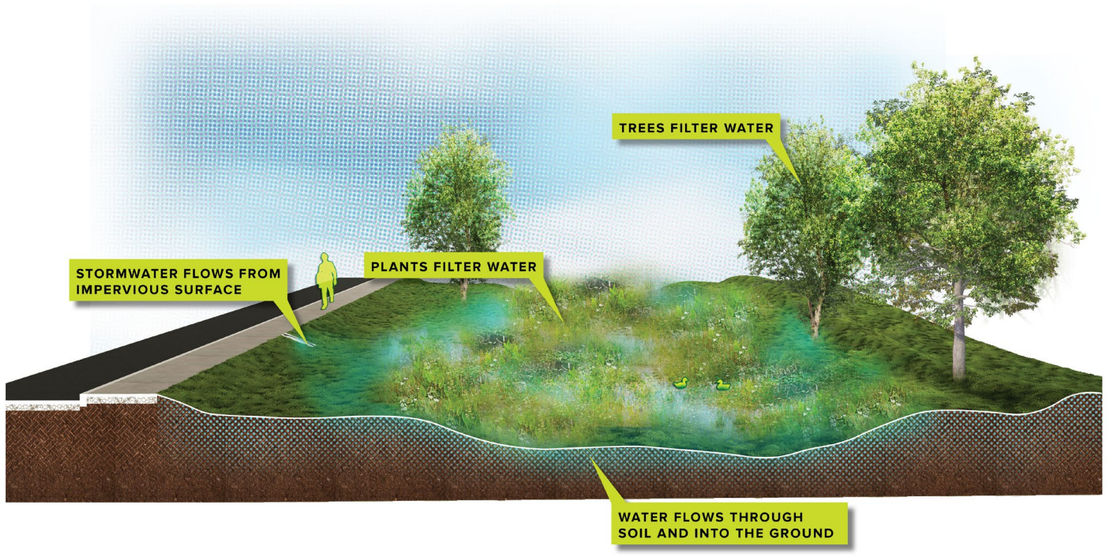
Maintenance

Rain garden maintenance costs are higher during the plant establishment period (up to three years). After establishment, maintenance efforts are less than typical turf grass lawns as no mowing, watering, and fertilizer is required for native plants.

Key Partners

Private Homeowners, Anchor Institutions, Community Organizations, Vacant Lot Owners

Constructed Wetland



STORMWATER IMPACTS

Improved Stormwater Quality — LOW · MED · HIGH

Reduced Stormwater Runoff Volume — LOW · MED · HIGH

CO-BENEFITS

- **Heat Island Reduction**
- **Carbon Sequestration**
- **Habitat Creation**
- **Improved Air Quality**

Siting Considerations

- Constructed wetlands should be placed at or near low points of the surrounding area, but outside of floodplains and floodways.
- A large and relatively flat site is needed for constructed wetlands.
- Potential safety impacts should be considered in urban areas.

Initial Cost

The initial cost of constructed wetlands can be relatively low compared to other green infrastructure typologies. Costs vary depending on size and scale of the wetland and the existing site conditions.

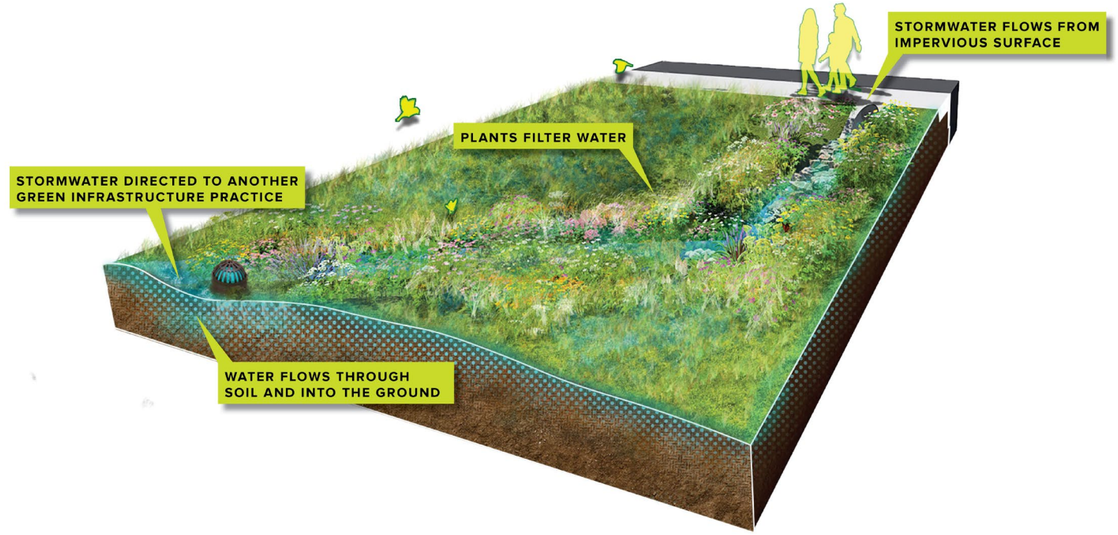
Maintenance

Sediment removal, inlet and outlet structure cleaning, and plant maintenance are required for constructed wetlands. Annual maintenance costs are generally lower compared to other green infrastructure typologies.

Key Partners

Anchor Institutions, Large-Lot Property Owners, CPkD, Forest Preserve District of Cook County

Bioswale



STORMWATER IMPACTS

Improved Stormwater Quality — LOW · MED · HIGH

Reduced Stormwater Runoff Volume — LOW · MED · HIGH

CO-BENEFITS

- **Heat Island Reduction**
- **Improved Curb Appeal**
- **Habitat Creation**
- **Increased Property Value**

Siting Considerations

- Rain gardens should be located a minimum 10’ away from all buildings/foundations and at or near low points of the site.
- The maximum run-on ratio for all rain gardens should be 16:1 tributary area to rain garden area.
- Soil type and groundwater table should be investigated to determine the feasibility of a bioswale installation.

Initial Cost

The initial cost of rain gardens is often lower than other green infrastructure typologies. The cost will vary based on the existing site conditions which can include whether it is to be installed in open space vs pavement, depth of soil and aggregate, distance from existing sewer, and infiltration rates of underlying soils.

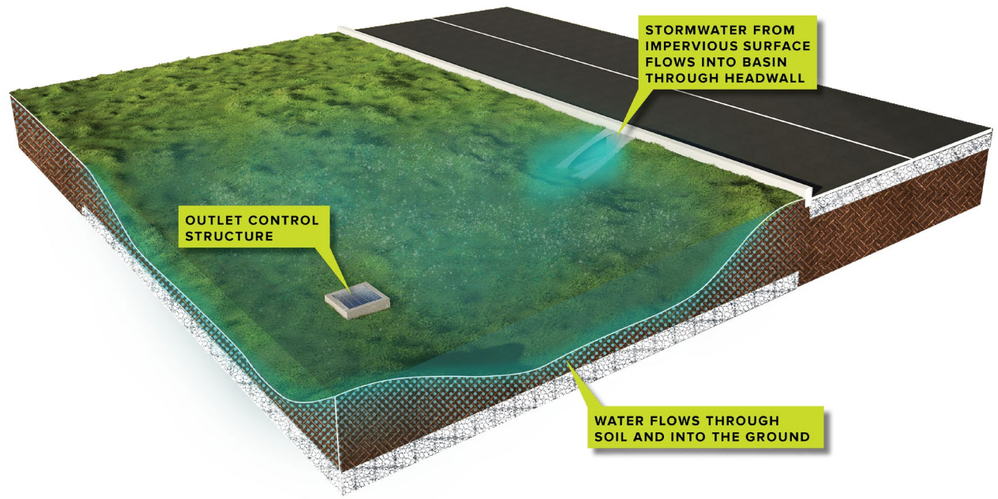
Maintenance

Rain garden maintenance costs are higher during the plant establishment period (up to three years). After establishment, maintenance efforts are less than typical turf grass lawns as no mowing, watering, and fertilizer is required for native plants.

Key Partners

Private Homeowners, Anchor Institutions, Community Organizations, Vacant Lot Owners

Detention Basin



STORMWATER IMPACTS

Improved Stormwater Quality
LOW — MED — HIGH

Reduced Stormwater Runoff Volume
LOW — MED — HIGH

CO-BENEFITS

Heat Island Reduction

Improved Air Quality

Habitat Creation

Carbon Sequestration

Siting Considerations

- Detention basins can manage large amounts of runoff, so are most effective when placed downstream of large impervious areas.
- Safety should be a consideration when siting a detention basin.
- Detention basins require a large amount of land area vs other green infrastructure typologies.

Initial Cost

Detention basins are a cost-effective best management practice due to the large amounts of stormwater that can be detained relatively inexpensively.

Maintenance

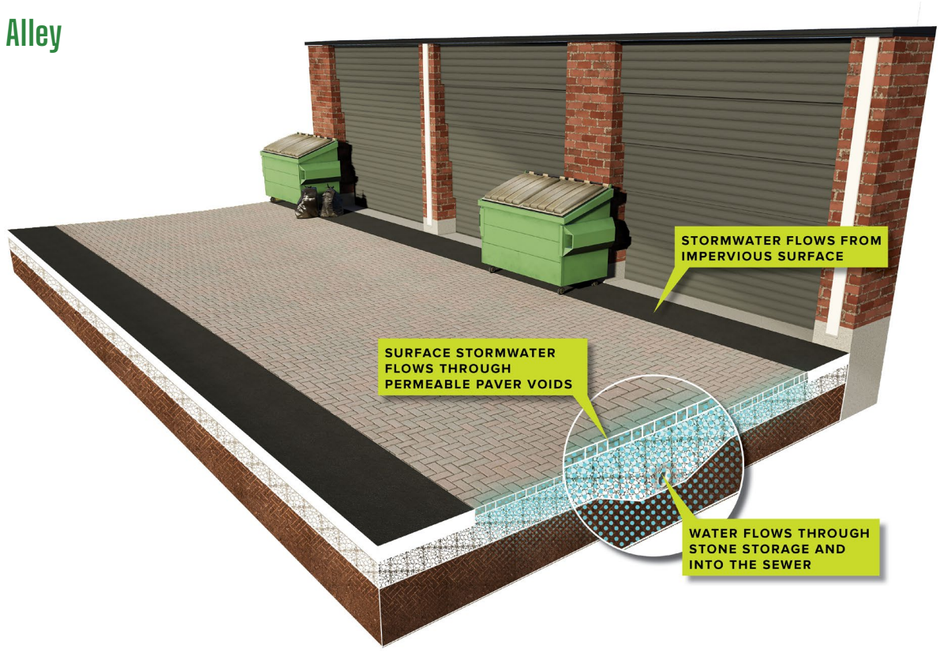
Detention basin maintenance costs tend to be relatively low compared to other green infrastructure typologies. Detention basins can be planted with turf grass or native plantings which require seasonal maintenance.

Erosion control measures should be used to reduce sedimentation within the basin and extend its useful life.

Key Partners

Anchor Institutions, Large-Lot Property Owners, CPkD, Forest Preserve District of Cook County

Green Alley



STORMWATER IMPACTS

Improved Stormwater Quality
LOW — MED — HIGH

Reduced Stormwater Runoff Volume
LOW — MED — HIGH

CO-BENEFITS

Heat Island Reduction

Reduced Energy Costs

Increased Property Value

Siting Considerations

- Green alleys should be in an area that can be frequently maintained so clogging does not occur.
- Soils under the permeable pavement in green alleys should have a medium-to-high infiltration rate.

Initial Cost

Green alley costs can vary based on the chosen methodology but are often upwards of $350,000–$400,000 per green alley in the Chicago region. A green alley with a permeable paving strip surrounded by high albedo concrete is lower cost than a full permeable paver alley.

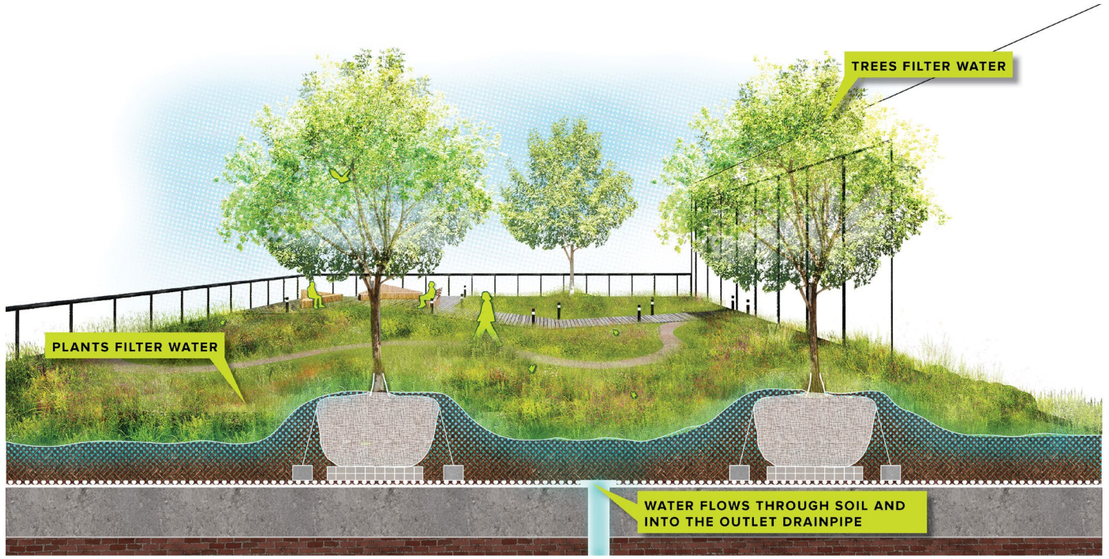
Maintenance

Maintenance costs can be high. Vacuuming or street sweeping to avoid surface clogging should be done bi-annually. For pavers, the removal and replacement of the top layer of joint filler may be required every few years depending on the traffic load.

Key Partners

Blocks of Private Residential Landowners, Alderpersons, Community Organizations

Green Roof



STORMWATER IMPACTS

Improved Stormwater Quality
LOW MED HIGH

Reduced Stormwater Runoff Volume
LOW MED HIGH

CO-BENEFITS

Heat Island Reduction

Improved Curb Appeal

Reduced Energy Costs

Increased Property Value

Siting Considerations

- Green roofs should only be placed on flat or gradually sloped roofs.
- Structural analysis should be done to confirm extra weight from planting material can be supported.

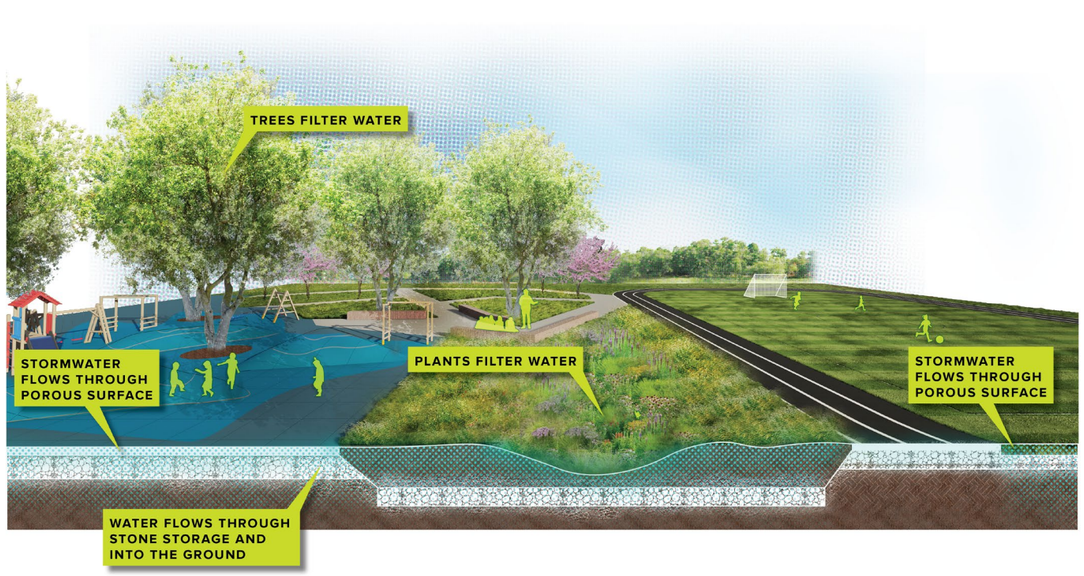
Initial Cost
Green roofs tend to be one of the least cost-effective forms of green infrastructure when evaluated based on their ability to manage stormwater. Costs can vary based on the size and slope of the roof, extensive vs intensive system, accessibility for construction, and the required safety and maintenance measures.

Maintenance
Green roof maintenance costs are higher during the plant establishment period (up to three years). After establishment, maintenance efforts are minimal and are generally offset by the savings due to the reduction in roof maintenance and replacement and utility savings.

Key Partners
Organizations that allow public access of buildings, and that encourage community use of the green roof, are preferred, as are schools, incubators, and other partners that can use green roofs as demonstration and showcase projects.

Anchor Institutions, Higher Education, Community Organizations

Green Schoolyard



STORMWATER IMPACTS

Improved Stormwater Quality
LOW MED HIGH

Reduced Stormwater Runoff Volume
LOW MED HIGH

CO-BENEFITS

Heat Island Reduction

Enhanced Mental Health

Social Cohesion

Siting Considerations

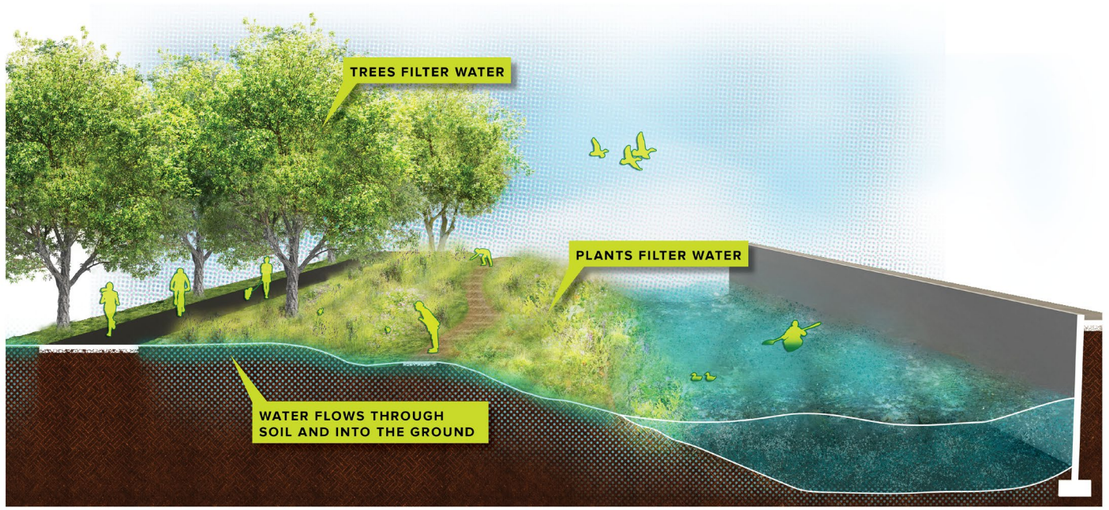
- Green schoolyards are typically located at schools with a significant amount of outdoor space to accommodate the added green infrastructure.
- Because schools have the capacity to store significant amounts of stormwater, schools in neighborhoods that experience high flooding should be prioritized.

Initial Cost
Green schoolyards have high initial costs due to their complex and multi-dimensional nature. They require significant construction, and costs vary greatly based on the specific design.

Maintenance
Maintenance will vary depending on the chosen features. Safety is a high priority at school sites, so regular maintenance to avoid standing water and tripping hazards should be completed.

Key Partners
Local School Councils, Alderpersons, School Community, Space to Grow

Park / Green Space



STORMWATER IMPACTS

Improved Stormwater Quality
LOW MED HIGH

Reduced Stormwater Runoff Volume
LOW MED HIGH

CO-BENEFITS

- **Habitat Creation**
- **Increased Active Living**
- **Social Cohesion**
- **Increased Property Value**

Siting Considerations

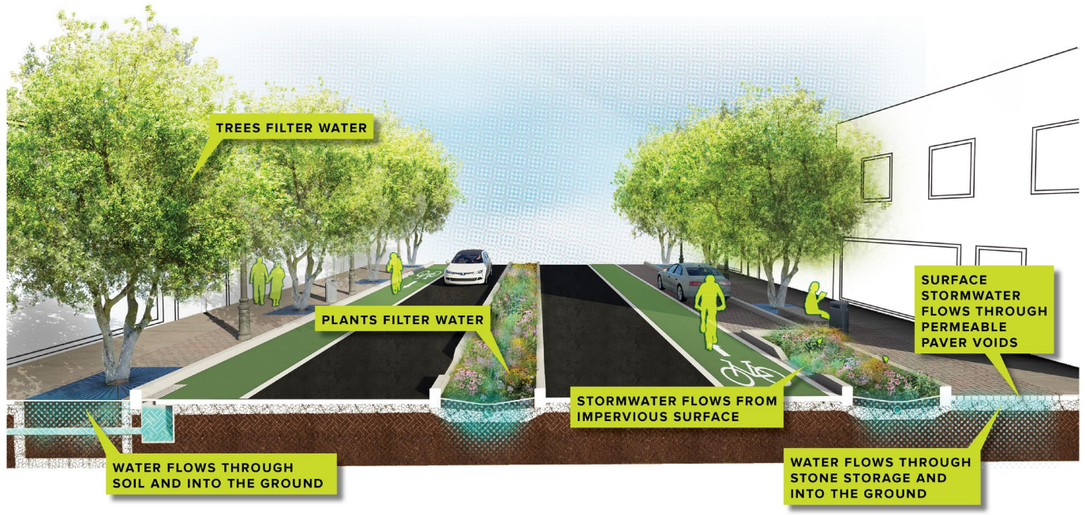
- Parks/green spaces require a significant amount of land compared to other green infrastructure typologies.
- Areas closer to residential areas should be prioritized.

Initial Cost
Costs vary based on the complexity and amenities included in the park/green space. Native plantings have similar installation costs to conventional turf grass.

Maintenance
Maintenance costs vary based on the park/green space. Native landscape requires much less maintenance than conventional landscape as mowing, watering, and fertilization are not required once plants are established.

Key Partners
Park District Advisory Councils, Friends of the Parks, Park-Adjacent Landowners, CPkD

Green Street



STORMWATER IMPACTS

Improved Stormwater Quality
LOW MED HIGH

Reduced Stormwater Runoff Volume
LOW MED HIGH

CO-BENEFITS

- **Social Cohesion**
- **Improved Curb Appeal**
- **Increased Active Living**
- **Increased Property Value**

Siting Considerations

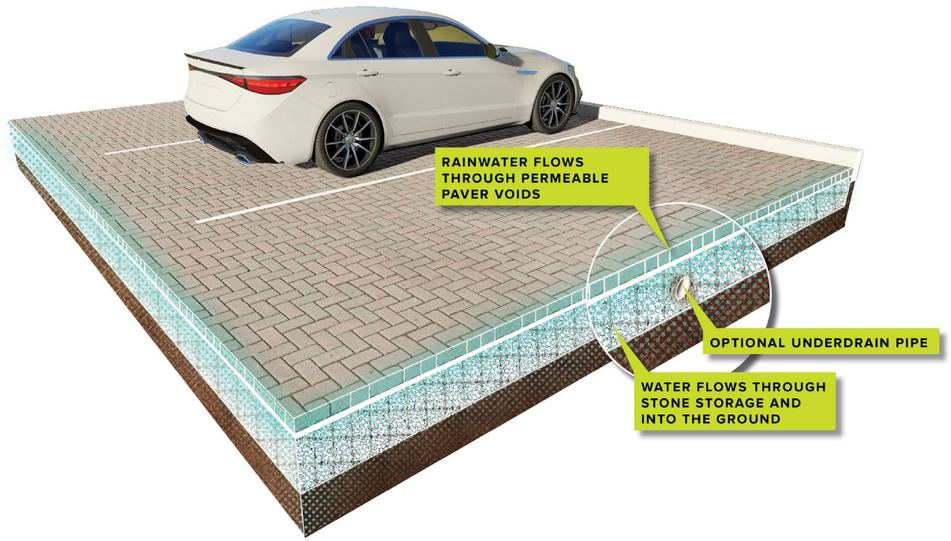
- Green streets are often placed in corridor-type areas with an increased amount of pedestrian and vehicular traffic, so parking impacts should be considered.
- Road and sidewalk widths should be considered to determine what can fit within the right-of-way.
- Underground utility locations need to be evaluated for conflicts or potential relocation.

Initial Cost
Green streets have a high initial cost as they generally require significant updates to the existing infrastructure. The chosen amenities and complexity of the street can increase costs.

Maintenance
Maintenance varies based on the features included in the green street.

Key Partners
Neighborhood Associations, Anchor Institutions, Special Service Areas

Permeable Paving



STORMWATER IMPACTS

Improved Stormwater Quality
LOW MED HIGH

Reduced Stormwater Runoff Volume
LOW MED HIGH

CO-BENEFITS

Heat Island Reduction

Reduced Energy Costs

Increased Property Value

Siting Considerations

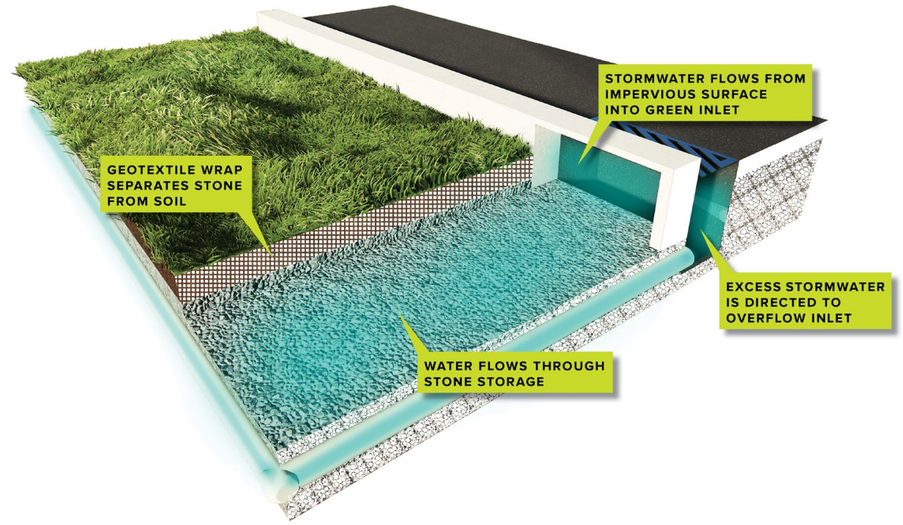
- In most cases, permeable pavement can be used in replacement of conventional concrete or asphalt.
- Permeable pavement should be in an area that can be frequently maintained so clogging does not occur.
- Types of traffic (pedestrian or vehicular) should be considered when determining the type of permeable pavement.
- Soils under the permeable pavement should have a medium-to-high infiltration rate.

Initial Cost
Installation costs are often twice as much as conventional concrete or asphalt pavement; however the lifespan of permeable pavements can be twice as long with proper maintenance. Also, oftentimes less stormwater infrastructure (inlets and sewer) can be used which offset costs.

Maintenance
Permeable paving maintenance costs can be high. Vacuuming or street sweeping to avoid surface clogging should be done bi-annually. For pavers, the removal and replacement of the top layer of joint filler may be required every few years depending on the traffic load.

Key Partners
Commercial Property Owners, Special Service Areas, Anchor Institutions

Subsurface Storage



STORMWATER IMPACTS

Improved Stormwater Quality
LOW MED HIGH

Reduced Stormwater Runoff Volume
LOW MED HIGH

CO-BENEFITS

Reduced Energy Costs

Increased Property Value

Siting Considerations

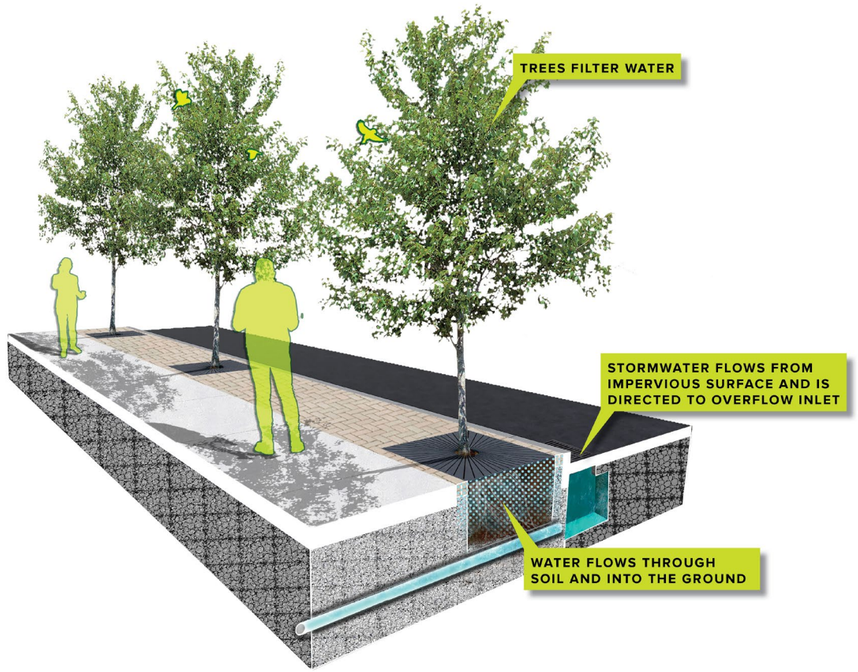
- Depth of excavation is very important to consider for subsurface storage, especially when considering existing groundwater and utilities.
- Subsurface storage should be a minimum 10’ away from all buildings/foundations.
- It is most cost effective to install on a relatively flat site.

Initial Cost
The initial cost will vary based on the method used to provide storage. Generally stone storage is the cheapest option, followed by chambers or oversized pipe, then concrete structures.

Maintenance
Annual maintenance costs are generally low. Vacuuming the sediment and debris is required once it accumulates, but inspecting structures, removing debris, and ensuring pretreatment is provided will allow for longer periods between accumulation.

Key Partners
Schools, Owners of Properties with Large Surface Parking Lots, Anchor Institutions

Street Tree



STORMWATER IMPACTS		CO-BENEFITS				
Improved Stormwater Quality	LOW MED HIGH	**Heat Island Reduction**	**Improved Air Quality**	**Improved Curb Appeal**	**Increased Property Value**
Reduced Stormwater Runoff Volume	LOW MED HIGH				

Siting Considerations

- Adequate space is necessary to ensure there is enough room for root growth, canopy spread, and trunk clearance from sidewalks, streets, and buildings.
- Soil quality and volume should be assessed to support long-term tree growth and stability.
- Areas with underground and/or overhead utilities should be avoided.

Initial Cost

Street trees can be a very low-cost feature to add to the right-of-way that adds significant benefits. Care should be taken to install a tree with enough root space and soil volume to ensure longevity.

Maintenance

Tree maintenance is very low cost. Tree trimming/pruning should be done every two to five years, and street sweeping to prevent leaf litter buildup should be done often to prevent clogging of adjacent sewer inlets.

Key Partners

Alderpersons, Special Service Areas

Rain Barrel

STORMWATER IMPACTS		CO-BENEFITS
Improved Stormwater Quality	LOW MED HIGH	**N/A**
Reduced Stormwater Runoff Volume	LOW MED HIGH	

Siting Considerations

- Rain barrels can only be used on buildings that have external downspouts.
- Stormwater collected in rain barrels is typically used for watering and irrigation, so they should only be used when vegetation is on-site and requires watering.

Initial Cost

The initial cost of installing a rain barrel is very low compared to other forms of green infrastructure. These include the cost of the barrel, gutter diverter kit, hose/spigot, debris screen, base, and labor to install.

Maintenance

Rain barrel maintenance is inexpensive but necessary to ensure it continues to function properly. Regular upkeep includes cleaning filters, removing debris, and checking for leaks or mosquito breeding. During freezing temperatures, rain barrels should be emptied and disconnected to avoid any damage from the freeze-thaw cycle.

Key Partners

Blocks of Private Residential Landowners, Special Service Areas, Anchor Institutions

APPENDIX D

Green Infrastructure Owned by City and Sister Agency Departments

This section gives an overview of Chicago's current green infrastructure across City departments and sister agencies — the projects in place, their impacts, maintenance needs, development processes, and workforce opportunities. The data below was collected from a variety of departments and sister agencies and is not a comprehensive list of all green infrastructure efforts in Chicago. The information included is provided in the spirit of sharing knowledge and best practices as well as aligning on what projects are being managed, by whom, and in what ways.

Data inconsistencies make it difficult to calculate cumulative impact

Right now, departments track project impacts differently, making it hard to see the full, citywide impact of green infrastructure. In addition, project data often does not clearly identify the specific green infrastructure elements being used, which makes it hard to measure their impacts. Many project types are made up of multiple elements. For example, Green Streets can include stormwater bumpouts, bioswales, street trees, and vegetated medians. Green Schoolyards may include trees, rain gardens, green roofs, permeable surfaces, and underground storage. When project data does not capture this level of detail, it is not possible to calculate impacts accurately.

Chicago Department of Fleet and Facility Management

The Chicago Department of Fleet and Facility Management (2FM) is actively incorporating green infrastructure to enhance environmental sustainability across the City's facilities. Plans and priorities, including the Sustainable Operations Plan from 2015, the Stormwater Management Ordinance, and green building certification, are the main drivers for 2FM-managed green infrastructure projects. These efforts include the installation of permeable paving, green roofs, bioswales/rain gardens, and detention ponds.

As of 2025, 2FM has 32 projects completed or underway, with many projects including more than one green infrastructure typology.

SUMMARY OF GREEN INFRASTRUCTURE TYPOLOGIES USED IN 2FM PROJECTS

TYPOLOGY	COUNT	BENEFITS
Green Roof*	24	• Heat Island Reduction • Reduced Energy Costs / Energy Savings • Increased Property Value
Permeable Pavement	17	• Improved Stormwater Quality • Reduced Stormwater Runoff Volume
Bioswale / Rain Garden	11	• Heat Island Reduction • Improved Stormwater Quality
Detention Basin**	1	• Carbon Sequestration • Improved Air Quality • Reduced Stormwater Runoff Volume

*Vast majority built/constructed before 2015; only one known installation since. Ten are located at police and fire stations and nine are located at libraries. All are inaccessible to the public.

**Located at fire station

Source: City of Chicago Fleet and Facility Management, 2024

Chicago Department of Transportation

The Chicago Department of Transportation (CDOT) is enhancing urban sustainability by installing green infrastructure typologies including bioinfiltration planters, trees, permeable pavements, retention trenches, and open-bottom catch basins, which help manage stormwater, reduce runoff, and prevent localized flooding. The Green Alleys Program, initiated in 2010, is a large contributor to CDOT's green infrastructure portfolio of projects. As of 2025, CDOT has a total of 501 projects that are either completed, under construction, or in design. Of these projects, 210 have typology data available for analysis.

Project area data are not available for all projects. The square footage for permeable pavement and rain gardens in the adjacent table represents available data from 20 projects.

SUMMARY OF GREEN INFRASTRUCTURE TYPOLOGIES USED IN CDOT PROJECTS

TYPOLOGY	COUNT	GI AREA (SF)	BENEFITS
Rain Garden: Bioinfiltration Planters	30	9,348*	• Heat Island Reduction
Permeable Pavement	141	299,945*	• Improved Stormwater Quality • Reduced Stormwater Runoff Volume
Subsurface Storage: Retention Trenches/ Open-Bottom Catch Basins	147	–	• Reduced Stormwater Runoff Volume • CSO Reduction
Street Trees (under the jurisdiction of DSS BOF and CDOT Combined)	550,000	17% coverage	• Improved Air Quality • Curb Appeal / Beautifying the Property

*This area is not the total for all the projects. Please refer to the summary at left. *Source: City of Chicago Department of Transportation, 2025*

CDOT plays an integral role in increasing tree survival and resiliency

Street tree. *Credit: City of Chicago*

Since the 2000s, CDOT has been working with the DSS BOF to ensure their work supports long-term tree survival and inherent tree resiliency for Chicago's street trees. Focused site surveys take into account constraints such as power lines, utilities, types of planting infrastructure, road salts, and more to inform tree species selection and help support tree health over the long-term. These efforts have resulted in a 94% survival rate from year one to year two of plant establishment.

Additionally, CDOT has made the following important change that has implications for stormwater: if a location requires new tree pits, CDOT will increase existing tree pit dimensions and nearly double the soil volume, which increases water storage capacity. (The standard size is either 5'x5' or 4'x6'; increased dimensions are 5'x10' or 4'x10', respectively.) The larger pit sizes can also accommodate a greater diversity of tree types from just eight to over 16, producing larger-diameter trees over the long-term.

Chicago Department of Streets & Sanitation Bureau of Forestry + CDOT

Chicago's tree canopy is one of the City's most effective and multifaceted forms of green infrastructure. Trees help manage stormwater, reduce heat, clean the air, and support healthier neighborhoods. A single mature tree can absorb up to 10,000 gallons of water each year—water that then never enters the sewer system. Across the city, Chicago's street trees (about 550,000 as of 2021) intercept an estimated 149 million gallons of stormwater annually, helping reduce flooding and easing pressure on aging infrastructure.

These benefits are not distributed equally. Many historically underserved communities on the South and West Sides have significantly less tree canopy, leaving residents more vulnerable to extreme heat and flooding. Expanding the canopy in these neighborhoods is central to Chicago's tree equity strategy, which focuses on increasing canopy where it can deliver the greatest public health, climate, and social co-benefits.

Our Roots Chicago, the City's tree-equity initiative, is a multi-department, community-driven, and data-informed effort to expand the public urban tree canopy, strengthen stewardship of public trees, and increase community engagement around the benefits of trees. Supported by the 2022 Climate Action Plan and a $46 million Chicago Recovery Plan investment, the initiative aims to plant 75,000 trees by 2026. As of mid-December 2025, DSS and CDOT had planted 68,000 trees, including more than 34,000—50 percent—in priority areas. The City will continue planting trees in 2026, with a goal of planting 40 percent of those trees in communities with less canopy coverage.

Together, these efforts underscore that trees are not just environmental assets—they are critical infrastructure that help Chicago manage climate impacts, advance equity, and support thriving neighborhoods.

Trees are critical infrastructure that support thriving neighborhoods. *Credit: City of Chicago*

Chicago Park District

Crews prepare to plant natives. *Credit: City of Chicago Park District*

The Chicago Park District (CPkD) has been actively expanding its natural areas to enhance biodiversity and provide residents increased access to green spaces. As of 2025, the district manages 1,955 acres of native habitats throughout the city. These efforts include the restoration of prairies, savannas, woodlands, wetlands, and dunes, creating vital ecosystems for local wildlife and offering recreational opportunities for the community. These efforts and project types are in line with their mission; while sustainability and flood prevention are included in CPkD's 2025 Strategic Plan, the management of natural areas, rather than green infrastructure installations for the purpose of stormwater management, are the main drivers of CPkD's project portfolio.

In 2021, the Montrose Beach Dunes were expanded by 3.1 acres—bringing the total area to nearly 20 acres—in a vital effort to support endangered species such as the Great Lakes Piping Plover. This expansion is part of the CPkD's broader commitment to environmental stewardship and the creation of resilient, sustainable urban ecosystems. These natural areas are included in the Park/Green Space typology.

CPkD has self-identified the following as a list of green infrastructure projects, not all of which are natural area typologies. These projects include:

- 39th St Bioretention
- Big Marsh Parking Lot (Permeable Paving, in DOB dataset)
- HQ Green Roof (Green Roof, in DOB dataset)
- La Villita Park
- Lincoln Park - Diversey
- Lincoln Park - Bioretention
- Madigan Park
- Park 538 Thillens Park

SUMMARY OF GREEN INFRASTRUCTURE TYPOLOGIES USED IN CPKD PROJECTS

TYPOLOGY	COUNT	GI AREA (ACRES)	BENEFITS
Park/Green Space: Natural Area	346*	1,955	• Improved Air Quality • Carbon Sequestration • Habitat Creation for Local Wildlife

*Of these, 65 contain wetland bodies. *Source: Chicago Park District*

Space to Grow

Space to Grow transforms schoolyards into vibrant, multifunctional spaces for play, learning, and community engagement. By incorporating green infrastructure, these schoolyards help reduce runoff and localized flooding while promoting long-term environmental sustainability. This program is driving green infrastructure investment at CPS schools and is a collaborative effort involving: Healthy Schools Campaign, Openlands, Chicago Public Schools , the Chicago Department of Water Management, the Chicago Department of Environment and the Metropolitan Water Reclamation District of Greater Chicago.

Space to Grow schoolyards incorporate a variety of green infrastructure typologies. All schoolyards include rain gardens, permeable paving or surfacing, and trees, and most include subsurface storage. The program also focuses on transforming asphalt lots into permeable spaces, converting schoolyards into vibrant parks and green spaces. On smaller sites, bioswales may be used in place of rain gardens.

As of 2025, 41 schools have participated in the program; in addition to flood risk and other factors, schools are selected with an equity lens that prioritizes schools in historically underinvested communities, underscoring the program's commitment to equity and environmental justice. Combined, the total design retention capacity of all participating schools — which represents the volume of stormwater each site can retain at a given time — is approximately 8.8 million gallons. Additionally, the total annual infiltration volume — the amount of stormwater captured and infiltrated on-site each year — reaches over 28 million gallons. In total, the program has created 219,075 square feet of green space dedicated to managing stormwater.

A Decade of Impact

Space to Grow's 10-year impact report highlights the program's growth from 4 pilot to 36 completed green schoolyard projects, which collectively capture approximately 7 million gallons of water every time it rains. That's the equivalent of 140,471 bathtubs or over 10 Olympic-sized swimming pools.[xl]

SUMMARY OF SPACE TO GROW PROJECTS

AVG. % LOW INCOME STUDENTS*	TOTAL DESIGN RETENTION CAPACITY (GAL)	TOTAL ANNUAL INFILTRATION VOLUME (GAL)	TOTAL GREEN SPACE AREA (SF)**	TOTAL AREA TRANSFORMED (SF)	BENEFITS
84%	8,757,530	28,716,914	219,705	1,935,663	• Increasing Active Living for Physical Health • Enhanced Mental Health • Social Cohesion • Greater Workplace Satisfaction

*Average percentage across all schools; each school's low-income percentage is calculated based on the share of students from families participating in economic assistance programs.

**Green Space only includes green space counted in the design retention calculations (DRC); the actual figure is higher but not captured in the DRC.

Source: MWRD, 2025

Playground at O'Keeffe School of Excellence. *Credit: Space to Grow*

Program Highlight: Climate Infrastructure Fund

In 2022, the Office of Climate and Environmental Equity (now the Chicago Department of Environment), in partnership with the Department of Planning and Development, developed the Climate Infrastructure Fund (CIF), a climate-focused, equity-driven grant program for nonprofit organizations and small businesses. The City's total investment of $10 million resulted in the selection of 54 projects across two funding rounds—with individual awards ranging from $50,000 to $250,000. These funds support projects related to renewable energy and energy efficiency upgrades, electric vehicles and charging stations, and green infrastructure - all helping advance the goals of the 2022 Climate Action Plan.

In addition to evaluating project readiness and soundness of scope, applicants were initially assessed with a deliberate equity lens. Factors assessed included:

- **Climate Equity** – Project's location in or service to environmental justice communities, many of which are on Chicago's South and West Sides.
- **Climate Equity** (specific to electric vehicle/charging projects) - Whether or not the proposed location was in an EV charging desert.
- **Social/Economic Equity** - Economic Hardship index ranking via University of Illinois Chicago's Great Cities Institute.
- **Health Equity** – Location's proximity to areas with the poorest air quality as identified in the City of Chicago's Air Quality and Health Index.

In October 2025, CIF was highlighted in the Office of Equity and Racial Justice's FY2026 equity report for departmental commitment to equity in both project selection and ongoing implementation.

Through CIF, nonprofit organizations and small business owners are taking a central role in climate action by reducing harmful greenhouse gas emissions, lowering operating costs, and increasing green space in their respective communities. Of the 49 projects moving forward, 11 green stormwater infrastructure projects were awarded a total of over $2.2 million. At the time of publishing, CIF projects remain in varying stages, with about 36% having been completed and grant funds fully disbursed, and the remaining either in contract with construction underway or in scope finalization.

Green Infrastructure Regulated By the City

Chicago Department of Buildings

The Chicago Department of Buildings (DOB) plays a pivotal role in advancing green infrastructure within the City's built environment. By enforcing building codes and tracking regulations, including the City's Stormwater Ordinance, DOB ensures that new construction and major renovation projects incorporate green infrastructure practices, such as green roofs, permeable pavements, and bioretention basins. These measures align with the City's broader sustainability goals. To date, the Stormwater Ordinance has touched 10% of the developable area of the city.

Of the over 4,600 regulated developments since 2008, 1,732 projects provided volume control onsite by capturing ½ inch of runoff. After 2016, DOB began tracking the type of best management practices (BMP) used to provide volume control. Of those 883 projects, 366 incorporate permeable paving, 232 include rain gardens, 10 include bioswales, 23 include detention basins 159 feature green roofs, and 269 include subsurface storage.

Overall, commercial and industrial properties accounted for the greatest on-site volume control. The 20 private DOB projects providing the most on-site volume control were all located on commercial or industrial sites, with the smallest providing 23,520 cubic feet (CF) and the largest providing 86,685 CF of stormwater volume control.

SUMMARY OF GREEN INFRASTRUCTURE TYPOLOGIES USED IN DOB-PERMITTED PROJECTS

TYPOLOGY	COUNT	% OF PROJECTS[7]	VOLUME CAPTURED (CF)[8]	% OF TOTAL VOLUME CAPTURED
Permeable Pavement only[1]	366	34%	743,363	18%
Rain Garden only[2]	232	22%	963,925	23%
Bioswale only[3]	10	<1%	60,295	1%
Detention/Retention only[4]	23	2%	1,001,047	24%
Green Roof only[5]	159	15%	0	0%
Subsurface Storage only[6]	269	25%	817,548	20%
Projects with Multiple Green Infrastructure Types (n = 260)[9]	–	–	586,438	14%
TOTAL	**1,059**	**–**	**4,172,616**	**–**

[1] Permeable paving includes artificial turf, permeable pavement, infiltration trenches, and permeable play surfacing

[2] DOB refers to rain gardens as bioinfiltration systems

[3] DOB refers to bioswales as drainage swales

[4] Detention basins include basins and ponds but excludes asphalt-lined basins

[5] Subsurface storage includes stone voids, chamber systems, and infiltration vaults

[6] Green Roof reduces effective impervious area and does not provide volume control storage. The total number of green roof projects since 2007 is 442, however BMP type was not categorized until 2016.

[7] Number of green infrastructure installations tracked by DOB (2016-2024) that include a volume control BMP designation

[8] Volume Captured by green infrastructure installations as tracked by DOB (2016-2024) that included a volume control volume. Volume for projects with multiple green infrastructure types are counted in individual green infrastructure category and multiple green infrastructure category. Total number of green infrastructure projects from 2008-2024 is 1,732.

[9] "Projects with Multiple Green Infrastructure Types" consists of projects that used multiple green infrastructure typologies to provide the volume control for the site. Since the data did not differentiate between how much volume was provided per each green infrastructure type, the volume could not be distributed into the green infrastructure types above and therefore remains separate to avoid double counting volume.

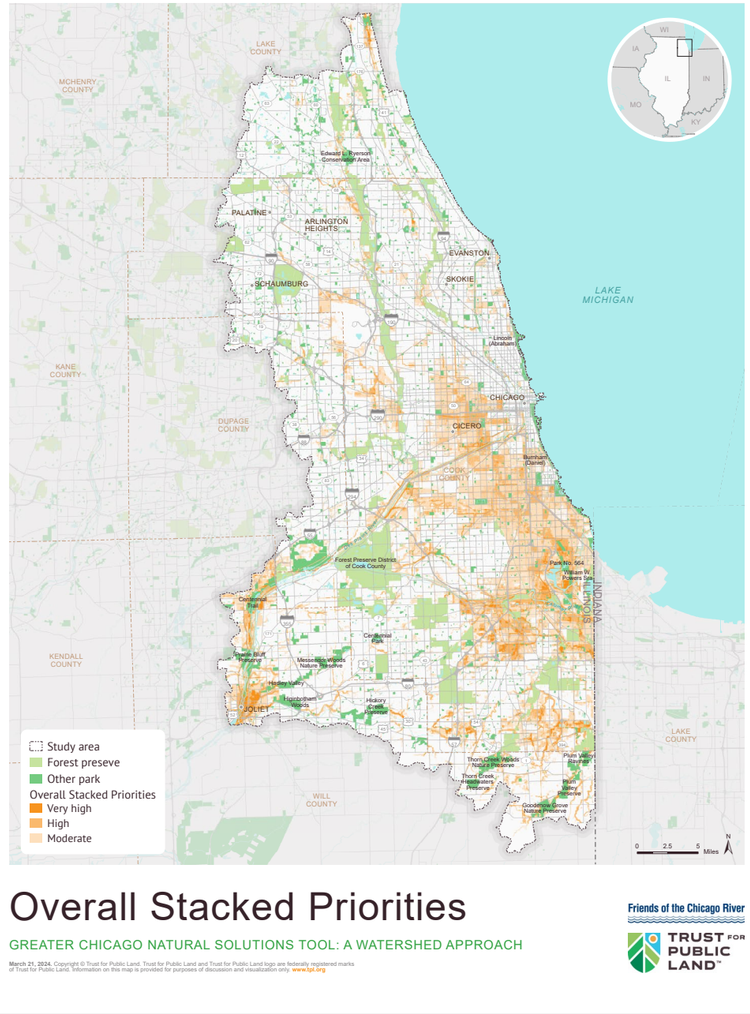
APPENDIX E

Natural Solutions Siting Tool

There are many partner efforts that are working toward directing green infrastructure to high-impact locations. These tools are resources to build upon in order to leverage existing efforts and maximize future investments.

A project of the Greater Chicago Watershed Alliance (GCWA), the Natural Solutions Siting tool was developed by Friends of the Chicago River's planning team and the Trust for Public Land—with guidance from local experts—to support strategic, watershed-wide investments in nature-based solutions. The tool is a robust parcel prioritization map that includes stacked social, environmental and economic data indicators.

These indicators are grouped into five categories that align with the team's modeling objectives: Healthy, Equitable, Biodiverse, Protected and Connected. Data are available at both the stacked priority and individual data layer level (Trust for Public Land, 2025). As the tool is designed to be used at parcel level, it can be easily leveraged as an input into site-level project prioritization within the hot spot areas detailed above—either in its entirety or by isolating a key objective or data layer input.



Natural Solutions Tool: Overall Stacked Priorities Map. *Source: Trust for Public Land, June 2025.*

APPENDIX F

Sample Prioritization Index

Each potential site considered for the implementation of green infrastructure should undergo an initial feasibility screening. The screening is intended to identify site constraints relevant to green infrastructure constructability and performance. Considerations may include, but are not limited to: existing drainage patterns, soil conditions, and compatibility with regulatory and environmental requirements.

Sites that pass preliminary screening may then be evaluated using a prioritization framework that can be applied to any public parcel with the potential for multi-benefit green infrastructure projects. The framework provides a scoring system intended to support relative comparison among sites based on factors such as consistency with this Green Stormwater Initiative Strategy Update and alignment with relevant local community plans and priorities. Sites with higher relative scores may be considered for advancement through appropriate planning, design, and implementation processes.

SAMPLE PRIORITIZATION INDEX

IMPACT CATEGORY	CRITERIA	SCALE
Co-Benefits	Potential for positive public visibility	1, 2, 3
	Aligns with goals from local plans and hyperlocal community-identified priorities	1, 2, 3
	Aligns with Climate Action Plan strategic measures*	1, 2, 3
	Potential to improve air quality	1, 2, 3
	Potential to reduce urban heat	1, 2, 3
	Amplifies the impact of other community benefit projects within project proximity	1, 2, 3
	SUBTOTAL - COMMUNITY BENEFIT IMPACT	**6–18**
Water Quality	Potential to filter water on-site	1, 2, 3
	SUBTOTAL - WATER QUALITY IMPACT	**1–3**
Water Quantity	Runoff volume management and/or on-site stormwater retention potential	1, 2, 3
	Runoff rate attenuation potential	1, 2, 3
	SUBTOTAL - WATER QUANTITY IMPACT	**2–6**
Implementation Feasibility	Lower level of regulatory requirements	1, 2, 3
	Simplicity of permitting	1, 2, 3
	Willingness of landowners for implementation	1, 2, 3
	Alignment with Dept/Agency CIP and other good-fit funding opportunities	1, 2, 3
	SUBTOTAL - IMPLEMENTATION FEASIBILITY	**4–12**
Maintenance Feasibility	Willingness of landowners to provide long-term maintenance	1, 2, 3
	Capacity of landowners for required long-term maintenance	1, 2, 3
	Relative replacement cost	1, 2, 3
	SUBTOTAL - MAINTENANCE FEASIBILITY	**3–9**
Scalability	Exemplifies a replicable approach to compliant stormwater management objectives	1, 2, 3
	Exemplifies a replicable approach to generating community benefits	1, 2, 3
	Exemplifies a project type that matches a high proportion of project opportunities (e.g., homeowners' associations, congregations, schools)	1, 2, 3
	SUBTOTAL - SCALABILITY	**3–9**
TOTAL SCORE		**19–57**

* Per 2022 Chicago Climate Action Plan: strengthen policies that support installation of green roofs and walls, tree planting, and other vegetative cover, integrate community resilience and climate justice criteria into department-level strategic planning and annual budget setting, resource community-led climate infrastructure projects, integrate community resiliency strategies with the City's hazard mitigation planning)

APPENDIX G

Maintenance Performance Metrics

Evaluating the effectiveness of green infrastructure maintenance is important for understanding operational needs and overall system functions. Clear, actionable performance metrics can support tracking of maintenance activities, inform future budget decisions, and clarify departmental roles and related responsibilities. City department stakeholders should guide the development of performance evaluation categories, compliance targets, and annual reporting. Performance measures may include both operational indicators and qualitative feedback, such as satisfaction survey results from nearby residents. The following categories provide examples for consideration:

METRIC	DESCRIPTION
Inspection Compliance Rate	Percentage of assets inspected within established inspection cycle (e.g., monthly, quarterly, or annually, depending on asset type).
Vegetation Health Index	Percentage of vegetated systems meeting defined coverage thresholds and species composition goals.
Observed Hydrologic Performance	Frequency of reported ponding, clogging, or other observable performance issues during or following rainfall events.
Community Satisfaction Index	Resident-reported feedback regarding visible condition and perceived performance of green infrastructure installations.
Asset Restoration	Percentage of assets with identified performance issues that have been restored to intended function through maintenance or corrective actions.

APPENDIX H

Maintenance Tasks for Each Green Infrastructure Typology

The maintenance tasks listed below represent general standard practice and should not be used prescriptively.

MAINTENANCE TASKS BY TYPOLOGY.

TYPOLOGY	MAINTENANCE TASKS	FREQUENCY & LIFECYCLE
Rain Garden	Remove trash, water/weed/prune vegetation, check soil infiltration, replenish mulch, inspect after storms	Monthly (Years 0–3), quarterly thereafter
Constructed Wetland	Remove debris, harvest/replant vegetation, sediment removal, outlet inspection, erosion control	Quarterly, sediment removal every 3–5 years
Bioswale	Remove trash, water/prune/weed vegetation, inspect inlets/outlets, sediment removal, erosion control	Monthly to quarterly, sediment removal every 3–5 years
Detention Basin	Trash removal, check for erosion, inspect outlets, sediment depth assessment	Quarterly to annual, dredge every 5–7 years
Green Alley	Trash removal, inspect joints, clean underdrains, erosion control	Monthly inspections, quarterly cleaning
Green Roof	Inspect drainage/waterproofing, clean debris, assess vegetation health, irrigation startup/blowout	Monthly during the growing season
Green Schoolyard	Trash removal, water/prune/weed vegetation, replanting, inspect drainage features, turf field maintenance, soil care	Monthly (Years 0–3), quarterly thereafter
Park/Green Space	Remove trash, soil amending, turf/bed management, erosion control	Monthly during the growing season
Green Street	Trash removal, water/prune/weed vegetation, inspect hardscape, check for frost damage	Monthly inspections, quarterly cleaning
Permeable Paving	Vacuum surface, inspect clogging, clean inlets, repair frost damage, weed vegetation in joints and add joint material as needed	Quarterly (Years 0–2), semiannual thereafter
Subsurface Storage	CCTV (closed-circuit television) camera inspection, flush/clean vaults, vacuum sediment, check filters, inspect after storms	Quarterly inspections, clean every 2–3 years
Street Tree	Trash removal, water/prune/mulch, inspect grates, root management	Quarterly (Years 0–5), annually thereafter
Rain Barrel	Clean inlets, inspect drainage features, winterization (drain/clean/store)	Monthly, annual winterization

Note: Frequency and importance were drawn from the City of Chicago's 2024 Stormwater Management Ordinance Manual best management practices (Appendix C: BMP Guidesheets) as well as routine maintenance tables from peer cities (Philadelphia Water, 2016).

APPENDIX I

Funding Opportunities

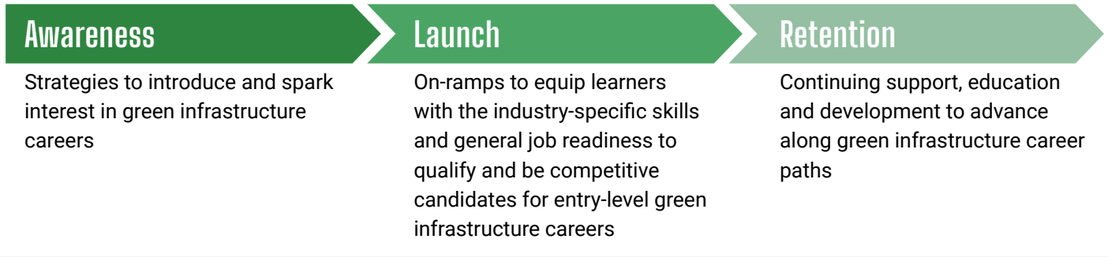
FUNDING SOURCES FOR FUTURE GREEN INFRASTRUCTURE INVESTMENTS

FUNDING OPPORTUNITY	DESCRIPTION	ASSESSMENT
Invest in Cook	Invest in Cook provides financial assistance to municipalities within Cook County to support the development of transportation projects. Funding can cover the cost of planning, engineering, right-of-way acquisition, and construction. Projects need to be consistent with Cook County's priorities, including promoting equal access to opportunities, maintaining and modernizing what already exists, and leveraging/increasing investments in transportation.	With roadways a preferred location for Chicagoans to see more green infrastructure in their communities, the IIC grant opportunity could be used to fund green infrastructure investments in the right of way.
Green Infrastructure Partnership Program (GIPP)	The Metropolitan Water Reclamation District's (MWRD) Green Infrastructure Partnership Program provides funding for a variety of green infrastructure projects that reduce flooding impacts on public property.	The GIPP program often funds roadway projects including permeable paving and subsurface storage on streets and alleys.
Sustain our Great Lakes (SOGL) Program	Funded through the National Fish and Wildlife Foundation (NFWF), the Sustain Our Great Lakes (SOGL) program seeks to improve and enhance stream, riparian, and coastal habitats as well as water quality in the Great Lakes and its tributaries. Funding priorities for the program focus on habitat restoration and natural areas, as well as green infrastructure expansion. Successful green infrastructure projects add significant (>100,000 gallons, for example) annual stormwater storage capacity and directly improve water quality through reduced runoff, have multiple co-benefits, and provide maintenance plans that cover the first 5-year establishment period.	The SOGL program's significant emphasis on habitat creation favors larger projects including constructed wetlands, conversion to natural habitat areas, and other green infrastructure projects that are bundled and/or connected to larger green infrastructure and habitat networks.
Green Infrastructure Grant Opportunities (GIGO) Program	Illinois EPA's Green Infrastructure Grant Opportunities (GIGO) program was created to fund projects that construct green infrastructure practices that prevent, eliminate or reduce water quality impairments by decreasing stormwater runoff into Illinois' rivers, streams, and lakes. This includes vegetated infiltration practices such as swales and bioretention basins, retention practices such as permeable pavers, detention pond and wetland creation, floodplain connections, rainwater harvesting, downspout disconnections, and more.	The GIGO program emphasizes stormwater that is removed from the system through infiltration, as well as projects in close proximity to a water body.
Five Star and Urban Waters Restoration Grant Program	Funded through the National Fish and Wildlife Foundation (NFWF), the Five Star and Urban Waters Restoration Grant Program funds local partnerships seeking to address water quality issues in priority watersheds. Funding priorities include on-the-ground wetland, riparian, in-stream and/or coastal habitat restoration, meaningful education and training activities, measurable ecological, educational and community benefits, and partnerships.	Given the significant emphasis on outreach and education, the program favors projects that involve diverse community partnerships and broad community engagement activities that include on-the-ground restoration work, such as best management practice (BMP) monitoring, invasive species removal, litter and debris cleanup, and tree and native species planting.
Chi-Cal Rivers Fund	Funded through the National Fish and Wildlife Foundation (NFWF), the Chi-Cal Rivers Fund is a public-private partnership program that funds nature-based solutions, habitat enhancement, stewardship activities and public-use improvements for waterways in the Chicago and Calumet region.	Several Chicago-area green infrastructure projects have been successfully awarded funding through this program. Projects with quantifiable metrics and matching funds are favored.
Safe Streets for All (SS4A) Program	U.S. Department of Transportation's (US DOT) Safe Streets for All (SS4A) Program is a competitive federal grant program that funds regional, local and Tribal projects that aim to prevent roadway fatalities and serious injuries. Eligible projects include Planning and Demonstration or Implementation Grants for comprehensive safety action plans (Action Plans).	With roadways a preferred location for Chicagoans to see more green infrastructure in their communities, Action Plans for roadway safety could explicitly include green infrastructure typologies as ways to improve roadway safety while also capturing and treating water where it falls.
Flood Mitigation Assistance (FMA) Grant Program	The Federal Emergency Management Agency's (FEMA) Flood Mitigation Assistance Grant Program is a competitive grant program that funds projects that reduce or eliminate the risk of repetitive flood damage to buildings and structures insured by the National Flood Insurance Program (NFIP) and with participating communities.	Previous grant awards have favored watershed, coastal or neighborhood scale nature-based solutions projects such as living shoreline, constructed wetlands and stormwater parks, and site-scale green infrastructure projects that are bundled and/or connected to larger green infrastructure and habitat networks.

APPENDIX J

Workforce Programs

To form a cohesive strategy that aligns with Chicago's equity goals and meets the demand for skilled professionals to implement green infrastructure, programs must be coordinated across the full spectrum of career development. Programs may be organized into three key stages of a career path to frame them from the perspective of participants: awareness, launch, and retention.



Awareness: Introductions to Green Infrastructure as a Career Opportunity

These programs can increase visibility of green infrastructure as an industry of interest for current and future jobseekers, including students and youth.

- **Greencorps Chicago Youth Program (GCYP)**
  GCYP is a scalable experiential learning program designed to empower urban youth with the knowledge, skills, and inspiration to build positive relationships with their peers, community and natural world. GCYP focuses on 3 core components: Youth Empowerment and Identity Development, Civic & Community Engagement, and Skill Acquisition and Career Exploration designed to increase exposure to and awareness of environmental careers and opportunities.
- **Current Water's Blue EDU**
  Current Water has compiled educational resources and lesson plans on a wide range of water topics for grades K-12 as part of their Great Lakes ReNew program, with a goal to build an inclusive blue economy in Illinois by 2030.
- **Chicago Conservation Corps (C3) Environmental Leadership Training**
  C3 equips participants with a broad understanding of urban environmental challenges and opportunities in five subject areas: water, air, energy, land and community organizing.

Launch: Paid Workforce Training Programs

The following are traditional workforce development programs featuring paid work-based learning experiences, skills relevant to green infrastructure installation and maintenance and a focus on addressing barriers to employment.

- **Greencorps**
  This 9+ month long job training program from the Chicago Department of Transportation offers hands-on training in green industry jobs and focuses on serving individuals facing employment barriers, including justice-involved individuals. Participants acquire certifications for First Aid/CPR, OSHA 10, HAZWOPER, Illinois Pesticide License and the Midwest Prescription Burn Class. This program is only for City of Chicago residents.
- **Openlands Arborist Registered Apprenticeship**
  A 3-year U.S. Department of Labor-approved apprenticeship focusing on arboriculture and urban forestry. Participants acquire certifications for First Aid/CPR, Openlands TreeKeeper certification, a commercial driver's license (CDL) and an Illinois Pesticide License. Among other requirements, participants must have a driver's license with a clean driving record.
- ***A Safe Haven Landscaping Registered Apprenticeship***
  This two-year U.S. Department of Labor-approved apprenticeship on landscape maintenance and safety focuses on serving individuals facing employment barriers, including those reentering the workforce or facing homelessness. The only entry requirement is a high school diploma or GED.

Retention: Continuing to Support a Green Infrastructure Workforce

These programs can support retention within and advancement along green infrastructure career paths toward increasing responsibility, higher wages, and possibly entrepreneurship.

- ***The National Green Infrastructure Certificate Program (NGICP)***
  MWRD is a founding partner of this program which provides the base-level skill set needed for entry-level work to install, inspect, and maintain green infrastructure. It differs from launch programs that provide paid working opportunities in that it is most appropriate for people who are already employed and seeking a formal, industry-recognized certificate.
- **OAI, Inc. – Green Infrastructure Maintenance Training Events and Technical Assistance**
  OAI, Inc., in partnership with MWRD and other organizations, have facilitated green infrastructure maintenance training events in Southland communities. These events focus on the basics of green infrastructure maintenance, tree care, and safety, providing practical knowledge for individuals involved in the upkeep of green infrastructure installations. OAI supports Southland municipalities to advance their current workforce through maintenance technical assistance and training around existing green infrastructure.
- ***National Recreation and Park Association (NRPA) – Green Stormwater Infrastructure Certificate Program***
  The NRPA offers an online, self-paced certificate program for park and recreation professionals, community partners, public works staff, and planners that covers the entire green infrastructure project lifecycle.
- **Mid-America Regional Council (MARC) – Green Infrastructure Maintenance Certification**
  This training is intended for professionals involved in green infrastructure facility maintenance, including a Maintenance Program Plan Inspection and Maintenance Field Guide.

APPENDIX K

Case Studies

Growing Greener with Space to Grow

CHICAGO, IL

Space to Grow transforms Chicago schoolyards into vibrant places for students, neighborhoods, and the environment.

Space to Grow is a Chicago-based initiative that transforms underutilized schoolyards into beautiful, functional spaces that help reduce neighborhood flooding. Funded by CPS, DWM, and MWRD, it has opened 41 green schoolyards since 2014, with 4 currently in design. The program's impact has exceeded expectations, serving over 36,000 students, families, and community members (HSC, 2025).

Critical to this success is the program's public-nonprofit partnership model. Capital partners including CPS, DWM, MWRD, and DOE, provide funding, leadership and technical expertise, while Healthy Schools Campaign manages the partnership. Healthy Schools Campaign and co-founding partner, Openlands, also lead the program's participatory design process, community engagement efforts and provide tailored school support.

Through Space to Grow's participatory design process, which is a program cornerstone, program staff work with the entire school community to design each schoolyard. Students, school staff, parents, caregivers and community members participate in an iterative design process where they provide input, share their vision and help refine the design through every stage of the project. Space to Grow's approach reflects the program's belief that no one knows the needs of the community better than the people who live, learn, work and play there, demonstrating how community-centered, multi-sector collaboration can drive lasting change (HSC, 2025).

SCHOOLYARD SPOTLIGHT

Opened in the summer of 2018, Space to Grow's schoolyard project at Nathan S. Davis Elementary School features a new turf field, age-appropriate play equipment, edible garden beds from Big Green Chicago, an outdoor classroom, benches, rain and native gardens, and basketball courts. Elements such as permeable rubber play surfaces, newly planted trees and shrubs, rain gardens by the school's entrance, and perennial native gardens, help to infiltrate approximately 647,369 gallons of stormwater each year.

Today, the schoolyard serves as an active community space and is frequently used by a parent gardening and cooking club, and the Brighton Park Neighborhood Council.

Space to Grow helped transform Nathan S. Davis Elementary's schoolyard with green infrastructure. *Credit: Space to Grow*

INSIGHT

Consider establishing and emulating the Space to Grow partnership model in other green infrastructure programs to maximize impact.

BY THE NUMBERS

- **7 million gallons** of water captured every time it rains
- **1,469,400 square feet** transformed into park and green space
- **650,078 square feet** of permeable surface added
- Over **10,000 students** engaged in hands-on, nature-based education and lessons
- **900+ teachers** provided with knowledge and resources to integrate schoolyards into teaching
- Average annual maintenance cost is approximately **$118,800**
- Community Co-Benefits:
  - Curb Appeal / Beautifying Property
  - Development of Community Gathering Space

Civic Facility Amplifies Sustainable Design with Green Infrastructure

CHINATOWN, CHICAGO, IL

The Chinatown Library Green Roof models how green infrastructure benefits civic facilities.

Built in 2015, the Chinatown Library has been hailed as a model for how civic facilities can serve diverse community members as well as amplify sustainable design. The LEED Platinum building employs concepts from Feng Shui into its design and includes a green roof and permeable pavement to manage stormwater on site. Fleet and Facility Management (2FM) funds the upkeep of these features, but CDOT is responsible for contracting and managing the maintenance.

BY THE NUMBERS

- **Total maintenance costs are unknown.** Green infrastructure maintenance costs are not itemized within 2FM annual landscape budget
- **$825,000** total 2FM landscape budget for 2025
  - **$60,000** goes toward green roof maintenance
  - **$40,000** funds GreenCorps' budget for the Chicago Center for Green Technology site and additional 7 years of maintenance under the program.

Chinatown Green Roof. *Credit: 2FM*

INSIGHT

Tracking the maintenance required for a few specific projects within the 2FM project portfolio may be helpful to estimate an adequate maintenance budget for current green infrastructure assets.

Diversey Natural Area

LINCOLN PARK, CHICAGO, IL

Diversey Natural Area. *Credit: Chicago Park District*

Over 3 acres of nature in Lincoln Park.

In 2021, the Chicago Park District naturalized a 1.5-acre detention basin and 1.8-acre prairie in an often-flooded area of Lincoln Park. The project included an installation of new tree plantings, natural area seeding, picnic tables and a new artificial turf field with goal posts.

In addition to providing natural habitat, the project improves infiltration in the area due to deep native plant roots and boasts lower maintenance costs compared to typical turf grass. The annual maintenance costs for these restored areas are estimated to be $26,000 by the Chicago Park District. This includes an estimated $0.25/sf annual maintenance costs, including bi-weekly maintenance visits April through November that include invasive species management, litter removal, prescribed burns, and supplementary seeding when necessary. These costs are within the range of typical costs for natural planting and detention basin costs ($0.18-$0.41/sf) and, notably, are lower than the ~$0.50/sf low-end cost of managing turfgrass.

BY THE NUMBERS

- **3.3 acres** of natural area
  - **$108,000** construction cost in 2021
- **$24,369** annual maintenance budget
- Site maintenance: **2.3 acres** (100,188 sf)

INSIGHT

Natural areas in parks provide opportunities to keep maintenance costs low while managing stormwater and improving spaces for both people and animals.

Investing in a Greener Chicago Through Neighborhood Projects

CHICAGO, IL

Jardin Malinalli. *Credit: City of Chicago*

The Climate Infrastructure Fund supports neighborhood projects that mitigate climate change through infrastructure investments.

The Climate Infrastructure Fund is a program through the City of Chicago that seeks to help achieve the City's Climate Action Plan goal of reducing greenhouse emissions by 62% by 2040. The program supports nonprofit organizations and small businesses with projects that help to mitigate the impacts of climate change and accelerate Chicago's transition to a green economy. Eligible project types include renewable energy and energy efficiency projects, electric vehicles and EV charging infrastructure and green infrastructure. Eleven green infrastructure projects were selected through the 2023 application cycle, totaling around $2.2 million in investment in green infrastructure across the City.

Projects include Jardin Malinalli at the National Museum of Mexican Art and the Pullman Peace Garden. Located in South Lawndale (also known as Little Village), Jardin Malinalli will construct a green infrastructure garden space. Improvements include permeable pavement, rain barrels, native plants and a rain garden.

In Pullman, the Historic Pullman Empowerment Organization received a grant to add permeable paving, native plants, pollinators, rainwater harvesting and solar power to the local Pullman Peace Garden. These and other projects will help to mitigate localized flooding while supporting beautiful, engaging community spaces.

BY THE NUMBERS

- **11** green infrastructure grants awarded
- **$2.2 million** invested in green infrastructure
- Project awards: **$50,000 to $250,000**

INSIGHT

Consider continuing to fund this program as a way to showcase community-led projects, and provide five years of maintenance funding as part of the grant.

Green City, Clean Waters

PHILADELPHIA, PA

A 25-year incentive program to reduce CSOs using primarily green infrastructure as well as traditional infrastructure to restore local waterways and deliver community, environmental, and economic benefits.

Initiated in 2011, Green City, Clean Waters was considered novel for its environmental approach to meeting state and federal water quality standards, while addressing CSOs in the city. The Philadelphia Water Department (PWD), which supplies drinking water, wastewater and stormwater services (including wastewater treatment) to customers within Philadelphia, leads the initiative. Support is provided by a multitude of partners, such as city departments (e.g., Philadelphia Parks and Recreation and the Streets Department), the Pennsylvania Department of Environmental Protection and the U.S. EPA, various non-profits, private developers, and community organizations. This multi-sector collaboration is central to the program's governance.

The program incentivizes private investment and widespread implementation through mechanisms, such as stormwater fee discounts, grants for GSI retrofits (e.g., the Stormwater Management Incentives Program), and development requirements that mandate on-site stormwater management. Funding is largely derived from water/sewer fees, which are structured to include stormwater charges based on impervious surface area. In addition, the city has leveraged federal and state grants, low-interest loans, and public-private partnerships to support implementation.

Ribbon cutting ceremony for a new green space. *Credit: Philadelphia Water Department*

INSIGHT

As the provider of both wastewater and stormwater services, and wastewater treatment, PWD has aligned incentives to treat water where it falls. Water captured on-site requires less cost to transport and treat. In the Chicago region, the City and MWRD can work together to develop creative solutions that can achieve shared goals. The City's stormwater fee offers a potential model and lessons learned for generating a sustained funding source for stormwater infrastructure improvements.

BY THE NUMBERS

- **Targets (by 2036):**
  - 9,564 acres of impervious cover managed with green infrastructure
  - 85% reduction in CSO volume
- **Progress (as of 2022):**
  - Over 3,300 greened acres managed
  - 2+ billion gallons/year stormwater runoff managed
  - 500+ green infrastructure sites completed or under construction
  - Hundreds of local construction and maintenance jobs
- **Annual Expenditures/Projects:**
  - ~$60–80 million/yr by PWD
  - ~100–150 green infrastructure projects/yr

The Coalition for Climate Careers (C3)

KING COUNTY, WA

C3 convenes regional stakeholders across sectors to facilitate dialogue on workforce challenges and opportunities, mitigating siloed strategies to align workforce supply and demand.

The Coalition for Climate Careers (C3) was initiated in 2023 through a partnership between the King County Executive Climate Office, the City of Seattle and the Port of Seattle as a collaborative platform to connect frontline communities—especially BIPOC and low-income residents—to living-wage green job opportunities. By bringing together government, labor, employers, education, and community-based groups, C3 focuses on policy guidance, funding coordination, and community engagement to ensure training programs and hiring pathways are equitable and responsive to climate priorities.

Members and the Executive Steering Committee meet biannually to shape strategy, share resources, and fund workforce projects—backed by combined public and private investment. C3 emerged from the momentum of King County's Climate Equity Community Task Force and benefits from strong institutional support across multiple jurisdictions. Early lessons highlight that centralized coordination paired with frontline community leadership can strengthen alignment across disparate green workforce efforts and fund equitable initiatives at scale.

C3 convening. *Credit: King County*

KEY ELEMENTS

- **Early actions:** Initiatives include sponsoring and organizing large-scale community events showcasing the green economy and funding and scaling high-quality workforce development projects and programs throughout King County and the Puget Sound region.
- **Cross-sector collaboration:** C3's Executive Steering Committee is uniquely composed of stakeholders from across the ecosystem—including labor, education, workforce agencies, community-based organizations, philanthropy and industry—enabling coordination that reflects both employer needs and community priorities.

INSIGHT

The Coalition for Climate Careers stands out for its intentional centering of industry leadership alongside community voice. By convening employers, labor, educators, funders, and policymakers, it functions as a regional intermediary that strengthens alignment between workforce supply and industry demand—laying the groundwork for a professionalized, equitable workforce.

PowerCorps PHL

PHILADELPHIA, PA

PowerCorpsPHL integrates environmental service with workforce development, providing underserved youth with pathways to sustainable careers in green infrastructure and public utilities.

Established in September 2013, PowerCorpsPHL is a workforce development initiative operated by EducationWorks in partnership with AmeriCorps and the City of Philadelphia. Targeting 18- to 30-year-olds who are out of school or work, the program offers a paid, immersive experience lasting from four to 24 months. Participants engage in environmental stewardship projects, focusing on GSI, urban forestry, and energy sectors. Through hands-on service and training, members develop skills that lead to living-wage jobs in both public and private sectors.

PowerCorpsPHL collaborates closely with the Philadelphia Water Department (PWD) and other industry partners to align training with workforce needs. The program's GSI Academy prepares participants for roles in maintaining the city's green stormwater infrastructure, while also serving as a pre-apprenticeship pipeline for skilled trades within water operations.

Beyond technical training, PowerCorpsPHL provides comprehensive support services, including mentorship, career coaching, and assistance with transportation and work gear. The program emphasizes inclusivity, actively recruiting individuals impacted by gun violence, the foster system, or the criminal justice system.

INSIGHT

PowerCorpsPHL demonstrates how integrating environmental service with targeted workforce development can create equitable career pathways while addressing urban sustainability challenges.

PowerCorpsPHL team members clearing invasives, preparing the site, and planting a riparian buffer. *Credit: PowerCorps PHL*

KEY ELEMENTS

- **Meeting workforce demand:** 70% of PWD's apprenticeship positions have been filled by PowerCorpsPHL alumni.
- **Justice in focus:** Lower recidivism rate among participants—8% compared to the citywide average of 45%.
- **Certifications offered:**
  - OSHA 10
  - First Aid/CPR
  - Chainsaw Safety
  - NCCER Core

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