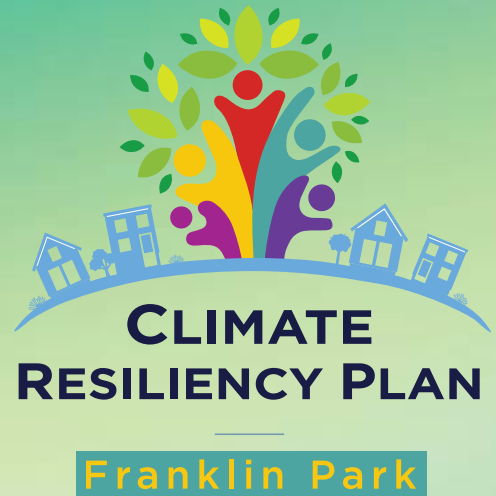


Franklin Park

CLIMATE RESILIENCY PLAN



COOK COUNTY
DEPARTMENT OF
Environment &
Sustainability

Geosyntec
consultants

METRO
STRATEGIES
group



Franklin Park Climate Resiliency Plan



Contents

E.1. Executive Summary.....	E-1
Acronyms.....	i
Key Terms.....	ii
1. Introduction.....	1
2. Community Background.....	2
2.1. Economic and Development Trends.....	3
2.2. Environmental and Health Challenges.....	3
2.3. Priorities and Challenges.....	3
2.4. Current Infrastructure Initiatives.....	3
2.5. Community Engagement Priorities.....	4
3. Current and Projected Climate Hazards.....	5
3.1. Precipitation.....	6
3.2. Flooding – Urban.....	7
3.2.1. Addressing Historical Flooding Impacts.....	8
3.2.2. Projected Mid-Century Increases in Flooding.....	11
3.3. Heat.....	15
3.4. Wind.....	16
3.5. Economic Impact of Climate Hazards.....	17
3.6. Hazard Mitigation Measures.....	18
4. Community Climate Concerns, Visioning and Resilience Goals.....	25
4.1. Community Engagement Plan.....	26
4.2. Community Engagement Feedback.....	26
4.2.1. Municipal Workshop #1.....	27
4.2.2. Stakeholder Interviews.....	27
4.2.3. Focus Group Meetings.....	28
4.2.4. Municipal Workshop #2.....	28
4.2.5. Pop-Up Meetings.....	28
4.2.6. Municipal Workshop #3.....	30
4.2.7. Open House.....	31
4.3. Community Priorities.....	32
4.4. Cook County 2024 Hazard Mitigation Plan.....	32
4.5. Community Vision and Resilience Goals.....	32
5. Building a Climate Resilient Community.....	34
5.1. Community Focus Areas.....	35
5.1.1. Focus Area 1 – Mannheim Road & Crown Road.....	35
5.1.2. Focus Area 2: Grand Avenue.....	38
5.1.3. Focus Area 3: Pacific Avenue.....	41

Franklin Park Climate Resiliency Plan



5.1.4.	Focus Area 4: Gouin Park	43
5.2.	Climate Resilience Adaptation Pathways	44
5.3.	Strategies for a Climate Resilient Franklin Park.....	48
5.3.1.	Strategy #1: Address Urban Forest and Heat Islands	48
5.3.2.	Strategy #2: Implement Distributed Green Infrastructure	49
5.3.3.	Strategy #3: Promote and Restore Key Economic Corridors through Sustainability.....	49
5.3.4.	Strategy #4: Continue Education and Outreach Programs to Residents and Businesses	50
5.3.5.	Strategy #5: Upgrade Village Stormwater Infrastructure	51
5.3.6.	Strategy #6: Floodplain Management	51
5.4.	Project Prioritization	52
6.	Roadmap for Climate Resiliency	54
6.1.	Continued Program Support – Climate Smart Communities Initiative.....	54
6.2.	Phase II of Cook County Climate Resiliency Project.....	54
6.3.	Developing a Funding Strategy	54
6.4.	Developing a Funding Matrix	57
6.4.1.	Funding for Stormwater Management Projects.....	57
6.4.2.	Funding for Open Space, Parks and Recreational Facilities	60
6.4.3.	Funding for Transportation and Mobility Improvements	61
6.4.4.	Other Potential Sources of Financial or Technical Assistance	65
7.	References.....	65

Figures

Figure 1: Existing Land Use Map (Source: Franklin Park Comprehensive Plan)	2
Figure 2: Problem Spots in Franklin Park.....	6
Figure 3: Stormwater Detention Pond at Addison Avenue and Wolf Road.....	9
Figure 4: Silver Creek Canal Flood Mitigation Project	9
Figure 5: MWRD Funded Rain Garden on Pacific Avenue.....	10
Figure 6: Mapped FEMA 0.2% Floodplain (Zone X) and the 1% Floodplain and Regulatory Floodway (Zone AE) in Franklin Park.....	11
Figure 7: Potential Increase in Ponding Depth for Franklin Park at 2050 During the 10-Year Storm Event	13
Figure 8: Potential Increase in Ponding Depth for Franklin Park at 2050 During the 100-Year Storm Event.....	14
Figure 9: Impervious Surface Cover.....	16
Figure 10: Community Engagement Plan	26
Figure 11: Open House Discussion of Appropriate Resilience Solutions.....	31
Figure 12: Illustration of the process for developing community goals	33
Figure 13: Overview of Franklin Park Focus Areas	35
Figure 14: Overview of Focus Area 1.....	36
Figure 15: Modeled Flood Inundation and Depth for Focus Area 1.....	37
Figure 16: Vacant Lot at Schiller Blvd & Houston St, Diagram of a Pocket Park over an Underground StormTrap®	

Franklin Park Climate Resiliency Plan



(Image Courtesy of Google Earth, 2025 and www.stormtrap.com)	38
Figure 17: Grand Avenue Overview	39
Figure 18: Example Green Street.....	40
Figure 19: Overview of Focus Area 3	41
Figure 20: Rain Garden Implemented through MWRD Program	42
Figure 21: Overview of Focus Area 4	43
Figure 22: Gouin Park with Modeled Flood Depth and Inundation for the 10-Year Event	43
Figure 23: Example Bioswale Planting Strip	44
Figure 24: Sample Adaptation Pathway	45
Figure 25: Franklin Park Adaptation Pathway	47

Tables

Table 1: Climate projections for Cook County return period precipitation totals. Precipitation totals represent the 50th percentile of the highest modeled 6 km × 6 km grid cell precipitation total in Cook County.....	7
Table 2: Stormwater Management Implementation Scenario to Detain Potential Increases in Ponding Depth	12
Table 3: Climate projections for Cook County return temperature and heat wave variables. Values represent the 50th percentile modeled averages across Cook County.....	15
Table 4: Expected Annual Loss (\$ in Millions)	17
Table 5: Risk Adjusted EAL.....	18
Table 6: Summary of Mitigation Measures for Climate Impacts and the Potential Co-benefits	19
Table 7: Project Prioritization Framework	53
Table 8: Sample Funding Chart	56

Charts

Chart 1: EAL Summary	18
Chart 2: Weather Impacts Breakout by Pop-Up Event	29
Chart 3: Compiled Weather Impact Response	29
Chart 4: Solutions Supported Breakout by Pop-Up Event.....	30
Chart 5: Compiled Solutions Supported Responses	30

Appendices

Appendix A Future Climate Analysis
Appendix B Historic Rainfall Analysis
Appendix C Economic Impact Analysis
Appendix D Engagement Summaries
Appendix E Solution Fact Sheets
Appendix F Focus Areas
Appendix G Project Prioritization

Franklin Park Climate Resiliency Plan



E.1. Executive Summary

The Village of Franklin Park (Village) partnered with the Cook County Department of Environment and Sustainability (CCDES) to develop a comprehensive Climate Resiliency Plan (CRP) through the Climate Resiliency Planning for Communities program, which helps communities develop individualized climate resiliency plans relevant to their needs. This CRP will help the Village identify projects to prepare for climate-related impacts and serve as an educational tool on climate hazards and potential impacts.

The CRP was developed through an inclusive, community-driven approach. It involved active participation from residents, volunteer groups, institutions, businesses, and both municipal and county staff. This collaborative effort assessed current impacts, established goals and prioritized actions to mitigate hazards and enhance the community's resilience.

Community Background

Franklin Park is nestled between I-294, O'Hare International Airport, and the Bensenville Intermodal Railway Terminal, providing the perfect location for expansive industrial and manufacturing businesses to flourish. Historically, it is considered an economic engine for the region due to the sea of warehouses and factories.

Due to this industrial past, Franklin Park is susceptible to stormwater flooding, heat island impacts, and air quality issues from the amount of impervious surfaces present in the community. The lack of green space for aesthetics and mental health benefits is also an issue faced by residents of this community.

The community's primary priorities identified by stakeholders include addressing frequent flooding and stormwater management issues; mitigating the effects of urban heat islands; establishing a tree planting program, establishing landscaping and tree management policies and programs; expanding implementation of green infrastructure and decreasing impervious surfaces; enhancing public education initiatives; and promoting the use of green infrastructure and tree planting on private property within the Village.

Current and Projected Climate Hazards

Local governments are increasingly facing impacts from climate change, which are projected to worsen through the end of the 21st century and beyond. These impacts include larger, longer, more intense precipitation events, increasing atmospheric temperatures, extreme storm events, and poor air quality. Climate hazards can create cascading impacts across interconnected systems, adding stress to critical infrastructure requiring better planning and holistic approaches; communities cannot simply attempt to fix every individual problem when they see them.

The Village of Franklin Park, like many communities in the Midwest, is vulnerable to the impacts of climate hazards such as precipitation and flooding, extreme heat, and wind. Through the community engagement process, Village staff and residents identified specific areas in the community that either currently experience climate hazards or are locations where climate-resilient measures could be implemented. See Figure E-1 for the problem and opportunity areas identified by the community during engagement efforts.

Franklin Park Climate Resiliency Plan

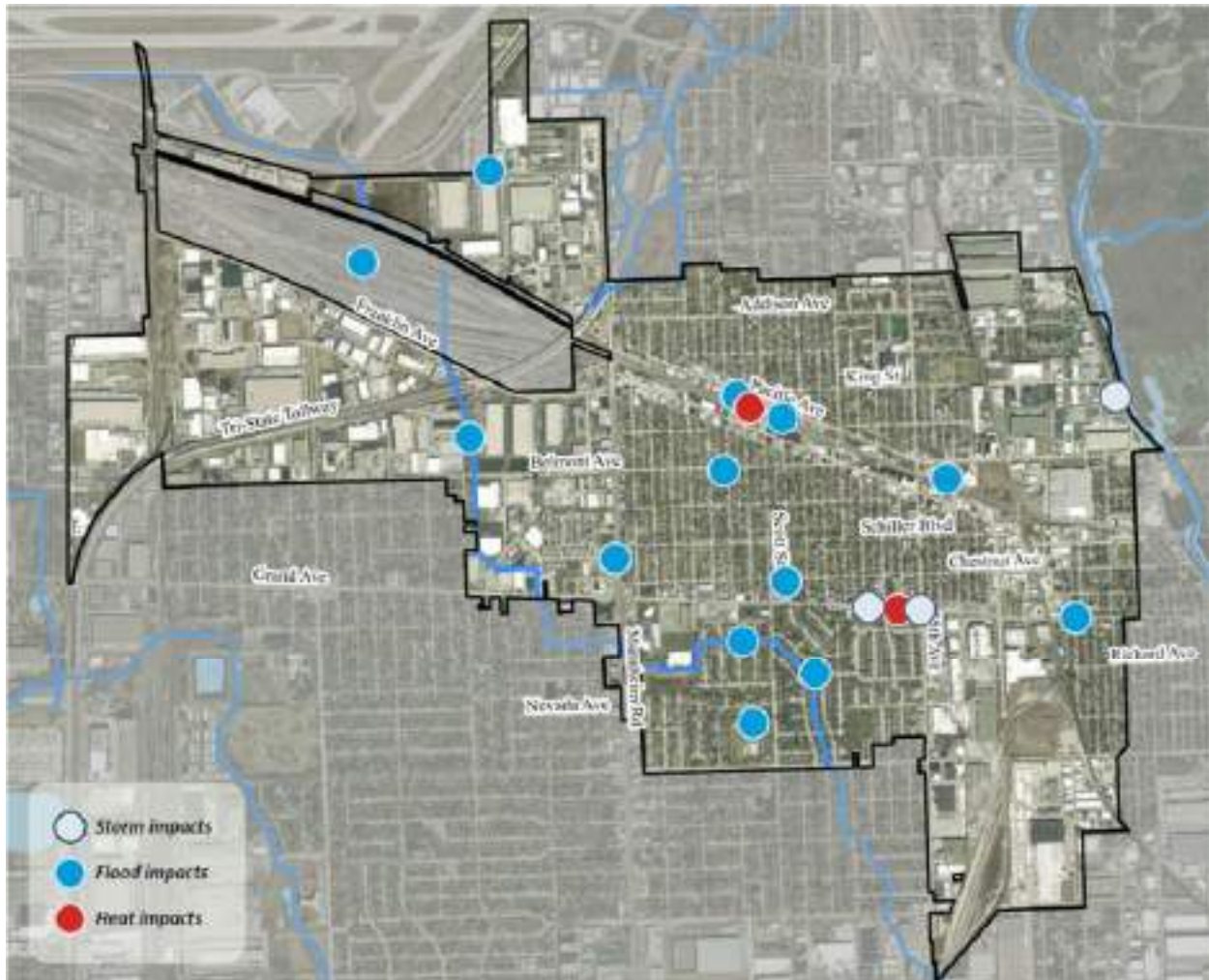


Figure E-1: Community Engagement Identified Problem and Opportunity Areas in Franklin Park

Precipitation and Flooding

Extremes in precipitation (rain and snow) are the most likely local outcomes of a changing climate. In the last 15 years, seasonal trends have shown increased rainfall during the summer months. Since 2017, the frequency of stretches with consecutive rainy days has increased by about 3.5 days. Consecutive rainy days can cause the ground to become saturated from the first storm, leading to an increased risk of flooding as more rain falls with nowhere to infiltrate.

In Cook County, high-intensity storms are likely to become more common. Daily rainfall depths are not projected to change measurably for a 2-year storm (50% chance of occurring in any given year). However, depths are projected to increase by 6% for the 10- and 25-year storms (10% and 4% chance of occurring in any given year, respectively). Chart E-1 provides a summary of how rainfall is projected to change under two different climate change scenarios: moderate (SSP2-4.5) and severe (SSP5-8.5). These increases can be significant for stormwater systems that currently flood during smaller storms.

Franklin Park Climate Resiliency Plan

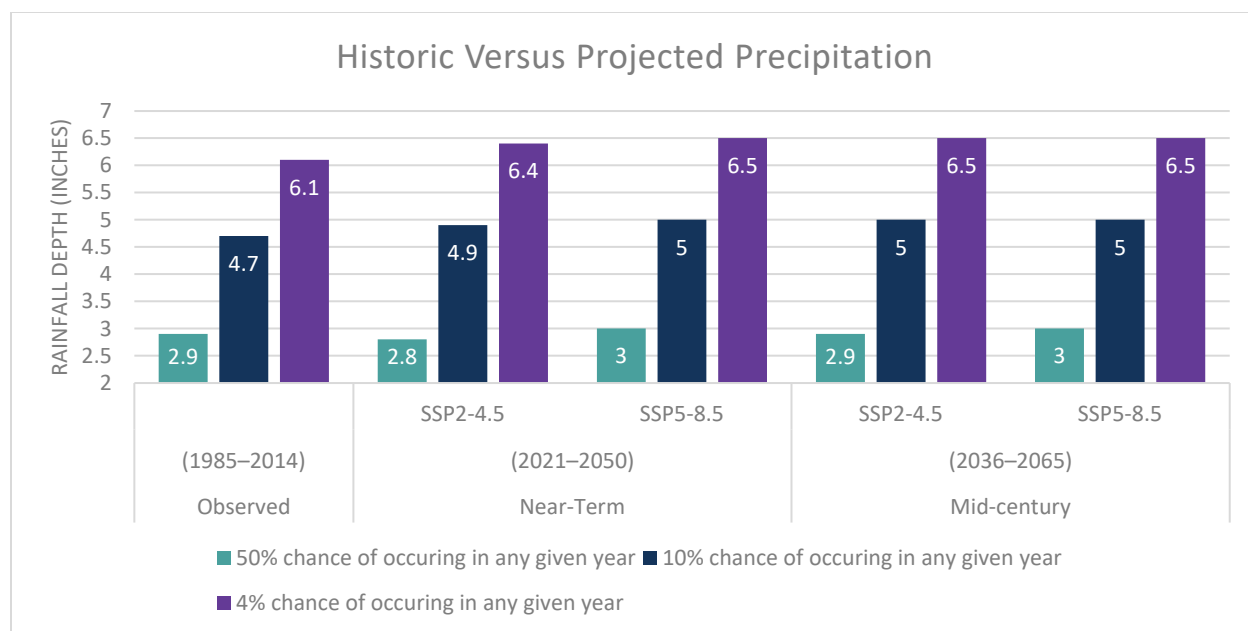


Chart E-1: Cook County Precipitation Projections for Return Periods Under Moderate (SSP2-4.5) and Severe (SSP5-8.5) Climate Change Scenarios

The Village is mostly developed with very limited space for new development and 67% impervious surfaces. Large swaths of highly urbanized areas within the industrial/commercial business corridors form a big part of the community's economic fabric. These concentrated impervious areas have historically exacerbated stormwater flooding in Franklin Park. The Village is proactively working to address flooding concerns through various stormwater management best management practices and green infrastructure implementation. Through the community engagement process, locations of flooding concerns were identified, mostly coinciding with major overland stormwater flow paths

Planning and coordination will become especially critical as future changes result in increased rainfall. Locations that currently experience flooding issues could experience more severe issues, while problems could also emerge at additional locations. Figure E-2 shows what areas in the community are more likely to see an increase in ponding during a storm with a 10% chance of occurring in a future year (the 10-year storm event) if stormwater infrastructure cannot accommodate increases in rainfall depths. By the year 2050, climate change could create 114 acre-feet of additional ponding throughout the community during the 10-year event. Projections suggest that, by mid-century, a 10-year storm event could increase the excess stormwater runoff to fill one football field with approximately 87 feet of water.

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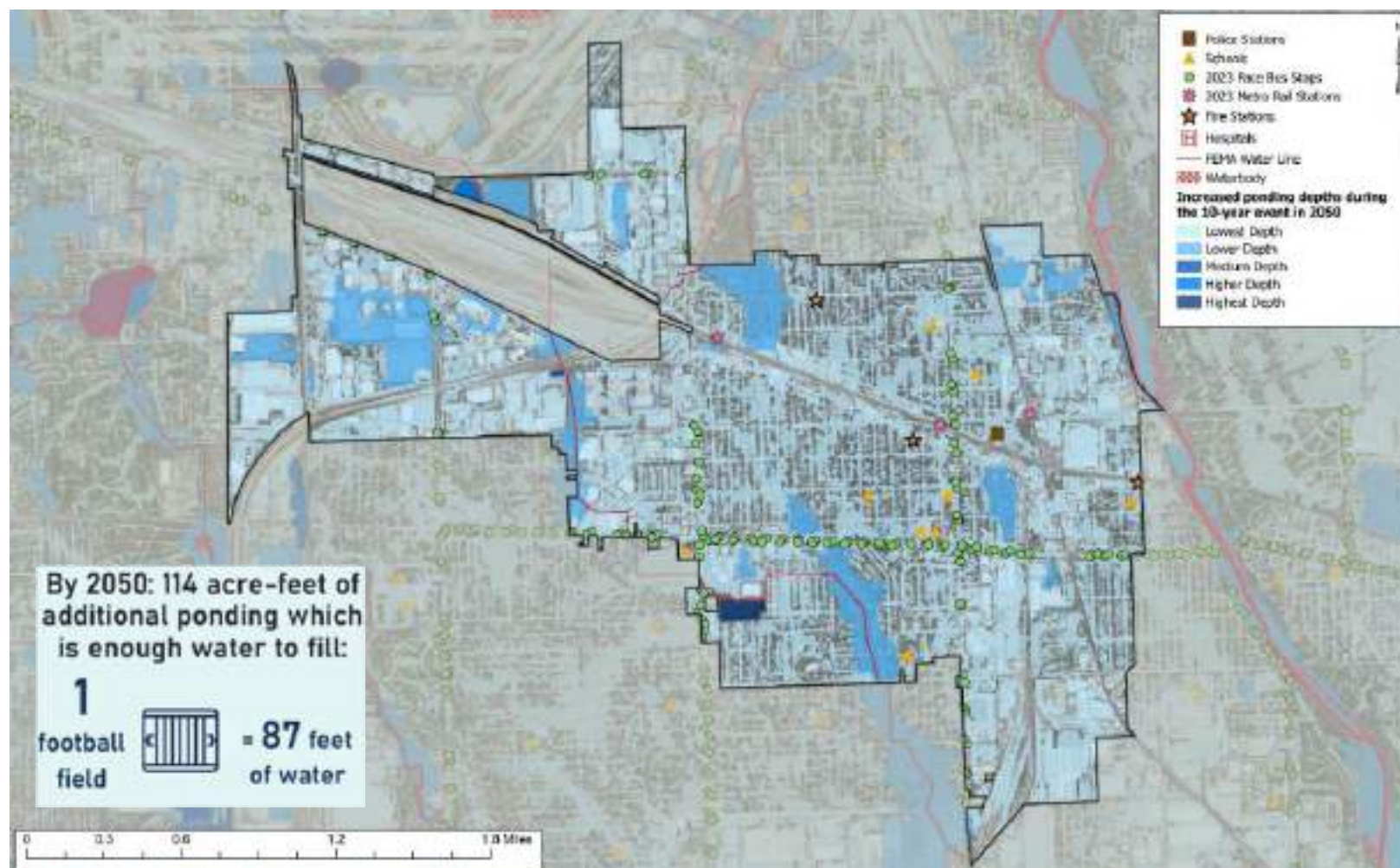


Figure E-2: Potential increase in ponding depth for Franklin Park in 2050 during the 10-year storm event

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Extreme Heat

Cook County has historically seen significant impacts from extreme heat. Extreme heat severely impacts human health, particularly vulnerable populations. Extended exposure to temperatures nearing 90 °F becomes acutely dangerous, particularly as humidity increases. Cook County might be near these dangerous temperature thresholds more frequently in the future and have more prolonged exposure to heat waves. Chart E-2 shows the projected increases in both the hottest days and nights, which could be especially pronounced by midcentury in the higher emissions scenario. The frequency of heat waves, defined as three or more consecutive days with a maximum temperature of 90°F or above, is projected to increase from two per year to five or six per year by mid-century. Additionally, the longest duration of heat waves is projected to increase from four days to nine to eleven days by mid-century.

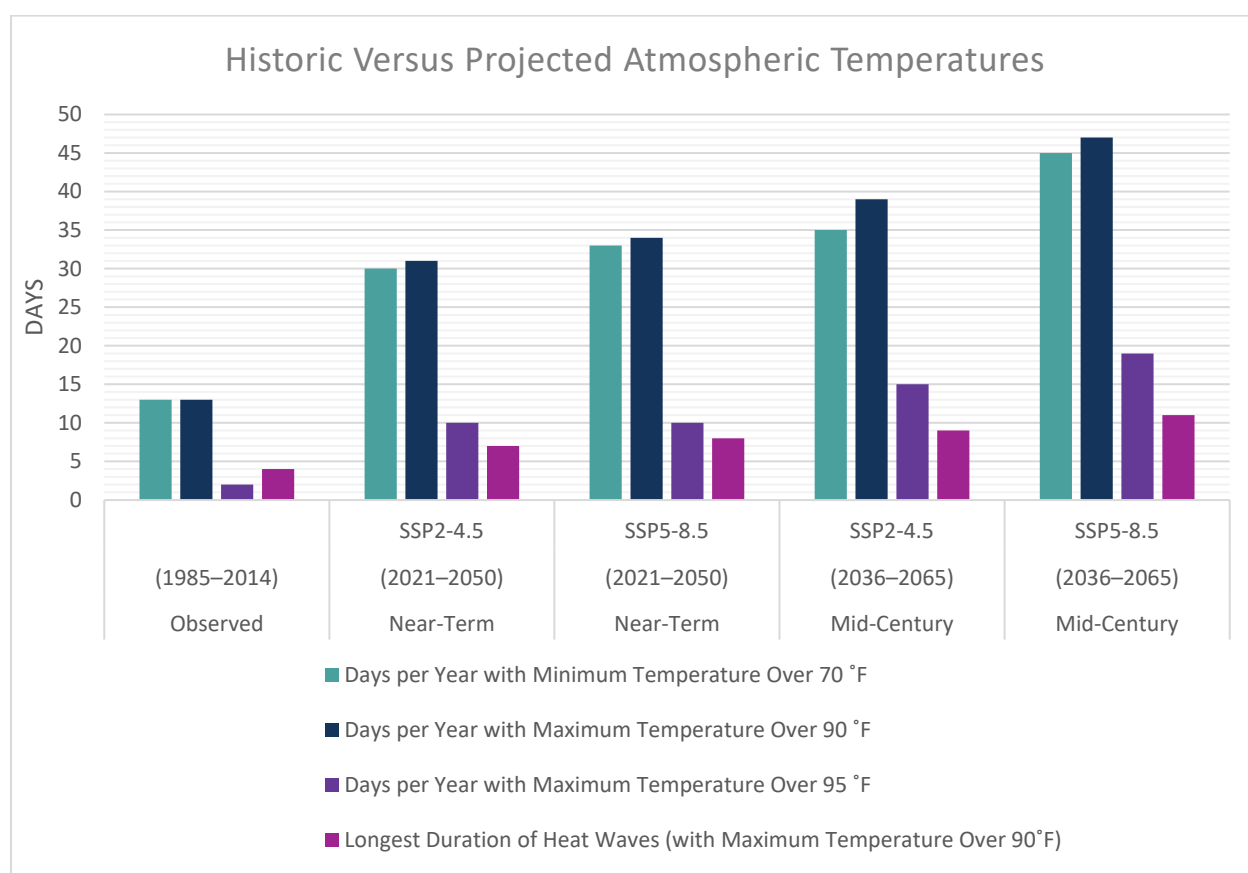


Chart E-2: Climate projections for Cook County temperature and heat wave variables

Extreme Winds and Wind Gusts

In Cook County, extreme wind speeds and wind gusts have the potential to cause substantial physical damage, from downed trees and utility poles leading to power outages to structural damage to residential and commercial buildings. Average wind speeds are not projected to change much due to climate change, but the most intense gusts could become more frequent and stronger by the mid to late 21st century. Additionally, preliminary studies suggest conditions may become more favorable for thunderstorms and other high-wind events, possibly extending the severe thunderstorm season.

Franklin Park Climate Resiliency Plan

Community Concerns, Visioning and Resiliency Goals

Franklin Park's CRP was developed through a community-driven engagement effort that included three rounds of engagement at key stages of the planning process, as depicted in Figure E-3. Each round of engagement built on previous efforts to help develop a community vision, goals and plan recommendations. The engagement process ensured that Village staff, residents, businesses, and other stakeholders, including key resident groups, community organizations, and local leaders had the opportunity to:

- Voice their top priorities, concerns, and issues
- Generate ideas for outcomes, solutions, and projects
- Provide feedback for the draft vision and goals and recommendations
- Help prioritize recommendations



Figure E-3: Community engagement planning timeline

Community priorities gathered through the engagement process highlighted top climate concerns and opportunities:

- Community priorities gathered through the engagement process highlighted top climate concerns and opportunities:
 - Storm- and flood-water management issues: residents and municipal staff have reported the need for more pervious surfaces and green space within the community, incorporating stormwater management and reducing urban heat island impacts.
 - Maintenance of green infrastructure on private property: Village staff has the capacity to maintain green infrastructure on public property but is concerned about implementation and maintenance on private property.
 - Urban heat islands: tree planting with diverse species and in multiple locations throughout the community has been identified as a priority for improving aesthetics as well as reducing heat island impacts.
 - Extreme heat and cold spells: the Village seeks to ensure students, businesses, and residents have access to safe living conditions during extreme heat and cold spells.
 - Sustainable economic development: municipal staff emphasized engaging private property owners in reducing impervious surfaces through incentives, fee reductions, and other programmatic options.
 - Public education: Village staff seeks capacity-building resources for future resiliency projects and guidance on engaging an educating the community about smaller-scale resiliency opportunities.

Franklin Park Climate Resiliency Plan

The community engagement effort where specific inputs and feedback were gathered helped to formulate a vision statement and establish climate resilience goals for the Village:

Vision Statement

As a burgeoning economic hub and certified Bee City, Franklin Park is the Village that Produces in more ways than one. Its convenient location along I-294 and the Metra, with easy access to O'Hare and downtown Chicago, makes the Village a prime spot for business, infrastructure, and transportation that will stand the test of time. Franklin Park is committed to protecting its diverse and vibrant community from the impacts of climate change and is taking concrete steps towards building a safe, sustainable, future.

Community Resilience Goals

Engage the community with resilience efforts by launching educational initiatives on climate and sustainability.

Increase greenery and tree canopy to help mitigate the urban heat island effect, improve air quality, increase resilience to flooding, and make Franklin Park a sustainable, lush, and vibrant city.

Sustain Franklin Park's reputation of safety and educational excellence by promoting climate-resilient retrofits and practices for schools.

Add natural vegetation to the CBD and facilitate working sessions with the train operators to generate win-win solutions to reduce congestion and dangerous heat produced by idling trains and vehicles.

Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.

Projects, Prioritization and Implementation

The community engagement process identified specific locations with climate hazard concerns and opportunities for implementation, especially those that reduced impervious land cover. Clusters of these locations (a.k.a. focus areas) were assessed using publicly available information, and a list of recommended projects was developed for each focus area. Below is a list of the focus areas, while Figure E-4 shows the locations of the focus areas in Franklin Park.

Focus Area 1: Flooding at Mannheim Road and Crown Road

This was identified as the last major street flooding area in Franklin Park. Municipal staff noted the cause is likely due to outflow of the storm sewer system into Silver Creek causing a backwater effect into the storm sewer system when Silver Creek is high, not allowing storm flow to exit the system. Due to the developed nature of the area and the location of a vacant Village-owned parcel at the corner of Houston Street and Crown Road, the recommendations for this area include underground stormwater storage and pocket park at the vacant parcel, permeable pavement in the alleys in the tributary drainage area, and bioswale planting strips in the right-of-way along Houston Street.

Focus Area 2: Grand Avenue

The Grand Avenue Corridor is one of Franklin Park's main economic thoroughfares and a focus for the community to make more vibrant and pedestrian friendly. Franklin Park is working with the Chicago Metropolitan Agency for Planning (CMAP) to create the Grand Avenue Corridor Plan to increase green space, decrease impervious surfaces, increase economic development, increase walkability, and allow for traffic calming along the corridor. In addition to

Franklin Park Climate Resiliency Plan



this, the CRP recommends permeable pavement in parking lanes and parking lots, bioswales and infiltration trenches in the right-of-way between the curb and sidewalk, and tree planting all along the avenue.

Focus Area 3: Pacific Avenue

Pacific Avenue is another of Franklin Park's major thoroughfares and creates an opportunity to implement more green infrastructure in formerly industrial properties. Franklin Park has already worked with the Metropolitan Water Reclamation District of Greater Chicago (MWRD) to implement rain gardens along this stretch, but there is room for more. Recommendations for this area include permeable pavement in parking lanes and parking lots, bioswales and rain gardens in the right-of-way between curb and sidewalk, and in-ground detention for stormwater where the Village owns vacant or blighted properties.

Focus Area 4: Nuisance flooding in Gouin Park

Stakeholders and Village staff identified Gouin Park as an area with nuisance surface water flooding on the northern and western side of the park, along with the backyards of the residences along those borders. The park does not currently have an effective drainage system and has space for incorporating green infrastructure and native plantings. Recommendations for this area include adding storm sewer along the northern border of the park to connect to those resident backyards and connecting to the interceptor in Scott Street. Bioswales and bio infiltration trenches are recommended along Scott Street and Fullerton Avenue as well.

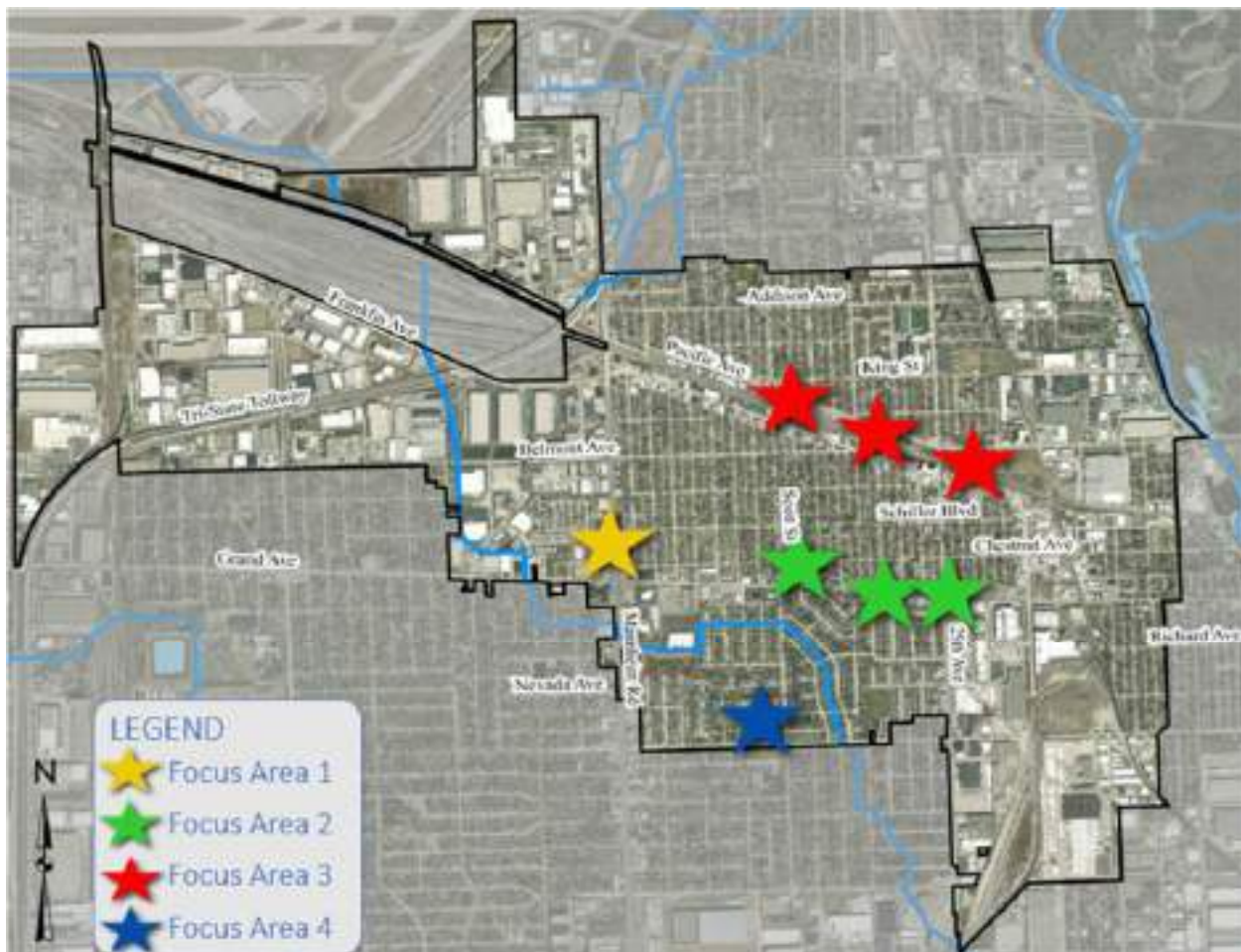


Figure E-4: Overview of Franklin Park Focus Areas

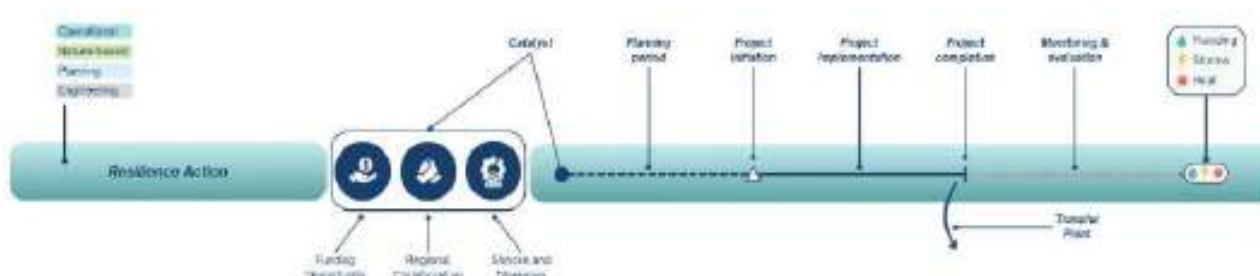
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The focus area analysis identified 11 short-term solutions/projects that were added to the list of projects the community had previously identified through various other community planning efforts. This project list is intended to serve as a starting point to help Franklin Park be more resilient to the impacts of climate change by being better prepared for the anticipated climate hazards and adapting to changing conditions by withstanding short-term risks and changing long-term conditions. The Village intends to add more projects as problems are addressed or new concerns arise.

Adaptation Strategies and Pathway

To help Franklin Park achieve their long-term climate resiliency, Franklin Park's CRP outlines a flexible implementation plan called an adaptation pathway. This strategic framework outlines how the Village might efficiently sequence, prioritize and implement resilience actions over the coming decades and how it can adjust its approach in response to external factors such as funding opportunity, regional collaboration and climate stressors. Adaptation pathways address existing problems and lay out a flexible, cost-effective course toward a more resilient future. Implementation of community-wide resilience actions will follow a sequenced, interconnected adaptation pathway illustrated below.



Color Codes indicate “type” of resilience action

Operational	Actions may include a system or program to achieve a certain resilience goal.
Nature-based	Actions refer to green infrastructure aimed at mitigating a specific hazard.
Planning	Actions include ordinance or policy changes that encourage a resilient practice.
Engineering	Actions refer to new or updated gray infrastructure targeting a specific hazard.

Transfer Points are triggered by catalysts or change in climate hazard experienced by the community at the time.

Catalysts identify key external factors that may initiate Franklin Park’s pursuit of a given resilience measure. The three key catalysts are funding opportunities, regional collaboration, and shocks and stressors – e.g., hazards worsening either through repeated impacts (i.e., stressors) or extreme events (i.e., shocks).

In conjunction with the adaptation pathways, the CRP outlines seven adaptation strategies with specific actions to meet community goals and address climate hazards.

1. **Address Urban Forest and Heat Islands.** The Chicago Region Tree Initiative (CRTI) analyzed the urban forestry in Franklin Park and found the Village has less canopy cover than its neighbors and more gray infrastructure than most. The report indicates Franklin Park has about 11% canopy cover and could increase its canopy to 60%. Urban trees will help alleviate Franklin Park's heat island issue and add greenery to a grey and impervious landscape. Trees also store carbon dioxide, remove pollutants from the air, and intercept stormwater to help reduce flooding. They can increase property values and make the community more aesthetically pleasing while improving resident health in many ways.
2. **Implement Distributed Green Infrastructure.** Stormwater storage solutions are often space-limited, prompting additional considerations to address stormwater volume. Green infrastructure can be used to help bridge this gap. Initiated largely to promote stormwater water quality and infiltration, green infrastructure can also be implemented to capture runoff that causes local flooding from rains of <1 inch or less. Strategic placement can include storage solutions in space-constrained areas, taking advantage of

Franklin Park Climate Resiliency Plan



what space is available. While placement should be strategic, it should also be embraced as a community-wide practice to have the largest impact.

3. **Promote and Restore Key Economic Corridors through Sustainability.** Regardless of climate-driven impacts, the Village must continue to promote a resilient community from a livability and economic standpoint. Existing and prospective businesses must feel protected from climate-related events, including flooding, incurred costs due to heat and cold, and maintenance. Implementing sustainable actions can safeguard against climate impacts and further resonates with a growing generation of resilience-minded businesses and consumers. Turning outdated business corridors into inviting, pedestrian-friendly, and greener spaces has been shown to be more inviting to visitors, which can be reflected in sales for storefronts.
4. **Continue Education and Outreach Programs to Residents and Businesses.** Most of the public events associated with the CRP were well attended for Franklin Park, and many residents understood the value of climactic action and appeared to appreciate the objective of this initiative. It is also well documented that those who did attend continued to suggest that community stakeholder engagement and education need to continue.
5. **Upgrade Village Stormwater Infrastructure.** Franklin Park municipal staff has done a lot of work to improve street and surface flooding as well as projects within Silver Creek to address riverine flooding throughout the Village. While street flooding has proven much reduced in recent years, there are still capacity issues within the Village storm sewer system that should be addressed to alleviate stormwater surface flooding, especially as storms increase in intensity and duration. Maintenance of existing assets is also key to alleviating capacity issues as storm sewer pipes can become clogged from debris and regular televising is recommended to keep pipes at the capacity they are designed for
6. **Floodplain management.** Floodplain management is a community-based effort to eliminate or reduce the risk of flooding, resulting in more resilient communities. It involves a combination of strategies and practices aimed at managing the use and development of flood-prone areas to minimize flood damage and protect lives and property. The Village can become stronger and more resilient through risk-reducing actions.

One goal of this plan is to identify and prioritize solutions/projects that will help Franklin Park mitigate the impacts of climate change. A prioritization framework was developed to inform the Village's efforts in scoring and ranking projects and to help them pursue additional funding for implementing the higher-ranked projects. The framework includes ten project prioritization measures across four weighting criteria, shown in Table E-1.

Table E-1: Project Prioritization Framework

Community Weighting Criteria	Prioritization Measure	Description
Implementation Feasibility & Support	Jurisdictional Approval Barriers	The number of agencies that must approve a project for it to undergo construction, or if a policy is to be enacted.
		The total number of months likely for project/permit and policy review from all agencies is needed.
	Community Support	Has the community been engaged or informed of the project? and do they support its implementation?
Cost	Implementation Costs	The amount of money needed (including staff hours) to implement a project/policy, minus grants, for each effective unit.
	Maintenance Costs	The amount of money needed annually to maintain a project/policy, minus grants, for each effective unit.

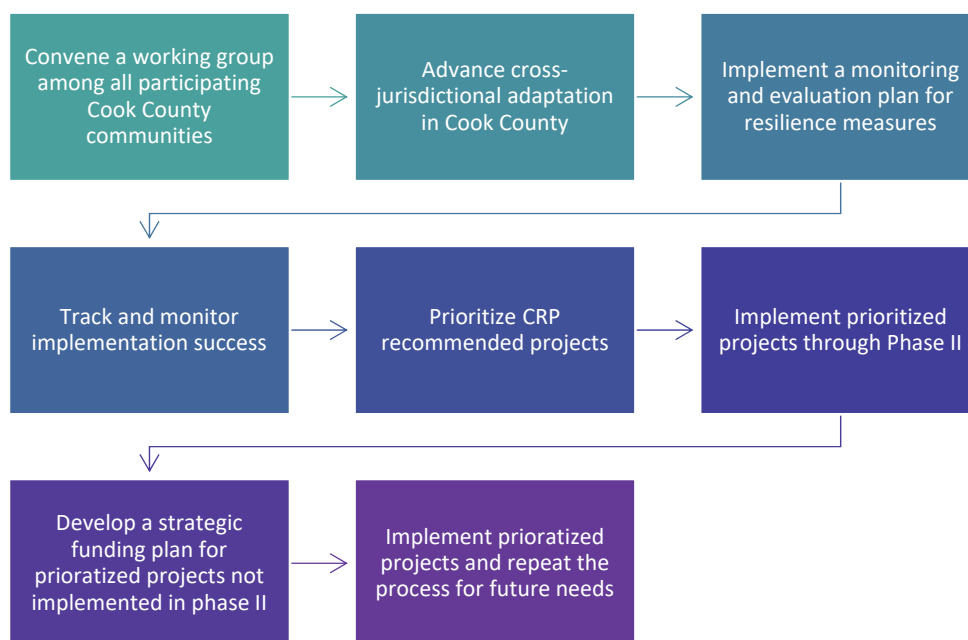
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Community Weighting Criteria	Prioritization Measure	Description
Greatest Resilience Impact	Project Flexibility	If the conditions causing a problem worsen, can the solution be modified or updated without replacement?
	Additional Climate Impact Benefits	Does the project attempt to address additional climate impacts?
	Continuity of Critical Services	Does a project help maintain critical services, such as ambulance services, sewage, electricity, and telecommunications, during or outside of a temporary adverse climate condition?
	Level of Project/Policy Impact	Is this an important piece of a larger resiliency strategy (large impact) or is it stand-alone (smaller impact)? Direct and significant benefit vs. secondary benefit that is broader? For structural projects, how many people will benefit within the community from its implementation? For policy/planning, does this allow for future more impactful resiliency efforts to be undertaken?
Ancillary Benefits	Replicability	How applicable is the project type to other areas under owner's influence/responsibility?
	Non-climate Co-benefit	Does the project provide additional benefits to the community that are not climate related? These benefits can be social, aesthetic, economic, or biodiversity-related.

Roadmap for Resilience

Even as the planning process continues, the Village is already beginning Implementation of the priorities that the community identified through the CRP. The second phase of the Cook County Climate Resiliency Planning for Communities project will involve implementing identified projects based on community needs, funding availability and recommended project timelines. This phase will continue from 2024 through 2026.

The consultant team that developed the CRP for the Village is continuing to support the planning effort through the Climate Smart Communities Initiative. This effort will go through the fall of 2025 and will consist of:



Franklin Park Climate Resiliency Plan



To supplement the projects being implemented through this program, starting early and developing a strategic funding plan will help create competitive funding applications and increase the chances of awards. The first step is identifying and creating a list of priority projects—a step the Village has advanced through the CRP process— and customizing the funding strategy to this list.

The Village should review the CRP, any other existing Village plans and other plans as they are developed to help create the priority projects list. A well-developed priority projects list includes a high-level summary of the following key elements:

Project scope

- Project type
- Specific components of larger projects (bicycle, pedestrian, roadway, stormwater)

Planning status
(is it concept level, engineering underway or shovel-ready?)

Timelines for planning and construction

Specific funding needs
(e.g. programming, feasibility, design, construction, equipment)

Estimated costs

For larger infrastructure projects, some of the above aspects, such as schedule and cost estimates, may require advanced work, such as a feasibility study or preliminary engineering. This work can be completed with in-house municipal staff or consulting engineers. Technical assistance programs may help communities complete some of this advanced work if preliminary engineering funding is unavailable.

Franklin Park Climate Resiliency Plan



Acronyms

ADA	Americans with Disabilities Act
ASCE	American Society of Civil Engineers
CCDES	Cook County Department of Environment and Sustainability
CMAA	Chicago Metropolitan Agency for Planning
ComEd	Commonwealth Edison
CRP	Climate Resiliency Plan
CRTI	Chicago Region Trees Initiative
DCEO	Illinois Department of Commerce and Economic Opportunity
EAL	expected annual loss
EMRS	Cook County Department of Emergency Management and Regional Security
FEMA	Federal Emergency Management Agency
I&M Canal	Illinois and Michigan Canal
IBC	International Building Code
mph	miles per hour
MWRD	Metropolitan Water Reclamation District of Greater Chicago
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NRI	National Risk Index
ROW	right-of-way
RTA	Regional Transportation Authority
SSP	Shared Socioeconomic Pathways
TIF	Tax Increment Financing

Franklin Park Climate Resiliency Plan



Key Terms

Adaptation Strategies are overall plans or approaches to achieve long-term goals. They guide and direct efforts toward desired outcomes.

Adaptation Pathway refers to a framework or direction to achieve a specific goal or action, identifies external triggers that influence the direction, and informs when to change strategies to achieve long-term goals.

Climate Change is a long-term change in the average weather patterns that define Earth's local, regional and global climates. These changes have a broad range of observed effects synonymous with the term. (NASA)

Climate Hazard refers to weather related or hydrometeorological events that can cause harm to humans, property, livelihoods, resources, and the environment.

Climate Impact refers to the consequence that arises when a climate hazard occurs. It includes the effects and damages that follow from the hazard.

Climate Models are computational tools that illustrate a range of possible climate futures to help project how our weather may behave in various climates.

Climate Resilience (or Climate Resiliency) refers to the ability to prepare for anticipated climate hazards, adapt to changing conditions, withstand short-term risks, such as flooding or fires, recover rapidly from disruptions, and adapt to evolving long-term conditions, such as changes in weather patterns, sea-level rise, or changes in climate.

Climate Resilience Actions refer to specific steps or tasks taken to implement strategies and achieve objectives.

Focus Areas refer to clusters of projects in the community that target a specific problem area identified during community engagement efforts.

Franklin Park Climate Resiliency Plan

1. Introduction

The Village of Franklin Park (Village) partnered with the Cook County Department of Environment and Sustainability (CCDES) to develop a comprehensive Climate Resiliency Plan (CRP). Using funds from the American Rescue Plan Act, CCDES created the Climate Resiliency Planning for Communities program to support resiliency planning for five communities within Cook County, Illinois, including Franklin Park, that have historically faced disinvestment and are most vulnerable to climate change.

The Climate Resiliency Planning for Communities program helps communities develop individualized plans relevant to their needs, putting communities at the center of planning and project prioritization. The CRP will not only serve as a way for the Village to learn about hazards they might face and their potential impacts. It will also better prepare the Village for climate-related impacts through 2050 by initiating engagement with interested stakeholders and key community staff to identify actions to offset climate-driven extremes. This CRP was developed using a robust community-driven process, engaging residents and stakeholders to understand climate hazards, set goals, and identify and prioritize actions to mitigate hazards and bolster the community's resilience.

Community Officials Reflecting on Resilience

Mayor Barrett Pedersen noted Franklin Park has the largest heat island in Cook County, and 67% of the Village is unplantable due to impervious land and pre-established zoning requirements.

Municipal staff noted one of the biggest problems within the Village is combined sewers, specifically around the Grand and 25th Avenues area.

Village staff identified an interest in educating Franklin Park residents in overall environmental justice and equality, and tying concepts and solutions together so residents can understand why investments are good for the community.

This CRP documents the current state of key climate-driven issues in Franklin Park, including locality, scale, severity, future trajectory, and community impacts for residents and officials alike. Recommendations included in this CRP will help Franklin Park mitigate the current impacts of climate extremes by helping to secure funding to implement shovel-ready projects, guiding activities for future funding and strategic long-term projects, and implementing strategic programming. This CRP outlines the following:

- a) **An overview of current conditions.** A detailed assessment of the community's current climate hazards, which are expected to intensify as climate change progresses.
- b) **Hazard assessment and mitigation measures.** Identification of specific areas most at risk from future climate change, along with implementable resiliency measures.
- c) **Adaptation strategies and a roadmap to achieving resilience.** Strategies and actions to manage and mitigate the impacts of current and future climate hazards and a structured plan to enhance resilience and enhance sustainable development.

The CRP has been set up in the following format:

- Section 2 provides background and climate resiliency priorities for Franklin Park.
- Section 3 summarizes current and projected climate hazards and mitigation measures for Franklin Park.
- Section 4 summarizes the community's current climate concerns and the Village's vision and resilience goals.
- Section 5 describes adaptation strategies, project recommendations, and a prioritization framework.
- Section 6 provides a roadmap for climate resiliency, including ways to obtain funding for implementing identified project opportunities.

Franklin Park Climate Resiliency Plan

2. Community Background

Franklin Park is nestled between I-294, O'Hare International airport, and the Bensenville Intermodal Railway Terminal providing the perfect location for expansive industrial and manufacturing businesses to flourish. Historically considered an economic engine for the region due to the sea of warehouses and factories.

Franklin Park is a diverse community of approximately 18,000 residents and has a stable housing market, exceptional school districts, and access to the Des Plaines River Trail and over 10 square miles of Cook County Forest Preserves. Franklin Park considers itself a "Village that produces", with companies employing thousands of workers who make and distribute goods and provide services. Climbing out of a deep national recession in the late 2000s, Since 2014, the Village has seen the construction of over 4.2 million square feet of modern, class A industrial buildings and the creation of over 5,000 new jobs. Figure 1 shows an existing land use map from the 2017 Village of Franklin Park Comprehensive Plan.



Figure 1: Existing Land Use Map (Source: Franklin Park Comprehensive Plan)

Village of Franklin Park

Median Household
Income ~\$74K
Home Ownership ~73%

2020 Census

18,374 Population
5,802 Households

Racial Composition

58% Hispanic
37% White
1% Black
3% Asian

Spoken Languages

46% Spanish
38% English
10% Slavic

Age Distribution

29% ≤19 years
60% between 20 & 64
years
11% >65 years

Franklin Park Climate Resiliency Plan



2.1. Economic and Development Trends

Village staff communicated larger chain stores and commercial ventures may be hesitant to set up shop in Franklin Park due to its heavy manufacturing base. They also noted the number of intersections blocked by train traffic can impact businesses and resident mobility, when trains block intersections they cut people off from work and school, shopping and recreational activities. Staff also indicated nearby community members and visitors view Franklin Park as an industrial area and not a shopping or recreational destination, and that there is little room for landscaping or aesthetics which leads to less economic development than they would like.

2.2. Environmental and Health Challenges

Franklin Park village staff have indicated that the large challenge within municipal boundaries is the amount of impervious surfaces. It causes increased flooding during large storm events and causes increased heat island impact for residents without greenery and tree cover and contributes to poor air quality along with vehicles idling due to blocked railroad crossings. Franklin Park has made a concerted effort in the recent past to increase tree planting and has done a lot of work along Washington Street adding green infrastructure practices and tree canopy to an old factory that previously had no trees.

2.3. Priorities and Challenges

Franklin Park has a rich industrial past. Its proximity to O'Hare and access to the rail and highway system lends itself to having a rich industrial and manufacturing base. Their Village motto, "A Village that produces" echoes this sentiment. While this has led to a strong workforce who make and distribute goods for the region, it has come with environmental repercussions. With much of the land being impervious, Franklin Park struggles with flooding. The Village's combined sewer system and being adjacent to the Des Plaines River also contribute to this issue. Additional priorities for the community are the urban heat island and high particulate matter. To be a more climate resilient community the Village wants to address these priorities as well as:

- Moving beyond a reactionary phase and establish/implement policies, programs and plans that are environmentally conscious. This would allow for unified design guidelines and a community-wide vision to be implemented
- Continuing with the great work that the Village started to reduce urban heat island effects and eliminate some particulate matter through the expansion of the tree canopy and adding new green infrastructure
- Expanding the green infrastructure on Pacific Avenue
- Developing a Stormwater Management Facility (25th Avenue and Nevada Avenue)
- Providing access to the Transit Bike Path Project
- Separating combined sewers
- Hosting the 2nd Annual World Honeybee Celebration
- Continuing to convert impervious pavement to green infrastructure to mitigate flooding and enhance aesthetics for residents and businesses.

2.4. Current Infrastructure Initiatives

Franklin Park is undertaking many efforts to improve community assets through various projects, including the following:

- The Grand Avenue Corridor Plan
- Franklin Park O'Hare Industrial Corridor Plan
- DOT FHWA Charging and Fueling Infrastructure Grant Application for Aggregated Community Charging Stations
- Stormwater detention basin at Grand Avenue and Willow Street including sewer separation for any remaining combined sewer on the west side of the Village.
- MWRD Green Infrastructure Initiative implementation along Pacific Avenue

Franklin Park Climate Resiliency Plan



2.5. Community Engagement Priorities

Franklin Park has a dedicated staff engaged in all aspects of community life. The following list of stakeholders are key to prioritizing engagement in a meaningful and participatory way.

- Franklin Park's mayor, Barrett Pederson, has been a key stakeholder in the community. He was recently named Mayor of the Year by the West Central Municipal Conference.
- The Village's Police and Fire Chiefs are also very engaged with residents and community groups.
- Franklin Park has many active volunteer boards throughout the Village including the Economic Development Commission, Tree Preservation Commission, and Trustees. This broad range of volunteers will help to understand the community and Village policies.
- Franklin Park has an active library that involves all ages and diverse backgrounds. Their activities will be a good resource for the project.
- The Village would like to employ its youth population and identified East Leyden High School and Franklin Park Elementary School District 84 as potential partners.
- The Grant Chamber by O'Hare Chamber of Commerce is very active. Members of Franklin Park's business community often attend Village Board meetings.
- The Village's community organization and social services such as the Leyden Family Services and Resurrection Lutheran Church's Food Pantry and Clothing Closet may be beneficial in understanding an underserved population.
- The Village has significant Spanish and Polish populations. It is a goal of this project to ensure these groups' opinions are included in the conversation.
- Franklin Park's Park District has unique activities and events for all ages, including a Café at the Centre at North Park, which hosts daily lunch for Seniors.

Franklin Park Climate Resiliency Plan



3. Current and Projected Climate Hazards

Local governments are increasingly facing impacts from climate change, which are projected to worsen through the end of the 21st century and beyond. These impacts include larger, longer and more intense precipitation events, increasing temperatures, extreme storm events (windstorms and freeze-thaw cycles) and poor air quality. In addition to changes in climate, population shifts and stressed critical infrastructure will require better planning; communities cannot simply attempt to fix every individual problem when they see them. These climate risks are connected and can create cascading impacts within a broader system if not addressed holistically.

The Village of Franklin Park, like many communities in the Midwest, is vulnerable to the impacts of climate hazards. During the community engagement efforts, Village staff and residents identified specific areas in the community that either currently experience climate hazards or are locations where climate-resilient measures could be implemented. The identified locations and their associated climate hazard are shown in **Error! Reference source not found.** A detailed assessment of relative climate risks and associated economic impacts was performed to understand and prioritize Franklin Park's climate hazards. The findings from this analysis, evaluation of available infrastructure data, and input from the community and municipal staff informed the development of adaptation strategies and resilience actions. It established the focus areas discussed in Section 5.1 of this CRP.

The following hazards were included in the climate analysis (Appendix A).

- Precipitation and Flooding
- Extreme Heat
- Extreme Winds and Wind Gusts

Other climate hazards could impact the Village, but these were identified as the most significant risks to Franklin Park and are expected to worsen under future climate change scenarios. While other hazards were not part of the climate hazard analysis, mitigation measures for more than just precipitation, extreme heat, and wind are presented in Section 3.6.

Detailed local climate data from a set of advanced climate projection models were used to analyze future climate projections for Franklin Park. Climate Models are computational tools that illustrate a range of possible climate futures to help project how our weather may behave in a range of possible climates. The models consider a range of future global trends in greenhouse gas emissions, the climate system's sensitivity to those emissions, and other factors. The climate-modelling community has developed four Representative Concentration Pathways. This CRP focuses on two future climate scenarios to determine near-term (2021-2050) and midcentury (2036–2065) future projections, SSP2-4.5 and SSP5-8.5.

SSP2-4.5 → Middle of the road and low to moderate emissions.

SSP5-8.5 → Fossil-fueled development and very high future emissions

Franklin Park Climate Resiliency Plan

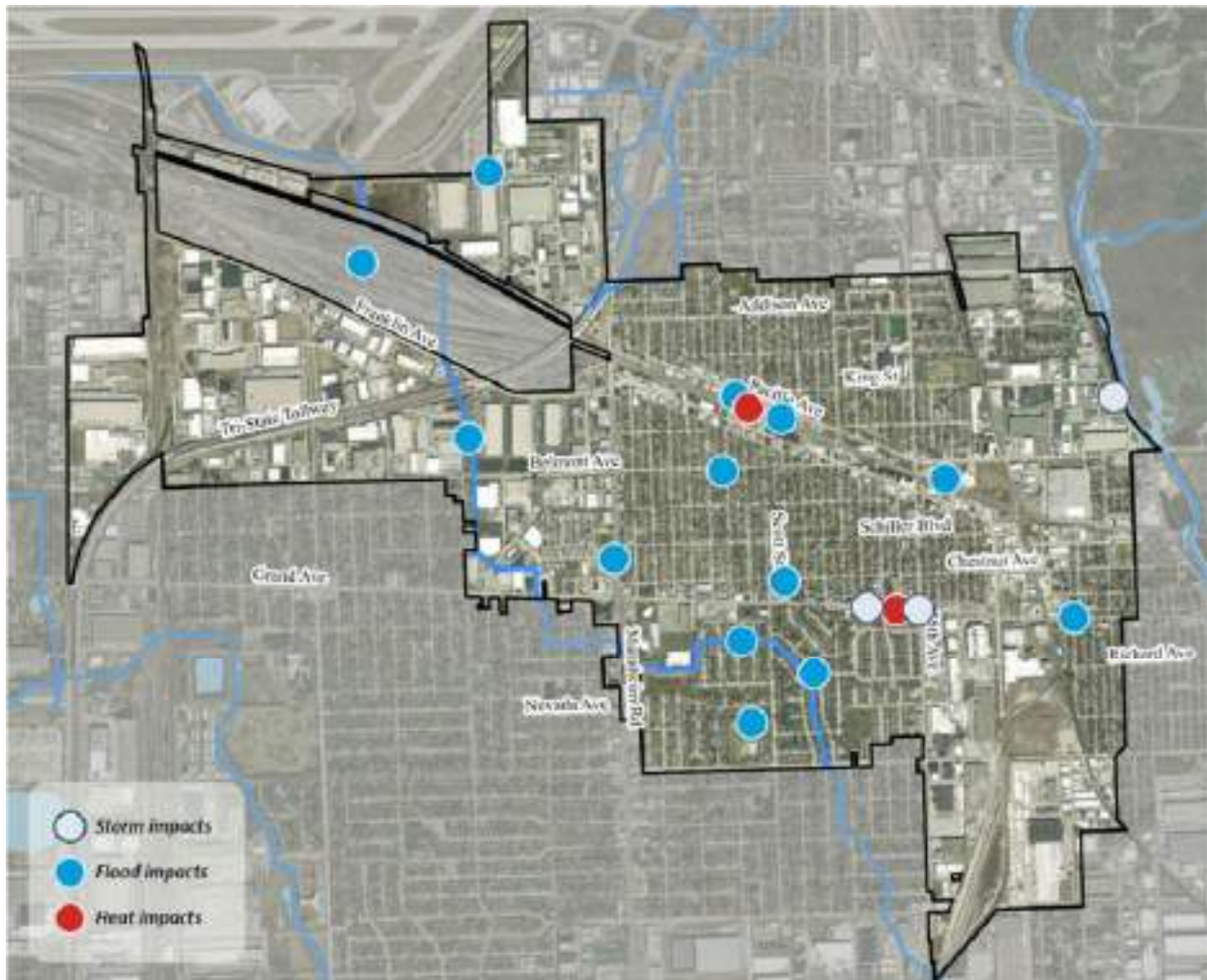


Figure 2: Problem Spots in Franklin Park

3.1. Precipitation



Extremes in precipitation are one of the most likely outcomes of a changing climate. Appendix B presents a summary of the observed historical changes in rainfall patterns across Northeast Illinois. It also includes a study and statistical analysis of rainfall data from 1989 to 2023 to assess shifts in rainfall patterns throughout the Village. The results of the analysis are summarized below:

Summary of Historic Rainfall Patterns

- Annual rainfall totals have declined by 0.03 inches in the last 33 years.
- Monthly rainfall in the previous 15 years (2008–2023) was greater than in the 1990–2007 period.
- Seasonal trends show increased rainfall depths during summer months in the last 15 years (2008 to 2023) compared to 1990–2007. Rainfall depths in other seasons have either stayed stable or decreased.
- Statistical analysis showed only a small shift in extreme precipitation patterns.
- The frequency of consecutive wet days with rainfall exceeding 0.25 inches has increased since 2017, with an average rise of 3.5 days.

Franklin Park Climate Resiliency Plan



Although annual rainfall totals have declined in this period, monthly and seasonal increases have been observed. This concentration of rainfall within certain months is crucial for designing stormwater systems. While 0.25 inches of rainfall may not seem significant as a single event, consecutive occurrences can lead to soil saturation from the initial storm, reducing the ground's capacity to absorb additional rainfall and thereby increasing flood risk.

Summary of Projected Rainfall Predictions

Future extreme heat and precipitation changes were predicted using global climate models scaled down to the local level. A detailed description of the methods and results are presented in Appendix A. Future changes in precipitation predicted for the Village of Franklin Park are summarized in the bullets and Table 1: below:

High-intensity storms will likely become more common.

High-intensity precipitation extremes could increase up to 0.4 inches by midcentury.

- In Cook County, high-intensity storms will likely become more common (i.e., less-frequent, higher-intensity precipitation extremes are projected to increase at a faster rate than lower-intensity extremes).
- Daily rainfall (24-hour total) is not projected to change measurably for 2-year events (i.e., events with a 50% chance of occurring in any given year) from present to mid-century under both Shared Socioeconomic Pathways (SSPs).
- Daily rainfall is projected to increase by 6% for the 10-year events (i.e., events with a 10% chance of occurring in any given year) by both the near term and midcentury under both SSPs.
- Similarly, daily rainfall is projected to increase by 6% for the 25-year event (i.e., events with a 4% chance of occurring in any given year) by both the near term and midcentury under both SSPs. While a 6% increase in precipitation may seem minor, this increase can be significant for stormwater systems that currently flood during minor rain events.

Table 1: Climate projections for Cook County return period precipitation totals. Precipitation totals represent the 50th percentile of the highest modeled 6 km × 6 km grid cell precipitation total in Cook County.

Variable	Units	Observed (1985–2014)	Near-Term (2021–2050)		Midcentury (2036–2065)	
			SSP2-4.5	SSP5-8.5	SSP2-4.5	SSP5-8.5
1-in-2-Year 1-Day Precipitation Total	Inches	2.9	2.8	3.0	2.9	3.0
1-in-10-Year 1-Day Precipitation Total	Inches	4.7	4.9	5.0	5.0	5.0
1-in-25-Year 1-Day Precipitation Total	Inches	6.1	6.4	6.5	6.5	6.5

3.2. Flooding – Urban



The Village is mostly developed with very limited space for new development and 67% impervious surfaces. There are large swaths of highly urbanized areas within the industrial/commercial business corridors, which form a big part of the economic fabric of the community. These concentrated impervious areas exacerbate stormwater flooding in urban areas, though Franklin Park has alleviated many of the issues using regional detention and distributed green infrastructure. Flooding can cause the following:

- Nuisance ponding on properties and deterioration of structures impact property value and living conditions
- Physical safety risk from flood water or limited access to critical services and emergency response capabilities
- Road accidents due to reduced visibility and hazardous driving conditions
- Lift station and pump failure
- Limited access to existing recreational areas (e.g., trails, bike paths, parks)

Franklin Park Climate Resiliency Plan



- Limited economic development due to fewer businesses that want to work in Franklin Park, more tax dollars going to address flooding hazards rather than improving community conditions, and wayward spending on maintaining failing assets

3.2.1. Addressing Historical Flooding Impacts

Historically, Franklin Park has experienced urban flooding, including roadway and infrastructure flooding. The Village has addressed many of its historic flooding issues through the implementation of regional stormwater detention ponds at Addison Avenue and Wolf Road, as seen in Figure 3 below, and another at Copenhagen Creek provide a total of 33 million gallons of storage for the Village. The flood mitigation project on Silver Creek canal which allows for the storage of canal floodwaters during storm events underneath Parker Avenue, since the implementation of this project Silver Creek has not overflowed its banks at this location between Scott Street and Fullerton Avenue (picture in Figure 4 below). These projects in combination, have alleviated many of the flooding issues caused by the impervious nature of the Village, along with projects implemented in partnership with the Metropolitan Water Reclamation District of Greater Chicago (MWRD) including green infrastructure installations to infiltrate stormwater through native plantings in industrial portions of the community. An example of one of these installed practices is found in Figure 5.

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Figure 3: Stormwater Detention Pond at Addison Avenue and Wolf Road



Figure 4: Silver Creek Canal Flood Mitigation Project

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Figure 5: MWRD Funded Rain Garden on Pacific Avenue

There are still additional flooding issues and specific problem areas identified by the community, summarized below and shown in Figure 2.

- If Grand Avenue and River Road flood, the community is impacted, and residents cannot travel safely through the community.
- Proximity to O'Hare Airport means additional flooding from impervious surfaces and stormwater.
- Street flooding occurs at Mannheim Road and Crown Road – likely due to capacity within storm sewers at that location.
- Combined sewers around Grand Avenue and 25th Street need to be separated and still can result in street and backyard nuisance flooding.
- The planned detention basin at Grand Avenue and Willow Road is important for alleviating stormwater flooding.
- Silver Creek was identified as having flooding historically along the creek, although various projects have addressed most of the issues previously seen.

Silver Creek flows through Franklin Park on the western side of the Village, and the Des Plaines River skirts the border of the Village to the east. Both have mapped FEMA floodplains which can be seen in Figure 6.

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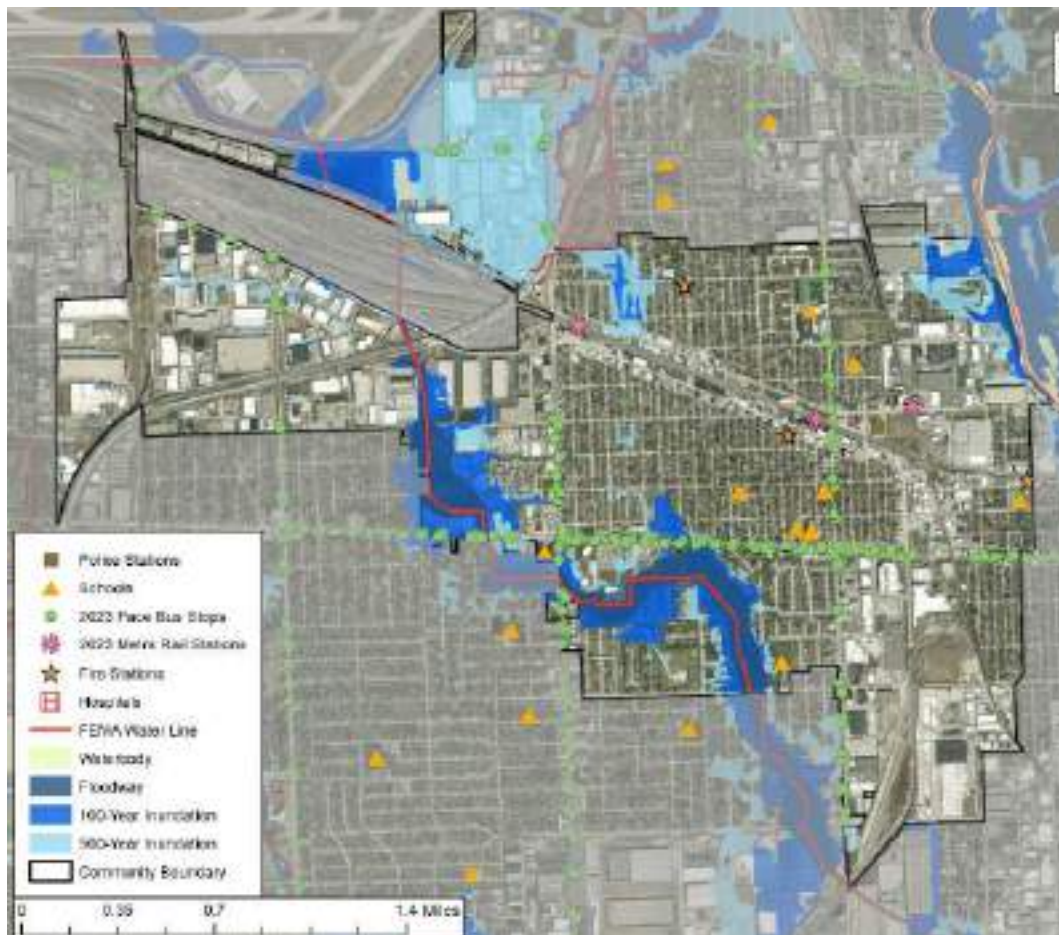


Figure 6: Mapped FEMA 0.2% Floodplain (Zone X) and the 1% Floodplain and Regulatory Floodway (Zone AE) in Franklin Park

3.2.2. Projected Mid-Century Increases in Flooding

Planning and coordination will especially become critical as future climate changes in rainfall patterns show an increase in rainfall. Locations identified currently for flooding issues could exacerbate, while new problems could emerge. The potential increase in flooding depths with and without climate-change-induced rainfall increases was analyzed to help the Village understand which areas around the community might be at a higher risk of riverine and urban flooding. Results from this analysis are intended to show what areas around the community are more likely to see an increase in ponding in the absence of functioning stormwater infrastructure for 10-year and 100-year events. See Figure 7 and Figure 8 for these results.

Additionally, results for the analysis indicate that, by the year 2050, climate change could create 114 acre-feet of additional ponding throughout the community during the 10-year event. Projections for Franklin Park suggest that, by mid-century, a 10-year storm event could increase the excess stormwater runoff to fill one football field with approximately 87 feet of water. The 100-year storm event equates to a potential increase of 168 acre-feet of additional ponding, enough to fill one football field approximately 128 feet deep. Figures 7 and 8 show the impact of the projected additional rainfall for Franklin Park at the 10-year and 100-year storm events. It is essential to acknowledge that the data on the figures were produced as part of a high-level hydrologic and hydraulic analysis. It should be used for planning purposes and to help identify areas at a higher risk of increased flooding due to climate change.

Franklin Park Climate Resiliency Plan



Using the Metropolitan Water Reclamation District of Greater Chicago's bioretention facilities, constructed wetlands, permeable pavement, storage below the outlet of detention basins, and infiltration trenches standard details, typical underground storage cross-sections, and conservative engineering assumptions, Table 2 provides an estimate of the area to implement an individual stormwater technology to provide the storage needed to detain the potential increase in ponding volumes – e.g., Lywnood would need to construct 81.8 acres of bioretention cells or 508 acres of permeable pavement to detain the projected 114 ac-ft of additional ponding throughout the community during the 10-year event in the year 2050. Additionally, the last column indicates the amount of paved pervious surfaces that would need to be replaced with pervious surfaces to mitigate the added runoff volume. Depending on available space, ideal land uses for implementation, opportunities to be included in public infrastructure improvements, and partnering opportunities, Franklin Park should work to implement a range of stormwater management solutions and not focus on a single practice.

Table 2: Stormwater Management Implementation Scenario to Detain Potential Increases in Ponding Depth

10-year Climate Change GI Implementation Scenario (ac)								
	Bioretention Cell	Constructed Wetland	Permeable Pavement	Detention Basin	Filter Strip	Single Trap	Double Trap	Depaving
Area Required (ac)	81.8	47.7	508	17.9	288	16.8	8.42	769
100-year Climate Change GI Implementation Scenario (ac)								
	Bioretention Cell	Constructed Wetland	Permeable Pavement	Detention Basin	Filter Strip	Single Trap	Double Trap	Depaving
Area Required (ac)	120	70.1	747	26.3	423	24.8	12.4	1,000

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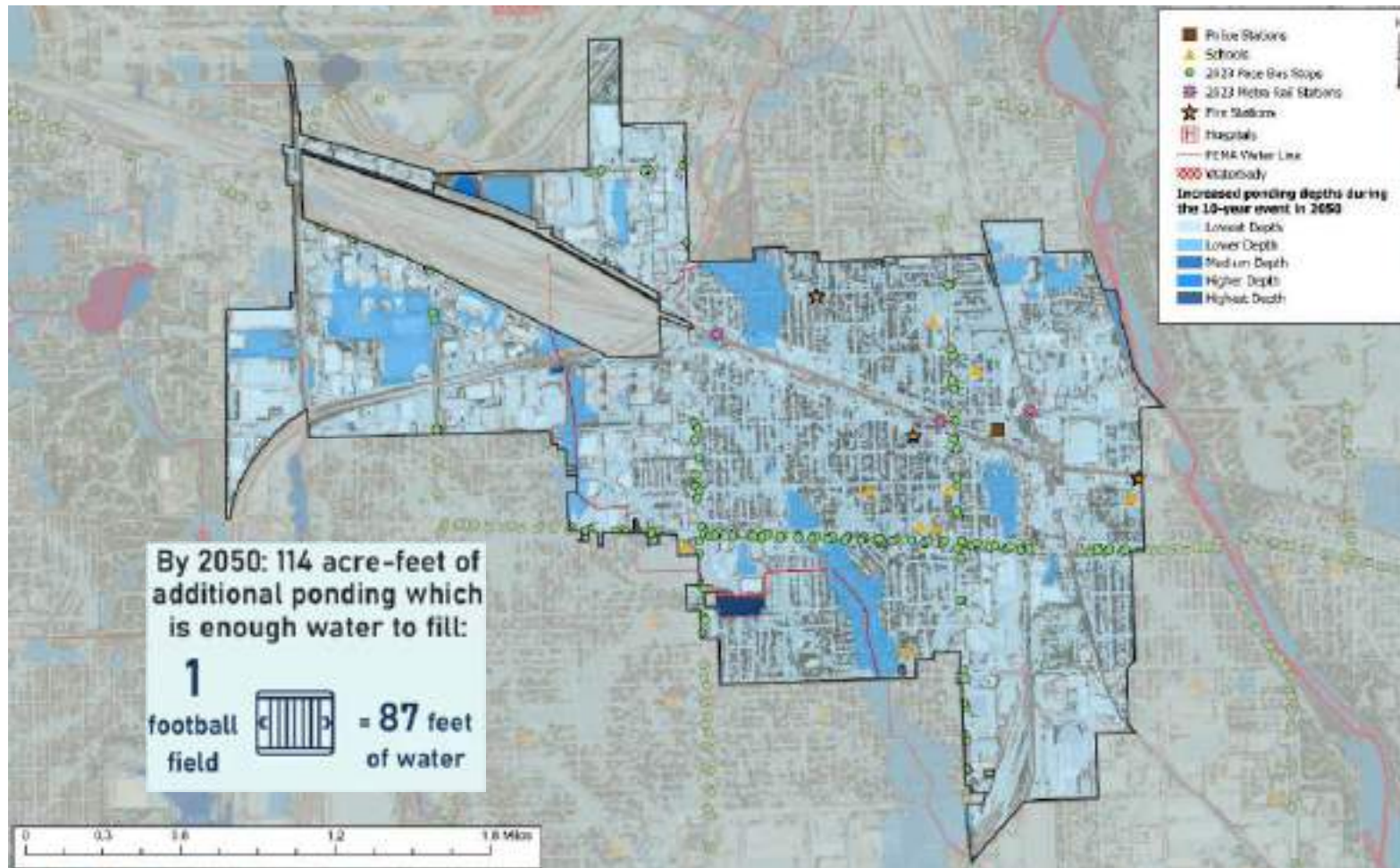


Figure 7: Potential Increase in Ponding Depth for Franklin Park at 2050 During the 10-Year Storm Event

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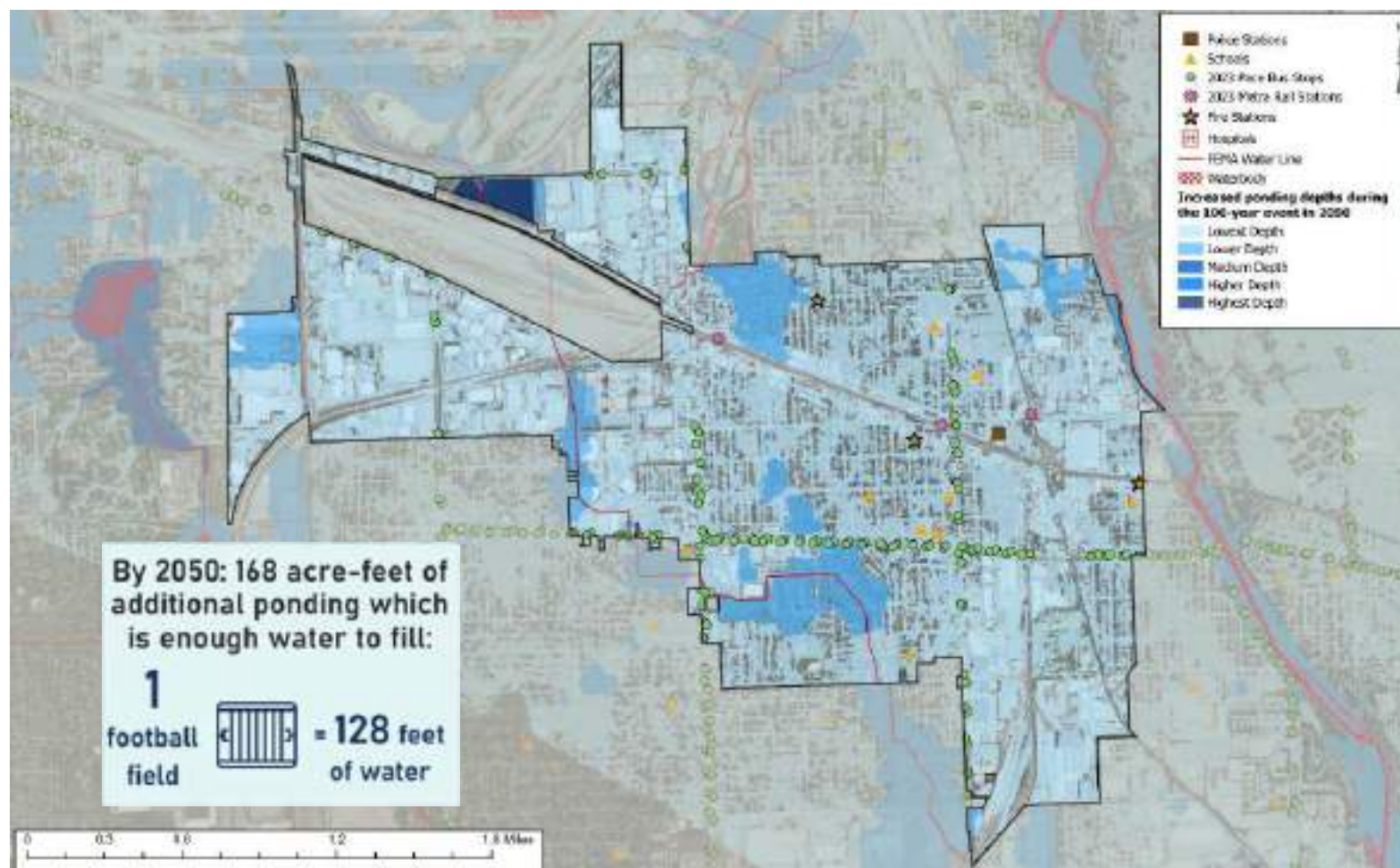


Figure 8: Potential Increase in Ponding Depth for Franklin Park at 2050 During the 100-Year Storm Event

Franklin Park Climate Resiliency Plan



3.3. Heat



Cook County has historically seen significant impacts from extreme heat. Extreme heat severely impacts human health, particularly for vulnerable populations as well as the potential to cause infrastructure damage to critical assets. Health impacts could include:

- Increased risk of heat-related morbidity (e.g., heat exhaustion or stroke) and mortality
- Hazardous conditions for outdoor work, recreation, or exercise
- Increased mental health impacts, including aggression, hostility, violence, and suicide
- Reduced ability to work productively
- Power outages or brownouts due to increased energy demand for cooling and associated risks

In July 1995, the Midwest experienced a historic heat wave, which led to more than 700 deaths over a 5 day period in Chicago alone and the city's highest temperature on record at Midway Airport (106 °F).¹ The combination of extreme heat and high humidity made conditions even more dangerous, with peak heat indices reaching 124–125 °F. Extreme heat has continued to be an issue in recent years, with 5 of Chicago's 10 hottest years on record occurring in the past decade.²

Extended exposure to temperatures nearing 90 °F becomes acutely dangerous, particularly as humidity increases.³ When temperatures do not drop at night, the body does not have an opportunity to sufficiently cool down. For this reason, the planning team studied variables that provide insight into how frequently Cook County might near these dangerous temperature thresholds and how prolonged these high heat periods may be. Projections show the potential for increases in both the hottest days and nights (Table 3), especially by mid-century in the higher emissions scenario.

Table 3: Climate projections for Cook County return temperature and heat wave variables. Values represent the 50th percentile modeled averages across Cook County.

Variable	Units	Observed (1985–2014)	Near-Term (2021–2050)		Mid-Century (2036–2065)	
			SSP2-4.5	SSP5-8.5	SSP2-4.5	SSP5-8.5
Number of Days per Year with Minimum Temperature Over 70 °F	Days/yr	13	30	33	35	45
Number of Days per Year with Maximum Temperature Over 90 °F	Days/yr	13	31	34	39	47
Number of Days per Year with Maximum Temperature Over 95 °F	Days/yr	2	10	10	15	19
Frequency of Heat Waves (with 3 Days of Maximum Temperature Over 90°F)	Heat Waves/yr	2	4	5	5	6
Longest Duration of Heat Waves (with Maximum Temperature Over 90°F)	Days/yr	4	7	8	9	11

¹ The 1995 Heat Wave in Chicago, Illinois, <https://www.isws.illinois.edu/statecli/general/1995chicago.htm>

² Chicago Climate Records and Rankings, https://www.weather.gov/lot/chicago_climate_records.

³ Vanos, J. et al., <https://www.nature.com/articles/s41467-023-43121-5#Sec2>

Franklin Park Climate Resiliency Plan



Franklin Park in particular is vulnerable to heat considering the amount of impervious surfaces present in the village. Impervious surfaces with little tree canopy magnify the impacts of heat, Figure 9 shows the impervious surface cover in the Village.

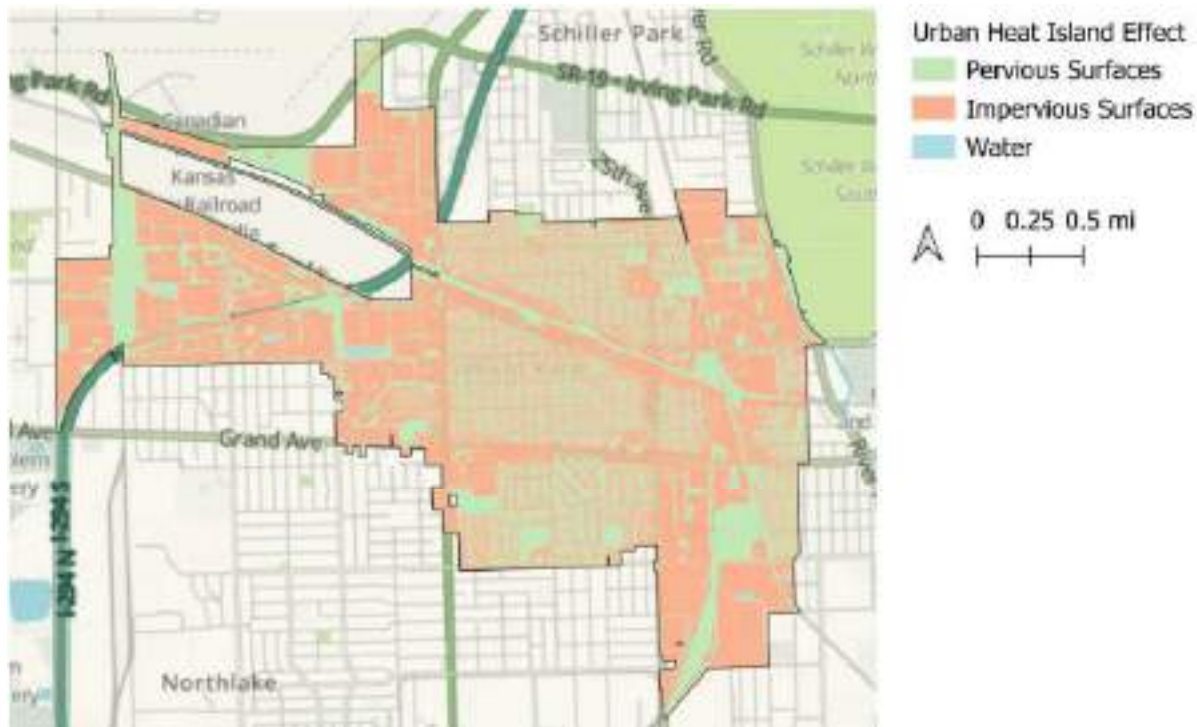


Figure 9: Impervious Surface Cover

3.4. Wind

 In Cook County, extreme wind speeds and wind gusts have the potential to cause substantial physical damage, from downed trees and utility poles leading to power outages to structural damage to residential and commercial buildings. In Illinois, strong winds (those exceeding 58 miles per hour [mph]⁴) typically occur during intense storms, such as strong frontal boundaries,⁵ extratropical cyclones (e.g., blizzards), or thunderstorms.

Extreme wind events may worsen with climate change. Cook County has historically experienced high wind speeds due to its proximity to Lake Michigan, with notable events including a 53-mph storm in December 2022 and a 90-mph gust in July of 2024. Severe thunderstorms and tornado outbreaks, such as the 32 tornadoes seen during the derecho event in July of 2024 resulting in the most tornadoes seen from a single severe weather event in the Chicago area⁶, contribute to the region's extreme wind events with recent years showing an increase in the frequency and intensity of these occurrences.

- Average wind speeds are not expected to change much, but the most intense gusts could become more frequent and stronger by the mid to late 21st century.

⁴ <https://hazards.fema.gov/nri/strong-wind>

⁵ When two air masses with different temperatures meet, they form a frontal boundary ("front") along which severe weather and storms can occur; Encyclopedia Britannica, <https://www.britannica.com/science/front-meteorology>

⁶ https://www.weather.gov/lot/2024_07_15_Derecho

Franklin Park Climate Resiliency Plan



- Winds during extratropical cyclones are projected to increase, potentially surpassing the record gust in Chicago.
- Preliminary studies suggest conditions may become more favorable for thunderstorms and other high-wind events, possibly extending the severe thunderstorm season.

3.5. Economic Impact of Climate Hazards



As extreme weather events occur, they can cause a significant economic burden on the impacted communities. This section provides the Village with a high-level understanding of the expected annual economic impacts specific climate hazards could have based on historical data. This economic analysis is not intended to provide precise dollar values that can be used to help Franklin Park set aside money to respond to specific hazards. Instead, it should give them a frame of reference on which hazards can cause the greatest annual economic impact based on historical events and how those costs could change as climate change continues. An economic impact analysis was performed to quantify impacts from flood/rain, heat, tornado/strong winds, and winter weather (cold wave, ice storm, and winter weather) climate hazards. Appendix C provides a detailed economic analysis report.

The team completed an analysis of NOAA's historic climate-related extreme weather events in Cook County that were reported from 1950 to 2024, underscoring the significant impact these events have had on the region. Flooding caused 81% of the total property damage despite occurring infrequently (10% of events). Using FEMA's National Risk Index (NRI) model, the Expected Annual Loss (EAL) was quantified for various experienced hazards. The EAL natural hazards risk component measures the expected loss of building value, population, and agriculture value each year due to natural hazards and represents a direct economic impact for various hazards. This EAL does not account for projected changes in climate hazards and is based on experienced hazards. A quantitative estimate of the dollar economic impact of climate-related hazards was calculated. The following tables and graphics show the expected economic impact on Franklin Park:

Table 4: Expected Annual Loss (\$ in Millions)

Hazard Type	Franklin Park	Cook County
Flood/Rain	\$0.99	\$27.85
Heat	\$0.59	\$154.61
Tornado/ Strong Winds	\$1.34	\$316.47
Winter Weather	\$0.27	\$71.15
Total	\$3.19	\$570.08

Franklin Park Climate Resiliency Plan

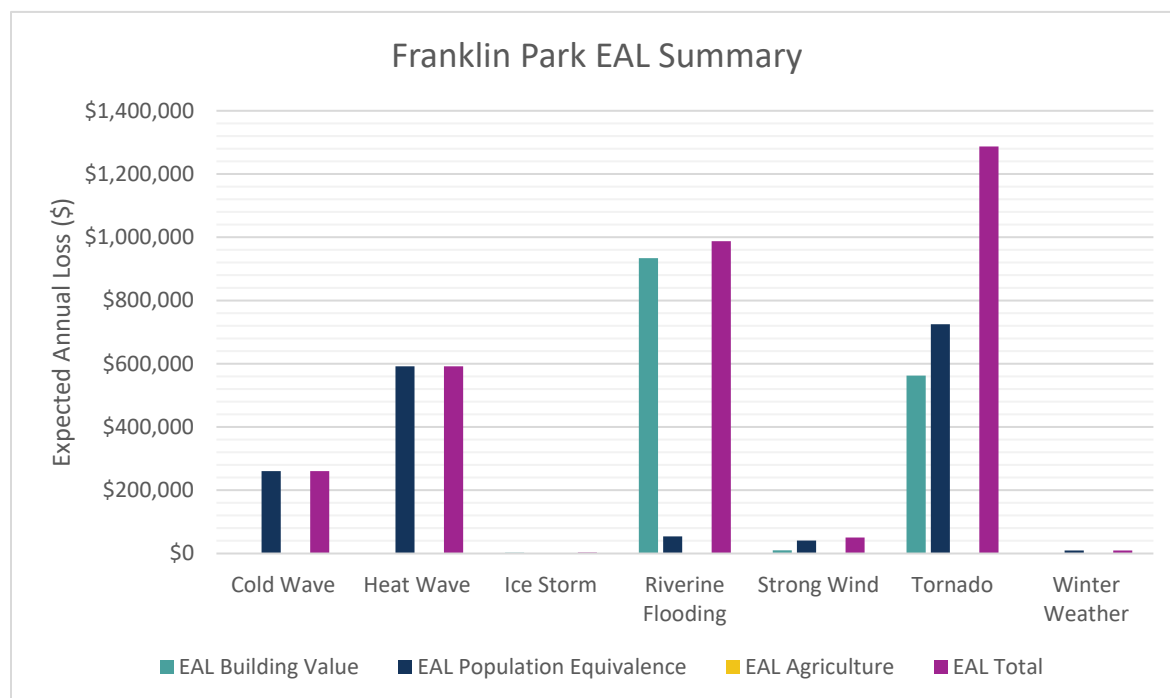


Chart 1: EAL Summary

The NRI methodology incorporates a risk adjustment based on community resilience and social vulnerability for the EAL. For Cook County, this reveals a “Very High” rating, indicating that certain demographic groups within the county are highly susceptible to the adverse effects of natural hazards. Table 5 shows the adjustment for Franklin Park and Cook County. The economic analysis is included in Appendix C.

Table 5: Risk Adjusted EAL

Community	EAL (\$ in Mil)	Social Vulnerability	Community Resilience	Community Risk Factor	Risk Index Value (\$ in Mil)
Franklin Park	\$3.19	Very High	Relatively High	1.2	\$3.83
Cook County	\$570.07	Very High	Relatively High	1.2	\$684.08

Note (1) the Risk Index Value is the EAL multiplied by the Community Risk Factor and represents the risk-adjusted EAL.

3.6. Hazard Mitigation Measures

This section presents an array of measures the community can implement to directly mitigate climate hazards Franklin Park currently faces and could face in the future as climate hazards continue to change. Measures that the Village opts to pursue should be designed and implemented to align with the Village’s other strategies, ordinance updates, and programmatic approaches. In addition to potentially mitigating specific climate hazards, these measures can provide additional benefits and enhance community well-being and quality of life. Specific mitigation measures and strategies identified during community engagement efforts and the plan’s analysis are discussed in more detail in Section 5. Table 6 provides an overview of mitigation strategies and solutions that can reduce the impacts of climate change while providing examples of potential added community benefits. Distributed green infrastructure, for example, can control the volume of stormwater to reduce the impacts of urban flooding. Depending on how the green infrastructure feature is designed, it can also support sustainable development, economic revitalization, social equity, improved public infrastructure, biodiversity, and public health.

Franklin Park Climate Resiliency Plan

Table 6: Summary of Mitigation Measures for Climate Impacts and the Potential Co-benefits

Climate Impact	Mitigating Measures	Solutions	Top Co-Benefits*
Urban Flooding  	Reduce Runoff	- Decrease impervious surfaces to limit the volume of runoff that can contribute to flooding. - Rain barrels can be connected to residential or commercial roof drains to reduce the volume of runoff flow to the streets.	Water Quality - reduce the volume of runoff, which is a major contributor of pollution entering streams, lakes, and waters; Soil Erosion - decrease peak runoff rates and preserve local landscape by reducing topsoil erosion; Social Equity - reduce the volume of runoff that can cause basement backups or nuisance flooding and cost for insurance.
	Volume Controls	- Regional detention basins can be installed on vacant lots or other more significant areas and provide large-scale detention volume during larger storm events or act as compensatory storage in floodplains. - Distributed green infrastructure (e.g., permeable paving, bioinfiltration, green roofs, natural landscaping) are small-scale practices that can be placed in strategic locations where the storm sewer network is overwhelmed or across an entire community to alleviate flooding and basement backups during smaller rain events.	Sustainable Development - beautify the community and increase green spaces; Economic Revitalization - reduce nuisance flooding that can be a barrier to economic growth and prosperity; Social Equity - reduce the potential for basement backups or nuisance flooding and cost of insurance; Public Infrastructure - reduce nuisance flooding that can disrupt public transit routes people use to get to jobs, medical visits, or school; Parks and Open Spaces - regional detention basins can act as large green spaces and serve as a passive recreational walking area; Biodiversity - incorporate native vegetation and develop multilayered landscapes with canopy trees, ornamental trees, shrubs, and perennials; Public Health - passive recreational areas and green spaces positively impact mental and physical health.
	Improve Conveyance	Increase pipe sizes or combined sewer disconnections if they are serving as bottlenecks and causing water to pond due to limited conveyance capacities.	Social Equity - improve storm sewer capacities and reduce the potential for basement backups or nuisance flooding; Public Health - reduce the potential exposure to contaminated flood waters and potential waterborne illnesses that might result from basement backups.
	Policy and Ordinance Changes	Evaluate ways to make programmatic changes requiring storage to be added with new development; require or incentivize	Sustainable Development - implement policies that beautify the community and increase green spaces; Economic Revitalization - reduce nuisance flooding

Franklin Park Climate Resiliency Plan

Climate Impact	Mitigating Measures	Solutions	Top Co-Benefits*
		developers to implement ways to reduce runoff rates for stormwater flowing off-site and ways to include green infrastructure with public infrastructure improvements.	that can be a barrier to economic growth and prosperity; Social Equity - reduce the potential for basement backups or nuisance flooding
	Improve Maintenance of Existing Infrastructure	Develop a long-term asset management plan that will help improve the existing stormwater infrastructure's operating capabilities and deliver a desired level of flood protection while minimizing the total cost of owning the asset.	Social Equity - provides new local job opportunities; Public Infrastructure - reduce the cost for addressing failing infrastructure as a result of flooding and have long-term implications on the municipal budget.
Riverine Flooding  	Volume Controls	- Regional detention basins can be installed on vacant lots or other larger open areas and provide large-scale detention volume that can reduce the volume flowing downstream to rivers or act as compensatory storage in floodplains. - Distributed green infrastructure (e.g., permeable paving, bioinfiltration, green roofs, natural landscaping) are small-scale practices that can be placed strategically to promote infiltration and reduce the runoff that flows downstream into local streams.	Social Equity - provide other living opportunities for those stuck in floodplains; Biodiversity - restore floodplain areas with native vegetation and multilayered landscapes with canopy trees, ornamental trees, shrubs, and perennials; Sustainable Development - remove structurally failing buildings as a result of frequent flooding and beautify the community with increased green spaces; Public Health - reduce the stress of living in a floodplain and the associated financial burden it can have on residents.
	Erosion Protection	Use native landscaping and engineered systems to protect stream banks and riparian corridors to limit the potential for channel migration and sediment flowing downstream.	Sustainable Development - beautify the community and increase green spaces; Economic Revitalization - reduce riverine flooding that can be a barrier to economic growth and prosperity; Social Equity - reduce the potential for flash flooding or prolonged flooding as river water levels rise out of their banks; Parks and Open Spaces - regional detention basins can act as large greenspaces and serve as a passive recreational walking area; Biodiversity - incorporate native vegetation and develop multilayered landscapes with canopy trees, ornamental trees,

Franklin Park Climate Resiliency Plan

Climate Impact	Mitigating Measures	Solutions	Top Co-Benefits*
			shrubs, and perennials; Public Health - passive recreational areas and green spaces positively impact mental and physical health.
	Property Buyout	Buy properties within the floodplain to reduce the number of buildings that will be impacted by riverine flooding.	Water Quality - improve riverine water conditions by reducing the amount of suspended solids present; Parks and Open Spaces & Public Infrastructure - reduce potential for undercutting existing walkways and other public infrastructure adjacent to streams and rivers.
Mean Air Temperature and Extreme Heat 	Reduce Impervious Surfaces	Decrease the number of concrete surfaces that can absorb and retain the sun's radiation by using permeable pavers and green roofs or by replacing unused parking areas with native vegetation.	Sustainable Development - replace impervious surfaces with green spaces and beautify the community; Biodiversity - incorporate native vegetation and develop multilayered landscapes with canopy trees, ornamental trees, shrubs, and perennials; Public Health - replacing concrete surfaces with green spaces positively impacts mental and physical health.
	Increase Tree Canopy	Add trees to provide shade and to prevent sunlight from reaching concrete surfaces where it can be absorbed.	
	Access to Air Conditioning	- Improve the insulation for older buildings and help them stay cool during hot days. - Designate buildings as community cooling centers. - Build Resiliency Hubs that can be used as cooling stations for the larger public. - Develop community pickup locations or routes to transport people who lack air conditioning to community cooling centers.	Economic Revitalization - improving building insulation will help keep buildings cooler and provide better working conditions and attract more businesses to the community; Social Equity - improving building conditions for renters or providing a cooling center can reduce the financial burden and stress to inefficiently cool buildings and reduce resource consumption; Public Health - reduce the risks for cardiovascular, kidney, and respiratory disorders that are associated with heat waves.
Extreme Cold Spell/Freezing 	Access to heating facilities	- Improve the insulation for older buildings and help them stay warm during extreme cold days. - Designate specific buildings as community warming centers	Economic Revitalization - improving building insulation will help keep buildings cooler, provide better working conditions, and attract more businesses to the community; Social Equity - improving building conditions for renters or providing

Franklin Park Climate Resiliency Plan

Climate Impact	Mitigating Measures	Solutions	Top Co-Benefits*
		- Build Resiliency Hubs that can be used as warming stations for the larger public. - Provide heaters and warming areas at public transit stops. - Develop community pickup locations or routes to transport people who lack access to warm housing to community warming centers.	warming centers can reduce the financial burden and stress to inefficiently heat buildings and reduce resource consumption; Public Health - reduce the risks for hypothermia and frostbite that are associated with cold snaps / arctic blasts.
	Improved Weather Maintenance	Develop a long-term asset management plan that will help improve the existing infrastructure's operating capabilities while minimizing the total cost of owning the asset.	Public Health & Public Transportation - ensure community safety during snow and ice events; Social Equity - provide new local job opportunities to maintain existing infrastructure.
Potable Water Access 	Maintain Access to Safe Drinking Water	- Develop a source water protection plan that identifies sources of drinking water, potential sources of contamination, and threats to water availability. - Replacing aging pipes and other infrastructure that is leading to water quality issues.	Public Health - ensure community has safe and affordable access to drinking water.
Air Pollution 	Improve Building Conditions	- Improve building conditions to prevent air pollutants from entering the building through cracks in the walls or windows and building seams, and repair HVAC systems to limit pollutants from circulating in houses. - Build Resiliency Hubs that can be used as a shelter for the larger public.	Public Health - reduce the risks for cardiovascular and respiratory disorders that are associated with acute poor air conditions; Social Equity - improving building conditions for renters that can prevent hazardous air conditions from entering buildings (forest fire smoke).

* Co-benefits considered included Neighborhood Redevelopment, Social Equity, Economic Revitalization, Public Infrastructure, Public Transportation, Parks and Open Spaces, Public Health, Soil Erosion, Water Quality and Biodiversity.

Franklin Park Climate Resiliency Plan



4. Community Climate Concerns, Visioning and Resilience Goals

Franklin Park's CRP was developed through a community-driven engagement effort that ensured that Village staff, residents, businesses, and other stakeholders had the opportunities to:

- Voice their top priorities, concerns and issues
- Generate ideas for outcomes, solutions and projects
- Provide feedback for the draft vision and goals and recommendations
- Help prioritize recommendations

The overall approach involved three rounds of engagement at key stages of the planning process to ensure that community members a chance to provide input throughout. Each round of engagement built on previous efforts to help develop a community vision, goals and plan recommendations as described below:

- **Round 1:** Listening & Learning. Engaging and listening to community leaders and stakeholders at this stage helped the team better understand climate-related community impacts and begin to identify possible goals and project ideas. The team used this information to develop a draft vision statement and potential goals for the CRP.
- **Round 2:** Defining Vision & Goals. The team worked with the Village to share the draft vision and goals for community review and feedback. Input at this stage helped crystallize the overall vision, goals and objectives and narrow down potential solutions.
- **Round 3:** Refining & Prioritizing. The extensive input conducted during the previous rounds helped the project team develop recommendations and identify projects for the CRP and implementation phase of this program. A final round of outreach for the planning project occurred at this stage to share the updated vision and goals and draft recommendations for community review and feedback. Input at this point helped refine and prioritize draft recommendations.

Comprehensive community outreach strategies and activities were implemented to identify the community's top priorities, concerns, and issues. These efforts aimed to generate ideas for solutions, provide feedback, and help prioritize recommendations. This section provides an overview of the community engagement effort, a synthesized summary of what the community shared, and the Village's climate resiliency vision and goals.

Franklin Park Climate Resiliency Plan

4.1. Community Engagement Plan

The Village worked with the planning team to create a stakeholder list representing key resident groups, community organizations, and local leaders to engage in the planning process. The community engagement plan depicted in Figure 10 comprised a series of intentional engagement and collaboration strategies throughout the process of developing this CRP.



Figure 10: Community Engagement Plan

Based on outreach, residents identified the following as their top resilience priorities:

1. **Flooding.** On average, flooding was the first concern to be identified throughout each aspect of engaging with the Franklin Park community. The floodplains for local tributaries have grown in recent years, and numerous residents have experienced flooding and related damage to their properties. Flooding and extreme weather have also caused power outages and road closures, which can impact emergency evacuation and response efforts.
2. **Extreme heat and heat waves.** Posing a more significant threat to senior and low-income populations, homes that do not or cannot maintain air conditioning are at risk of heat-related illnesses as temperatures increase. This effect is expedited while Franklin Park's green infrastructure and tree canopy remain minimal, contributing to the village's urban heat island.
3. **Increases in storm intensity.** Concerns have been expressed about the damages that can occur from snow and rainfall; if these weather events continue to increase in intensity, residents will struggle to withstand and recover from the adverse effects on their properties. These increases will strain existing stormwater systems that are out-of-date, damaged, or underdeveloped for current precipitation levels. Unease has been voiced about the effects this will have on local businesses and the economic development of Franklin Park.

4.2. Community Engagement Feedback

A summary of key outcomes from the engagement process is presented below. Overview of the materials used during the engagement process and detailed summaries are provided in Appendix D.

Franklin Park Climate Resiliency Plan



4.2.1. Municipal Workshop #1

In this workshop, Village staff and officials provided input on top priorities, issues, and solutions.

Issues/Concerns

- Adding tree coverage or green infrastructure to private property to decrease impervious surfaces is very challenging as is retrofitting older developments.
- The State has undersized storm sewers on Mannheim and Crown roads. Flooding has occurred in the past at this location.
- The Village has the largest heat island in Cook County, and 67% is due to impervious surfaces and pre-established requirements.
- For the manufacturing plants within the community, only 39% of the workforce is now working on site, which means several parking lots are under-utilized throughout the manufacturing areas of the Village.
- The Village is surrounded by rail yards: IHB Railroad Yard to the south, Schiller Park Railroad Yard to the east, and the Canadian Pacific Kansas City Railroad Bensenville Yard to the west. This contributes to low air quality and urban heat island issues.

Solutions to help mitigate these concerns align with those listed in Table 6.

4.2.2. Stakeholder Interviews

Village stakeholders provided input on issues, strengths, and solutions in one-on-one and small-group interviews.

Issues/Concerns: Similar to feedback from Municipal Workshop #1.

- The community is landlocked and built out. It's hard to compete with the newer communities that have more expansion opportunities.
- The limited amount of green space and tree canopy makes it a challenge to consider where to add green infrastructure, given the extensive buildings and pavement. The [Chicago Region Tree Initiative] report shows only 11% of tree canopy coverage within the Village.
- Education is a challenge across the community.
- There are large Hispanic and Polish populations in town, and the language barrier may be a limiting factor. Any communication should be shared in multiple languages.
- Residents have difficulty learning about Village services and Village departments, limiting what residents know about the community.

Strengths

- Departments within the Village (Park, Public Works, Police, Mayor and leadership) are engaged in solutions, and positive initiatives happen because of strong leadership.
- Franklin Park is a very service-oriented community. The police department is attentive to the residents and provides excellent service.
- Franklin Park has a lot of industry and services to offer. People don't have to go far for jobs and services.

Solutions

- The Grand Avenue and Franklin Avenue corridors need economic development and green space.
- Thinking creatively about setbacks or pocket parks to accommodate green space is critical to increasing green space and adding trees.
- Multilingual communication methods can aid in disseminating information regarding resources, including mental health assistance.
- More opportunities to educate the youth regarding important issues would be beneficial.

Franklin Park Climate Resiliency Plan



4.2.3. Focus Group Meetings

Focus Group Meeting #1 was made up of residents, including members of local churches and businesses, and a representative of Canadian Pacific Kansas City Southern (CPKSC) Rail, who own a railyard on the northwest side of the village.

The topics discussed most during the meeting were flooding, sewer issues, and extreme temperatures. The focus group shared experiences and observations of adverse weather impacts, among which they discussed increasingly high winds, flood levels, storm intensity, temperature extremes, and the cold spell of Winter 2024 and drought of Summer 2023. Discussion of weather and climate impacts by group, such as schools/youth, neighborhoods, and businesses.

The group discussed many potential solutions and listed the three highest priorities: permeable parking lots, sewer system improvements, and incentives for local businesses and youth programs to be more mindful of the environment and actions they can take. Other solutions that were posed included tree maintenance and planting, a comprehensive assessment of how existing storm systems will function in future events, EV charging stations, construction of another underpass to eliminate congestion/emissions, and communicating with O'Hare Airport on contributions to compensate for runoff from their site into the village.

Focus Group Meeting #3 reviewed project updates and community feedback, where focus group members had no comments or questions on the community feedback provided. MSG shared with the focus group the potential solutions they voted on during the first focus group the previous spring. The project team used these results to draft potential solutions for each community and helped inform priorities. The discussion moved to the established Focus Areas for Franklin Park. While much of the discussion was centered around Focus Area 1, the other three focus areas were noted with proposed solutions from Geosyntec. The meeting concluded with the intention of collaborating with the Village regarding specific materials and programs that the Village would like to highlight at the open house expo.

4.2.4. Municipal Workshop #2

The workshop gathered input on the proposed draft vision and goals and conducted a mapping activity using the online Mural platform where the participants mapped potential measures or solutions that could better serve the community. The solutions were similar to those listed in Municipal Workshop #1, and included the following:

- There may be opportunities to partner with the school districts and MWRD to convert some parking lots and incorporate green infrastructure. They could also provide opportunities for green roofs and solar projects.
- Village staff noted they could use more green space on the south side of town. Veterans Park District operates a park in that area that could be promoted/considered for more green infrastructure.
- There may be opportunities to incorporate green infrastructure below existing surfaces, which could expand green space while accommodating additional stormwater detention.
- The Village could also look at the Franklin Park Enterprise Zone for incentivizing green roofs. Updates to the landscape code in the industrial area could be beneficial.

4.2.5. Pop-Up Meetings

63 residents were spoken with between the three Pop-Up events held at:

- Passport Event at Franklin Park Library on July 27
- Concert in the Park Series event on July 30
- Gouin Park on August 18

Residents listed power outages and strong winds were the two most prevalent weather impacts they had experienced (it was noted that the high number of tokens for 'power outages' may have been higher than usual due to residential outages from recent storms). Extreme heat and flooding both had the third highest number of votes.

Franklin Park Climate Resiliency Plan



The most popular climate solutions supported by residents were rain gardens/reintroducing native plants and planting more trees in the Village. See Chart 2 through **Error! Reference source not found.**5 for additional details. During the discussions, participants quickly referenced recent events as the reason for their feelings about climate hazards and associated solutions.

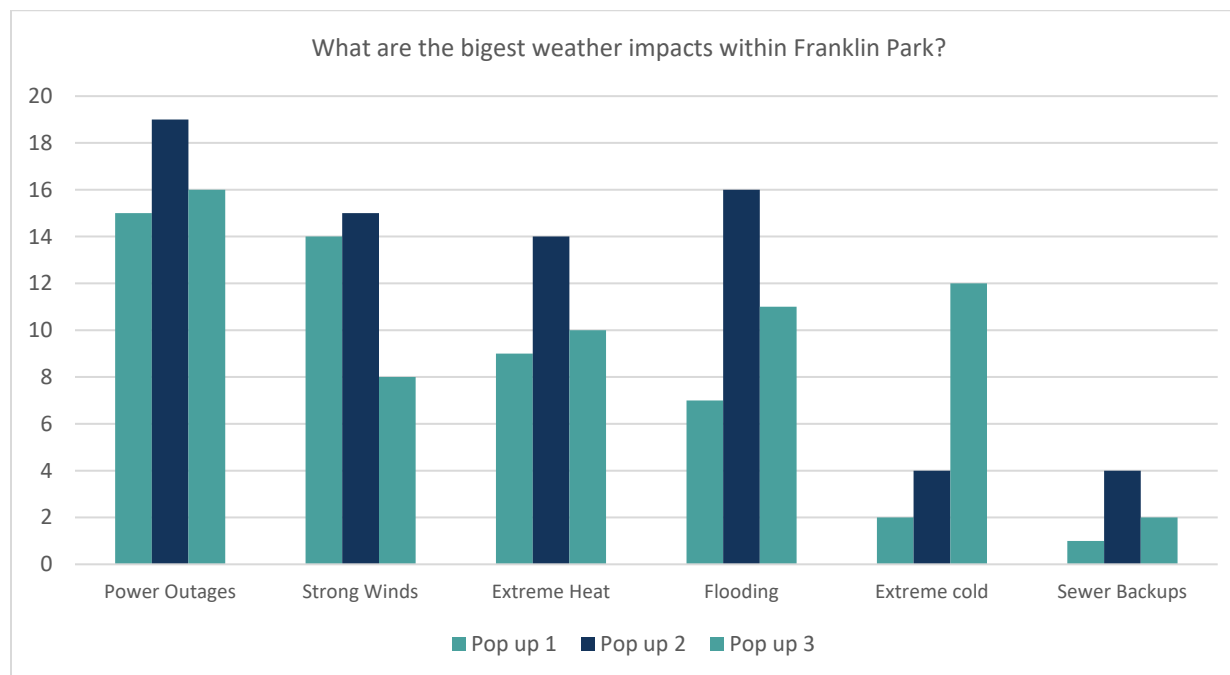


Chart 2: Weather Impacts Breakout by Pop-Up Event

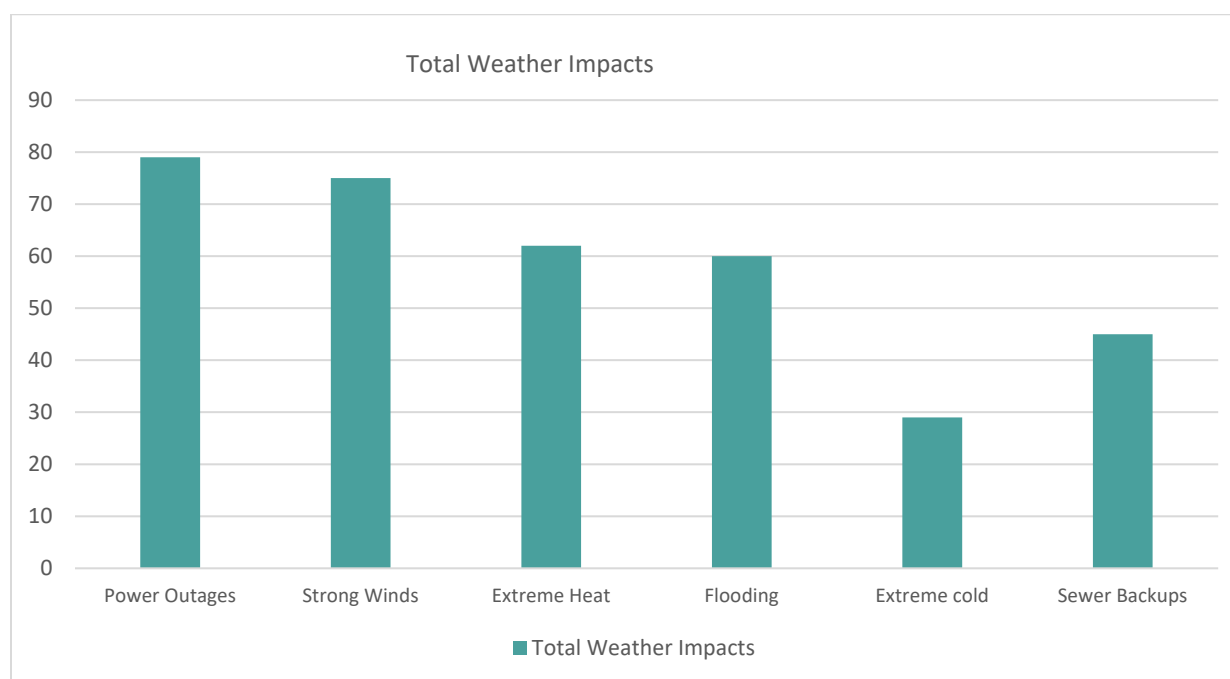


Chart 3: Compiled Weather Impact Response

Franklin Park Climate Resiliency Plan

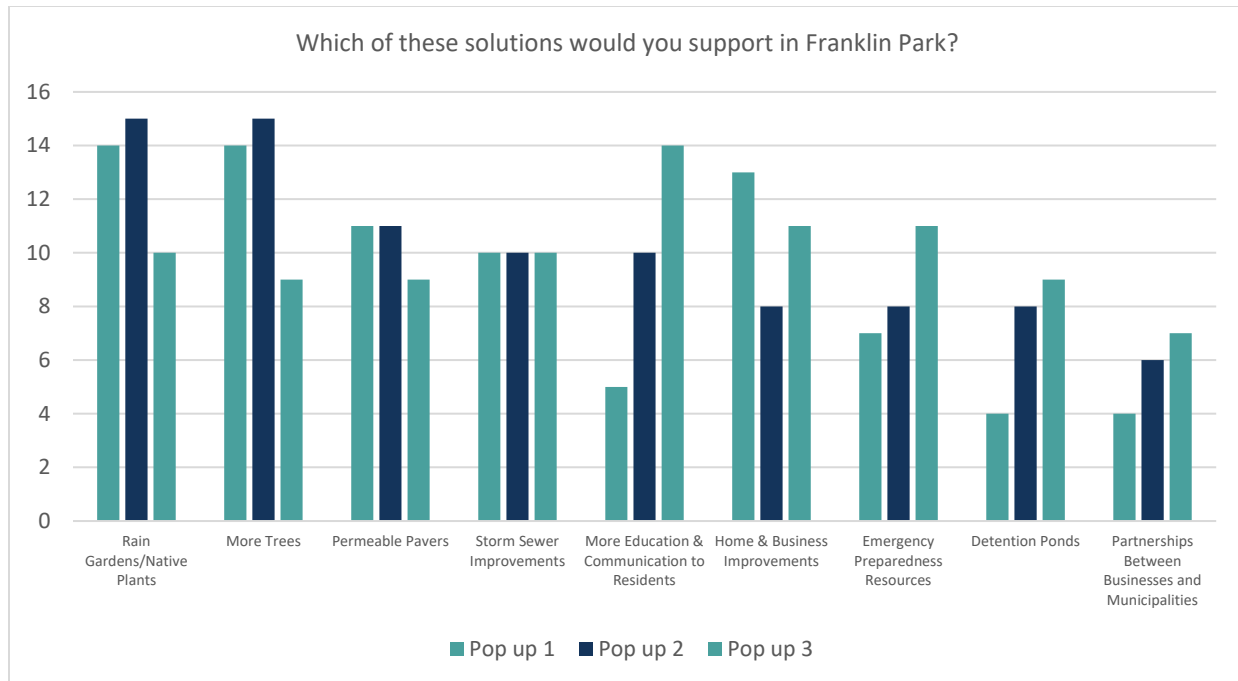


Chart 4: Solutions Supported Breakout by Pop-Up Event

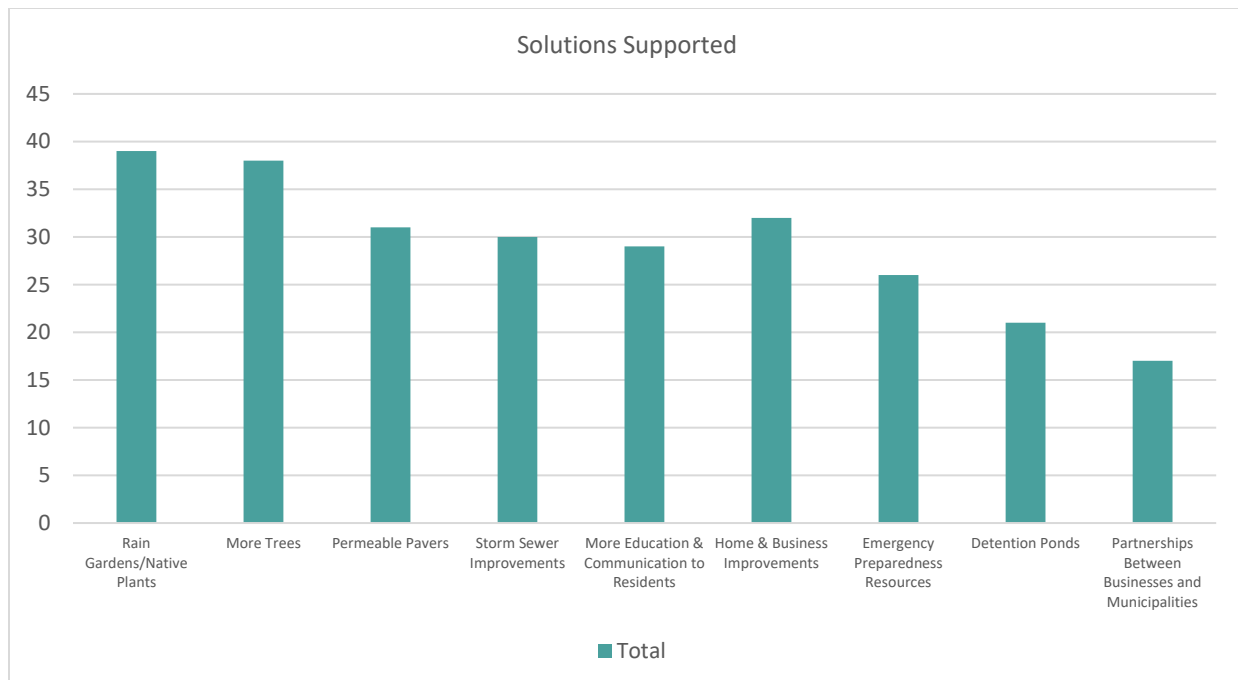


Chart 5: Compiled Solutions Supported Responses

4.2.6. Municipal Workshop #3

Participants in the third municipal workshop provided input on proposed focus areas, programmatic adaptation strategies, and a pathway to implement programs and projects. Village staff welcomed the proposed adaptation

Franklin Park Climate Resiliency Plan



pathways featured in Section 5. Attendees also expressed their interest in opportunities to collaborate and share ideas with the four other communities in Cook County's Climate Resiliency Planning for Communities program.

4.2.7. Open House

The Franklin Park CRP open house was the final community engagement touchpoint for the community-driven planning process. It offered the public opportunities to discuss findings on hazards, focus areas, key resilience solutions, and near-term implementation recommendations with the project team. The format included multiple interactive stations to facilitate conversation and engagement with participants about climate resilience solutions (Appendix E); see Figure 11. In addition to the general discussion of climate resilience in Franklin Park, much of the feedback focused on these topics:

- Attendees expressed general interest in tree planting, small-scale infrastructure, and permeable pavement options.
- Permeable paver function was of particular interest and was discussed multiple times regarding how the Police Department building currently has permeable pavers and the longevity of it and that maintenance is key to functionality.
- Attendance from a junior high school class brought a strong interest in learning about the impacts of climate change and resiliency solutions.



Figure 11: Open House Discussion of Appropriate Resilience Solutions

Franklin Park Climate Resiliency Plan



4.3. Community Priorities

Based on the Community Engagement effort, Franklin Park's top climate concerns and priorities are as follows:

Storm- and Flood-water Management Issues

Maintenance of GI on Private Property

Urban Heat Islands

Extreme Heat and Cold Spells

Sustainable Economic Development

Public Education

- Residents and municipal staff have reported the need for more pervious surfaces and green space within the community, incorporating stormwater management and reducing urban heat island impacts.
- The Village seeks to ensure students, businesses, and residents have access to safe living conditions during extreme heat and cold spells.
- Village staff has the capacity to maintain green infrastructure on public property but is concerned about implementation and maintenance on private property.
- Existing infrastructure owned by the State has been identified as being undersized, and outlets to Silver Creek potentially cause delayed release for stormwater within the system.
- The Village aims to improve climate and resiliency education for community members. Village staff seeks capacity-building resources for future resiliency projects and guidance on engaging and educating the community about smaller-scale resiliency opportunities.
- Tree planting with diverse species and in multiple locations throughout the community has been identified as a priority for improving aesthetics as well as reducing heat island impacts.
- Municipal staff emphasized engaging private property owners in reducing impervious surfaces through incentives, fee reductions, and other programmatic options.

4.4. Cook County 2024 Hazard Mitigation Plan

In conjunction with the participating communities, the Cook County Emergency Management and Regional Security (EMRS) completed the 5-year update of the Cook County Multi-Jurisdictional Hazard Mitigation Plan (2024) that outlines mitigation goals, actions, and projects for Franklin Park. The Cook County EMRS planning process is intended to involve the public reviewing and updating the plan. Twenty-five actions were established through the planning process to mitigate the impacts of climate hazards, including developing a CRP. Many of these are incorporated in this plan and specifically within the project prioritization section.

4.5. Community Vision and Resilience Goals

Franklin Park's vision statement and climate resilience goals were developed through feedback gathered from the engagement process.

Identifying Community Values and Goals. At Workshop #1, municipal staff generated a comprehensive list of community values and goals aimed at achieving a climate-resilient future. This list was based on an in-depth discussion of relevant climate hazards.

Crafting Vision Statements. This input was then synthesized to formulate vision statements. These statements reflect the core community qualities highlighted by workshop attendees and community stakeholders.

Franklin Park Climate Resiliency Plan

Developing Thematic Goals. A systematic process was employed to develop the resilience goals. Information was consolidated and grouped into themes. For each theme, specific goals were tailored to address particular climate hazards. An example of this process is illustrated in Figure 12.

Finalizing Vision and Goals. After developing the community goals, the resilience planning team conducted polls among municipal staff to gather feedback, which was overwhelmingly positive. The planning team then presented the vision statement and goals at Municipal Workshop #2 to confirm there were no additional comments. The vision and goal statements were finalized accordingly.

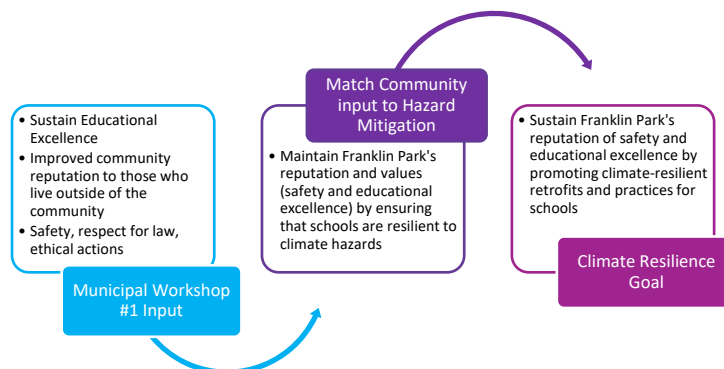


Figure 12: Illustration of the process for developing community goals

Vision Statement

As a burgeoning economic hub and certified Bee City, Franklin Park is the *Village that Produces* in more ways than one. Its convenient location along I-294 and the Metra, with easy access to O'Hare and downtown Chicago, makes the Village a prime spot for business, infrastructure, and transportation that will stand the test of time. Franklin Park is committed to protecting its diverse and vibrant community from the impacts of climate change and is taking concrete steps towards building a safe, sustainable, future.

Community Resilience Goals

Engage the community with resilience efforts by launching educational initiatives on climate and sustainability.

Increase greenery and tree canopy to help mitigate the urban heat island effect, improve air quality, increase resilience to flooding, and make Franklin Park a sustainable, lush, and vibrant city.

Sustain Franklin Park's reputation of safety and educational excellence by promoting climate-resilient retrofits and practices for schools.

Add natural vegetation to the CBD and facilitate working sessions with the train operators to generate win-win solutions to reduce congestion and dangerous heat produced by idling trains and vehicles.

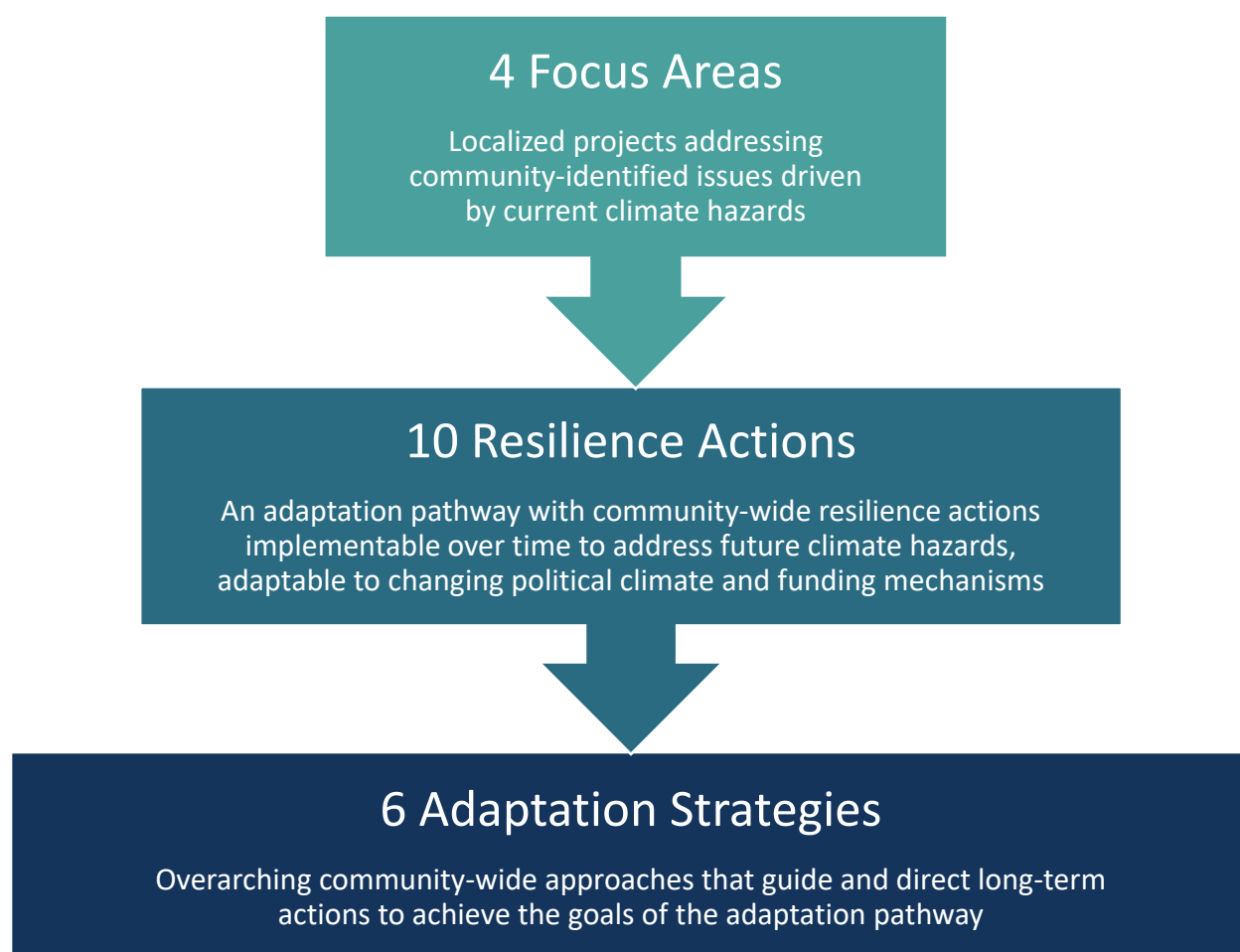
Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.

Franklin Park Climate Resiliency Plan



5. Building a Climate Resilient Community

This section presents a list of implementable projects and programmatic adaptation strategies (overall plans or approaches) to achieve community goals by implementing climate-resilient actions (steps taken to implement strategies), thereby mitigating the climate hazards of the most significant concern to the community. The section starts with recommended localized projects that address community-identified problems, which are much more driven by the emphasized current flooding and stormwater impacts. The section then outlines an adaptation pathway to efficiently sequence, prioritize, and implement additional resilience actions over the coming decades. As climate hazards change, the community-wide adaptation strategies can guide and direct efforts on the pathway to help Franklin Park achieve its long-term goal of being more resilient to climate hazards by mitigating not only the impacts of flooding and stormwater problems but also other climate hazards the community may face.



Franklin Park Climate Resiliency Plan



5.1. Community Focus Areas

Focus areas for the Village are clusters of projects targeting a specific problem area identified by the community. Community feedback, a preliminary site assessment, and publicly available information were used to arrive at a recommended list of projects. Figure 13 shows the locations of the four focus areas. Appendix F includes posters that present the location of the different focus areas and potential solutions discussed during the open house.

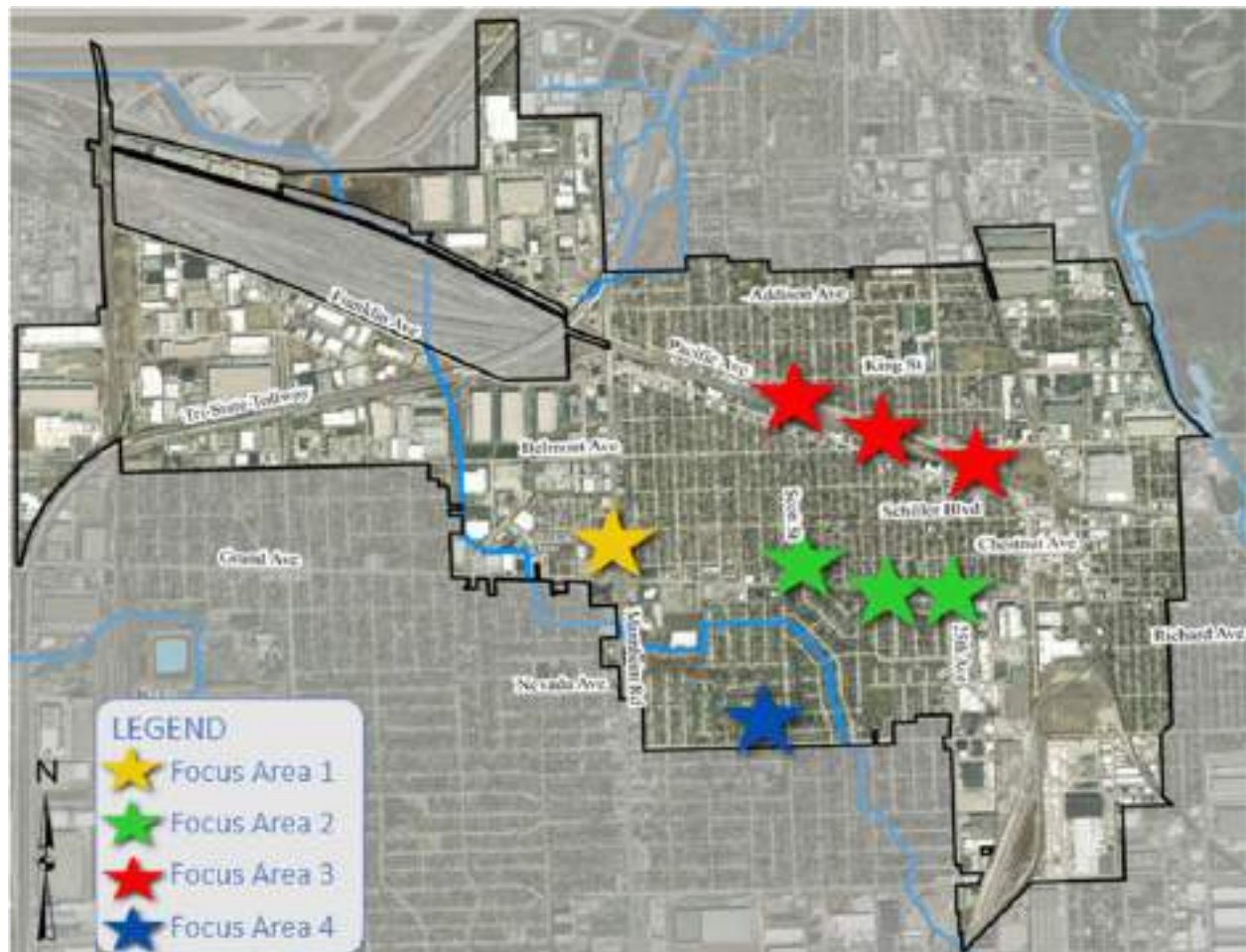


Figure 13: Overview of Franklin Park Focus Areas

5.1.1. Focus Area 1 – Mannheim Road & Crown Road

Overview of the Focus Area

Focus Area 1 is the intersection of Mannheim Road and Crown Road, but the area of concern extends to the small residential neighborhood west of Mannheim Road. This neighborhood is located between the Mannheim Road/Grand Avenue commercial area to the south, the Sureway Group, Inc. building and parking lot to the west, and a power station and several warehouses to the north. The area is predominantly small apartment buildings, parking lots, and commercial lots. The only direct routes in and out of this neighborhood are to the southeast, where Schiller Boulevard allows access to Mannheim Road and Crown Road intersects with Mannheim Road, and an indirect route with Grand Avenue and parking lot backroads. See Figure 14 for an overview of the area contributing drainage to Focus Area 1.

Franklin Park Climate Resiliency Plan



Community Engagement Feedback

Municipal staff identified this area as one of the community's last and longest-lasting street flooding areas. Residents cannot exit the residential area when the street floods, blocking passage for vehicular traffic. The reason identified by public works staff is thought to be the outflow of the storm sewer system in this area, which is controlled by the water level in Silver Creek. If Silver Creek is flooded or high due to a storm event, stormwater cannot exit the storm sewer system and gets backed up onto the streets in this location.

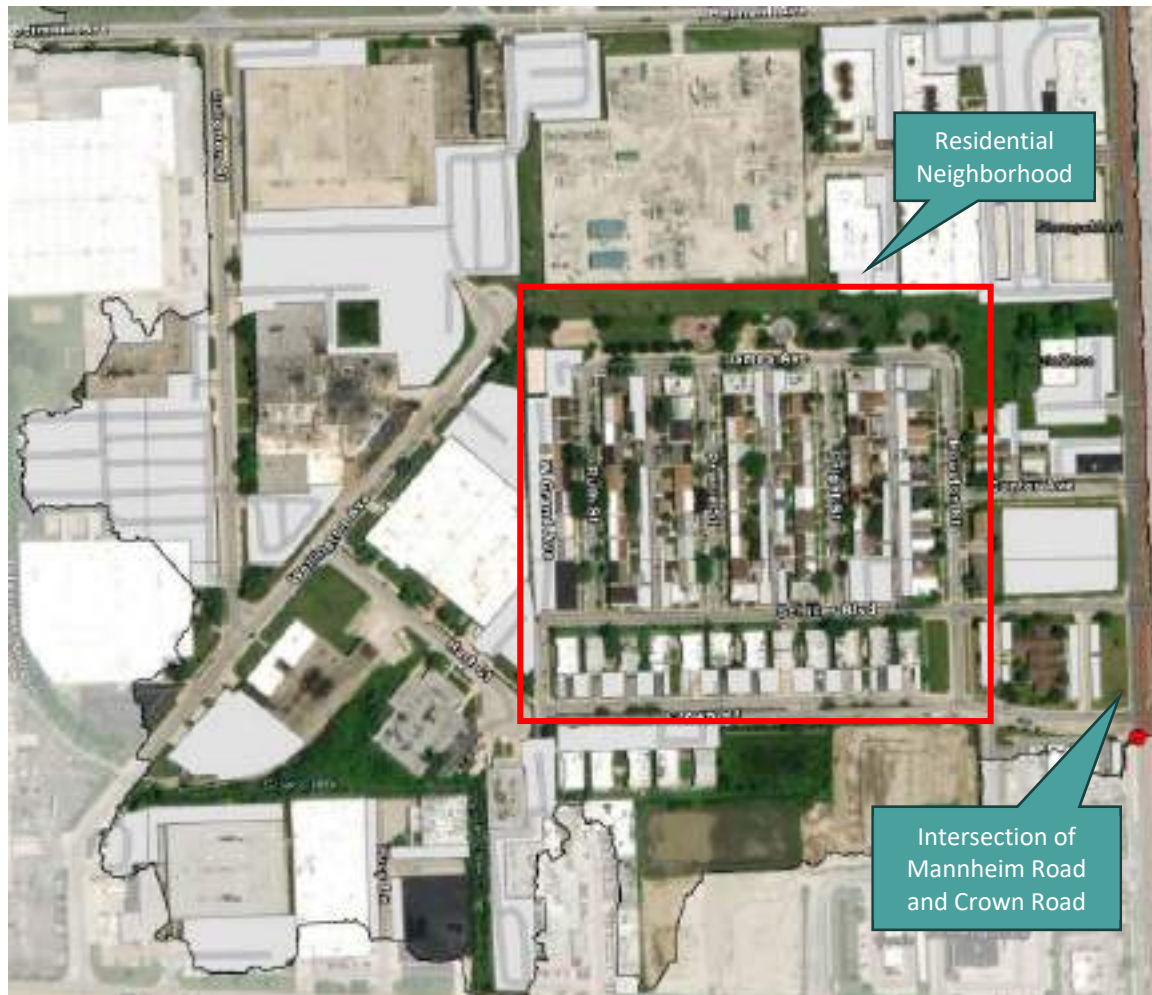


Figure 14: Overview of Focus Area 1

Preliminary Assessment of Underlying Causes and/or Data Gaps

Public works staff identified that the Illinois Department of Transportation (IDOT) has undersized sewers at Mannheim and Crown roads, and the road sits low. Therefore, during high-intensity rainfall events (large amounts of rain falling quickly), the area can act as a “reservoir,” and Crown Road drains very slowly. Based on the results of the mid-century flooding potential analysis and the information presented in Figure 7 and Figure 8, this area is less likely to see an increase in flooding depth due to changes in rainfall depths. However, when looking at existing flooding risk, see Figure 15, the flooding analysis of the existing conditions shows a majority of Crown Road as having an increased flooding risk, areas with darker blue, from W Grand Ave to Mannheim Road. Since the storm sewer for this area is controlled by flows in Silver Creek, a full study of the stormwater infrastructure and a hydraulic model review of this area would allow for a more thorough characterization of the direct causes and solutions to the street

Franklin Park Climate Resiliency Plan



flooding occurring here. The analysis done for this plan was a terrain-based analysis that identifies depressional areas and shows how water will pond in the absence of functioning stormwater infrastructure.



Figure 15: Modeled Flood Inundation and Depth for Focus Area 1

Recommended Solutions

Providing runoff with an alternate detention location would ease flooding levels from the Mannheim/Crown intersection. Underground detention using storm traps, bioswales, and similar infrastructure allow for efficient stormwater storage.

Franklin Park Climate Resiliency Plan



- a) **Underground stormwater storage and pocket park at Schiller Boulevard & Houston Street.** A vacant lot owned by the Village of Franklin Park is located at the southwest corner of Houston Road and Schiller Boulevard. This lot would be ideal for underground detention, such as a storm trap, during flood events until the Silver Creek level is stable enough to pump the stormwater to. The lot's surface would be capable of supporting green space, including trees, allowing the opportunity for a pocket park with trees for shade. See Figure 16 for location and example pocket park.
- b) **Permeable pavement in the alley between Bright St & Prairie St.** Permeable pavement or pervious pavement allows stormwater to permeate the surface and infiltrate into the soil beneath, preventing stormwater from entering the storm sewer system and preventing street flooding. These systems can be aesthetically pleasing as well when pavers are used.
- c) **Bioswale planting strips in the right-of-way along Houston Street.** Bioswales provide additional green space and with correct grading provide stormwater storage and infiltration to prevent stormwater from reaching the street and the storm sewer system. Increasing infiltration capabilities within this neighborhood will prevent stormwater from causing backups and flooding the intersection of Crown Road and Houston Street.



Figure 16: Vacant Lot at Schiller Blvd & Houston St, Diagram of a Pocket Park over an Underground StormTrap® (Image Courtesy of Google Earth, 2025 and www.stormtrap.com)

5.1.2. Focus Area 2: Grand Avenue

Overview of the Focus Area

Focus Area 2 is along Grand Avenue at Willow Street, 25th Avenue, Chestnut Avenue, and Hawthorne Street. As one of Franklin Park's largest and most central roads, access to and along Grand Avenue is a high priority for residents. Many of Franklin Park's economic centers are located along Grand Avenue, but the corridor has little tree canopy, green spaces, and pervious surfaces.

Specific Community Engagement Feedback Related to Focus Area

Concerns have been raised about the lack of existing green space and tree canopy and flooding along the corridor at low points. Adverse weather conditions have been acknowledged as still impacting the local village economy even when they are not severe enough to cause damages or emergency scenarios. Using ECOPIA land cover data, Figure 17 provides an overview of where potential green spaces – e.g., tree canopy and bioswales, and permeable pavement can be added to the corridor. The green polygons in the figure represent forest, grass, and planting strips on the right-of-way, the purple polygons represent vacant properties, and the orange polygons represent sports fields, all of which are ideal land covers for implementing climate mitigation solutions.

Franklin Park Climate Resiliency Plan



Figure 17: Grand Avenue Overview

Preliminary Assessment of Underlying Causes and/or Data Gaps

While surface flooding has mostly been addressed in this area, the identified levels of concrete and lack of greenery and walkability are the largest concerns of stakeholders. The amount of pavement and impervious surfaces along this busy corridor increase the heat island effect in Franklin Park and the lack of walkability and aesthetically pleasing greenery make it less attractive to foot traffic and a safety concern for pedestrians and bicyclists.

Recommended Solutions

The Chicago Metropolitan Agency for Planning (CMAP) is finalizing the Grand Avenue Corridor Plan, which will recommend improvements along the corridor to increase green space, decrease impervious surfaces, increase economic development, increase walkability, and allow for traffic calming along the corridor. In addition to CMAP's recommendations, Grand Avenue's infrastructure improvements would likely benefit most from permeable pavement reconstructions in parking lanes and the implementation of green spaces. The Grand Avenue Corridor would make a good candidate for a Green Street initiative, see Figure 18.

Some example recommendations for Grand Avenue from CMAP's Grand Avenue Corridor Plan include incorporating green infrastructure in renovations, street improvements, and new developments along the corridor, such as:

- a) **Permeable Pavement.** The area has many parking lanes and parking lots that could benefit from permeable pavers. These would increase storm water infiltration and prevent it from reaching the street and storm sewers while increasing green space and reducing impervious surfaces.

Franklin Park Climate Resiliency Plan



- b) **Bioswales.** Bioswales and infiltration trenches fit well in the right-of-way between the curb and sidewalk and add locations where stormwater can be captured from the street and infiltrate into the ground prior to reaching any storm sewer system. This alleviates burden on the storm sewers and increases greenery while decreasing urban heat island effect.
- c) **Tree-planting.** As identified in Figure 18, trees are an important part of a green street landscape, providing shade, greenery, air quality improvements, and mental health benefits. Planting a variety of trees as indicated in the CRTI tree summary for Franklin Park is very important here.



Figure 18: Example Green Street

Franklin Park Climate Resiliency Plan



5.1.3. Focus Area 3: Pacific Avenue

Overview of the Focus Area

Focus Area 3 is located along Pacific Avenue, at Franklin Park Reservoir and near Hawthorne Ave. Pacific Avenue is another of Franklin Park's major roads, becoming Belmont Avenue at its Eastern end. Franklin Park's village hall, water tower, and police department are located on Belmont Avenue, 1-2 blocks from where Pacific Avenue ends. The Pacific Avenue Corridor has minimal green space and pervious surfaces. Similar to Grand Avenue, Figure 19 provides an overview of ECOPIA land cover data to highlight where potential green spaces – e.g., tree canopy and bioswales, and permeable pavement can be added to the corridor. The green polygons in the figure represent forest, grass and planting strips in the right-of-way, the purple polygons represent vacant properties, and the orange polygons represent sports fields, all representing ideal land covers for implementing climate mitigation solutions see Figure 19.



Figure 19: Overview of Focus Area 3

Franklin Park Climate Resiliency Plan



Specific Community Engagement Feedback Related to Focus Area

Concerns were raised by Franklin Park Municipal Workshop 1 participants about Pacific Avenue's lack of green space and property types along Pacific Ave being incompatible with Franklin Park's downtown area. This incompatibility was noted because of the lack of a buffer zone between the residential area and manufacturing facilities along the railroad. Some minor power outages were reported along Hawthorne Avenue as well.

Preliminary Assessment of Underlying Causes and/or Data Gaps

Pacific Avenue suffers most from excessive paving, where a lack of detention or green infrastructure creates a concern for flash flooding that overwhelms the existing sewer system along the corridor. This also contributes to the heat island impact affecting Franklin Park and the lack of green space for aesthetics that is common throughout the Village.

Recommended Solutions

While there has been some implementation of rain gardens/bioswale or native planting infiltration devices, Pacific Avenue presents a good opportunity for a Green Street initiative or similar green infrastructure program that could also be incorporated into a more street-wide larger focus.

- a) **Permeable Pavement.** The area has many parking lanes and lots that could benefit from permeable pavers. These would increase stormwater infiltration and prevent it from reaching the street and storm sewers while increasing green space and reducing impervious surfaces.
- b) **Bioswales.** There is already some implementation of bioswales or rain gardens along Pacific Avenue through the MWRD program, see Figure 20, but the area could use more of these features. Like permeable pavement, they increase infiltration and decrease impervious surfaces, capturing rainwater before it becomes an issue in the street or the storm sewer system. These also provide green space and native vegetation that encourages pollinators to thrive.
- c) **In-ground detention.** There are potential areas for implementing in-ground detention for stormwater along Pacific Avenue, similar to the recommendation for Focus Area 1. The in-ground detention allows the surface to be used as a park or other green feature where trees can be planted while keeping stormwater from entering the storm sewer system when already at capacity from storm events.



Figure 20: Rain Garden Implemented through MWRD Program

Franklin Park Climate Resiliency Plan



5.1.4. Focus Area 4: Gouin Park

Overview of the Focus Area

Focus Area 4 is Gouin Park, located on Scott Street and Fullerton Avenue (Figure 21). The Gouin Park site includes two baseball fields, a beach volleyball court, three tennis courts, a playground, a pool and water slides area, two parking lots, and two buildings. The surrounding area is residential in every direction, with Faith Baptist Church across Fullerton Avenue, Scott Elementary School two blocks south along Scott Street, and Pietrini Elementary School three blocks east along Fullerton. The reservoir off Mannheim Rd is located about two blocks to the northwest.

Specific Community Engagement Feedback Related to Focus Area

Stakeholders for Gouin Park raised concerns as a low-lying area with surface flooding and an ideal location for additional green space. Municipal staff identified that the storm sewer on Scott Street has the capacity for additional stormwater, and the backyards along the park's northern border saw the most nuisance flooding.

Preliminary Assessment of Underlying Causes and/or Data Gaps

Gouin Park does not currently have an effective drainage system. The Village of Franklin Park typically spends around \$100,000 on pumping and grading annually to address backyard flooding and yard drainage for the surrounding area. When looking at existing flooding risk, Figure 22 to the right, the flooding analysis of the existing conditions shows there is a large portion of the park in the northwest corner that is at an increased flooding risk, areas with darker blue. While Gouin Park is a lower priority than the other focus areas, the repeat nuisance and costs due to the backyard flooding that accompanies park flooding ensures that Gouin Park qualifies as a focus area.



Figure 21: Overview of Focus Area 4



Figure 22: Gouin Park with Modeled Flood Depth and Inundation for the 10-Year Event

Franklin Park Climate Resiliency Plan



Recommended Solutions



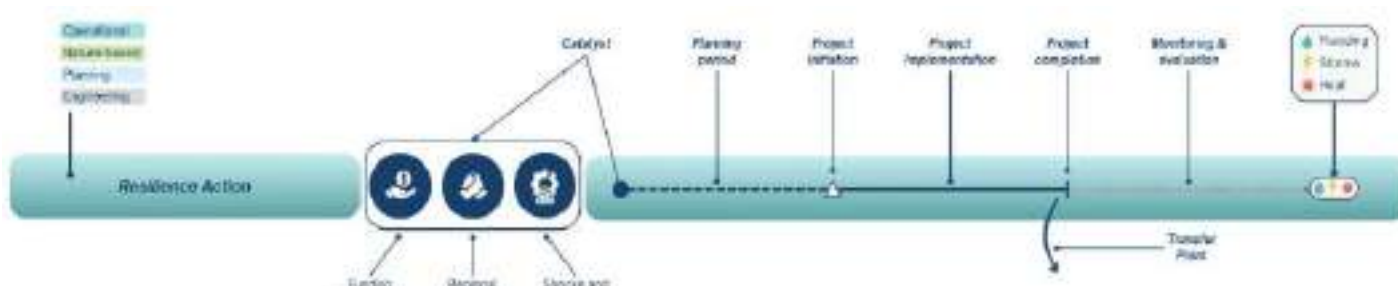
Figure 23: Example Bioswale Planting Strip

A storm sewer along the park's northern border to convey ponded water and backyard nuisance flooding to the existing storm sewer along Scott Street could solve the issue for most of this park. Additionally, distributed storage and bioswales along Nevada Ave, Scott Street and West Fullerton Avenue would reduce runoff flowing to the northwest part of the park and add infiltration for any surface stormwater the new storm sewer would not have the capacity for. This would also provide an opportunity for native plantings for beautification, informational purposes, and pollinator habitat. Figure 23 shows what a bioswale planting strip could look like for Gouin Park.

5.2. Climate Resilience Adaptation Pathways

The resilience planning team applied the input gathered throughout the community engagement process to develop a list of targeted resilience actions that, if implemented, will help to protect Franklin Park against the worsening impacts of climate change. These actions are the components of a community-wide adaptation pathway—a strategic framework that outlines how the Village might efficiently sequence, prioritize, and implement resilience actions over the coming decades. Adaptation pathways both address existing problems and chart a flexible, cost-effective course toward a more resilient future. The Focus Area solutions identified in Section 5.1 are steps along these pathways.

Implementation of community-wide resilience actions will follow a sequenced, interconnected adaptation pathway illustrated below. Each action categorized as **(O)Operational, (N)Nature-Based, (P)Planning, or (E)Engineering** will be initiated or change course anytime during the implementation process, depending on external factors such as funding opportunity, regional collaboration, and climate stressors.



Color Codes indicate “type” of resilience action

Operational	Actions may include a system or program to achieve a certain resilience goal.
Nature-based	Actions refer to green infrastructure aimed at mitigating a specific hazard.
Planning	Actions include ordinance or policy changes that encourage a resilient practice.
Engineering	Actions refer to new or updated gray infrastructure targeting a specific hazard.

Transfer Points are triggered by catalysts or change in climate hazard experienced by the community at the time.

Franklin Park Climate Resiliency Plan



Catalysts identify key external factors that may initiate Franklin Park’s pursuit of a given resilience measure. The three key catalysts are:



Funding Opportunity: This may include the Village receiving a grant or even an internal decision to direct municipal funds towards a certain project.



Regional Collaboration: This may include informal partnerships with neighboring towns or participation in opportunities like the Chicago Region Trees Initiative (CRTI).



Shocks and Stressors: This refers to climate hazards worsening either through repeated impacts (i.e., stressors) or extreme events (i.e., shocks), requiring attention to prevent future or further damage.

The adaptation pathway includes several components, including the resilience action’s catalyst, a general timeframe estimate for project planning, initiation, and implementation, *and a monitoring and evaluation period. Some actions also include badges indicating the recurrence of a relevant climate hazard. These badges are included when a climate hazard influences the next steps along a pathway or prompts shifting efforts to a new action. These shifts between actions are referred to as transfer points.*

Figure 24 presents a sample adaptation pathway. In this example, the first action is to conduct a community-wide drainage study. This engineering-based action will equip the community with the necessary information to address flooding efficiently. A funding opportunity (e.g., the Cook County Climate Resilience grant funding this work) is the catalyst. After a brief planning period, practitioners could feasibly complete the study by 2030. Upon the study’s completion, the community will have a good sense of where small-scale green infrastructure might be most effective to mitigate flooding, and practitioners may transfer to this subsequent, nature-based action in response to a funding opportunity or after observing flooding-related damage to infrastructure. The community may monitor the efficacy of the installed small-scale green infrastructure once it is complete, particularly following a major flooding or storm event, which could illuminate that additional small-scale green infrastructure is necessary, and the pathway could restart.

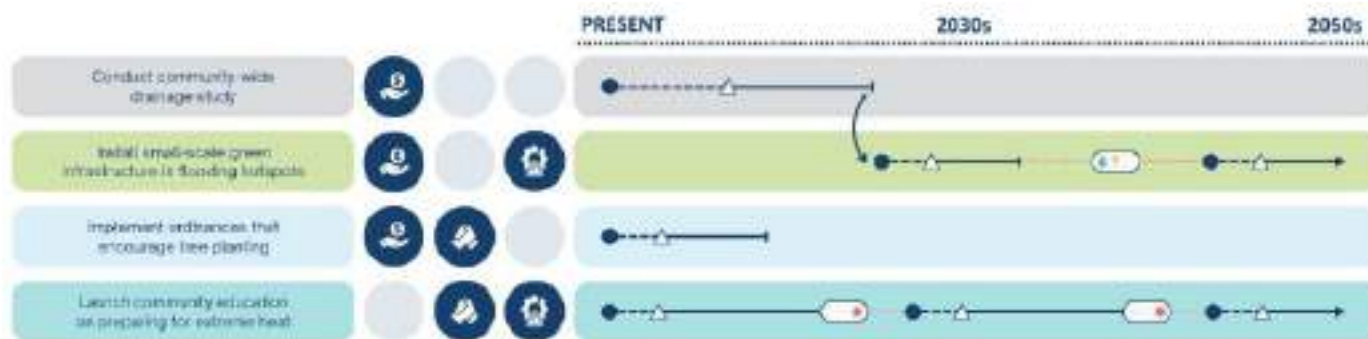


Figure 24: Sample Adaptation Pathway

Franklin Park Climate Resiliency Plan



The third, planning-based action, is an example of a standalone resilience measure that can be pursued in parallel with the drainage study. In this instance, implementing ordinances that encourage tree planting can proceed independently in a relatively short timeframe. The fourth action would add a permanent and ongoing community education program to prepare for and cope with extreme heat. As part of this action, the municipality would monitor whether specific populations in the community were unprepared or disproportionately impacted by the heat, which would help identify where to expand outreach and education. This process may repeat with every major heat event.

The community-wide adaptation pathway for Franklin Park is presented in Figure 25. The pathway aligns with Franklin Park's strategies and priorities to be more resilient to climate hazards while aligning with community interests, resource limitations, and co-benefits.

Franklin Park Climate Resiliency Plan

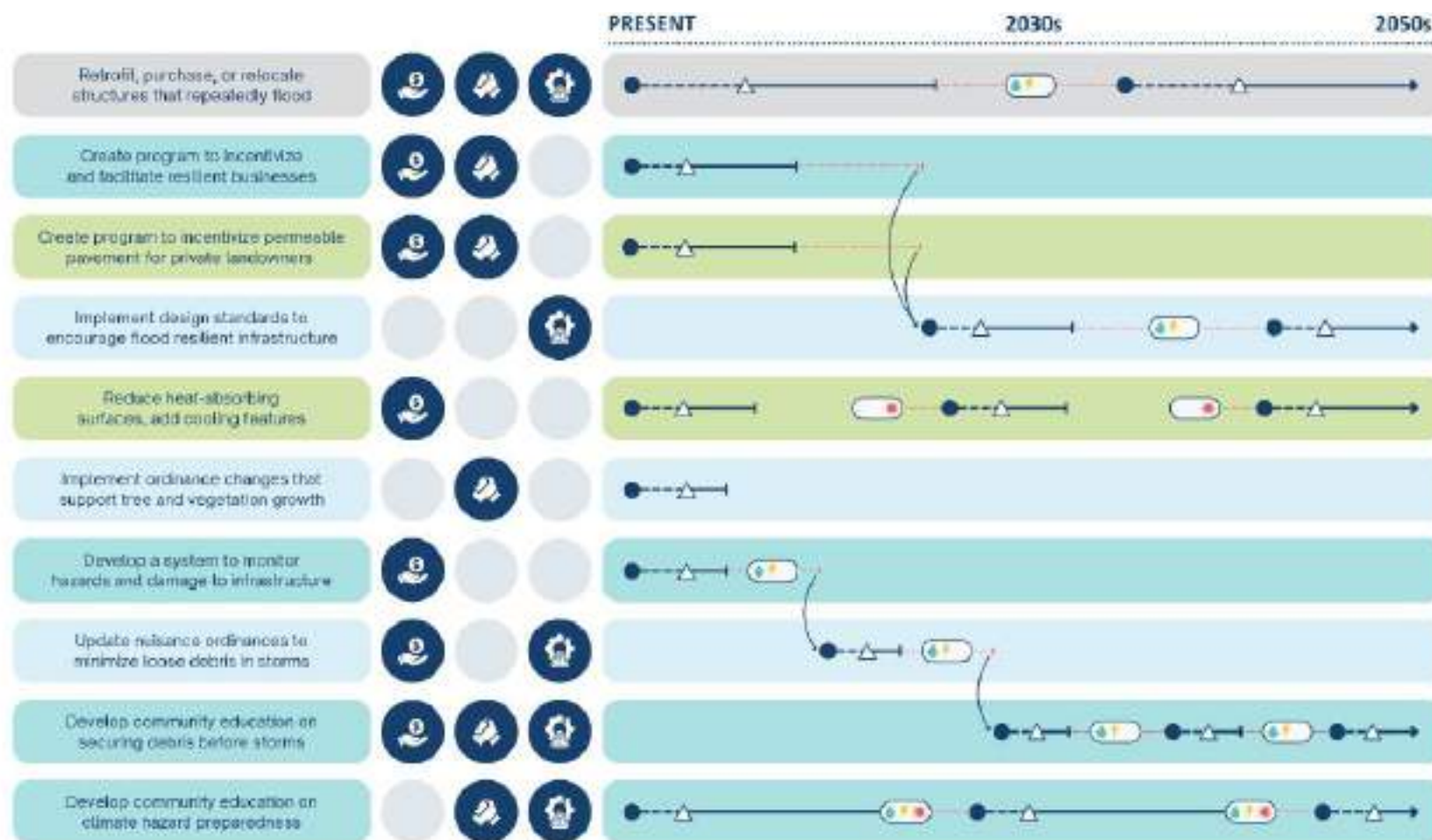


Figure 25: Franklin Park Adaptation Pathway

Franklin Park Climate Resiliency Plan

5.3. Strategies for a Climate Resilient Franklin Park

The resilience planning team used a combination of quantitative analysis and input from the year-long series of workshops, stakeholder interviews, and focus group meetings to identify key locations across Franklin Park that are most impacted by climate-related hazards (flooding, extreme heat, and severe storms) as identified in Section 5.1. Section 5.2 shows the pathways utilized for implementing these solutions. The planning team also developed materials to help community members understand and prioritize six major categories of resilience solutions that include the resilience actions described in the Adaptation Pathway as Operational (O), Nature-based (N), Planning (P), and/or Engineering (E). The following strategies can be implemented in Franklin Park over time.

5.3.1. Strategy #1: Address Urban Forest and Heat Islands

The Chicago Region Tree Initiative (CRTI) analyzed the urban forestry in Franklin Park and found the Village has less canopy cover than its neighbors and more gray infrastructure than most. The report indicates Franklin Park has about 11% canopy cover and could increase its canopy to 60%. The tree cover the Village does have is of low species diversity, with a recommendation to have no more than 15% of trees in a single family to increase the resilience of the canopy to pests and disease. Urban trees will help alleviate Franklin Park's heat island issue and add greenery to a grey and impervious landscape. Trees also store carbon dioxide, remove pollutants from the air, and intercept stormwater to help reduce flooding. They can increase property values and make the community more aesthetically pleasing while improving resident health in many ways.

Resilience Action(s)

1. **(P)** Assess potential funding mechanisms, such as grants, loans, and internal funds.
2. **(O)** Inventory and assess urban forest
3. **(P)** Develop a tree planting plan using recommended guidance for urban forest diversity. Planting should focus on areas owned by the Village first.
4. **(N)** Consider opportunities for expanding the urban forest to areas previously devoid of trees, including large impervious areas coupled with stormwater improvement activities.

Strategy #1 aligns with the following community resilience goals:

Increase greenery and tree canopy to help mitigate the urban heat island effect, improve air quality, increase resilience to flooding, and make Franklin Park a sustainable, lush, and vibrant city.

Sustain Franklin Park's reputation of safety and educational excellence by promoting climate-resilient retrofits and practices for schools.

Add natural vegetation to the CBD and facilitate working sessions with the train operators to generate win-win solutions to reduce congestion and dangerous heat produced by idling trains and vehicles.

Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.

Target Climate Hazard(s)



Franklin Park Climate Resiliency Plan

5.3.2. Strategy #2: Implement Distributed Green Infrastructure

Modern stormwater systems typically consist of two primary elements: conveyance and storage. Conveyance is critical to move water downstream, and storage is primarily needed to offset the excess rainwater volume generated due to the creation of impervious cover. Concepts for stormwater storage largely became common after the Village was largely built out, leading to problematic local flooding. Storage solutions are often space-limited, prompting additional considerations to address stormwater volume. GI can be used to help bridge this gap. Initiated largely to promote stormwater water quality and infiltration, GI can also be implemented to capture runoff that causes local flooding from rains of <1 inch or less. Strategic placement of GI can include storage solutions in space-constrained areas, taking advantage of what space is available. While GI placement should be strategic, it should also be embraced as a community-wide practice to have the largest impact.

Resilience Action(s)

1. **(P)** Adopt a GI stormwater policy and approach
2. **(O)** Assess GI placement opportunities in unused or underutilized spaces. Examples are further highlighted in all Focus Areas identified in Section 5.1. GI coupled with stormwater improvements from Strategy #1 will have the highest overall benefit.
3. **(P)** Develop pilot projects for implementation at the neighborhood level to evaluate resident response. Other key locations can be community facilities with high public visibility.
4. **(N)** Implement as funding becomes available. GI projects properly promoted can often be offset with grant monies.

5.3.3. Strategy #3: Promote and Restore Key Economic Corridors through Sustainability

Regardless of climate-driven impacts, the Village must continue to promote a resilient community from a livability and economic standpoint. Existing and prospective businesses must feel protected from climate-related events, including flooding, incurred costs due to heat and cold, and maintenance. Implementing sustainable actions can safeguard against climate impacts and further resonates with a growing generation of resilience-minded businesses and consumers. Turning outdated business corridors into inviting, pedestrian-friendly, and greener spaces has been shown to be more inviting to visitors, which can be reflected in sales for storefronts. Franklin Park has several high-traffic road corridors that connect to the interstates and neighboring communities that can benefit from this approach. The Grand Avenue Corridor serves as a primary pilot project for this approach, including opportunities to pair consumer areas with greener, more sustainable stormwater practices to break up impervious areas, reduce heat and wind, beautify the space, and promote resilience activities in a highly visible space.

Strategy #2 aligns with the following community resilience goals:

Increase greenery and tree canopy to help mitigate the urban heat island effect, improve air quality, increase resilience to flooding, and make Franklin Park a sustainable, lush, and vibrant city.

Sustain Franklin Park's reputation of safety and educational excellence by promoting climate-resilient retrofits and practices for schools.

Add natural vegetation to the CBD and facilitate working sessions with the train operators to generate win-win solutions to reduce congestion and dangerous heat produced by idling trains and vehicles.

Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.

Target Climate Hazard(s)



Strategy #3 aligns with the following community resilience goals:

Engage the community with resilience efforts by launching educational initiatives on climate and sustainability.

Increase greenery and tree canopy to help mitigate the urban heat island effect, improve air quality, increase resilience to flooding, and make Franklin Park a sustainable, lush, and vibrant city.

Sustain Franklin Park's reputation of safety and educational excellence by promoting climate-resilient retrofits and practices for schools.

Add natural vegetation to the CBD and facilitate working sessions with the train operators to generate win-win solutions to reduce congestion and dangerous heat produced by idling trains and vehicles.

Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.

Target Climate Hazard(s)



Franklin Park Climate Resiliency Plan

Resilience Action(s)

1. **(P)** Identify key consumer/business corridors and practices to incorporate. Include opportunities to coordinate with local business owners. Focus on co-benefits such as stormwater and heat/wind reduction, walkability, and increased safety. Use the Grand Avenue Corridor Plan as a guide and incorporate in other areas like Pacific Avenue.
2. **(P)** Explore funding opportunities driven by sustainability initiatives and/or stormwater and water quality improvement.
3. **(N)** Develop pilot projects in key locations and highlight with business partners.

5.3.4. Strategy #4: Continue Education and Outreach Programs to Residents and Businesses

Most of the public events associated with the CRP were well attended for Franklin Park, and many residents understood the value of climactic action and appeared to appreciate the object of this initiative. It is also well documented that those who did attend continued to suggest that community stakeholder engagement and education need to continue. Education needs include where to go to get information, providing easy access to information to allow residents to understand the importance of decreasing pervious surfaces, the benefits of small-scale GI on private property, and the community's overall vision. This includes information for the elderly fraction of the community and those who may not be computer- or internet-literate.

Resilience Action(s)

1. **(P)** Improve resident access and information to warming and cooling stations. Provide resources to those of all ages so they know where to turn in the event of climate-based hazards.
2. **(O)** Build partnerships with educational institutions, community-based organizations, or aligned businesses to share information and extend education and outreach efforts.
3. **(O)** Survey residents each year to reiterate key points of interest requiring action due to climate hazards. An annual meeting at city hall may also serve as a key communication point for interested citizens of all ages and a means to continually solicit ideas and share information.
4. **(P)** Raise awareness and encourage community involvement in preparedness and response activities

Strategy #4 aligns with the following community resilience goals:

Engage the community with resilience efforts by launching educational initiatives on climate and sustainability.

Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.

Target Climate Hazard(s)



Franklin Park Climate Resiliency Plan

5.3.5. Strategy #5: Upgrade Village Stormwater Infrastructure

Franklin Park municipal staff has done a lot of work to improve street and surface flooding as well as projects within Silver Creek to address riverine flooding throughout the Village. While street flooding has proven much reduced in recent years, there are still capacity issues within the Village storm sewer system that should be addressed to alleviate stormwater surface flooding, especially as storms increase in intensity and duration. Infrastructure upsizing alone will not solve urban flooding without additional efforts from Strategies 1 and 2 and educational efforts in Strategies 3 and 4. Maintenance of existing assets is also key to alleviating capacity issues as storm sewer pipes can become clogged from debris and regular televising is recommended to keep pipes at the capacity they are designed for.

Resilience Action(s)

1. **(P)** Develop a phased stormwater infrastructure plan to catalog stormwater asset insufficiencies. This should include conveyance ditches and overland flow routes. Phasing this effort by neighborhood could be a consideration.
2. **(O)** Develop a process for cataloging for asset management of located infrastructure.
3. **(E)** Develop planning-level infrastructure improvement designs.
4. **(O)** Implement phased improvements based on funding availability

5.3.6. Strategy #6: Floodplain Management

Floodplain management is a community-based effort to eliminate or reduce the risk of flooding, resulting in more resilient communities. It involves a combination of strategies and practices to manage the use and development of flood-prone areas to minimize flood damage and protect lives and property. The Village can become stronger and more resilient by risk-reducing actions.

Resilience Action(s)

1. **(P)** Adopt and enforce higher floodplain management standards than National Flood Insurance Program (NFIP) minimum requirements (e.g., higher freeboard, lower substantial damage ratios)
2. **(P)** Maintain rigorous enforcement
3. **(P)** Encourage responsible building practices (American Society of Civil Engineers [ASCE] or International Building Code [IBC], for example, including IBC)
4. **(P)** Promote the purchase of flood insurance
5. **(O)** Promote open space through community planning
6. **(O)** Join Community Rating System to encourage floodplain management⁷
7. **(O)** Upgrade Building Code Effectiveness Grading Schedule

Strategy #5 aligns with the following community resilience goals:

Engage the community with resilience efforts by launching educational initiatives on climate and sustainability.

Sustain Franklin Park's reputation of safety and educational excellence by promoting climate-resilient retrofits and practices for schools.

Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.

Target Climate Hazard(s)



Strategy #6 aligns with the following community resilience goals:

Engage the community with resilience efforts by launching educational initiatives on climate and sustainability.

Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.

Target Climate Hazard(s)



⁷ https://www.fema.gov/sites/default/files/documents/fema_crs-brochure_032023.pdf

Franklin Park Climate Resiliency Plan

5.4. Project Prioritization

One goal of this plan is to identify and prioritize solutions/projects that will help Franklin Park mitigate the impacts of climate change.

The project prioritization process is intended to establish a repeatable, transparent, stepwise process that enables the community to prioritize projects in the future while focusing on holistic, cost-effective solutions that consider the return on investment for climate hazard benefits and additional community benefits. The prioritized project list can inform the Village's efforts to pursue further funding opportunities, including those listed in Section 6, to implement projects not selected for the Phase II implementation process.

Based on the community engagement effort, we have identified 10 prioritization measures across 4 weighting criteria that can be used to prioritize future climate mitigation solutions. This section goes through the steps to recommend projects and summarizes the scoring framework that can prioritize projects as new funding sources become available and climate hazard adaptation strategies change.

For the short-term implementation projects, the following should be prioritized highest:

- Shovel-ready projects that the community is already considering implementing to mitigate climate impacts
- Projects that could be designed and permitted quickly
- Stand-alone projects that do not require multiple phases
- Capacity-building projects that improve hazard responses
- Projects that can leverage multiple funding sources

From the focus area analysis, 11 short-term solutions/projects were identified and added to the list of projects the community had identified from the various planning sources provided in the opening sections of this report. Community measures like programmatic initiatives, ordinance adoptions, and policy changes are recommended in the short term. Successfully implementing these measures could require time to educate the public on the costs and benefits of these changes. Therefore, initiating the groundwork for these programmatic initiatives, ordinance adoptions, and policy changes in the short term is imperative.

The projection prioritization framework includes 10 measures across 4 criteria that can be used to score a project, all of which are summarized in Table 7. Each measure is an attribute community decision-makers should consider when prioritizing projects. The measures are intended to be specific factors impacting the solution's return on investment, the climate hazard and additional community benefits, and barriers affecting the project's feasibility. The higher the score, the higher the project should be prioritized for implementation. For example, the number of agencies that must approve a project and the longer a project goes through the review process can limit the feasibility of a project's implementation because community goals or community support can change. Therefore, projects that require more agency reviews or a longer review/permit process are given a lower prioritization score for that measure. Attributes of each project can be utilized to narrow down the list if funding is only available for a specific project type, and weighting factors can be incorporated to adjust which measures impact the overall score more depending on the political landscape, Village priorities, and funding mechanisms available. Appendix G provides a more detailed breakdown of the prioritization framework and how it can be used to score projects. The project prioritization Excel spreadsheet will be included as part of the plan. The Village is encouraged to adjust the scoring to align with new community directives and add projects as new ones are identified.

At the time of writing this report, Franklin Park had 38 projects identified and scored using the prioritization matrix. The resulting prioritized list can be found in Appendix G. The matrix was created to add and score additional projects, and the list should be reprioritized and reordered as needed in the future. The list includes physical projects requiring construction and community-wide, more policy-based projects as described in the previous sections.

Franklin Park Climate Resiliency Plan

Table 7: Project Prioritization Framework

Community Weighting Criteria	Prioritization Measure	Description
Implementation Feasibility & Support	Jurisdictional Approval Barriers	The number of agencies that must approve a project for it to undergo construction, or if a policy is to be enacted. The total number of months likely for project/permit and policy review from all agencies is needed.
	Community Support	Has the community been engaged or informed of the project? and do they support its implementation?
Cost	Implementation Costs	The amount of money needed (including staff hours) to implement a project/policy, minus grants, for each effective unit.
	Maintenance Costs	The amount of money needed annually to maintain a project/policy, minus grants, for each effective unit.
Greatest Resilience Impact	Project Flexibility	If the conditions causing a problem worsen, can the solution be modified or updated without replacement?
	Additional Climate Impact Benefits	Does the project attempt to address additional climate impacts?
	Continuity of Critical Services	Does a project help maintain critical services, such as ambulance services, sewage, electricity, and telecommunications, during or outside of a temporary adverse climate condition?
	Level of Project/Policy Impact	Is this an important piece of a larger resiliency strategy (large impact) or is it stand-alone (smaller impact)? Direct and significant benefit vs. secondary benefit that is broader? For structural projects, how many people will benefit within the community from its implementation? For policy/planning, does this allow for future more impactful resiliency efforts to be undertaken?
Ancillary Benefits	Replicability	How applicable is the project type to other areas under owner's influence/responsibility?
	Non-climate Co-benefit	Does the project provide additional benefits to the community that are not climate related? These benefits can be social, aesthetic, economic, or biodiversity-related.

Franklin Park Climate Resiliency Plan



6. Roadmap for Climate Resiliency

This section is intended to provide a roadmap for Franklin Park to implement climate resiliency strategies and solutions identified in this CRP. The section highlights ongoing efforts between the Village and Cook County after the plan is completed to implement projects and identify ways for the Village to obtain additional funding.

6.1. Continued Program Support – Climate Smart Communities Initiative

The consultant team that developed the CRP for the Village is continuing to support the planning effort through the Climate Smart Communities Initiative. This effort will go through the fall of 2025 and includes convening a working group among all of the Cook County communities participating in the planning process (Bellwood, Justice, Lynwood, and Markham, in addition to Franklin Park) to advance cross-jurisdictional adaptation in Cook County and to implement a monitoring and evaluation plan for assessing the efficacy of the resilience measures and projects implemented through this American Rescue Plan Act–funded process. The goal of this effort is to track and monitor the success of the plans as well as to help each community obtain future funding by demonstrating alignment with the County and the Illinois State Hazard Mitigation Plan.

6.2. Phase II of Cook County Climate Resiliency Project

The second phase of the Cook County Climate Resiliency Planning for Communities project will involve implementing identified projects based on community needs, funding availability, and timelines of recommended projects. The project prioritization discussed earlier in this plan is meant to identify projects that bolster resiliency and fit within community-focused goals and priorities. This prioritization process will help identify which projects should be top of the list for this phase and will complement the prioritization and feasibility assessments that the Phase II consultant team will lead. This phase will continue from 2024 through 2026.

6.3. Developing a Funding Strategy

Starting early and developing a strategic funding plan will help create competitive funding applications and increase the chances of awards. The first step is identifying and creating a list of priority projects and customizing the funding strategy to this list.

The Village should review the CRP and any other existing Village plans as they are develop to help create the priority projects list. A well-developed priority projects list includes a high-level summary of the following key elements:

1. Project scope
 - Project type
 - Specific components of larger projects (bicycle, pedestrian, roadway, stormwater)
2. Planning status (is it concept level, engineering underway or shovel-ready?)
3. Timelines for planning and construction
4. Specific funding needs (e.g. programming, feasibility, design, construction, equipment)
5. Estimated costs

For larger infrastructure projects, some of the above elements such as schedules and cost estimates may require advance work such as a feasibility study or preliminary engineering. This work can be completed with in-house municipal staff or consulting engineers. Technical assistance programs may also be available to help communities complete some of this advance work if funding is not available for preliminary engineering.

Franklin Park Climate Resiliency Plan

Keep the following tips and strategies in mind as part of developing an overall funding strategy:

- **Combine and coordinate different funding options.** Funding for larger projects with multiple features can be pieced together from different sources. For example, a roadway project may include roadway reconstruction, pedestrian improvements, and drainage improvements in a flood-prone area. Funding from transportation and stormwater programs could be coordinated to help finance a larger portion of the project.
- **Project phasing.** Time project schedules and phases where possible to align with funding agency cycles.
- **Coordinate implementation with other projects.** Consider timing of stormwater drainage improvements with planned roadway projects. Review planned roadway projects by other jurisdictions (county, state, or township) to coordinate priority elements such as drainage, bicycle, or pedestrian facilities. Projects can often be coordinated with other agencies for cost savings.
- **Start positioning high-priority projects for a competitive application.** Preliminary work that may need to start up to a year in advance can have a significant impact on increasing the likelihood of receiving funding assistance. Key activities may include:

- Gathering documentation of existing conditions and impacts (e.g., flooding documentation such as flooding photographs, resident call records, property damage, photos of existing infrastructure conditions)
- Identifying potential partners for support, coordination or implementation (e.g., businesses/organizations, neighboring jurisdictions)
- Engaging with and documenting impacts to residents and businesses
- Engaging state and federal elected officials to gain their support and understanding of priority projects
- Developing project fact sheets to share with key stakeholders
- Discussing priority projects with prospective funders prior to applying
- Considering allocating local funds to accelerate preliminary design for priority projects
- Obtaining letters of support from businesses, residents, potential partners, elected officials

Table 8 provides an example of a funding chart that can be used to build a funding strategy and track funding needs.

Funding Strategy Checklist

Map out 5-year water/sewer/stormwater, transportation and other infrastructure needs and synergies with other community priorities (economic development, recreational, safety, etc.)



Separate out project elements and cost



Use different funding sources for different phases



Use different funding sources for different project elements



Mix and match funding/financing option such as smaller local grants to federal grants



Prepare fact sheets for shortlisted high-priority, high-impact projects



Discuss high priority projects with funding agencies to receive feedback on project merits



Engage state and federal representatives from the beginning



Start gathering letters of support from potential partners and stakeholders



Franklin Park Climate Resiliency Plan

Table 8: Sample Funding Chart

Project	Description	Project Status	Funding Needs	Potential Funding Sources
Road Improvements	Resurfacing project for federal aid reclassified roads	- Road Report Completed - Need to apply to reclassify eligible roads for STP funding	Construction	Surface Transportation Program
Path	Sidewalk or multi-use path connection	- Planned - Engineering for only the CN Bike-Ped Crossing Completed	Engineering and construction ROW	- Surface Transportation Program - IDOT ITEP
Multi-Use Path	Multi-use pathw Retention features Pedestrian crossing	Planned	Engineering and construction ROW likely to be required	- IDOT ITEP - INDR Trails Grants
Multi-Use Path Extension	Multi-use path/trail	Planned/anticipated project in partnership with County or Forest Preserves	Engineering and construction ROW likely to be required	- CMAQ – TAP - IDNR Trails Grants (Dependent on state budget) - IDOT – ITEP - CMAQ – CMAQ
Path	Multi-use path/trail	Planned		- IDOT – ITEP - IDOT – Safe Route to School
Drainage Improvements	To be identified in a drainage report	TBD	Engineering and construction ROW likely to be required	TBD
62 Acre Site – Park/Open Space Development	New park/outdoor recreational facility	Future improvement	Planning, engineering, construction	IDNR OSLAD/LWCF
Road Improvements	Intersection improvements, multi-use trails, sidewalks	- Phase I near Completion - Required local funding committed	Funding committed Total cost: \$1.3 million 80% - County 20% - Local	TBD

Franklin Park Climate Resiliency Plan

6.4. Developing a Funding Matrix

This section outlines various funding opportunities for which priority projects may be eligible. Funding charts for ongoing financial assistance and grant funding programs are grouped by the following project types:

6. Stormwater Management Projects
7. Open Space, Parks and Recreational Facilities
8. Transportation and Mobility Improvements

The summary charts include a brief description of each program, eligible projects and key considerations to keep in mind for developing applications. This section also includes a list of other potential sources and avenues for future funding and guidance for developing funding plans (Section 6.4.4).

6.4.1. Funding for Stormwater Management Projects

Funding Program	Eligible Projects	Description	Key Considerations
Building Resilient Infrastructure and Communities (BRIC) Federal Emergency Management Agency (FEMA) - Federal Funds - Annual cycle administered by the Illinois Emergency Management Agency (IEMA)	Hazard mitigation projects such as: - Storm sewer improvements - Underground detention - Detention ponds - Green infrastructure Capacity building efforts such as: - Building code updates and enforcement - Partnership development - Project scoping	Funds projects that reduce hazard risk, damages to property, and loss of life and increase resilience, safety, and protection of critical facilities/infrastructure BRIC Direct Technical Assistance available for high-need communities for project development activities Eligible costs: engineering and construction	- Match: 25% non-federal - Jurisdictions must be part of a FEMA-approved Hazard Mitigation Plan - Benefit-Cost Analysis required - Projects must be cost-effective - Larger projects with multiple benefits and resilience features will be more competitive - Should have adopted the latest building energy codes - Highly competitive program
Hazard Mitigation Grant Program (HMGP), FEMA - Federal Funds - Supplemental federal appropriations triggered by federal disaster declarations in applicable jurisdictions	Hazard mitigation projects such as: - Storm sewer improvements - Underground detention, - Detention ponds - Green infrastructure	Funds infrastructure projects that mitigate future disaster impacts and increase public safety Appropriated for federal disaster declarations and administered by IEMA	- Match: 25% non-federal - Jurisdictions must be part of a FEMA approved Hazard Mitigation Plan - Benefit-Cost Analysis required - Provide documentation of disaster impacts

Franklin Park Climate Resiliency Plan

Funding Program	Eligible Projects	Description	Key Considerations
Section 319 Nonpoint Source Pollution Control Financial Assistance Program, Illinois Environmental Protection Agency (Illinois EPA) - Federal Funds - Annual cycle - Deadline varies - Award range: \$20,000–\$1.2 million	- Stormwater Best Management Practices (BMPs) - Retention ponds - Rain gardens - Bioswales - Streambank stabilization - Shoreline stabilization	Federally funded program for projects that reduce nonpoint-source pollution and improve water quality of impaired waterways. Communities with impaired waterways (review Illinois EPA 303(d) list) may be competitive. Eligible costs: engineering and construction	- Must monitor state agency deadlines and submit applications directly to the state - Match: 40% non-federal - Must be in an approved Illinois EPA watershed plan - Must demonstrate water quality benefits for impaired waterways - Projects may be on public or private land - Should highlight water quality benefits resulting from best management practices
Green Infrastructure Grant Opportunity (GIGO), Illinois EPA - State Funds - Periodic cycle (1 to 3 years) - Maximum award up to: \$2,500,000	Green infrastructure BMPs: - Retention ponds - Rain gardens - Green roofs - Bioswales/bioinfiltration - Permeable pavement - Detention pond retrofits to naturalized ponds	Funds green infrastructure projects that benefit water quality and reduce urban flooding. Projects for meeting permit requirements are not eligible Eligible costs: engineering and construction Projects may be on public or private land	- Match: 25% match - Demonstrate water quality benefits for impaired waterways - Demonstrate local flood benefits - Projects that reduce stormwater runoff volumes will be more competitive - Treatment trains (multiple BMPs in a watershed) encouraged
Conceptual Project Partnerships, Metropolitan Water Reclamation District of Greater Chicago (MWRD) Technical assistance program	Stormwater Management: - Stormwater detention - Storm sewer improvements - Stream channel improvements	Provides technical assistance to communities with stormwater problems that lack resources to investigate potential solutions and develop up to 30 percent design plans.	- Technical assistance only - Must be within MWRD's service area

Franklin Park Climate Resiliency Plan

Funding Program	Eligible Projects	Description	Key Considerations
Stormwater Partnership Program, MWRD - Local/regional funds - Annual cycle - Pre-applications typically due in December of each year	Stormwater Management: - Stormwater detention - Storm sewer improvements - Stream channel improvements	Supports projects that address flooding through a variety of traditional engineering solutions including localized detention, upsizing critical storm sewers and culverts, pumping stations, establishing drainage ways and green infrastructure Eligible costs: construction only (the cost of design and construction engineering are applicant's responsibility)	- Projects should be shovel-ready with preliminary design complete - Applicant cost share is determined through an intergovernmental agreement (IGA) - Projects must be within MWRD's service area - Improvements should reduce flooding and prevent damage to residential homes and businesses
Green Infrastructure Partnership Program, MWRD - Local/regional funds - Annual cycle - Pre-applications typically due in December of each year	Green Infrastructure: - Permeable pavements - Rain gardens - Bioswales - Native landscaping - Rain barrels - Green roofs	Supports green infrastructure projects in MWRD's service area to help reduce runoff and improvement stormwater management Eligible costs: construction only (the cost of design and construction engineering are applicant's responsibility)	- Projects should be shovel-ready with preliminary design complete - Cost share is determined through an intergovernmental agreement (IGA) based on volume reduction metrics - Improvements should reduce flooding and prevent damage to residential homes and businesses
Community Development Block Grant (CDBG), Cook County - Federal funds administered by Cook County for non-entitlement municipalities - Annual cycle - Due in March of each year	- Green infrastructure - Stormwater management - Water/sewer projects - Other public infrastructure projects	Federally funded program to support public infrastructure improvements. Must meet a CDBG National Objective (urgent need, low-to-moderate income) benefit, slum/blight)	- Match not required but recommended as evidence of leveraging funds - Municipalities must implement fair housing activities - Projects must align with regional efforts

Franklin Park Climate Resiliency Plan

Funding Program	Eligible Projects	Description	Key Considerations
- Award range: \$200,000–\$400,000 - One of few federal programs that can be used to match other federal funds		Public infrastructure projects are typically eligible based on benefits to majority low-to-moderate income census tract block groups	- Projects should incorporate complete streets, stormwater management, and green infrastructure or resiliency features to the extent possible - Awarded projects must adhere to federal labor standards

6.4.2. Funding for Open Space, Parks and Recreational Facilities

Funding Program	Eligible Projects	Description	Key Considerations
Open Space Land Acquisition & Development (OSLAD), Illinois Department of Natural Resources (IDNR) - State funds - Annual cycle - Deadline varies - Maximum awards: \$1,725,000 for acquisition \$600,000 for development	- Acquisition for park development - Open space/park development or renovation projects (outdoor recreation, playground, play fields, park amenities, bandshells) - Native plants, pollinator gardens, nature overlooks - Walking paths and trails (within parks)	Funds acquisition or development of land for public parks and open space Eligible costs: acquisition, architectural and engineering services, minor demolition, site preparation and construction	- Match: 50% (10% for distressed communities as shown on the IDNR distressed communities list) - Development projects must be completed within 2 years - Acquisition projects must have development initiated within 3 years and completed within 5 years
Childhood Obesity Prevention and Environmental Health and Sustainability Award, US Conference of Mayors - Annual cycle - Due in the fall of each year - Maximum award: \$125,000 (small city category for populations less than 75,000)	- Walking paths/trails - Park and open space development - Natural areas featuring native plants/pollinators	Part of a US Conference of Mayors program to support both childhood obesity prevention and environmental sustainability Relevant sustainability projects include park and open space development projects and alternative transportation modes	- Award program highlighting unique, innovative initiatives - Hybrid programs can address both childhood obesity prevention and sustainability - Must be sponsored by the mayor and feature active mayoral role - Consider partnering with schools or park district for environmental education programming

Franklin Park Climate Resiliency Plan

Funding Program	Eligible Projects	Description	Key Considerations
		to enhance bicycling and neighborhood walkability	
Our Town Grants, National Endowment for the Arts - Federal funds - Annual cycle - Deadline may vary - Award range: \$25,000-\$150,000	- Placemaking projects that support health/well-being, transportation/ infrastructure or climate challenges such as: - Public art - Redesign of outdoor spaces - Community-driven programming - Community engagement	Federal program that supports creative placemaking initiatives to strengthen communities. Program aims to advance local economic, physical, or social outcomes in communities Eligible costs: design and programming costs (construction is not eligible)	- Match: 50% non-federal - Required partnership between a nonprofit organization (cultural arts or design group) and local unit of government - Additional cross-sector partnerships encouraged - Successful projects integrate arts, culture and design into strategies for strengthening communities
Green Region Grant Program, ComEd/Openlands - Local/regional funds - Administered by Openlands - Annual cycle - Due in March of each year - Maximum award: \$10,000	- Open space improvements such as: - Pollinator gardens - Park development - Park walking paths and trails	ComEd funded program to support municipal efforts to plan for, protect and improve open land in ComEd's service area of northern Illinois Eligible costs: planning, acquisition and improvements to land	- Match: 50% - Should demonstrate active community partnerships - Should demonstrate significant impact on surrounding community - Consider utilizing for local match requirements for larger grant programs

6.4.3. Funding for Transportation and Mobility Improvements

Funding Program	Eligible Projects	Description	Key Considerations
Illinois Transportation Enhancement Program (ITEP), Illinois Department of Transportation (IDOT) - Federal funds - Two-year cycle - Deadline varies	- Streetscape projects - Bicycle/pedestrian facilities - Rails-to-trails projects - Preservation/rehabilitation of historical transportation facilities	Funds projects that enhance alternate modes of travel and enhance the transportation system through preservation of visual and cultural resources	- Match: 20% non-federal (except for ROW and street lighting which is 50%) - Projects can be submitted only under one category. - IDOT Phase I is required.

Franklin Park Climate Resiliency Plan

Funding Program	Eligible Projects	Description	Key Considerations
Maximum award: \$3,000,000	- Construction of turnouts, overlooks, and scenic areas - Vegetation management in transportation right-of-way (ROW)	Recreational-only projects and road-related improvements are not eligible Eligible costs: utility relocations, ROW, engineering and construction	- A realistic schedule that accounts for Phase I process (estimated 18–24-month process) should be planned for - Bike projects must be an approved local/regional plan
Safe Routes to School, IDOT Federal funds Two-year cycle, deadline varies (typically fall) Funding range: varies	- Sidewalk improvements - Traffic calming - Traffic control devices - Pedestrian/bicycle crossing improvements - On- or off-street bike facilities - Bicycle parking facilities - Walking/bicycling educational and promotional events	Funds infrastructure and non-infrastructure projects that encourage walking and biking to school Must be located within 2 miles of school campus. Projects must be coordinated with schools and include required documentation (student tallies and parent surveys) Eligible costs: construction and construction engineering	- Match: 20% non-federal - Student tally and parent survey results are required for application submittal - Engineering and right-of-way costs are not eligible - Engineering can be underway at time of application but must be completed within 6 months of award - Construction must be completed within 3 years
Invest in Cook, Cook County Local/regional funds Annual cycle Due in March of each year Funding range: varies	- Bicycle/pedestrian facilities - Intersection improvements - Transit improvements - Traffic flow improvements - Bridge improvements - Freight projects	Supports transportation projects that meet the County's long-range transportation plan (Connecting Cook County) priorities Eligible costs: planning studies, feasibility studies, corridor studies, engineering and construction	- Match: 50% minimum for low need communities; lower match possible for higher need communities - Can only apply for one phase at a time - Limited to one application per cycle - Funding can be used as a local match for federal grants

Franklin Park Climate Resiliency Plan

Funding Program	Eligible Projects	Description	Key Considerations
Surface Transportation Program – Local (STP-L), applicable Council of Government - Federal funds - Two-year cycle - Funding range: varies - Administered by the local councils of government in coordination with the Chicago Metropolitan Agency for Planning (CMAP)	- Intersection improvements - Traffic flow improvements - Bicycle/pedestrian facilities - Road reconstruction or resurfacing	Funding for surface transportation projects on federal aid eligible roads (local roads are not eligible) Projects are programmed out 3 to 5 years out Eligible costs: engineering, ROW and construction (eligibility for Phase 1 varies by local council)	- Match: 20% non-federal for construction (match for ROW and engineering varies by council) - Projects should have complete streets/multi-modal elements, project readiness, regional transportation significance, safety and congestion mitigation benefits - Establish realistic project schedule and plan for future STP-L programming
Transportation Alternatives Program, CMAP - Federal funds - Two-year cycle - Funding range: varies	Bicycle facility projects that serve a transportation purpose: - Multi-use trails - Trail bridges and underpasses - On-street bicycle facilities	Funds projects that support non-motorized travel. Priority is given to bicycle projects that help complete the Regional Greenways and Trails Plan. Eligible costs: Phase 2 engineering and construction (high need communities may be eligible for Phase 1 funding)	- Match: 20% non-federal - Priority given for projects that connect to regional trails - Projects must be in a local plan - Projects that help complete the Regional Greenways and Trails Plan will score higher
Congestion Mitigation and Air Quality Program (CMAQ), CMAP - Federal funds - Two-year cycle - Funding range: varies	- Transit improvements - Traffic flow improvements - Emissions reduction projects - Bicycle/pedestrian facilities - Intelligent transportation systems	Funds surface transportation projects that improve air quality and reduce congestion Eligible costs: Phase 2 engineering and construction (high need communities may be eligible for Phase 1 funding)	- Match: 20% non-federal - Cost effectiveness for emission reductions is key criteria - Must have significant transportation impact

Franklin Park Climate Resiliency Plan

Funding Program	Eligible Projects	Description	Key Considerations
Community Development Block Grant (CDBG), Cook County - Federal funds administered by Cook County for non-entitlement municipalities - Annual cycle - Due in March of each year - Award range: \$200,000-\$400,000 - One of few federal programs that can be used to match other federal funds	- Bicycle/pedestrian facilities - Road reconstruction or resurfacing - Other public infrastructure projects (water/sewer; stormwater management)	Federally funded program to support public infrastructure improvements. Must meet a CDBG National Objective (urgent need, low-to-moderate income benefit, slum/blight) Public infrastructure projects are typically eligible based on benefits to majority low-to-moderate income census tract block groups	- Match not required but recommended as evidence of leveraging funds - Municipalities must implement fair housing activities - Projects must align with regional efforts - Projects should incorporate complete streets, stormwater management and green infrastructure or resiliency features to the extent possible - Awarded projects must adhere to federal labor standards

Franklin Park Climate Resiliency Plan



6.4.4. Other Potential Sources of Financial or Technical Assistance

The following potential sources should be monitored and evaluated for applicability and relevance based on priority needs and projects.

1. **Department of Commerce and Economic Opportunity (DCEO) special grants programs**: DCEO occasionally announces special opportunities for economic development and redevelopment projects.
2. **DCEO member-directed capital grants**: State capital grants may be available through 2026 through lump sum or line-item appropriations through legislative initiatives. The first step to assess the feasibility of funding is to discuss projects with state legislators. Conversations should begin as early as possible to ensure that projects can be added to budget bills.
3. **House and Senate Congressionally Directed Spending Requests**: Funding may be available through an annual congressional request process via individual congressional offices, typically announced in January or February. Funding must be expended in the following fiscal year and meet all eligibility requirements. The first step in the process is to discuss the project with federal legislators.
4. **People for Bikes Community Grant Program**: This program has awarded up to \$10,000 in the past for projects that promote and increase bicycling.
5. **StormStore**: This is a stormwater credit trading program that can benefit both potential developers and local communities. Property owners can generate and sell stormwater credits from any excess detention created onsite. Developers have the opportunity to purchase stormwater credits to help meet certain stormwater management requirements.
6. **Chicago Region Trees Initiative (CRTI)**: A program of the Morton Arboretum, CRTI holds periodic calls for projects to support urban forestry and the development and maintenance of tree canopies in the Chicago metropolitan region.
7. **Chicago Metropolitan Agency for Planning (CMAP) Technical Assistance Program and Regional Transportation Authority (RTA) Community Planning Program**: CMAP and RTA hold a joint annual call for technical assistance projects. The program helps municipalities undertake a variety of planning efforts (e.g., corridor plans, bicycle and pedestrian plans, capital improvement plans, plan implementation support, transportation safety plans, access to transit improvements, mobility improvement plans, transit-oriented development plans).

7. References

USGCRP, 2017: *Climate Science Special Report: Fourth National Climate Assessment, Volume I* [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 470 pp.

Easterling, D.R., K.E. Kunkel, J.R. Arnold, T. Knutson, A.N. LeGrande, L.R. Leung, R.S. Vose, D.E. Waliser, and M.F. Wehner, 2017: Precipitation change in the United States. In *Climate Science Special Report: Fourth National Climate Assessment, Volume I*. D.J. Wuebbles, D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock, Eds., U.S. Global Change Research Program, pp. 207-230, doi:10.7930/J0H993CC.

Franklin Park Climate Resiliency Plan



Appendix A

Future Climate Analysis



Climate Hazards in Cook County

Methodology

The planning team reviewed historical events, the latest climate science literature, and best-available global climate model projections to evaluate how future climate change may impact Cook County during the 21st century. The results presented in this section focus on changes in extreme heat, extreme precipitation, and extreme wind and wind gusts.

Future changes in extreme heat and precipitation use global climate models (GCMs) scaled down to a local level.¹ GCMs illustrate a range of possible climate futures, depending on both future global trends in greenhouse gas (GHG) emissions, the climate system's sensitivity to those emissions, and other factors. Trends in GHG emissions are defined by Shared Socioeconomic Pathways (SSPs), developed for the Sixth Phase of the Coupled Model Intercomparison Project (CMIP6) as part of the Intergovernmental Panel on Climate Change (IPCC). SSPs represent potential socioeconomic trajectories related to energy and land use, resource use, and governance, all of which affect GHG emissions. This report focuses on two SSPs:

- SSP2-4.5: Reflecting aggressive global GHG emissions reductions by mid-century and middle-of-the-road assumptions on climate system sensitivity.
- SSP5-8.5: Reflecting a middle-of-the-road outcome from unsuccessful global GHG emissions reduction efforts and high-end climate sensitivity. This represents a high-risk aversion level in planning for future climate change.

While downscaled GCMs under each emissions scenario cannot provide precise future conditions for specific locations or times, this report summarizes and presents projections as a range of future outcomes to aid Cook County's efforts to increase climate resilience. These projections reflect the modeled climate data's median (50th percentile).

To understand how temperature and precipitation may change in the future, the planning team assessed multiple climate variables per hazard (i.e., for heat, variables included days with daytime maximum temperatures exceeding 95°F, days with minimum temperatures exceeding 70°F, the longest annual heat wave, the number of heatwaves per year, etc.). The planning team calculated the average of each variable across two 30-year periods to determine near-term (2021 to 2050) and midcentury (2036 to 2065) projections for each GCM. This approach addresses any year-to-year variability associated with cycles like El Niño Southern Oscillation (ENSO) to ensure that the results represent long-term climatological trends.

The planning team compiled information from a literature review and historical information for extreme wind and wind gusts. While GCMs have become more robust and accurate in recent years, they are still unable to accurately simulate extreme wind gusts during extreme events likely to occur

¹ Climate projections leverage an ensemble of Localized Constructed Analogues version 2 (LOCA2) statistically downscaled Coupled Model Intercomparison Project phase 6 (CMIP6) Global Climate Models (GCMs). LOCA2 uses downscaled GCM projections for daily temperature and precipitation from their native grid spacing to a more local, 6 km x 6 km grid spacing.



in the region like convective thunderstorms and tornados. These events occur over small time and spatial scales and are difficult to capture in both observational data and climate simulations. To address these limitations, the planning team conducted a literature review of the most recent atmospheric science to understand how these storms and events may change in the future.

Analysis

Temperature

- **High heat during at least one-third of summer days in the near-term:** Cook County could experience over one month per year with warm overnight ($>70^{\circ}\text{F}$) and daytime ($>90^{\circ}\text{F}$) temperatures by 2035.
- **Future heat waves will likely last longer and occur more often:** The average duration and number of Cook County heat waves are projected to double by 2035 and triple by 2050.

Cook County has historically seen significant impacts from extreme heat. In July 1995, the Midwest experienced a historic heat wave, leading to 700 deaths in Chicago alone and the city's highest temperature on record at Midway Airport (106°F).² The combination of extreme heat and high humidity made conditions even more dangerous, with peak heat indices reaching $124\text{--}125^{\circ}\text{F}$. Extreme heat has continued to be an issue in recent years, with five of Chicago's ten hottest years on record occurring in the past decade.³

Extreme heat has severe impacts on human health (i.e., heat stroke) and certain populations (i.e., older adults, people with underlying respiratory or cardiovascular conditions, and more) are at particular risk. Extended exposure to temperatures nearing 90°F becomes acutely dangerous, particularly as humidity increases.⁴ When temperatures do not drop at night, the body does not have an opportunity to sufficiently cool down. For this reason, the planning team studied variables that provide insight into how frequently Cook County might be near these dangerous temperature thresholds and how prolonged these high heat periods may be.

Projections show the potential for increases in both the hottest days and nights, especially by mid-century in the higher emissions scenario. Historically, and as shown in Table 1, Cook County has seen an average of approximately:

- 13 days per year with minimum temperatures over 70°F
- 13 days per year with maximum temperatures over 90°F
- 2 days per year with maximum temperatures over 95°F

Under both climate scenarios, these numbers could increase to around 30–33, 31–34, and 10 days, respectively, by the near-term time horizon. By the mid-century, the projections for each variable under the two future climate scenarios will have diverged more markedly. Under SSP2–4.5, mid-century projections for days per year with minimum temperatures greater than 70°F , maximum

² Historic July 12–15, 1995 Heat Wave, https://www.weather.gov/lot/1995_heatwave_anniversary.

³ Chicago Climate Records and Rankings, https://www.weather.gov/lot/chicago_climate_records.

⁴ Vanos, J. et al., <https://www.nature.com/articles/s41467-023-43121-5#Sec2>



temperatures greater than 90°F, and maximum temperatures greater than 95°F may increase to as many as 35, 39, and 15 days per year, respectively. Under SSP5-8.5, these projections may increase even more to as many as 45, 57, and 19 days per year, respectively.

In addition to the rise in the number of hottest days, projections indicate that the number and duration of heatwave events could increase. Historically, Cook County has seen an average of 2 heatwaves per year, with the longest duration of heat waves lasting up to 4 days (Table 1). Under SSP2-4.5, projections indicate that the region could see 4 heatwaves per year in the near term, with the longest duration heat waves lasting 7 days, and 5 heatwaves per year by mid-century with the longest duration heat waves lasting 9 days. Under SSP5-8.5, the region could see 5 heatwave events with the longest duration heat waves lasting 8 days and 6 heatwave events with the longest duration heat waves lasting 11 days by near-term and late-century, respectively.

Table 1: Climate projections for Cook County Return Temperature and Heat Wave Variables. Values Represent the 50th Percentile Modeled Averages Across Cook County.

Variable	Units	Observed (1985–2014)	Near-Term (2021–2050)		Mid-Century (2036–2065)	
			SSP2-4.5	SSP5-8.5	SSP2-4.5	SSP5-8.5
Number of Days per Year with Minimum Temperature Over 70°F	Days	13	30	33	35	45
Number of Days per Year with Maximum Temperature Over 90°F	Days	13	31	34	39	47
Number of Days per Year with Maximum Temperature Over 95°F	Days	2	10	10	15	19
Frequency of Heatwaves (with 3 Days of Maximum Temperature Over 90°F)	Heat Waves	2	4	5	5	6
Longest Duration of Heatwaves (with Maximum Temperature Over 90°F) mid-	Days	4	7	8	9	11

Precipitation

- **High-intensity storms will likely become more common:** Less-frequent, higher-intensity precipitation extremes (e.g., 1-in-25-year precipitation) are projected to increase at a faster rate than lower-intensity extremes (e.g., 1-in-2-year precipitation).
- High-intensity precipitation extremes could **increase up to 0.4 inches by mid-century.**

In Cook County, the precipitation totals associated with extreme storms are projected to increase, especially for more severe, less-frequent precipitation events. Daily rainfall (24-hour total) is not projected to change measurably for 1-in-2-year precipitation events (i.e., events with a 50% chance of occurring in any given year) from present to mid-century under both SSPs. Daily rainfall is projected to increase by 6% for the 1-in-10-year event (i.e., events with a 10% chance of occurring in any given year) by both near-term and mid-century under both SSPs. Likewise, daily rainfall is projected to increase by 6% for the 1-in-25-year precipitation event (i.e., events with a 4% chance of occurring in any given year) by both near-term and mid-century under both SSPs. While a 6% increase in precipitation may seem minor, this increase can be significant for stormwater systems that flood



during minor rain events (see more details in the Flooding section below). This analysis was completed prior to the release of Illinois State Water Survey's Bulletin 76.⁵

Table 2: Climate projections for Cook County Return Period Precipitation Totals. Precipitation Totals Represent the 50th Percentile of the Highest Modeled 6 km x 6 km Grid Cell Precipitation Total in Cook County.

Variable	Units	Observed (1985–2014)	Near-Term (2021–2050)		Mid-Century (2036–2065)	
			SSP2–4.5	SSP5–8.5	SSP2–4.5	SSP5–8.5
1-in-2 Year 1-Day Precipitation Total	Inches	2.9	2.8	3.0	2.9	3.0
1-in-10 Year 1-Day Precipitation Total	Inches	4.7	4.9	5.0	5.0	5.0
1-in-25 Year 1-Day Precipitation Total	Inches	6.1	6.4	6.5	6.5	6.5

Extreme Winds and Wind Gusts

- Historically, extreme wind gusts are rare in Cook County, with a **peak wind gust of 87 mph** recorded in the Chicago area during an extratropical cyclone.
- While daily average and hourly extreme wind magnitudes are not projected to change much in Cook County and surrounding regions, **highest-intensity extreme wind gusts could increase in frequency and intensity** through mid-to-late 21st century.
- Winds during extratropical cyclones are projected to increase, suggesting that the **record wind gust in Chicago could increase** in the future, as well.
- Preliminary studies suggest that conditions may become more conducive for thunderstorms and other extreme events that produce high winds, with the potential for a **longer-duration severe thunderstorm season**.

In Cook County, extreme wind speeds and wind gusts have the potential to cause substantial physical damage, from downed trees and poles leading to power outages to structural damage to residential and commercial buildings. In Illinois, extreme winds typically occur during intense storms, such as strong frontal boundaries,⁶ extratropical cyclones (e.g., blizzards), or thunderstorms.

Extreme wind events may worsen with climate change. Cook County has historically experienced high wind speeds due to its proximity to Lake Michigan, with notable events including a 53-mph storm in December 2022 and a 90-mph gust in July 2024. Severe thunderstorms and tornado outbreaks, such as the 32 tornadoes seen during the derecho event in July of 2024, resulting in the most tornadoes seen from a single severe weather event in the Chicago area⁷, contribute to the region's extreme wind events with recent years showing an increase in the frequency and intensity of these occurrences. . Severe thunderstorms and tornado outbreaks, such as the deadly F4 tornado in 1967, contribute to the

⁵ <https://www.ideals.illinois.edu/items/132431>

⁶ When two air masses with different temperatures meet, they form a frontal boundary ("front") along which severe weather and storms can occur; Encyclopedia Britannica, <https://www.britannica.com/science/front-meteorology>

⁷ https://www.weather.gov/lot/2024_07_15_Derecho



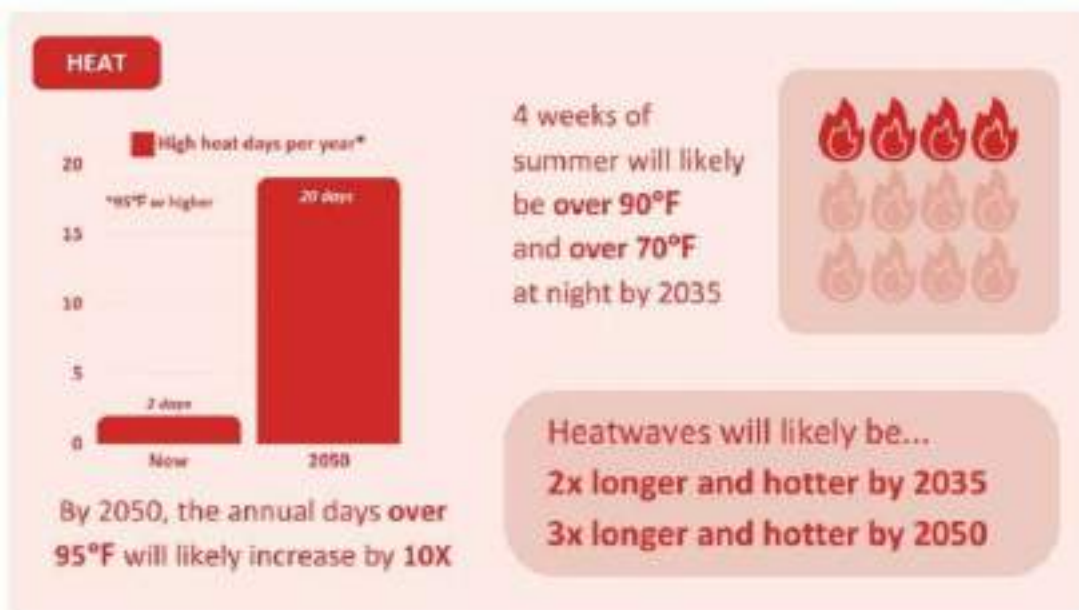
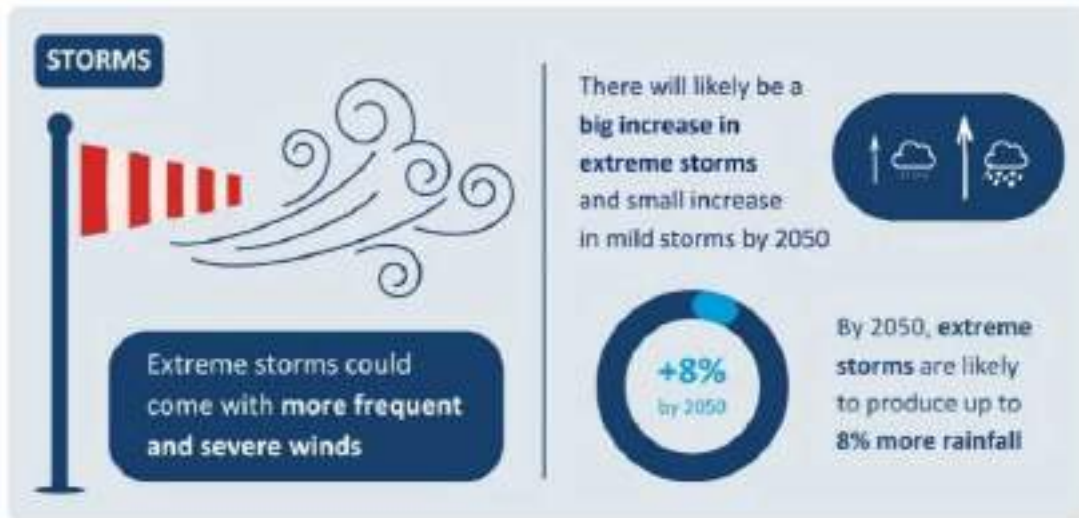
region's extreme wind events, with recent years showing an increase in the frequency and intensity of these occurrences.

Cook County experiences extreme winds during severe thunderstorms driven by unstable atmospheric conditions and strong wind shear. Projected surface temperature and moisture increases may lead to higher Convective Available Potential Energy (CAPE) and more frequent severe weather. CAPE refers to the amount of energy available to a developing thunderstorm and is used to quantify unstable atmospheric conditions. Larger CAPE values create environments that are more favorable for severe thunderstorm formation. While CAPE is expected to rise in Cook County, indicating more favorable *conditions* for thunderstorms, changes in the near-term and mid-century frequency of thunderstorms are less certain.

Straight-line wind speeds, which often occur during thunderstorms, are projected to intensify with warming, posing significant damage risks. However, projections for these winds and tornadoes remain uncertain due to the complexity of their formation.⁸ Despite potential increases in favorable conditions for severe weather, the frequency of tornadoes in Cook County may not change significantly, although larger-scale tornadic environments could see an uptick under high-emissions scenarios.

Finally, extratropical cyclones, which are intense winter storms, pose significant risks to Cook County. Climate change is projected to increase the frequency and wind speed intensity, potentially leading to stronger storms and gusts during winter extratropical cyclones in the Northern Hemisphere. Maximum wind speed could increase as much as 40% relative to historic patterns in a high emissions scenario by the end of the 21st century.

⁸ Straight-line winds are winds that do not rotate like those in a tornado but instead move in a straight path. They are usually linked to the downdraft of a thunderstorm, where air quickly descends and spreads out once it reaches the ground.





Flood Inundation Analysis

The flood inundation analysis was conducted using the two-dimensional Hydrologic Engineering Center–River Analysis System (HEC–RAS 2D) framework with the direct rainfall method to integrate hydrology and hydraulics into a single model. The HEC–RAS 2D Rain-on-Grid approach uses the high-resolution LiDAR topography directly to represent the underlying terrain to perform the hydraulic computations while accounting for spatial variability in the rainfall across the landscape. The model provides a seamless transfer of precipitation to calculate runoff and perform hydraulic computations to map flood inundation. The intent of the approach was to provide a means to evaluate the potential change in flooding extent with and without climate change-induced rainfall increases.

The developed model provides planning-level estimates where future flood risk likely increases. The flood inundation extent for the two scenarios, existing rainfall depths and forecasted climate-impacted rainfall depths, can be compared to identify areas that have the greatest risk of increased flooding. Currently, the model has not been calibrated or validated to quantify the increased risk; however, the model can be refined to provide this level of detail. The development of this approach provides the basis for understanding where more detailed analyses are required for quantifying impacts of future forecasted flood events.

The analysis used the following data inputs in the development of the HEC–RAS model:

- ***Terrain*** – Cook County 2022 1-foot resolution LiDAR, DuPage County 2017 1.5-foot resolution LiDAR, Indian Countywide 2018 2.5-foot resolution LiDAR and Will County 2021 1-foot resolution LiDAR were used as the terrain for the 2D analysis to simulate flood depths and delineate inundation boundaries.
- ***Soil Data*** – NRCS SSURGO soil data was used to develop runoff curve numbers and additional infiltration parameters.
- ***Land Cover*** – CMAP's 2018 land use data set combined with the Illinois State Water Survey building footprint boundaries were used to develop the Land Cover layer.
- ***2D Flow Area Perimeters*** – NHDPlus HUC 10 GIS watershed boundaries were dissolved into larger boundaries based on natural divides and to ensure the model captured the area tributary to a stream that passes through a community. Service area to develop breaklines – boundaries are shown in Figure 1.
- ***Breaklines*** – NHDPlus GIS flowlines from the HUC 4s in region were merged into a single GIS layer and clipped to the individual 2D flow area perimeters.
- ***Precipitation Data*** – Geosyntec used two different data sources for precipitation data. Geosyntec used the 10-year and 100-year rainfall depths from Bulletin 75 for the existing conditions. Geosyntec used ICF model outputs for the project rainfall depths for the SSP2-4.5 and SSP5-8.5 climate change scenarios to show the potential fluvial flooding impacts due to climate change.
- ***Major Stream Flows*** – Daily average flows for the river associated with the HUC 8 GNIS were used as baseflow conditions and based on the local USGS Gages.

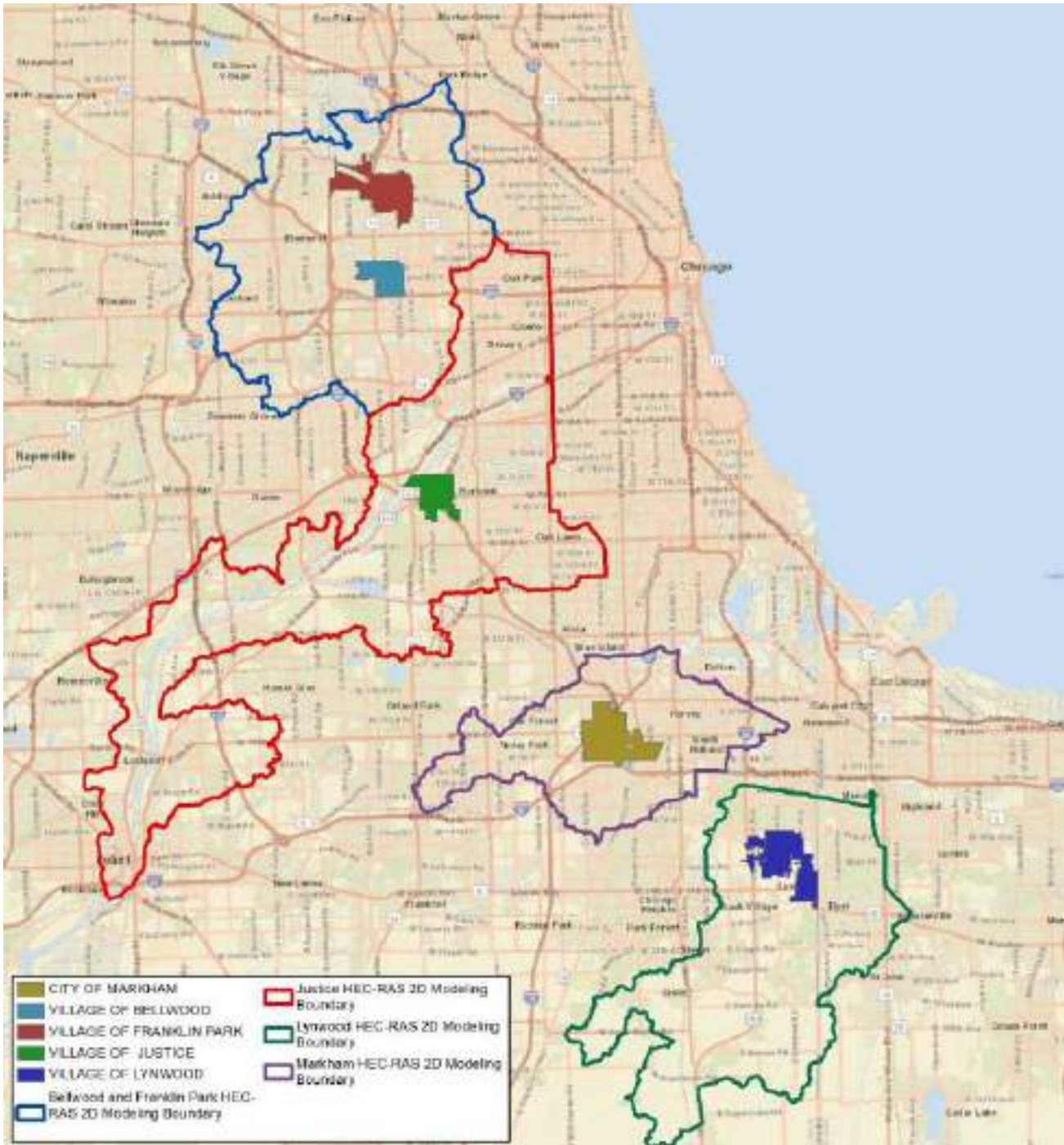


Figure 1: Overview of the Modeling Areas

HEC-RAS 2D Hydrologic Input Parameters

Soils Layer

A soil layer was created in HEC-RAS by importing the NRCS SSURGO shapefile. Parameters for the HEC-RAS soil layer only focus on hydrologic soil groups. Therefore, the NRCS SSURGO layer for the communities were dissolved, so each hydrologic soil group (A, A-D, B, B-D, C, C-D, and D) was reduced



to a single polygon for each group. This layer was then clipped to each of the six model domains and used as inputs for the HEC-RAS 2D analysis. The soil layer inputs are included in Table 2 below.

Table 3: HEC-RAS 2D Soil Layer Classification

ID	Name
0	NoData
1	Unclassified
2	A
3	A-D
4	B
5	B-D
6	C
7	C-D
8	D

Land Cover Layer

A Land Cover layer was created based on CMAP's 2018 land use data set, which uses parcel information to assign a land use code. CMAP's 2018 data includes 61 different land use classifications. Some classifications are similar to others and can be lumped together. Therefore, Geosyntec used CMAP's classification description to lump the land uses into 20 land use categories. Table 3 below summarizes how CMAP's land use classifications were grouped together.

Table 4: CMAP Land Use Grouping Overview

CMAP Land Use ID	CMAP Land Use Description	Group Land Use	CMAP Land Use ID	CMAP Land Use Description	Group Land Use
1111	RES_SF_DETACHED	Single-Family Detached Residential	1530	TCU_AIR	Utility
1112	RES_SF_ATTACHED	Single-Family Attached Residential	1540	TCU_PARKING	Transportation Facilities/Parking
1130	RES_MF	Multi-Family Residential	1550	TCU_COMM	Trans/Comm/Utility
1140	RES_MOBILE	Multi-Family Residential	1561	TCU_ROW_UTIL	Right-of-way
1151	RES_COMMON	Multi-Family Residential	1562	TCU_WWTP	Utility
1211	COM_MALL	Commercial	1563	TCU_LANDFILL	Utility
1212	COM_REGIONAL	Commercial	1564	TCU_OTH_UTIL	Utility
1214	COM_BIGBOX	Commercial	1565	TCU_STORMWATER	Stormwater Utility
1215	COM_URBMIX	Mixed Use	1570	TCU_INTERMODAL	Utility
1216	COM_URBMIXwRES	Mixed Use	2000	AG	Agricultural
1220	COM_OFFICE	Commercial	3100	OS_REC	Open Space
1240	COM_CULT_ENT	Commercial	3200	OS_GOLF	Open Space
1250	COM_HOTEL	Commercial	3300	OS_CONS	Open Space
1310	INST_MEDICAL	Public Institutional	3400	OS_PRIVATE	Open Space
1321	INST_EDU_K12	Public Institutional	3500	OS_TRAIL	Open Space
1322	INST_EDU_HIGHER	Public Institutional	4110	VACANT_RES	Vacant/Under



CMAP Land Use ID	CMAP Land Use Description	Group Land Use	CMAP Land Use ID	CMAP Land Use Description	Group Land Use
1330	INST_GOV	Public Institutional	4120	VACANT_COM	Vacant/Under Construction
1340	INST_PRISON	Public Institutional	4130	VACANT_IND	Vacant/Under Construction
1350	INST_RELIGIOUS	Private Institutional	4140	VACANT_OTHER	Vacant/Under Construction
1360	INST_CEMETERY	Cemeteries	4210	CONST_RES	Vacant/Under Construction
1370	INST_OTHER	Private Institutional	4220	CONST_COM	Vacant/Under Construction
1380	INST_NATLAB	Private Institutional	4230	CONST_IND	Vacant/Under Construction
1410	IND_MINERAL	Industrial	4240	CONST_OTHER	Vacant/Under Construction
1420	IND_GENERAL	Industrial	5000	WATER	Water
1431	IND_MANUF_100K	Industrial	6000	Non-Parcel Open Space	Other
1432	IND_WAREH_100K	Industrial	6100	Non-Parcel Open Space	Open Space
1433	IND_FLEX_100K	Industrial	6200	Non-Parcel Water	Water
1450	IND_STORAGE	Industrial	6300	Non-Parcel Road ROW	Right-of-way
1511	TCU_ROW_RAIL	Right-of-way	6400	Non-Parcel NEC	Other
1512	TCU_ROW_ROAD	Right-of-way	9999	UNCODEABLE	Other
1520	TCU_OTH_LINEAR	Transportation Facilities/Parking			

The ArcGIS union function was performed between the grouped land use and the Illinois State Water Survey building layers to show where buildings are located within the parcels. The building boundaries were given a distinct land cover classification, and ultimately, 21 land uses were input into the HEC-RAS 2D analysis. Geosyntec used the HEC-RAS 2D User's Manual and typical industry values to assign a manning's n and % impervious area for each land cover. Table 4 below summarizes the inputs for Manning's n and % impervious used for each land cover. The % impervious values in the table only represent approximate impervious areas for each land cover.

Table 5: Summary of HEC-RAS Manning's n and % Impervious Inputs by Land Cover

Land Cover	Manning's N	% Impervious
Agricultural	0.035	25
Buildings	0.4	100
Cemeteries	0.05	12
Commercial	0.2	85
Industrial	0.2	72
Mixed Use	0.2	85
Multi-Family Residential	0.16	65
NoData	0.05	38
Open Space	0.04	12
Other	0.05	38
Private Institutional	0.09	72
Public Institutional	0.09	72



Land Cover	Manning's N	% Impervious
Right-of-way	0.013	100
Single-Family Attached Residential	0.12	38
Single-Family Detached Residential	0.12	30
Stormwater Utility	0.06	72
Trans-Comm-Utility	0.06	72
Transportation Facilities-Parking	0.013	85
Utility	0.06	72
Vacant-Under	0.04	38
Vacant-Under Construction	0.04	38
Water	0.035	100

Infiltration Layer

HEC-RAS models runoff using an infiltration layer. The layer uses the inputs from the soils and land cover data sets and the selected infiltration method to model runoff and estimate infiltration for the modeling domain. The analysis used the SCS Curve Number method to model runoff and infiltration for modeling areas. For the SCS Curve Number method, HEC-RAS requires the following inputs: r-abstraction ratio, infiltration rate (in/hr), and curve number. Geosyntec used the HEC-RAS 2D manual and typical industry values for inputs. Where the HEC-RAS manual gave a range of values, Geosyntec selected the more conservative value. Table 5 below summarizes the abstraction ratio used for each land cover. Table 6 summarizes the infiltration rates for the different soil groups. Table 7 summarizes the curve number inputs for each land cover based on soil group.

Table 6: Summary of HEC-RAS Abstraction Ratio by Land Cover

Land Cover	Abstraction Ratio
Agricultural	0.1
Buildings	0.1
Cemeteries	0.1
Commercial	0.05
Industrial	0.05
Mixed Use	0.1
Multi-Family Residential	0.1
NoData	0.1
NoneAgain	0.1
Open Space	0.1
Other	0.1
Private Institutional	0.1
Public Institutional	0.1
Right-of-way	0.05
Single-Family Attached Residential	0.1
Single-Family Detached Residential	0.1



Land Cover	Abstraction Ratio
Stormwater Utility	0.05
Trans-Comm-Utility	0.1
Transportation Facilities-Parking	0.05
Unclassified	0.1
Utility	0.1
Vacant-Under	0.1

Table 7: Summary of HEC-RAS Infiltration Inputs by Soil Group

Soil Group	Infiltration Rate (in/hr)
A	0.3
A-B	0.15
B	0.15
B-C	0.05
C	0.05
C-D	0.025
D	0.025
A-C	0.05
A-D	0.025
B-D	0.025
Unclassified	0.085
NoData	0.085

Table 8: Summary of HEC-RAS Curve Number Inputs based on Land Cover and Soil Group

Land Cover	A	B	C	D	Unclassified	NoData
Agricultural	67	78	85	89	80	80
Buildings	100	100	100	100	100	100
Cemeteries	49	69	79	84	70	70
Commercial	89	92	94	95	93	93
Industrial	89	92	94	95	93	93
Mixed Use	83	89	92	94	90	90
Multi-Family Residential	77	85	90	92	86	86
NoData	78	86	90	93	87	87
Open Space	78	86	90	93	87	87
Other	49	69	79	84	70	70
Private Institutional	78	86	90	93	87	87
Public Institutional	81	88	91	93	88	88
Right-of-way	73	83	88	91	84	84
Single-Family Attached Residential	83	89	92	93	89	89
Single-Family Detached Residential	77	85	90	92	86	86
Stormwater Utility	61	75	83	87	77	77
Trans-Comm-Utility	78	86	90	93	87	87



Land Cover	A	B	C	D	Unclassified	NoData
Transportation Facilities-Parking	77	86	91	94	87	87
Utility	98	98	98	98	98	98
Vacant-Under	78	86	90	93	87	87
Vacant-Under Construction	77	86	91	94	87	87
Water	77	86	91	94	87	87

HEC-RAS 2D Hydraulic Input Parameters

2D Flow Area

2D flow areas were built using a flexible mesh domain to the extent of the desired modeling areas. The 2D cells were aligned according to HEC-RAS best practices. Breaklines were included to orient the cells to the topographically defined flow paths. The inflow boundary condition lines were also included as breaklines. Cell sizes were set dynamically to provide higher resolution along the defined flow paths and adjusted to maximize the resolution throughout the modeling area.

2D Perimeter

Separate flexible mesh domains were built using the shapefiles of the dissolved HUC 12 watersheds that cover all areas directly tributary to the communities. This includes undefined overland flow paths and defined streams and rivers. Figure 1 provides an overview of the 2D perimeters/modeling boundaries.

2D Breaklines

Breaklines were developed using downloaded NHDPlus flow lines, which are flow networks consisting predominantly of streams/rivers and artificial flow paths. NHD specifically breaks the flow paths into artificial paths, canal ditches, coastlines, connectors, pipelines, streams/rivers, and underground conduits. Ultimately, all the flow path types were combined into a single file, used for this modeling effort, clipped down to the 2D Mesh Modeling Areas, and directly imported to serve as the 2D Flow Area Breakline layer.

Unsteady Flow

The 2D analysis uses an unsteady flow file to model the rain falling onto the terrain and flowing through watersheds. The unsteady analysis features two boundary conditions: normal depth and precipitation. The normal depth will not change for the different unsteady analyses, but the precipitation will match the above-case scenarios. The following subsections go through how each was developed.

Boundary Conditions – Precipitation

All of the modeling domains used the same rainfall depths for the four analyzed scenarios. These scenarios include:

1. The existing 10-year event – a depth of 5.15 inches;
2. The existing 100-year event – a depth of 8.57 inches;
3. The forecasted 10-year event under the SSP2-8.5 – a depth of 5.52 inches; and
4. The forecasted 100-year event under the SSP5-8.5 – a depth of 9.10 inches.

The forecasted rainfall depths were developed using the results of the ICF climate model. ICF provided Geosyntec with the observed maximum 1-day precipitation totals for the last 30-year averages across 359 grids that cover the region for the SSP5-8.5 50th Percentile 2050 projection. The proposed climate



scenario was compared with the observed maximum to calculate the anticipated increase in rainfall depths and then averaged across the entire region. ICF modeling results show a projected increase in rainfall depth of 1.062% for the SSP5-8.5 scenario. Geosyntec applied this percent increase to the existing 10- and 100-year events. The HEC-RAS 2D RoG analyzed these storm events over a 24-hour duration using the NRCS SCS Type II distribution at six-minute intervals. The HEC-RAS analysis was run for 48 hours, but the last 24 hours assumed no additional rainfall.

Boundary Conditions – Normal Depth

A normal depth boundary condition was used where breaklines cross the perimeter boundary. Due to the number of boundary conditions needed for this, a typical value of 0.003 was used for the Friction Slope rather than calculating each one.

Boundary Conditions – Flow Hydrograph

A flow hydrograph was used as the upstream boundary condition for the major rivers that entered the different modeling domains and is included as part of the name. Flows were based on the approximated daily averages using local USGS gages. For the upstream portions of the modeling domains, a USGS gage close to the upstream boundary was used as an input for the flow hydrograph.

Franklin Park Climate Resiliency Plan



Appendix B

Historic Rainfall Analysis

VILLAGE OF FRANKLIN PARK– RAINFALL ANALYSIS

1.1 Rainfall Data

Geosyntec used rainfall data from the Cook County Precipitation Network for the Village of Franklin Park. The Cook County Precipitation Network (CCPN) is a 25-site weighing-bucket rain gage array with an average grid spacing of 5 to 7 miles (Bauer, 2018). The network is located in the Lake Michigan and Des Plains River watersheds of Cook County and provides accurate precipitation measurements for modeling storm runoff, a crucial parameter used to compute the amount of storm water diverted from Lake Michigan. Figure 1 provides an overview of the CCPN rain gages.

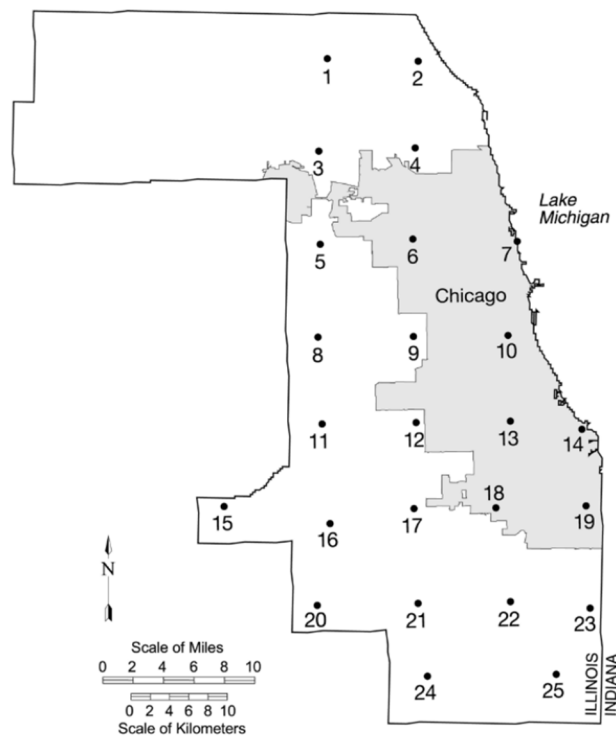


Figure 1. Precipitation Stations in the Cook County Precipitation Network (ISWS, Bulletin 75).

CCPN was operated by the Illinois State Water Survey for the U.S. Army Corps of Engineers (USACE) from 1989 to 2019. The Illinois State Water Survey handed over the management of CCPN to the USACE in 2019 and it is currently managed and operated by the United States Geological Survey (USGS).

1.2 Temporal and Spatial Coverage

Geosyntec obtained hourly rainfall data from 1891 to 2019 from the Illinois State Water Survey and daily rainfall data from 2019 to 2023 from USGS for Gage 5 for the Village of Franklin Park. This rain gage was selected for its proximity to the village compared to other available

options. Figure 2 provides an overview of the locations of the rain gages and their proximity to each community studied under this project.

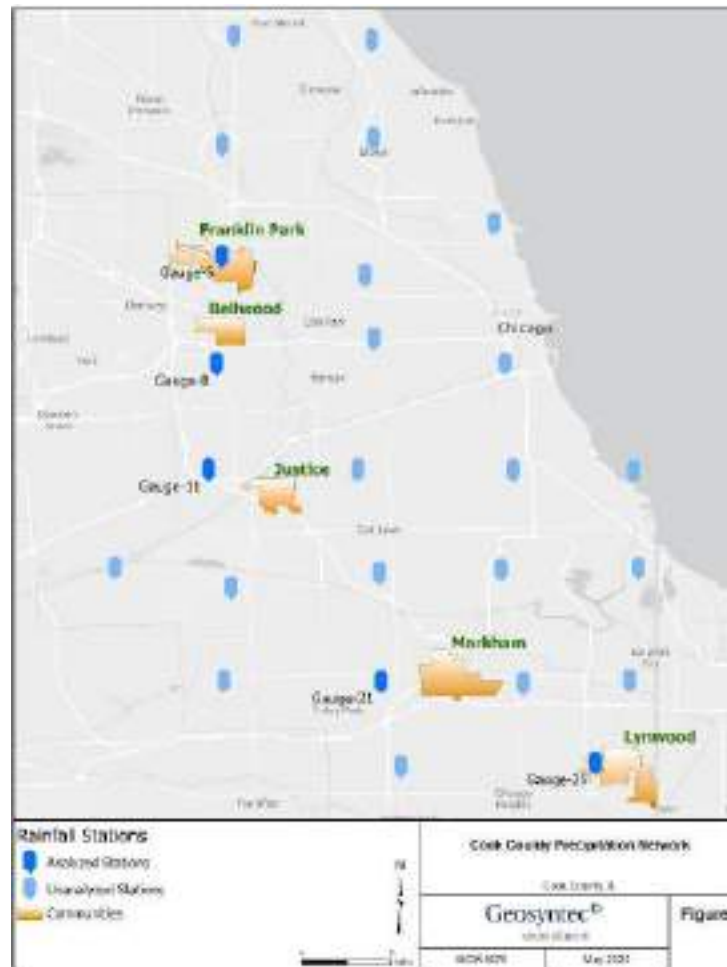


Figure 2. An Overview of Rain Gage Locations and Their Proximity from Each Community.

1.3 Data Pre-processing and Analysis Tools

Geosyntec utilized Python to perform this analysis. A comprehensive Python script was developed to handle data preprocessing, perform detailed statistical analysis, and generate informative visualizations. The hourly rainfall data from 1989 to 2018 was aggregated into daily values. These daily values were then combined with daily rainfall data from 2019 to 2023 to create a complete daily dataset spanning from 1990 to 2023. Missing values in the dataset were not estimated, and the data was used as-is.

1.4 Temporal Trends

Geosyntec performed temporal trend analysis using the Mann-Kendall trend test (Mann 1945, Kendall 1975, Gilbert 1987), a non-parametric statistical method designed to identify monotonic

trends in time series data. This test evaluates whether there is a consistent increase or decrease over time by comparing the ranks of data points rather than their actual values, making it robust against non-normal distributions and outliers. In applying the Mann-Kendall test, each data point is compared with subsequent data points to assess trend direction, and the results are quantified using a test statistics and corresponding p-value.

The Mann-Kendall annual trend test results for Rain Gage 5 show a tau value of 0.0298 and a p-value of 0.00001. The tau value, which is close to zero, indicates a very weak trend in the data. However, the p-value of 0.00001 is significantly smaller than the 0.05 significance level, suggesting that the trend is statistically significant at the 95% confidence level.

For Gage 5, the results indicate a significant trend over the observed period at an annual scale. The trend line from 1990 to 2023 displays a negative slope of -0.03, suggesting that the annual rainfall has declined by 0.03 inches per year. This decline may be partially attributed to missing data.

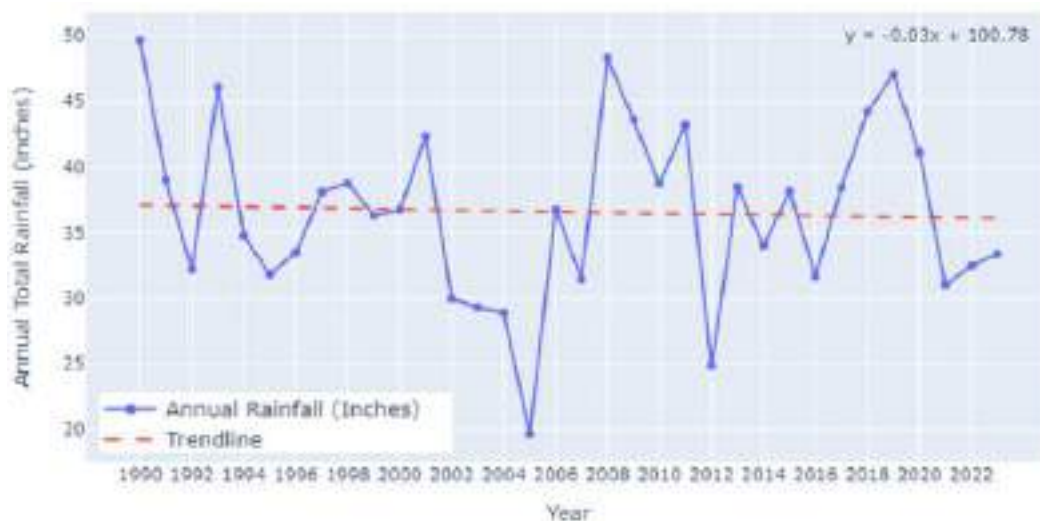


Figure 3. Annual Rainfall Totals for Rain Gage 5 from 1990-2023.

1.5 Annual Extreme Events

The annual extreme events such as precipitation exceeding defined thresholds, number of consecutive wet days, and frequency of extreme precipitation were analyzed for Gage 5. The analysis focused on the frequency of days (defined as 12 am to 12 am) with precipitation exceeding specific thresholds to quantify extreme precipitation events. Geosyntec considered three rainfall depth thresholds: 2 inches, 3 inches, and 4 inches. The number of days in each year that exceeded these thresholds was calculated, allowing for the assessment of how often these extreme events occurred during the analyzed period. Figure 4 shows the number of days with rainfall exceeding a rainfall depth of 2-, 3-, and 4-inches at Gage 5 from 1990 to 2023. The results shows that frequency of days with rainfall depth exceeding 3 inches and 4 inches has increased since 2010.

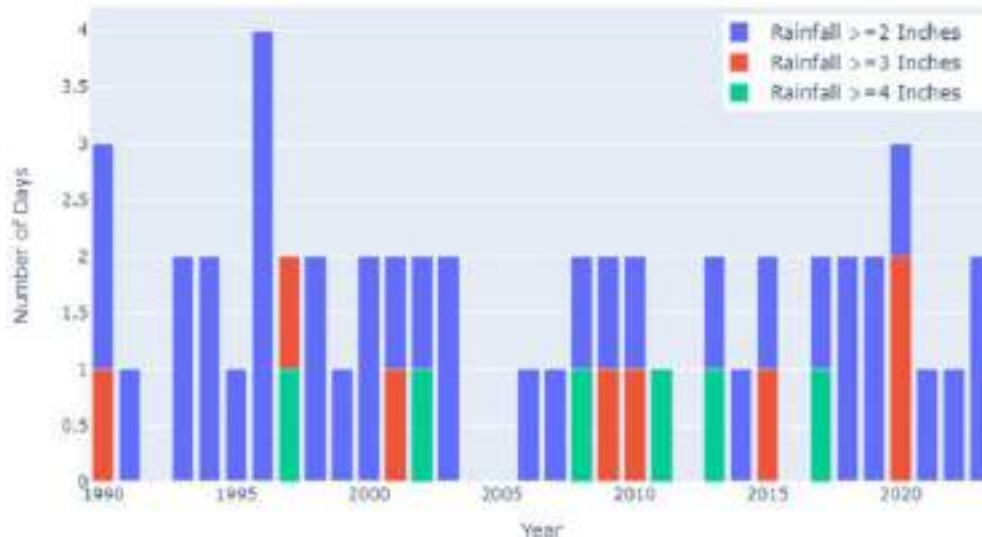


Figure 4. Frequency of Days with Precipitation Exceeding 2, 3, and 4-inches at Gage 5.

The analysis of consecutive wet days was conducted to assess the persistence of precipitation. Prolonged wet conditions increase soil saturation heightening flood risk and impacting water management strategies. Geosyntec evaluated two thresholds to identify significant wet periods for the Village of Franklin Park: rainfall exceeding 0.25 inches and 0.5 inches for two or more consecutive days. Figure 5 illustrates the consecutive wet days for Gage 5 during the analyzed period. The result shows that occurrence of consecutive wet days with rainfall exceeding 0.25 inches have become more frequent since 2017. Additionally, the average duration of consecutive wet days has increased to 3.5 days post-2017.

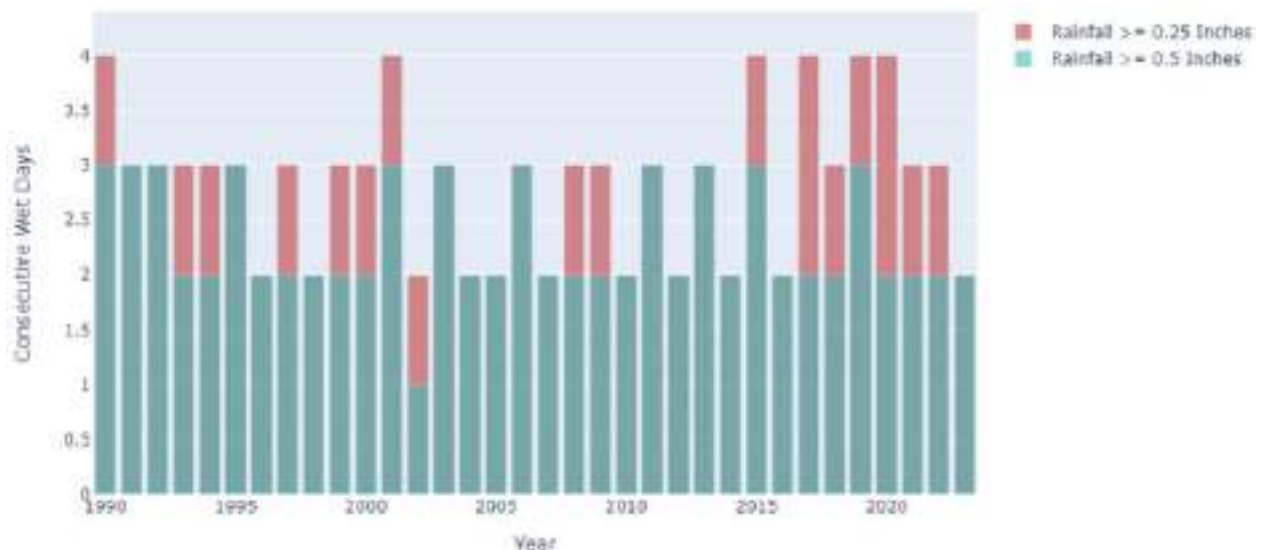


Figure 5. Consecutive Wet Days from 1990-2023 at Gage 5.

Geosyntec also investigated the temporal variability in extreme precipitation by dividing the dataset into two periods: 1990-2007 and 2008-2023. For each period, the probability density function (PDF) of daily precipitation amounts was computed and compared to identify any shifts or trends in the distribution of the extreme precipitation over time. Changes in the PDF can indicate variations in the frequency and intensity of extreme precipitation events, which may be attributable to climatic changes or natural variability. Understanding these trends is vital for adapting to changing climate conditions and informing future planning and risk management strategies.

Figure 6 illustrates the PDF of daily precipitation amounts for Gage 5 for two distinct periods: 1990-2007 and 2008-2023. The analysis shows a shift in precipitation patterns between these time frames. Specifically, for the same probability density, the daily precipitation amounts have increased in the 2008-2023 period compared to the 1990-2007 period. This suggests that precipitation events have become more intense or more frequent in the recent years. The shift indicates a trend toward heavier precipitation, indicating a potential change in weather patterns or climate conditions over the past few decades.

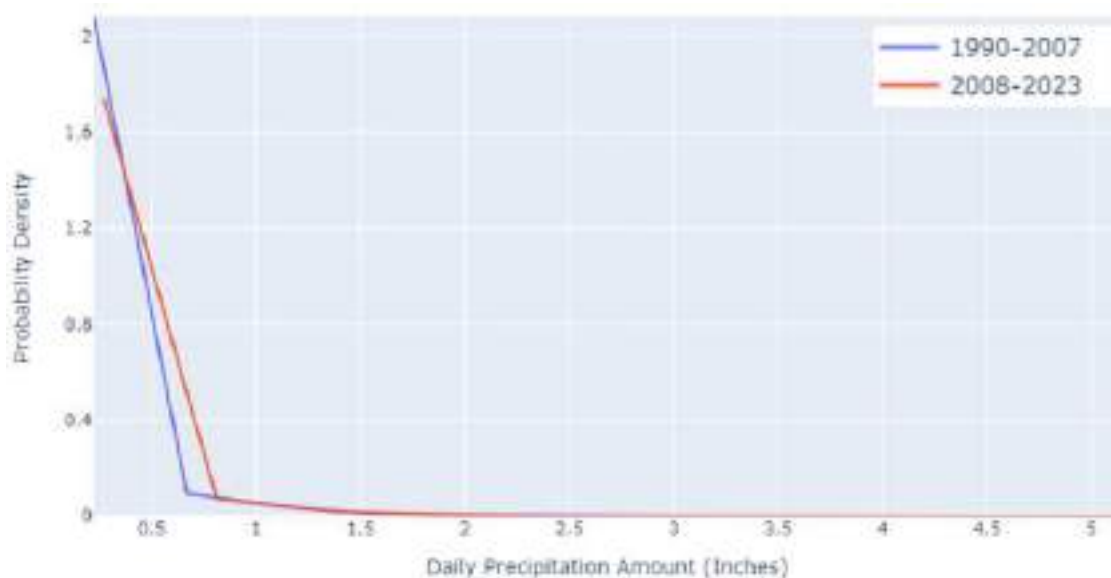


Figure 6. Probability Density Function Plot of Daily Precipitation Amount.

1.6 Monthly and Seasonal Rainfall Distribution

Geosyntec analyzed monthly and seasonal rainfall distributions to determine the temporal variability in the precipitation patterns. The dataset was divided into three distinct time frames: 1990-2023, 1990-2007, and 2008-2023. This stratification allowed for a comparative assessment of changes in rainfall patterns over time. As shown in Figure 7, monthly rainfall data indicated an increase in rainfall depth in the months of February, May, June, July, October, and December during the 2008-2023 period compared to 1990-2007. This suggests a notable shift towards higher precipitation levels in these months in recent years.

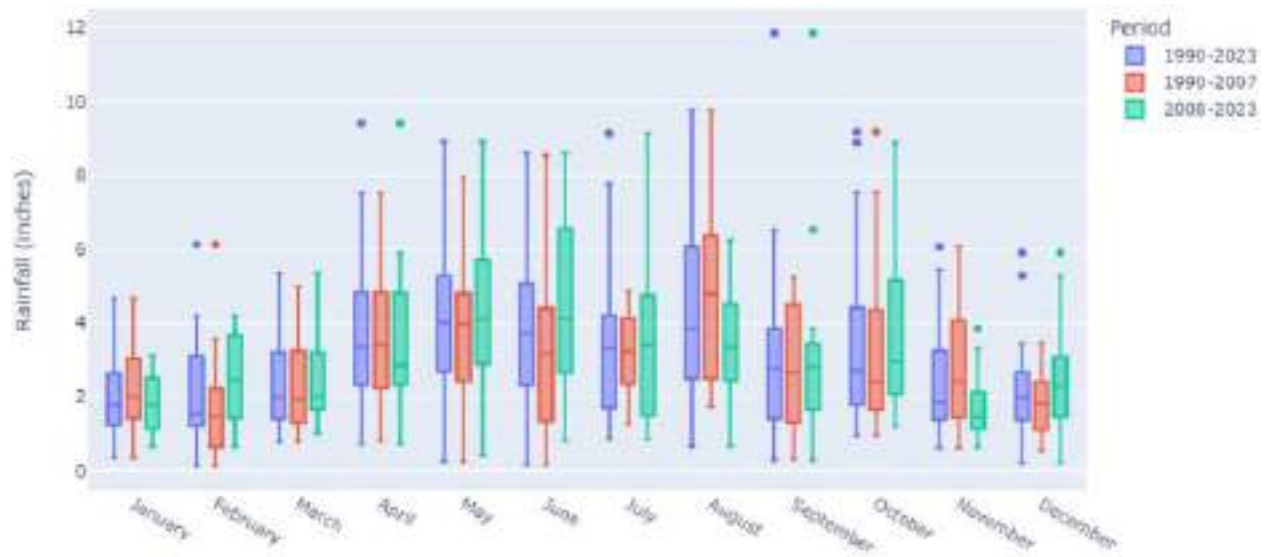


Figure 7. Monthly Rainfall Distribution for Gage 5.

Seasonal analysis further corroborated this trend, indicating an overall increase in rainfall depth across all seasons from 2008-2023 relative to 1990-2007, with the notable exception of fall. The data thus demonstrates a notable increase in precipitation over most of the year, with fall remaining an anomaly in this trend. These results underscore a shift in precipitation patterns, highlighting an increase in rainfall depth during several months and seasons, while fall precipitation levels have not shown a similar increase.

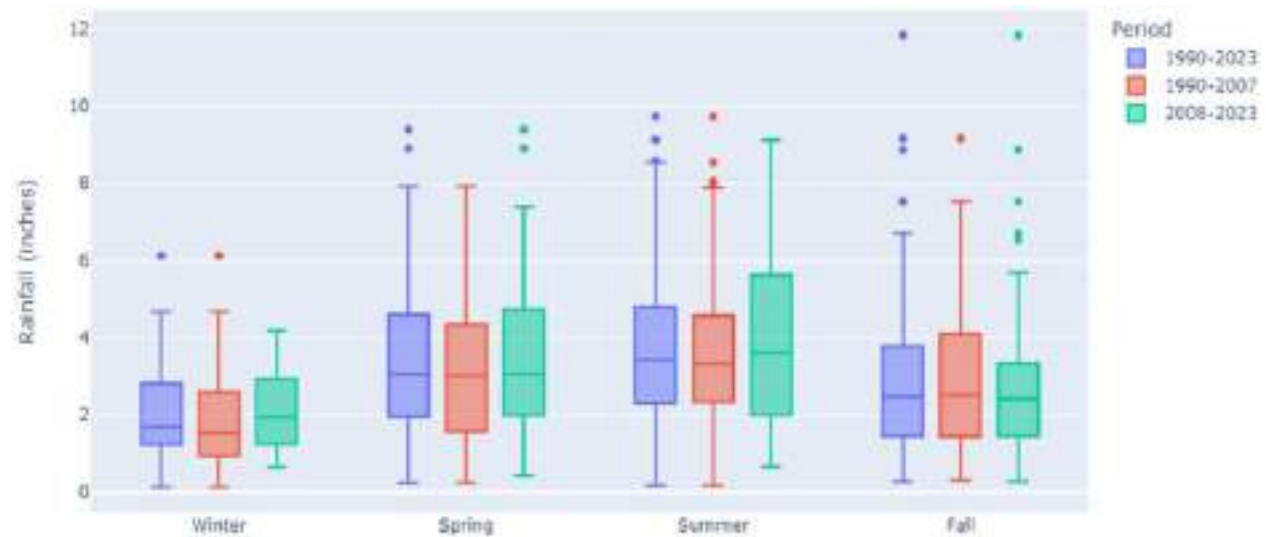


Figure 8. Seasonal Distribution of Precipitation for Gage 5.

1.7 Conclusions

Geosyntec's analysis of rainfall data for the Village of Franklin Park reveals notable shifts in precipitation patterns, driven by underlying climate dynamics. The increase in extreme precipitation events, particularly those exceeding 3 inches and 4 inches from 2010 onwards, aligns with scientific understanding of climate change. As the atmosphere warms due to increased greenhouse gas concentrations, its capacity to hold moisture increases. This results in more intense rainfall events, as warmer air can lead to higher evaporation rates and, consequently, more moisture available for precipitation. The data from the 2008-2023 period, showing higher daily precipitation amounts compared to 1990-2007, reflects this enhanced moisture availability and increased storm intensity.

Further analysis indicates a rise in consecutive wet days since 2017, with both frequency and duration increasing significantly. This trend can be explained by the increasing frequency of atmospheric disturbances and changes in weather patterns associated with global warming. Prolonged wet periods contribute to soil saturation, amplifying flood risks. The extended duration of these wet periods, averaging around 3.5 days, corresponds with observed changes in atmospheric circulation patterns, which can lead to persistent weather systems that enhance precipitation over extended periods.

Seasonal and monthly rainfall data also support these findings, showing increased rainfall depths in several months, including February, May, June, July, October, and December from 2008-2023 compared to 1990-2007. This shift aligns with observed patterns of increased precipitation in warmer months due to elevated atmospheric moisture levels and more frequent storm events. The exception of fall, which has not experienced a similar increase, highlights variability in precipitation patterns and suggests that seasonal changes may not be uniform.

These observed trends are consistent with broader climate trends observed in Illinois. The state's warming of approximately one degree Fahrenheit over the past century, coupled with increased greenhouse gas emissions, contributes to more frequent and intense rainstorms. As a result, Franklin Park is experiencing a heightened risk of flooding, which highlights the importance of adopting climate-resilient water management strategies to effectively address the challenges posed by the changing climate.

References

- Bauer, E. 2018. Continued Operation of a 25-raingage Network for Collection, Reduction, and Analysis of Precipitation Data for Lake Michigan Diversion Accounting: Water Year 2017. Illinois State Water Survey Contract Report CR 2018-03, Champaign, IL.
<http://hdl.handle.net/2142/101895>
- Gilbert, R.O. 1987 . Statistical Methods for Environmental Pollution Monitoring, Wiley, NY.
- Mann, H.B. 1945. Non-parametric tests against trend, *Econometrica* 13:163-171.
- Kendall, M.G. 1975. Rank Correlation Methods, 4th edition, Charles Griffin, London.

Franklin Park Climate Resiliency Plan



Appendix C

Economic Impact Analysis

FINANCIAL IMPACTS ASSESSMENT SUMMARY

Cook County Physical Climate Risk Assessment

Table of Contents

Terms and Definitions	i
Acronyms.....	ii
1.0 Economic Impacts	1
1.1 Historic Regional Extreme Weather Events.....	1
1.2 Economic Impact Model.....	2
1.3 Qualitative Assessment of Hazards in Region	4
1.4 Quantifying the Economic Impacts.....	5
1.5 Adjustment for Community Resilience and Social Vulnerability	7
1.6 Assessment Summary.....	10
2.0 References.....	11

Figures

Figure 1 Climate Hazards for the Region	4
Figure 2 Illinois - Expected Annual Loss Map.....	Error! Bookmark not defined.
Figure 3 Illinois - Risk Index Map	Error! Bookmark not defined.
Figure 4 Illinois – Social Vulnerability Map	8
Figure 5 Illinois - Community Resilience Map.....	9

Tables

Table 1. Summary of Historic Regional Weather Events (Source: NOAA 1950-2024).....	2
Table 2 Primary Hazards and Damage (1950 -2024) – (Sources: NOAA, census.gov)	2
Table 3 FEMA Qualitative Risk Assessment Matrix	5
Table 4 Economic Impact - Expected Annual Loss.....	5
Table 5 Risk Value Adjustment (Risk Adjusted EAL) -the Risk Index Value is the EAL multiplied by the Community Risk Factor and represents the risk-adjusted EAL.	9

Terms and Definitions

Annualized Frequency: The calculated probability that a hazard will occur per year.

Climatic Hazards: Weather-related hydrometeorological events that can cause harm to humans, property, livelihoods, resources, and the environment.

Community Resilience: The measurement of a community's ability to prepare for, adapt to, withstand, and recover from the effects of natural hazards.

Economic Impact Model: A framework to quantify the expected annual direct economic impact of climate-related hazards.

Exposure: The representative value of buildings (in dollars), population (in both people and population equivalence dollars), or agriculture (in dollars) potentially exposed to a natural hazard occurrence, as defined by FEMA.

Historic Loss Ratio: The estimated percentage of the exposed building value, population, or agriculture expected to be lost due to a natural hazard occurrence based on historical data.

Macroeconomics: A study of economy-wide, large-scale, and long-term aspects, including total value of goods and services, growth rates, and employment.

Risk Index Value: The risk-adjusted Expected Annual Loss (EAL) is calculated by multiplying the EAL by the Community Risk Factor (CRF). Please see Section 1.5 for more information.

Social Vulnerability: Demographic characteristics to measure the susceptibility of social groups to the adverse impacts of natural hazards.

Acronyms

CRF: Community Risk Factor

EAL: Expected Annual Loss

FEMA: Federal Emergency Management Agency

FEMA NRI: Federal Emergency Management Agency National Risk Index

HVRI: Hazards and Vulnerability Research Institute

NOAA: National Oceanic and Atmospheric Administration

NRI: National Risk Index

SVI: Social Vulnerability Index

VSL: Value of Statistical Life

1.0 Economic Impacts

According to the National Oceanic and Atmospheric Administration (NOAA) and the FEMA National Risk Index (NRI), climate change-related impacts are increasingly evident in Cook County, Illinois (the region), exacerbating climate hazards, including flood/rain, heat, tornados/strong wind and winter weather. These climate hazards are weather-related hydrometeorological events that can cause losses to human life, property, livelihoods, resources, and the environment. Climate hazards are typically referred to as extreme weather events and can directly or indirectly increase the risk of other hazards.

The selected communities within Cook County were Bellwood, Franklin Park, Justice, Lynwood, and Markham. This assessment used data from the National Oceanic and Atmospheric Administration (NOAA) and the Federal Emergency Management Agency (FEMA). NOAA's data tracks the region's historic climate-related extreme weather events, providing a comprehensive overview of the impact. FEMA's National Risk Index (NRI) data enabled the consultant team to quantify these hazards' expected direct economic impacts, including property damage, agricultural losses, and financial disruptions.

The assessment of climate-related economic impacts was broken into five steps, including 1) reviewing historical occurrences and losses, 2) defining the goal of economic impacts, 3) selecting an economic loss model, 4) assessing the relative risks for the region and 5) calculating a current expected annual economic loss impact.

Geosyntec reviewed multiple data sources of historical natural hazard occurrences in the region. For each data source, the focus was placed on climate-related hazards. Data sources were evaluated based on the data set completeness, the sources' credibility, the data's connection to specific events in the region, and the identification of losses. In defining the goal of the "economic impacts," the consultant team focused on losses due to physical damage attributed to identified types of events. The historical analysis process involved a bottom-up approach, including a tabulation and geospatial mapping of each occurrence and related losses. Based on data availability, the period evaluated was 1950 to 2024.

Negative economic impacts from extreme weather events can be viewed narrowly or broadly. A broad evaluation could include impacts at the macroeconomic level of the regional economy. Though there are broad negative supply and demand effects, including reductions in investment, supply chain disruptions, and loss of capital stock (physical damage), this broader economic impact assessment is beyond the goal of this analysis. A more narrowly focused definition of direct economic impact includes the total amount of expenditures within a defined geographic area that can be directly attributed to an event. This appendix focuses on these types of impacts, especially the losses related to physical damage from extreme weather events, which are defined as damage to property, people (injuries and deaths), and agriculture. Section 1.1 of the appendix examines the frequency of historical events related to these select hazards experienced in Cook County using the NOAA data. Section 1.2 introduces a direct economic impact model of expected future annual losses associated with these select hazards. Section 1.3 presents an assessment of the relative severity of the types of hazards. Section 1.4 quantifies the expected annual economic losses for property, people, and agriculture utilizing the FEMA NRI.

1.1 Historic Regional Extreme Weather Events

Data from the NOAA allowed us to quantify the impacts of extreme weather events on human life and property. NOAA's historic survey of climate-related extreme weather event data revealed that approximately 596 events have been reported in Cook County since 1950. As detailed in Table 1, these reported events accounted for 112 deaths, 848 injuries, and approximately \$734 million in damages.¹ NOAA categorizes damage resulting from extreme

¹ NOAA's Storm Events Database

weather events into two primary types: property damage (e.g., homes and buildings) and agriculture. Since all agriculture values were reported as zero, this summary refers exclusively to property damage moving forward.

The analysis examined 20 NOAA categories and grouped them into four broader categories: Flood/Rain, Heat, Tornado/Strong Winds, and Winter Weather, to align with the FEMA categories used later in the report.

Table 1. Summary of Historic Regional Weather Events (Source: NOAA 1950-2024)

Reported Events	Deaths	Injuries	Property Damage
596	112	848	\$733,977,750

The geographical distribution of these events highlights specific areas within Cook County that are particularly prone to these hazards. Flood/Rain events have been notably frequent in areas such as Hazel Crest, Lynwood, Markham, Country Club Hills, and Harvey. These locations have experienced significant flooding, contributing to the substantial property damage reported. Similarly, Tornado/Strong Wind events have been prevalent in areas including South Holland, Orland Park, Calumet City, Chicago, and Evanston. These regions have frequently been affected by tornadoes and strong winds, leading to considerable property damage and posing significant risks to human life.

Tornados/Strong Wind weather events occurred at the most significant reported frequency, while flooding is responsible for the greatest reported loss, accounting for 81% of the reported property damage. Winter Weather and Tornados/Strong winds accounted for the most reported injuries and deaths. By numbers, Tornados/Strong Wind related incidents are the most frequent, representing 70% of the recorded events. These events were associated with 44 deaths, 840 injuries, and \$138,977,750 in property damage. Flooding/Rain events, representing approximately 10% of the events, were associated with zero deaths, zero injuries, and approximately 81% of the total property damage.

Table 2 summarizes the primary event types and inflation-adjusted total physical damage to property for Cook County. It is important to note that property damage amounts for heat and winter weather were not available.

Table 2 Primary Hazards and Damage (1950 -2024) – (Sources: NOAA, census.gov)

Focus Area	Event Type Hazards		Occurrence	Life Loss	Injuries	Property Damage
Cook County 2020 Pop: 5,275,541		Flood/Rain	74	0	0	\$595,000,000
		Heat	13	9	3	Not provided
		Tornado/Strong Wind	421	44	840	\$138,052,750
		Winter Weather	88	59	5	Not provided
	Total		596	112	848	\$733,977,750

1.2 Economic Impact Model

Multiple economic impact models were considered to quantify the expected annual direct economic impact of climate-related hazards. Ultimately, FEMA's National Risk Index (NRI) model was selected. FEMA describes the NRI as a dataset and online tool for understanding natural hazards for U.S. communities. It is intended to fill gaps in available data and analyses to better inform federal, state, local, tribal, and territorial decision-makers as they

develop risk-reduction strategies. Based on these qualities and NRI's peer-reviewed methodology, NRI was selected for this assessment to quantify the direct economic impacts of climate-related hazards.

The NRI provides more than just a method for estimating economic loss. It provides multiple risk metrics that create a baseline relative risk measurement (i.e., Risk Index) for each U.S. County and census tract to illustrate communities most at risk for 18 natural hazards. In the NRI, risk is the potential for negative impacts from a natural hazard. It consists of three components: 1) a natural hazards risk component, 2) a consequence enhancing component, and 3) a consequence reduction component.

Estimated Annual Loss (EAL) is the natural hazards risk component, measuring the expected loss of building value, population, and agriculture value each year due to natural hazards. **The EAL represents a direct economic impact and is this assessment's primary economic impact metric.** In the following sections (1.3 and 1.4), we will describe the qualitative and quantitative results of the EAL assessment.

Social Vulnerability is the consequence-enhancing component, analyzing demographic characteristics to measure social groups' susceptibility to the adverse impacts of natural hazards. Community Resilience is the consequence-reducing component, using demographic characteristics to measure a community's ability to prepare for, adapt to, withstand, and recover from the effects of natural hazards. **The economic impact of these two components on the EAL represents the second economic impact metric employed in this study.** The contribution of these components to a risk-adjusted EAL is discussed in Section 1.5.

FEMA's economic model calculates economic loss as the EAL, which includes three variables, as shown in the equation below.

$$EAL = Exposure \times Annualized Frequency \times Historic Loss Ratio$$

The EAL for specific geography can be defined as the product of a particular hazard's exposure, the annualized frequency of that hazard, and the associated historical loss ratio, where:

- Exposure = the estimated total current dollar value of a) property (e.g., buildings), b) agriculture, and c) human fatalities and injuries at risk at a point in time.
- Annualized Frequency = calculated probability that a hazard will occur on an annual basis.
- Historic Loss Ratio = the estimated percentage of the exposed building value, population, or agriculture expected to be lost due to a natural hazard occurrence based on historical data.

For exposure, while building and agriculture values are measured in dollars, population is measured in fatalities and injuries. Therefore, to ensure a standard unit of measurement, FEMA monetizes the population EAL into a population equivalence using a value of statistical life (VSL) approach where each fatality or ten injuries is treated as \$11.6 million of economic loss.

In conjunction with a quantitative estimate calculated using EAL, FEMA also develops a relative assessment of the hazards using a Community Score, described in sections 1.3 to 1.5. This score ranks communities based on their vulnerability and preparedness for climate hazards.

1.3 Qualitative Assessment of Hazards in Region

The NRI contains risk data for 18 types of natural hazards. Geosyntec selected 7 of the 18 hazards based on their linkage to climate hazards identified during the community engagement effort and the materiality of physical losses in the region. The hazards are cold waves, ice storms, winter weather, strong winds, tornados, riverine flooding, and heat waves. These hazards were grouped into four categories: Flood/Rain, Heat, Tornado/Strong Wind, and Winter Weather, presented in Figure 1, to align with the four categories used by NOAA.

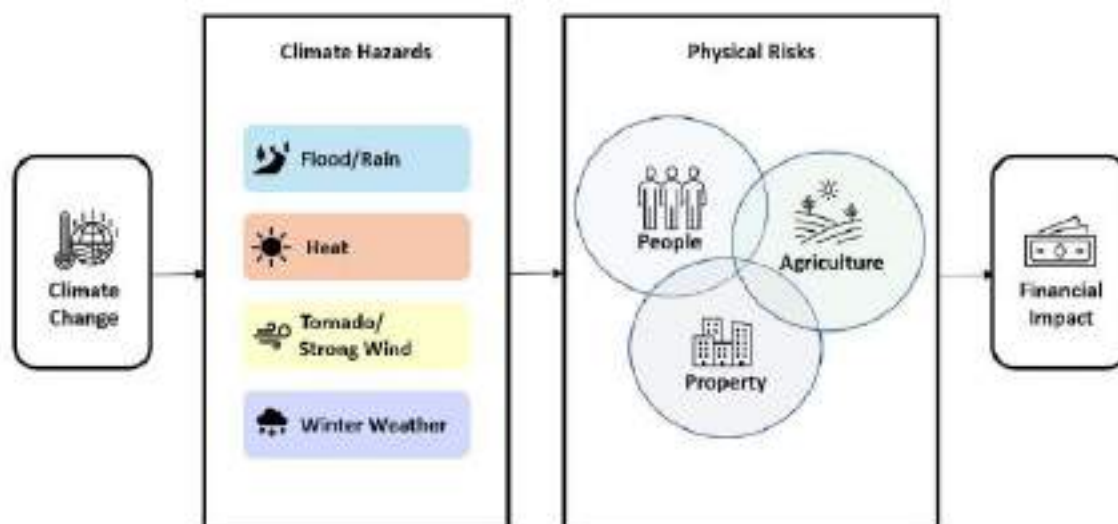


Figure 1 Climate Hazards for the Region

Table 3 presents a risk matrix assessment for the communities within Cook County for the four hazard groups selected. For each hazard, the qualitative impact is described using a five-point scale with ratings from "very low" to "very high" based on the likelihood of occurrence. These represent the qualitative ranking of the likelihood of an annual loss. Strong wind was the most frequent hazard in Cook County, while the hazard with the highest combined risk of likelihood and loss was riverine flooding.

To determine the values for Table 3, we converted the occurrence of each climate hazard to a scale of 1-5. This was achieved using a linear transformation formula that maps the minimum and maximum occurrence values to the scale endpoints. Specifically, the formula used was:

$$\text{Scaled Value} = 1 + \left(\frac{\text{Occurrence} - \text{Min Occurrence}}{\text{Max Occurrence} - \text{Min Occurrence}} \right) \times 4$$

This approach ensures that the hazard with the lowest occurrence is assigned a value of 1, while the hazard with the highest occurrence is assigned a value of 5. Intermediate values are proportionally distributed between these endpoints. For example, with occurrences ranging from 13 (Heat Wave) to 421 (Strong Wind), the scaled values reflect the relative frequency of each hazard, providing a clear and consistent comparison across different hazard types.

Table 3 FEMA Qualitative Risk Assessment Matrix

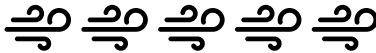
Risk Matrix	
Climate Hazard	Cook County
Flood/Rain	
Heat	
Tornado/Strong Wind	
Winter Weather	
1 = Very Low, 2 = Low, 3 = Moderate, 4 = High, 5 = Very High	

Table 3 reflects the qualitative likelihood of experiencing an event but not the relative amount of economic loss. The dollar amount expected for annual risk is presented in the next section.

1.4 Quantifying the Economic Impacts

The NRI model provides a quantitative estimate of the dollar economic impact of climate-related hazards by forecasting the EAL for each hazard. The dollar figure for the expected loss for each hazard was calculated using community data on exposure, annualized frequency, and the historical loss ratio formula presented in Section 1.2. Table 4 shows the EAL for each selected hazard type for Cook County and the selected communities.

Table 4 Economic Impact - Expected Annual Loss

Hazard Type	Expected Annual Loss (\$ in Mil)					
	Bellwood	Franklin Park	Justice	Lynwood	Markham	Cook County
Flood/Rain	\$1.03	\$0.99	\$0.23	\$0.20	\$0.07	\$27.85
Heat	\$0.56	\$0.59	\$0.34	\$0.20	\$0.35	\$154.61
Tornado/ Strong Winds	\$1.06	\$1.34	\$0.62	\$0.57	\$0.82	\$316.47
Winter Weather	\$0.26	\$0.27	\$0.16	\$0.09	\$0.16	\$71.15
Total	\$2.91	\$3.19	\$1.34	\$1.07	\$1.41	\$570.08

This EAL represents the direct economic impact and is the primary economic impact metric employed in this assessment. Tornadoes were indicated to be the most economically devastating hazard, with an EAL exceeding \$316.47 million, accounting for the majority of the \$570.07 million total EAL from the four categories analyzed. Flood/rain and heat also pose substantial economic threats, with EALs of approximately \$227.85 million and \$154.61 million, respectively. The other hazard, winter weather, contributes to the overall economic impact but to a lesser extent, with an EAL of about \$71.15 million.

Cook County's EAL risk rating is "Very High" relative to other U.S. and Illinois Counties. As shown in Figure 2, Cook County is the only County in Illinois to receive a "Very High" rating. This is likely mostly driven by the relative amount of property assets in Cook County compared to other counties in the state. It does not necessarily reflect greater climatic hazards in Cook County.

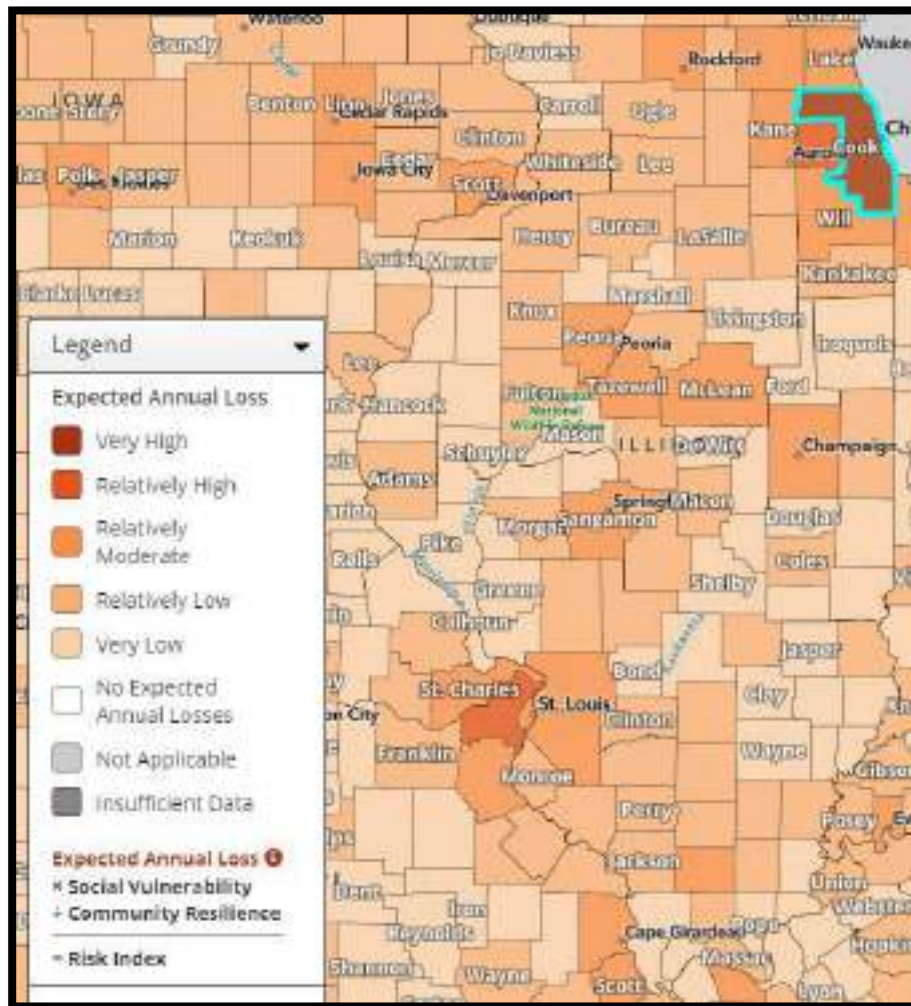


Figure 2 Illinois – Expected Annual Loss Map (Source: FEMA NRI)

Figure 3 shows an overview of the region's FEMA NRI Risk Index map and shows Cook County has a "Very High" rating. This index combines the likelihood of natural hazards with the potential consequences, highlighting areas most at risk. Cook County's high rating underscores the need for robust risk management strategies to mitigate the impacts of these hazards. The County's dense population and extensive infrastructure make it particularly vulnerable to significant disruptions and damages from extreme weather events.

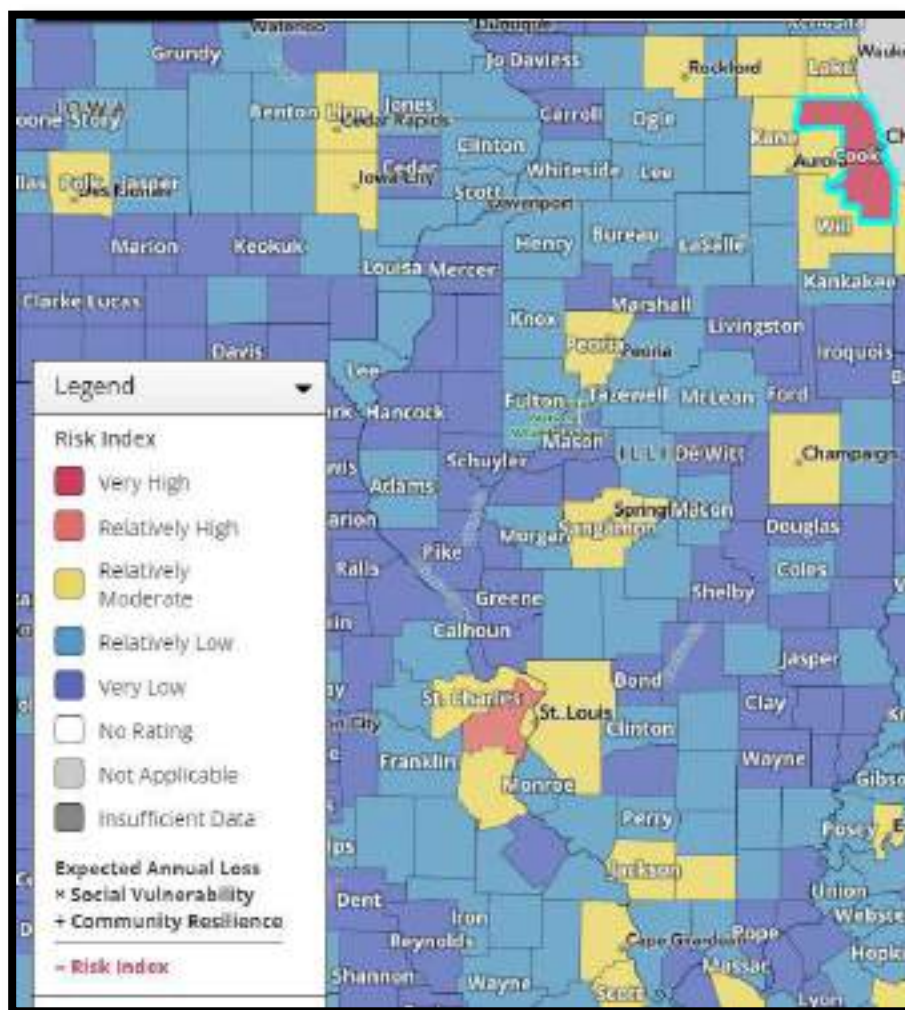


Figure 3 Illinois – Risk Index Map (Source: FEMA NRI)

1.5 Adjustment for Community Resilience and Social Vulnerability

The NRI methodology incorporates a risk adjustment based on community resilience and social vulnerability for the EAL. NRI combines the Social Vulnerability and Community Resilience components into a Community Risk Factor (CRF) multiplied by the EAL component to calculate risk-adjusted EAL, which is called the Risk Index Value. The equation is described below:

$$\text{Risk} = \text{Expected Annual Loss} \times \text{Community Risk Factor}$$

$$\text{where Community Risk Factor} = f\left(\frac{\text{Social Vulnerability}}{\text{Community Resilience}}\right)$$

FEMA multiplies the EAL value by a community risk factor to obtain the final risk index value, calculated by assessing social vulnerability (consequence-enhancing component) and community resilience (consequence-reduction component). These three factors create the Risk Index Value (Risk), which forms an absolute basis for quantifying risk within the NRI and is used to generate Risk Index percentiles and ratings in the NRI report. Notably, reducing Social Vulnerability decreases the Risk, and increasing Community Resilience will also decrease the Risk. Further discussion of these two components is presented later in this section.

The FEMA NRI Social Vulnerability map for the region, Figure 4, reveals Cook County has a "Very High" rating, indicating that certain demographic groups are highly susceptible to the adverse effects of natural hazards. Factors such as income levels, age, and access to resources contribute to this vulnerability. Addressing social vulnerability is crucial for enhancing community resilience and ensuring that all residents can effectively respond to and recover from disasters.

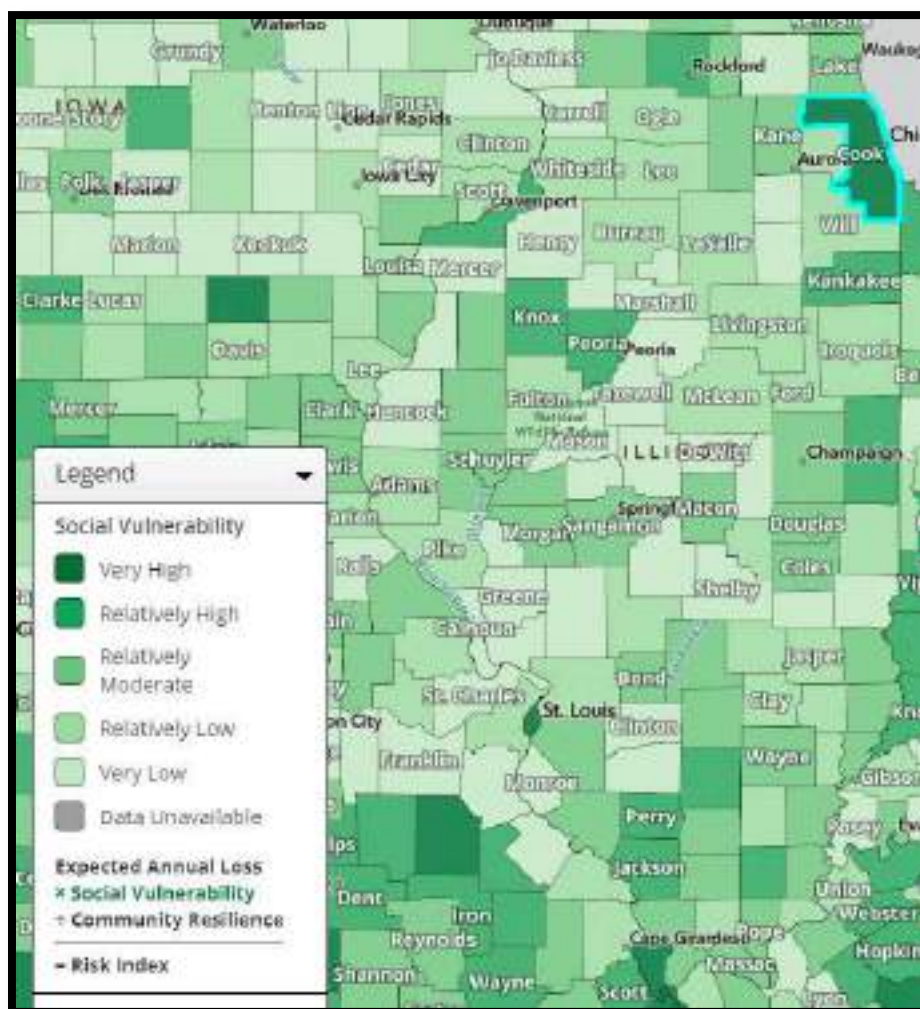


Figure 4 Illinois – Social Vulnerability Map (Source: FEMA NRI)

The FEMA NRI Community Resilience map for the region, Figure 5, reveals Cook County has a "Very High" rating, reflecting the County's strong capacity to prepare for, adapt to, and recover from natural hazards. This high resilience rating indicates the community's ability to withstand and bounce back from extreme weather events. Efforts to further strengthen community ties, improve infrastructure, and enhance emergency preparedness will continue to bolster Cook County's resilience.

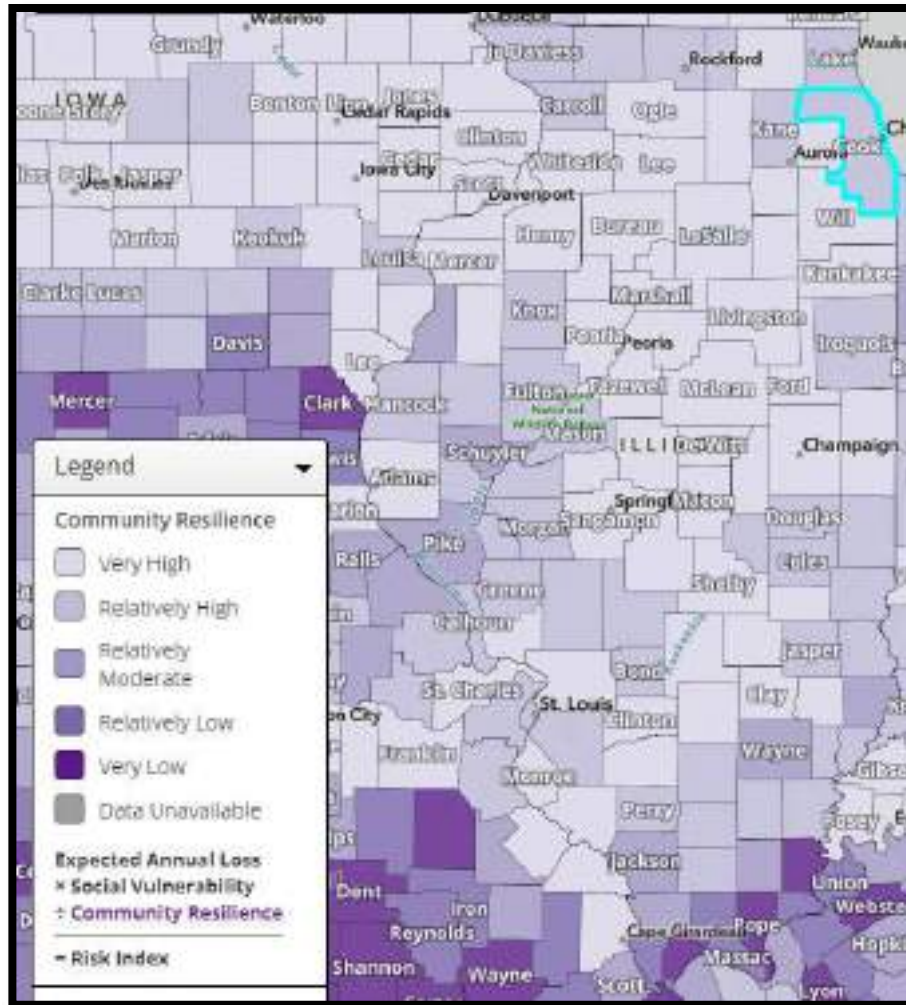


Figure 5 Illinois – Community Resilience Map (Source: FEMA NRI)

Table 5 presents the adjusted Risk Index Value for Cook County, accounting for the overall rating of "very high" Social Vulnerability and "relatively high" Community Resilience. Notably, the calculated Community Risk Factor currently increases the magnitude of the EAL by 20%.

Table 5 Risk Value Adjustment (Risk Adjusted EAL) -the Risk Index Value is the EAL multiplied by the Community Risk Factor and represents the risk-adjusted EAL.

County	EAL (\$ in Mil)	Social Vulnerability	Community Resilience	Community Risk Factor	Risk Index Value (\$ in Mil)
Bellwood	\$2.91	Very High	Relatively High	1.2	\$3.49
Franklin Park	\$3.19	Very High	Relatively High	1.2	\$3.83
Justice	\$1.34	Very High	Relatively High	1.2	\$1.61
Lynwood	\$1.07	Very High	Relatively High	1.2	\$1.28
Markham	\$1.41	Very High	Relatively High	1.2	\$1.69
Cook County	\$570.07	Very High	Relatively High	1.2	\$684.08

1.6 Assessment Summary

This economic analysis is not intended to provide precise dollar values that can be used to help communities set aside money to respond to specific hazards. Instead, it should give them a frame of reference on which hazards can cause the most significant annual economic impact based on historical events and how those costs could change as climate change continues. An economic impact analysis was performed to quantify impacts from flood/rain, heat, tornado/strong winds, and winter weather (cold wave, ice storm, and winter weather) climate hazards.

The analysis of NOAA's historic climate-related extreme weather events in Cook County that were reported from 1950 to 2024 underscores the significant impact these events have had on the region. The data highlights the critical need for effective risk management, with 596 recorded events resulting in 112 deaths, 848 injuries, and nearly \$734 million in property and agricultural damage.

High winds and extreme winter weather were the most frequent, accounting for 70% of incidents. Flooding, although less frequent (10% of events), caused 81% of the total property damage.

Using FEMA's National Risk Index (NRI) model, the Expected Annual Loss (EAL) was quantified for various hazards. Tornadoes pose the most significant economic threat, with an EAL of \$316.47 million. Flood/rain and heat also present substantial economic risks, with EALs of \$27.85 million and \$154.61 million, respectively. Winter weather contributes an EAL of about \$71.15 million.

Property damage amounts for heat and winter weather were not available in the NOAA dataset, underrepresenting the economic impacts of these hazards. Agricultural damage was also not available for inclusion. The NOAA analysis primarily includes property impacts from flood/rain and tornado/strong wind events, which does not fully capture the broader economic risks. Therefore, the ratio of expected annual loss to the historical data is not fully representative.

Cook County's EAL risk rating is "Very High" relative to other U.S. and Illinois counties. This rating, derived by multiplying the EAL by a Community Risk Factor, results in a Risk Index Value of approximately \$684.08 million.

The discrepancy between NOAA data (81% of direct economic impact from flooding) and NRI data (a smaller proportion) may be due to data limitations, necessitating further investigation and reconciliation.

The Social Vulnerability map shows a "Very High" rating, indicating high susceptibility among certain demographic groups. Conversely, the Community Resilience map also shows a "Very High" rating, reflecting a strong capacity to prepare for, adapt to, and recover from natural hazards.

Targeted risk management strategies are essential to mitigate the economic impacts of extreme weather events in Cook County. By focusing on the most economically damaging hazards, such as tornadoes and flooding, and enhancing community resilience, Cook County can better prepare for and respond to future climate-related risks.

2.0 References

Federal Emergency Management Agency. (n.d.). National Risk Index. Retrieved July 2024, from <https://hazards.fema.gov/nri/>

National Centers for Environmental Information. (n.d.). Storm Events Database. NOAA. Retrieved July 2024, from <https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=17,ILLINOIS>

U.S. Census Bureau. (n.d.). QuickFacts. U.S. Department of Commerce. Retrieved July 2024, from <https://www.census.gov/quickfacts/>

Franklin Park Climate Resiliency Plan



Appendix D

Engagement Materials and Summaries



Community Resiliency Planning Municipal Workshop

Geosyntec[®]
consultants

METRO
STRATEGIES
group



Community Resilience Planning – Workshop 1

Agenda

1. Introductions
2. Roadmap to Resilience
3. What are the hazards today?
4. What hazards do we expect in the future?
5. Goals for the Resilience Plan
6. Sample Solutions
7. Wrap up & Next steps

Cook County's Climate Resiliency Planning Program

Cook County's Department of Environment and Sustainability (DES) is using American Rescue Plan Act (ARPA) funds to support five municipalities in developing Climate Resiliency Plans and conduct initial implementation.

Phase I, 2023-2024:

Through a community-driven planning and prioritization process, communities will set goals and identify projects to bolster resiliency. Planning consultants will use community input to develop individualized and detailed digital Climate Resiliency Plans.

Phase II, 2024-2026:

Funds will be available to implement portions of the plans for a variety of possible projects including green infrastructure improvements, stormwater management and renewable energy installations. Projects will be selected based on the needs of each community, cost, feasibility, and timelines.

Introductions



Will serve as the prime for the project and use staff's deep understanding of urban flooding that impacts Cook County communities.



Will lead the visioning and goal development for the Climate Resiliency Plans.



Will lead the team's community engagement and collaboration efforts.





Roadmap to Resiliency



Geosyntec®
CONSULTANTS

METRO
CONSULTANTS





Resilience

What does “*resilience*” mean to you?



City of San Francisco
Department of Public Works

METRO
San Francisco



Resiliency

strong
past
bear
prepared
address
change
heat
sustainable
future
mistakes
impacts
climate
long
residents
plans
caused
place
current
over-development
moving
sure
development
help
patterns
convert
forward
positive
look
thoughts
flooding



City of San Diego

METRO



Fostering a Dialogue about Resilience



Key Concepts of Resilience



Resiliency — *The ability to recover from a hazardous event*

Resilience is **distinct** from **sustainability**.



Vulnerability — *How people and systems are affected by negative events*

Vulnerability includes **economic** inequality, **health** inequity, and **racial injustice**.



Adaptation — *Actions taken to minimize impacts*

Effective adaptation accounts for **social justice**.



City of Los Angeles

METRO





5 W's of Resilience

- Resilience for **whom**?
- Resilience of **what** to **what**?
- Resilience for **when**?
- Resilience for **where**?
- **Why** Resilience?



What Are The Hazards Today?



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What Hazards Do We Expect Tomorrow?



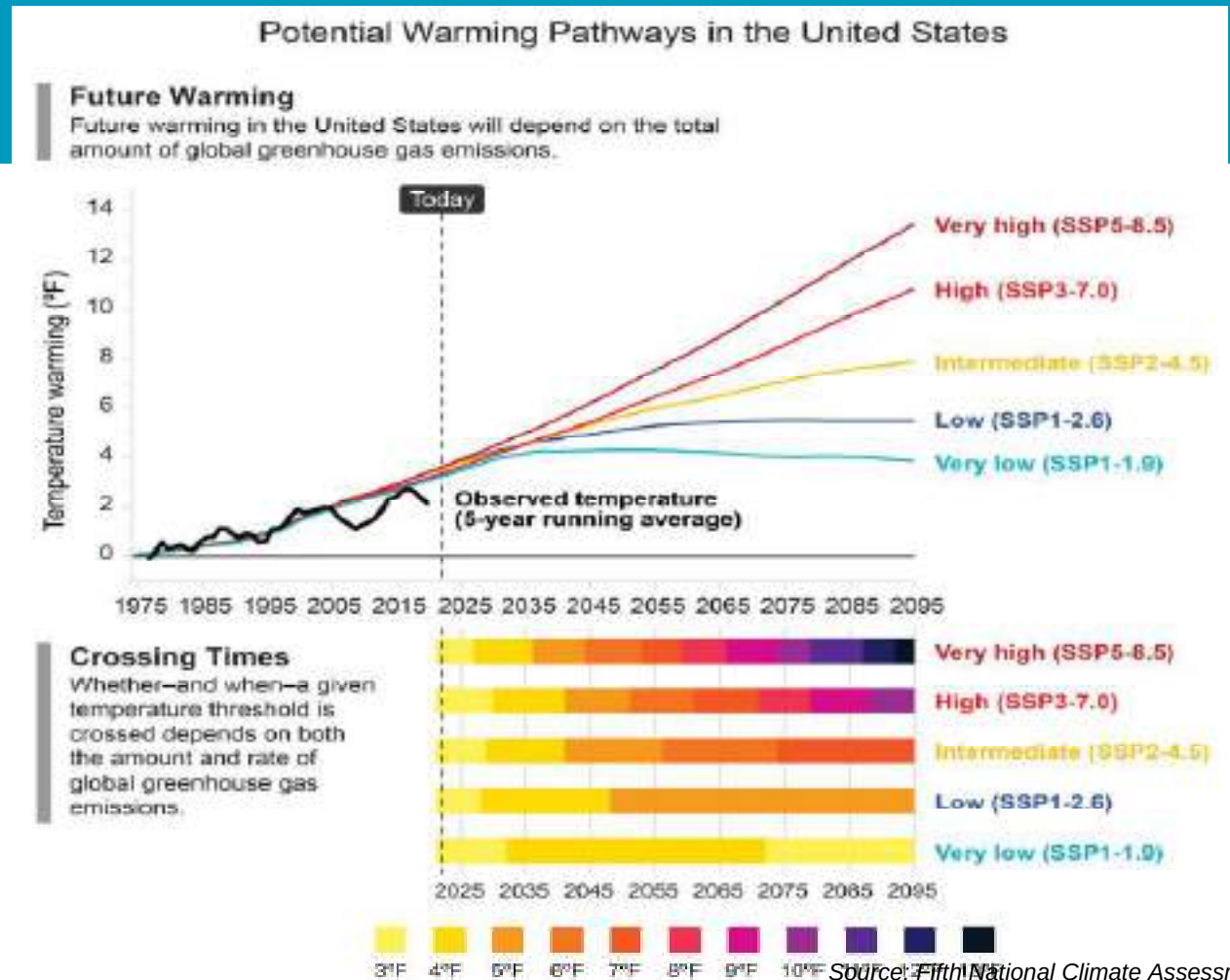
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Heat

- The degree of these increases varies by the amount of green house gas emissions we continue to output.



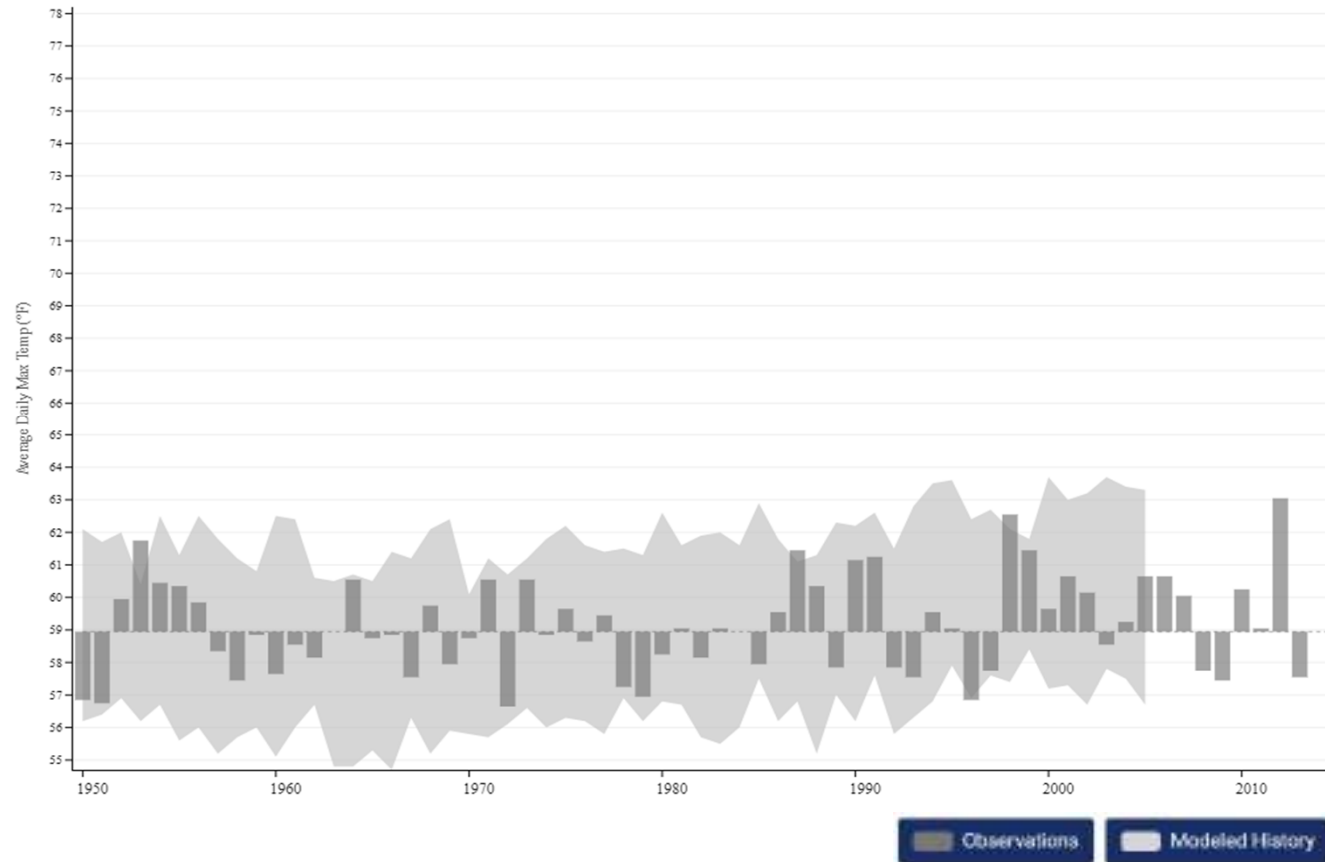
City of San Francisco

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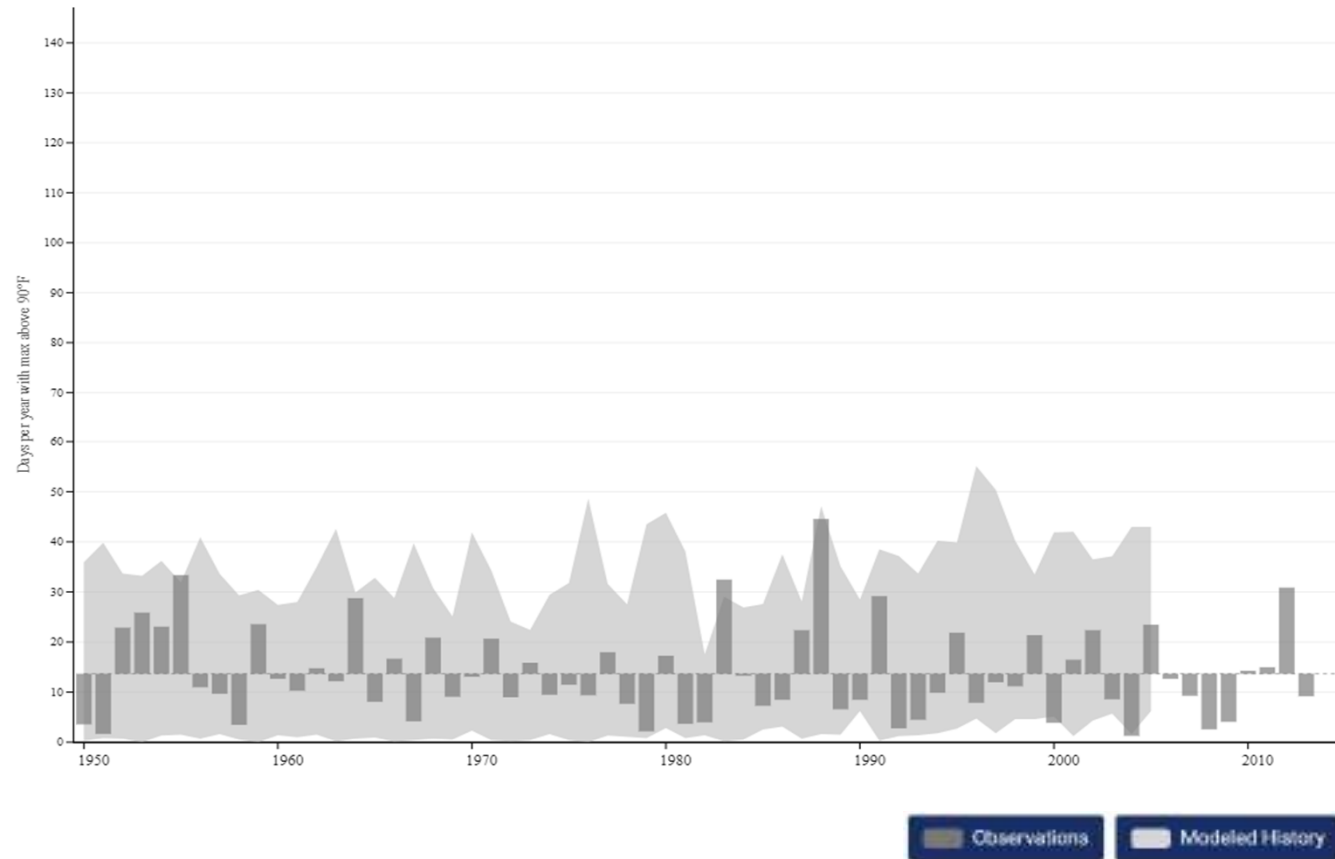
Heat

- **Average Daily Maximum Temperature**
(Historical through Projected Late Century)



Heat

- **Days with Max Temperature Over 90°F**
(Historical through Projected Late Century)



City of Los Angeles

METRO



Heat

- In the Chicago Metropolitan Area* temperatures are also expected to rise, with **more days with extreme heat**, and fewer days with extreme cold temperatures.
- These trends become steeper by late century and under a high-emissions scenario.

*Cook, DuPage, Will, Kendall, Kane, McHenry, and Lake counties

Source: Chicago Metropolitan Agency for Planning

Annual Average Number of Days with Max Temperature Over 100°F

	Observed (1985-2014)	Mid-Century (2035-2064)				Late-Century (2065-2094)			
		SSP2-4.5		SSP5-8.5		SSP2-4.5		SSP5-8.5	
	Baseline	Value	Change	Value	Change	Value	Change	Value	Change
Mean	0.3	2.2	1.9	4.1	3.8	4.7	4.4	18	17.7
Min	0	0.6	0.6	1	1	1.1	1.1	6.1	6.1
Max	0.6	4.2	3.8	6.6	6.0	7.6	7	25.6	25

Annual Average Number of Days with Max Temperature Over 90°F

	Observed (1985-2014)	Mid-Century (2035-2064)				Late-Century (2065-2094)			
		SSP2-4.5		SSP5-8.5		SSP2-4.5		SSP5-8.5	
	Baseline	Value	Change	Value	Change	Value	Change	Value	Change
Mean	12.5	38.7	26.2	47	34.5	51.2	38.7	78.7	66.2
Min	3.8	16.2	11.9	21.5	17.7	24	20.2	44.8	41
Max	19	50.4	31.4	58.6	39.6	62.7	43.7	93.9	74.9

Annual Average Number of Days with Max Temperature Under 15°F

	Observed (1985-2014)	Mid-Century (2035-2064)				Late-Century (2065-2094)			
		SSP2-4.5		SSP5-8.5		SSP2-4.5		SSP5-8.5	
	Baseline	Value	Change	Value	Change	Value	Change	Value	Change
Mean	4.9	1.2	-3.7	1	-3.9	0.6	-4.3	0.1	-4.8
Min	2.9	0	-2.9	0	-2.9	0	-2.9	0	-2.9
Max	7.9	2.7	-5.2	2.4	-5.5	1.8	-6.1	1.2	-6.7

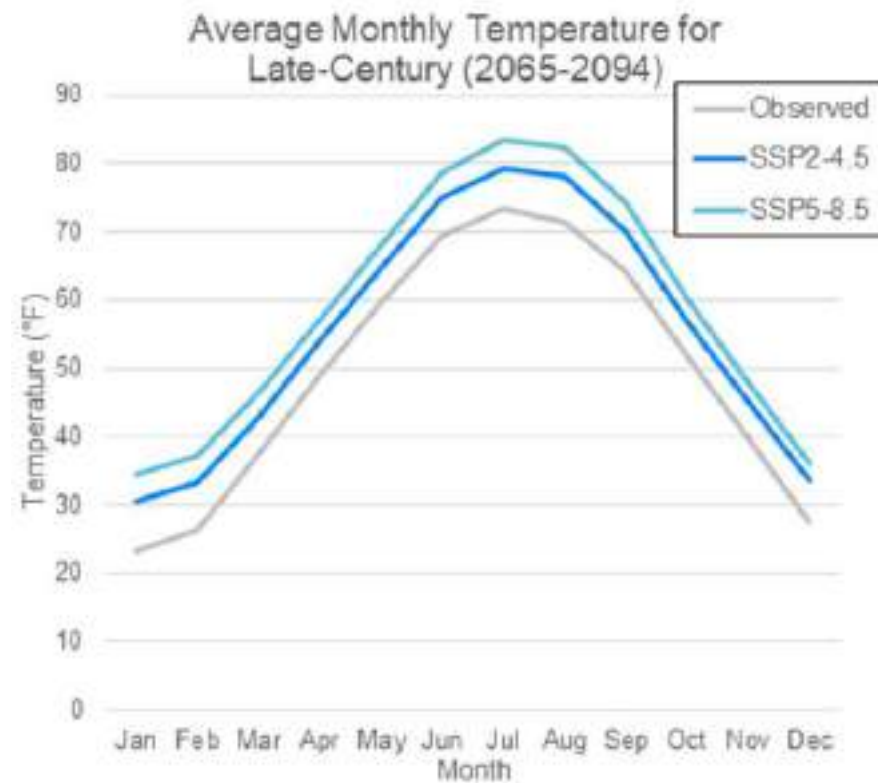
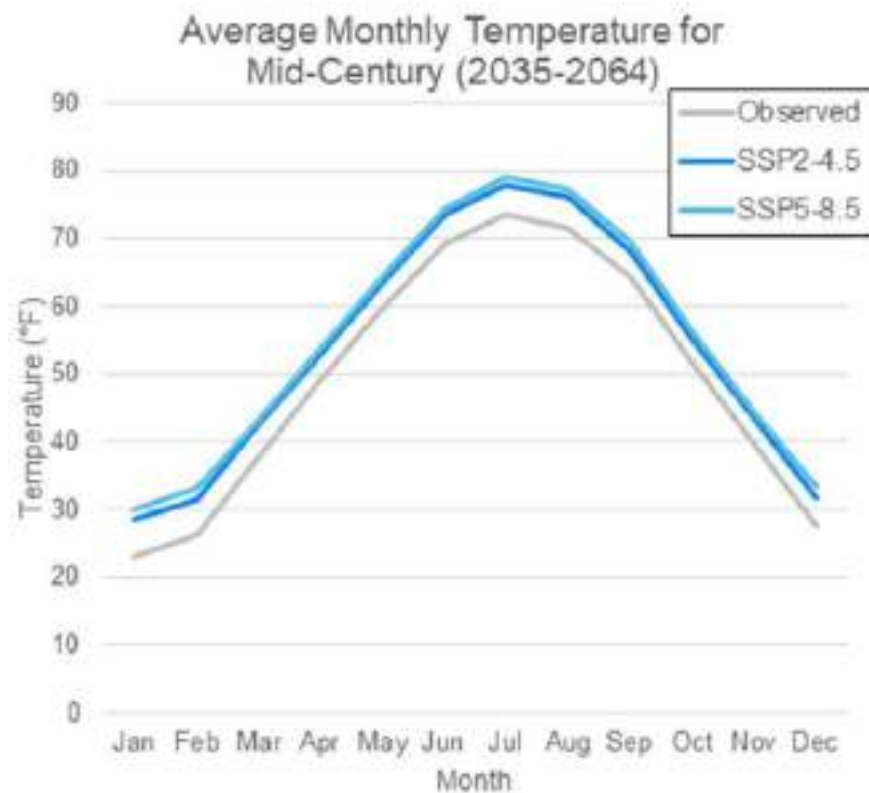


Deerfield
Forest

METRO
Chicago



Heat

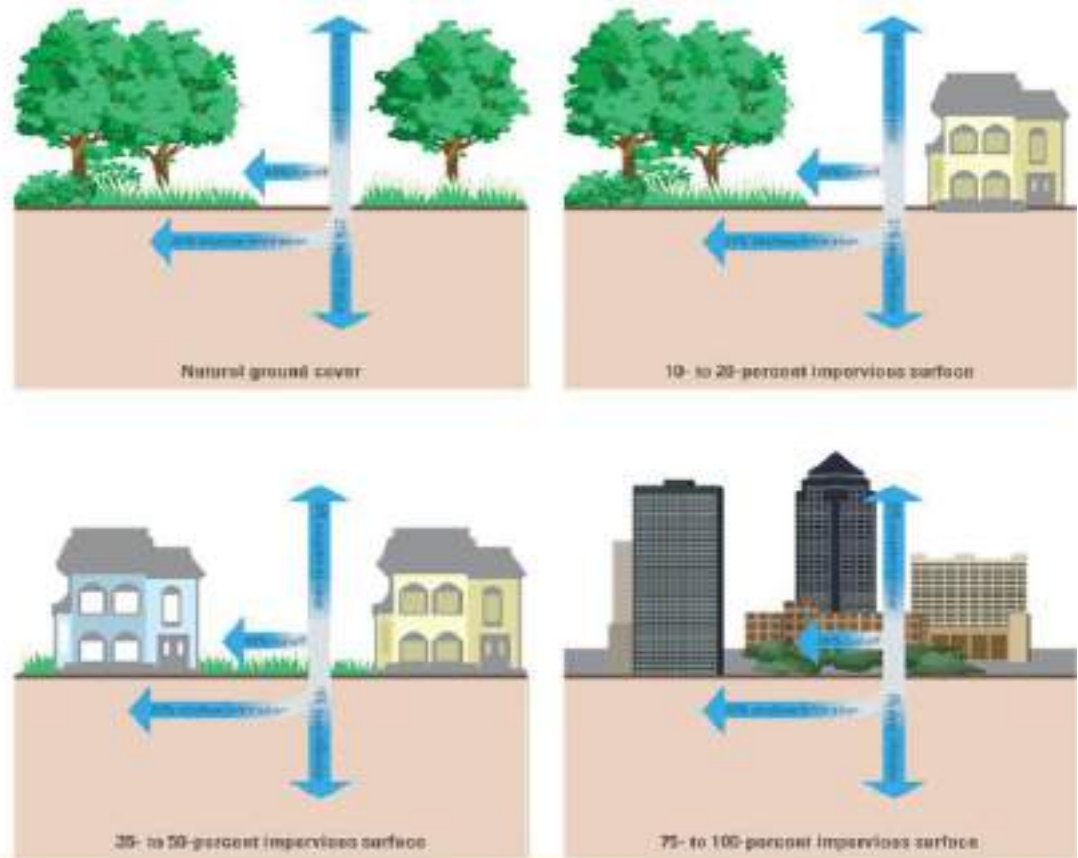


Source: Chicago Metropolitan Agency for Planning

Flooding

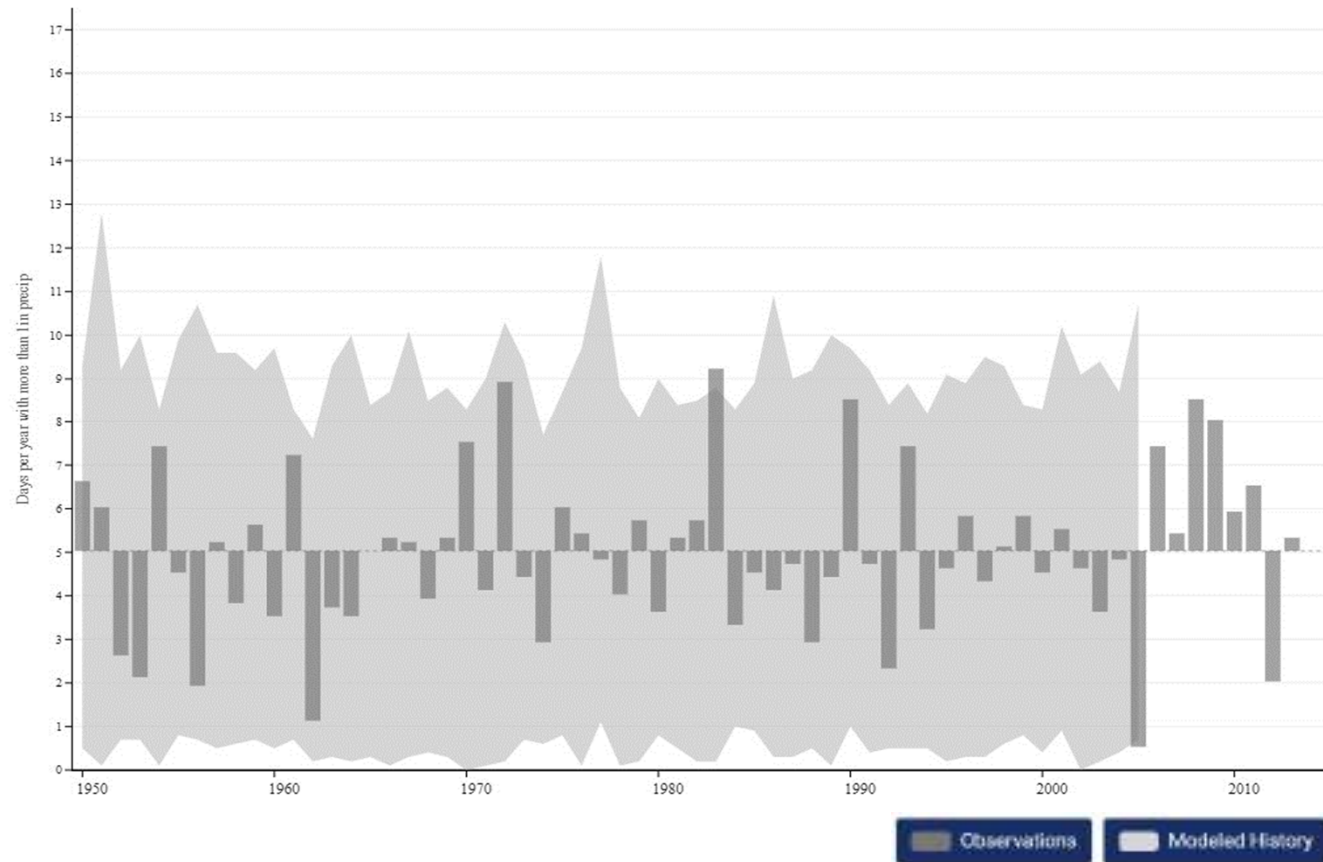
- Extreme precipitation is a direct cause of many urban **flood events** and poses significant **infrastructural challenges** to municipalities across the county and beyond.

Source: USGS



Flooding

- **Days with Over 1” Precipitation**
(Historical 1950-2012)
- Extreme precipitation is expected to increase in many areas across the country, including in the Cook County region.



Flooding

- Both average and extreme **precipitation** are expected to increase in the Chicago Metropolitan Area.

Precipitation

Annual Average Number of Days with Over 1 inch of Precipitation

	Observed (1985-2014)	Mid-Century (2035-2064)				Late-Century (2065-2094)			
		SSP2-4.5		SSP5-8.5		SSP2-4.5		SSP5-8.5	
	Baseline	Value	Change	Value	Change	Value	Change	Value	Change
Mean	6.6	7.4	0.8	7.6	1	7.7	1.1	8.3	1.7
Min	3.9	4.6	0.7	4.6	0.7	5.1	1.2	5.5	1.6
Max	9.5	10.2	0.7	10.5	1	10.7	1.2	10.7	1.2

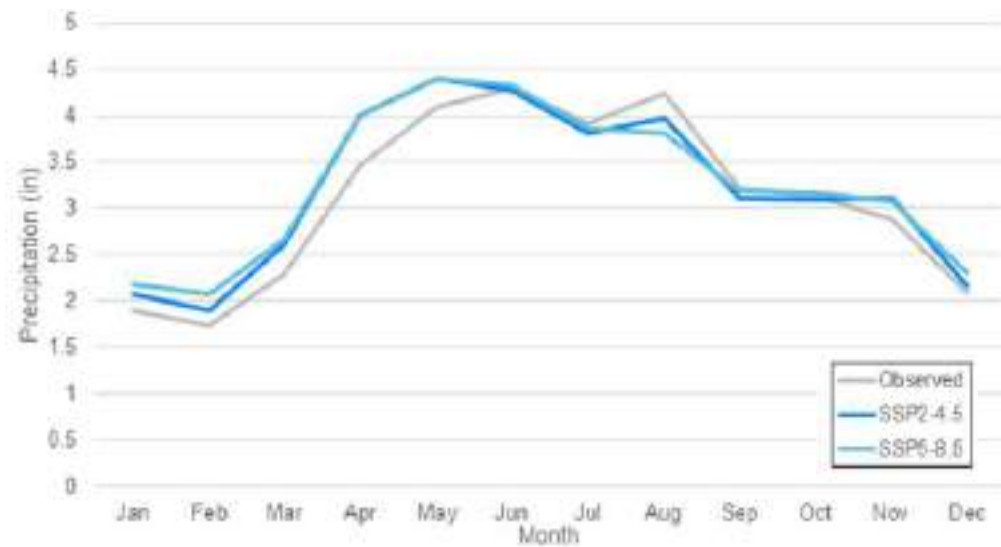
Annual Average Maximum 1-Day Precipitation (inches)

	Observed (1985-2014)	Mid-Century (2035-2064)				Late-Century (2065-2094)			
		SSP2-4.5		SSP5-8.5		SSP2-4.5		SSP5-8.5	
	Baseline	Value	Change	Value	Change	Value	Change	Value	Change
Mean	2.4	2.6	0.2	2.6	0.2	2.7	0.3	2.9	0.5
Min	1.8	1.9	0.1	1.9	0.1	1.9	0.1	2.1	0.3
Max	3	3.2	0.2	3.2	0.2	3.5	0.5	3.7	0.7

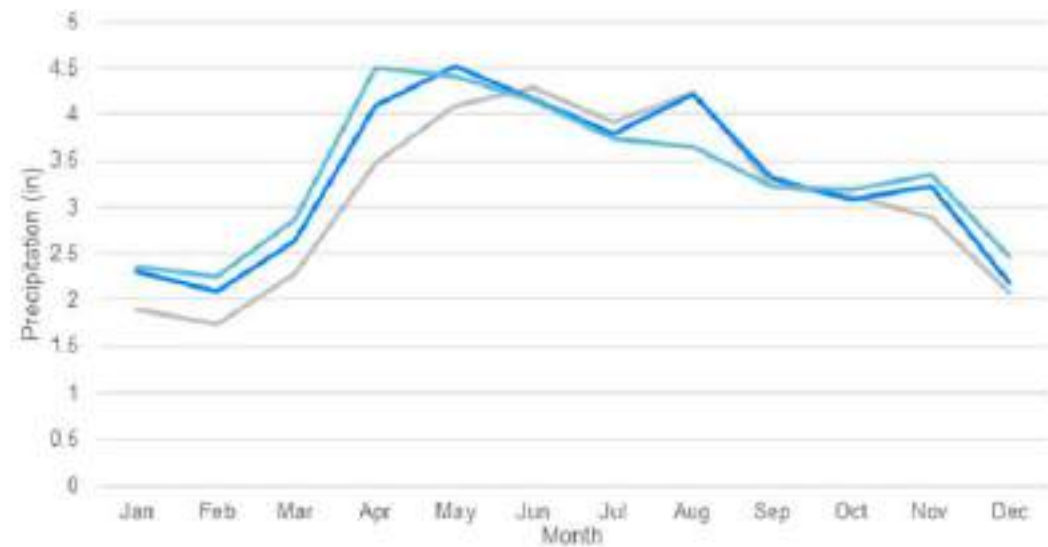
Source: Chicago Metropolitan Agency for Planning

Flooding

Total Monthly Precipitation for Mid-Century (2035-2064)

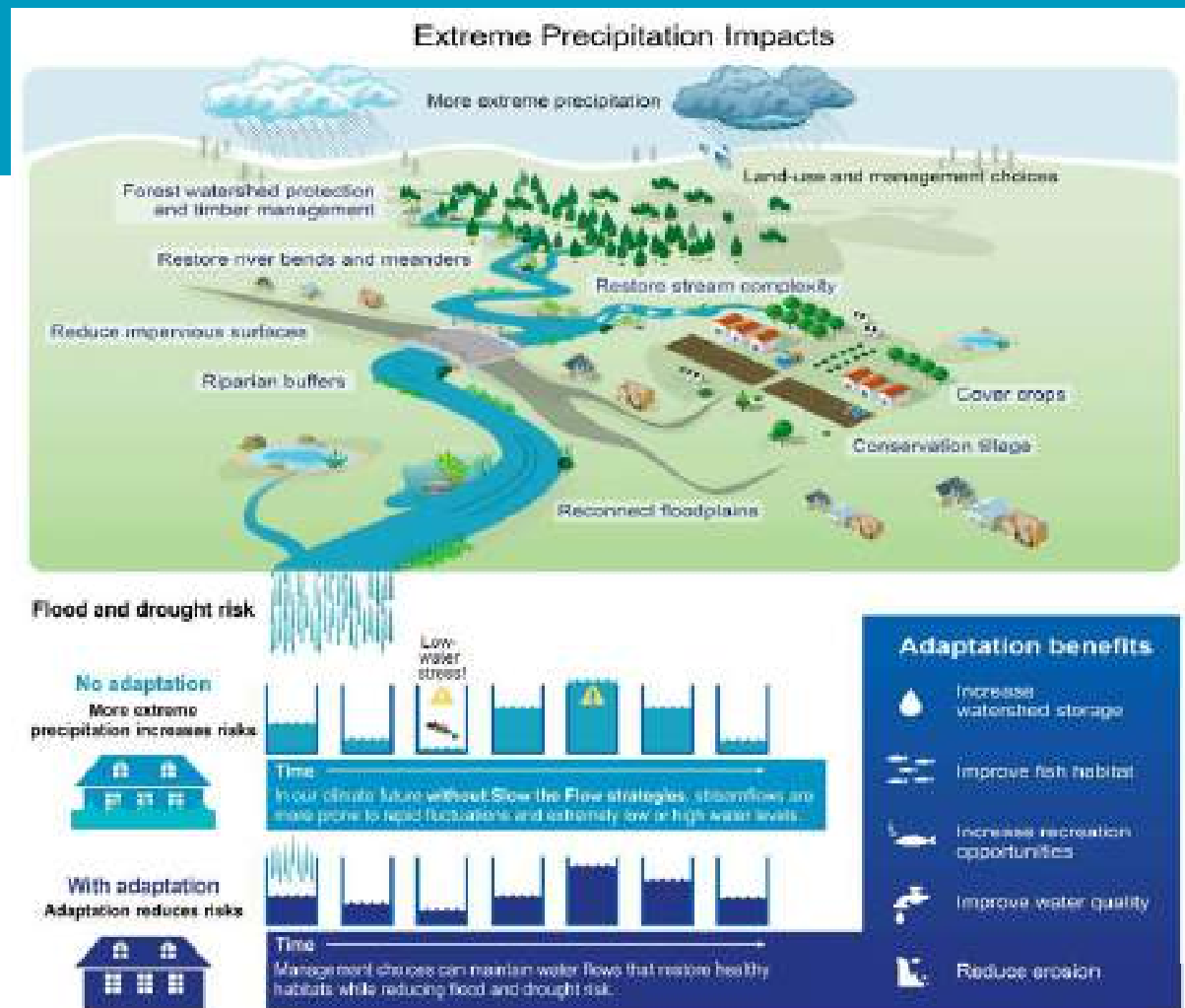


Total Monthly Precipitation for Late-Century (2065-2094)



Source: Chicago Metropolitan Agency for Planning

Flooding



Source: Fifth National Climate Assessment



City of Madison

METRO



Storms

- Storms are expected to increase in severity and frequency in the Cook County region.
- These storms are expected to bring increased **precipitation, thunderstorm events**, and **extreme wind** speeds and wind gusts.
- Future daily wind gusts greater than **43 mph** could increase by as much as **20%**.
- **24-hour, 100-year storms** have and are expected to continue increasing in frequency and intensity in northeastern Illinois.





Goals For The Resilience Plan



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Environmental Justice & Resilience

Three Dimensions of Environmental Justice

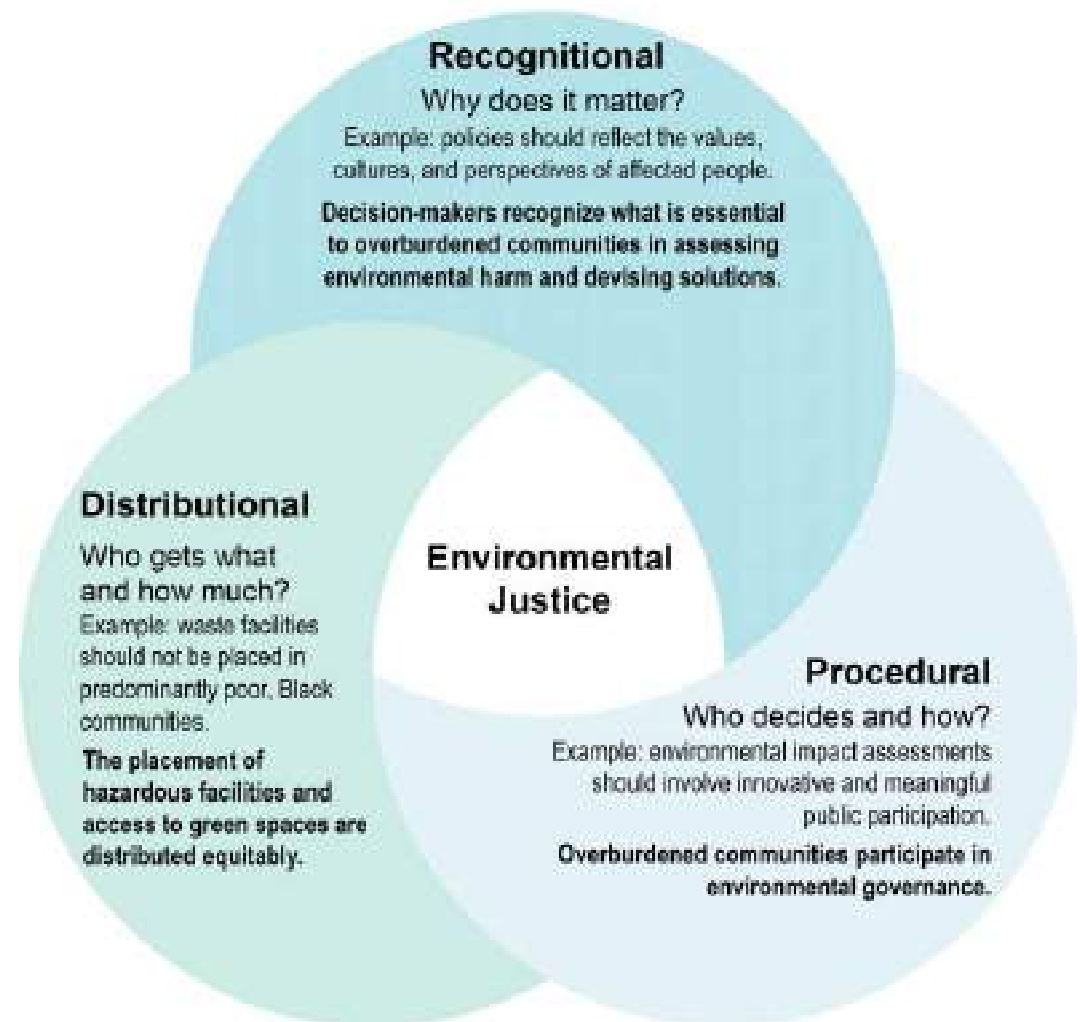


Figure credit: Puget Sound Partnership, Citizen Potawatomi Nation, and University of Michigan.



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WATER
SEWER
AGENCY



5 W's of Resilience

Scenario 1			Scenario 2	
Who?	T R A D E O F F S	Beneficiaries are city residents living in flood risk zones	Beneficiaries are city residents with most limited access to green space	
What?		Specifically focused on stormwater management	Generic community resilience	
When?		Focused on current residents and based on current estimates of risk	Both short-term and long-term resilience	
Where?		Neighborhoods with the most area in flood hazard zones within the municipal boundaries	Neighborhoods with the lowest average access to green space (parks) within the municipal boundaries	
Why?		Goal is an outcome: flood losses and investments in "gray" stormwater infrastructure are reduced	Goal is an outcome: increased social justice	





Solutions



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POTENTIAL SOLUTIONS TO MITIGATE CLIMATE CHANGE

Cook County Climate Resiliency Planning Program

RETROFIT IMPERVIOUS SURFACES



INCREASE GREEN INFRASTRUCTURE AND TREE CANOPY



BUILD REGIONAL DETENTION FACILITIES



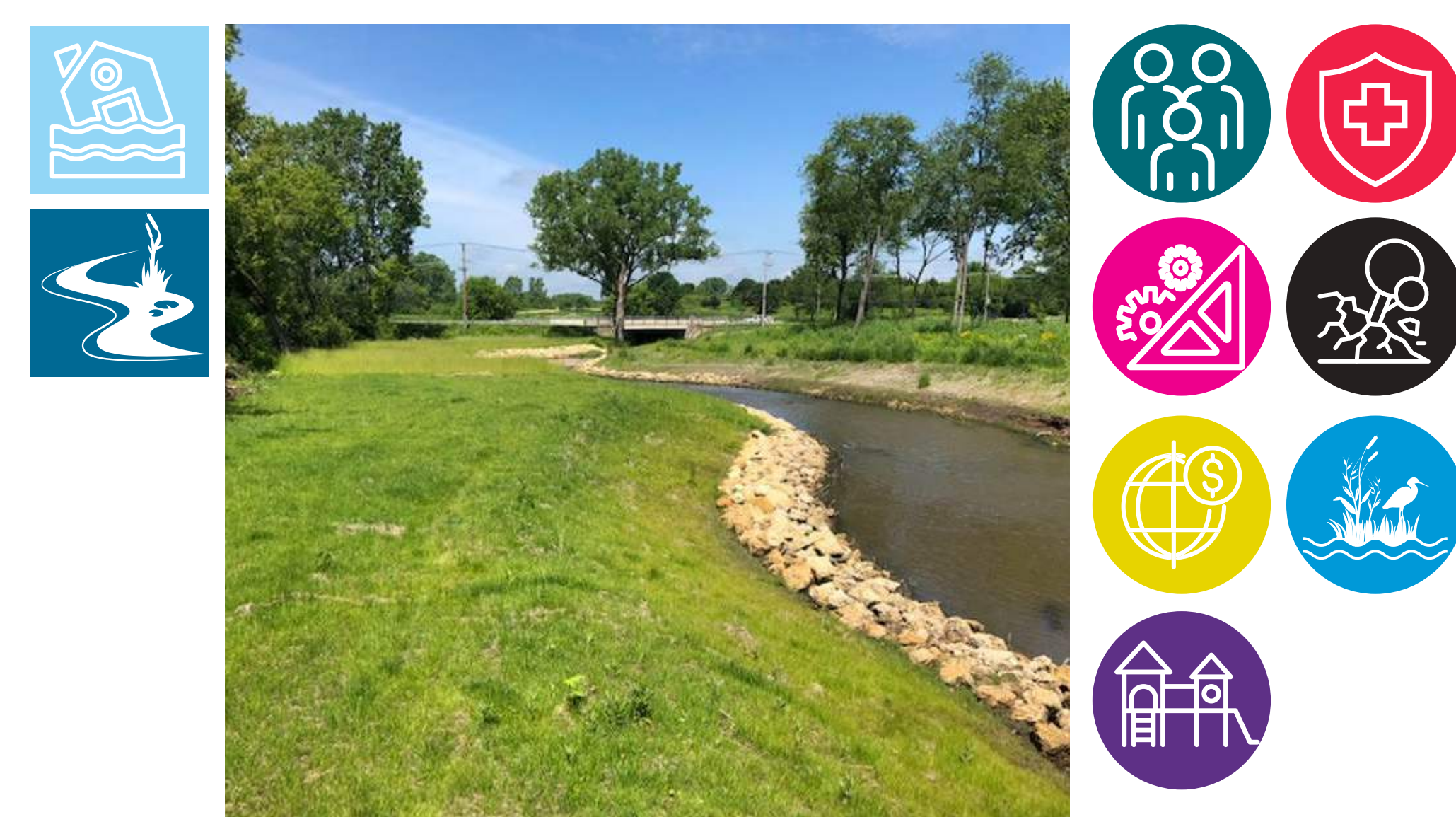
BUILDING IMPROVEMENTS FOR SAFE LIVING CONDITIONS



DEVELOP A LONG-TERM ASSET MANAGEMENT PLAN



RIVERINE CORRIDOR IMPROVEMENTS



PROGRAMMATIC, POLICY AND ORDINANCE ADJUSTMENTS



CLIMATE IMPACT



COMMUNITY BENEFIT



PROJECT PRIORITIZATION

Village of Franklin Park Municipal Workshop 1 Summary

Date: January 30, 2024
Time 10:00 – 12:00pm
Location: Franklin Park Police Station (99451 W. Belmont)

Participants

Name	Title	Organization
Mayor Barrett Pedersen	Mayor	Village of Franklin Park
April Arellano	Village Clerk	Village of Franklin Park
Rudolph Repa	Planner, Community Development	Village of Franklin Park
Tom McCabe	Village Engineer	Village of Franklin Park
Andrew Smolen	Director of Sustainability/Forestry	Village of Franklin Park
Adam Parris	Senior Consultant	ICF
Amelia Suljic	Climate Resilience Specialist	ICF
Megan Bender	Senior Water Resources Engineer	Geosyntec
Rocco Zuccherro	Principal	Metro Strategies Group
Elli Cosky	Senior Project Manager	Metro Strategies Group

Workshop Summary

1. Introductions

Metro Strategies Group welcomed participants and thanked them for their time. After brief introductions of participants and the project team, participants were reminded of the climate resiliency planning process and the community driven focus.

2. Roadmap to Resilience Presentation

ICF provided a brief overview of the concept of resiliency. Participants were excited to move to the activities of the workshop.

3. Activity 1: What are the Hazards Today?

ICF and Metro Strategies Group facilitated a mapping activity to locate key challenges and problem areas on two large format community maps. The first map included flooding-related data maps. The second map included extreme heat-related data maps. Participants were asked to note key impacts and experiences related to flooding and extreme heat.

Summary of key hazards and challenges:

Impervious Surfaces and Flooding

- New zoning regulations have helped reduce impervious surfaces by requiring green infrastructure for new developments, but the Village cannot ask older developments to retrofit.
- Trees have been planted in the Village on public property however, adding tree coverage on private property to decrease impervious surfaces is very challenging.

- The Village has created an arboretum around Grand and Willow avenues.
- Digital Realty has been a supporter of tree planting on their property.
- The Village could not recall the last major rain event that impacted the community, possibly 2013. The Village President noted that during past major rain events he has assisted with filling sandbags, which he has not done for several years.
- A majority of the flood problems attributed to Silver Creek have been resolved.
- The State has undersized sewers at Mannheim and Crown roads. Flooding has occurred in the past at this location.
- In the Marconi area, the developer redirected Silver Creek and added 20 extra homes. The condition of the underground pipe infrastructure is unknown and may cause issues in the future.
- One of the biggest problems within the Village is combined sewers, specifically around the Grand and 25th avenues area.
- Increased sewer capacity and the storm detention pond on Nevada and 25th avenues have been very effective.

Impervious Surfaces and Heat Wave Frequency

- The Village President noted that the Village has the largest heat island in Cook County.
- 67% of the Village is unplantable due to impervious land and pre-established requirements. The Village needs help with adding tree planting or rain gardens in private parking lots.
- For the manufacturing plants within the community, only 39% of the workforce is now working on site; that means there are several parking lots that are under-utilized throughout the manufacturing areas of the Village.
- Pacific Avenue was paved curb to curb, and they would like help improving it with the addition of trees.
- A new MWRD grant has helped to convert paved areas to add trees for increased safety, cleaner stormwater and retaining water within the ground.
- The Village is surrounded by rail yards; IHB Railroad Yard to the south, Schiller Park Railroad Yard to the east, and the Canadian Pacific Kansas City Railroad Bensenville Yard to the west. This contributes to low air quality and urban heat island issues.
- Inconsistent property types along Pacific Avenue are incompatible with the downtown area because there is no buffer zone between the residential area and manufacturing properties along the railroad.
- The Village is applying for an Inflation Reduction Act (IRA) grant money for trees due to the dense population around Mannheim Road and Grand Avenue.

Participants were then asked to think about and share indirect impacts in the community resulting from the hazards and challenges they experience. These were mapped on the bullseye diagram to illustrate the idea of cascading impacts.

Summary of cascading/indirect impacts:

Healthcare

- The presence of trees in a community can lead to increased mental health and better air quality. the Village is trying to add trees to improve both mental health and air quality but have little room for improvement.

Economic Stability

- Larger chain stores may be hesitant to reside in the Village due to its heavy manufacturing base.

- Trains impact business and mobility. When trains go by and block intersections, they cut people off from work/school, shopping and recreational activities.
- Visually, people associate/see the Village as an industrial area not a destination.
- There is no room for landscaping or aesthetics; this leads to negative economic development impacts.

Education

- Residents may not understand how climate issues impact them, both in the near term and in the distant future.

Social & Community Context

- There is not a high awareness of potential impacts.

4. Presentation and Activity 2: What are the Climate Hazards we Expect for Tomorrow?

ICF delivered a brief presentation on key heat and flooding-related climate trends and led a discussion on future challenges and how impacts may get worse.

Summary of comments and observations:

Storm Events

- Thus far, there has not been a strain on municipal staff or extra costs for a storm event, but it could become an issue in the future. Storm events have mostly bypassed the Village over the last 15 years.
- Andy Smolen noted that Silver Maples are declining/dying. These trees grow fast, and they tend to cause damage during storm and wind events. The Village has been planting a diverse mix of tree species.
- Franklin Park does run heating/cooling centers and residents utilize them in extreme temperatures, but, thus far, participants noted that it is not a strain on staff or budget.
- Power outages were prevalent 8-10 years ago, especially south of Grand Avenue between Scott and 25th avenues. The Village does not have underground power lines, so outages were occurring frequently.
 - ComEd made network improvements to provide redundancy; this helped to cover most residential houses that frequently lost power. The second action that was taken by ComEd was to create a new substation. The new substation was added due to the electricity usage required for Digital Realty.
 - There have been some outages on Hawthorne Avenue, but those have not been problematic. This neighborhood reflects the general makeup of the community.

Flooding

- Franklin Park has focused on delivering flood improvements over the past decade and it is proving to be beneficial. There have been no major floods recently and flooding has not been an issue in the last several years.
 - Other surrounding towns have been hit harder with rainfall totals.
- The redeveloped industrial park added ponds to address flooding.
- Adding ponds across the town to help with stormwater management is a priority.
 - The Village has identified a priority site and realizes it may be an expensive project.

- They are seeking funding and funding partners. The Village is willing to contribute financially to the solution but cannot afford the full cost of the project.

Trees

- Village President Pedersen noted that over the last 10 years, residents have been concerned about trees and asked the Village to take them down even though they are healthy. Andy Smolen noted that the Village prunes trees every 3-4 years to be more resistant to wind and ensure the tree is healthy. While this is helpful for trees in public areas, the Village President expressed concern that it may be financially challenging for residents to prune or remove trees due to costs.
- Community has an interest in education of residence regarding:
 - Electric vehicles
 - Tying concepts and solutions together for residence to explain why these investments are good for the community.
 - Air quality
 - Overall environmental justice and equality

5. Activity 3: Preliminary Goals and Vision for Resiliency Plan

ICF presented the 5Ws of Resilience as a broad framework to help define the resiliency planning efforts:

- Who? – Who will this plan benefit?
- What? – What should the system be resilient to?
- When? – What is near-term and what is long-term?
- Where? – What are the priority areas for resilience?
- Why?

To help begin to answer the question of *Why*, participants were asked to individually complete a visioning and goals exercise and then share their ideas and thoughts with the group.

Visioning prompts included:

- What do you hope will be true about the community and surrounding areas in the future?
- What do you want to see preserved?
- What do you want to see improved, enhanced, or even created if it doesn't exist now?

Summary of general comments and observations:

- The Village President is committed to ensuring that environmental justice issues are considered throughout the planning and prioritization process and anticipates that this will be reflected in the recommendations.
- The tree canopy is a high priority for both goals and vision for the Resiliency Plan.
 - Franklin Park is proud of its work along Washington Street; an old factory for 2 blocks with no trees that residents see across their street. The Village worked with the property owners and neighbors to add green infrastructure in an area (MWRD Green Infrastructure Partnership Program). They hope to have more of these types of successes in the future.
 - An increased tree canopy will hopefully help with increased bird diversity.
 - Heat island reduction is also a high priority that connects with tree canopy.
- There is also a goal to retrofit parking lots (most of these in the last 20 years have some detention systems).

- The planned detention basin located near Grand Avenue and Willow Road is Franklin Park's highest dollar investment and is supported by the Village. This project would be very beneficial for alleviating many of the remaining flooding concerns in the Village.
- Education/awareness campaigns
 - There is a potential to create financial incentives, perhaps offering carbon credits to large corporations to remove impervious surfaces.
 - The Village will keep brainstorming on how to add incentives for existing developments and assistance for the small/medium buildings.
 - Discussion centered around decreasing one's assessed value through a tax savings; this can be done as a conservancy easement on a portion of property if a certain percentage of the property is impervious. The Cook County Assessor, Fritz Kaegi, may be able to help with specifics.
- Solar or green roof programs were brought up to mitigate urban heat island issues.
 - These methods can absorb water and decrease temperatures. Other low-cost methods, such as painting roofs white or using lighter colored roof shingles (similar to the Park District of Franklin Park) would be helpful to implement.
 - The Village will need to allow these methods in their ordinances and offer smaller businesses incentives to comply.

Values

- Tolerance
- Diversity
- Respect for law
- Ethical actions
- Civic engagement
- Built Environment (dense and walkable)
- Safety
- Accessible
- Small town feel
- Neighborly and friendly

Goals

- Sustainable
- Reduction of carbon footprint
- Know what you can do to help (one person can make a difference) – reduce, reuse, recycle
- Health and movement contributions to longer lives
- Landscape and green initiatives – across all departments
 - Electric Vehicles
- Improve infrastructure and transportation
- Soften community and introduce a buffer between land uses
- Economic development
- Increase population
- Sustain educational excellence
- Improved community reputation
- Youth development
- Increased mobility – the train is a barrier

Vision

- Tolerance and diversity
- Improved infrastructure and transportation
- Lower carbon footprint
- Green environment
- Sustainable development
- Vibrant downtown
- Aesthetically pleasing downtown as a destination
- Businesses are a partner in the community

6. Presentation and Activity 4: Potential Solutions

Geosyntec provided a brief overview of potential solutions depicted on a large exhibit board. Participants were asked to identify which solutions interested them more and whether they rated as high, medium or low priority.

Summary of comments and observations:

- Consider opportunities to tie resiliency solutions into the updated comprehensive plan.

The Village prioritized the following potential solutions:

- Retrofitting impervious surfaces
 - Continuing to convert pavement and under-utilized parking areas.
- Increasing green infrastructure and tree canopy
 - Across the community, but specifically in the downtown area to serve as a dual purpose of improving air quality and providing a buffer for the residential areas.
- Building regional detention facilities
 - The Village has a primary site identified that they would like to advance if they can find funding partners.
- Potential ordinance adjustments for conservation incentives
 - Considerations for improvements to convert impervious surfaces to tree canopies or rain gardens.
 - Encouraging the development of “hell strips” in the areas between the sidewalk and street for infiltration and pollinator habitat.
 - Investigate possibility of reducing assessed property value if a conservation easement is placed on a portion of the property converted into green space.

Cook County Climate Resiliency Planning for Communities

Franklin Park Executive Summary: Stakeholder Interviews

The project team had the opportunity to interview four stakeholders for the Village of Franklin Park in March 2024, which represented a variety of backgrounds and perspectives. The purpose of the stakeholder interviews was to get an understanding of what key people in the community saw as Franklin Park's strengths, challenges and how the Village has served the community in light of differing weathering patterns. Insight was also shared as it related to defining climate resilience and how that idea can be applied to Franklin Park. Below is a summary of key themes derived from the four interviews.

Participants

Name	Title	Organization
Dan Locasico	Director	Park District of Franklin Park
Vanessa Morrison	Executive Director	Franklin Park Library
Ramona Michael	Tree Preservation Commissioner/Resident	Village of Franklin Park
Kathy Kubeczko & 100 East Leyden freshman students	Science Teacher/Residents	East Leyden High School

Challenges

- The community is landlocked and built out. It's hard to compete with the newer communities who have more expansion opportunities.
- The limited amount of green space and tree canopy makes it a challenge when considering where to add green infrastructure given the extensive buildings and pavement. The CRTI report shows only 11% of tree canopy coverage in the Village.
- Education is a challenge across the community.
- There are large Hispanic and Polish populations in town and the language barrier may be a limiting factor. Any communication should be shared in multiple languages.
- Residents have difficulty learning about Village services and Village Departments, limiting what residents know about the community.

Strengths

- Departments within the Village (Park, Public Works, Police, Mayor and leadership) are engaged in solutions and positive initiatives happen because of strong leadership.
- Franklin Park is a very service-oriented community. The police department is attentive to the residents and provides excellent service.
- Franklin Park has a lot of Industry and services to offer. People don't have to go far for jobs and services.

Solutions

- Economic development and green space are needed for the Grand Avenue and Franklin Avenue corridors.
- Thinking creatively about setbacks or pocket parks to accommodate green space is critical to increasing green space and adding trees.

- Use of multilingual communication methods, can aid in the dissemination of information regarding resources, including mental health assistance.
- More opportunities to educate the youth regarding important issues would be beneficial.

Weather Impacts

- Incorporate green infrastructure to alleviate climate pressures from flooding, wind and heat. Add trees to lessen the impact of heat islands, provide a wind break and improve evaporation.
- The stormwater work across the Village has been very effective.
- Power surges are associated with bigger storms, which still occur around Scott Street.
- When there are extremely hot days people visit cooling centers.

Climate Resiliency & Bounce Back

- The Village and Park District staff proactively monitor and plan for extreme weather events.
- The community center is the only facility that has a generator. Other sites do not have a backup power source and they are more vulnerable.
- The Village has resources to proactively monitor and plan for extreme events.

Susceptible & sensitive populations

- Seniors who do not have resources or people who are newer to the area are most susceptible because they may not understand what assistance the Village offers to its residents. Those who live in an apartment may not have a place to go during extreme events.
- The residents around James Park are predominantly Hispanic. Outreach to this community needs to be targeted in a manner that best suits the community.

Services Needed

- There are minimal opportunities to expand across the community because it is mostly built up.
- The area south of the tracks is the area that lacks a large park. This area does have a lot of little parks. There is a park that is within a 10-minute walk of every home in the Village.

Solutions/Projects

- Environmentally focused, need-based resources for small businesses would help the community.
- The Park District is working on small property acquisitions for passive and/or active park space.
- The industrial pockets throughout the community could be an opportunity for more resiliency projects that can be done to support the entire community.

Additional Information

- Walkability is desired to encourage the population to be less reliant on cars, as well as to better connect people with resources.
- Homelessness has changed the way some outside spaces are used.
- Franklin Park is always trying to enhance their downtown area. Vision for the downtown includes more shops and businesses, more active and vibrant spaces.
- If you live south of the tracks, it keeps you from coming downtown. When the underpass was put in, it helped a lot. If there was a way to build an underpass, more people would be willing to go downtown.



Franklin Park Community Focus Group #1 Meeting Summary

Meeting Location: Franklin Park Police Headquarters
Date: April 29, 2024
Meeting Facilitators: Elli Cosky, Rocco Zuccherro and Tammy Wierciak

Focus Group Participants

Name	Organization	Email address	Phone Number
Lauren Obrzut	Resurrection Lutheran Church	globrzut@gmail.com	(708) 846-3626
Carmen Morales	Renuevo Christian Church	Renuevo.church@icloud.com	(847) 595-0741
Lori Rush	Digital Realty	lrush@digitalrealty.com	(847) 288-6808
Rev. Darryl Thompson Powell	Resurrection Lutheran Church	Pastor@RLCFP.com	(847) 616-0537
Joan Ambo	Franklin Park Resident & Tree Board	Joanambo18@gmail.com	(773) 383-8031
Larry Zucker	Resident	Hozucker@gmail.com	(847) 373-8785
Larry Lloyd	Canadian Pacific Kansas City Southern (CPKCS) Rail	Larry.lloyd@cpkcr.com	(224) 373-1746
Alan Mirolgio	Resurrection Lutheran Church	amiralgio@aol.com	(847) 922-7151
Paul Sanbanis	Sloan Valve	Paul.sambanis@sloan.com	(224) 478-3211

Key Takeaways

- Participants have experienced extreme weather events and appreciated the information on future trends.
- Flooding, extreme temperatures and issues with sewer were the most discussed/concerning topics to residents.
- Regarding potential solutions, the top three priorities are: permeable parking lots (seven votes), continue to improve sewer system (five votes), incentives/assistance for businesses (four votes) and youth programs/youth involvement (four votes)

I. Thinking About Adverse Weather Impacts

Exercise 1: Community Experiences and Observations

Many residents experienced adverse weather impacts recently, some stating that the following impacts are becoming more extreme in nature as the years progress. These weather impacts include:

- High winds
- Flooding
- Higher temperatures in Franklin Park in the summer than other nearby suburbs
- Extreme weather differentials – Winter of 2024 had an extreme cold spell and then an extremely warm few days (for winter).



- Drought in summer 2023
- Heavy rain has impacted some of the drainage (plumbing) in the Village.
- Lightning
- Tornado or tornado-like activities
- Heavy snow

Presentation: Historical and Future Climate Trends

This exercise continued the conversation from Exercise I, with participants voicing concern for more extreme temperatures and potential flooding or snowstorms.

II. Community Challenges and Issues

Exercise 1: Areas of Concern – Main Issues and Priorities

What are the important issues or priorities?

- Flooding concerns most of the people within Franklin Park
 - Flooding does more damage than other weather patterns (such as heat, cold, snow) and lingers longest
 - The floodplain has grown, and it has an impact on the cost of insurance
 - People can handle snow and shovel it to various areas, but rain stays around
 - Some residential flooding has been experienced
- Extreme heat is a concern
 - Not everyone has air conditioning
 - Heat islands are unbearable
- People won't be able to withstand or recover from these events as their durations extend (number of days) or amount of weather (rain, snow) increases.
- Massive trees are already dead and will rot and fall. Falling trees cause damage, block roads and can kill people.
- Village and residents need to be responsible for removing dead trees
 - Thankfully nobody has been hurt thus far
 - Leaves and branches block sewers
 - Dead trees are located on both private and public rights-of-way
 - Older people may not have the resources to pay for the removal of dead trees
 - Overgrown trees and vegetation can impact visibility
 - Weed trees can block signage (stop signs, street signs, etc.)
- Village sewer system needs to be updated
 - Can't flush toilets in some buildings
- Extreme weather causes road closures and congestion
 - People look for alternative routes through the community
 - Traffic signal outages
 - Power outages (sometimes)
 - If Grand Avenue or River Road flood, the community is impacted and people can't get around



- Vehicles cut through neighborhoods
 - Travel home can take multiple hours
- There is a concern in the residential area that backs up to the Marconi subdivision
 - The Village solved some flooding, but made it worse
 - Once the new reservoir fills up, the backup flows on to streets
 - The Village added a check valve to improve the situation; this mitigated flooding
- Dead trees are an issue in Franklin Park. For example, there were three large trees on a neighbor's property
 - The owner was a widow and didn't have resources to remove it
 - The trees fell on the fence and caused damage
 - Older people cannot afford repairs and maintenance
- Lack of financial capacity
 - Some seniors or homeowners can't pay to maintain air conditioning or heat, which puts them at greater risk
 - Without proper maintenance they can experience foundation problems caused by water, including mold

What groups might be impacted?

- There are a lot of seniors in the Village. The Village has made resources available for seniors, such as cooling centers. However, residents don't necessarily go to these centers because of lack of communication from the Village, or they don't know when inclement weather is going to happen. Local houses of worship don't know where to send people so they can take advantage of the resources; better communication would be helpful.

Exercise 2: Thinking about extreme weather and climate impacts.

What impacts have you experienced or are concerned about related to extreme weather and climate trends?

This discussion centered around five key categories: schools/youth, neighborhoods, businesses and flooding concerns:

- Schools
 - There is strong communication among schools and across schools to parents and guardians.
 - Within Franklin Park, there are good, tight-knit school districts that help each other during hard times.
- Youth
 - There is an opportunity to bring the community together and engage youth with seniors in the community to solve problems, create awareness and assist.
- Neighborhoods
 - The north end of the Village has more flooding because it's closer to O'Hare Airport.
 - The Village has done a good job of being reactive and now need to be proactive.
 - It would be nice for the Village to think creatively.



- Businesses
 - There have been downed power lines a few times in the Village.
 - The duration varies, but it does not last more than 24 hours.
 - Heavy downpours and retention concerns
 - Redevelopment and reconfiguration of the CPKCS railroad yard (Bensenville Yard) has helped address these issues.
 - CPKC has been implementing upgrades that are significantly more substantial than they would have been 50 years ago. However, these improvements come at additional costs to the company.
 - There is no flooding in the yard today and they are doing what they can to plan for the future.
- 100-year floods happen more often
 - Road closure issues, and how to handle, are concerning for residents.
 - It's expensive to improve and repair roads. Attendees are unsure how the Village can afford improvements and repairs.
 - Delayed arrivals to work/home have an impact.
 - Circuitous routes must be taken to get to/from places during flooding, which negatively influences congestion and traffic.

III. Considering Potential Solutions

Exercise 1: Brainstorming Potential Solutions and Ranking

What types of solutions or strategies might help address some of these weather hazards and impacts?

- Tree maintenance
- Better roadway drainage. River Road and Grand and Belmont avenues are priority areas.
- Permeable parking lots would help, especially in the community's larger parking lots.
- Slow down the water and allow it to percolate into the ground.
 - Rain gardens
 - Get more people or businesses to do more local based improvements.
 - There is concern with residents on a fixed income. Attendees wonder if the Village can provide assistance.
 - Village built rain gardens in some areas, which is positive.
 - When green infrastructure is built, it needs to be maintained and include the right plants to transfer water into the ground.
- It's hard for people and businesses to spend money on these improvements.
- Community needs to change the mindset of businesses and get them to focus on environment.
 - Businesses within Franklin Park have big spaces and parking lots that can make big improvements.
 - It takes money to make these improvements.
- Triton College is a good example of what can be done.



- o The College added small rain gardens in parking lots and included signs about the gardens, what they do and how they help the environment.
- More trees in parking lots are needed.
 - o People like to park near or under trees to keep car cool
- Overall assessment should be done to determine the adequacy of existing storm systems for future events
- O'Hare Airport contributes to some of the flooding issues in community and should be involved in solutions.

Small Group Discussion on Potential Solutions

Participants broke up into two groups (residents, businesses and organizations) to discuss potential solutions to the issues outlined throughout the first half of the meeting. Below are the results of the conversation:

Group A

- Continue to improve the sewer system
- Youth programs and youth involvement
- Surveying the community and businesses for wants/needs
- Village assistance for maintenance and removal (residential)

Group B

- Permeable parking lots
- Incentives/assistance for businesses
- Green roofs/solar panels
- More green spaces in general: more trees, open spaces and native grasses
- EV Charging (Level 2 and Level 3)
- Add another underpass to eliminate congestion/emissions

After initial discussion and listing all possible solutions, participants received three stickers to indicate their top three priorities. The results of the ranking are below:

Solutions Prioritization

Solution	Votes
Permeable parking lots	7
Continue to improve the sewer system	5
Incentives/Assistance for businesses	4
Youth programs and youth involvement	4
Green roofs/solar panels	3
More green spaces in general – more trees, more open space and more native grasses	3
EV Charing (Level 2 and Level 3)	2
Village assistance for maintenance and removal (residential)	1
Add another underpass to eliminate congestion/emissions	1



Solution	Votes
Surveying the community and businesses for wants/needs	0

Exercise 2: Quick Visioning

Participants were engaged in a real-time question of what a climate resilient Village may look like. The below word cloud was generated with a Menti-meter exercise.

What are one or two words that speak to your vision for what a climate resilient Franklin Park could be?



Additional Thoughts from Business Perspectives

A Canadian Pacific Kansas City Southern railroad representative attended the meeting and spoke to his company's commitment to environmental processes. CPKCS is hopeful to be proactive and roll back some of the climate related increases in heat and rain. This can be accomplished by:

- Less use of diesel to reduce heat. Hydrogen is currently being used as fuel for CPKCS; they have three working hydrogen locomotives in the world, which they see as a better alternative as the only byproduct of hydrogen is water.
 - CPKSC is hopeful to have the first hydrogen switching yard in the Bensenville Yard.
 - The cranes in the yard are used to pick the box cars and load them onto trucks. Cranes would ideally be hydrogen powered (currently run on diesel).
 - It's difficult to decarbonize diesel, so there are environmental benefits to hydrogen
 - F150 EVs are being used by CPKCS staff and are looking at charging stations and locations
- Underpass



- o CPKCS is working with Village staff to create a new underpass along the CPKCS line between Mannheim Road and the CN rail crossing. CPKCS noted that Franklin Park's Village President has done a great job of advancing the project and there may be some opportunities to expand network of EV charging stations
- Right-of-way may open with a new underpass. If that happens, CPKCS will attempt to create more pollinator gardens
- CPKCS is looking at their right-of-way and opportunities to return it to native grasses
 - o Monarch butterfly route from Canada to Mexico largely follows CPKCS path
- CPKCS use of pesticides
 - o Trying to find non-pesticides that are as effective as traditional pesticides
 - o CPKCS wants to consider human health and environment but also needs to address fire hazard.
 - o Looking for different applications to address environmental issues and may possibly use yard as a trial version

Sloan Valve (Manufacturing business within Franklin Park)

- Looking at permeable pavers and would love to partner on water reuse and energy reduction solutions
- Sloan Valve (and potentially other business owners) would be more interested in taking on environmentally friendly practices if the Village would create an incentive plan to allay costs and encourage businesses to consider green improvements.
- General interest in the use of solar
 - o Old roofs can't handle solar panel weight; however, commercial loans are available to replace roof to support solar panels.



Village of Franklin Park

Municipal Workshop #2

Agenda

1. Welcome and Introductions
2. Community Engagement Update
3. Vision & Goals Discussion
4. Climate Hazards Analysis
5. Potential Solutions for Anticipated Climate Hazards
6. Prioritization Framework
7. Revisit Vision & Goals
8. Wrap-up & Next Steps



Franklin Park Community Feedback

Concerns & Challenges

- Update sewer system
- The language barrier of Hispanic and Polish populations may be a limiting factor
- Lack of financial capacity for private homeowners to maintain yards
- Extreme weather (flooding, extreme temps) that may cause road closures and congestion
- Limited amount of space to add green infrastructure
- Climate resiliency education and communication of Village resources

Potential Solutions

- Expand and maintain the tree canopy
- Create permeable parking lots (public & private)
- Assess adequacy of storm sewer systems for future events and update if necessary
- Provide incentives/assistance for businesses
- Create more green space (trees, open space and native grasses)
- Increase communication and engagement with community
- Create programs for youth involvement

Franklin Park Community Visioning

A word cloud visualization of community visioning themes for Franklin Park. The words are arranged in a circular pattern, with the most prominent words in the center. The words are color-coded and vary in size, indicating their relative frequency or importance.

Key themes and words include:

- Central Words:** proactive, green, incentives
- Top Words:** building community, urban heat, partnerships, environmentally friendly, caring, providing assistance, innovative ideas, vibrant
- Left Side Words:** security, worry free, green space, sustainable, flood control, future minded, charitable
- Bottom Words:** flood-free, renewable energy, water retention, young and old, trees and flowers, mitigation projects
- Right Side Words:** fun change, tree canopy, grants, funding



Draft Vision and Goals – Village of Franklin Park



Engage the community with resilience efforts by launching educational initiatives on climate and sustainability.



Increase greenery and tree canopy to help mitigate the urban heat island effect, improve air quality, increase resilience to flooding, and make Franklin Park a sustainable, lush, and vibrant city.



Sustain Franklin Park's reputation of safety and educational excellence by promoting climate-resilient retrofits and practices for schools.



Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.



Add natural vegetation to the CBD and facilitate working sessions with the train operators to generate win-win solutions to reduce congestion and dangerous heat produced by idling trains and vehicles.



Draft Vision and Goals Feedback

How can educational excellence tie to climate resilience in Franklin Park?

- Making schools climate resilient
- Engaging students with resilience projects
- Other?



Climate Hazards: Rainfall Analysis

Illinois Rainfall Trends



Annual total precipitation has increased by **15%** between 1895 and 2019



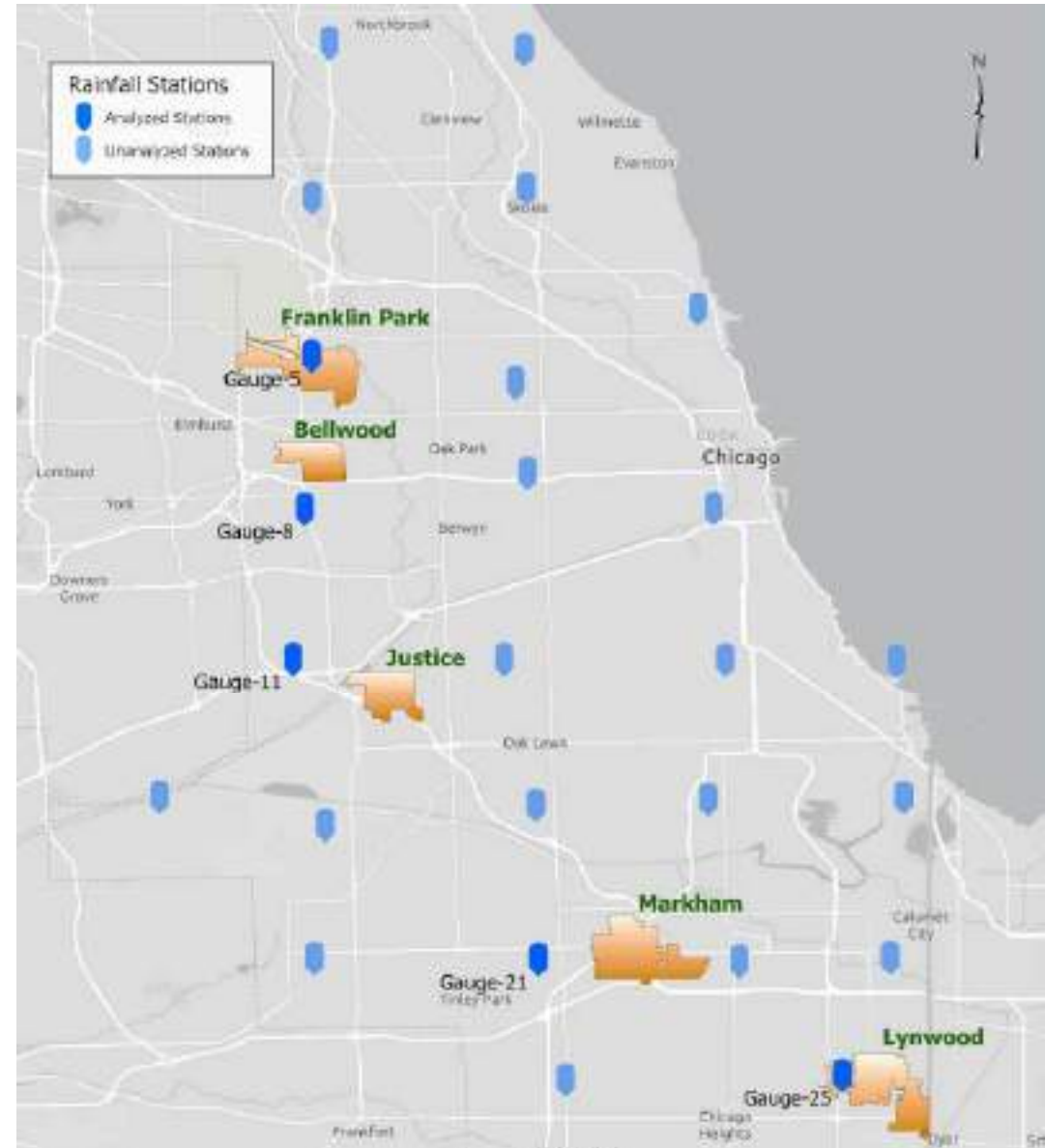
Statewide precipitation significantly greater than the national average



2001 and 2013: Flood-related disaster declaration nearly every year

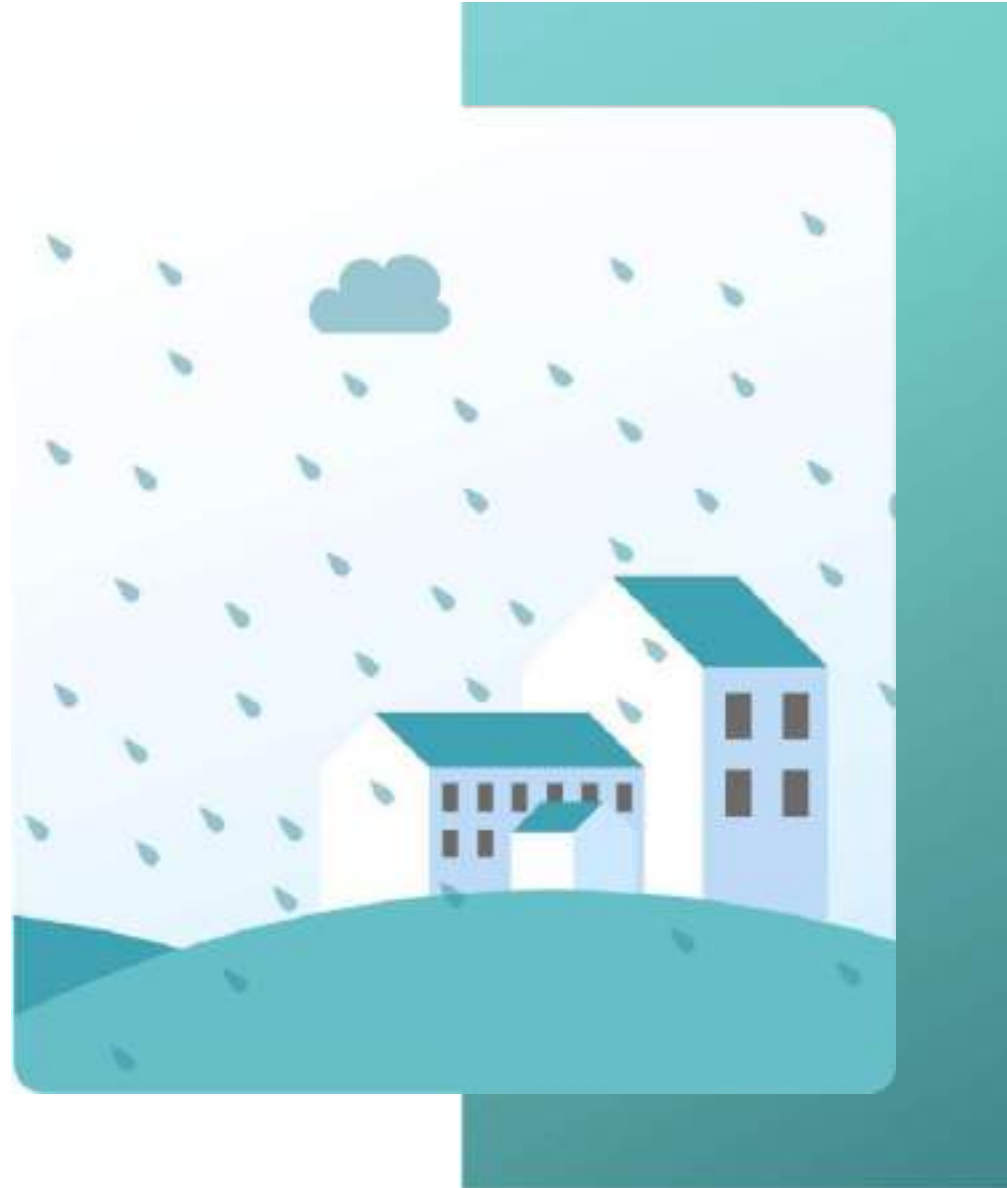
Local Rainfall Data

- Existing nearby rain gauge stations track hourly rainfall data (Cook County Precipitation Network)
- Data from 1989 to 2023 analyzed
- Data for Franklin Park: Rainfall Station Gauge 5



Village of Franklin Park – Annual Rainfall Trends

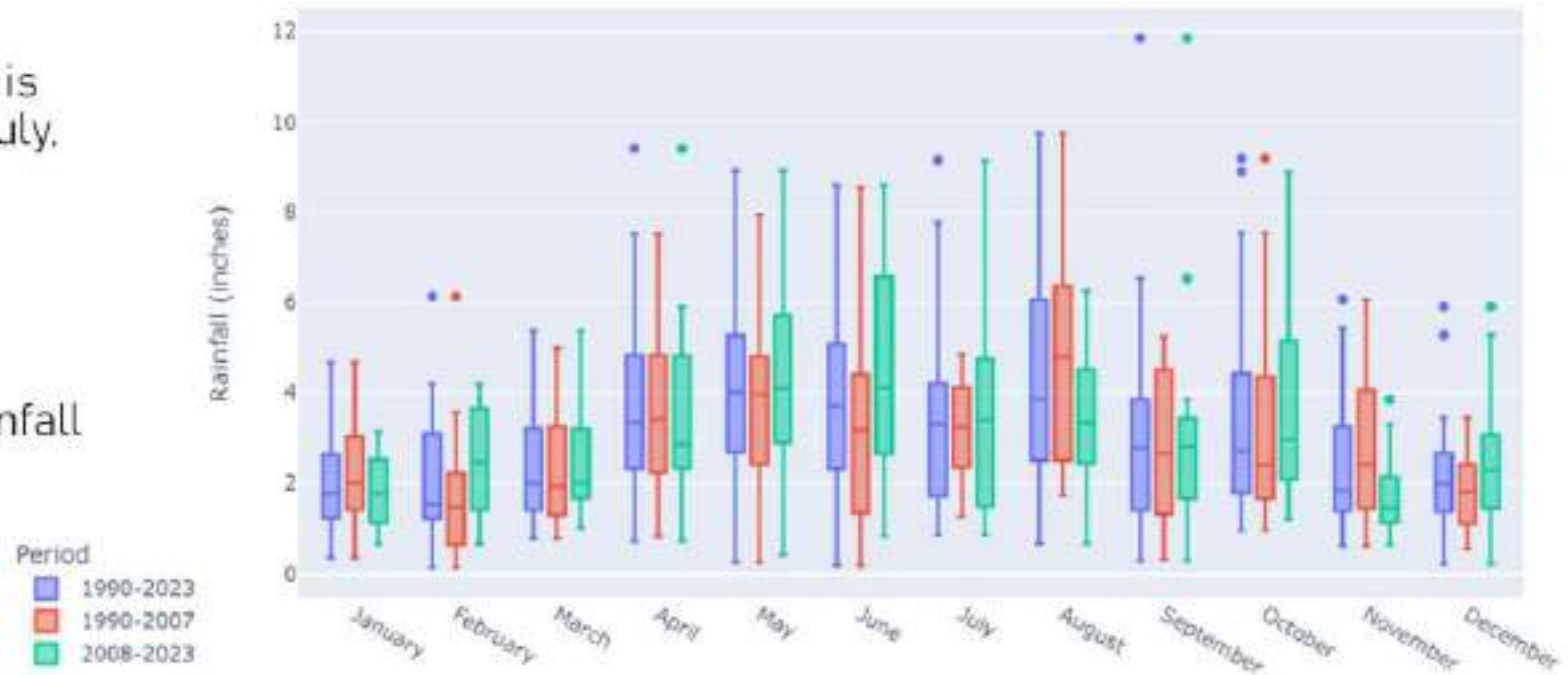
- Decrease in overall annual rainfall by 0.03 inch/year
- Number of extreme rainfall events are increasing over the last decade
 - Increase in daily rainfall depth over last decade.
 - Increase in number of consecutive wet days over last decade



Village of Franklin Park – Seasonal Rainfall Trends

Over the Last 15 Years:

- Average rainfall depth is higher for May, June, July, October and winter months out of the year
- Summer shows the highest increase in rainfall depth





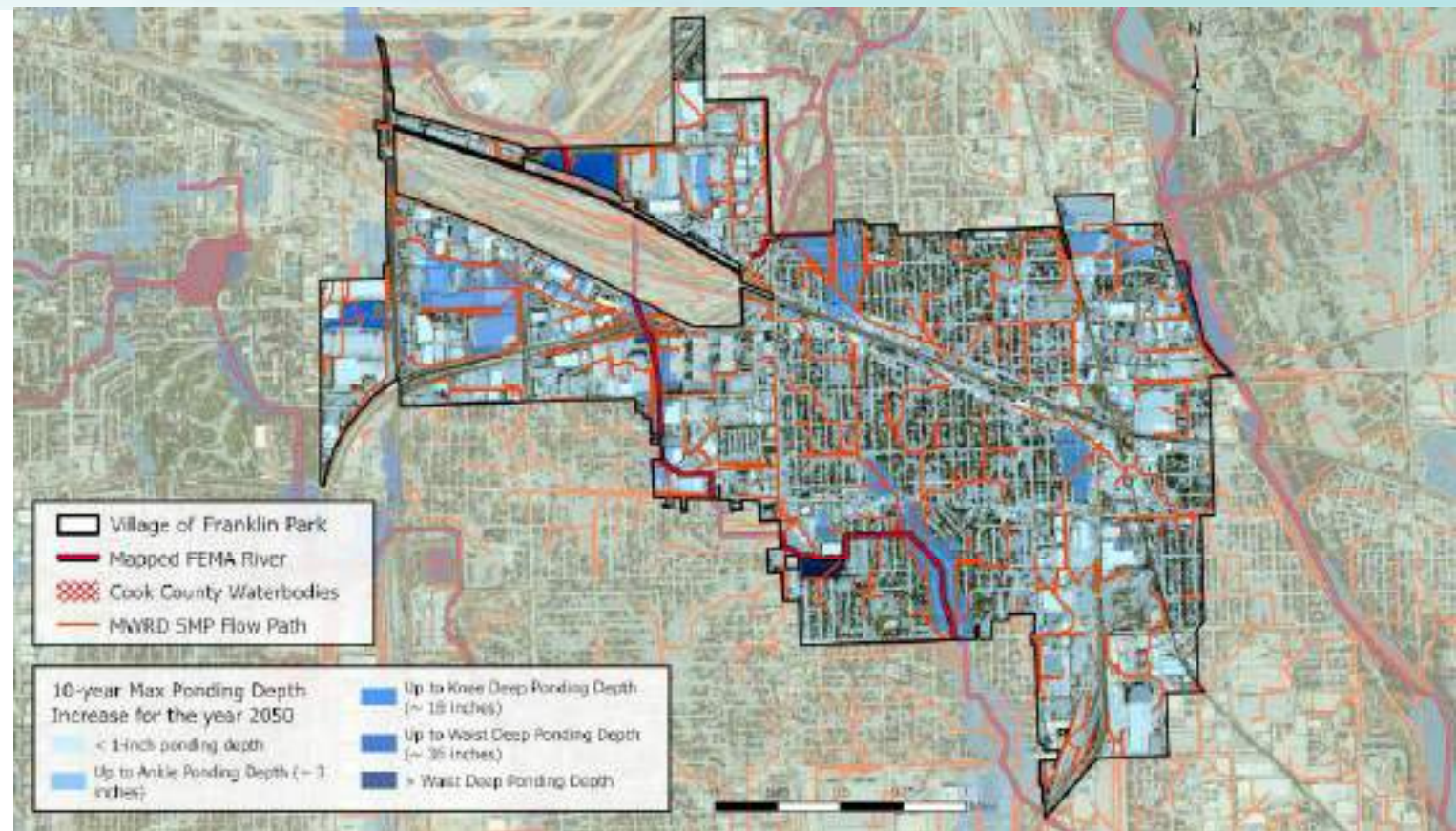
How Rainfall Trends will Likely Change By 2050

Total 1-Day Rainfall	Current Climate	Near-Term (2021-2050)
Mild Storms	2.9 inches	3 inches
Moderate Storms	4.7 inches	5 inches
Extreme Storms	6.1 inches	6.5 inches

Village of Franklin Park - Potential Increase in Ponding: 10-year Event

By 2050: 114 acre-feet of additional ponding which is enough water to fill:

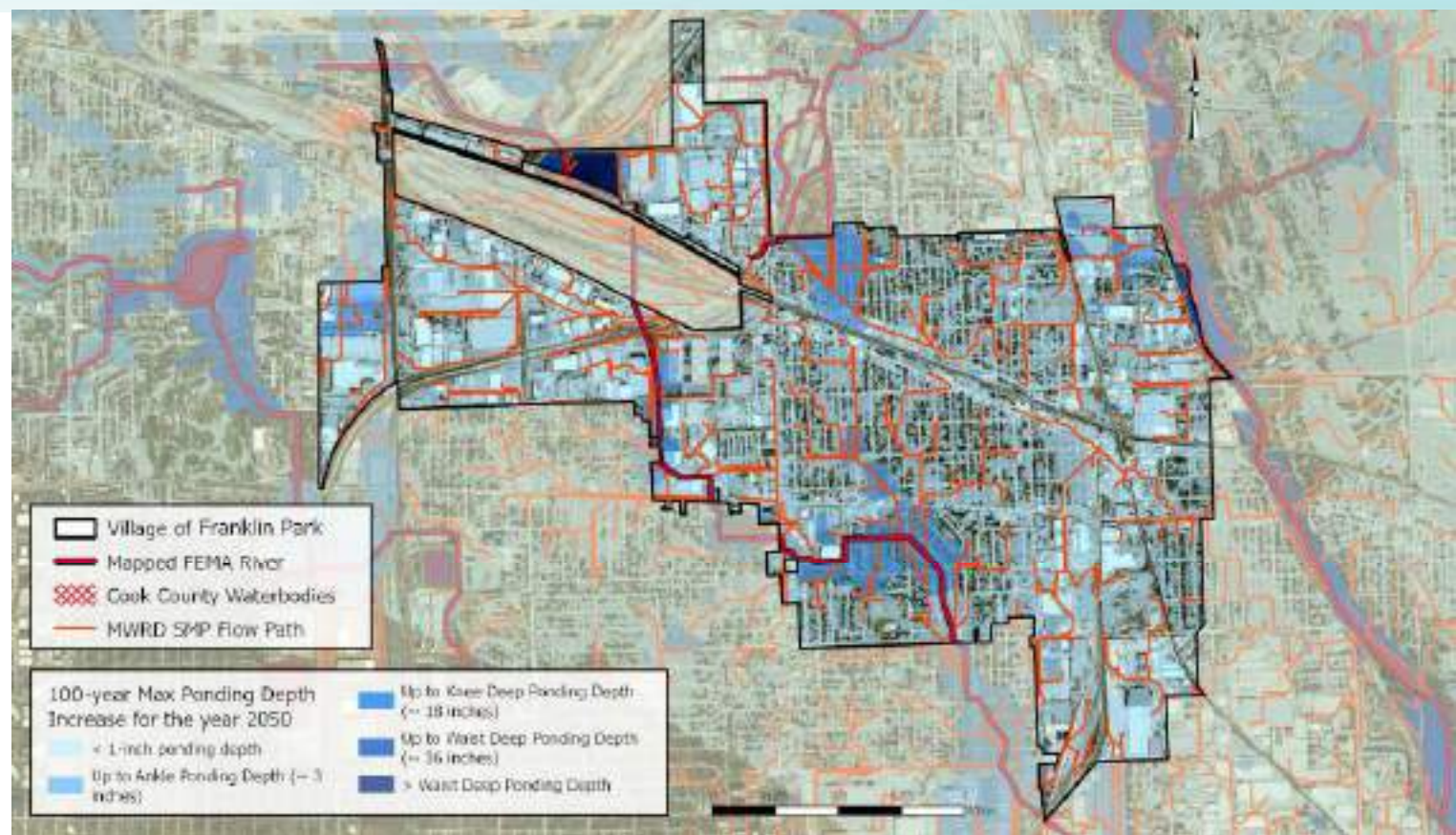
1
football
field  = **87** feet of
water



Village of Franklin Park - Potential Increase in Ponding: 100-year Event

By 2050: 168 acre-feet of additional ponding which is enough water to fill:

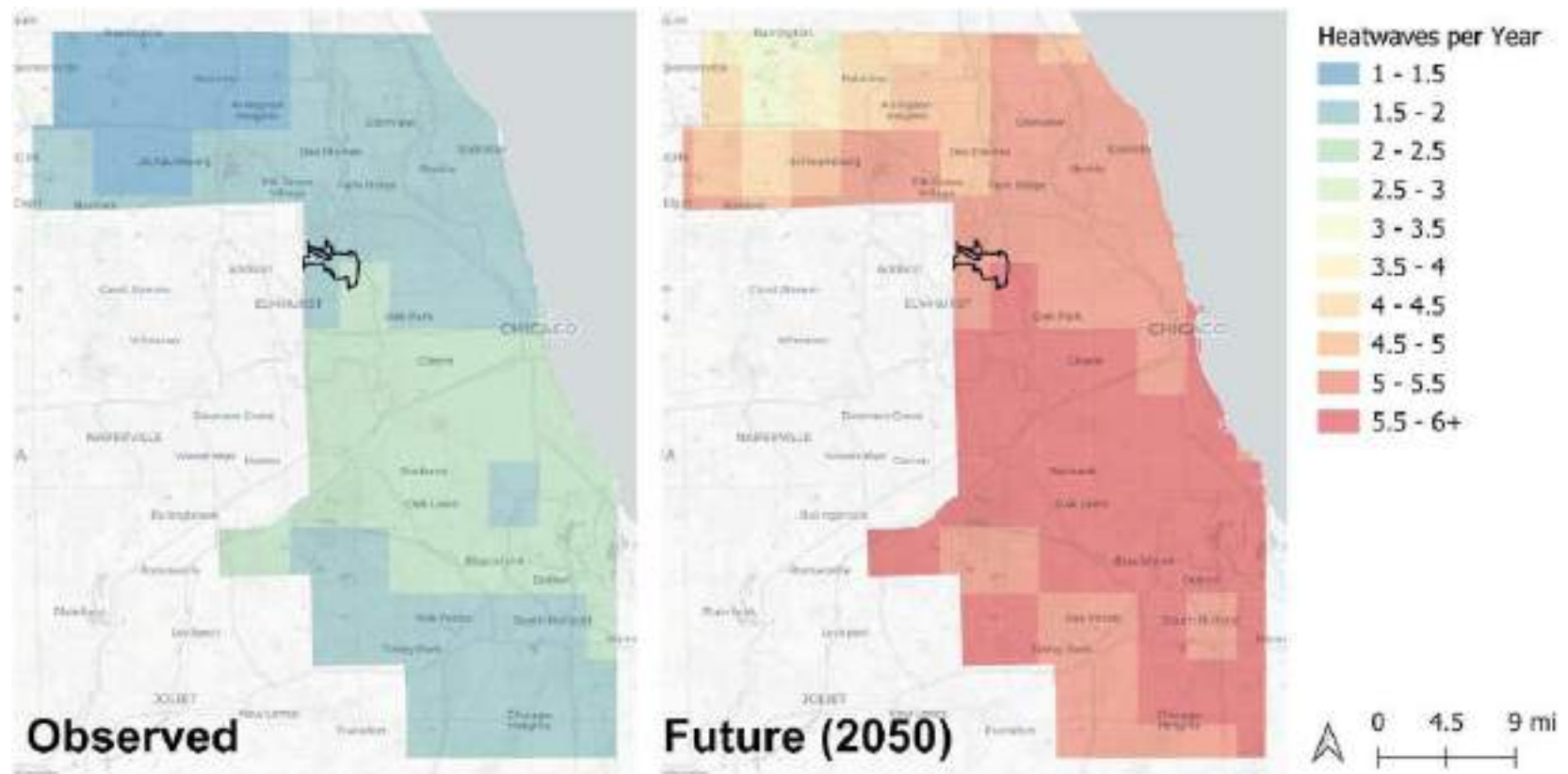
1
football
field = **128** feet
of water



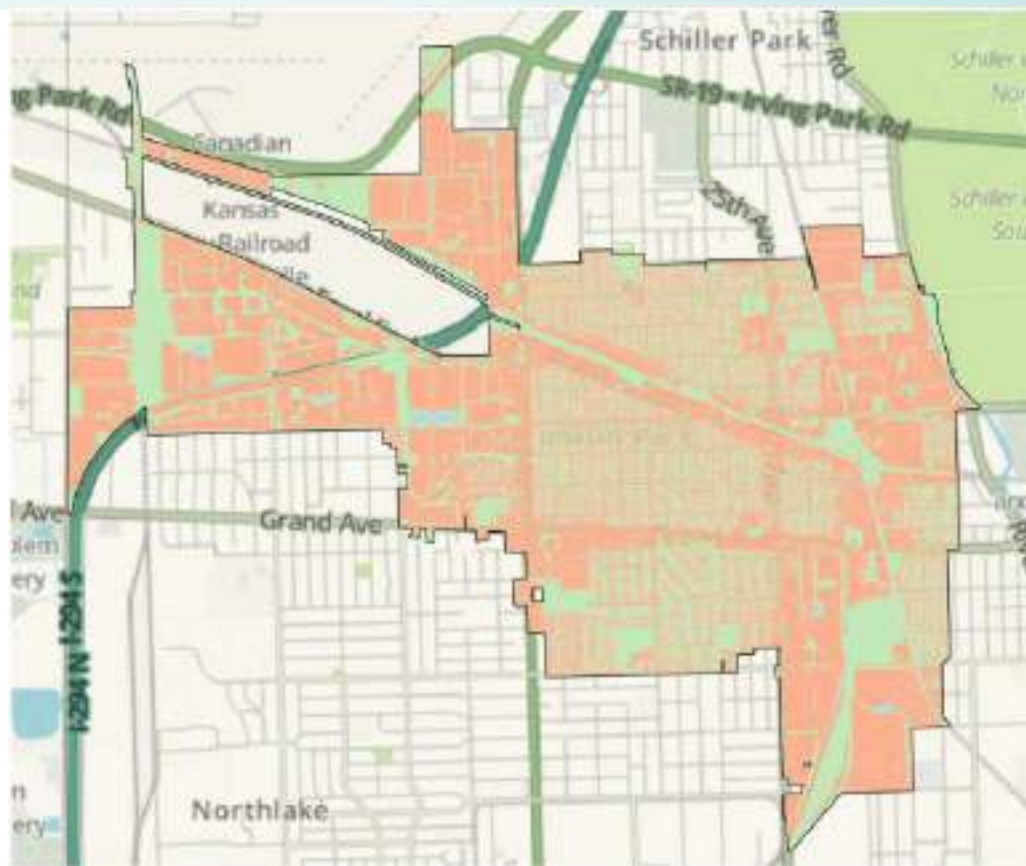


Climate Hazards: Heat Analysis

How Heatwaves will Likely Change – Franklin Park



Heat Islands – Franklin Park



Urban Heat Island Effect

- Pervious Surfaces
- Impervious Surfaces
- Water

0 0.25 0.5 mi

Questions & Discussion





Potential Solutions

Potential Solutions for Climate Hazards

Retrofit Impervious Surfaces



Increase Green Infrastructure and Tree Canopy



Build Regional Detention Facilities



Building Improvements for Safe Living Conditions



Develop a Long-term Asset Management Plan



Riverine Corridor Improvements



Programmatic, Policy and Ordinance Adjustments



Climate Impact



Community Benefit



Village of Franklin Park

Green Infrastructure Implementation Scenarios

10-year Climate Change GI Implementation Scenario*								
	Bioretention Cell	Constructed Wetland	Permeable Pavement	Detention Basin	Filter Strip	Single Trap	Double Trap	Depaving
Area Required (ac)	81.8	47.7	508	17.9	287	16.8	8.42	769
100-year Climate Change GI Implementation Scenario*								
	Bioretention Cell	Constructed Wetland	Permeable Pavement	Detention Basin	Filter Strip	Single Trap	Double Trap	Depaving
Area Required (ac)	120	70.1	747	26.3	423	24.8	12.4	1,000

*Franklin Park is approximately 3,031 acres



Solutions Discussion Mural Activity

A decorative vertical bar with a gradient from light blue to teal, located on the left side of the slide.

Mural Mapping Activity

1. Click the link in the meeting chat box to be redirected to Mural.
 2. We will provide a brief overview of some of the solutions and talk through ideas relevant for the Village.
 3. Share your feedback on potential solutions/projects.
 4. Our project team will add your ideas to sticky notes in Mural.
-



Prioritization Framework



Prioritization Framework & Criteria

A project prioritization matrix helps rank potential climate adaptation projects based on important criteria and measures.

- Benefits of a Prioritization Framework
 - Can build a prioritization process and scoring based on community specific goals and objectives
 - Helps make informed and technically sound decisions to best align with local resources and help maximize mitigation efforts, future goals and funding.
 - Provides a transparent process for how and why projects are being selected for implementation.

Overview of Prioritization Categories

Community Weighting Criteria	Prioritization Measure	Description
Implementation Feasibility & Support	Jurisdictional Approval Barriers	The number of agencies that must approve a project for it to undergo construction, or if a policy, to be enacted.
		The number of total months likely for project/permit and policy review from all agencies needed.
	Community Support	Has the community been engaged or informed of the project, and do they support its implementation?
Cost	Implementation Costs	The amount of money needed (include staff hours) to implement a project/policy, minus grants, for each effective unit.
	Maintenance Costs	Additional amount of money annually needed to maintain a project/policy, minus grants, for each effective unit.
Greatest Resilience Impact	Project Flexibility	If the conditions causing a problem worsen, can the solution be modified or updated without replacement.
	Additional Climate Impact Benefits	Does the project attempt to address additional climate impacts?
	Continuity of Critical Services	Does a project help maintain critical services, such as ambulance services, sewage, electricity, and telecommunications during or outside of a temporary adverse climate condition.
	Level of Project/Policy Impact	Is this an important piece of a larger resiliency strategy (large impact) or is it standalone (smaller impact)?
Ancillary Benefits	Replicability	How applicable is the project type to other areas under owner's influence/responsibility
	Non-climate co-benefit	Does the project provide additional benefits to the community that are not climate related. These can be social, aesthetic, economic, or biodiversity related.

Project Scoring Example

Project Name	Project Type	Primary Climate Impact Addressed	List of Vulnerable Groups Targeted	# of Vulnerable Groups Impacted	Prioritization Measure	Score
Example Project Name	Capacity Building for Hazard Emergency Response	Emergency Response		0 Groups	Jurisdictional Review Barriers agencies	X
					Jurisdictional Review Barriers time	X
					Community Support	X
	O&M planning and Policy Changes Project	Extreme Heat		1 Group	Implementation Costs	X
					Maintenance Costs	X
					Replacability	X
	Shovel Ready Physical Project	Riverine Flooding		2 Groups	Non-climate co-benefit	X
					Project Flexibility	X
					Additional Climate Impact Benefits	X
	Study, Planning, and/or Design Project	Urban Flooding		3 or More Groups	Continuity of Critical Services	X
					Level of Project/Policy Impact	X
					TOTAL	XX

Franklin Park Project – High Scoring Example

Project Name	Project Type	Primary Climate Impact Addressed	List of Vulnerable Groups Targeted	# of Vulnerable Groups Impacted	Prioritization Measure	Score
Continue participation in Tree City and StormReady	Capacity Building for Hazard Emergency Response	Urban Flooding		2 Groups	Jurisdictional Review Barriers agencies	5
					Jurisdictional Review Barriers time	5
					Community Support	5
					Implementation Costs	3
					Maintenance Costs	3
					Replacability	3
					Non-climate co-benefit	1
					Project Flexibility	5
					Additional Climate Impact Benefits	4
					Continuity of Critical Services	5
					Level of Project/Policy Impact	5
					TOTAL	48.75

Franklin Park Project – Low Scoring Example

Project Name	Project Type	Primary Climate Impact Addressed	List of Vulnerable Groups Targeted	# of Vulnerable Groups Impacted	Prioritization Measure	Score
Join the Community Rating System (CRS) Program	O&M planning and Policy Changes Project	Riverine Flooding		0 Groups	Jurisdictional Review Barriers agencies	4
					Jurisdictional Review Barriers time	4
					Community Support	1
					Implementation Costs	4
					Maintenance Costs	3
					Replacability	1
					Non-climate co-benefit	1
					Project Flexibility	5
					Additional Climate Impact Benefits	1
					Continuity of Critical Services	1
					Level of Project/Policy Impact	1
					TOTAL	25.2

Franklin Park Project Prioritization Summary

Rank	Project Name	Primary Climate Impact being Addressed	Jurisdictional Review Barriers - Agencies	Jurisdictional Review Barriers - Time	Community Support	Implementation Costs	Maintenance Costs	Project Flexibility	Co-Benefits	Continuity of Critical Services	Level of Project/Policy Impact	Replicability	Non-climate benefit	Total Score
1	Comprehensive Public Education	Urban Flooding	5	5	5	5	5	5	5	5	5	5	5	65
2	Shelter location education	Extreme Heat	5	5	5	3	4	5	3	5	5	5	3	57
3	Replace warning siren	Emergency Response	5	5	5	2	5	5	1	5	5	5	1	52
4	Tree City and StormReady	Urban Flooding	5	5	5	3	3	5	4	5	5	3	1	48.75
5	Assist vulnerable population	Emergency Response	4	4	3	3	3	5	3	1	5	5	4	47
6	Convert parking lots to GI	Urban Flooding	3	3	5	2	4	3	4	5	5	5	5	42.3
7	Silver Creek Improvements	Riverine Flooding	2	2	5	3	3	5	1	1	1	3	2	28
8	Join the CRS program	Riverine Flooding	4	4	1	4	3	5	1	1	1	1	1	25.2

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Feedback of Prioritization Categories



Join at menti.com
Use code
2954 1332

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Draft Vision and Goals – Village of Franklin Park



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Encourage economic and residential growth by mitigating the impact of climate hazards on businesses and property.



Add natural vegetation to the CBD and facilitate working sessions with the train operators to generate win-win solutions to reduce congestion and dangerous heat produced by idling trains and vehicles.

A decorative vertical bar with a teal-to-white gradient, positioned on the left side of the slide.

Next Steps

1. Refine Prioritization Framework
2. Refine Potential Solutions and Projects
3. Continue Community Engagement (Pop-up Meetings, Community Focus Group)
4. Cook County's Phase II Update
5. Next Municipal Workshop – Early September



Thank You!



Franklin Park Municipal Workshop #2 Meeting Summary

Meeting Location: Virtual (Zoom)
Date: Friday, June 7, 2024

Participants

Name	Title	Organization
Nicholas Walny	Director, Community Development and Zoning	Village of Franklin Park
Rudolph Repa	Planner, Community Development	Village of Franklin Park
Joe Webster	Village Engineer	Village of Franklin Park
Dafne Henriquez	Assistant Village Engineer	Village of Franklin Park
Mark Stewart	Fire Chief	Village of Franklin Park
Brian Daly	Program Manager, Department of Environment and Sustainability	Cook County
Megan Bender	Senior Water Resources Engineer	Geosyntec
Priya Iyengar	Project Engineer	Geosyntec
Adam Parris	Climate Resilience Senior Consultant	ICF
Emelia Suljic	Climate Resilience Specialist	ICF
Elli Cosky	Senior Project Manager	Metro Strategies Group
Rocco Zuccherro	Principal	Metro Strategies Group

Vision and Goals

Participants were asked to provide feedback on the proposed draft vision and goals.

Franklin Park Draft Vision and Goals

- Mr. Walny noted that the draft vision and goals encompass what the Village seeks. There is room to grow in these goals as well.

Educational Excellence

- With regards to educational excellence, Mr. Webster noted that the Metropolitan Water Reclamation District of Greater Chicago (MWRD) and Franklin Park School District 84 are working together to design and implement green infrastructure on school property.
- Mr. Repa clarified that the intent and vision is to incorporate buildings, school campuses and programs at the various schools throughout the community to introduce sustainability and resiliency planning concepts.
- Mr. Walny suggested there may also be an opportunity to include the Park District of Franklin Park, as the connection between summer camps and programs at school can be promoted to the community.



Climate Hazards: Rainfall Analysis

- Mr. Walny asked about the explanation of the rainfall data presented. Ms. Bender of Geosyntec noted that the data shows the difference between existing measurements and what modeling outputs indicate could occur in the future.

Climate Hazards: Heat Analysis

- Village staff noted that most of the heat islands are in industrial areas in the community.
- Some discussion centered on straightforward solutions the Village may be able to implement within industrial areas without making complex revisions to its zoning code, which was recently revised and adopted. A few solutions discussed were:
 - Painting roofs white
 - Partnerships between the Village and local businesses
- Staff also discussed the possibility of partnering with private property owners to convert existing roofs. The Village could use incentive funding to implement.

Potential Solutions

After reviewing several potential solutions, a discussion took place on potential projects and solutions for specific locations that can help with extreme weather events within the Village.

- Many Franklin Park streets with localized flooding were improved, and the drainage systems were replaced with volume control structures. If flooding occurs in the future, the Village will address as necessary.
- Some residential areas along Sugar Creek near Lee Street are located within the floodway.
- The Village does have a roadway resurfacing program that covers a five-year period. This is not an extensive roadway reconstruction program, but it could present an opportunity to introduce green infrastructure and rain gardens into parkways.
- Mr. Walny mentioned that the Village is working with the Chicago Metropolitan Agency for Planning (CMAP) on a Grand Avenue Corridor Study, which could pose an opportunity to implement more green infrastructure and bump-outs along Grand Avenue.
- Incorporation of rain gardens and green infrastructure along Pacific Avenue has been ongoing. The Village has included some bump-outs and bioswales where possible, but there are limited opportunities to expand the program without adversely impact parking and businesses. Similar opportunities exist along Franklin Avenue west of the downtown.
- Mr. Repa mentioned that there may be some opportunities to partner with the school districts and MWRD to convert some parking lots and incorporate green infrastructure.



- Village staff noted that they could use more green space on the south side of town. Veterans Park District operates a park in that area that could be promoted/considered for more green infrastructure.
- Mr. Walny mentioned that zoning and roof painting/conversion could be viable solutions.
- The Village could also look at the Franklin Park Enterprise Zone for incentivizing green roofs. Updates to the landscape code in the industrial area could be beneficial.
- The schools could provide opportunities for green roofs, as well as solar projects.
- There may be opportunities to incorporate green infrastructure below existing surfaces, which could allow for the expansion of green space while also accommodating additional stormwater detention.

Who Benefits from Solutions?

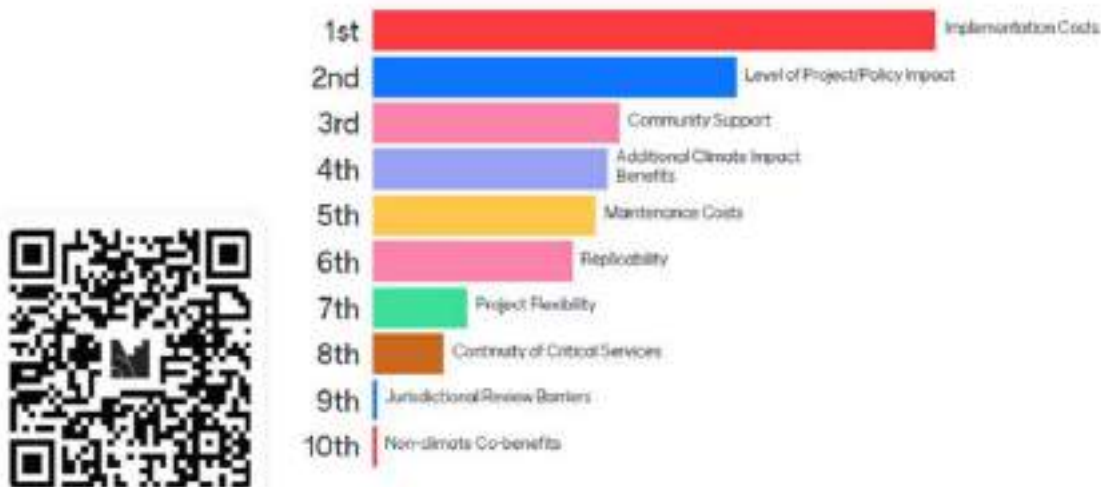
- Franklin Park consists of mostly single-family homes with a few multi-family units along Grand Avenue.
- West Manheim Residential Area (WMRA) may be a good opportunity for collaboration. This is a predominately Hispanic and young population that would benefit from additional open space and green infrastructure.
- Overhead drainage/sewer system benefits and incentives should be promoted through increased education. This could benefit both residents and the Village as they are not widely known to residents.
- The MWRD's rain barrel program was a big success in the past and may be something to consider in the future.
- The Center for Neighborhood Technology (CNT) has its RainReady program that could be worth looking into.
- The WMRA residential area could also benefit from the incorporation of green alleys.

Prioritization of Franklin Park Projects

- The project team asked participants to rank their top five criteria to prioritize projects for the climate resiliency plan. Below is the result of that ranking:



Please select and rank your top 5 criteria to prioritize projects for the climate resiliency plan.



- Jurisdictional barriers within the Village are not a problem. The President and Board of Trustees are very supportive of any green infrastructure and sustainability initiatives.
- A question was asked about the ability to develop a basement flooding/back-up map. The CCRP team noted that this is not part of the current effort.

Mural Solutions Activity

A Mural activity was used to gather information about who can be better served by projects and solutions for heat and flooding events. Mural link: [Franklin Park Municipal Workshop 2 Resilience Solutions - ICF EEI \(mural.co\)](#). Below are the results of this discussion:



Where are these measures needed?

- Prairie Avenue:
 - o Bioswales
 - o Could do bump outs
 - o Existing buildings paved front to back with parking that is secure
- Scott and Grand Avenues:
 - o Rebuild streets to include detention or retention features (using permeable pavers)
- Grand Avenue
 - o 2 Multi-family units
- Between Grand Avenue and Fullerton Avenue and Scott Street and 25th Avenue
 - o Rebuild streets to include detention or retention features (using permeable pavers)
 - o South of ComEd is WMRA neighborhood. The population is younger and has a growing Latin/Hispanic population. An underutilized field that has potential is located in this area.
- Scott Street & Fullerton Avenue:
 - o Gouin Park – Potentially work with the Park District to integrate more green space



Who could be better served by these measures?

- CNT (Center for Neighborhood Technology), RainReady program for residents can tap into that, encourage residential rain gardens
- Hispanic and Polish population outreach, maybe at particular events
- Cook County Housing Authority
- Majority of housing is single family
- Sewer cost share, flood prevention for basements program, should advertise more
- Did rain barrels before and lots of people applied, should do that again or expand
- WMRA: younger population with higher proportion of Latin/Hispanic residents
- Hell Strips, start having conversations
- Green alleys, Village has alleyways in WMRA
- Think about high level, aspirational ideas going forward





Heat

- Painting roofs white, ordinance change to require this?
- Convert parking lots to permeable pavers?
- Tree plantings along Grand Avenue
- Pacific Avenue for Green Infrastructure (GI), increase tree canopy (got MWRD grant for bump outs and bioswales) but industry along street makes it hard, limited land and would take away business parking
- Converting industrial parking lots? Businesses said they would be willing to do it with incentives from village
- Rain garden roofs, solar (but small businesses are scared of doing roofs because they are very old)
- Encourage solar panels on roofs of distribution facilities, savings there too
- Rewrote zoning code recently, all need to incorporate tree islands for every 10 parking spaces now. Unless someone is demolishing a building new, the zoning doesn't get implemented
- Encourage existing landowners to make changes
- New HS works with storm mitigation from nearby pond
- Integrating green roofs (schools are like industrial areas)
- Encourage solar roofs
- Permeable pavers or islands in larger school parking lots (and other parking lots)
- Work with environmental club, science club, student council, NHS, etc. get them involved with projects
- Southside opportunity, Fullerton and Scott, large park, Veterans Memorials Park runs it, reaching out to them, make space better and greener

Flooding

- Introduce pervious surfaces
- Rebuild streets to include detention or retention features (using permeable pavers)
- Could incorporate permeable pavement into ongoing projects (e.g. road resurfacing program over next 5 years?) It would be easier to put some rain gardens into those projects, open the curb and dig a depressed area.
- Capital program for road rebuilding (5 years)?
- Rain gardens alongside roads
- CMAP Grand Avenue corridor study
 - Bump outs tree plantings
- East of Manheim bridge for similar bump out/bioswale project, Franklin Ave
- Industrial buildings in very close proximity along railroad down entire corridor, front area utilize for parking. If we take away parking, then they wouldn't be able to meet the zoning code and we would start creating vacancy.
- Bump outs on Pacific (through space is limited)
- From focus groups: desire to use roofs to capture stormwater but reticence where roofs are older



- Below a field, could increase detention capacity
- Franklin Ave, west of downtown
- Drainage program to help residents with drainage and sewer improvements
- MWRD rain barrel programs – a lot of residents applied
- Residential rain gardens (Center for neighborhood Technology has a residential program)



Examples from Workshop #1

- Continue to convert pavement and under-utilized parking areas.
- Prioritize the site that the Village has identified if funding partners are found.
- Implement across the community, but specifically in the downtown area to improve air quality and provide a buffer to residential areas.
- Consider improvements to convert impervious surfaces to tree canopies or rain gardens.
- Encourage the development of “hell strips” in the areas between the sidewalk and street for infiltration and pollinator habitat.
- Investigate possibility of reducing assessed property value if a conservation easement is placed on a portion of the property converted into green space.

Conclusion

Municipal participants were happy with the discussion and enjoyed the activities that aided the discussion. They look forward to finalizing potential projects that can be implemented in Franklin Park.

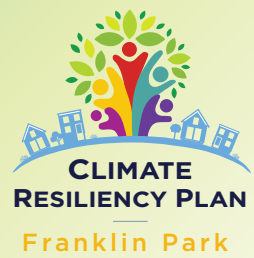
Post Meeting Note

Village staff reached out to Mr. Zuccherro after the meeting and mentioned that they have identified a few projects that might be good candidates for funding and implementation. The projects include



implementing green alleys as part of their alley reconstruction programs and installing rain gardens and tree canopy in select areas in town to build upon ongoing and past work. They also identified a larger detention project that would aid the village in addressing flooding, resiliency and open space goals.

Village of Franklin Park Climate Resiliency Plan



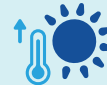
What is Climate Resilience?

Resilience refers to the ability to prepare for threats and hazards, adapt to changing conditions and withstand and recover rapidly from adverse disruptions. Climate resilience refers specifically to the ability to prepare for, adapt to and recover from climate-related hazards and conditions. Hazards like thunderstorms, heat waves and other extreme weather events are influenced by climate and can cause flooding of homes or heat-related illness. In contrast to heat waves, warmer summers are an example of a climate-related disruption that unfolds gradually but contributes to adverse effects. Climate resilience plans organize strategies to prepare for and adapt to climate-related harms.

Examples of Hazards



Air
Quality



Extreme
Heat



Flooding



Freeze /
Thaw Cycles



Storms

Franklin Park's Climate Resiliency Planning Process

The Village of Franklin Park is working with Cook County to develop a climate resiliency plan that follows a community-driven planning and prioritization process to understand climate hazards, set goals and identify projects that bolster resiliency. Completing and implementing the plan will improve Franklin Park's resiliency to the effects of climate change, including severe weather events such as heavy rain, flooding and extreme heat.



Through the partnership, Franklin Park will also receive funding to support actions such as managing stormwater through green infrastructure, planting and maintaining trees, promoting residents' health and well-being and bolstering community assets to lessen negative impacts from a changing climate.

The Village will be considering the following issues and opportunities, along with other community priorities that emerge through the planning process, as part of the resiliency plan:

- Flooding and stormwater management issues
- Expanding the tree canopy throughout the Village
- The use of green infrastructure to retrofit parking lots and help reduce stormwater runoff

For more information about Franklin Park's Climate Resiliency Plan, please visit:

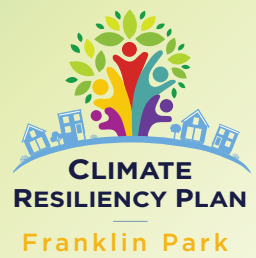
<https://www.cookcountyil.gov/service/franklin-park-climate-resiliency-plan>



COOK COUNTY
DEPARTMENT OF
Environment &
Sustainability

Cook County's Department of Environment and Sustainability (DES) is using American Rescue Plan Act (ARPA) funds to support five municipalities in developing Climate Resiliency Plans and conduct initial implementation. To learn more about the County's partnership with these communities to develop and implement climate resiliency plans that prepare them to thrive in a changing climate, visit the Cook County Climate Resiliency website at: <https://www.cookcountyil.gov/climateresiliency>.

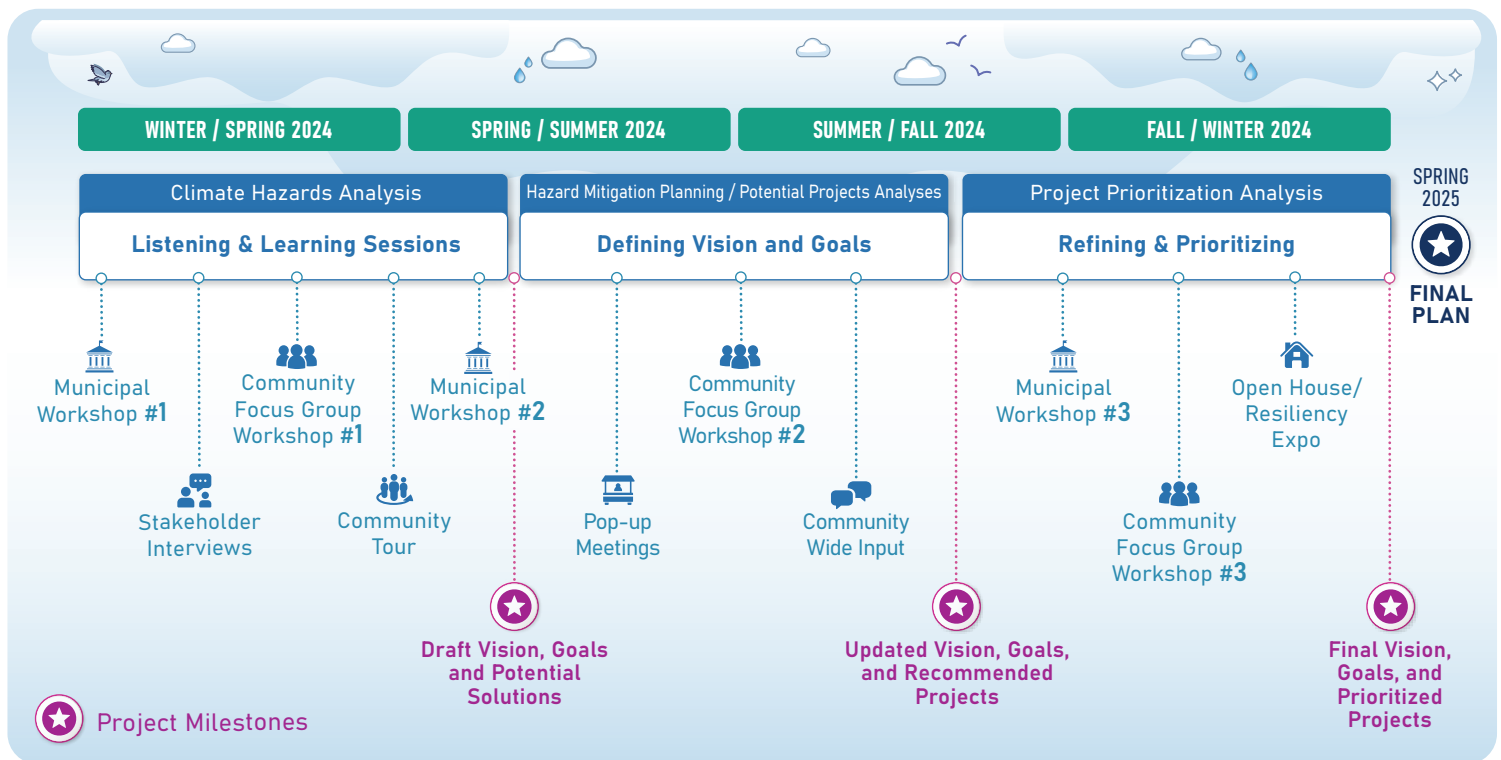
Village of Franklin Park Climate Resiliency Plan



Community Engagement

As a community-driven effort, the climate resiliency plan will establish Franklin Park's priorities and needs through public input and participation. Public events and other opportunities to voice your concerns and priorities will be publicized through the Village's and Cook County's website, newsletters and social media.

Planning Schedule



Contact Us

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Cook County Department of
Environment and Sustainability
Brian Daly
environment@cookcountyil.gov

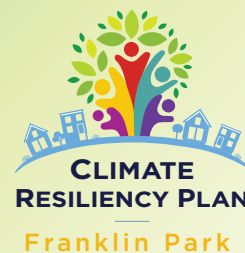
Village of Franklin Park
Nicholas Walny
nwalny@vofp.com



Click or scan this QR code to sign up for project updates and learn about opportunities to help shape Franklin Park's climate resiliency plan.



Plan odporności klimatycznej Franklin Park



Czym jest odporność klimatyczna?

Odporność odnosi się do zdolności do przygotowania się na zagrożenia i niebezpieczeństwa, przystosowania się do zmieniających się warunków oraz przeciwstawienia się i szybkiego powrotu do normy po niekorzystnych zakłóceniach. Odporność na klimat odnosi się w szczególności do zdolności do przygotowania się na zagrożenia i warunki związane z klimatem, przystosowania się do nich i wyjścia z nich. Zagrożenia takie jak burze, fale upałów i inne ekstremalne zjawiska pogodowe zależą od klimatu i mogą powodować zalanie domów lub choroby związane z upałem. W przeciwieństwie do fal upałów, cieplejsze lata są przykładem zaburzeń klimatycznych, które następują stopniowo, ale przyczyniają się do niekorzystnych skutków. Plany odporności na zmianę klimatu obejmują strategie przygotowania się na szkody związane z klimatem i przystosowania się do nich.

Przykłady zagrożeń



Proces planowania odporności klimatycznej Franklin Park

Wioska Franklin Park współpracuje z powiatem Cook nad opracowaniem planu odporności na klimat, który będzie zgodny z procesem planowania i ustalania priorytetów kierowanym przez społeczność, aby zrozumieć zagrożenia klimatyczne, wyznaczyć cele i zidentyfikować projekty wzmacniające odporność. Sfinalizowanie i wdrożenie planu poprawi odporność Franklin Park na skutki zmiany klimatu, w tym na trudne zdarzenia pogodowe, takie jak ulewne deszcze, powódzie i ekstremalne upały.



Dzięki partnerstwu Franklin Park otrzyma również fundusze na wspieranie takich działań, jak zarządzanie wodami opadowymi za pomocą zielonej infrastruktury, sadzenie i pielęgnacja drzew, promowanie zdrowia i dobrego samopoczucia mieszkańców oraz wzmacnianie zasobów społeczności w celu zmniejszenia negatywnego wpływu zmieniającego się klimatu.

W ramach planu odporności wioska rozważy następujące kwestie i możliwości, wraz z innymi priorytetami społeczności, które pojawią się w procesie planowania:

- Problemy z zarządzaniem w zakresie powodzi i wód opadowych
- Zwiększenie powierzchni koron drzew w całej wiosce
- Wykorzystanie zielonej infrastruktury do modernizacji parkingów i ograniczenia spływu wód opadowych

Więcej informacji na temat planu odporności klimatycznej Franklin Park można znaleźć na stronie:

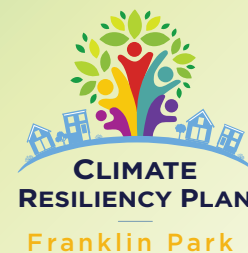
<https://www.cookcountyil.gov/service/franklin-park-climate-resiliency-plan>



COOK COUNTY
DEPARTMENT OF
Environment &
Sustainability

Departament Środowiska i Zrównoważonego Rozwoju (DES) powiatu Cook wykorzystuje fundusze amerykańskiej ustawy American Rescue Plan Act (ARPA) do wspierania pięciu gmin w opracowywaniu planów odporności na zmiany klimatyczne i we wstępnym wdrażaniu. Aby dowiedzieć się więcej na temat partnerstwa powiatu z tymi społecznościami w celu opracowania i wdrożenia planów odporności na zmianę klimatu, które przygotowują je do przetrwania w zmieniającym się klimacie, odwiedź stronę internetową Cook County Climate Resiliency pod adresem: <https://www.cookcountyil.gov/climateresiliency>.

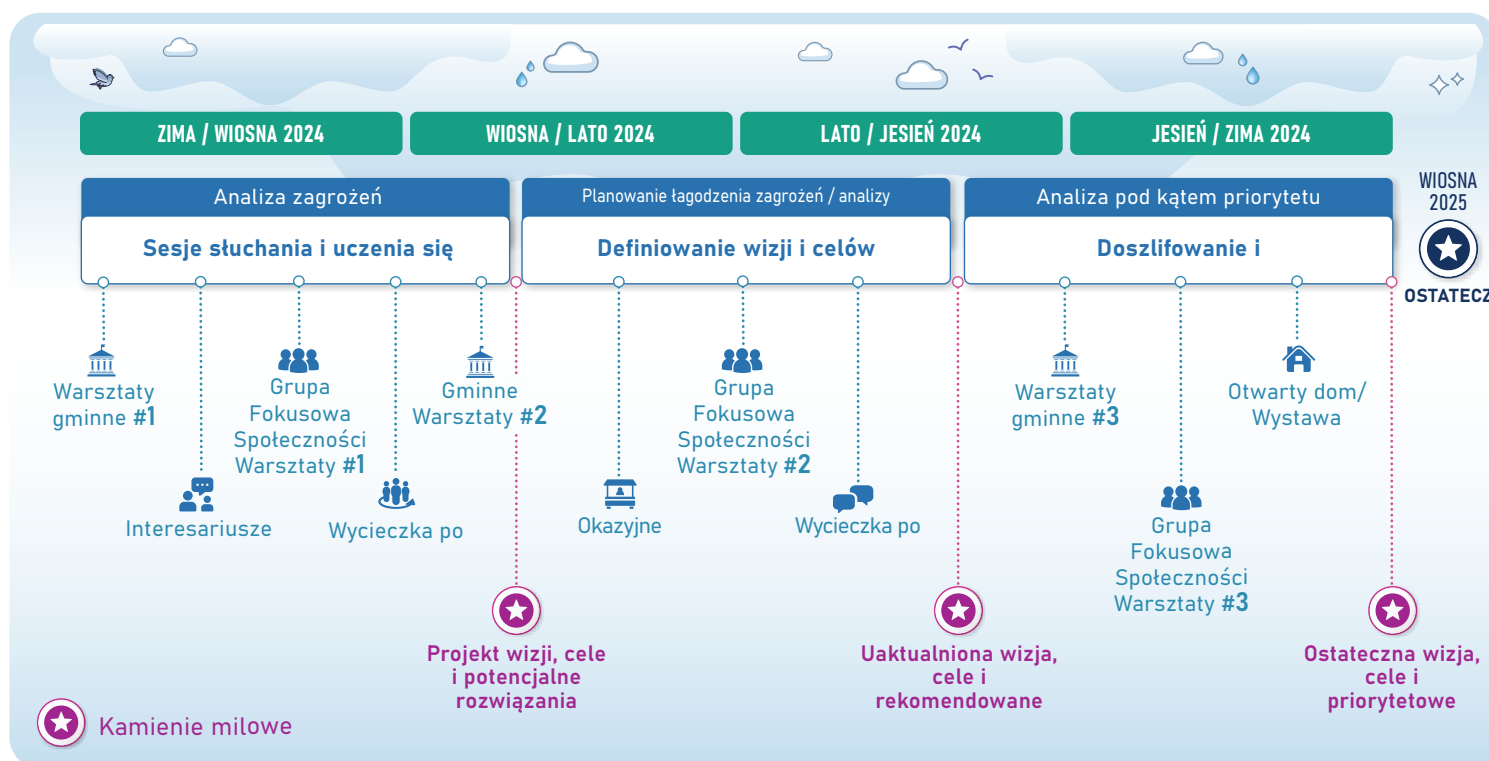
Plan odporności klimatycznej Franklin Park



Zaangażowanie mieszkańców

Plan odporności na zmianę klimatu, będący przedsięwzięciem kierowanym przez społeczność, określi priorytety i potrzeby Franklin Park w drodze wkładu i udziału społeczeństwa. Wydarzenia publiczne i inne okazje do wyrażenia swoich obaw i priorytetów będą ogłaszane na stronie internetowej Franklin Park i powiatu Cook, w biuletynach i mediach społecznościowych.

Harmonogram projektu



Skontaktuj się z nami

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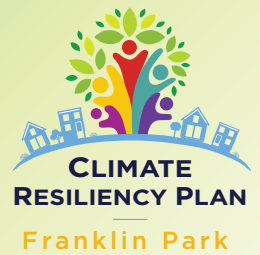
Departament Środowiska i
Zrównoważonego Rozwoju (DES)
powiatu Cook
Brian Daly
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Wioska Franklin Park
Nicholas Walny
nwalny@vofp.com

Kliknij lub zeskanuj ten kod QR, aby zapisać się na informacje o aktualizacji projektów i dowiedzieć się o możliwościach pomocy w kształtowaniu planu odporności Franklin Park na zmianę klimatu.



Plan de Resistencia al Clima del Pueblo de Franklin Park

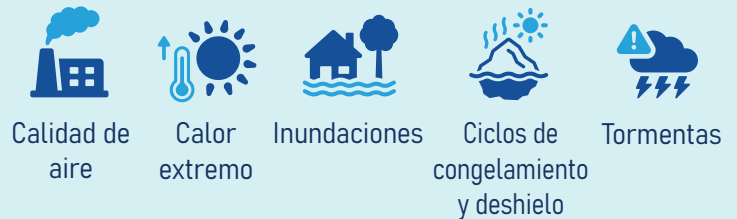


¿Qué es la resistencia del clima?

Resistencia se refiere a la habilidad de prepararse para poder enfrentar las amenazas y los peligros, adaptarse a las condiciones cambiantes, soportar y recuperarse de manera rápida de las condiciones adversas y los trastornos.

La resistencia del clima se refiere específicamente a la habilidad de prepararse, adaptarse, y recuperarse de los impactos asociados con el clima y el ambiente extremo. Por ejemplo, muchas comunidades están experimentando tormentas de lluvia más extremas y olas de calor. Estos peligros pueden resultar en una variedad de repercusiones como más inundaciones o la mala salud, y la resistencia del clima es la habilidad de poder soportar y recuperarse de las inundaciones y el estrés térmico.

Ejemplos de peligros



El Proceso de planeamiento de resistencia del clima de Franklin



El Pueblo de Franklin Park está trabajando con el Condado de Cook para poder desarrollar un plan de resistencia del clima siguiendo un proceso de planeamiento y priorización dirigido por la comunidad para entender los peligros que afectan al clima, establecer metas, e identificar proyectos que refuerzan la resistencia. Completando e implementando los planes para mejorar la resistencia de Franklin Park a los efectos del cambio de clima, incluyendo los eventos de clima severo como las fuertes lluvias, la inundación, los vientos fuertes, y el calor extremo.

Por medio de la asociación, Franklin Park también recibirá fondos para apoyar acciones tales como manejar las aguas pluviales por medio de la infraestructura verde, plantando y manteniendo a los árboles, promoviendo la salud y bienestar de los residentes, y mejorando los bienes comunitarios para disminuir los impactos negativos de un clima cambiante.

El Pueblo estará considerando los siguientes problemas y oportunidades, juntos con otras prioridades comunitarias que emergen por medio del proceso de planeamiento, como parte del plan de resistencia:

- Problemas de gestión de las aguas pluviales e inundaciones
- Expandiendo el dosel arbóreo por todo el Pueblo
- La utilización de infraestructura verde para retroadaptar a los estacionamientos y ayudar a reducir la escorrentía de las aguas pluviales

Para más información acerca del Plan de resistencia del clima de Franklin Park, favor de visitar:

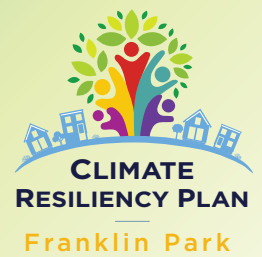
<https://www.cookcountyil.gov/service/franklin-park-climate-resiliency-plan>



COOK COUNTY
DEPARTMENT OF
Environment &
Sustainability

El Departamento del medioambiente y sostenibilidad del Condado de Cook (DES) está utilizando fondos American Rescue Plan Act (ARPA) para poder apoyar a cinco municipalidades a desarrollar Planes de resistencia del Clima y realizar sus implementaciones iniciales. Para aprender más acerca de la asociación del Condado con estas comunidades para desarrollar e implementar sus planes de resistencia del clima, para así poder prepararlas para prosperar en un clima cambiante, visite el sitio web de Resistencia del clima del Condado de Cook en: <https://www.cookcountyil.gov/climateresiliency>.

Plan de Resistencia al Clima del Pueblo de Franklin Park



Sección de participación comunitaria

Como es un esfuerzo dirigido por la comunidad, el plan de resistencia al clima establecerá las prioridades y necesidades de Franklin Park por medio del aporte y la participación pública. Se publicarán los eventos públicos y otras oportunidades para compartir sus dudas y prioridades en el sitio web, los boletines, y los medios sociales del Pueblo y el Condado de Cook.

Cronograma de planificación



Contáctenos

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Pueblo de Franklin Park
Nicholas Walny
nwalny@vofp.com



Escanee este código QR para inscribirse para obtener actualizaciones sobre el proyecto y aprender acerca de las oportunidades para ayudar a formar el plan de Resistencia del clima de Franklin Park.





Village of Franklin Park

Municipal Workshop #3



Agenda

1. Welcome and Project Update
 2. Summary of the Community Feedback
 3. Outlining Solutions
 4. Adaptation Pathways – Focus Areas
 5. Adaptation Pathways – Community-wide
 6. Wrap-up & Next Steps
-



Project Update



Climate Resiliency Planning Process Update

Cook County's Department of Environment and Sustainability (DES) is using American Rescue Plan Act (ARPA) funds to support five municipalities in developing Climate Resiliency Plans and conduct initial implementation.

Phase I, 2023-2024:

Through a community-driven planning and prioritization process, communities will set goals and identify projects to bolster resiliency. Planning consultants will use community input to develop individualized and detailed digital Climate Resiliency Plans.

Phase II, 2024-2026:

Funds will be available to implement portions of the plans for a variety of possible projects including green infrastructure improvements, stormwater management and resilient energy systems. Projects will be selected based on the needs of each community, cost, feasibility, and timelines.

Climate Resiliency Planning Process Update





Franklin Park Community Engagement Update

1. Municipal Workshops 1 and 2
2. Stakeholder Interviews (Library, E. Leyden H.S. students, Park District, resident)
3. Community Focus Group (9 community members)
4. Problem Area Site Visits with Public Works Staff
5. Pop Up Meetings – **60 individuals** provided feedback
 - Passport Event at Franklin Park Library, July 27
 - Concert in the Park Series, July 30
 - Gouin Park, August 18



Summary of the Community Feedback



Franklin Park Community Feedback

Concerns & Challenges

- Update sewer system
- The language barrier of Hispanic and Polish populations may be a limiting factor
- Lack of financial capacity for private homeowners to maintain yards
- Extreme weather (flooding, extreme temps) that may cause road closures and congestion
- Limited amount of space to add green infrastructure
- Climate resiliency education and communication of Village resources

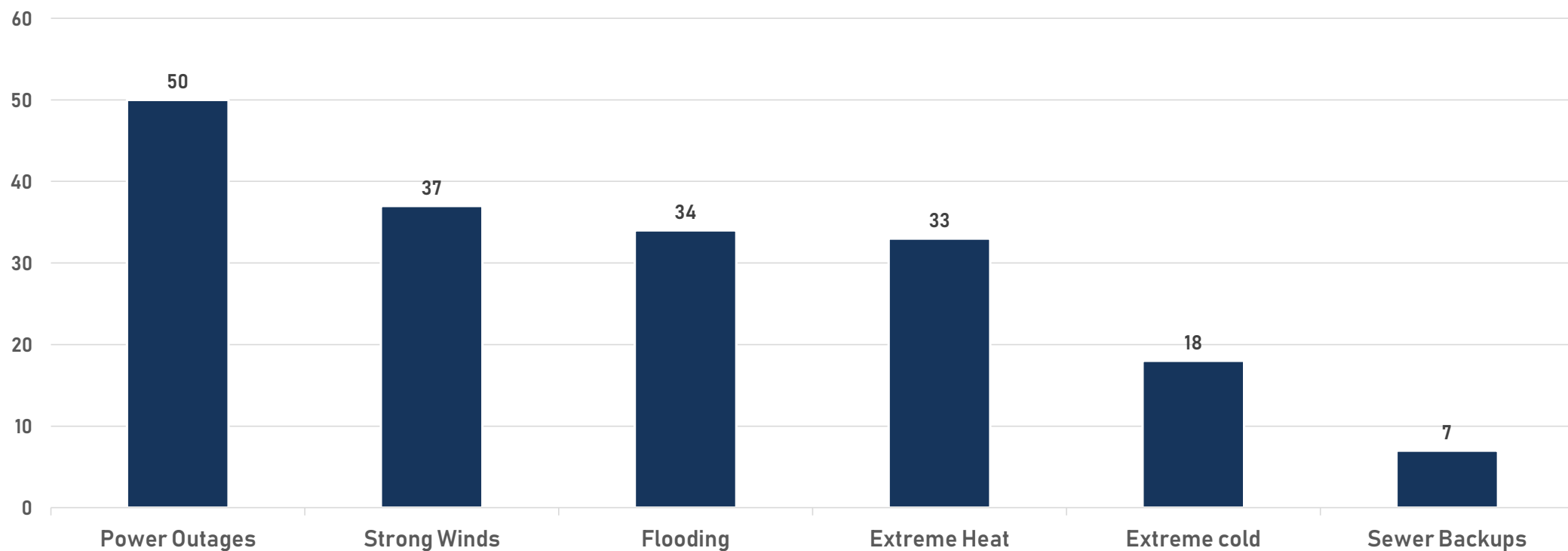
Potential Solutions

- Expand and maintain the tree canopy
- Create permeable parking lots (public & private)
- Assess adequacy of storm sewer systems for future events and update if necessary
- Provide incentives/assistance for businesses
- Create more green space (trees, open space and native grasses)
- Increase communication and engagement with community
- Create programs for youth involvement

Franklin Park Pop-Ups Feedback – Weather Impacts

Total Number of Votes by Type of Extreme Weather Concerns

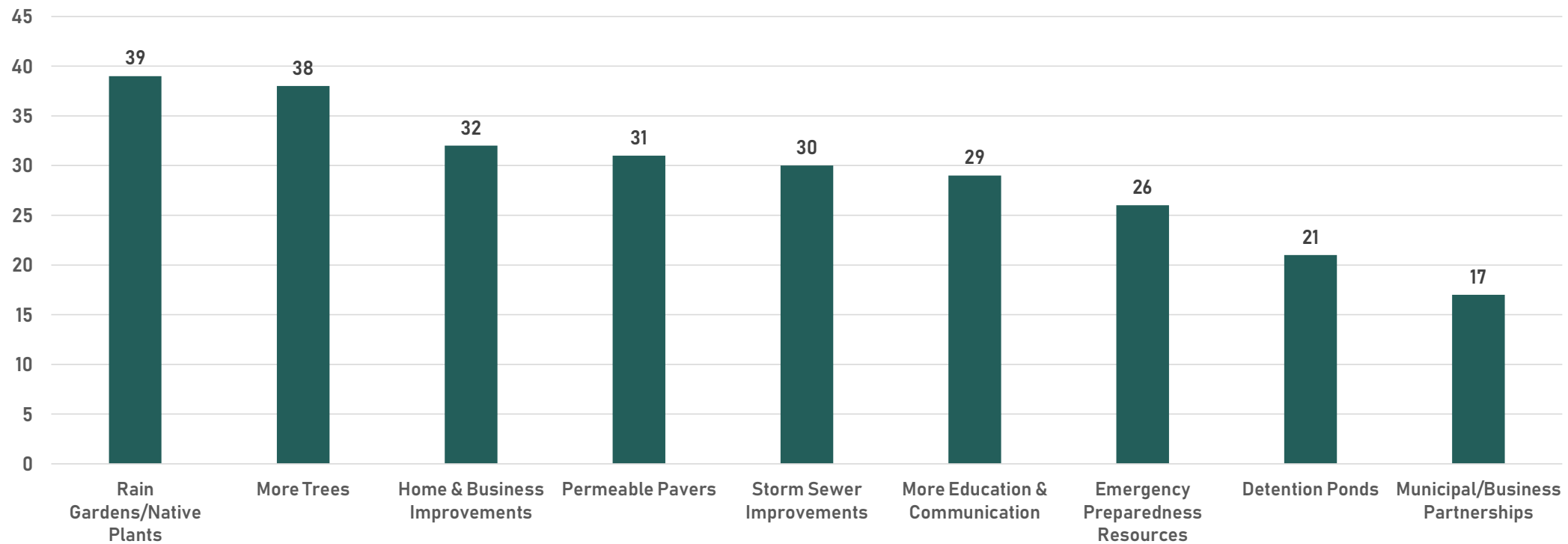
60 people provided their top 3 choices



Franklin Park Pop-Ups Feedback – Potential Solutions

Total Number of Votes by Type of Climate Resilience Solution

66 people provided their **top 4 choices**





Outlining Solutions

Resilience Solutions

1. Building Improvements
2. Design Standards & Policies
3. Naturalized Detention Ponds
4. Permeable Spaces & Pavements
5. Small-Scale Green Infrastructure
6. Stormwater Improvements
7. Tree Planting

BUILDING IMPROVEMENTS

Enhancing older buildings to improve their ability to withstand climate hazards (i.e., preventing basement backups, increasing efficiency of cooling and heating)



TIMELINE

RELATIVE COST

FOOTPRINT

HAZARD REDUCTION



Note: Project details refer to one installment of the solution.

HAZARDS

There will likely be a big increase in extreme storms & small increase in mild storms by 2050



More rainfall during extreme storm events is likely by 2050



Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Economic Revitalization

Improve building conditions to attract new businesses and ensure operations are not impacted by adverse working conditions or the need for repairs.



Public Health

Reduce health risks associated with extreme temperatures (i.e., respiratory and cardiovascular illness) and minimize the opportunity for mold to grow in buildings.



Social Equity

Improve living and working conditions by reducing building owners' resource consumption and energy costs.



Sustainable Development

Encourage growth that balances economic, social, and environmental well-being for existing and new residents.

Resilience Solutions

1. Building Improvements
2. Design Standards & Policies
3. Naturalized Detention Ponds
4. Permeable Spaces & Pavements
5. Small-Scale Green Infrastructure
6. Stormwater Improvements
7. Tree Planting

DESIGN STANDARDS & POLICIES

Updating ordinance design standards, policies, and other "non-structural" solutions to build resilience into community processes.



TIMELINE

RELATIVE COST

FOOTPRINT

HAZARD REDUCTION



Note: Project details refer to one installment of the solution.

HAZARDS

There will likely be a big increase in extreme storms & small increase in mild storms by 2050



More rainfall during extreme storm events is likely by 2050



Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Update out-of-date design standards to reflect current or future rainfall depths and review mapped floodplains to ensure they reflect observed conditions.



Economic Revitalization

Implement policies that beautify the community and increase green space (i.e., including green infrastructure with public infrastructure improvements).



Social Equity

Reduce flooding and the associated financial, health, and lifestyle burden it can have, particularly for vulnerable populations.



Sustainable Development

Encourage growth that balances economic, social, and environmental well-being for existing and new residents.

Resilience Solutions

1. Building Improvements
2. Design Standards & Policies
3. Naturalized Detention Ponds
4. Permeable Spaces & Pavements
5. Small-Scale Green Infrastructure
6. Stormwater Improvements
7. Tree Planting

NATURALIZED DETENTION PONDS

Basins to temporarily store stormwater to prevent runoff and flooding.



TIMELINE

RELATIVE COST

FOOTPRINT

HAZARD REDUCTION



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Community Impacts

- Water contamination
- Transport disruption
- Property damage
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood mitigation

Detention ponds temporarily store storm water during very heavy rainfall periods. This water slowly drains following the intense storm event to prevent flooding.



Public Health

Improved water quality reduces exposure to pollutants and supports public health as a result. These ponds also beautify community spaces which can benefit residents' mental health.



Water Quality

Detention ponds filter pollutants and sediment from stormwater runoff. This improves water quality, benefiting the ecosystem and community as a whole.



Biodiversity

By enhancing water quality and vegetation, detention ponds provide habitats that can support a wide array of native plant and animal species to improve local biodiversity.

Resilience Solutions

1. Building Improvements
2. Design Standards & Policies
3. Naturalized Detention Ponds
4. Permeable Spaces & Pavements
5. Small-Scale Green Infrastructure
6. Stormwater Improvements
7. Tree Planting

PERMEABLE SPACES & PAVEMENTS

Alternatives to asphalt and concrete that allow water to infiltrate, reducing flooding and stormwater runoff.



TIMELINE

RELATIVE COST

FOOTPRINT

HAZARD REDUCTION



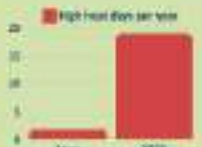
Note: Project details refer to one installment of the solution.

HAZARDS

There will likely be a **big increase in extreme storms** & small increase in mild storms by 2050



By 2050, the annual days over 95°F will likely increase by 10X



Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Reduce urban flooding by providing a porous surface for water to infiltrate, strategically placed in low-lying areas where runoff accumulates.



Public Health

Decrease concrete surfaces that absorb and retain heat, reducing extreme temperatures in urban heat islands.



Sustainable Development

Encourage growth that balances economic, social, and environmental well-being for existing and new residents.



Soil Stabilization

Reduce peak runoff rate to preserve the local landscape and minimize soil accumulation that clogs stormwater infrastructure.

Resilience Solutions

1. Building Improvements
2. Design Standards & Policies
3. Naturalized Detention Ponds
4. Permeable Spaces & Pavements
5. Small-Scale Green Infrastructure
6. Stormwater Improvements
7. Tree Planting

SMALL-SCALE GREEN INFRASTRUCTURE

Shallow depressions that utilize vegetation, soil, and engineered systems to mimic natural processes of slowing or storing stormwater and providing ecological services.



TIMELINE

RELATIVE COST

FOOTPRINT

HAZARD REDUCTION



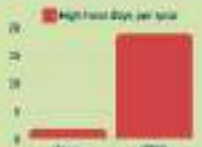
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HAZARDS

There will likely be a big increase in extreme storms & small increase in mild storms by 2050



By 2050, the annual days over 95°F will likely increase by 10X



Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: MWD storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Reduce urban flooding by providing a porous surface for water to infiltrate, strategically placed in low-lying areas where runoff accumulates.



Public Health

Decrease concrete surfaces that absorb and retain heat, reducing extreme temperatures in urban heat islands.



Sustainable Development

Encourage growth that balances economic, social, and environmental well-being for existing and new residents.



Soil Stabilization

Reduce peak runoff rate to preserve the local landscape and minimize soil accumulation that clogs stormwater infrastructure.

Resilience Solutions

1. Building Improvements
2. Design Standards & Policies
3. Naturalized Detention Ponds
4. Permeable Spaces & Pavements
5. Small-Scale Green Infrastructure
6. Stormwater Improvements
7. Tree Planting

STORMWATER IMPROVEMENTS

Improving conveyance in existing stormwater infrastructure (i.e., culverts, sewer systems) or alleviating load on the system (i.e., downspout disconnection, sewer separation).



TIMELINE

RELATIVE COST

FOOTPRINT

HAZARD REDUCTION



Note: Project details refer to one installment of the solution.

HAZARDS

There will likely be a **big increase in extreme storms** & small increase in mild storms by 2050



More rainfall during **extreme** storm events is likely by 2050



Community Impacts

- Water contamination
- Transport disruption
- Property damage
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Upgrade existing infrastructure to improve local conveyance capacity, mitigate bottlenecks, and reduce flooding.



Public Health

Alleviate exposure to contaminated floodwaters and waterborne illness and reduce mosquito breeding by preventing standing water.



Soil Stabilization

Reduce peak discharges at pipe outlets to preserve the local landscape and minimize soil accumulation that clogs stormwater infrastructure.



Social Equity

Reduce flooding and the financial, health, and lifestyle burden it can have, particularly for vulnerable populations.

Resilience Solutions

1. Building Improvements
2. Design Standards & Policies
3. Naturalized Detention Ponds
4. Permeable Spaces & Pavements
5. Small-Scale Green Infrastructure
6. Stormwater Improvements
7. Tree Planting

TREE PLANTING

Adding trees to parkway lawns and roadway rights-of-way as a natural intervention for reducing stormwater runoff.



TIMELINE

RELATIVE COST

FOOTPRINT

HAZARD REDUCTION



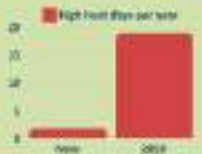
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HAZARDS

There will likely be a **big increase in extreme storms** & small increase in mild storms by 2050



By 2050, the annual days over 95°F will likely increase by **10X**



Community Impacts

- Water contamination
- Transport disruption
- Property damage
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Reduce runoff rates by capturing some rainfall in tree canopy, which slows down rain as it falls to the surface, and by providing green space where water can infiltrate.



Public Health

Provide air quality benefits and shade to reduce health risks associated with extreme heat (i.e., cardiovascular and respiratory illness).



Social Equity

Provide shade to reduce extreme heat, the financial burden of cooling homes, and the potential health risks associated with heat waves.



Sustainable Development

Encourage growth that balances economic, social and environmental well-being for existing and new residents.



Discussion Questions

- Are these solution sheets useful for community engagement and education?
 - How realistic are feasibility factors – timeline, cost, etc.?
 - What other solution/solution sets might be helpful?
-



Adaptation Pathways – Focus Area

What is an adaptation pathway?

A suite of actions that increase climate resilience



Why develop adaptation pathways?



Provides a more comprehensive solution by combining a set of actions



Flexibility in implementation, depending on changes funding or impacts

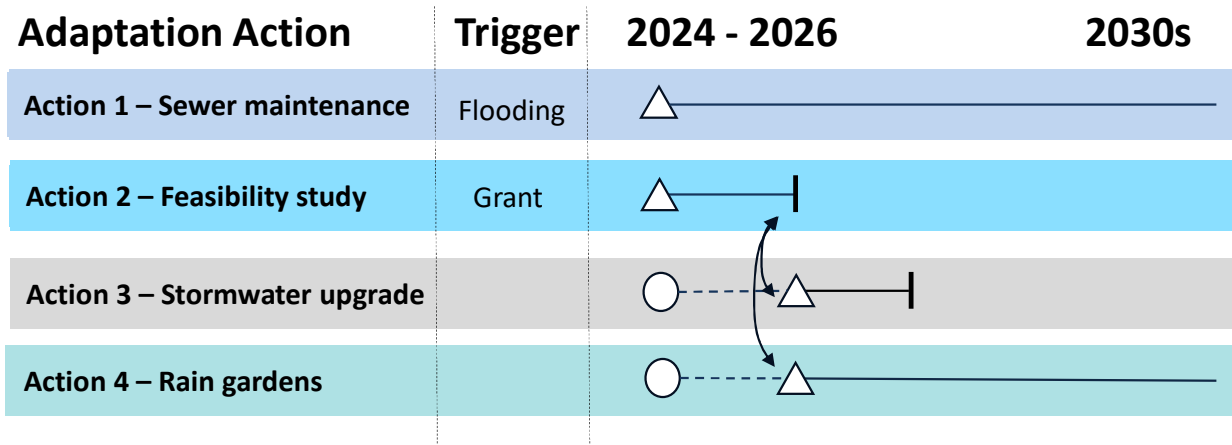


Measures escalates in scale and scope as climate impacts intensify



Ability to switch measures based on pre-determined triggers or thresholds

Adaptation Pathways - Example



Legend

- Adaptation Pathway
- - - Planning Period
- Trigger*
- △ Implementation
- | End of Pathway
- ↕ Transfer to different Pathway

Action Types

Nature-based

Engineering

Planning

Operational

*Trigger points indicate when to begin planning for implementation.

Flooding Adaptation Approach for Franklin Park

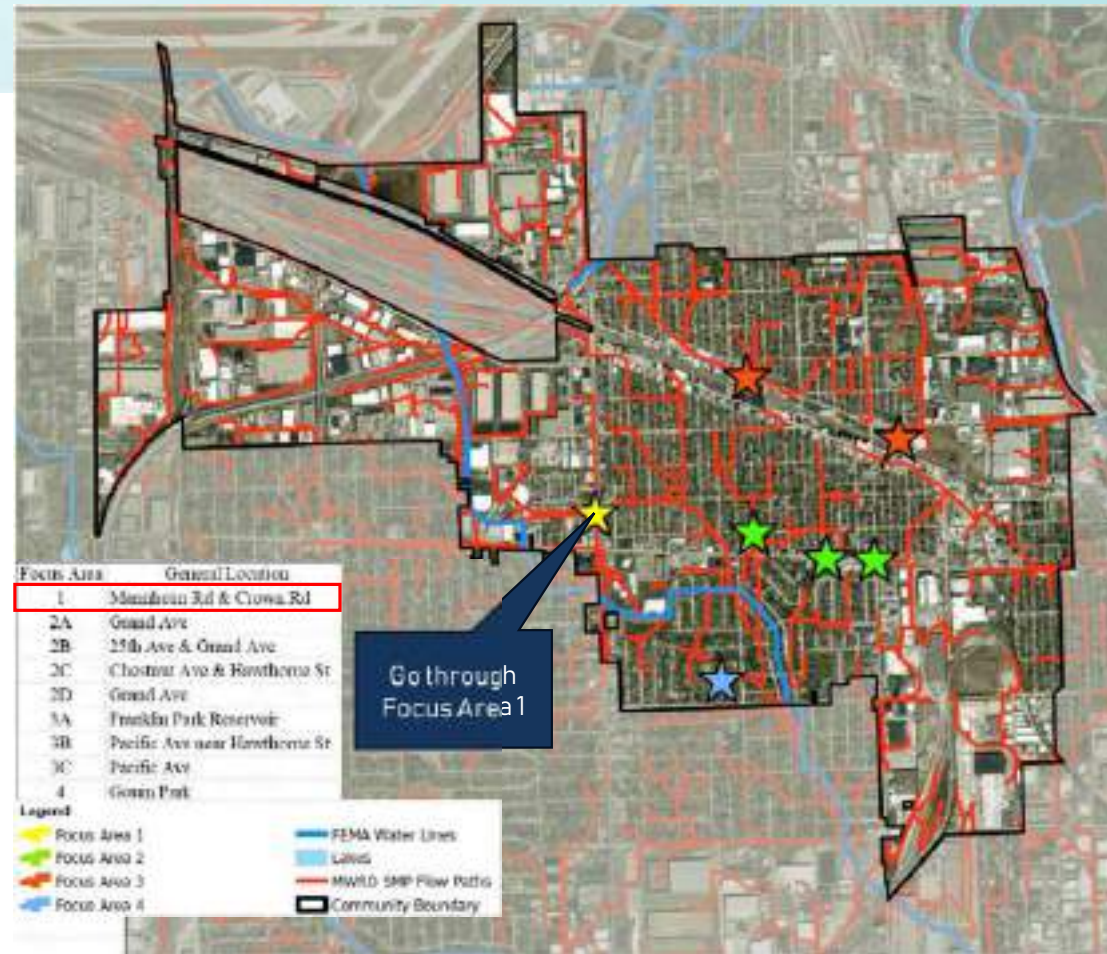
1. Understanding and assessing the flooding impacts and the associated risk and impacts to vulnerable populations
2. Evaluating adaptation solutions and identifying a flood mitigation solution that reduces the anticipated risks and impacts
3. Communicating adaptation solution, raising awareness of the process and obtaining community buy-in
4. Implement the adaptation solution
5. Monitor and track how the implemented solution is addressing the flooding concern and whether it will have a sustainable impact.

Climate Impact	Associated Risks and Impacts	Adaptation Measures	Mitigation Response	Community Benefits
Increase in urban and riverine flooding	<u>Property Damage</u>	Reduce Runoff	- Decrease impervious surfaces - Rain Barrels	<i>Water Quality; Soil Erosion; Social Equity</i>
		Volume controls	- Regional detention basins can be installed on vacant lots or other more significant areas - Distributed green infrastructure (e.g., permeable paving, bio-infiltration, green roofs, natural landscaping, etc.)	<i>Sustainable Development; Economic Revitalization; Social Equity; Public Infrastructure; Parks and Open Spaces; Biodiversity; Public Health</i>
		Improve Conveyance	- Increase pipe sizes or combined sewer disconnections	<i>Social Equity; Public Health</i>
	<u>Economic Loss</u>	Policy and Ordinance Changes	- Evaluate ways to make programmatic changes to add storage, require developers to implement ways to reduce runoff rates for stormwater flowing off-site, and ways to include green infrastructure with public infrastructure improvements.	<i>Sustainable Development; Economic Revitalization; Social Equity</i>
		Improve Maintenance of Existing Infrastructure	- Develop a long-term asset management plan	<i>Social Equity; Public Infrastructure</i>
	<u>Health Risk</u>	Erosion Protection	- Use native landscaping and engineered systems to protect streambanks and riparian corridors	<i>Water Quality; Parks and Open Spaces & Public Infrastructure</i>
		Property Buyout	- Buy properties located within the floodplain or areas with repetitive flooding claims to reduce the number of buildings that will be impacted by riverine flooding.	<i>Social Equity; Biodiversity; Public Health</i>

Village of Franklin Park Focus Areas

The Focus Areas were identified based on:

- Feedback during workshops, stakeholder interviews, and focus group meetings
- Feedback from the Public Works Meeting
- Initial analysis performed by our team to understand underlying climate related issues and associated adaptation solutions that could be effective



Village of Franklin Park - Focus Area 1

Community Feedback

- The worst area in Franklin Park for street flooding is Mannheim Road and Crown Road. The storm sewers cannot handle a heavy rainfall and the road is low.
- The outlet for the storm sewers in this area is Silver Creek, and due to the slopes of the pipes and the elevation of the road, the outlet is a similar elevation to the inlets. Too much stormwater turns the intersection into a reservoir until Silver Creek lowers enough to allow storm flow out.
- The area has a lot of pavement and high-density residential structures, along with a commercial corridor adjacent.



Village of Franklin Park - Focus Area 1

Crown & Mannheim Drainage Area



Maximum Probable Drainage Area



Probable Drainage Area excluding Industrial North

Village of Franklin Park – Focus Area 1

10-year & 100-year Increased Ponding for the year 2050



Village of Franklin Park – Focus Area 1

Adaptation Strategies

Preliminary Near-Term Implementation Priorities for Further Assessment

- a. In-ground stormwater detention at Houston & Crown village-owned lot. Create pocket park for area residents.
- b. Porous pavement/permeable pavers in parking areas of neighborhood high density housing
- c. bioswales in neighborhood planting strips in tributary drainage area.

Opportunistic Planning

- a. Identify strategic land uses for implementing projects
- b. Centralized stand-alone, single-purpose storm water management practices versus distributed green infrastructure
- c. Strategies for providing additional storage versus increasing conveyance capacity

Village of Franklin Park - Focus Area 1

Implementing Green Infrastructure (GI)



	SingleTrap® Detention	Porous Pavement	Bioswales
Land Use	Pocket Park	Paved Lot	Green Space
Area Available (sf)	6,000	138,000	6,700
Drainage Area (sf)	7,244,000	7,244,000	7,244,000
Potential Volume Captured (gal)	307,000	232,000	70,000
Estimated Construction Cost	\$528,000	\$4,279,000	\$595,000
Cost / gal captured	\$1.70	\$18.50	\$8.60
Cost / sf installed	\$80.50	\$41.40	\$127.00

Village of Franklin Park - Focus Area 1

Pocket Park



	SingleTrap® Detention	Porous Pavement	Bioswales
Land Use	Pocket Park	Paved Lot	Green Space
Area Available (sf)	6,000	138,000	6,700
Drainage Area (sf)	7,244,000	7,244,000	7,244,000
Potential Volume Captured (gal)	307,000	232,000	70,000
Estimated Construction Cost	\$528,000	\$4,279,000	\$595,000
Cost / gal captured	\$1.70	\$18.50	\$8.60
Cost / sf installed	\$80.50	\$41.40	\$127.00

Village of Franklin Park - Focus Area 1

Pocket Park

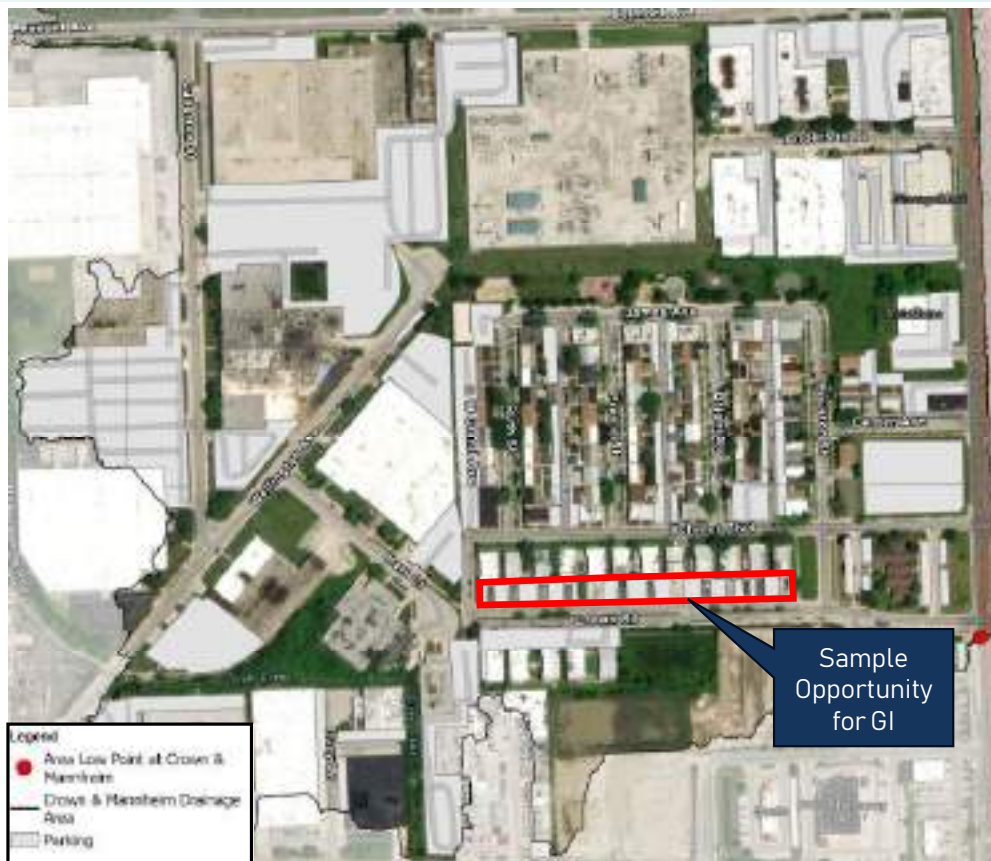


Southwest Corner of Schiller Blvd & Houston St

	SingleTrap® Detention	Porous Pavement	Bioswales
Land Use	Pocket Park	Paved Lot	Green Space
Area Available (sf)	6,000	138,000	6,700
Drainage Area (sf)	7,244,000	7,244,000	7,244,000
Potential Volume Captured (gal)	307,000	232,000	70,000
Estimated Construction Cost	\$528,000	\$4,279,000	\$595,000
Cost / gal captured	\$1.70	\$18.50	\$8.60
Cost / sf installed	\$80.50	\$41.40	\$127.00

Village of Franklin Park - Focus Area 1

Porous Pavement



	SingleTrap® Detention	Porous Pavement	Bioswales
Land Use	Pocket Park	Paved Lot	Green Space
Area Available (sf)	6,000	138,000	6,700
Drainage Area (sf)	7,244,000	7,244,000	7,244,000
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Estimated Construction Cost	\$528,000	\$4,279,000	\$595,000
Cost / gal captured	\$1.70	\$18.50	\$8.60
Cost / sf installed	\$80.50	\$41.40	\$127.00

Village of Franklin Park - Focus Area 1

Porous Pavement



Crown Rd, looking West

Implementation Scenario (area)	Volume Captured (gal)	Estimated Construction Cost*
10%	23,200	\$428,000
25%	58,000	\$1,070,000
50%	116,000	\$2,140,000
75%	174,000	\$3,209,000
100%	231,900	\$4,279,000

*Construction cost assumes ~\$18.50/gal

Village of Franklin Park - Focus Area 1

Bioswale Planting Strips



	SingleTrap® Detention	Porous Pavement	Bioswales
Land Use	Pocket Park	Paved Lot	Green Space
Area Available (sf)	6,000	138,000	6,700
Drainage Area (sf)	7,244,000	7,244,000	7,244,000
Potential Volume Captured (gal)	307,000	232,000	70,000
Estimated Construction Cost	\$528,000	\$4,279,000	\$595,000
Cost / gal captured	\$1.70	\$18.50	\$8.60
Cost / sf installed	\$80.50	\$41.40	\$127.00

Village of Franklin Park - Focus Area 1

Bioswale Planting Strips



Bright St, looking North

Implementation Scenario (area)	Volume Captured (gal)	Estimated Construction Cost*
10%	7,000	\$60,000
25%	17,000	\$149,000
50%	35,000	\$298,000
75%	52,000	\$446,000
100%	70,000	\$595,000

*Construction cost assumes ~\$8.60/gal

Village of Franklin Park - Focus Area 1

Scale of Green Infrastructure



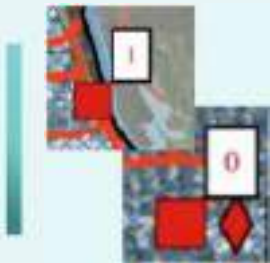
	SingleTrap® Detention	Porous Pavement	Bioswales
Land Use	Pocket Park	Paved Lot	Green Space
Area Available (sf)	6,000	138,000	6,700
Drainage Area (sf)	7,244,000	7,244,000	7,244,000
Potential Volume Captured (gal)	307,000	232,000	70,000
Estimated Construction Cost	\$528,000	\$4,279,000	\$595,000
Cost / gal captured	\$1.70	\$18.50	\$8.60
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Village of Franklin Park - Focus Area 1

Scale of Green Infrastructure

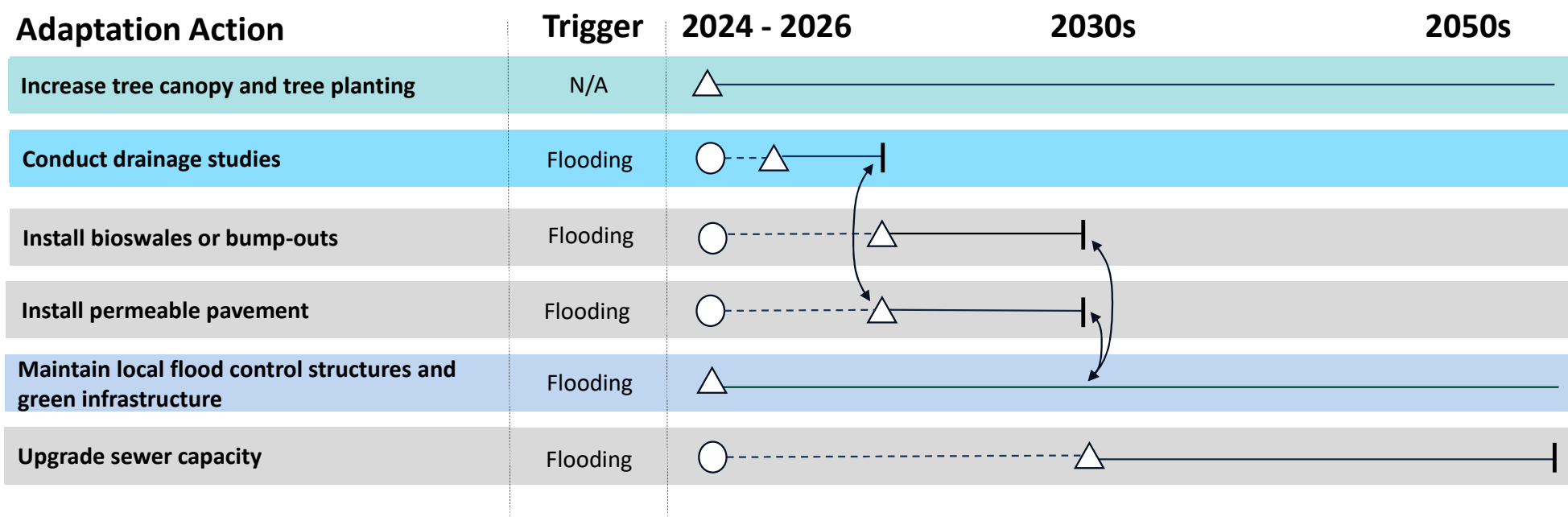


	SingleTrap® Detention	Porous Pavement	Bioswales
Land Use	Pocket Park	Paved Lot	Green Space
Area Available (sf)	6,000	138,000	6,700
Drainage Area (sf)	7,244,000	7,244,000	7,244,000
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Estimated Construction Cost	\$528,000	\$4,279,000	\$595,000
Cost / gal captured	\$1.70	\$18.50	\$8.60
Cost / sf installed	\$80.50	\$41.40	\$127.00



Franklin Park- Action Area 0 and 1 (Focus Area 1)

Flooding is a concern for Franklin Park, causing more damage and lasting longer than other weather patterns. When Grand Avenue or River Road floods, it disrupts the community making it difficult for people to get around. Infrastructure installations are available to reduce flood risk.



*Trigger points indicate when to begin planning for implementation.

Action Types

Nature-based

Engineering

Planning

Operational

Legend

— Adaptation Pathway

- - Planning Period

○ Trigger

△ Implementation

| End of Pathway

↕ Transfer to different Pathway



Discussion Questions

- What are your general thoughts on the conceptual design that was presented?
- Are these solutions phased and integrated well?
- What are some of the important prioritization factors for selecting solutions and locations for implementation?
- What are some of the important feasibility factors?
- Is there anything that jumps out about the other solutions identified for the other Focus Areas?



Adaptation Pathways – Community-wide



Community-wide

Community-wide strategies to increase resilience focus on addressing hazards while also ensuring that the community is safe and resilient to future climate hazards.

Adaptation Action	Trigger	2024 - 2026	2030s	2050s
Support retrofitting, purchase, or relocation of structures	Repetitive loss	○	△	
Provide education on hazards and preparation	N/A	△		
Increase monitoring for repetitive loss	N/A	△		
Rain event record program	N/A	○	△	
Incentive/assistance programs for businesses	N/A	△		
Improve design standards	N/A	△		

Action Types

Nature-based

Engineering

Planning

Operational

Legend

— Adaptation Pathway
-- Planning Period

○ Trigger

△ Implementation

▬ End of Pathway

⚡ Transfer to different Pathway



Discussion Questions

- Are these solutions phased and integrated well?
 - What are some of the important prioritization factors for selecting solutions and locations for implementation?
 - What are some of the important feasibility factors?
-



Wrap-up & Next Steps



Next Steps

- Gather Remaining Feedback on Focus Area Priorities
- Community Engagement
 - Community Focus Group – October
 - Open House – November
- Finalize Draft Recommendations
- Climate Smart Communities Initiative – Municipal Working Group



Thank You!



Franklin Park Municipal Workshop #3 Meeting Summary

Meeting Location: Village of Franklin Park

Date: September 19, 2024

Participants:

Name	Role	Organization
April Arellano	Village Clerk	Village of Franklin Park
Dafne Henriquez	Assistant Village Engineer	Village of Franklin Park
Rudolph Repa	Village Planner-zoning	Village of Franklin Park
Tom McCabe	Village Engineer	Village of Franklin Park
Ryan Adriatico	Senior Planner	Village of Franklin Park
Joe Webster	Engineering	Village of Franklin Park
Nicholas Walny	Community Development	Village of Franklin Park
Nick Steker	Battalion Chief	Village of Franklin Park
Nick Weber	Public Works	Village of Franklin Park
Joe Thomas	Public Works	Village of Franklin Park
Megan Bender	Sr. Water Resources Engineer	Geosyntec
Rocco Zuccherro	Principal	Metro Strategies Group
Elli Cosky	Senior Project Manager	Metro Strategies Group
Jeffrey Meek	Climate Resilience Consultant	ICF
Emelia Suljic	Climate Resilience Specialist	ICF

Project Update and Community Feedback

Metro Strategies Group opened the meeting by welcoming everyone and proceeded to review the community feedback that has been collected throughout the last 7 months.

Village staff had no comments or questions on the community feedback provided.

Outlining Solutions

Based on community feedback and problem area discussions, Geosyntec and ICF have developed several near-term climate resiliency implementation recommendations. ICF presented a series of



resilience solution sheets that provide general information about actions to reduce the impacts of climate hazards. The sheets specify relevant hazards addressed and touch on broader benefits. They also rate key factors related to implementation, such as timeline, cost, footprint, and level of hazard reduction. The Village of Franklin Park participants liked the documents and asked if they would be used during the open house expo. They also advised that these materials should be translated into Spanish and Polish for all Franklin Park community members.

The Village is very supportive of increasing tree planting and has recently received another grant to plant more than 100 trees. The community is also very supportive of the GI improvements that the Village has been implementing over the past few years.

The

Village is knowledgeable on permeable paver maintenance due to the presence of permeable pavers within the community for the last several years. The current biggest maintenance challenge is plowing and some basic repairs, but nothing that is overly burdensome on staff.

The Village received an MWRD grant for rain gardens along Pacific Avenue. They use biosolids (i.e., manure/compost) from MWRD in these gardens and have found that this has led to very successful, explosive growth. One lesson learned is that some areas need to be weeded and cut back to stay out of the pedestrian path. The Village contracts this maintenance out. Nick noted that vegetated portions of bump outs and parkways need to be fenced off in the winter so that they don't get compacted by the snow. These best practices should be shared in the community working group under CSCI.

Adaptation Pathways – Focus Areas

ICF outlined two preliminary, community-specific adaptation pathways. One presented pathway was site-specific for Focus Areas 1, and the other was community wide. These pathways lay out the long-term sequencing of resilience projects and actions. Defined “trigger points” (i.e., a climate hazard, a grant opportunity, etc.) indicate when an additional project might begin or where efforts may shift to a parallel action.

Focus Area 1 – Mannheim and Crown Roads

Geosyntec spoke on the specific adaptation approach for Franklin Park for Focus Area 1, which falls within the floodplain. Geosyntec outlined the associated risks and impacts that should be weighed when addressing flooding and the corresponding adaptation measures and mitigation responses that could be deployed to address the issue. Near-term opportunities were identified including implementing green infrastructure (GI), in-ground detention at Houston & Crown to create a pocket park, porous pavement/permeable pavers in parking areas and bioswale planting strips in the neighborhood. The group also discussed ways in which the pond behind the buildings could store more water.



In-ground detention at Houston & Crown. The Village noted that there are permitting and drainage challenges associated with the in-ground detention on the vacant lot. However, upgrading this vacant lot and incorporating subsurface drainage as a single-trap detention could provide an opportunity to introduce a pocket park and amenities for a portion of the community that is underserved and in need of open space. The detention storage area may have some hydraulic challenges due to elevation and not being connected to Village ponds to the south. The Village is slated to have a tree planting party on October 5th at the pocket park/Houston & Crown location to visually enhance this area for residents.

Porous pavement/permeable pavers in parking areas. The property owners have historically not been cooperative and would likely not work with the Village on converting parking to permeable pavers. The streets were recently completed therefore, replacing streets with permeable pavers or porous pavement is not viable. Village staff believe that the best locations for permeable pavers would be on Franklin Park property.

Nick noted that, for the past couple of years, their permeable pavement has been doing well. He offered insightful best practices that will be useful to share with the other communities throughout the CSCI working group. These best practices and lessons learned included the following:

- They initially tried permeable concrete, but that didn't work. They switched to a different brand/material which has been significantly more effective.
- They are careful when plowing and have developed strategies to prevent damage.
- When weeding, any gravel lost needs to be replaced.
- MWRD incentivizes permeable pavement – they have a grant and agreement with MWRD that covers some of the maintenance and weeding costs.
- They do not enforce any permeable pavement requirements for fear that it will thwart development.

Bioswale planting strips in the neighborhood. The Village noted that current property owners are negligent in maintaining their buildings which may create a maintenance issue for any bioswales/rain gardens that are introduced.

Overall, there is a desire to look deeper at the possibility of in-ground detention and creating a pocket park on the vacant land owned by the Village in Focus Area 1. The Village is also supportive of exploring some GI opportunities in this area, even though the TIF for the WMRA area is expired. The residents that live in this part of town are lacking amenities and some enhancements through GI could help.

Adaptation Pathways – Community Wide/Project Prioritization Considerations

The community wide pathway puts forth a sequence of broader resilience actions that are not limited to a specific location. For example, these actions might include ordinance changes that incentivize green infrastructure across the village, or an outreach program that aims to educate residents on the efficacy of naturalized detention ponds. The discussion focused on how to prioritize



solutions and pathways, funding opportunities, community challenges and alignment with resident feedback. Franklin Park is committed to pursuing adaptation pathways that were outlined and discussed various ways of leveraging their current TIF areas with GI concepts.

Staff shared various ideas for community wide efforts and expressed interest in creating a rain event records program which they felt may be a good opportunity to get additional input from residents about flooding locations and basement flooding. They also expressed interest in seeing the lifecycle cost benefit assessment of the various resilience project options across the Village. Staff shared that they conducted a home buyout program, but it was disrupted by COVID and only three homes were acquired. They felt this program was ineffective and it was noted as a lesson learned.

Prioritization concerns

- Ideally, the Village would prefer to advance GI projects on land that is under their jurisdiction and / or in locations that are already undergoing redevelopment. The justification is they would like to ensure maintenance is done properly to ensure best results.
- Funding availability and ability to incorporate improvements in TIF districts. The Northwest Industrial Area could be most promising.
- Washington Avenue, Pacific Avenue and Grand Avenues are all areas that GI will play a large role in the short to near-term future. Franklin Avenue might also present an opportunity for this work.
- Residents have shown an understanding of GI and desire for it within their community, particularly rain gardens and bump-outs. Bump-outs also provide a traffic calming measure that residents enjoy.
- Opportunities to incorporate green infrastructure in near term development project areas is preferred over trying to seek changes in established areas.
- Staff expressed interest in learning about the process for / benefits of changing the floodplain, as this might help lower insurance costs for some residents. Recent zoning updates and introduction of additional ordinance or zoning requirements could be seen as prohibiting or stifling development. There aren't enough development opportunities within the Village to introduce something like this currently.
- Franklin Park is interested in sharing information regarding community support and incentives for businesses and residences in tandem with our outreach/expo to discuss what programs are currently available for residence within the Village for home and business improvements.
- The Village would like to see some potential policy and zoning changes to incorporate green and infrastructure. The Village asked if the team could review exemplary communities and provide some examples of zoning or incentives for residential, industrial and commercial properties that incorporate GI effectively.
- Similarly, leveraging the C4 information is a good use of shared information for the region.
- The engineering department suggested using flooding data to target rain garden spots within the community.



- Last, it was suggested by participants that residential and business windshield surveys be conducted within the Village.

Next Steps

The project team provided information on next steps including focus group work that is currently underway and future open houses that will occur in the Village. Village staff did not have any additional questions regarding next steps for the project.



Franklin Park Focus Group #3 Meeting Summary

Meeting Location: Franklin Park Police Department

Date: October 16, 2024

Participants:

Name	Role	Organization
Jim Wade	Resident/Business owner/Focus Group Member	Village of Franklin Park
Walter Johnson	Resident/Focus Group Member	Village of Franklin Park
Larry Zucker	Resident/Focus Group Member	Village of Franklin Park
Lauren Obrzut	Focus Group Member	Resurrection Lutheran Church
Alan Miralgio	Resident/Focus Group Member	Village of Franklin Park
Jan Ramsson	Focus Group Member	Resurrection Lutheran Church
Rocco Zuccherro	Principal	Metro Strategies Group
Elli Cosky	Senior Project Manager	Metro Strategies Group

Project Update and Community Feedback

Metro Strategies Group (Metro) began the meeting by welcoming everyone and proceeded to review the community feedback that has been collected throughout the last 7 months. Metro provided information on community engagement efforts undertaken thus far. Community feedback provided via pop-ups at community events was shared with focus group members. The pop-up activities provided residents the opportunity to share their experiences regarding climate and weather hazards and their preferred solutions. Focus group members had no comments or questions on the community feedback provided.

Outlining Solutions

Metro Strategies Group presented a series of resilience solution sheets that provide general information about actions to reduce the impacts of climate hazards. The sheets specify relevant hazards addressed and touch on broader benefits. They also rate key factors related to implementation, such as timeline, cost, footprint, and level of hazard reduction.



Climate Resiliency Planning for Communities Program: Franklin Park

Immediately following the presentation of the solution slides, there was a discussion regarding the tree canopy coverage. It was noted that the Village of Franklin Park has an 11% canopy coverage compared to 28% throughout Cook County. This is largely attributed to the large industrial area within the community. However, it was noted that the village is doing a good job of seeking opportunities to plant trees across the community. In the last 10 years, Franklin Park has seen an enormous increase in tree plantings.

One participant was familiar with all the activity in the village with respect to planting trees, and locations. He also mentioned how Franklin Park is diversifying the types of trees that have been planted. The Village has partnered with The Morton Arboretum and has received both state and Morton Arboretum funding for the expansion of their tree planting program.

It was mentioned that maintenance is a concern for some homeowners which may be a deterrent to planting more parkway trees. Falling leaves and branches clogging up sewer were highlighted as concerns.

One of the participants mentioned that the plan that is being developed should be future focused because these improvements will be critical for the next generation. The current generation should contribute to climate mitigation to help the younger generation that may take on a larger share of the extreme weather.

Focus Area 1

Discussion centered on converting some of the parkways into green infrastructure or rain gardens.

It was noted that the level of maintenance required should be a consideration. Participants voiced that if the Village spends the money to put pavers or bioswales in, it should be the responsibility of the property owner to maintain it. The participants noted that regardless of current or proposed additions to landscape, the property owner would still have to maintain it, even if it were just grass.

A suggestion was made that maybe the Village could spray for weeds in the biosawale area and the property owner would beresponsible for the trash and basic maintenance.

Porous pavement

A question was asked about why the property owner would consider maintaining this improvement. Participants also noted that this is a good solution and they have seen it in place and other locations across the Village. If the Village of Franklin Park indicates the need for pavers due to flooding, the Village would absorb the majority of the cost, 80-90%. The other 10-20% and maintenance may be asked of the property owner. When presented, participants felt this was a reasonable ask for the property owner to assume responsibility.



Climate Resiliency Planning for Communities Program: Franklin Park

To make this idea successful, the Village would need to incentivize private property owners to consider replacing parking that is in need of repair by implementing pavers.

Additional Focus Areas

Other focus areas included the following:

- Grand Avenue Commercial Corridor
 - Permeable pavement in parking lanes
 - Green Streets - Traffic calming, additional trees, bioswales
- Pacific Avenue Commercial/Industrial Corridor
 - Green Streets - Traffic calming, additional trees, bioswales
- Gouin Park
 - Storm sewer improvements
 - Rain gardens, bioinfiltration cells

Discussion centered around some challenges of green infrastructure. Including maintenance responsibilities, if the solution is addressing a need, and specific locations where green infrastructure could go within Gouin Park. Consensus was reached for Gouin Park that it does not have an abundance of features beyond grass and a few trees along the border. Additional green infrastructure would be both helpful to the flooding issue and increase aesthetics.

Participants noted that community involvement will be critical as “most people want something for nothing.” If bioswales are implemented, will residents be willing to maintain them and pull weeds? It was mentioned that these challenges may be able to be overcome with an awareness campaign that showcases residents “making the community a better place.” This campaign may entice people to get excited about what could happen if everyone participates with green infrastructure improvements. One participant suggested an opportunity to showcase what’s happening and highlight people who have contributed. Another participant noted that people don’t want to be surprised, if you give them an opportunity to get involved that may limit any complaints about not being aware of what was happening. Participants noted that it is important to choose locations in town where people can support green infrastructure. A secondary benefit of green infrastructure projects could be put in the context of increasing property values.

A social media campaign would need to show residents the value to the community if green infrastructure is implemented. The goal would be to make it clear that the investment is coming back to the residents within the community. The outcome would be that broader Village is realizing the benefit. Participants expressed appreciation for the work of the Village team and staff have done to



Climate Resiliency Planning for Communities Program: Franklin Park

date. More education about village programs that are available to residence is going to be key to getting traction on green infrastructure

The last topic that was discussed was the railroad and Grand Avenue. The railroad continues to be a barrier in the community that splits the town.

Grand Avenue was identified as an excellent opportunity area for green infrastructure. Planting more trees and native plants will help slow traffic along a primary road into the Village. However, the types of trees and plants need to consider the impact of salt.

Next Steps

- Collaborate with the Village regarding specific materials and programs that the Village would like to highlight at the open house expo.



Franklin Park Climate Resiliency Plan Open House Summary

Meeting Location: Franklin Park Police Department, 9451 W Belmont Avenue, Franklin Park

Date: November 12, 2024

In-Person Interpreters: Spanish & Polish

Total Number of Attendees: 36 residents (many of the attendees were high school youth participating as part of their curriculum)

Summary of Open House Format

The Climate Resiliency Plan open house represented the final community engagement touchpoint for a community-driven planning process. The open house was a forum to present a summary of findings regarding problem areas, key resilience solutions and near-term implementation recommendations for community review. The format included multiple stations to facilitate interactions and engagement with participants around climate resilience topics:

1. Introduction and Overview Station – provided an overview of the process, key Countywide climate hazards and map of community-identified problem spots.
2. Overview of Resilience Solutions Station – provided an overview of seven climate resilience solutions and their benefits (naturalized detention ponds; small-scale green infrastructure; permeable spaces and pavements; building improvements; design standards and policies; stormwater system improvements and tree-planting).
3. Focus Areas for Implementation Station – provided an overview of community-specific focus areas for potential projects and solutions.
4. Resilience Planning Exercise Table – in this interactive exercise, participants were provided with resilience action puzzle pieces, the size and color of which reflected the action's complexity and efficacy. Participants fit their preferred actions into a gameboard representing the parameters of the resilience plan and aimed to maximize the hazard reduction accomplished with their proposed set of projects.
5. Watershed Simulation Model – this is an interactive demonstration model that simulates different stormwater run-off scenarios (natural wetlands scenario, full development scenario, and retention pond best management practice scenario) to demonstrate flood impacts and solutions to mitigate flooding.
6. Metropolitan Water Reclamation District of Greater Chicago (MWRD) Table – MWRD participated as a resource station and held a rain barrel giveaway for attendees. MWRD had numerous resources available on stormwater management related issues including green infrastructure and native landscaping.
7. Comment Form Table – Participants could provide written comments by completing and submitting or mailing a hard copy comment form. A QR code was also provided for participants to complete an online form if preferred. QR codes for online comment forms in Spanish and Polish were also provided.
8. Youth Coloring Table – A resiliency-themed coloring station was set up for youth.

Summary of Feedback, Discussion and Observations

1. Introduction and Overview Station
 - General interest in the details of the engagement process and the various in-person events.



- Participants noted storm-related damage and impacts to a school in the northwest corner of the municipality.
- 2. Overview of Resilience Solutions Station
 - General interest in small-scale infrastructure and naturalized solutions, especially rain gardens and tree planting.
 - General interest in increasing walkability and reducing concrete landscapes.
- 3. Focus Areas for Implementation Station
 - General interest in the solutions presented.
 - Concern over walkability and concrete landscapes.
 - General interest in green infrastructure and reducing imperviousness in the Village.
- 4. General Observations
 - General concurrence and agreement with the approach.
 - General interest in how areas were chosen for focus.
 - Frequent interest in permeable pavement, tree planting, and small-scale green infrastructure at the Resilience Planning Exercise.
 - Many of the youth were enthusiastic about the Resilience Planning Exercise and were highly attune to budget constraints and the value of maximizing solution efficacy.

Summary of Submitted Comments

Two onsite hard copy comments received:

1. "Impressive workshop! This changed the way I viewed all the trees being planted from frustrated about broken branches/more leaf clean-up/storm damage to seeing why and the benefits regarding water retention." The commenter also noted that the permeable retainer demo should be shared with business owners in the Village.
2. "I really loved the water demo....it opened up my eyes and gave me another perspective."

One online comment form completed:

- Anonymous (lives and works in Franklin Park
 - o Interested in the following solutions: Tree planting; Small-scale green infrastructure; Design standards and policies; Building improvements; Stormwater improvements; Permeable spaces and pavements;

Attachments:

- Summary of Open House Promotion Tools
- Sign-In Sheets
- Submitted Comment Forms
- Open House Photographs



Summary of Open House Promotion Tools

1. Hard Copy Promotional Flyers

All flyers were dropped off on November 1, 2024 in English, Spanish and Polish to the following locations:

- Franklin Park Library
- Franklin Park Village Hall
- Jewel-Osco
- Franklin Park, Park District, Main Office
- Police Department (posted to doors of building)
- Baranowski Bakery & Deli (Polish destination in Franklin Park)

2. Community Social Media Platforms

- Village of Franklin Park Facebook page
 - Date posted: October 24th & November 13th, 2024

3. Geographically targeted boosted (paid) Facebook post

- Boosted post active from November 8-13, 2024 (Franklin Park)
- Total number of reached: 732
- Post engagements: 33

4. Website Promotion & Flyer links

- URL: <https://www.villageoffranklinpark.com>
- Date posted: October 24, 2024

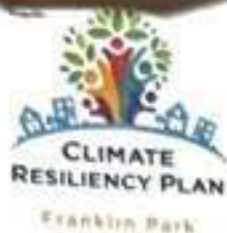
5. Village of Franklin Park Newsletter (hard copy and e-blast)

- Franklin Park Newsletter
 - Sent to subscribers on November 7th
- Franklin Park Newsletter (e-blast)
 - Sent to subscribers on November 11th



COOK COUNTY CLIMATE RESILIENCY PLANNING FOR COMMUNITIES
COMMUNITY OPEN HOUSE: VILLAGE OF FRANKLIN PARK
NOVEMBER 13, 2024

NAME	ORGANIZATION	EMAIL ADDRESS	How did you hear about this event?
Thalia Rodriguez	East Leyden	TR33812@student.leiden2.org	Teachers
Alexia Taucer	East Leyden	AP33580@student.leiden2.org	Teachers
Yerianer Arvelles	East Leyden	YC33516@student.leiden2.org	Teachers
Adrian Alonso	ELHS	AA33339@student.leiden2.org	Teacher
Tomas Kroupa	ELHS	TK33936@student.leiden2.org	Teachers
Samantha Wahl	East Leyden HS	SW33943@student.leiden2.org	teachers
Erin Wahl	Parent Resident	wahlr85@comcast.net	Parent of student
Dan LoCascio	Park District	dlocascio@fpparks.org	website
Irma Salgado	Parent	irmasalgado19@gmail.com	daughter
Cynthia Gutierrez	East Leyden	CG33405@student.leiden2.org	Teachers



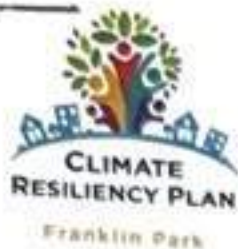
COOK COUNTY CLIMATE RESILIENCY PLANNING FOR COMMUNITIES
COMMUNITY OPEN HOUSE: VILLAGE OF FRANKLIN PARK
NOVEMBER 13, 2024

NAME	ORGANIZATION	EMAIL ADDRESS	How did you hear about this event?
Peter Ikonopoulos	ELHS	Pete Ikon6306@att.net	Teachers.
Lila Rybinski	ELHS	lr33605@student.lardner.ccs	teachers
Debra Kutera	Cook County	debra.kutera@cookcountyil.gov	Planning Team
Jillian Rodriguez	Leyden	JV0103@gmail.com	teachers
MARGE SMITH		itsme4463@aol.com	ON LINE
BAREN NASTI		Knasti2@gmail.com	FP website



COOK COUNTY CLIMATE RESILIENCY PLANNING FOR COMMUNITIES
COMMUNITY OPEN HOUSE: VILLAGE OF FRANKLIN PARK
NOVEMBER 13, 2024

NAME	ORGANIZATION	EMAIL ADDRESS	How did you hear about this event?
Jonathan Juarez	ELHS	Jany Juarez 665@ ^{gmail.com}	Teachers
Omar Olmores	ELHS	Omar Olmores@gmail.com	teacher
RYAN ADRIANO	VOFP	RADRIANO@VOFP.COM	
Camden Murray	ELHS	Camden 8001@grads	Teacher
Layla Morales	ELHS	lm34331@student.la	212.org teacher
Amy Stolarsky	ELHS	astolarsky@gmail.com	allegre
Alexander Pina Wares	ELHS	Rigdon +875@gmail.com	Teacher
Violet Pamintuan		purple Nov3@yahoo.com	Franklin Park Facebook & Email
Kevin Pinter	ELHS	fatef1my@gmail.com	teacher
BESSY MARTINEZ	Birth to Five Illinois	betsyf86@hotmail.com	Village FB page



COOK COUNTY CLIMATE RESILIENCY PLANNING FOR COMMUNITIES
COMMUNITY OPEN HOUSE: VILLAGE OF FRANKLIN PARK
NOVEMBER 13, 2024

NAME	ORGANIZATION	EMAIL ADDRESS	How did you hear about this event?
Nicholas Walny	VOFP	nwalny@vofp.com	
Mark Stewart	vofp	mstewart@vofp.com	
Rudolph Remy	VoFp	rremy@vofp.com	
Piotr Prokopy	Leyden	piotrprokopy18@gmail.com	
Anaya Xibinaku		anaya.kaydenice@icloud	
Zeticia Cazares	Leyden	leticia.cazares@gmail.com	
Genesis Hull	Leyden	GH310000@student.leiden212.org teachers	
Satya Bico	Leyden	sr338620@student.leiden212.org teacher	
Lithama Vasa	Leyden	lv334192@student.leiden212.org teacher	
Davin Sanchez	Leyden	1534324@gmail.com	NA

Village of Franklin Park Climate Resiliency Plan

Open House Expo | November 13, 2024

Comment Form



Thank you for joining us today and helping us build a resilient Franklin Park! We invite you to share your comments and questions about the project and potential solutions in writing during the open house or by mail/email to the addresses listed at the bottom of this form. Comments can also be submitted online by scanning the QR code at the bottom of this form. We ask that you submit your comments by November 27, 2024, to ensure that they are considered as part of the Climate Resiliency Plan. For more information on the project, please visit the project website at: <https://www.cookcountyil.gov/service/franklin-park-climate-resiliency-plan>

Name: BETSY MARTINEZ

Address Line 1: 3042 ELDER LN

Address Line 2: _____

City: FRANKLIN PARK

State: IL Zip Code: 60131

Phone: (312) 203-3278 Email: betsyf86@hotmail.com

Comments/Questions:

Impressive workshop! Gained valuable tips to help keep water out of basement. How to set up rain barrel & maintenance.

The permeable retainer demonstration was visually entertaining and should be pushed to many business owners (Franklin Park Jewel huge lot, Park districts lots,) to help keep water off our main traffic streets.

Grant received to village
⇒ Changed the way I viewed all the trees being planted from frustrated about broken branches/more leaf pick up/storm damage to seeing why and the benefits regarding water retention.

Submit your comments by email to: FranklinParkResiliency.Plan@cookcountyil.gov

Submit your comments by mail to:

Climate Resiliency Plan Project Team
c/o Metro Strategies Group
1901 Butterfield Road, Suite 260
Downers Grove, IL 60515

Submit your comments online by scanning a QR code below.

For English:



For Spanish:



For Polish:



Village of Franklin Park Climate Resiliency Plan

Open House Expo | November 13, 2024

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Thank you for joining us today and helping us build a resilient Franklin Park! We invite you to share your comments and questions about the project and potential solutions in writing during the open house or by mail/email to the addresses listed at the bottom of this form. Comments can also be submitted online by scanning the QR code at the bottom of this form. We ask that you submit your comments by November 27, 2024, to ensure that they are considered as part of the Climate Resiliency Plan. For more information on the project, please visit the project website at: <https://www.cookcountyil.gov/service/franklin-park-climate-resiliency-plan>

Name: Lila Rybinski

Address Line 1: 4528 Holze Ave

Address Line 2: _____

City: Schiller Park

State: IL

Zip Code: 60176

Phone: 312-838-4070

Email: lilianarybinski@gmail.com

Comments/Questions:

I really loved the water demo showing the river
flow. This demo opened up my eyes & gave me
another perspective.

Submit your comments by email to: FranklinParkResiliency.Plan@cookcountyil.gov

Submit your comments by mail to:

Climate Resiliency Plan Project Team
c/o Metro Strategies Group
1901 Butterfield Road, Suite 260
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For English:



For Spanish:



For Polish:



Franklin Park Open House Photographs



Franklin Park Open House Photographs



Franklin Park Climate Resiliency Plan



Appendix E

Solution Fact Sheets

Resilience Solution Highlight

NATURALIZED DETENTION PONDS

Basins to temporarily store stormwater, to prevent runoff and flooding.



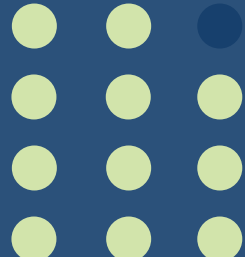
TIMELINE

COST

FOOTPRINT

HAZARD REDUCTION

LOW MED HIGH



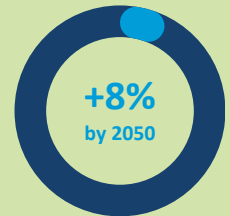
Note: Project details refer to one installment of the solution.

HAZARDS

There will likely be a **big increase in extreme storms** & small increase in mild storms by 2050



More rainfall during **extreme** storm events is likely by 2050



Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood mitigation

Detention ponds temporarily store storm water during very heavy rainfall periods. This water slowly drains following the intense storm event to prevent flooding.



Water Quality

Detention ponds filter pollutants and sediment from stormwater runoff. This improves water quality, benefiting the ecosystem and community as a whole.



Public Health

Improved water quality reduces exposure to pollutants and supports public health as a result. These ponds also beautify community spaces which can benefit residents' mental health.



Biodiversity

By enhancing water quality and vegetation, detention ponds provide habitats that can support a wide array of native plant and animal species to improve local biodiversity.



Resilience Solution Highlight

SMALL-SCALE GREEN INFRASTRUCTURE

Shallow depressions that utilize vegetation, soil, and engineered systems to mimic natural processes of slowing or storing stormwater and providing ecological services.



TIMELINE

COST

FOOTPRINT

HAZARD REDUCTION

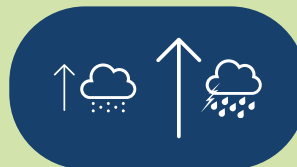
LOW MED HIGH



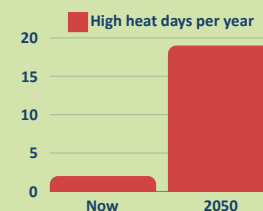
Note: Project details refer to one installment of the solution.

HAZARDS

There will likely be a **big increase in extreme storms** & small increase in mild storms by 2050



By 2050, the annual days **over 95°F** will likely increase by **10X**



Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Reduce urban flooding by providing a porous surface for water to infiltrate, strategically placed in low-lying areas where runoff accumulates.



Public Health

Decrease concrete surfaces that absorb and retain heat, reducing extreme temperatures in urban heat islands.



Sustainable Development

Encourage growth that balances economic, social, and environmental well-being for existing and new residents.



Soil Stabilization

Reduce peak runoff rate to preserve the local landscape and minimize soil accumulation that clogs stormwater infrastructure.



Resilience Solution Highlight

DESIGN STANDARDS & POLICIES

Updating ordinance design standards, policies, and other "non-structural" solutions to build resilience into community processes.



TIMELINE

COST

FOOTPRINT

HAZARD REDUCTION

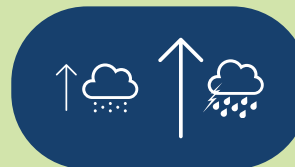
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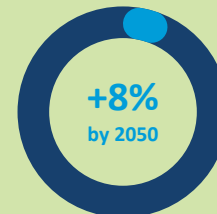
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Community Impacts

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BENEFITS



Flood Mitigation

Update out-of-date design standards to reflect current or future rainfall depths and review mapped floodplains to ensure they reflect observed conditions.



Economic Revitalization

Implement policies that beautify the community and increase green space (i.e., including green infrastructure with public infrastructure improvements).



Social Equity

Reduce flooding and the associated financial, health, and lifestyle burden it can have, particularly for vulnerable populations.



Sustainable Development

Encourage growth that balances economic, social, and environmental well-being for existing and new residents.



COOK COUNTY
DEPARTMENT OF
Environment &
Sustainability

Geosyntec
consultants

METRO
STRATEGIES
group



Resilience Solution Highlight

BUILDING IMPROVEMENTS

Enhancing older buildings to improve their ability to withstand climate hazards (i.e., preventing basement backups, increasing efficiency of cooling and heating)



TIMELINE

COST

FOOTPRINT

HAZARD REDUCTION

LOW MED HIGH



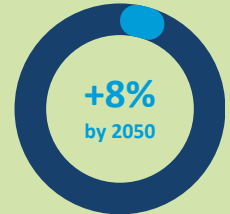
Note: Project details refer to one installment of the solution.

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Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Economic Revitalization

Improve building conditions to attract new businesses and ensure operations are not impacted by adverse working conditions or the need for repairs.



Public Health

Reduce health risks associated with extreme temperatures (i.e., respiratory and cardiovascular illness) and minimize the opportunity for mold to grow in buildings.



Social Equity

Improve living and working conditions by reducing building owners' resource consumption and energy costs.



Sustainable Development

Encourage growth that balances economic, social, and environmental well-being for existing and new residents.



Resilience Solution Highlight

STORMWATER IMPROVEMENTS

Improving conveyance in existing stormwater infrastructure (i.e., culverts, sewer systems) or alleviating load on the system (i.e., downspout disconnection, sewer separation).



TIMELINE

COST

FOOTPRINT

HAZARD REDUCTION

LOW MED HIGH



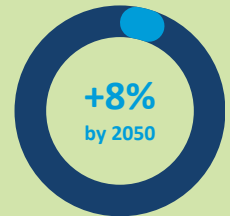
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Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Upgrade existing infrastructure to improve local conveyance capacity, mitigate bottlenecks, and reduce flooding.



Soil Stabilization

Reduce peak discharges at pipe outlets to preserve the local landscape and minimize soil accumulation that clogs stormwater infrastructure.



Public Health

Alleviate exposure to contaminated floodwaters and waterborne illness and reduce mosquito breeding by preventing standing water.



Social Equity

Reduce flooding and the financial, health, and lifestyle burden it can have, particularly for vulnerable populations.



Resilience Solution Highlight

PERMEABLE SPACES & PAVEMENTS

Alternatives to asphalt and concrete that allow water to infiltrate, reducing flooding and stormwater runoff.



TIMELINE

COST

FOOTPRINT

HAZARD REDUCTION

LOW MED HIGH



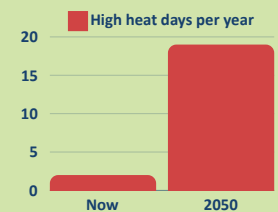
Note: Project details refer to one installment of the solution.

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Community Impacts

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- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Reduce urban flooding by providing a porous surface for water to infiltrate, strategically placed in low-lying areas where runoff accumulates.



Public Health

Decrease concrete surfaces that absorb and retain heat, reducing extreme temperatures in urban heat islands.



Sustainable Development

Encourage growth that balances economic, social, and environmental well-being for existing and new residents.



Soil Stabilization

Reduce peak runoff rate to preserve the local landscape and minimize soil accumulation that clogs stormwater infrastructure.



Resilience Solution Highlight

TREE PLANTING

Adding trees to parkway lawns and roadway rights-of-way as a natural intervention for reducing stormwater runoff.



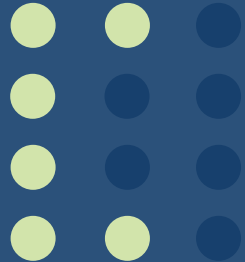
TIMELINE

COST

FOOTPRINT

HAZARD REDUCTION

LOW MED HIGH



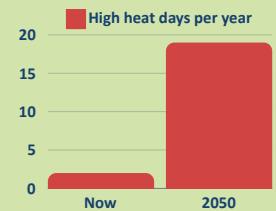
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Community Impacts

- Water contamination
- Property damage
- Transport disruption
- Basement flooding

Note: Mild storms occur every year. Extreme storms are infrequent but severe.

BENEFITS



Flood Mitigation

Reduce runoff rates by capturing some rainfall in tree canopy, which slows down rain as it falls to the surface, and by providing green space where water can infiltrate.



Public Health

Provide air quality benefits and shade to reduce health risks associated with extreme heat (i.e., cardiovascular and respiratory illness).



Social Equity

Provide shade to reduce extreme heat, the financial burden of cooling homes, and the potential health risks associated with heat waves.



Sustainable Development

Encourage growth that balances economic, social and environmental well-being for existing and new residents.



Franklin Park Climate Resiliency Plan



Appendix F

Focus Areas

Village of Franklin Park – Focus Areas for Implementation

Focus Area 1

Mannheim Rd &
Crown Rd

Focus Area 2

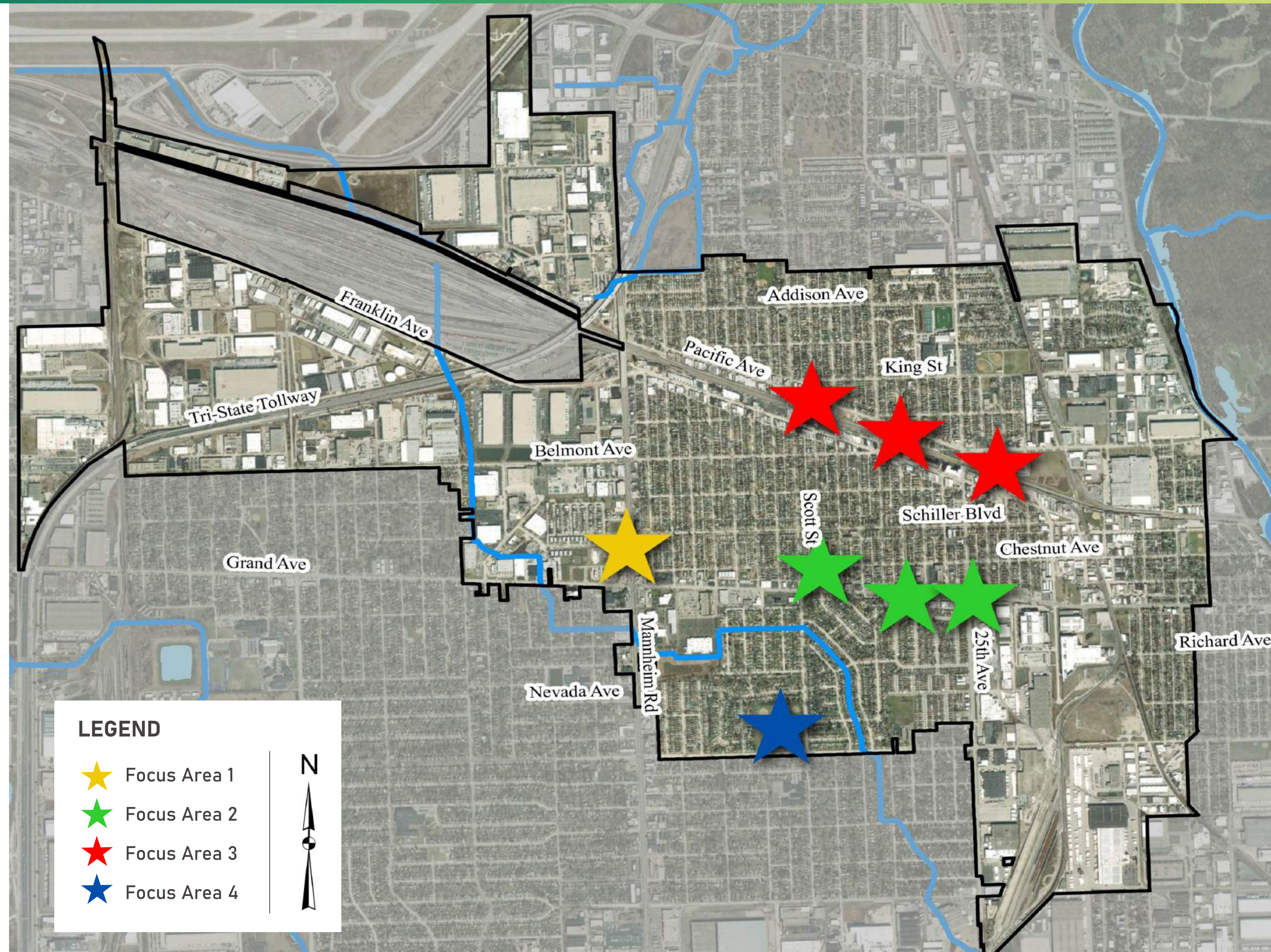
Grand Avenue (25th
Ave, Chestnut Ave &
Hawthorne St)

Focus Area 3

Pacific Avenue locations
(Franklin Park Reservoir
& near Hawthorne Ave)

Focus Area 4

Gouin Park



Village of Franklin Park – Focus Areas for Implementation

FOCUS AREA 1

Street Flooding at Crown Road and Houston Street

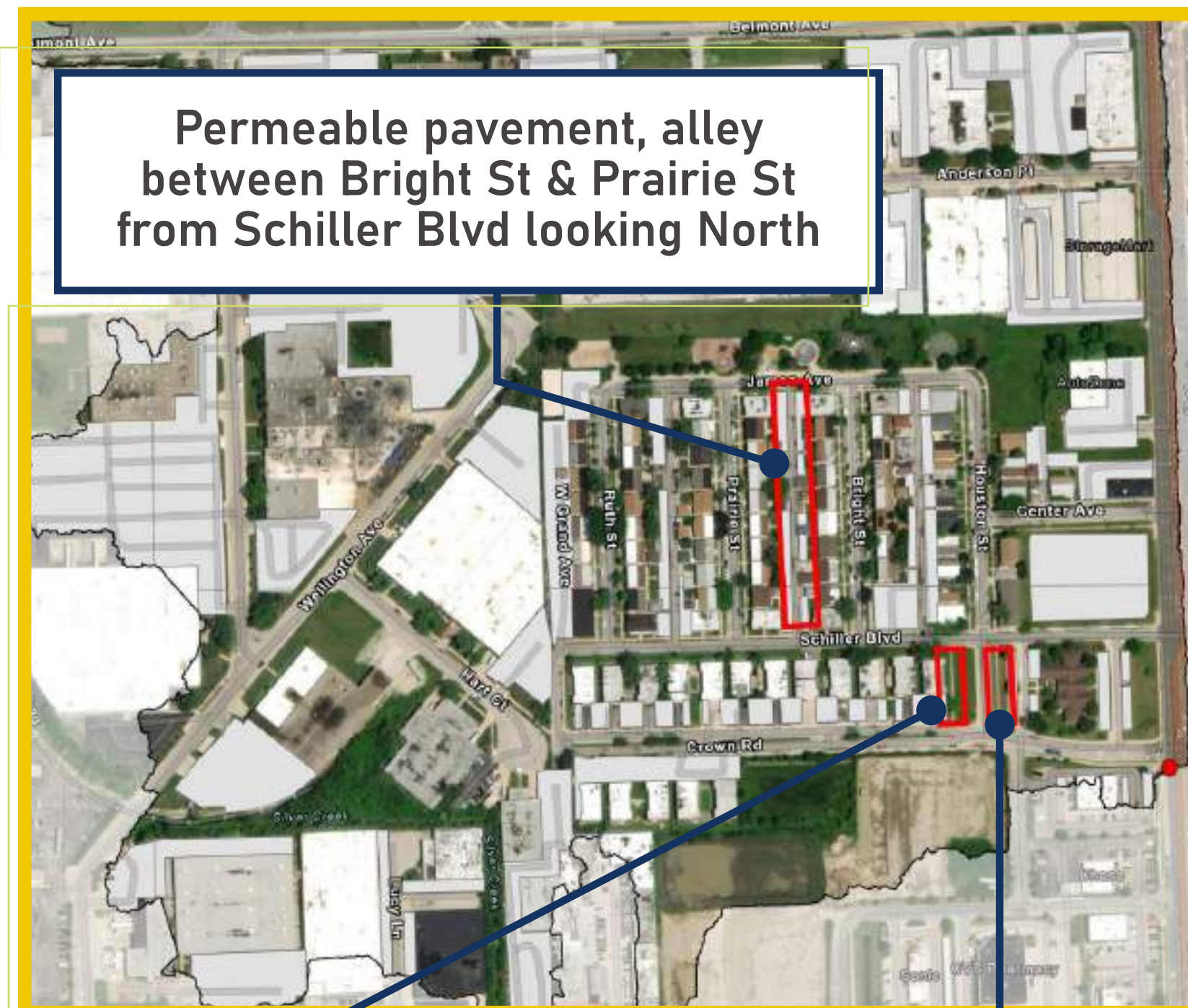
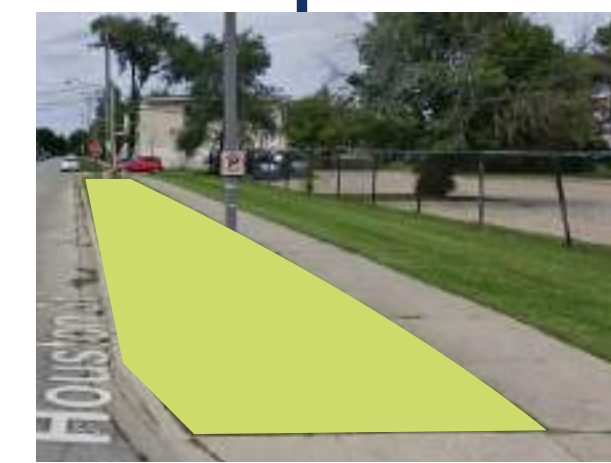
Community Stakeholders advised the worst area for street flooding in the Village was located near Mannheim Road and Crown Road, and the issue isn't capacity of the storm sewers but related to ability for sewers to outflow into Silver Creek. Solutions here need to add storage and delay stormwater from entering the storm sewer system while Silver Creek levels are high.



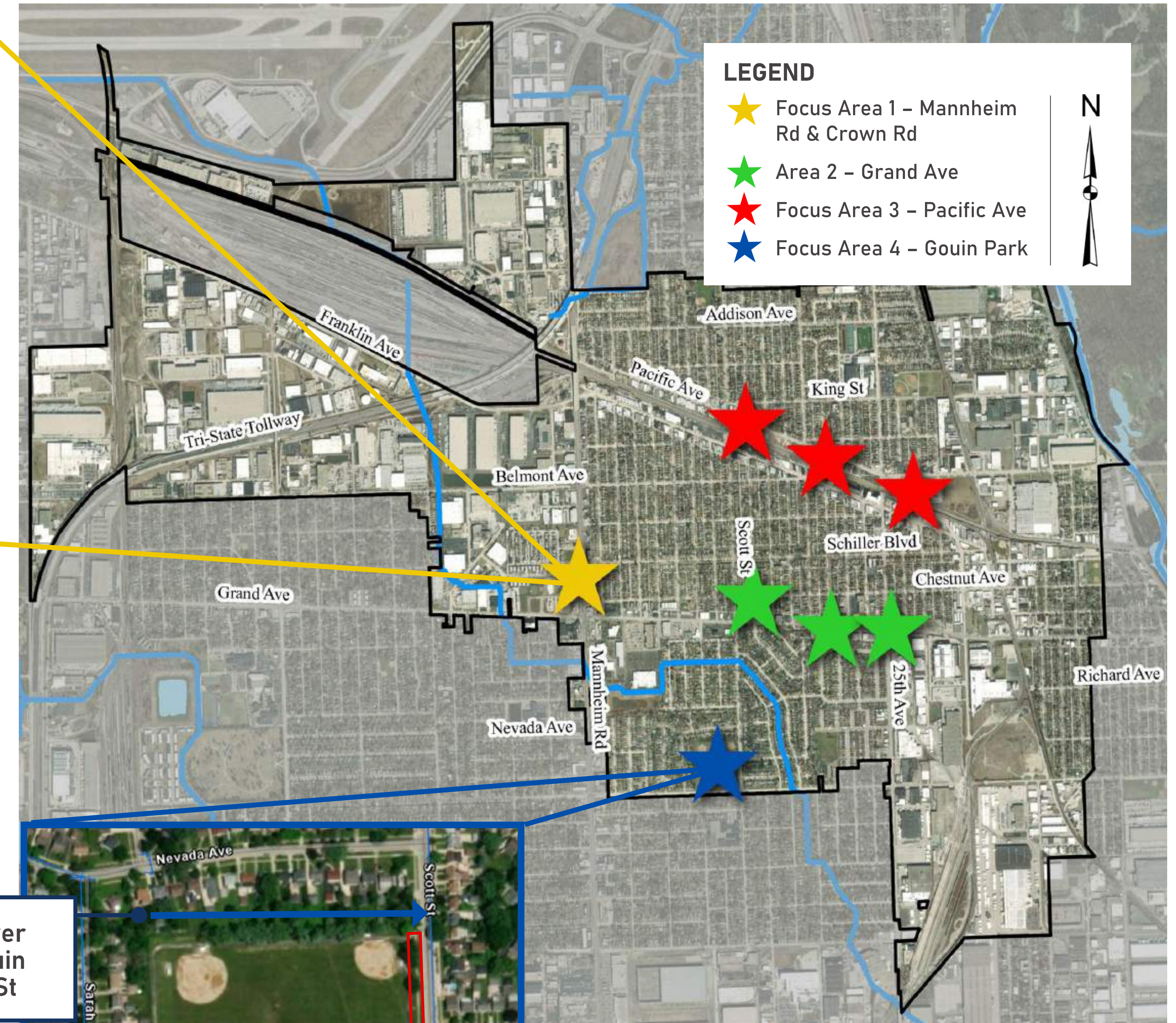
Underground detention and pocket park, Southwest corner of Schiller Blvd & Houston St



Bioswale planting strips, Houston St looking North



Permeable pavement, alley between Bright St & Prairie St from Schiller Blvd looking North



LEGEND

- ★ Focus Area 1 – Mannheim Rd & Crown Rd
- ★ Area 2 – Grand Ave
- ★ Focus Area 3 – Pacific Ave
- ★ Focus Area 4 – Gouin Park

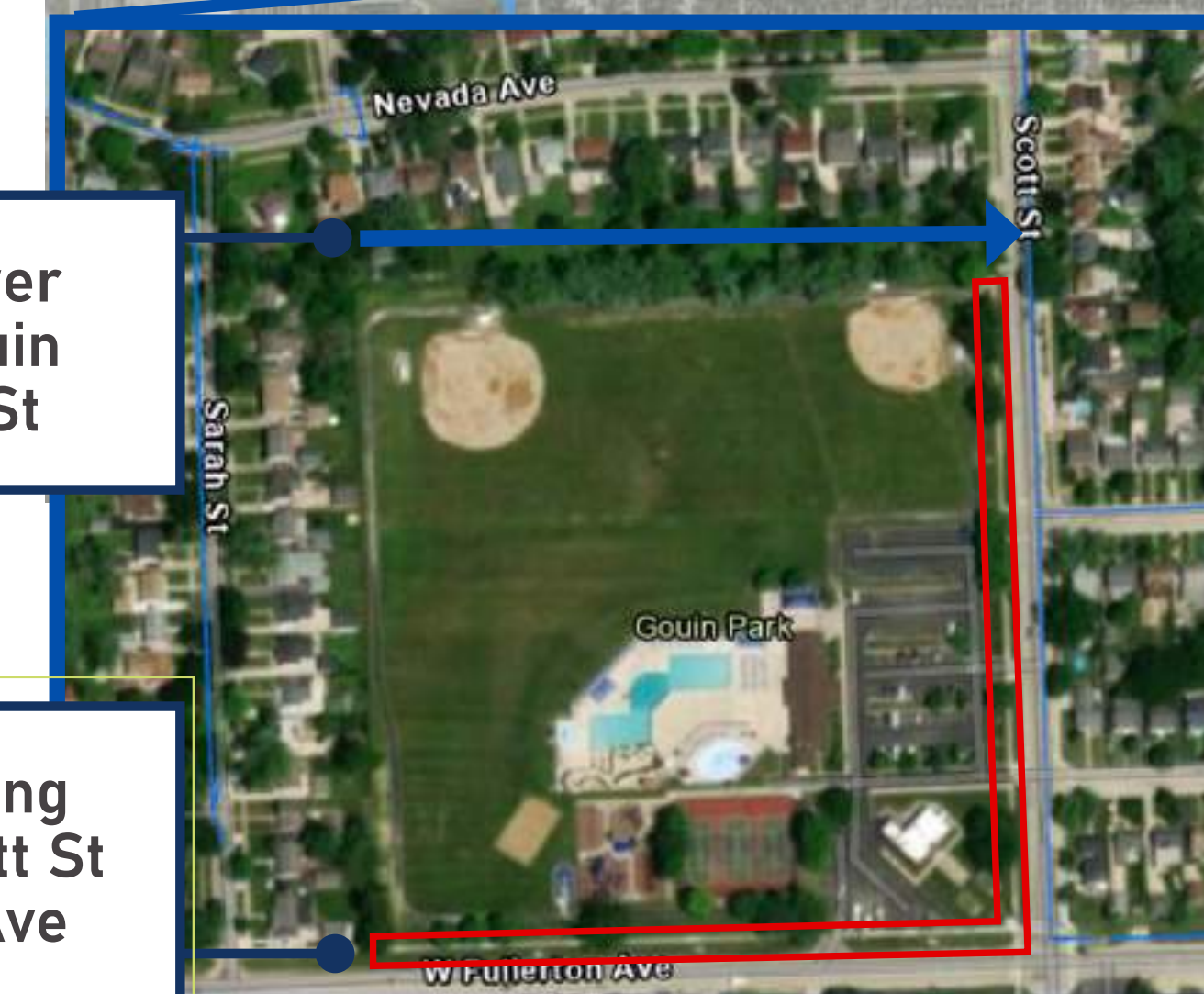


Storing stormwater in underground detention and allowing it to more slowly enter the storm sewer system helps time the flow to avoid flooding streets. Green infrastructure including bioswales and permeable pavement keep stormwater from entering the street by increasing infiltration where the water falls.



Add storm sewer connecting Gouin Park to Scott St

Bioswale planting strips along Scott St and Fullerton Ave



FOCUS AREA 4

Gouin Park – Reduce Surface Flooding and Increase Green Space

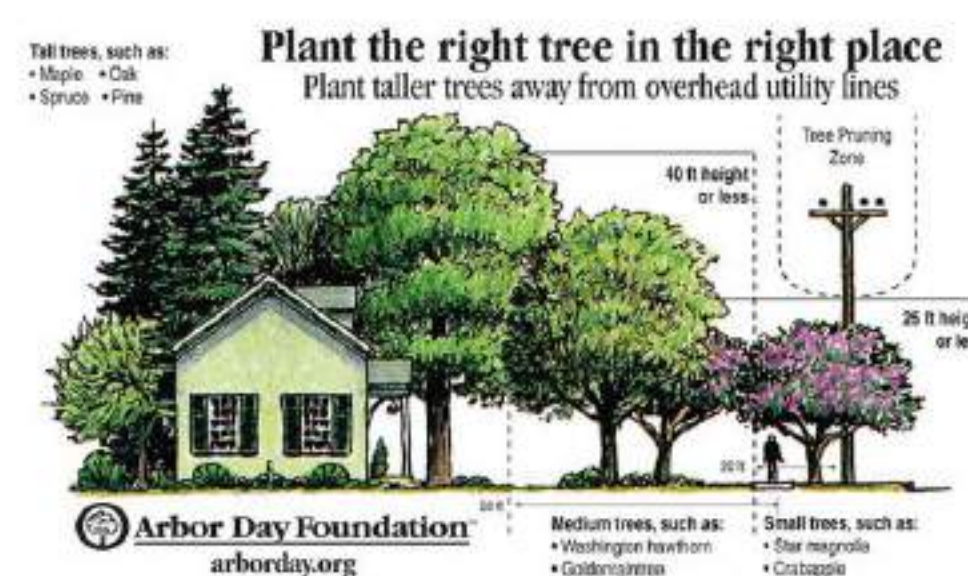
This area was identified as a low-lying area with concern for surface flooding and potential to incorporate more green space in the Park. The storm sewer in Scott Street has capacity for additional flow and so that connection will alleviate much of the surface flooding issue. Additional Green Infrastructure can be added for infiltration and aesthetics as well.

Village of Franklin Park – Focus Areas for Implementation

FOCUS AREA 2

Grand Avenue

Community Stakeholders identified Grand Avenue as an opportunity area for increase in tree canopy, green infrastructure implementation, permeable pavement, and general street calming. Since this area is already a focus for the Chicago Metropolitan Agency for Planning (CMAP) in their Grand Avenue Corridor Plan, this falls in line with other efforts going on within the Village. Green infrastructure and permeable pavement fits in with traffic calming and green streets initiatives that will make this area more walkable and enjoyable for residents.



EXPANDED TREE CANOPY

- Increases water and carbon storage of existing tree layer
- Provides crucial shade to decrease heat.

BIOSWALES

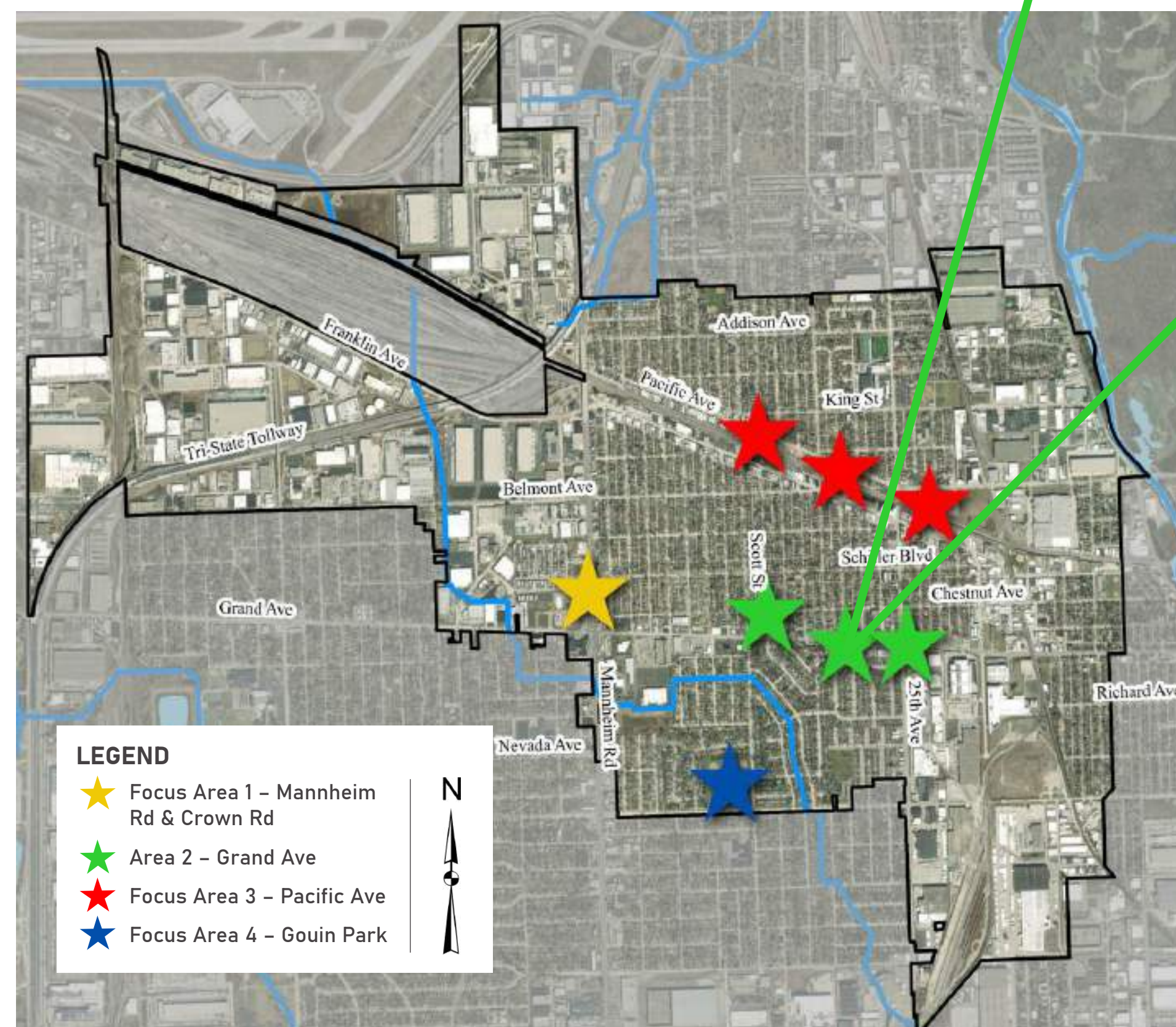
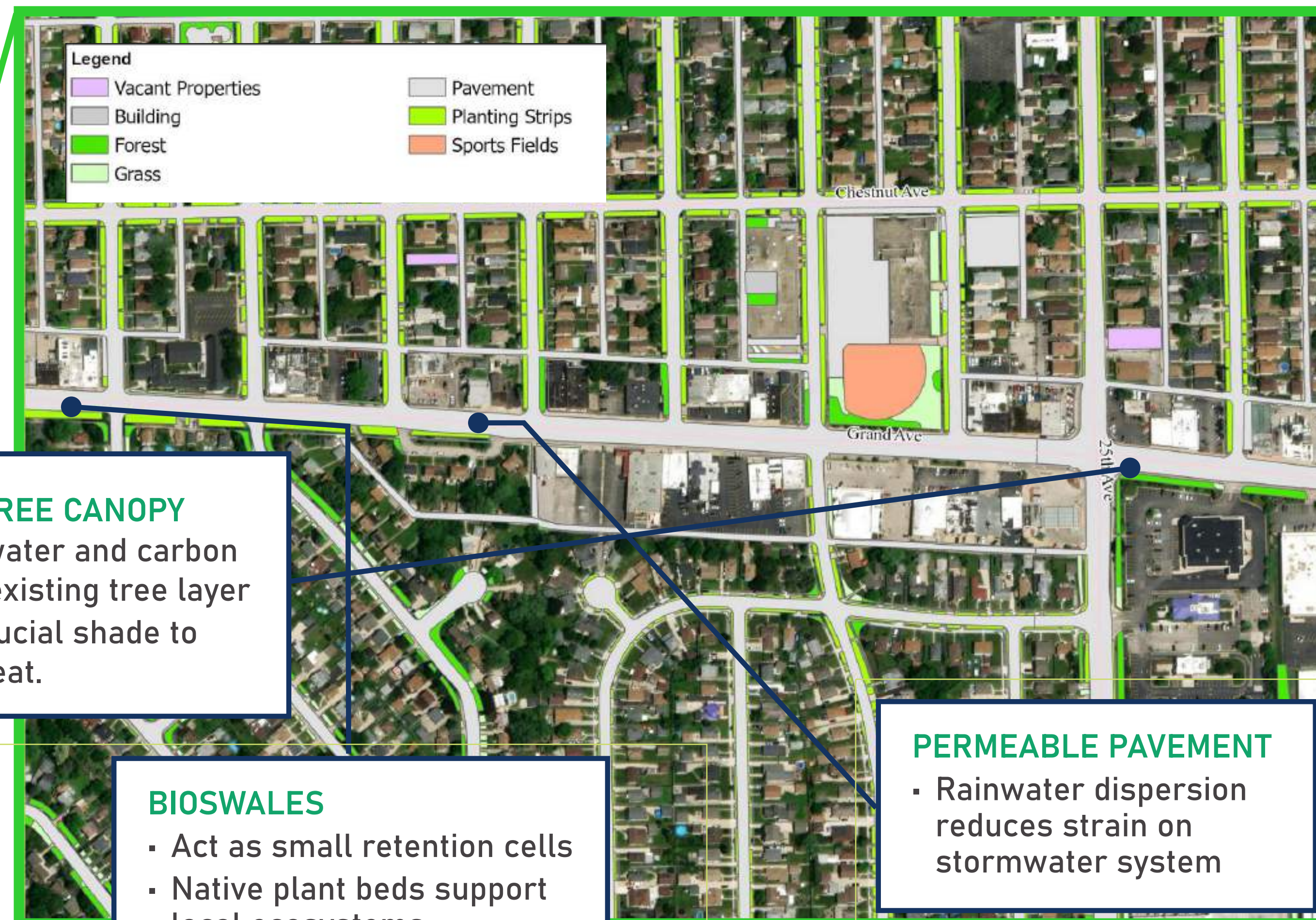
- Act as small retention cells
- Native plant beds support local ecosystems

PERMEABLE PAVEMENT

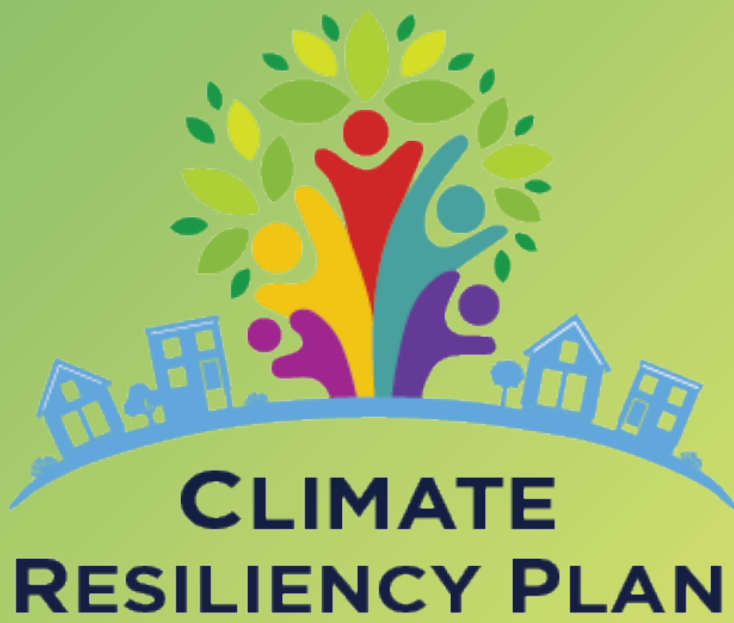
- Rainwater dispersion reduces strain on stormwater system

CMAP GRAND AVENUE CORRIDOR PLAN

- Traffic calming
- Green streets



Village of Franklin Park – Focus Areas for Implementation



PERMEABLE PAVEMENT

- Rainwater dispersion reduces strain on stormwater system

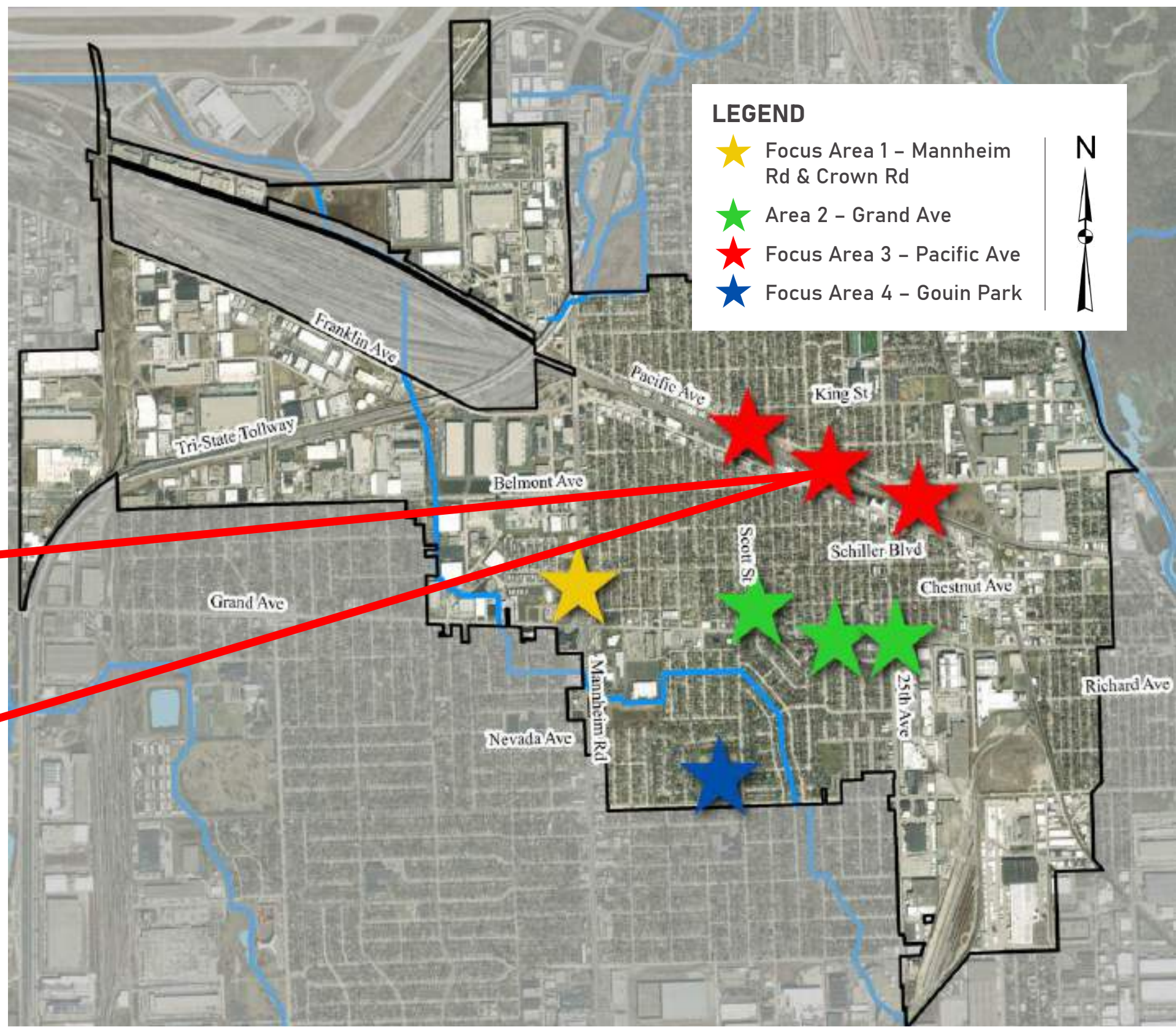
STORM TRAP

- Highly efficient GI feature
- Can be surrounded with tree canopy



BIOSWALES

- Act as small retention cells
- Native plant beds support local ecosystems



EXISTING RAIN GARDEN PACIFIC AVENUE

FOCUS AREA 3 Pacific Avenue

Community Stakeholders identified Pacific Avenue as an opportunity area for increase in tree canopy, green infrastructure implementation, permeable pavement, and general street calming. There are already a number of rain gardens implemented along Pacific Avenue through the Metropolitan Water Reclamation District of Greater Chicago (MWRD) that can be built upon to incorporate additional green infrastructure along the avenue as well as permeable pavement to take care of stormwater and increase infiltration, while adding green space and aesthetically pleasing plantings.

Franklin Park Climate Resiliency Plan



Appendix G

Project Prioritization

Community Weighting Criteria	Prioritization Measure	Description	5	4	3	2	1	0
Feasibility & Project Support	Jurisdictional Review Barriers	The number of agencies that must approve a project for it to undergo construction or, if a policy is to be enacted.	0-1 agencies	2 agencies	3 agencies	4 agencies	5 agencies	
		The total number of months likely needed for project/permit and policy review from all agencies.	<1 month	1-3 months	3-6 months	6-18 months	>18 months	
	Community Support	Has the community been engaged or informed of the project, and do they support its implementation?	Community is aware and supportive of the project/policy		Community is aware - support is mediocre		Community has not yet been informed	No community support
Cost	Implementation Costs	The amount of money needed (including staff hours) to implement a project/policy, minus grants, for each effective unit.	\$1000 or less	\$1000 to \$10k	\$10k-\$50k	\$50k-\$500k	\$500k to \$1 Million	> \$1 Million
	Maintenance Costs	The amount of money needed annually to maintain a project/policy, minus grants, for each effective unit.	\$500 or less	\$500 to \$1K	\$1K to \$5K	\$5K to \$10K	Over \$10K	
Greatest Resilience Impact	Project Flexibility	If the conditions causing a problem worsen, can the solution be modified or updated without replacement?	Yes		Somewhat		No	
	Additional Climate Impact Benefits	Does the project attempt to address additional climate impacts?	Yes - More than 3 additional	Yes - 3 additional	Yes - 2 additional	Yes - 1 additional	No	
	Continuity of Critical Services	Does a project help maintain critical services such as ambulance services, sewage, electricity, and telecommunications during or outside of a temporary adverse climate condition?	Yes, helps multiple services during adverse and standard climate conditions	Yes, helps multiple services during adverse climate conditions	Yes, helps one service during adverse and standard climate conditions	Yes, helps one service during adverse climate conditions	Not Applicable	
	Level of Project/Policy Impact	Is this an important piece of a larger resiliency strategy (large impact), or is it standalone (smaller impact) - direct and significant benefit vs. secondary benefit that is broader? For structural projects, how many people will benefit within the community from its implementation? For policy/planning, does this allow for more impactful resiliency efforts to be undertaken in the future?	largest impact - most people, keystone for larger strategy				least impact - few people impacted, standalone project, not key to larger strategy	
Ancillary Benefits	Replacability	How applicable is the project type to other areas under the Village's influence/responsibility?	Very		Somewhat		A few aspects	
	Non-climate co-benefit	Does the project provide additional benefits to the community that are not climate-related? These benefits can be social, aesthetic, economic, or biodiversity-related.	8 or higher		4 to 7		3 or less	

Project Number	Project Name	Details	Project Type	Primary Climate Impact being Addressed	Jurisdictional Review Barriers - Agencies	Jurisdictional Review Barriers - Time	Community Support	Implementation Costs	Maintenance Costs	Reusability	Co-Benefits	Continuity of Critical Services	Level of Project/Policy Impact	Replacability	Non-climate benefit	Total Score	Prioritization Score
21	Comprehensive Public Education	Launch Comprehensive Public Education efforts of all potential hazards and safety/mitigation/preparation.	Study, Planning, and/or Design Project	Urban Flooding	5	5	5	5	5	5	5	5	5	5	5	65	1
23	Public education on shelter locations.	\$10,000	Study, Planning, and/or Design Project	Extreme Heat	5	5	5	3	4	5	3	5	5	5	3	57	2
10	Continue to support the countywide actions identified in this plan.	--	Capacity Building for Hazard Emergency Response	Urban Flooding	5	5	5	5	5	5	4	5	5	3	2	53.75	3
22	Replace existing community warning siren.	\$150,000	Capacity Building for Hazard Emergency Response	Emergency Response	5	5	5	2	5	5	1	5	5	5	1	52	4
33	Tree-planting along Grand Avenue	From Focus Area 2, this project is to coincide with recommendations from the Grand Avenue Corridor Plan and manage street flooding and heat island impacts.	Study, Planning, and/or Design Project	Extreme Heat	5	5	5	5	3	5	4	1	4	5	5	50.5	5
9	Continue participation in Tree City and StormReady.	--	Capacity Building for Hazard Emergency Response	Urban Flooding	5	5	5	3	3	5	4	5	5	3	1	48.75	6
35	Bioswales and rain gardens in right-of-way along Pacific Avenue	From Focus Area 3, this project is meant to increase infiltration and greenery along an industrial corridor	Study, Planning, and/or Design Project	Extreme Heat	5	5	5	5	3	3	3	3	5	5	3	48.5	7
32	Bioswales and infiltration trenches in the right-of-way along Grand Avenue	From Focus Area 2, this project is to coincide with recommendations from the Grand Avenue Corridor Plan and manage street flooding and heat island impacts.	Study, Planning, and/or Design Project	Urban Flooding	5	5	5	5	3	3	4	3	3	5	3	47.25	8
20	Assist vulnerable population/seniors with severe weather.	\$25,000	O&M planning and Policy Changes Project	Emergency Response	4	4	3	3	3	5	3	1	5	5	4	47	9
30	Bioswale planting strips in the right-of-way along Houston St	From Focus Area 1, this project is to manage street flooding near Mannheim Rd and Crown Rd	Study, Planning, and/or Design Project	Urban Flooding	5	5	5	5	3	5	4	2	3	5	3	45	10
11	Integrate the Hazard Mitigation Plan into other plans.	--	O&M planning and Policy Changes Project	Urban Flooding	3	3	3	3	5	5	5	5	5	5	3	43	11
38	Distributed bioswales along Nevada Avenue, Scott Street, and West Fullerton Avenue	From Focus Area 4, this project is meant to alleviate surface stormwater flooding from Gouin Park and add native plantings for infiltration.	Study, Planning, and/or Design Project	Extreme Heat	5	5	5	5	3	3	3	3	3	5	3	43	11
27	GI Conversion from Industrial parking Lots	\$500,000 request into MWRD to convert industrial parking lots spaces	Shovel Ready Physical Project	Urban Flooding	3	3	5	2	4	3	4	5	5	5	5	42.3	13
14	Obtain a Building Code Effectiveness Rating.	--	O&M planning and Policy Changes Project	Extreme Heat	3	3	1	3	5	5	4	1	5	3	5	41.75	14
29	Permeable Pavement in the alley between Bright St & Prairie St	From Focus Area 1, this project is to manage street flooding near Mannheim Rd and Crown Rd	Study, Planning, and/or Design Project	Urban Flooding	5	5	5	5	3	4	3	4	1	5	1	41	15
31	Permeable Pavement along the Grand Avenue Corridor	From Focus Area 2, this project is to coincide with recommendations from the Grand Avenue Corridor Plan and manage street flooding and heat island impacts.	Study, Planning, and/or Design Project	Urban Flooding	3	3	5	3	3	1	3	5	5	5	1	40.5	16
8	Actively participate in the plan maintenance.	--	O&M planning and Policy Changes Project	Urban Flooding	3	4	1	4	3	5	3	5	1	5	4	38	17
34	Permeable Pavement in parking lanes and parking lots along Pacific Avenue	From Focus Area 3, this project is meant to increase infiltration and greenery along an industrial corridor	Study, Planning, and/or Design Project	Urban Flooding	3	3	4	3	3	1	1	5	5	5	1	37	18
19	Pacific Avenue Industrial Corridor Green Infrastructure	Construction of over 1,000 sq yds of rain gardens within Village parkway	Study, Planning, and/or Design Project	Urban Flooding	4	4	5	2	3	5	3	3	1	5	3	36.8	19
37	Storm sewer extension along Gouin Park northern border to Scott Street	From Focus Area 4, this project is meant to alleviate backyard nuisance flooding for residents along Nevada Avenue.	Study, Planning, and/or Design Project	Urban Flooding	5	5	5	3	4	1	1	5	3	3	1	36	20
15	Rain event record program	Implement a program to record high water marks following significant rain events.	O&M planning and Policy Changes Project	Urban Flooding	4	4	3	3	3	5	3	5	1	5	1	35.6	21
36	In-ground Detention in vacant lots along Pacific Avenue	From Focus Area 3, this project is meant to increase stormwater capacity in an industrial corridor	Study, Planning, and/or Design Project	Urban Flooding	3	3	5	3	3	1	1	5	3	5	1	35.5	22
25	Smoke Alarm Program	--	Study, Planning, and/or Design Project	Emergency Response	4	4	1	4	4	5	1	3	1	5	4	35	23
13	MWRDGC LOMD compliance	Incorporate requirements of newly approved update to MWRDGC's WMO with New Watershed specific release rates and rainfall bulletin.	O&M planning and Policy Changes Project	Riverine Flooding	5	5	1	5	5	3	2	2	5	1	2	34.8	24
4	Hazard area structures	Support retrofitting, purchase, or relocation of structures in hazard-prone areas.	Shovel Ready Physical Project	Riverine Flooding	2	2	3	1	3	3	2	5	5	3	2	34.75	25
6	Storm Sewers in Reuters Subdivision in Franklin Park	Storm sewer removal, installation, and upgrading sewer capacities	Shovel Ready Physical Project	Urban Flooding	2	2	3	1	3	3	2	5	5	3	1	33.75	26
26	Storm and Sanitary Sewer Separation Project	\$1,800,000 - south side of Grand Ave between RR tracks and Willow, preliminary engineering 20% done, planning to complete design in-house	Shovel Ready Physical Project	Urban Flooding	3	3	3	1	2	3	2	5	5	3	3	33	27
1	Provide second salt dome.	\$250,000	Shovel Ready Physical Project	Urban Flooding	5	5	3	2	3	5	1	5	1	3	1	32.8	28
24	Raising Anderson Lift Station.	\$15,000	Shovel Ready Physical Project	Urban Flooding	3	3	3	3	4	3	2	5	1	4	2	31.9	29
17	Grand Ave Corridor Plan	Transform Grand Avenue into a safe, accessible, and thriving corridor	Study, Planning, and/or Design Project	Urban Flooding	2	2	5	1	3	3	2	3	1	3	4	31.25	30
3	Acquisition of Flood Prone Properties in Franklin Park	Purchase of two flood-prone homes along Silver Creek.	Shovel Ready Physical Project	Riverine Flooding	1	1	3	1	5	5	2	4	4	3	2	31	31
7	Increase monitoring for repetitive losses.	\$250,000	Study, Planning, and/or Design Project	Urban Flooding	5	5	1	2	3	5	1	2	1	5	1	31	31
28	Underground Stormwater Storage and Pocket Park at Schiller Blvd & Houston St	From Focus Area 1, this project is to manage street flooding near Mannheim Rd and Crown Rd	Study, Planning, and/or Design Project	Urban Flooding	3	4	4	4	4	0	0	5	1	5	1	31	31
16	Remapping of the FIRM. More accurately determines flood prone areas.	\$300,000	Study, Planning, and/or Design Project	Riverine Flooding	3	2	1	2	5	3	1	1	5	3	1	29.5	34
2	Silver Creek Channel Improvements in Franklin Park	Channel improvements on Silver Creek from Riverside Drive to Scott St	Shovel Ready Physical Project	Riverine Flooding	2	2	5	3	3	5	1	1	1	3	2	28	35
18	Franklin Park O'Hare Industrial Corridor Plan	Industrial corridor updates	Study, Planning, and/or Design Project	Urban Flooding	1	1	3	1	3	5	3	5	1	1	5	27.6	36
5	Construction of local flood control structures.	\$30,000,000	Shovel Ready Physical Project	Riverine Flooding	2	2	3	1	1	3	2	5	5	3	2	27.5	37
12	Join the Community Rating System (CRS) program.	\$5,000	O&M planning and Policy Changes Project	Riverine Flooding	4	4	1	4	3	5	1	1	1	1	1	25.2	38