



KEITH Creek

CORRIDOR STUDY

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DRAFT

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ACKNOWLEDGEMENTS

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INTRODUCTION



PROJECT OVERVIEW

REGION 1 PLANNING COUNCIL

Region 1 Planning Council (RPC) is a regional governmental agency that facilitates cross-jurisdictional collaboration and planning throughout Northern Illinois. RPC provides a variety of services tailored to community needs, including comprehensive planning, technical assistance, economic development assistance, grant services, research, and more. Region 1 Planning Council has supported numerous projects within Winnebago County, Boone County, and the City of Rockford, and in 2021 RPC initiated the Keith Creek Corridor Study project.



KEITH CREEK

Keith Creek is a two-branch creek that begins in western Boone County and flows southwest through the City of Rockford where it converges with the Rock River near Morgan Street. The creek travels through natural areas, parks, urban neighborhoods, and channelized routes for approximately 20 miles, predominantly within the Rockford city limits. The Keith Creek watershed encompasses approximately 14.2 square miles of drainage area, including some of Rockford’s most historically disadvantaged neighborhoods.

The Keith Creek Corridor faces several challenges, including severe and persistent flooding, poor water quality, mobility and transportation barriers, commercial vacancies, underutilized properties, and lack

of community access to the creek. To address these challenges, a variety of local and regional entities, including Region 1 Planning Council, have mobilized around improving the conditions of Keith Creek and the surrounding neighborhoods. The Keith Creek Corridor Study, led by RPC, is one of several concerted planning efforts aimed at a brighter, more resilient future for the corridor and the watershed.

Region 1 Planning Council engaged the Lakota Group, Rockford-based Studio GWA, and a team of engineering and environmental experts to develop a corridor study that provides a land use framework, opportunity site development scenarios, a phased development timeline, and funding options to help achieve the project goals.

PLAN OBJECTIVE

The Keith Creek Corridor Study creates a framework for improvements and development throughout the Keith Creek watershed. The recommendations throughout the plan are aimed at increasing corridor resiliency, mitigating flooding, improving equitable access to alternative transportation, highlighting a unique natural resource, and supporting economic development. The plan will help guide a network of decision-makers and organizations as they work toward improving the conditions of Keith Creek and the surrounding areas.

DIVERSITY, EQUITY, AND INCLUSION

The plan is guided by the overarching Diversity, Equity, and Inclusion principle of ensuring that all community members, regardless of race, income, age, and ability, have equal access to a safe, healthy, and vibrant living environment. This principle informs many of the goals and recommendations in the plan, which are aimed at advancing mobility justice, transportation equity, environmental justice, and equitable access to recreation, amenities, commercial nodes, and neighborhoods.



PLANNING PROCESS

The Keith Creek Corridor Study planning process consisted of three core phases: Corridor Analysis, Development Scenarios, and Draft and Final Report. Each phase built upon the subsequent phase or phases and involved multiple touchpoints with the community and key stakeholders.

PHASE 1



CORRIDOR ANALYSIS

Phase 1 consists of analyzing existing conditions, gaining an understanding of corridor opportunities and constraints, and engaging with local stakeholders. The focus of Phase 1 is to establish a dynamic corridor planning process that provides a solid foundation for subsequent phases. An Existing Conditions Report summarizes findings from Phase 1 and is used to inform subsequent phases.

PHASE 2



DEVELOPMENT SCENARIOS

Phase 2 consists of collaborating with team members to create a development and improvement framework, along with associated urban design and development, improvement, and mobility concepts. The Team will present these ideas to the RPC, community members and other stakeholders for review and input.

PHASE 3



DRAFT AND FINAL REPORT

Phase 3 consists of refining the development and improvement concepts and create a draft and final Keith Creek Corridor Plan. This phase will also include review meetings, preparation of the Implementation strategy and a community open house to review the final draft documents. The team will prepare a Final Plan based on input and present this plan to the RPC and others as necessary.

COMMUNITY ENGAGEMENT

The Keith Creek Corridor Study planning process included the engagement of a broad and diverse cross-section of the community. Before the planning process began, the planning team created a Community Engagement Plan that identified potential stakeholders, including key community organizations, governmental entities, businesses, neighborhood groups, transportation organizations, medical institutions, educational institutions and more. The Engagement Plan also outlined a number of community engagement events and milestones. Key community engagement activities included Working Group meetings, stakeholder interviews, community workshops, and public presentations.

The information gathered throughout the community engagement process has helped to inform the final development concepts, goals, and recommendations that are outlined in this plan.

STAKEHOLDER INTERVIEWS

The project team conducted stakeholder interviews from October to November of 2021. Stakeholder representatives included elected officials and city leaders; natural resource conservationists; community planning and transportation representatives; businesses; community organizations and educational institutions; and neighborhood organizations.

Stakeholders were able to share their thoughts about their perceptions of Keith Creek, their goals and visions for the Creek and surrounding neighborhoods, their hopes for development and programming along the Creek and within surrounding neighborhoods, access to the creek and transportation throughout the Study Area, flooding, and existing conditions. Takeaways from the stakeholder interviews are outlined on the opposite page.

COMMUNITY WORKSHOPS

A series of community workshops, presentations, and activities were held in the Spring and Summer of 2022. At these workshops the planning team shared key findings with the community, gathered input on proposed development concepts, and asked the community to share their ideas and priorities for the corridor. Key community priorities included providing more recreational opportunities for residents, mitigating flooding, improving connectivity and accessibility, and restoring the creek's natural conditions. A final Open House was held in November of 2022 to present a draft of the final plan to the community and to gather additional feedback that could inform plan implementation.



COMMUNITY ENGAGEMENT KEY THEMES

KEITH CREEK PERCEPTIONS

Stakeholders have varying perceptions of the creek. While some have fond memories of playing in the creek as children, others have experienced the effects of flooding first-hand. Many agreed that, regardless of their perception, Keith Creek is a recognizable natural landmark that mainly impacts the neighborhoods closer to the Rock River, as opposed to those in eastern Rockford and Boone County.

CREEK ACCESS AND CONNECTIVITY

During stakeholder interviews, many mentioned creating an alternative transportation corridor that could be used by residents without cars. They specifically noted the need to alleviate poverty by providing low-income residents without automobiles with accessible routes to and from employment centers. Stakeholders explained that pedestrian and bike conditions are unsafe in many of the neighborhoods surrounding the creek. It is difficult to cross busy streets and the creek itself also acts as a barrier to mobility, as there are very few bridges. Mobility issues and obstacles extend beyond the creek, however. Seniors and those with disabilities struggle to access places throughout the entire Study Area. Additionally, inconsistent lighting and poor visibility conditions are unsafe for those using alternative methods of transportation.

LAND USE, DEVELOPMENT, AND REDEVELOPMENT

Stakeholders expressed a desire to attract more businesses and jobs to the area, while being cognizant of the flood plain and stormwater management issues. They noted that the development of more recreational spaces along the creek could help to bring a variety of commercial businesses and amenities to the area. Many discussed the need to mitigate flooding by reducing impervious surfaces, introducing underground stormwater storage, and mandating stormwater management best practices. Stakeholders mentioned the possibility of implementing a stormwater utility funded by a stormwater utility fee.

GOALS FOR KEITH CREEK

Many expressed their desire to see multi-use paths and parks along Keith Creek in order to attract residents and serve as an accessible place for the community to connect. Overall, stakeholders were optimistic that one day Keith Creek would be able to connect the many neighborhoods through which it passes and become a celebrated amenity, rather than a neglected natural feature.

PARKS AND OPEN SPACE

Stakeholders discussed the possibility of creating a 'chain' of parks spanning the length of the creek, all connected with a multi-use path or greenway. Churchill Park and the surrounding green space was highlighted as the area with the most redevelopment potential. Stakeholders expressed a desire to see a naturalized creek, safer play areas along the creek, more community gathering spaces, public art, mountain biking trails, winter activities, and community events.

FLOODING, STORMWATER, AND INFRASTRUCTURE

Flooding and flood mitigation is one of the top concerns in the area. Stakeholders explained that floods have negatively impacted large portions of the community for decades, and stated that development, impermeable surfaces, and culverts have made flooding conditions worse for the broader community.



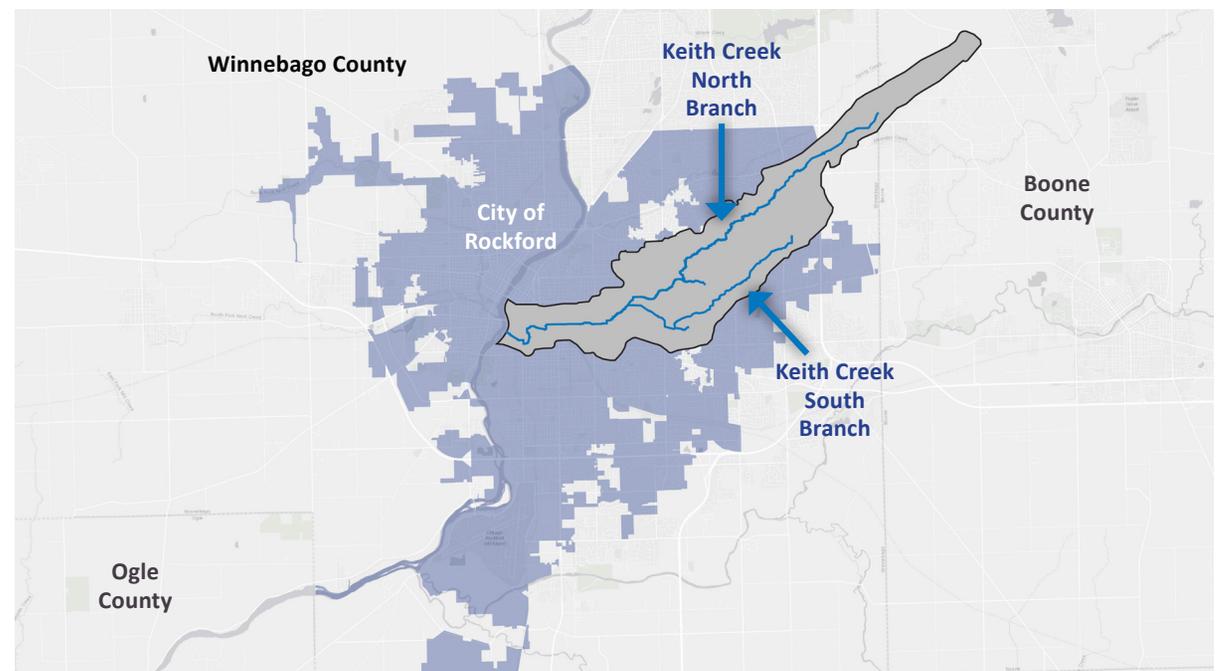
EXISTING CONDITIONS

GEOGRAPHIC CONTEXT

Keith Creek is comprised of a two-branch creek system which runs primarily south and west through the City of Rockford before converging with the Rock River. The Study Area includes both the north and south branches of Keith Creek. The north branch originates in western Boone County, where the land use is a mix of agricultural and low-density residential. This portion of the creek is also located on the eastern border of the City of Loves Park. The south branch originates in eastern Winnebago County near Bell School Road. The confluence of the two branches is just west of the intersection of Fairview Avenue and East State Street. From there, Keith Creek continues through pre-1950s era development and is channelized in a number of sections until it flows into the Rock River.

The eastern reaches of the creek's north and south branches are the most naturalized and meander through suburban-style neighborhoods consisting of light commercial, low-density residential, and extant natural areas. Greenfield development, residential development, and commercial development similar to that of the Perryville Promenade is expected to continue in this area. While flood mitigation is less of an issue here, development in this area impacts flooding, stormwater conditions, and water quality downstream.

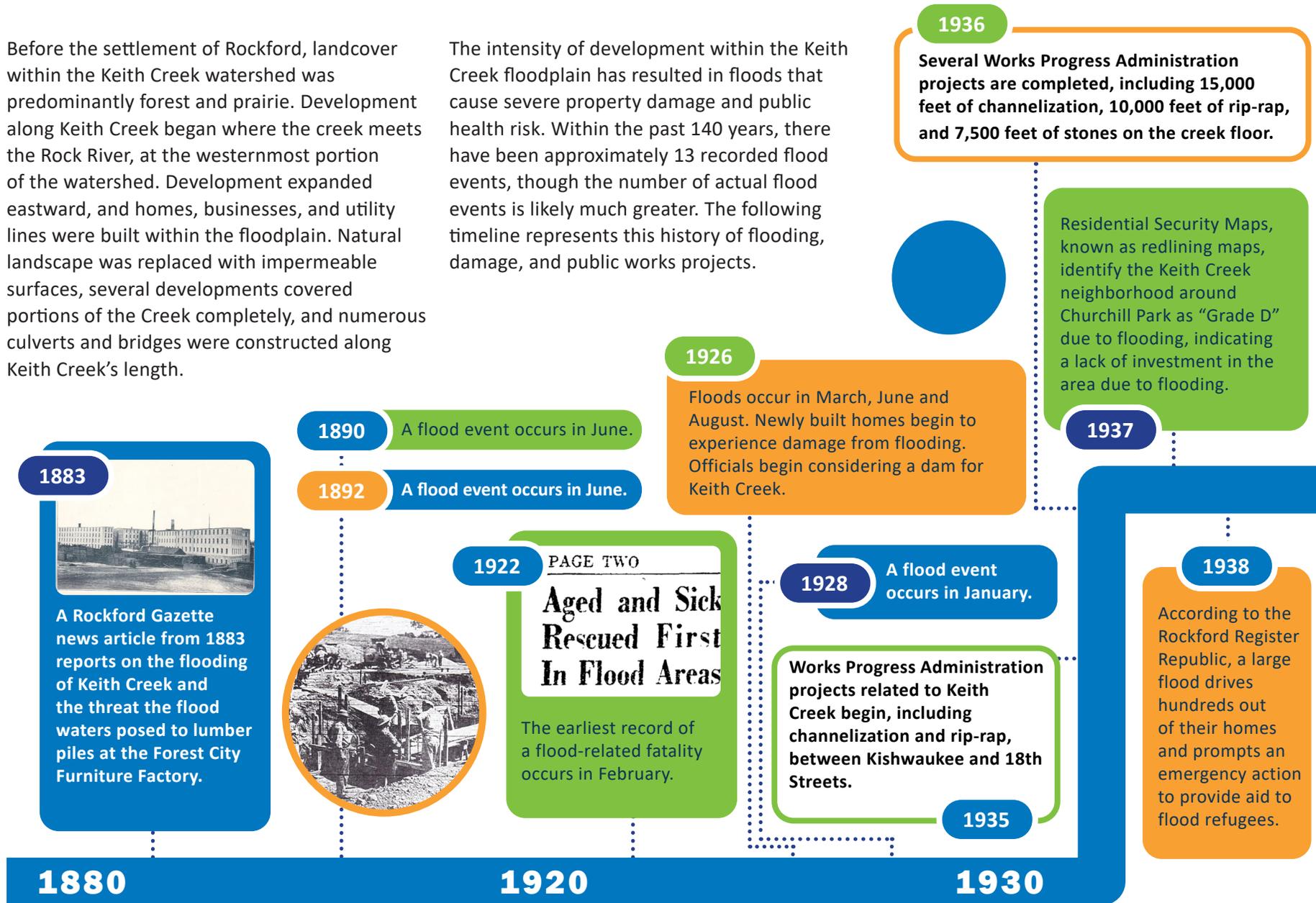
The western reaches of the creek flow through some of Rockford's oldest residential neighborhoods and early industrial properties. Here, the creek passes through a grid-type street system with a high development intensity. Culverts and bridges are prevalent in this area and can lead to severe flooding issues. There are many planning challenges facing this area, but interventions here have the greatest potential to positively impact surrounding neighborhoods by improving livability, safety, and access.



FLOODING TIMELINE

Before the settlement of Rockford, landcover within the Keith Creek watershed was predominantly forest and prairie. Development along Keith Creek began where the creek meets the Rock River, at the westernmost portion of the watershed. Development expanded eastward, and homes, businesses, and utility lines were built within the floodplain. Natural landscape was replaced with impermeable surfaces, several developments covered portions of the Creek completely, and numerous culverts and bridges were constructed along Keith Creek's length.

The intensity of development within the Keith Creek floodplain has resulted in floods that cause severe property damage and public health risk. Within the past 140 years, there have been approximately 13 recorded flood events, though the number of actual flood events is likely much greater. The following timeline represents this history of flooding, damage, and public works projects.



1940



Construction begins on the Keith Creek impounding dam, now known as the Alpine Park Dam at Aldeen Park. The purpose of the dam is to protect residential areas from flash floods.

2006

A 100-year flood event occurs in September, resulting in the damage of at least 700 residences. 70-80 businesses sustained damage and 70-90 residents were displaced from their homes.



2007

Keith Creek sustains another 100-year flood event in August of this year.



2018

A 100-year flood occurs, with over 5 inches of rain falling in a four hour period.

1940

2000

2010

1952

A flood event occurs in July

1973

A flood event occurs in April

2009

In October the first demolition related to the buy-out of homes in the floodplain that were damaged after the 2006-2007 floods. Acquisition and demolition of over 115 homes continued through 2011.

Army Corps of Engineers completes Feasibility Study for flood protection along Keith Creek.

2012

THE DELUGE

Havoc and Ruin Ride in Its Wake.

MOST TERRIFIC RAIN STORM

THE RAIN DESCENDED AND FLOODS CAME.

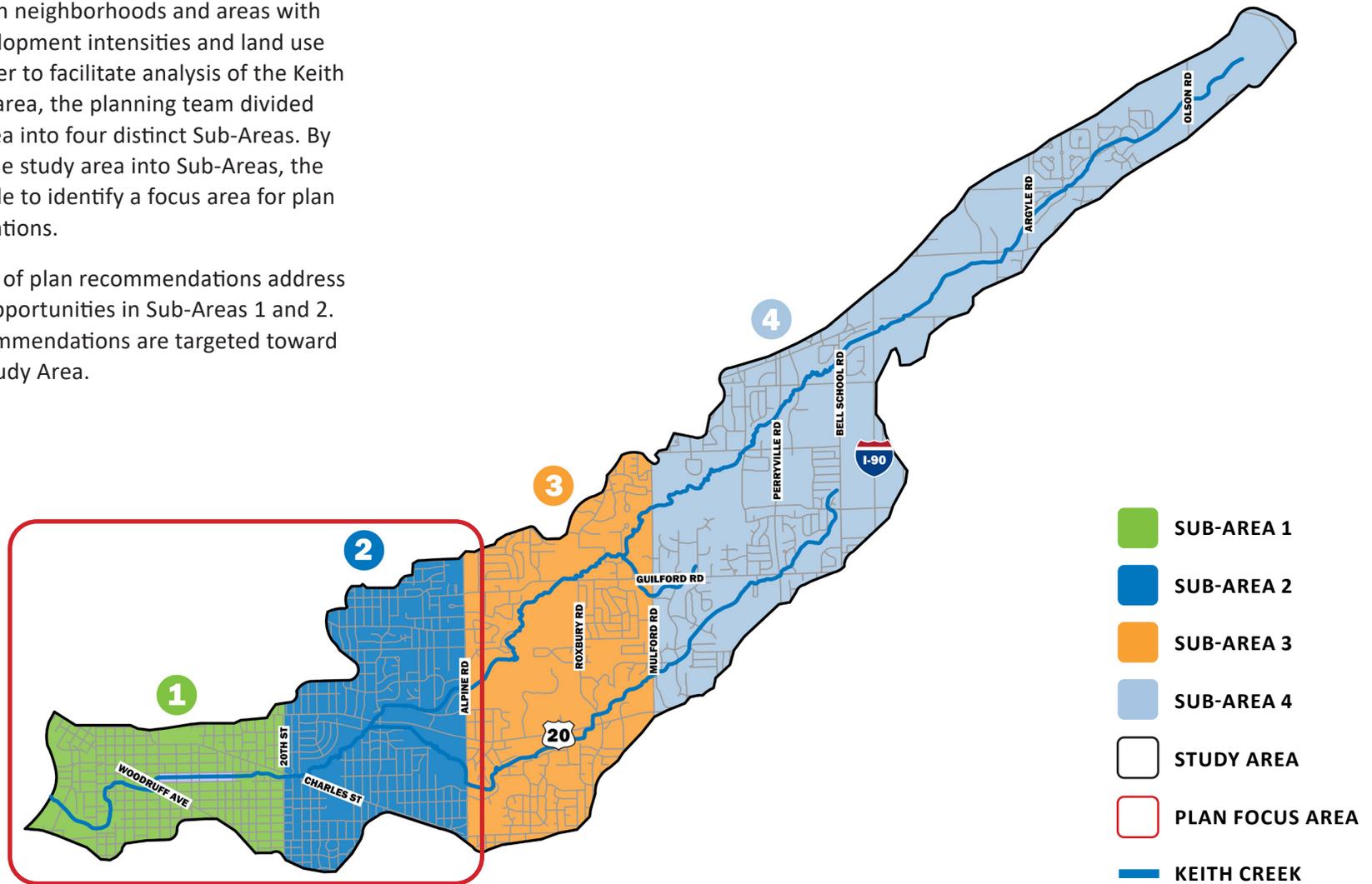
People Left Their Homes in the Vicinity of Kent and Keith Creeks.



SUB-AREA METHODOLOGY & FOCUS AREA SELECTION

Keith Creek spans over twenty miles and flows through neighborhoods and areas with varying development intensities and land use types. In order to facilitate analysis of the Keith Creek study area, the planning team divided the study area into four distinct Sub-Areas. By separating the study area into Sub-Areas, the team was able to identify a focus area for plan recommendations.

The majority of plan recommendations address issues and opportunities in Sub-Areas 1 and 2. Several recommendations are targeted toward the entire Study Area.



SUB-AREA 1

Sub-Area 1 is bounded by the Rock River to the west and 20th Street/Rockford Avenue to the east. This Sub-Area is the most urban, with the streets being established on a grid, and land uses typifying a compact, pre-World-War II development pattern. The creek is less naturalized within this Sub-Area and flows into a channelized area between 9th and 18th Streets. Two 100-year floods in 2006 and 2007 led to the acquisition and demolition of over 100 residential properties, which has resulted in an undeveloped green space in the vicinity of Churchill Park. The damage and long-term effects from flooding have been felt most acutely in Sub-Area 1.

SUB-AREA 2

Sub-Area 2 is bounded by 20th Street and Rockford Avenue to the West and Alpine Road to the east. This Sub-Area is comprised of low- to medium-density residential properties, Rockford Plaza, and the Miracle Mile Shopping District. Creek conditions in this Sub-Area are more urbanized, lacking riparian buffers and natural creek bends. Alpine Dam is located within this Sub-Area. Both branches of the creek flow underneath roads and parking lots before converging north of Glendale Avenue. The creek then flows around the Schnucks grocery store parking lot before returning below ground where it travels until reaching Sub-Area 1.

SUB-AREA 3

Sub-Area 3 is bounded by Alpine Road to the west and Mulford Road to the east. The north branch flows through the Mauh-Nah-Tee-See Golf Club and Aldeen Park, while the south branch flows through a large commercial district.

SUB-AREA 4

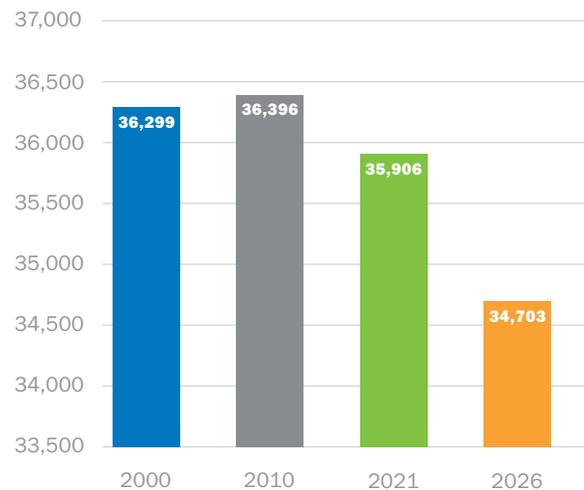
Sub-Area 4 is bounded by Mulford Road to the west and Beloit Road to the east, where the creek originates. The Sub-Area is comprised of low-density, suburban land uses and includes the Aldeen Golf Club, Midway Village, and Sportscore Two. Flooding is still an issue in this area, but the naturalized creek conditions help to prevent extreme flood events.

KEITH CREEK TODAY

POPULATION

The population within the Keith Creek Study Area is gradually declining. From 2010 to 2021, the population dropped from 36,396 to 35,906, a decrease of 1.35%. According to ESRI population forecasts, the population of the Study Area will continue to decline and will be home to approximately 34,703 residents by 2026.

FIGURE 1: KEITH CREEK POPULATION CHANGE 2000-2026

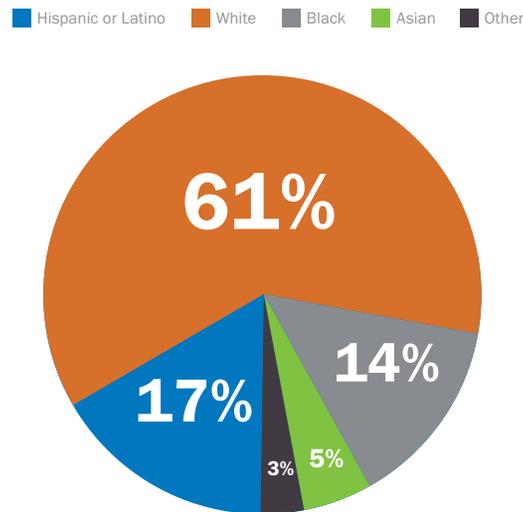


Source: US Census Bureau 2000, 2010 Decennial Census; ESRI

RACE AND ETHNICITY

The Keith Creek Study Area is becoming more and more diverse, both racially and ethnically. According to the ESRI Diversity Index, which represents the likelihood that any two people that are chosen randomly from the same area belong to different race or ethnic groups, Keith Creek has an Index of 66.7. This is up approximately nine points from the community's 2010 Diversity Index score of 57.8 and is expected to increase to 70.8 by 2026.

FIGURE 2: KEITH CREEK RACE & ETHNICITY, 2021

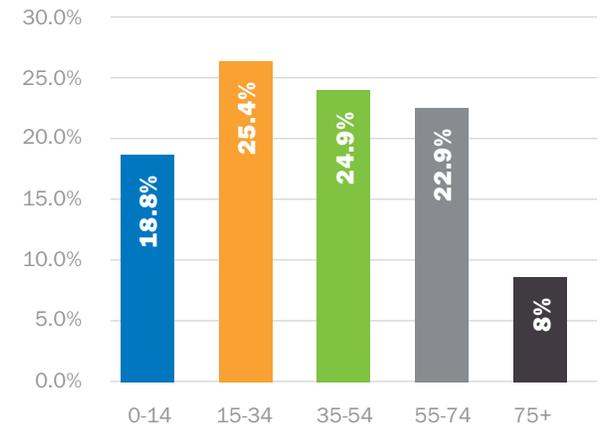


Source: ESRI 2021 Estimates

AGE SEGMENTATION

Based on ESRI data, the population of the Study Area is aging. The median age in 2021 was 39.2, up from 37.4 in 2010. The number of residents over 50 in 2021 was 13,235, which is up 8.9% from 2010. The number of children is also decreasing. The percentage of children ages 0 to 14 years old was 18.8% in 2021, compared to 20.6% in 2010. The percentage of youth ages 15 to 34 has decreased from 12.8% to 12.6%.

FIGURE 3: KEITH CREEK AGE DISTRIBUTION, 2021



Source: US Census Bureau Decennial Census; ESRI

Demographic information can provide insights into a community and help to inform planning assumptions and recommendations. More detailed demographic figures, tables, and information can be found in the State of Keith Creek Report.

HOUSING TENURE

In the Keith Creek Study Area, 60% of occupied housing units are owner occupied, while 40% of housing units are renter occupied. In Rockford, homeownership is slightly lower and in Winnebago County, homeownership is substantially higher.

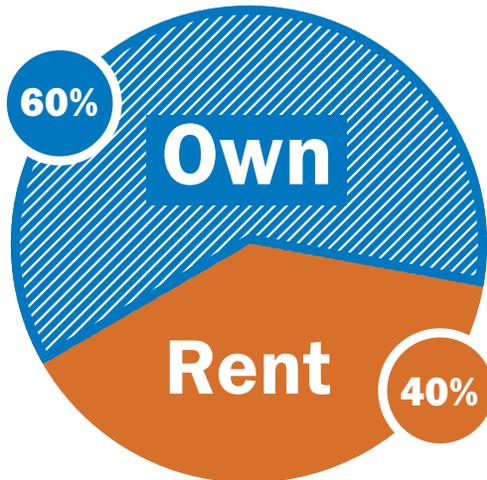
EDUCATIONAL ATTAINMENT

According to ESRI data, The population of the Keith Creek Study Area has a higher educational attainment level than surrounding areas. In Keith Creek, 38.4% of the population has an Associates degree or higher.

MEDIAN INCOME

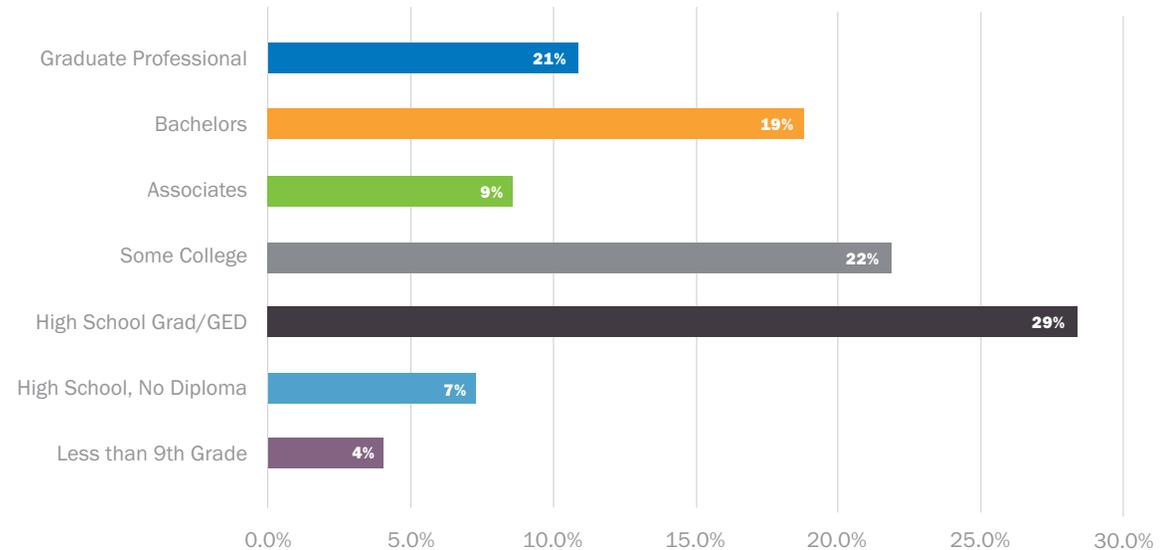
Median household income in the Study Area was \$52,800 in 2021, which is higher than the Rockford median income of \$46,438. The Keith Creek median income is expected to increase in the next five years to \$56,181 according to ESRI forecasts.

FIGURE 4: KEITH CREEK OWNER- VS RENTER-OCCUPIED, 2021



Source: ESRI 2021 Estimates

FIGURE 5: KEITH CREEK EDUCATIONAL ATTAINMENT, 2021



Source: ESRI 2021 Estimates



CHAPTER 1

**DIVERSITY
EQUITY &
INCLUSION**

DIVERSITY, EQUITY, & INCLUSION STRATEGY

DEI AREA

For the purposes of this Study, the Diversity, Equity, and Inclusion (DEI) census tracts identified in the DEI analysis comprise the 'Diversity, Equity, and Inclusion Area'. Pages 20 and 21 provide an overview of the DEI Analysis.

DEI FOCUS

According to the analysis, the neighborhoods and census tracts that are most affected by Keith Creek flood events also have the highest concentration of vulnerable populations. Vulnerable populations include those with disabilities, low-income residents, non-English speakers, and other groups that benefit from equitable and inclusive policies. In order to address place-based inequities, the catalytic projects presented in Chapter 4 of this study are focused within Keith Creek's Diversity, Equity, and Inclusion Area. Additionally, goals and recommendations throughout each of the Keith Creek Corridor Study chapters reflect the dedication to supporting these communities.

DEI FUNDAMENTAL PRINCIPLES

DIVERSITY

RESPECT DIFFERENCES AND CHARACTERISTICS IN INDIVIDUALS AND GROUPS OF PEOPLE.

EQUITY

SUPPORT FAIR TREATMENT, ACCESS, REMOVAL OF BARRIERS, AND OPPORTUNITY FOR ALL.

INCLUSION

CREATE A WELCOMING AND INVITING ENVIRONMENT WHERE ALL INDIVIDUALS AND GROUPS CAN PARTICIPATE.



RELEVANT GOALS AND RECOMMENDATIONS ARE MARKED WITH THIS SYMBOL. CALLOUTS RELATED TO DIVERSITY, EQUITY, AND INCLUSION CAN BE FOUND THROUGHOUT THE PLAN AND ARE MARKED WITH THE SAME SYMBOL.

DIVERSITY, EQUITY, & INCLUSION ANALYSIS

KEY FINDINGS

In addition to a demographic analysis of the Keith Creek Study Area, the City of Rockford, and Winnebago County, the team conducted a focused Diversity, Equity, and Inclusion (DEI) analysis. The DEI analysis examined Study Area census tracts located within Community Development Block Grant (CDBG) eligible areas and areas with low-income concentrations. The U.S. Department of Housing and Urban Development (HUD) determines CDBG-eligibility by identifying areas that are in need of neighborhood revitalization, economic development, and improved community facilities and services. Several DEI demographic factors were analyzed using American Community Survey 2015-2019 5-year estimates.

RACE: NON-WHITE RESIDENTS

In DEI census tracts, 50.6% of residents identify as non-white alone. In non-DEI census tracts, 30.8% of residents identify as being non-white alone. Based on the 2015-2019 5-year community survey, 46.5% of residents identify as non-white alone in Rockford. This indicates that DEI census tracts are more diverse than the remainder of the Study Area and the City of Rockford.

EDUCATIONAL ATTAINMENT: HIGH SCHOOL ONLY

In DEI census tracts, the percentage of residents ages 25 and up with only a high school education is 33.3%. In non-DEI census tracts located in the Keith Creek Study Area, the percentage of residents that only had a high school diploma is 25.9%. In the City of Rockford, 30.6% of residents have only acquired a high school diploma based on 2019 data.

CITIZEN STATUS: NON-CITIZENS

DEI census tracts within the Keith Creek Study Area have a higher concentration of residents that were not US citizens, 7.8%. In non-DEI census tracts, 5.3% of residents are non-citizens. In the City of Rockford, 6.8% of residents are non-citizens.

DISABILITY STATUS: HAVE DISABILITY

The percentage of residents with a Disability in DEI census tracts is 16.4%. The percentage of residents with a disability in non-DEI census tracts is 12%. In Rockford 13.3% of residents have a disability.

PUBLIC ASSISTANCE: RECEIVE SNAP BENEFITS

The percentage of households that receive SNAP assistance within DEI census tracts is 32.5%, while the percentage of households that receive SNAP assistance within non-DEI census tracts is 8.7%. In the City of Rockford, 25.3% of households receive SNAP assistance.

INCOME: MEDIAN INCOME

DEI census tracts have a lower median income, with the average median income among census tracts being \$36,526. Non-DEI census tracts in the Keith Creek Study Area have an average median income of \$80,631. The City of Rockford's average median income is \$44,252.

LANGUAGE SPOKEN AT HOME: NON-ENGLISH

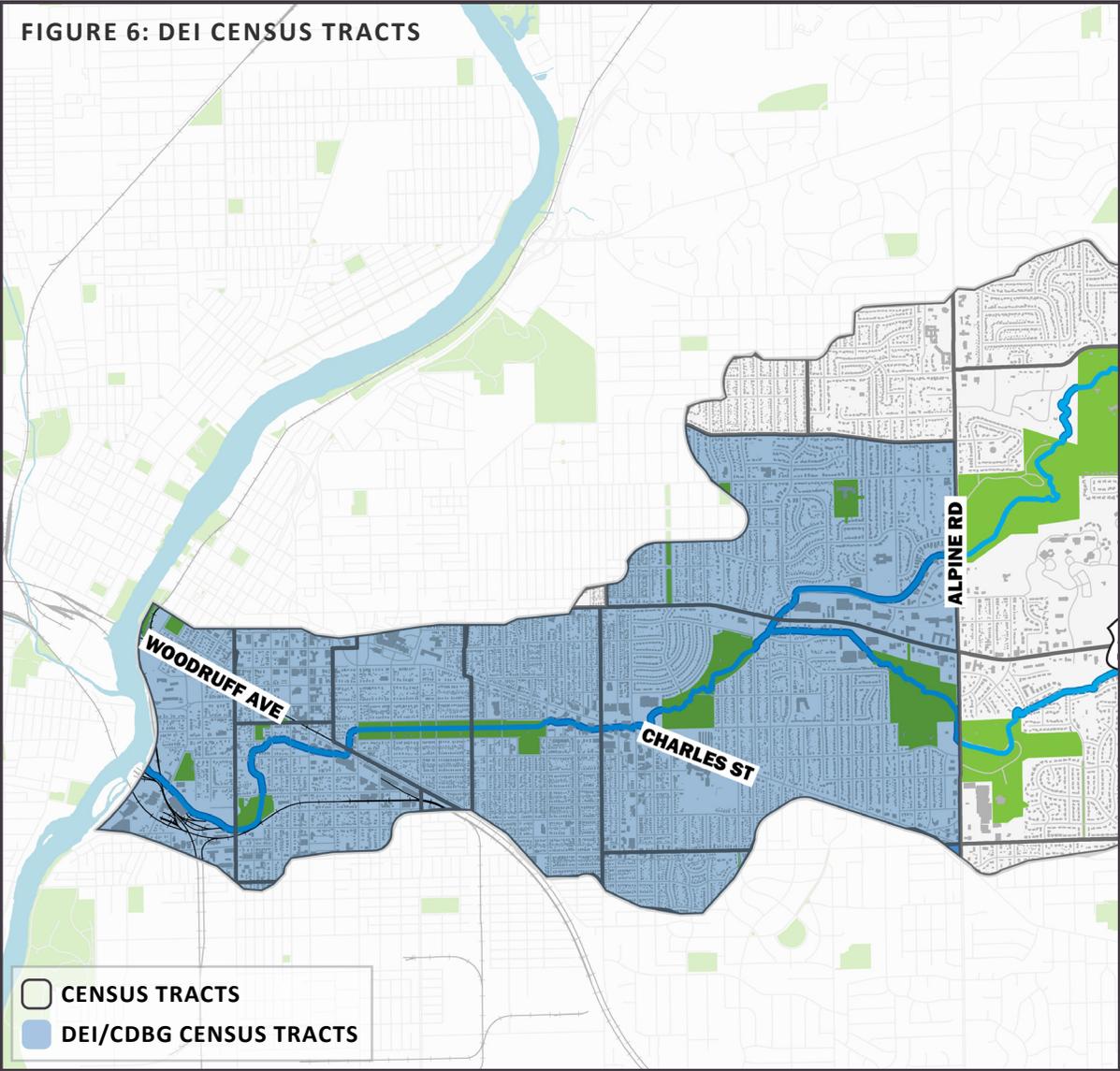
The language spoken at home can be indicative of a community's overall diversity. For DEI census tracts, the proportion of non-English speaking households is 24.5% and for non-DEI census tracts it is 19.3%. In the City of Rockford 21% speak a language other than English at home.

MEANS OF TRANSPORTATION TO WORK: DRIVE ALONE

A lower percentage can indicate that there is a greater dependence on alternative means of transportation, such as public transit or biking. In DEI census tracts, 76.6% of residents drive alone to work and in non-DEI census tracts, 85.6% of residents drive alone to work. In Rockford 78.9% of residents drive alone to work.

POVERTY STATUS: BELOW POVERTY LEVEL

Poverty Status can be indicative of a number of barriers faced by a population, including lack of educational opportunity, lack of employment opportunity, and lack of access to resources. In DEI census tracts 25% of residents are below poverty level. In non-DEI census tracts that are within the Keith Creek Study Area, only 12.7% of residents are below poverty level. In the City of Rockford, 22.3% of residents earn below poverty level.





DIVERSITY, EQUITY, & INCLUSION

RECOMMENDATIONS

GOAL: ENSURING THAT ALL COMMUNITY MEMBERS, REGARDLESS OF RACE, INCOME, AGE, AND ABILITY, HAVE EQUAL ACCESS TO A SAFE, HEALTHY, AND VIBRANT LIVING ENVIRONMENT.

Recommendation #1: Focus the development of catalytic, community-serving projects within Community Development Block Grant-eligible areas (Diversity, Equity, and Inclusion areas).

These areas have the highest concentrations of vulnerable populations. Projects and other key interventions will have the greatest impact and will serve those who need it most if developed in this focus area.

- » *Action 1.1: Continue to engage with underserved community groups to better understand their needs and priorities. Consider an ongoing engagement platform that allows for a steady line of communication between community groups and government agencies.*
 - » *Action 1.2: Identify development grant funding opportunities that target underserved populations.*
-

Recommendation #2: Consider implementing a Neighborhood Navigators program as a grassroots initiative, represented by underserved communities.

A Neighborhood Navigators program is a grassroots program for neighbors to engage with and help one another. ‘Navigators’ are directly connected to several community resource agencies and are ready to assist neighbors with making connections to these resources. They also engage their neighbors in conversations about the community and its resources.

- » *Action 2.1: Develop a City-funded and managed Community Navigators program that employs community leaders.*
- » *Action 2.2: Provide technical and educational support to Navigators to better connect leaders and community members to resource agencies.*
- » *Action 2.3: Build community capacity to allow Navigators to represent underserved communities on City commissions and working groups.*
- » *Action 2.4: Assist high-risk neighborhoods in preparing for and recovering from natural disasters (floods).*



“

This neighborhood is one of the most diverse in the City. I want a spot where we can all come together, play, and enjoy nature.

- Community Member



CHAPTER 2

**MOBILITY &
CONNECTIVITY**

OVERVIEW

The Keith Creek Corridor Study seeks to address mobility and connectivity constraints within the Keith Creek Corridor. Currently, automobile travel is the easiest method of traversing the area. Bikers and pedestrians have difficulty moving throughout the area for a variety of reasons. Addressing these issues will help to facilitate access to the creek, to community amenities and services, to schools, and to jobs.

LONGER TRIP TIMES, LOW ACCESSIBILITY

Non-motorized users can encounter travel times that far exceed the typical travel times of motorists, especially in the south and west sections of the Study Area. The proliferation of industrial and commercial development on the south and east quadrants of the city compounds non-motorized accessibility, especially when those trips are needed to access employment and critical services. It is not uncommon for transit riders to face headways and travel times exceeding one hour.

A NETWORK OF 'INCOMPLETE' STREETS

Pedestrians walking on arterials within the Study Area must often navigate right-of-ways which lack serviceable sidewalks and transit amenities. Sidewalks may be difficult to navigate due to utility placement, poor existing conditions, or a lack of sidewalks altogether. These conditions may become even more challenging for individuals who use a mobility-assist device, such

as a wheelchair, to access their destinations. Recent road constructions with a multi-use path (MUP) placement (e.g. South Main, West State) as well as slated CIP road construction projects with MUP placement (e.g. Charles Street from 28th to Parkside Drive) are encouraging, but are not located within the Study Area.

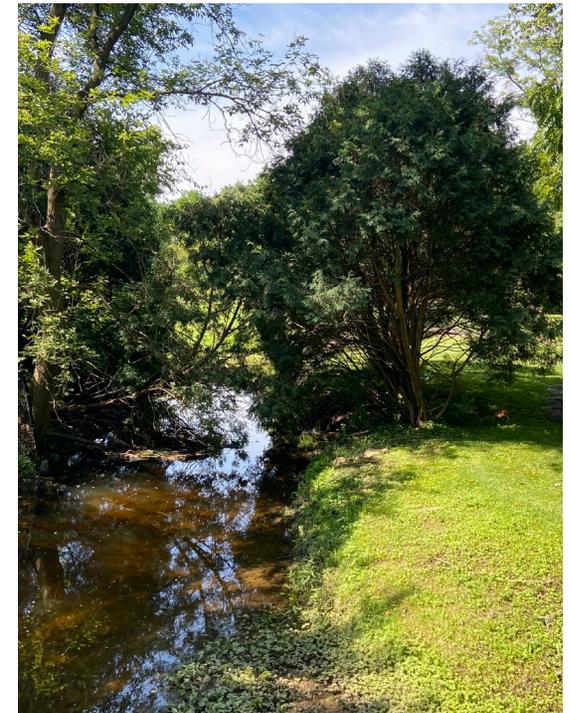
INCOMPLETE INTERSECTION AND MID-BLOCK TREATMENTS

Given that a disproportionate amount of crashes occur at intersections (approximately 65 pedestrian and bike collisions from 2007-2016, IDOT), any on- or off-street route consideration such as a greenway or trail must be paired with proper intersection treatments in order for the route to be used consistently and safely. It is not uncommon for intersections to lack pedestrian amenities such as ramps and walk buttons that meet the ADA standard at all four corners of the intersection. Additionally, route crossings that occur mid-block lack features such as 'zebra' crosswalks and Rectangular Rapid-Flashing Beacons (RRFB) or High-Intensity Activated Crosswalk (HAWK) beacons. For example, Reid Farm Road, a designated bike route that is located close to Keith Creek and crosses Spring Creek Road, has been the site of one pedestrian collision from 2007-2016 and a bicycle fatality in 2018.



Due to the lack of north-south connections and poor sidewalk conditions, those with disabilities and seniors have to go a much longer way to access amenities on the opposite side of the creek.

- Community Member



GREENWAY TRAIL

KEY CONSIDERATIONS

A continuous, off-road multiuse path throughout the Keith Creek greenway and corridor will significantly improve mobility and connectivity throughout the area. The greenway scenarios provided in this report were shaped by a variety of resources, including a review of existing plans at the regional and local level. Each scenario was also created with the following key considerations in mind:

ROUTE CONNECTIVITY AND INTEGRATION

A regionally-coordinated bicycle network that connects neighborhoods, districts, and municipalities together is instrumental in building—and sustaining—ridership activity. Plans that can fill in the ‘missing links’ of a network can put municipalities at a competitive advantage for pursuing grants to secure project funding. To ensure that each greenway scenario was integrated into the existing and proposed bicycle network, the following plans were consulted:

- The City of Rockford Bikeway Implementation Study;
- The City of Rockford 2022-2026 Capital Improvement Plan;
- The Region 1 Planning Council 2021 Greenways Plan Update; and
- The Region 1 Planning Council Bicycle and Pedestrian Plan*.

ROUTE ACCESSIBILITY

An accessible greenway increases one’s ability to reach their destination comfortably and conveniently. Each greenway scenario was analyzed for its potential to enhance accessibility to a number of destinations, including:

- Key commercial nodes;
- Neighborhood anchors; and
- Recreational amenities with currently little to no access.

TRANSPORTATION EQUITY AND ENVIRONMENTAL JUSTICE

The Existing Conditions section of the report shows that tracts within Sub-Areas 1 and 2 have higher-than average rates in a number of Diversity, Equity, and Inclusion (DEI) factors, including disability status and means of transportation to work. These factors, among others, were valuable for informing the placement and phasing of the routes within each scenario. Additionally, the US EPA’s ‘EJ Screen’ screening and mapping tool helped identify geographic areas that have higher-than-average environmental or demographic indicators, such as exposure to diesel particulate matter or high proximity to vehicle traffic.

DIVERSITY, EQUITY, AND INCLUSION

The Keith Creek Diversity, Equity, and Inclusion area (‘The Focus Area’) has a lower percentage of residents that drive to work than the rest of the Keith Creek Study Area. This indicates that there may be more of a dependence on alternative methods of transportation to get to work, school, activities, or critical community services. Strengthening the alternative transportation network by constructing a continuous Greenway Trail will benefit the community by allowing them to traverse the neighborhoods safely and easily.

77% FOCUS AREA RESIDENTS THAT DRIVE ALONE TO WORK

86% STUDY AREA RESIDENTS THAT DRIVE ALONE TO WORK (NON-FOCUS AREA)



GREENWAY TRAIL SCENARIOS

These key considerations have resulted in two scenarios: An interim greenway, and a final or permanent greenway. Both scenarios reference existing and proposed routes within the City of Rockford's recommended bikeway network and RPCs greenways map. The greenway route segments that align with other existing and proposed routes are largely informed by the 'Route Connectivity and Integration' consideration. Other segments that are closer to the creek and farther from major arterial roadways are informed by the 'Transportation Equity and Environmental Justice' consideration. Finally, segments of the trail that lead to and from key destinations are informed by the 'Route Accessibility' consideration.



OFF-ROAD TRAIL

GREENWAY TRAIL

SCENARIO I: AN INTERIM GREENWAY TRAIL

Time Frame 1-5 years

This scenario proposes an interim greenway within existing right-of-way owned by the City of Rockford and land owned by the Rockford Park District. The greenway could be designed as a Bicycle Boulevard, a route style that is typically deployed on local streets with low traffic volumes (i.e. under 1,000 vehicles day) and is designed to prioritize bicycle mobility (e.g. bicycles taking the full lane). An interim greenway provides a timely, cost-effective approach for improved connectivity while a final greenway route is being considered.

The interim greenway would begin at the College Avenue roundabout just west of the Rock River, which provides connectivity to both existing and planned bicycle routes. The route would then travel east, splitting into a south and north section at Dahlquist Park to follow both branches of Keith Creek before ending at Alpine Road. The figure on the following page depicts the interim route.

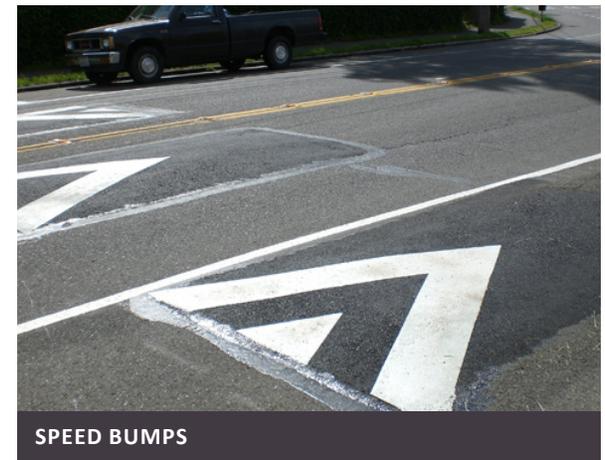
BIKE INFRASTRUCTURE IMPROVEMENTS

Infrastructure improvements needed for the implementation of this route would include bicycle boulevard pavement markings on the existing streets, intersection crossing control such as rapid rectangular flashing beacons (RRFBs), refuge islands or medians, sidewalk expansion to multiuse path widths along higher volume streets, and minor roadway bridge crossing improvements. A pedestrian bridge location would also be needed in Dahlquist Park at Oak Grove Avenue.

These improvements could be incorporated for approximately \$1.5 Million to \$2.5 Million depending on the range of either on-street bicycle accommodations or multiuse path construction.

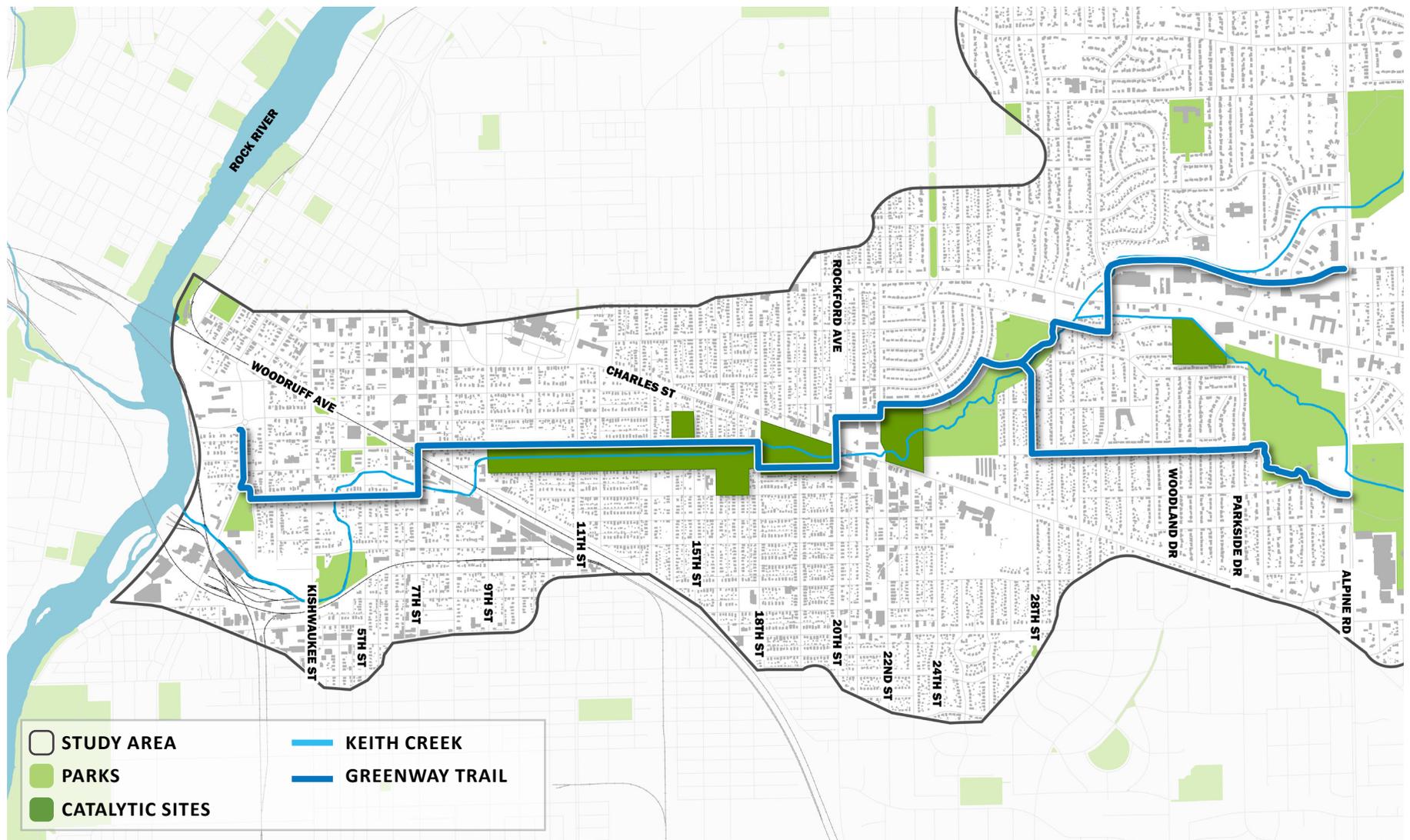


DIRECTIONAL WAYFINDING



SPEED BUMPS

FIGURE 7: INTERIM GREENWAY ROUTE



GREENWAY TRAIL

SCENARIO II: A FINAL GREENWAY TRAIL

Time Frame 5-20 years

The final greenway route will take longer to develop, likely developed in phases, and will be incorporated into several redevelopment concept sites along the greenway.

This scenario includes the acquisition of a small amount of residential and commercial properties.

The greenway connection would also begin at the College Avenue roundabout just east of the Rock River and travel south to Tenth Avenue Park. The route would follow Keith Creek to 6th Avenue, and an optional spur would run along the creek to 7th Street if desired. From there, the route could parallel 6th Avenue on a multiuse path before entering the Churchill Park redevelopment site (see Chapter 4, Figure 12). It would continue through Churchill Park through the Charles Street and 18th Street redevelopment site (Chapter 4, Figure 16). A new multi-use path on Charles Street to continue the greenway from 20th-22nd Street is proposed, although an option to run the greenway between properties to the south of Charles Street is also shown.

As the greenway meets Charles Street at 22nd Street, a new bicycle and pedestrian crossing at Charles Street would be needed for the path to head northeast into the Schnucks redevelopment site. From here, the greenway would again follow the creek through Twin Sisters Park and split into two paths following both branches of the creek. One path would follow the south branch heading east along Wind Point Drive into Alpine Hills Adventure Park. The other would follow the north path like the Interim Greenway through Dahlquist Park, to the Alpine Hills redevelopment site (Chapter 4, Figure 20) and east beyond Alpine Road, ultimately forming a 'loop' that connects to the north path.

The primary segment of the north path runs from Alpine Road to Guilford Road, terminating at Midway Village Museum while tying into the Perryville Path. Additional spurs connect to existing routes in the City of Rockford network, while other segments are proposed within the Aldeen Park property that could provide alternate means to Rockford University and Guilford Road.

BIKE INFRASTRUCTURE IMPROVEMENTS

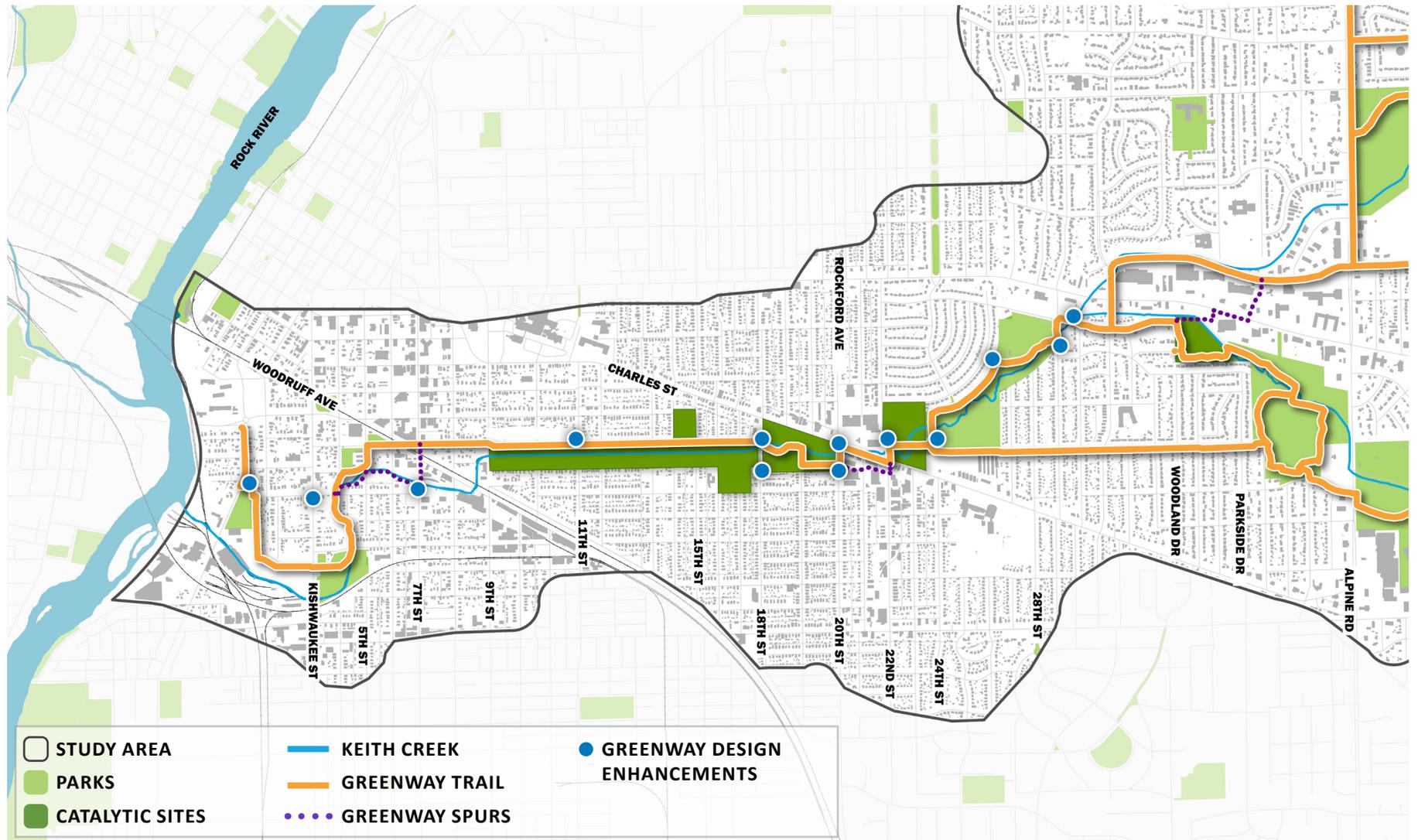
Infrastructure improvements needed for the implementation of this route would include bicycle boulevard pavement markings on the existing streets, intersection crossing control such as RRFBs, refuge islands or medians, sidewalk expansion to multiuse path, ROW acquisition along the creek through private parcels to install the multiuse path, minor roadway bridge crossing improvements and additional pedestrian bridges at several redevelopments and park locations.

Trail construction east of Alpine Road is cost-prohibitive and should be the last phase considered once improvements are made. Page 32 shows the full extent of the final greenway trail.

ESTIMATED COST

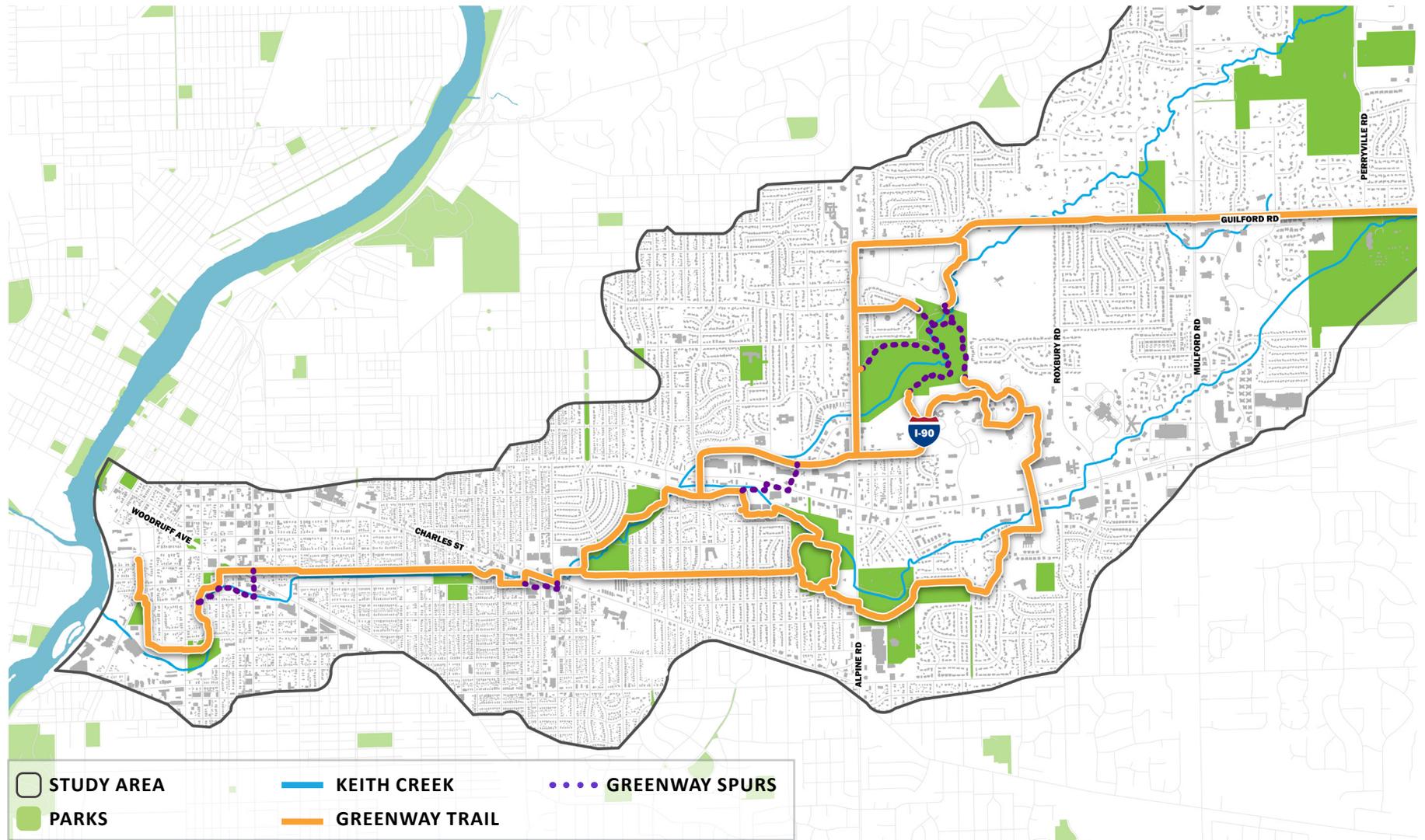
**IMPLEMENTATION OF THE
FINAL GREENWAY TRAIL
WOULD COST \$4 MILLION TO
\$5.5 MILLION.**

FIGURE 8: FINAL GREENWAY ROUTE



GREENWAY TRAIL

FIGURE 9: FINAL GREENWAY TRAIL - FULL EXTENT



KEY IMPROVEMENTS



HIGH-INTENSITY ACTIVATED CROSSWALK

A High-Intensity Activated Crosswalk (HAWK) is a traffic control device that allows pedestrians and bikers to cross a road safely once activated.



WAYFINDING AND DIRECTIONAL MARKINGS

Wayfinding and directional markings identify points of interest along a route or within an area and display the distance and direction to those points.



GREEN BUMPOUT

A green bumpout is a landscaped extension of the street curb that helps to slow traffic, as well as collect stormwater runoff.



REFUGE ISLAND

A refuge island is a median that includes a pedestrian refuge area, thus allowing pedestrians to safely cross a multilane road.



MID-BLOCK CROSSING

A mid-block crossing is a marked crosswalk between intersections, usually located on lower-volume roads.



INTERSECTION LANE TREATMENT

This refers to a number of treatments that can be used to resolve conflicts with bikers and automobiles by facilitating turns and indicating bike paths.

MOBILITY & CONNECTIVITY

RECOMMENDATIONS

GOAL #1: IMPROVE TRANSPORTATION ACCESS AND EQUITY THROUGHOUT THE KEITH CREEK CORRIDOR BY CREATING SAFE CONNECTIONS TO KEY COMMERCIAL NODES, NEIGHBORHOODS, AND RECREATIONAL AND CULTURAL AMENITIES.

Recommendation #1: Improve existing transportation infrastructure to provide immediate access to bike and pedestrian corridor connections.

This interim route could be designed as a Bicycle Boulevard which provides a low-cost, quick-build method that can improve east-west connectivity from the Rock River to Alpine Road. Bicycle Boulevards are typically deployed on local streets with low traffic volumes (i.e. under 1,000 vehicles per day) and are designed to prioritize bicycle mobility (e.g. bicycles having the ability to take the full lane). The majority of the Bicycle Boulevard is routed on local streets such as 9th Avenue, 6th Avenue, and Oak Knolls Avenue South, streets which are owned by the City of Rockford, have low traffic volumes, and offer some proximity to the creek in lieu of an off-street multi-use path. Quick-build projects of this nature are an opportunity to provide an enhanced bicycle route in neighborhoods with low-to-no automobile access.  DEI

- » *Action 1.1: Apply design features to the route. This consists of signage, lane markings, directional/wayfinding markings, and more.*
- » *Action 1.2: Incorporate wayfinding signage to inform route users of distance to key destination areas. The signage could incorporate branding elements that are further described in Chapter 3 recommendations.*
- » *Action 1.3: Work with local running and cycling advocacy groups, nonprofits, and neighborhood associations to program the route with events.*
- » *Action 1.4: Collect ridership data on route users. Conducting bike counts is useful information for pursuing grants and considering additional capital improvements.*
- » *Action 1.5: Work with the Belle Meade Neighborhood Association to inform residents on route improvements on neighborhood path from Emerson Drive to Alpine Hills Adventure Park.*

Recommendation #2: Develop a final greenway that optimizes proximity, connectivity, and accessibility to the creek and a variety of destinations within the Study Area.

This permanent greenway would consist of off-street multi-use path sections as well as on-street lanes, the latter of which would include sections from the interim route noted above. Property acquisition would result in a more direct, comfortable, and convenient route, one that ‘feels’ like a greenway by bringing users off the street and closer to the creek when possible. Capital improvements would offer improved mid-block and intersection crossings compared to the interim route. Additional route spurs would further increase access to more destinations and tie into additional existing and proposed routes.

- » *Action 2.1: Work with the City of Rockford, Northern Illinois Land Bank Authority, and other stakeholders on acquiring and holding properties where it is deemed most suitable to place a greenway route.*
- » *Action 2.2: Work with the City of Rockford and Rockford Park District on determining capital improvements and funding opportunities for greenway sections running through properties on which they own.*
- » *Action 2.3: Create City-wide 10-year capital projects that promote the goals and priorities of the greenway corridor.*
- » *Action 2.4: Create a network of multi-modal paths from the College Ave. roundabout to Alpine Road through Churchill Park and Dahlquist Park.*
- » *Action 2.5: Ensure future Keith Creek bridge improvements include bike and pedestrian accommodations (The 8th Avenue bridge design should consider this)*
- » *Action 2.6: Work with business owners to build consensus on route sections where an easement may need to be considered.*
- » *Action 2.7: Work with the Belle Meade Neighborhood Association to inform residents on route improvements on neighborhood easement from Emerson Drive to Alpine Hills Adventure Park.*

Recommendation #3: Improve key signalized and un-signalized intersections to better prioritize non-motorized mobility and safety.

Optimize safety on sections of both the interim route and final greenway which cross or run parallel to streets with a higher functional classification than a Local Street.

- » *Action 3.1: Improve signalized intersections including Gregory and Kishwaukee and Charles and 20th Streets with the appropriate pedestrian- and bicycle-oriented treatments. This may include Leading Pedestrian Intervals, ladder crosswalks, and treatments that delineate the greenway route from the vehicle travel lane.*
- » *Action 3.2: Improve un-signalized intersections such as 6th Avenue and 11th Street as well as mid-block crossings proposed in the final greenway with the appropriate pedestrian- and bicycle-oriented treatments. This may include ladder crosswalks and RRFB or HAWK signalization.*
- » *Action 3.3: Upgrade existing and planned bicycle routes on collector streets, such as Morsay Drive, with protective treatments that provide additional separation between greenway users and the vehicle travel lanes.*

CHAPTER 3

**EDUCATION
RECREATION
ART & BRANDING**

welcome

TENTH
AVENUE
PARK

OVERVIEW

Education, recreation, art, and branding work hand-in-hand to create engaging public spaces and amenities. These programming aspects will create a unique and exciting corridor experience that will continue to draw both locals and visitors, alike.

Branding functions to create familiarity, positive perception, and public engagement. An easily-recognizable brand can be used across signage and design elements to help people find their way. Brand recognition can also function to attract new businesses and developments to the area.

Educational programming and hubs will reinforce the corridor as a natural amenity and help to encourage protection and appreciation of rehabilitated habitats and green spaces.

Public art will serve to beautify the corridor and will provide opportunities for community engagement. Arts programming can help to uplift local artists, arts organizations, and students.

Recreation opportunities will not only have public health benefits, but will also attract visitors and help to create gathering nodes throughout the corridor.



BRANDING & WAYFINDING

BUILDING FAMILIARITY AND A POSITIVE PERCEPTION

Many Rockfordians are unfamiliar with the Keith Creek waterway and watershed. Awareness of the creek is often connected to the Keith Creek Neighborhood Association or to negative experiences with creek flooding. In developing an activated and engaging greenway corridor, concerted messaging and brand development will assist in creating a positive perception of the creek and will showcase any improvements.

PUBLIC ENGAGEMENT

The branding process should be a well-coordinated effort informed through a focus group comprised of stakeholders; those who know the creek and who have had various experiences with it. For some stakeholders, their connection to the creek may be the historic neighborhoods in which they reside, their interest in the greenway connection and trail network, or their concern for natural history of the land and its preservation. A diverse focus group should assist in creating a brand that represents the local culture and incites excitement about the greenway's potential.

SIGNAGE AND DESIGN ELEMENTS

A logo is an important facet of brand-creation. However, branding for the creek should extend beyond that into the physical realm. Brand guidelines should be created to determine fonts, materials, and colorways that help define the area based on its history and location. For cohesive recognition throughout the greenway, the brand can be incorporated into attention-grabbing informational and directional signage within the brand's colorway, creative design of bike racks and trailhead markings, bridge design, and by incorporating the logo into public infrastructure projects, banners, and trash cans.

BRANDING CASE STUDY: OZ TRAILS IN BENTONVILLE, ARKANSAS



Oz Trails is a network of multipurpose trails located in Northwest Arkansas. Oz Trails has a unique and recognizable brand that is utilized across the physical and digital realm. The distinct sunset imagery is used for signage and wayfinding, public art, social media, and the organization's website.

The branded signage can serve multiple purposes. It can be informational, providing historic facts and upcoming events in the nearby area. It can also serve to assist in wayfinding along the creek, informing greenway users of distances and duration to key neighborhood and city attractions as well as to commercial districts and other points of interest.

In order to align with the goal of creating a greenway along which people can gather and use to efficiently access other neighborhoods, key gathering areas can be created through branded trailheads and gateways. This can be done through signage, statement pieces, and sculptures that invite users to spend time, use as a meeting place, or use as a starting point for an adventure along the greenway. These activated nodes with welcoming messaging and aesthetics can draw people in, inviting them to utilize the public amenities and linger along the creek and the greenway. Each functional structure and object has the opportunity to reinforce the brand, whether it is the trash cans, bus stops, or benches.

The following pages present a sample branding and wayfinding signage concept, which can be used to inspire future design elements and branding along the creek.



BRANDED GATHERING SPACE



BRANDED BUS STOP



BRANDED ATTRACTION - KATY TRAIL, DALLAS

BRANDING & WAYFINDING

KEITH CREEK CORRIDOR BRANDING AND WAYFINDING CONCEPT

This concept was created to exemplify the ways in which a brand can be created to reflect key elements of the corridor, and how the brand can be carried throughout signage and wayfinding elements.

LOGO 1

The Logo 1 concept is inspired by the natural elements of the Keith Creek corridor. The logo images represent the sun, trees, and creek in a simplified manner. The logo provides a snapshot of some of the community green spaces that can be found along the Greenway Trail.

LOGO 2

The Logo 2 concept is inspired by the cycling and physical activities that can be facilitated by the creation of a continuous Greenway Trail. The logo is a simplified representation of a bicycle wheel. This logo is used on the sample wayfinding concepts.



LOGO 1



LOGO 2

WAYFINDING POLES

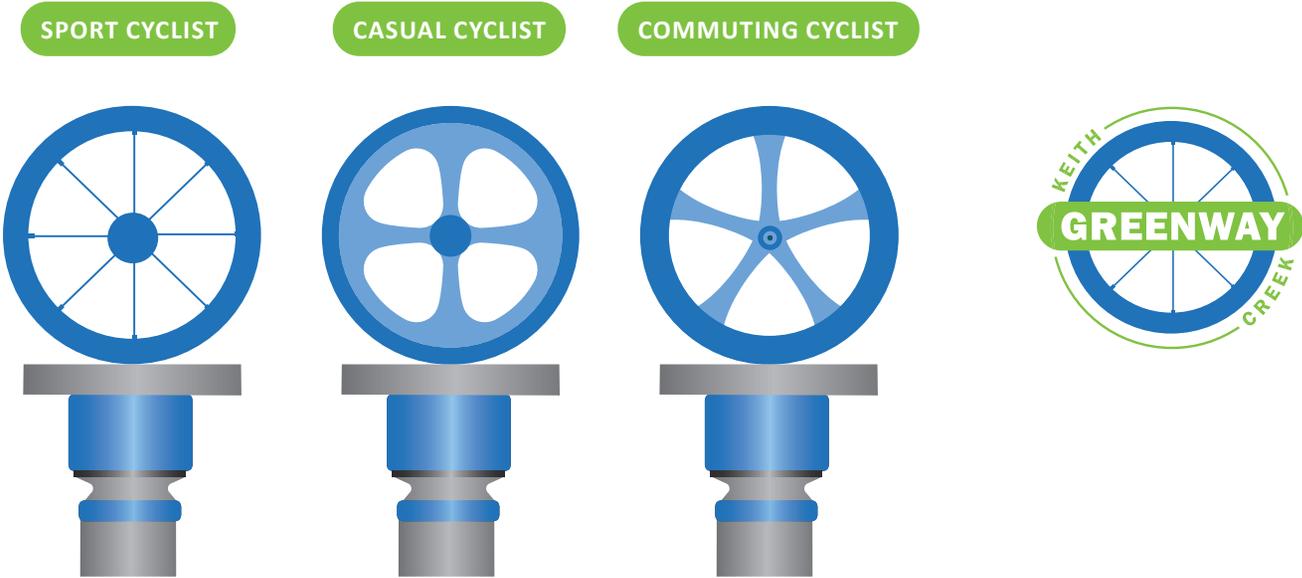
The logo can be incorporated into wayfinding signage, which helps to create a sense of place, as well as assists people in finding their way throughout the corridor. The wheel motif can be used on wayfinding poles in different ways, dependent on community material and style preference.



BRANDING & WAYFINDING

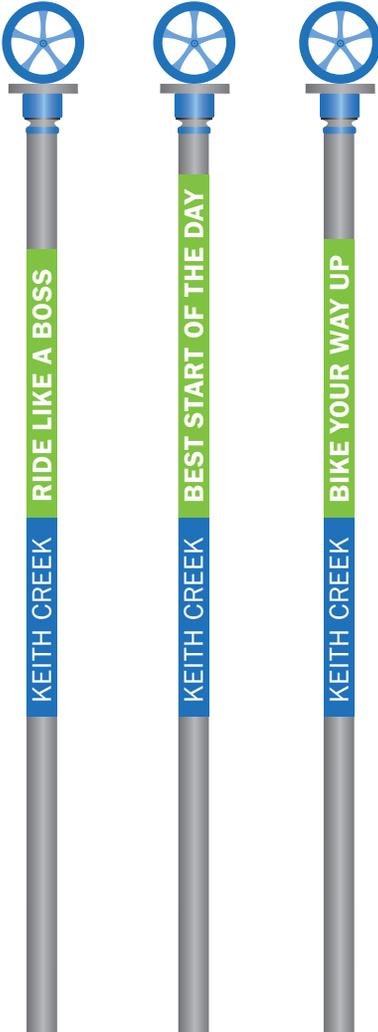
WAYFINDING POLE TOPPERS

Pole toppers can be an easy, cost effective way of adding a creative and unique element to wayfinding features. The concept presented here shows three types of pole toppers, each signifying a different type of cyclist, 'sport cyclist', 'casual cyclist', and 'commuting cyclist'. In this case, pole toppers are associated with different phrases, all of which are aimed toward one of the three cyclist groups. Phrases are meant to be playful and to urge cyclists and walkers to enjoy the Greenway Trail in a variety of ways for a variety of reasons.



WAYFINDING POLE PHRASES

COMMUTING CYCLIST



CASUAL CYCLIST



SPORT CYCLIST



EDUCATION

The greenway improvements offer a natural opportunity to build public knowledge of the Keith Creek watershed and the greenway, itself. The recommended approach to the rehabilitation and redevelopment of the creek and surrounding areas includes the naturalization of the creek and its banks, the reintroduction of native plantings, habitat restoration, and other ecological interventions. These improvements and interventions offer opportunities for the community to learn about the existing habitat, as well as ways to improve and respect the natural world.

EDUCATIONAL PROGRAMMING

There are a number of public and private schools as well as non-profits that serve children within the watershed. The proximity to the creek offers an opportunity to incorporate hands-on learning into the curriculum. Given the complexity of factors surrounding Keith Creek, that curriculum could incorporate lessons on the biological aspects of the creek in addition to lessons on local and regional history, civic issues, geology, physics, mathematics, and other subjects. A number of schools are within walking distance of the creek and can implement a creek-related curriculum:

- Constance Lane Elementary School
- Lincoln Middle School
- Rockford Christian School

- East High School
- Spectrum Progressive Schools
- Gregory Elementary School
- Rockford University

Existing partnerships and programs could also be leveraged. Constance Lane Elementary School has an existing partnership with Burpee Museum of Natural History which offers after-school programming. This existing programming could be built upon to incorporate Keith Creek lessons and curriculum.

The Rockford Park District currently offers Nature Quest as a summer camp program for ages 5-12 at Alpine Hills Adventure Park. This existing programming has the potential for expansion to other locations, or could incorporate learning objectives that include the Keith Creek watershed.



KEITH CREEK ENGAGEMENT SESSION



HANDS-ON LEARNING



URBAN ECOLOGY CENTER - MILWAUKEE, WI

HUB FOR OUTDOOR EDUCATION

Concepts for the Keith Creek greenway trail include activity nodes along the creek. A hub for outdoor education could also be constructed and can serve as a gathering area dedicated to learning. A relatively inexpensive approach would include the construction of an amphitheater along the greenway that might serve as an outdoor classroom and gathering area. In the case of the amphitheater along the Bee Branch Creek (see case study), a tiered stormwater feature was incorporated into the amphitheater's design. This is used as a teaching mechanism when teaching about the flow of water through the landscape.

Another alternative would be the construction or renovation of a building that houses year-long activities. For example, there are three Urban Ecology Centers in Milwaukee neighborhoods that serve to provide after-school and summer programming, a hub for outdoor education, equipment rentals for summer and winter activities, and field trips. This model showcases the integration of the natural world within urban neighborhoods.

A Keith Creek urban ecology center could provide equipment rentals that promote outdoor activity and use of the greenway, such as gardening equipment for nearby community gardens and at-home use, bicycle and helmet rentals, binoculars for bird watching, and other

items dictated by neighborhood interest. This ecology center could coordinate with other entities such as the Rockford Park District, Rockford Public Library, Rockford Public Schools, Severson Dells Nature Center, Forest Preserves of Winnebago County, Natural Land Institute and others to offer consistent programming. This physical hub would serve to coordinate with the local schools and non-profits for the integration of curriculum. Not only would a neighborhood ecology center have the capacity to be a hub of education, but it could also serve as a community center serving other neighborhood activities and needs.

EDUCATION CASE STUDY: BEE BRANCH TRAIL IN DUBUQUE, IOWA



The Bee Branch Trail is a one-mile greenway that runs the length of Bee Branch Creek. The multi-use trail includes scenic overlooks, rest areas, gardens, a bioswale boardwalk, and an outdoor amphitheater (pictured above). The outdoor amphitheater is used for performances, gatherings, and outdoor lessons and workshops.

Each improvement to the creek has the ability to serve multiple functions; art that informs, signage that promotes the brand, infrastructure that teaches.

EDUCATION

INFORMATIONAL SIGNAGE

An additional method of developing public knowledge of the creek is to provide informational and engaging signage along the waterway and within the watershed. This signage will help visitors and community members recognize their proximity to Keith Creek as a natural feature, even while being within a decidedly urban area. Signage can include information about flora and fauna, the natural history of the area, the development and industrial history of the Rockford area. The signage will emphasize the daily interaction of the natural and urban environment.

This informational signage can also inform passersby of historic flooding issues and previous water levels. As improvements are continually made to address the flooding occurrences within area, the signage can serve to inform where the neighborhood has been, and the progress that has been made.

This informational approach can also expand beyond signage and incorporate public art components such as sculpture and murals. For example, in areas where the creek crosses under a bridge, signage indicating that one is “Now Crossing Keith Creek” can inform residents of the obscured flow of the creek through the city. This could be particularly useful at Alpine Road & Morsay Drive where the creek runs beneath Alpine Road, at Keith Creek where it flows beneath Charles Street from 20th to 22nd Streets, and where the creek passes beneath State Street near Roxbury Road.

All signage should incorporate Keith Creek branding materials to reinforce brand recognition.



WATER LEVEL SCULPTURE



EDUCATIONAL SIGN

PUBLIC ART

Public art can act as a welcome invitation to experience an area that may seem inaccessible otherwise. From stakeholder interviews, the planning team heard that many areas near Keith Creek seem dangerous, which deters people from spending time in the area. The inclusion of public art along the greenway will add creative points of interest and an invitation to linger, especially when coordinated with the other planned improvements. Art can indicate that an area is cared for, encouraging others to do the same.

ART PROGRAMMING

Murals placed in strategic areas will assist in highlighting the greenway and will offer additional points of interest for users. Highly visible exterior walls and fences offer a desirable surface for mural placement. Murals can display a variety of different artworks and can serve to educate the public about the creek, water themes, native plant themes, or simply aesthetically improve the area. Potential mural areas are indicated on the map (Figure 10) on page 44.

Of special note are the opportunities at the fence of Behr Recycling. The tall privacy fence with its barbed wire that surrounds the property offers a prime opportunity to add artwork related to Keith Creek. The creek currently passes beneath the property and is

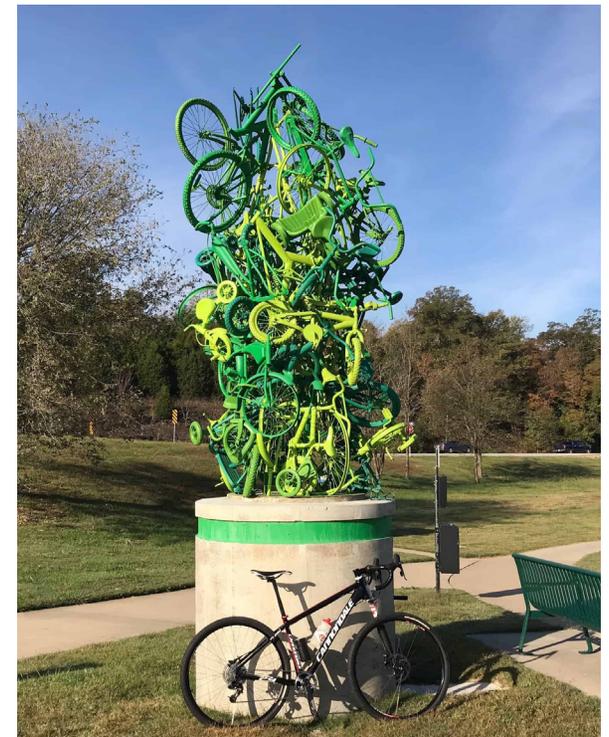
otherwise obscured. Adding artwork to the fencing would highlight the creek's presence while beautifying the neighborhood on an otherwise unattractive site.

While the long-term concept for the creek includes naturalizing the banks of the creek, the channelized walls that exist at portions of the creek could be utilized for public art opportunities including murals or sculptures that are incorporated into the walls.

The concept images in the Land Use Framework indicate opportunities for key activities along the greenway. Those nodes can be further enhanced by including a critical mass of sculptural art. The strategic placement of art and activities next to each other will encourage residents to gather. The aim is to have a variety of points of interest in close proximity to one another in order to create an easily-accessible attraction. While the sculptural work could be adjacent to the creek, it could also be placed within the creek, above the water line, to highlight the presence of the creek.

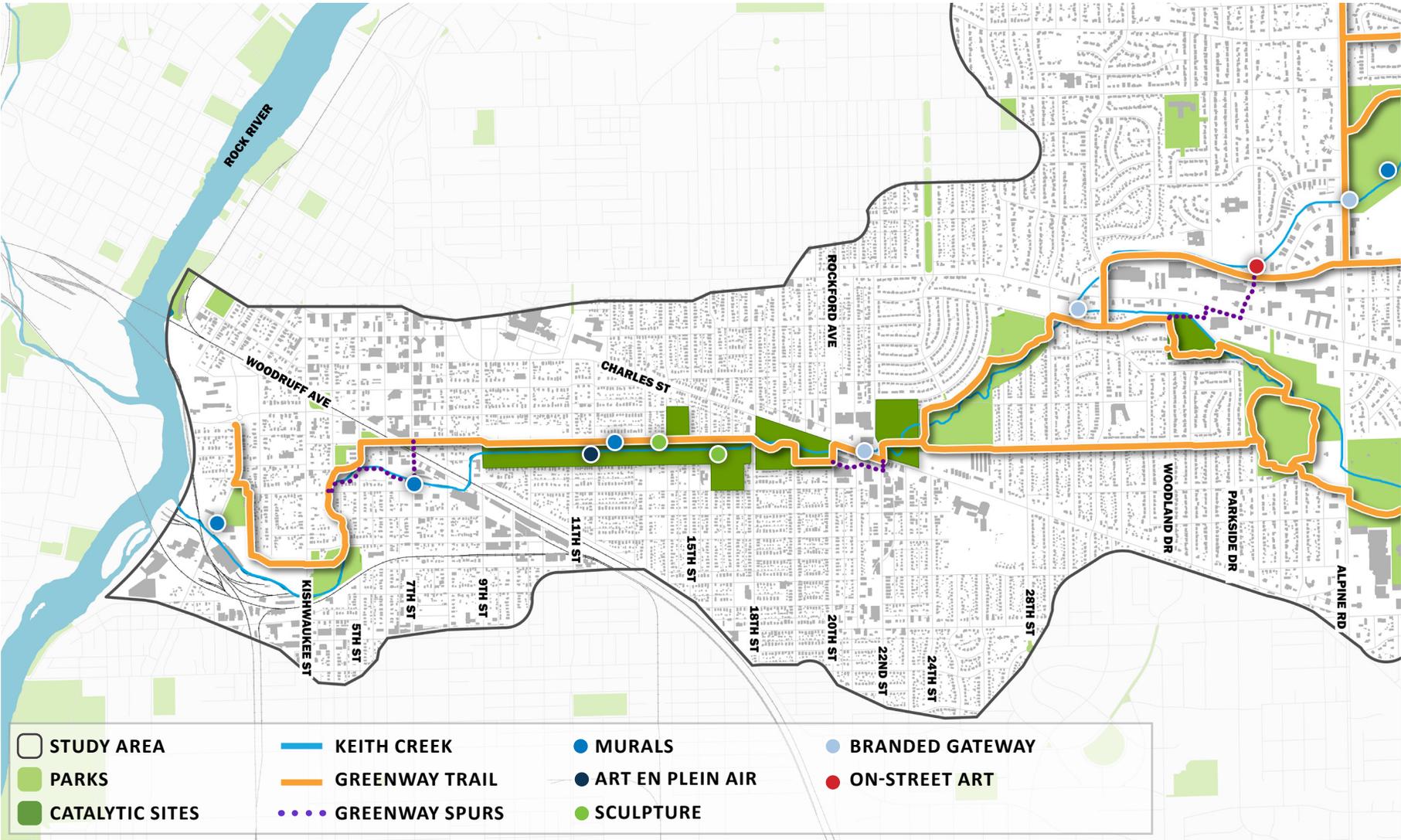
Partnerships with existing arts organizations and artists will ensure local involvement while facilitating the coordination of public art along the greenway. Art has the opportunity to familiarize the public with the creek through programming, ensuring a human presence along the creek and attention to the creek.

Dedicated art programming can include the coordination of events for children, novice artists, and professional artists. Programming of various mediums can help to appeal to a broader audience. Programming could span from sculpture and murals to live performance and pop-up events. Regular programming will activate the creek while providing a creative means of envisioning its potential.



GREENWAY SCULPTURE

FIGURE 10: PUBLIC ART OPPORTUNITIES





SAN PEDRO CREEK MURAL



ESCONDIDO TRAIL MURAL



ART EN PLEIN AIR



WATER MURAL



FRAME SCULPTURE



SNAKE WALL SCULPTURE

RECREATION

The Keith Creek greenway corridor benefits from its proximity and flow through 11 parks. The park system has created the base for a cohesive greenway trail by connecting greenspace through an urban area.

PLAYGROUNDS

The greenway corridor would benefit from the enhancement of parks and playgrounds through which the greenway already passes. While concept images in the Land Use Framework present larger structural changes, the existing parks already serve as places to gather and as nodes of activity. With focused effort on programming, maintenance, and enhancement of the existing park spaces, these existing parks can further serve greenway users. Upgraded and ADA-accessible playground equipment, nature playscapes, splashpads, and naturalized fountain features can all serve to enhance the existing play areas. Additionally, outdoor exercise equipment that provides resistance training has gained popularity and can be incorporated along the greenway. The branding of the greenway and signage along it can also serve to promote the unique aspects of each park; i.e. sledding at Twin Sisters Park, horseshoes at Dahlquist Park, baseball/softball at Churchill Park, and mountain biking at Alpine Hills Adventure Park.

The existing parks already serve as one of the strongest assets of the proposed greenway; it is the connection between parks via the greenway that will have the most impact.

OUTDOOR ACTIVITIES

An urban ecology center or other interim activity hub can encourage additional recreational activities by offering equipment rentals for activities such as bicycling, fishing, lawn sports, gardening, camping, and potentially watercraft. It is anticipated that animal habitat and aquatic habitat will increase along the waterway as actions to improve water quality are taken. Increasing habitat may encourage residents to consider fishing and angling along the creek. The naturalization of the creek bed may also, at certain water levels, allow opportunities for kayaking in the lower reaches. In the winter, snowshoe, cross country ski, fat tire bikes, and sled rentals could offer additional neighborhood recreational opportunities.



NATURALIZED SPLASH PAD



NATURAL PLAYSCAPE



OUTDOOR GYM EQUIPMENT

MOUNTAIN BIKING

The Rockford area has experienced an increase in popularity and use of local mountain biking trails through the recent construction of Atwood Park and Alpine Hills trails, building on the popular trails at Rock Cut State Park. The greenway corridor offers opportunities to incorporate mountain biking by offering side trails with features such as wood rollers, see-saws, berms and tabletops. These features can build riders' skills and offer new challenges. By placing these features adjacent to the paved multi-use path, the side trail can offer a 'choose your own adventure' opportunity, expanding the user group that might find the greenway interesting.

Features can be built for varying skill levels; for newer riders a bike playground can offer an introduction to features, while 'green' and 'blue' level skill trails can ease additional riders into the sport or add variety to their traverse through the greenway. These features offer another opportunity to incorporate local art and history into the landscape; features can showcase Rockford's history with trail names that reference local events or people. Additional dirt single track opportunities exist both at Aldeen Park and Alpine Park. The side trails for mountain bike use are incorporated into the Land Use Framework concepts.

RECREATION CASE STUDY: THE MASTERPIECE MOUNTAIN BIKING TRAIL BENTONVILLE, ARKANSAS



The Masterpiece Mountain Bike Trail is part of the Oz Trails system in Bentonville, Arkansas. Opened in 2020, the Masterpiece Trail includes rideable art and installations that are accessible to all levels of bikers. These mountain bike installations are made of metal and other durable materials that can withstand the elements. This portion of the trail system branches off from a nearby multiuse path.

EDUCATION, RECREATION, ART, & BRANDING RECOMMENDATIONS

GOAL: CREATE AN IDENTITY FOR THE GREENWAY WHILE OFFERING MEANINGFUL, ENGAGING EXPERIENCES ALONG THE WAY.

Recommendation #1: Develop a graphic logo, colorway, and branding standards for the greenway that are recognizable City- and region-wide.

- » *Action 1.1: Develop a focus group comprised of local residents and stakeholders in order to develop themes and integrate local culture into the branding.*
 - » *Action 1.2: Integrate design standards into elements along the greenway; informational and directional signage, banners, trash cans, trails, bridges, and other public infrastructure.*
 - » *Action 1.3: Create trailheads and gateways that reinforce the brand of the creek and act as key gathering areas.*
 - » *Action 1.4: Incorporate branded wayfinding signage to inform greenway users of distance to key destination areas.*
-

Recommendation #2: Develop an education campaign to promote public knowledge of the watershed, the greenway, and its components.  **DEI**

- » *Action 2.1: Coordinate with schools and non-profits serving children in the watershed for hands-on field trips and curriculum integration with water and nature-related subject matter.*
- » *Action 2.2: Identify or build a hub for outdoor education.*
- » *Action 2.3: Develop signage along the creek that provides information about water as a natural resource as well as the history of the area and its neighborhoods.*

Recommendation #3: Provide various means of recreation along the greenway at key nodes.

- » *Action 3.1: Enhance existing parks and playgrounds along the greenway.*
 - » *Action 3.2: Encourage outdoor activities by providing equipment rentals at an urban ecology center, or interim location along the greenway.*
 - » *Action 3.3: Build upon the existing and growing mountain biking culture to offer side trails and mountain bike playgrounds.*
-

Recommendation #4: Emphasize public art along the greenway to improve aesthetic quality and align with the Keith Creek branding.

- » *Action 4.1: Coordinate infrastructure and recreational improvements to include public art enhancements.*
 - » *Action 4.2: Develop committee to review artists' submission for mural and sculpture placement and content.*
 - » *Action 4.3: Using identified key nodes, build critical mass of public art.*
 - » *Action 4.4: Paint murals on highly visible exterior walls and vertical faces of the Keith Creek channel walls.*
 - » *Action 4.5: Incorporate regular event programming to bring local kids, novice, and professional artists to the creek to build/maintain momentum.*
-

Recommendation #5: Uplift local artists, makers, and educators from diverse backgrounds. **DEI**

- » *Action 5.1: Engage local artists, particularly those from diverse backgrounds, to create artworks, murals, and sculptures.*
- » *Action 5.2: Work with hired artists to provide community benefits, such as mural painting workshops for local students.*
- » *Action 5.3: Ensure that curriculums are reviewed and vetted by local educators and are informed by Keith Creek's history.*

CHAPTER 4

LAND USE & DEVELOPMENT

LAND USE FRAMEWORK OVERVIEW

LAND USE SYNERGIES

Land use and development intensity are directly related to flooding severity within the Keith Creek watershed and the broader community. Beginning in the early 1800s, the watershed's native forest and prairie landcover began to be replaced with impervious surfaces that hinder the natural drainage of stormwater. The creek itself is highly channelized in many areas and is constrained by culverts that impede flow toward the Rock River. There is little buffer between the creek and the built environment throughout the corridor. The intensity of development in the areas abutting the creek, especially those located within the floodplain, has led to chronic flooding issues that impact the health, safety, and wellbeing of broader community. There is not one solution to the challenges experienced within the Study Area. However, a coordinated flood mitigation, redevelopment, and creek naturalization effort has the potential to lessen the impacts of flooding in the future.

Land use mix, understood as the physical relationship between land uses, influences mobility, recreation, livability, and economic development throughout the Keith Creek corridor. Harmonious land uses encourage the development of neighborhoods or districts that are accessible, economically vibrant, healthy and livable. For example, the development

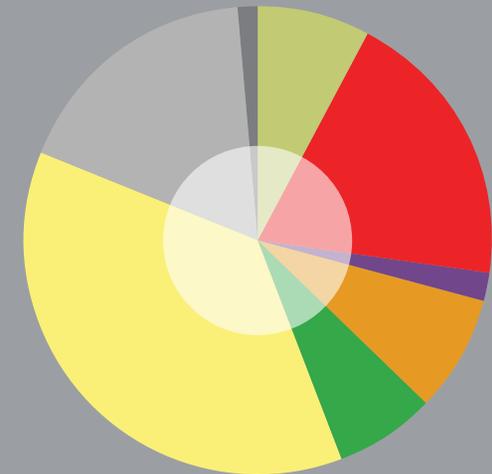
of small businesses coupled with trails or paths around a community green space can encourage shoppers to recreate at the green space. Similarly, businesses that incorporate creek-facing elements, such as patios and overlooks can draw in visitors, while also celebrating a unique natural feature. Such symbiotic land uses can be developed to support one another. Within the Keith Creek Study Area, the introduction of more places to gather, as well as the establishment of better alternative (non-automobile) mobility networks can help to uplift the community by creating accessible community hubs from which future development can emanate.

LAND USE FRAMEWORK

The Keith Creek Corridor Land Use Framework is meant to guide corridor improvements that balance the need for corridor resilience, recreation, access to the creek, economic development, mobility, and environmental protection. The following section outlines Land Use and Development Strategies that will help to shape corridor development and improvements.

LAND USE FACTS

The Keith Creek Study Area is predominantly single-family residential and commercial. The Focus Area has a greater proportion of multi-family and commercial land uses and is much denser than the remainder of the Study Area.



Single Family	36.8%
Commercial	19.5%
Transportation	17.6%
Multi Family	8.1%
Agricultural	7.9%
Open Space	7.1%
Industrial	1.8%
Other	1.2%

LAND USE FRAMEWORK STRATEGIES

1. LOW DEVELOPMENT INTENSITY AND FLOOD MITIGATION

Encourage low development intensity within the floodplain. Undeveloped areas, vacant parcels, and underutilized parcels that are within the floodplain, especially those identified as opportunity sites and those within the regulatory floodway, should be prioritized for acquisition so they may be protected, left undeveloped, or be used as community green spaces. Additional stormwater detention should be implemented within existing green spaces, such as Dahlquist Park and Twin Sister Hills Park, in order to reduce stormwater volume downstream.

Developable sites outside of the floodplain should abide by low-impact development standards, such as the implementation of permeable surfaces, native plantings, and stormwater management infrastructure.

Sites within the floodplain that are already developed should be required to abide by low-impact development standards when improvements become necessary.

Flood mitigation should remain the priority in this area, followed by efforts to achieve the remaining Land Use Framework strategies.

1

2. NATURALIZATION AND PROTECTION

Establish Keith Creek and natural areas as valuable community amenities while also maintaining a physical distinction between the natural and built environment. Natural buffers, comprised of native prairie plantings, should serve as a barrier between the creek and surrounding hardscapes.

Land uses near the creek should enhance water quality and stormwater management. To the extent possible, undeveloped areas within the floodplain, including wetlands and natural habitats, should be preserved and protected. Land that is vacant or underutilized should be acquired and rehabilitated to natural conditions.

Overall, hardscapes should be reduced in order to aid filtration, reduce runoff, and mitigate flooding. Creek channels should be removed and bank-stabilization measures should be implemented where possible. The creek bed and surrounding areas should be naturalized to encourage habitation of wildlife, as well as human interaction with the creek.

2

LAND USE FRAMEWORK STRATEGIES

3. EQUITY, ACCESS, AND MOBILITY

Develop a robust alternative transportation network that connects Keith Creek, open spaces, residential neighborhoods, and economic nodes in order to promote access to jobs, recreation, and other key amenities. Incorporate multi-use paths, bike lanes, and sidewalks throughout the study area. Any gaps in the pedestrian and bicycle network should be addressed and ameliorated in order to promote a continuous and safe alternative transportation network that can be used by anyone, despite physical ability or vehicle access.

ADA accessibility, visibility, and ease of use should be prioritized throughout the transportation network. New developments, both private and public, should be required to incorporate ADA accessible paths, sidewalks, seating, and gathering areas whenever possible. Community gathering spaces and green spaces should prioritize accessibility, equity, and access in their designs. When building out the mobility network in this area, safety should be a key priority. Mid-block crossings, HAWK signals, pedestrian refuges, and other interventions should be utilized to improve safety throughout the corridor.

3

4. COMPATIBLE LAND USES

Ensure that land uses, both developed and undeveloped, are complementary and promote use of and access to nearby amenities. Adjacent land uses should be harmonious, and the mix of land uses throughout the Study Area should further goals and recommendations related to creek access, mobility, economic development, and corridor resilience.

The development of community gathering spaces and green spaces should be prioritized in order to promote activity and improve quality of life throughout the corridor. Gathering spaces and green spaces that are developed near other commercial and residential areas can spur future investment, attract businesses, and increase visitation. Conversely, investment and development around community gathering spaces can lend to vibrant and well-balanced neighborhoods. Also, the increased connectivity of neighborhoods to existing commercial nodes, such as Midtown and Charles Street will help to increase economic activity.

Commercial, residential, and office developments should interface with Keith Creek and green spaces by providing access points that allow visitors, residents, and patrons to easily interact with a variety of neighborhood amenities and spaces.

4

CATALYTIC SITES

OPPORTUNITY SITES

During the initial phases of the planning process, the planning team identified 32 opportunity sites throughout the entire Keith Creek Study Area. Opportunity sites include vacant or underutilized sites, sites with industrial or undesirable uses, sites owned by the City of Rockford or other government entity, or sites ready for development, redevelopment, or improvement.

CATALYTIC SITES

After identifying the initial 32 opportunity sites, the planning team selected four ‘catalytic’ sites within the Study Area. Several of the catalytic sites are comprised of multiple adjacent opportunity sites. These sites have the greatest potential for change and the most opportunities for generating holistic community benefits. The catalytic sites have been impacted the most by flood damage, and their redevelopment

offers the greatest chances for effective flood mitigation. The redevelopment of these sites will likely impact the rest of the Keith Creek Study Area by spurring additional investment, enhancing mobility, and improving access to the creek.

The Land Use strategies are applied to four catalytic development sites located within the Study Area. The catalytic sites serve as benchmarks for future projects within the corridor. Site concepts reference applicable recommendations from each of the plan’s other focus areas, exhibiting the ways in which development can holistically address many of the corridor’s needs.

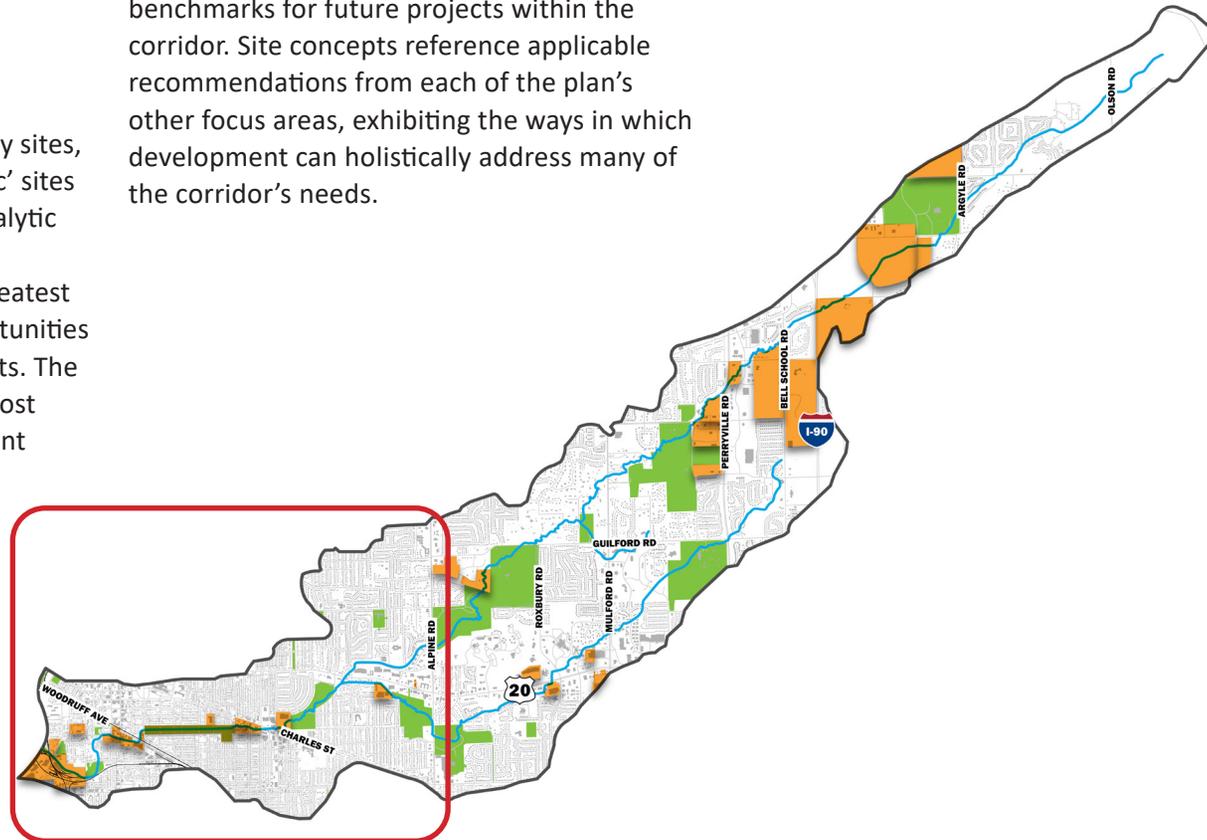
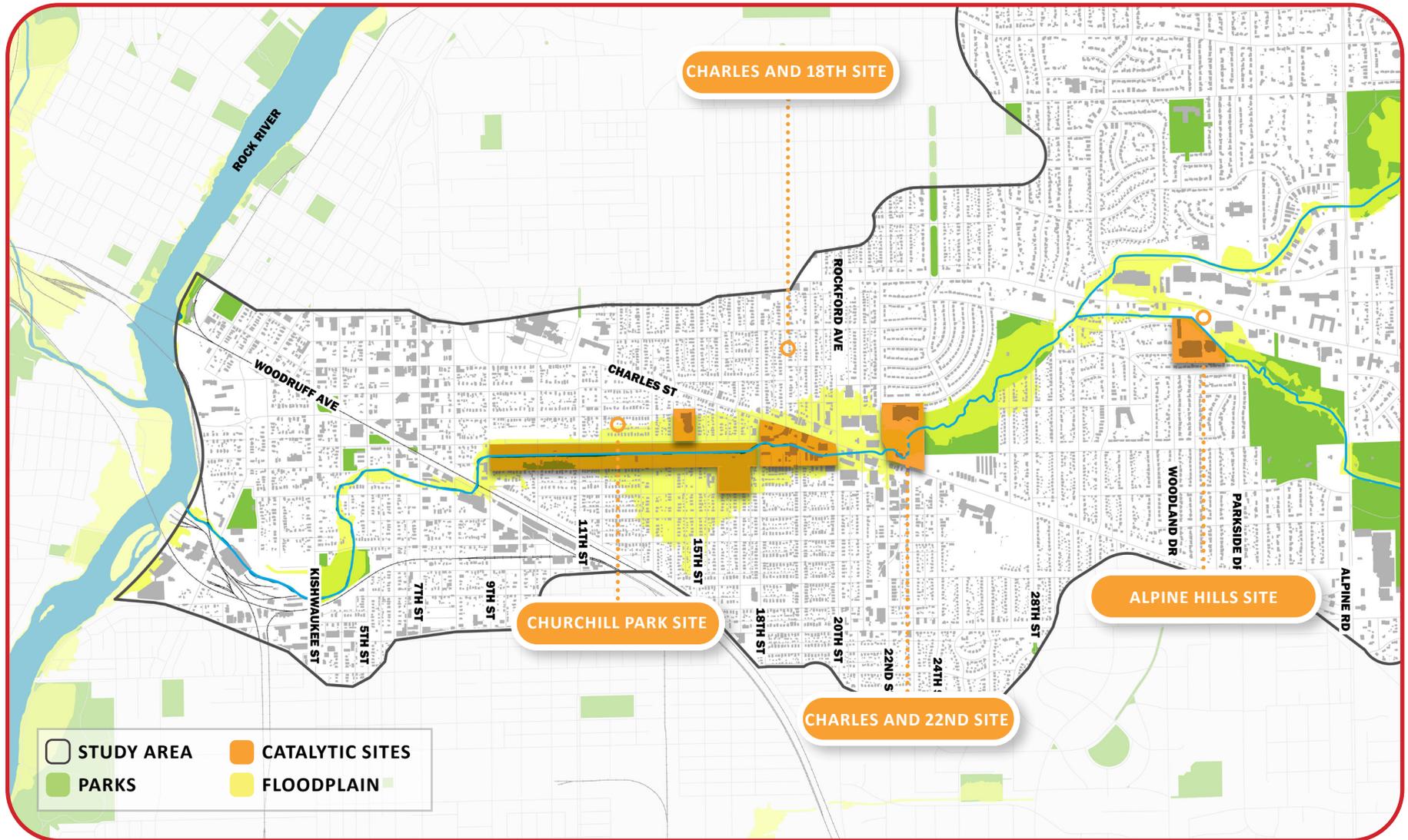


FIGURE 11: CATALYTIC SITES



SITE DEVELOPMENT COSTS

SITE DEVELOPMENT SCENARIOS

Each catalytic site description includes two development scenarios; Option 1 is a 'Better' scenario and Option 2 is a 'Best' scenario. The 'Best' scenario is the one that is most in-line with Land Use and Development Strategies. It exemplifies best practices as they relate to design, stormwater management, equity, mobility, and ecological protection. The 'Better' scenario applies Land Use and Development Strategies, but was designed with the understanding that there are often obstacles to planning and development, such as limited funding or interests of private property owners.

The purpose of providing two development scenarios is to facilitate corridor improvements, regardless of external circumstances. If implemented, either scenario will benefit the Keith Creek Corridor, but planners and decision makers have the option to determine which scenario or development features are appropriate given available resources and project constraints.

DEVELOPMENT COSTS

Each of the development scenarios includes a cost range. A simplified development budget for each scenario is also provided. Planners and decision makers can use this sample budget as a guide as they pursue the redevelopment of these sites. Depending on funding availability and requirements, they can choose to slowly phase in improvements, or they can complete the project all at once.

It is recommended that initial site improvements include any stormwater management and flood mitigation measures before implementing any recreational components or community amenities. Stormwater and flood mitigate components are highlighted in the sample development budgets.

OPTION 1

A 'better' scenario that primarily focuses on flood mitigation with some additional elements and community benefits.

OPTION 2

A 'best' scenario that addresses each of the four Land Use Framework strategies, providing a variety of economic, environmental, and community benefits.

NEGATIVE EXTERNALITIES AND THE COST OF DOING NOTHING

While each of the following development scenarios has a cost associated with it, maintaining existing conditions also has an ongoing cost.

The negative externalities associated with frequent, severe flooding include decreased property values, public infrastructure damage, and destruction of private property. Homeowners may also contend with health effects caused by mold and may have difficulty selling their homes. These negative externalities of persistent flooding amount to millions of dollars spent after each flood. The improvements suggested in the following concepts seek to ameliorate some or all of these issues, thus saving money for the City of Rockford and private property owners.

PROPERTIES AFFECTED

There are approximately 600 properties located within or partially within the Keith Creek Regulatory Floodway. Many of these properties must pay for flood insurance or maintenance costs associated with flooding. Property values may be lower and owners may struggle to sell their properties.

INSURANCE COSTS

On average, flood insurance costs in Rockford are \$1,450 per year. This amounts to approximately \$870,000 in insurance costs per year for properties within the Keith Creek floodway. Some businesses and multi-family property owners may pay even more in insurance costs.

BENEFITS OF REDEVELOPMENT

The benefits of redeveloping properties according to the Land Use Framework strategies have the potential to outweigh the costs. Property values could increase, public infrastructure maintenance costs could decrease, and surrounding neighborhoods could experience growth and economic development.

CHURCHILL PARK

EXISTING CONDITIONS

The Churchill Park Site, which is located within the Keith Creek floodway, spans from 9th Street to the west to 18th Street to the east. The Keith Creek channel cuts through the entire site, which has experienced numerous severe flooding events throughout the years. Until 2009, homes lined both banks of the creek. The severe damage caused by the 100-year floods of 2006 to 2007 led to the acquisition and demolition of over 115 of these homes. The site currently sits vacant, aside from the sports fields located to the east of the site. Besides the bridges on 9th, 11th, 15th, and 18th Streets, there is no way to cross over the creek. There

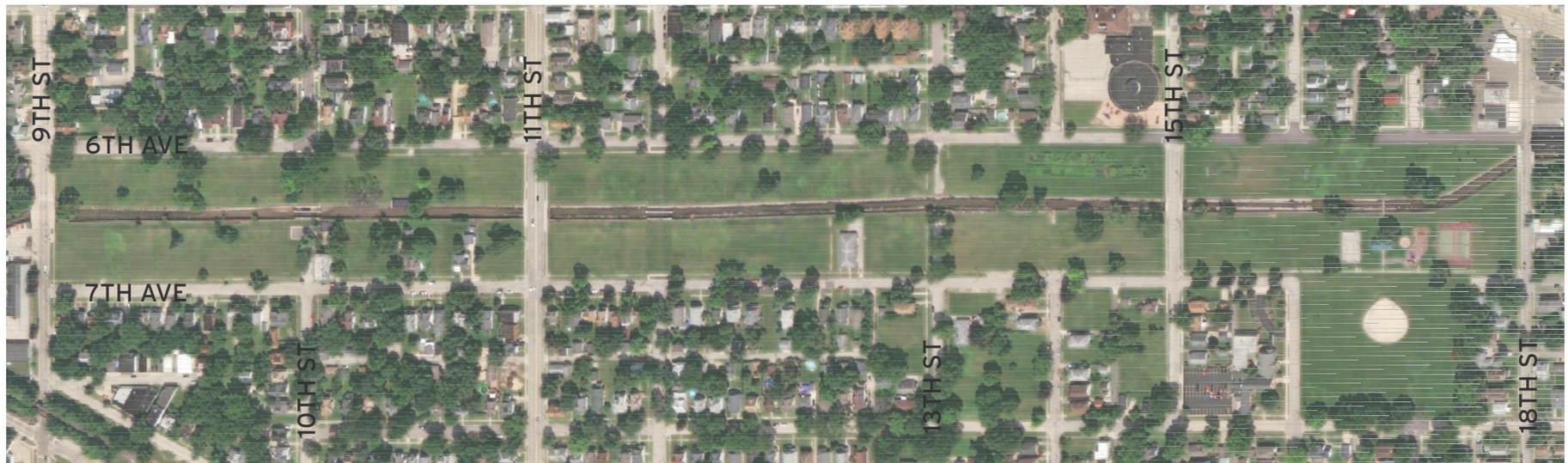
are also no sidewalks along the north and east sides of the site. Any site improvements must account for inundation, as this area continues to experience frequent flooding.

VISION

The Churchill Park concept demonstrates a number of best practices and improvements that can be applied throughout the Keith Creek corridor and, in particular, within the DEI area at the key opportunity sites. This vision focuses on the specific location that has seen the most deleterious impacts from flooding and intends to show potential enhancements on the large, underutilized property. The concept depicted

is a comprehensive vision that combines storm water management practices, transportation connections, environmental and ecological enhancements, creek access improvements, and educational and recreation opportunities to create a one-of-a-kind open space in Rockford.

Key site features include a naturalized creek channel, a multiuse path/greenway trail, and a multitude of gathering nodes. The Churchill Park athletic fields would be preserved, and existing community garden plots would be relocated to the parcel to the north (6th Avenue and 14th Street). The northern parcel would also serve as a naturalized detention basin.



SITE EXISTING CONDITIONS

FIGURE 12: CHURCHILL PARK VISION



KEY FEATURES AND IMPROVEMENTS

- | | |
|------------------------------------|--|
| A NATURALIZED CREEK CHANNEL | H NATIVE SHADE AND ORNAMENTAL TREES |
| B MULTIUSE PATH | I PICNIC AND PERFORMANCE LAWNS |
| C PEDESTRIAN BRIDGES | J MOUNTAIN BIKE TRAILS/ADVENTURE COURSE |
| D STREET ART | K GATHERING NODES |
| E OVERLOOKS | |
| F RESTORED NATIVE PLANTS | |
| G CRUSHED STONE PATHS | |

KEY CHALLENGES

- 1** LIMITED FUNDING AVAILABILITY MAY REQUIRE A PHASED DEVELOPMENT APPROACH AND EFFICIENT PLANNING
- 2** UTILITY RELOCATION OF SANITARY SEWERS THAT CURRENTLY RUN UNDER THE CREEK CHANNEL
- 3** CHANNEL REMOVAL AND CREEK NATURALIZATION
- 4** DESIGNING FOR INUNDATION AND RESILIENCE DUE TO CONSISTENT FLOODING
- 5** PROPERTY ACQUISITION OF SURROUNDING PROPERTIES AS THEY BECOME AVAILABLE TO MITIGATE FLOODING IMPACTS

CHURCHILL PARK

COMMUNITY BENEFITS

The conceptualized site is a community hub that will provide residents and visitors with numerous amenities aimed at improving quality of life. The concept includes multiple gathering nodes, which could feature seating, tree cover and shade, and opportunities for sculptures and art. Secondary crushed stone walking paths and seating areas through the native plantings would allow people to enjoy the landscape, as well as explore educational kiosks and art. Picnic and performance lawns would provide space for small neighborhood events and pedestrian-scale lighting would improve safety and accessibility throughout the site. Other community benefits would include potential mountain bike trails or adventure paths and community garden plots.

STORMWATER IMPROVEMENTS

The Churchill Park site is located completely within the Keith Creek floodway and regularly experiences creek overflow. The site concept has been designed to mitigate flooding to the greatest extent possible and includes permeable surfaces, native plantings, a widened, naturalized creek bed, and materials that can withstand regular inundation. Stepped stone outcropping areas will serve as places for community members to gather, while also capturing water during larger storm events. Despite these improvements, it is expected that flooding will

continue to impact the neighborhood beyond this site (see the extent of the floodplain on page 103, Figure 24). In order to fully mitigate flooding, it is recommended that the City acquires funding for and continues gradual acquisition and demolition of properties surrounding this site (see Acquisition Overlay District and explanation on page 107, Figure 27).

TRANSPORTATION AND UTILITIES INFRASTRUCTURE IMPROVEMENTS

This concept will require bridge rehabilitations on existing bridges located at 11th Street, 15th Street, and 18th Street, as well as new pedestrian sidewalks along the entire perimeter of the green space. The concept also requires sanitary sewer interceptor relocation and side street sanitary main connections (see page 95, Figure 22). Other infrastructural improvements will include water main crossing improvements and fiber or Wi-Fi and video surveillance communication improvements.

MOBILITY AND ACCESSIBILITY IMPROVEMENTS

In order to improve mobility and accessibility to and throughout this site, the concept includes a multiuse bike and pedestrian path on the north side of the creek. This provides a safe route through the site and serves as a critical linkage to the overall greenway concept. Multiple creek

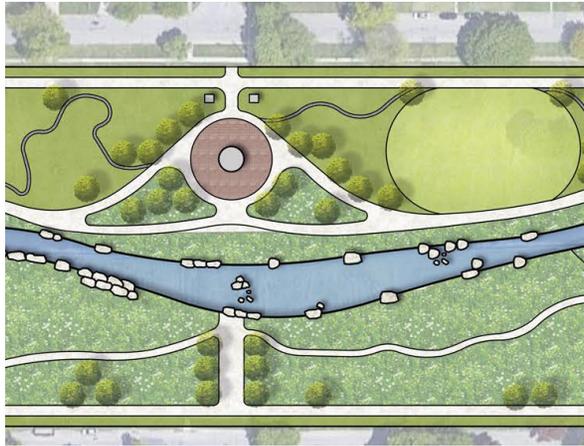
overlook points and seating pockets would provide visitors with places to gather, sit, and rest, while enjoying the creek. Pedestrian bridges at 10th and 13th streets would restore north-south connectivity within the neighborhood and provide vantage points above the creek.

ECOLOGICAL IMPROVEMENTS

Naturalization of the creek channel will create an aquatic ecosystem that will provide reduced stream velocities and a diversity of aquatic habitat. The concept will improve overall water quality, which will support fish and other aquatic organisms. It will also reconnect Keith Creek with a more functional floodplain within the greenway. The prairie landscape along the stream would be vegetated with native species adapted to thrive in the periodically wet floodplain, provide habitat for birds and other wildlife, and increase the biodiversity and aesthetics of the Keith Creek corridor. This riparian habitat will also serve to improve water quality by filtering runoff and provide some infiltration. Most wetlands along Keith Creek have been destroyed, as noted in the Existing Conditions Report. This concept will serve to reestablish some of the wetland functions in this riparian corridor.

OVERLOOKS & SEATING POCKETS

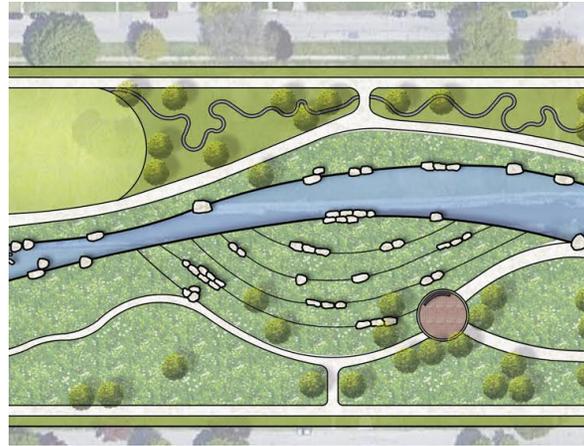
These nodes provide spaces for the community to gather, and view the creek. They are prime locations for community art, educational kiosks, and wayfinding signage.



OVERLOOK AND SEATING AREA

STONE OUTCROPPINGS

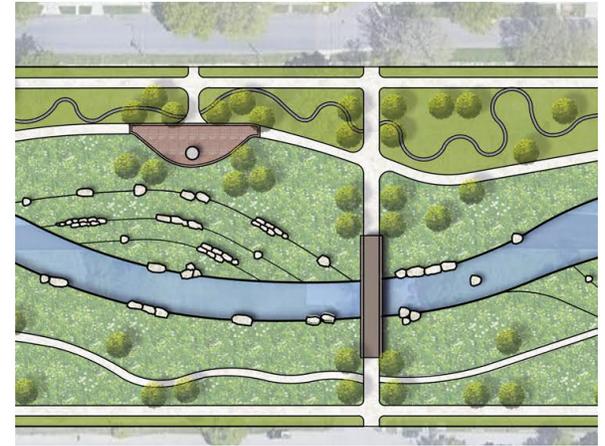
Stepped stone outcropping areas serve as places for community members to interact with the creek and recreate, while also capturing water during larger storm events.



STEPPED STONE OUTCROPPING, BEE BRANCH

PEDESTRIAN BRIDGES

A multiuse bike/pedestrian path on the north side of the creek provides a safe route through the site, which serves as a critical linkage to the overall greenway concept.



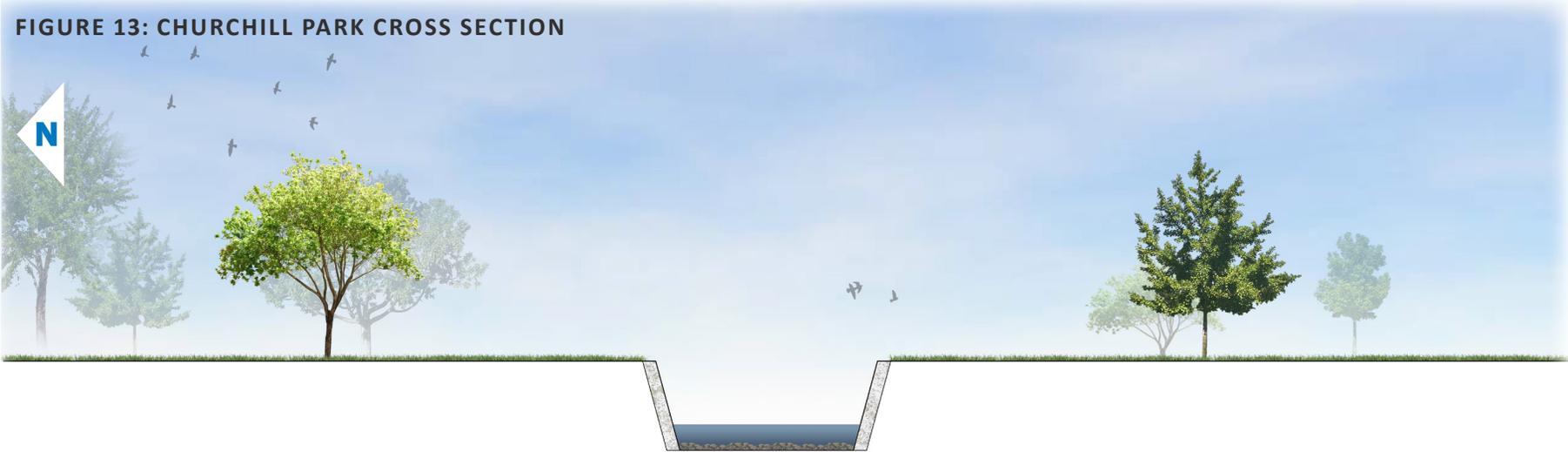
PEDESTRIAN BRIDGE

CHURCHILL PARK

CHURCHILL PARK EXISTING CONDITIONS

Currently, the Churchill Park area provides community greenspace, but is inaccessible and unsafe in some sections. The channelized creek poses safety issues with walls that drop nearly ten feet. The greenspace is unactivated and there are no sidewalks and few ways of crossing to the other side of the channel. During community workshops, community members voiced their ideas for the area, some of which are listed below. The opposite page displays several of the elements that can help bring this latent community asset to life.

FIGURE 13: CHURCHILL PARK CROSS SECTION



I would come here often if there were a dog park or a place to walk my dog.

I would like to see more outdoor events in this area!

A Keith Creek market would really help to bring people to this space.

I would love to be able to kayak Keith Creek one day!

I wish there were trash cans and bathrooms throughout this area

We need more walking paths and bike paths that are plowed regularly.



WAYFINDING



SCULPTURES



EDUCATIONAL KIOSK



STREET ART



NATIVE LANDSCAPE



NATURALIZED CREEK EDGE

“

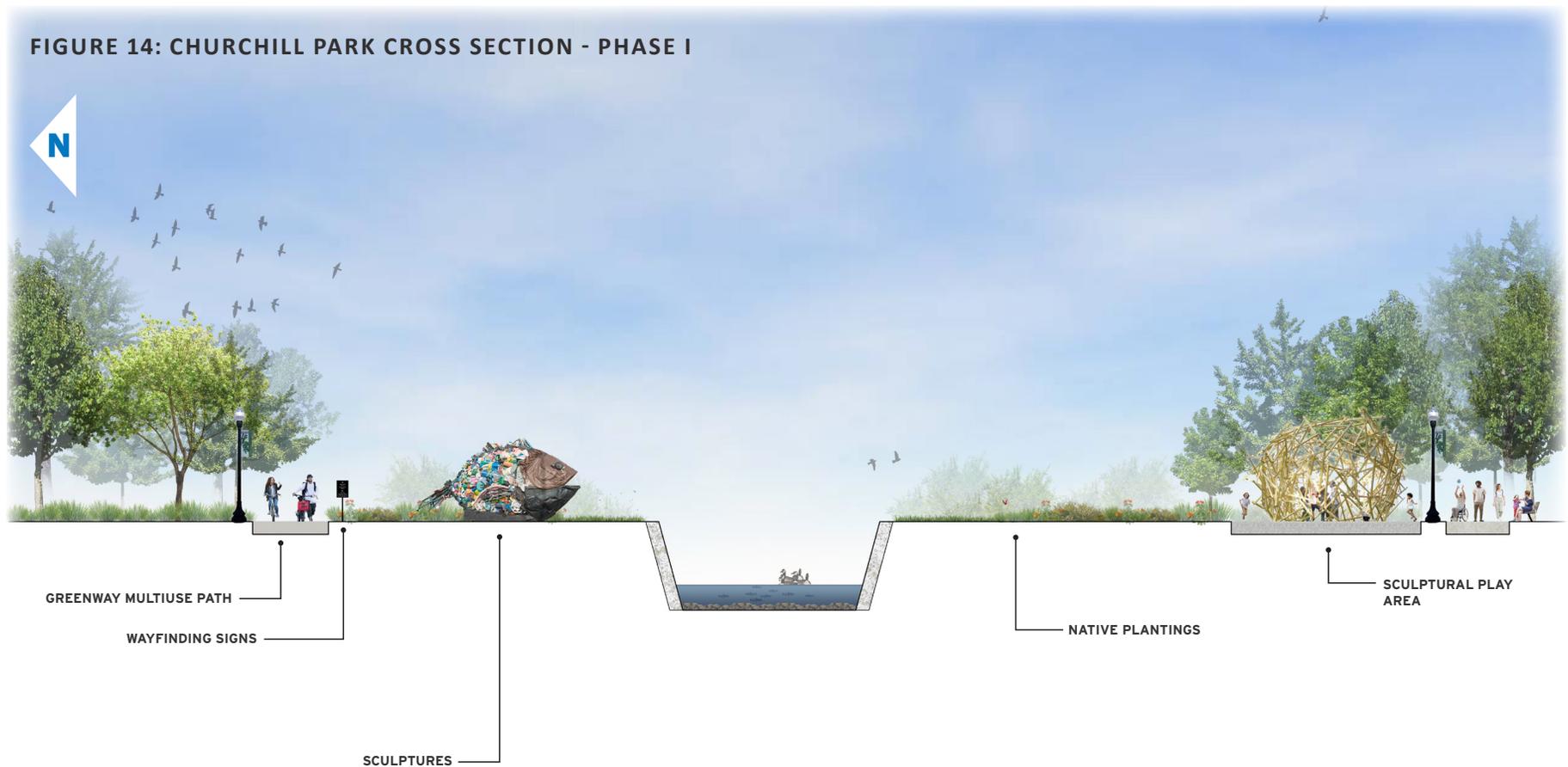
The concept depicted is a comprehensive vision that combines storm water management practices, transportation connections, environmental and ecological enhancements, creek access improvements, and educational and recreation opportunities to create a one-of-a-kind open space in Rockford.

CHURCHILL PARK

CHURCHILL PARK FIRST PHASE CONCEPT

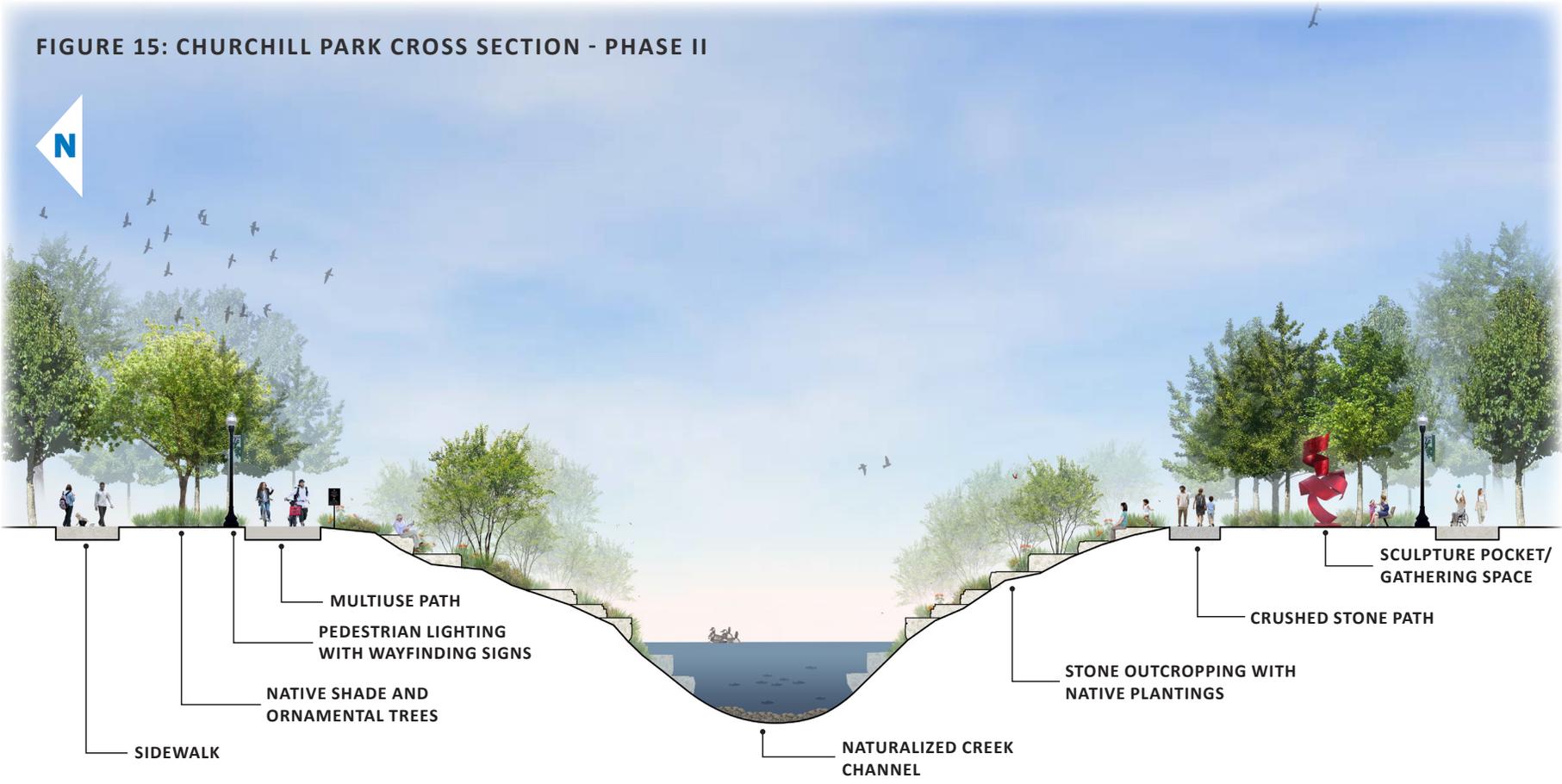
The final Churchill Park concept is ambitious and comes with challenges to implementation, including securing funding, comprehensively addressing flooding and utility issues, and engaging in a more detailed design and engineering process. Several components of this vision could be implemented within a shorter time frame to maximize community benefits while continuing to plan for the final Churchill Park redevelopment. The image below displays the features that could be expedited in order to provide the community with a number of amenities.

FIGURE 14: CHURCHILL PARK CROSS SECTION - PHASE I



CHURCHILL PARK LONG-TERM CONCEPT

The image below displays a view of Keith Creek and Churchill Park looking east. In the 'best' or ideal situation, sidewalks would traverse the perimeter of the site while a multiuse path (left) and crushed stone walking path (right) would hug the creek along the north and south banks. Each of the paths would be interspersed with seating pockets, wayfinding, art, and educational kiosks. Stepped stone outcroppings would lead down to the creek, providing opportunities for the community to interact with the creek, while also capturing water during larger storm events.



CHURCHILL PARK COST ESTIMATE

 OPTION 1 COSTS

DESCRIPTION		COST
DEMOLITION AND SITE PREPARATION		
DEMOLITION, PAVEMENT, AND UTILITIES REMOVAL		\$ 100,000
TEMPORARY BARRIERS AND SESC CONTROLS		50,000
PARK EARTHWORK		4,000,000
CREEKBED EXCAVATION AND EMBANKMENT EARTHWORK		3,500,000
CREEKBED LINER		150,000
CREEKBED BOTTOM STONE		3,500,000
CREEK EDGE STABILIZATION		
CREEKSIDE OUTCROPPING STONE - BANK STABILIZATION		\$ 1,470,000
CREEK SOILS AND PLANTINGS		
SOIL MIX AT PLANTING BEDS		\$ 2,240,000
STREAM EDGE SEEDING - GRASSES, FORBES		7,500,000
STREAM EDGE PLUGS - GRASSES, FORBES		200,000
STREAM EDGE PLANTING - SOIL ENCAPSULATED CELL EROSION CONTROL		2,475,000
HARDSCAPE AND PAVING SYSTEMS		
CONCRETE WALKS (GREENWAY TRAIL + SIDEWALKS)		\$ 1,975,000
PERMEABLE PAVER PATH		1,150,000
MOUNTAIN BIKE PATH (ASPHALT)		165,000
ENTRY PLAZA/GATHERING NODE PAVERS		95,000
OVERLOOKS		485,000

DESCRIPTION		COST
PARKSIDE SOILS AND PLANTINGS		
TOPSOIL AT PARK TURF		\$ 310,000
SHADE TREES (4" CALIPER)	<input checked="" type="checkbox"/>	240,000
ORNAMENTAL TREES (8' HEIGHT)	<input checked="" type="checkbox"/>	110,000
TURF SOD		350,000
IRRIGATION	<input checked="" type="checkbox"/>	150,000

ADDITIONAL ELEMENTS		
STREET ART MARKINGS	<input checked="" type="checkbox"/>	\$ 20,000
SCULPTURES	<input checked="" type="checkbox"/>	15,000
PLAY ELEMENTS	<input checked="" type="checkbox"/>	15,000

UTILITIES AND INFRASTRUCTURE		
SANITARY SEWER		\$ 5,000,000
WATER MAIN		800,000
LOCAL STORM SEWER		400,000
LIGHTING/ELECTRICAL/FIBER		3,200,000
PEDESTRIAN BRIDGE (2)		500,000
11TH STREET BRIDGE	<input checked="" type="checkbox"/>	2,000,000
15TH STREET BRIDGE	<input checked="" type="checkbox"/>	2,000,000
	SUBTOTAL (OPTION 1 ONLY)	6,675,000
	30% CONTINGENCY	2,002,500
	OPTION 1 CONSTRUCTION ESTIMATE	8,677,500
	SUBTOTAL	\$ 44,165,000
	30% CONTINGENCY	\$ 13,249,500
	TOTAL CONSTRUCTION ESTIMATE (SUBJECT TO CHANGE)	\$ 57,414,500

CHARLES & 18TH

EXISTING CONDITIONS

The properties east of 18th Street between Charles Street and 7th Avenue consist of a mix of land uses, including commercial uses along Charles Street, some of which are vacant and City owned, and a mix of small industrial and commercial uses south of Keith Creek along 7th Avenue. A number of vacant buildings and lots are scattered throughout the block to the south of the creek. The creek is channelized and contained between retaining walls, portions of which are in disrepair, at the rears of these properties with little to no access to the creek itself. In most cases, buildings and parking lots immediately abut the creek with no buffers or setbacks.



SITE EXISTING CONDITIONS

VISION OPTION 1

The concepts envisioned for this location align with the overall strategies of naturalizing the creek's channel, allowing for more permeable surface to help alleviate flooding, and providing better access to the creek. The first concept demonstrates how new development can better relate to the creek by fronting commercial uses along Charles Street with parking in the rear, while simultaneously providing a large buffer between the development and the creek. The retaining walls have been removed and the creek channel has been realigned. Vacant lots and buildings to the south would be replaced with native landscape and open space.

KEY CHALLENGES

- 1 CONSOLIDATING PROPERTY
- 2 MULTIPLE PROPERTY OWNERS
- 3 LIMITED FUNDING AVAILABILITY

KEY FEATURES AND IMPROVEMENTS

- A NATURALIZED CREEK CHANNEL
- B RESTORED NATIVE PLANTS
- C MULTI-FAMILY OR COMMERCIAL BUILDINGS

FIGURE 16: CHARLES & 18TH VISION OPTION 1



CHARLES & 18TH

VISION OPTION 2

The second concept extends the vision further to the east and south. It depicts how this location could provide more green space that relates to Churchill Park and better addresses the creek. This concept also depicts an overlook that links to the neighborhood, expanded native planting areas, and a potential alignment for the multiuse path on the south side.

COMMUNITY BENEFITS

The Charles and 18th site serves as a continuation of the Keith Creek Greenway trail and green infrastructure network. As such, it would help to facilitate the movement of people throughout the corridor. Other community benefits include a more consistent and walkable street frontage and economic development opportunities along Charles Street, several gathering nodes along the creek, and a large swath of native plantings.

STORMWATER IMPROVEMENTS

The site concept includes permeable surfaces, native plantings, and a widened, naturalized creek bed. Many of the impermeable surfaces on the site are eliminated and the land is rehabilitated to facilitate stormwater drainage.

TRANSPORTATION AND UTILITIES INFRASTRUCTURE IMPROVEMENTS

The site concept will require the construction of a multiuse path along the perimeter of the naturalized landscape, as well as fiber of Wi-Fi and video surveillance communication improvements.

ECOLOGICAL IMPROVEMENTS

This concept would provide a naturalized connection with the Churchill Park reach of Keith Creek. This reach, east of 18th Street, is steep-sided or vertical-walled and constrained by the remnants of a former railroad bridge over the creek. This concept would open the area up and provide more open native vegetation in a continuous riparian corridor. Deep-rooted native prairie vegetation will provide improved water quality, wildlife habitat, and an improved aesthetic. As with the Churchill Park reach, this concept will also provide much improved aquatic habitat.

KEY FEATURES AND IMPROVEMENTS

- A** NATURALIZED CREEK CHANNEL
- B** MULTIUSE PATH
- C** OVERLOOK
- D** RESTORED NATIVE PLANTS
- E** MULTI-FAMILY OR COMMERCIAL BUILDINGS

FIGURE 17: CHARLES & 18TH VISION OPTION 2



CHARLES & 18TH COST ESTIMATE

 OPTION 1 COSTS

DESCRIPTION		COST
DEMOLITION AND SITE PREPARATION		
DEMOLITION, PAVEMENT, AND UTILITIES REMOVAL		\$ 100,000
TEMPORARY BARRIERS AND SESC CONTROLS		50,000
PARK EARTHWORK		735,000
CREEKBED EXCAVATION AND EMBANKMENT EARTHWORK		575,000
CREEKBED LINER		95,000
CREEKBED BOTTOM STONE		500,000
CREEK EDGE STABILIZATION		
CREEKSIDE RIPRAP - BANK STABILIZATION		\$ 280,000
CREEK SOILS AND PLANTINGS		
SOIL MIX AT PLANTING BEDS		\$ 330,000
STREAM EDGE SEEDING - GRASSES, FORBES		1,100,000
STREAM EDGE PLUGS - GRASSES, FORBES		30,000
STREAM EDGE PLANTING - SOIL ENCAPSULATED CELL EROSION CONTROL		430,000
HARDSCAPE AND PAVING SYSTEMS		
CONCRETE WALKS (GREENWAY TRAIL + SIDEWALKS)		\$ 470,000
OVERLOOKS		40,000

DESCRIPTION		COST
PARKSIDE SOILS AND PLANTINGS		
TOPSOIL AT PARK TURF		\$ 185,000
SHADE TREES (4" CALIPER)		60,000
ORNAMENTAL TREES (8' HEIGHT)		28,000
TURF SOD		250,000
IRRIGATION		150,000
UTILITIES AND INFRASTRUCTURE		
WATER MAIN	<input checked="" type="checkbox"/>	\$ 200,000
LOCAL STORM SEWER	<input checked="" type="checkbox"/>	100,000
LIGHTING/ELECTRICAL/FIBER	<input checked="" type="checkbox"/>	800,000
	SUBTOTAL (OPTION 1 ONLY)	5,325,000
	30% CONTINGENCY	1,597,500
	OPTION 1 CONSTRUCTION ESTIMATE	6,922,500
	SUBTOTAL	\$ 6,508,000
	30% CONTINGENCY	\$ 1,952,400
	TOTAL CONSTRUCTION ESTIMATE (SUBJECT TO CHANGE)	\$ 8,460,400

CHARLES & 22ND

EXISTING CONDITIONS

Keith Creek is highly channelized through this site, situated between the McDonald's and Schnuck's parking lots and two vehicular drives that span over the creek. There are three culverts that impede the flow of water through this section, which floods the parking lots and creates an unsafe condition.



SITE EXISTING CONDITIONS

VISION OPTION 1

The concepts propose to address this condition by combining a number of modifications to circulation and access and providing new, expanded green space.

The first concept envisions removing the westernmost bridge and eliminating the southern portion of Schnucks' parking lot, eliminating impermeable surfaces and creating a more gradual slope and wider area for water to pool during heavier storm events. The creek would also be realigned to eliminate the current 90-degree bend on the east and connect into Twin Sister Hills Park on the east. The embankment would be enhanced with native planting and trees.

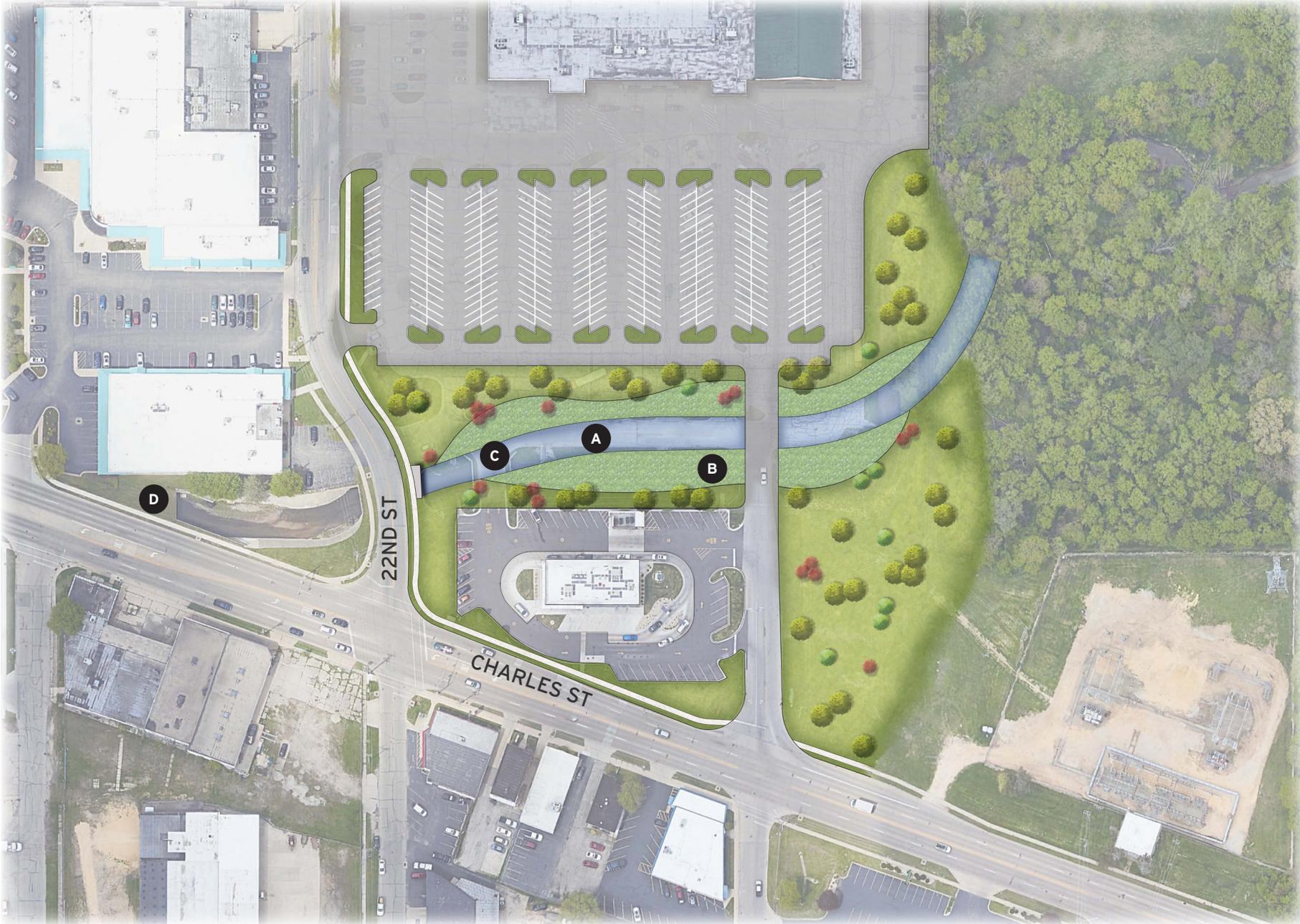
KEY FEATURES AND IMPROVEMENTS

- A** NATURALIZED CREEK CHANNEL
- B** RESTORED NATIVE PLANTS
- C** 1 REMOVED BRIDGE/CULVERTS
- D** REPLACED/EXPANDED CULVERT (CHARLES ST)

KEY CHALLENGES

- 1** PRIVATE OWNERSHIP
- 2** LIMITED CIRCULATION AND VEHICULAR ACCESS
- 3** LIMITED FUNDING AVAILABILITY

FIGURE 18: CHARLES & 22ND VISION OPTION 1



CHARLES & 22ND

VISION OPTION 2

The preferred concept eliminates both bridges/culverts that connect the two parking lots, which removes the impediments to the flow of the creek, except for the culvert under 22nd Street.

In either scenario the southernmost access drive from 22nd Street into Schnucks' parking lot would be shifted to the north. The westernmost culvert, which flows under Charles Street, would also be expanded. The proposed multiuse path, or greenway, in this section is shown on the north side of the creek.

COMMUNITY BENEFITS

Removing the culverts would alleviate these issues for the community and the two private property owners on this site. A continuation of the Greenway Trail would facilitate movement east to Twin Sister Hills Park, providing the community with easier access to this recreational amenity

STORMWATER IMPROVEMENTS

The most critical stormwater improvements are the removal of the culverts and bridges that lead between McDonald's and Schnucks, as well as the replacement and expansion of the culvert under Charles Street. Even if the vehicular drives are not removed, the replacement of the

easternmost culvert will still help to improve flow, potentially improving flooding conditions further downstream. The Charles Street culvert replacement is specifically highlighted in the Fehr Graham report and the Rockford CIP.

TRANSPORTATION AND UTILITIES INFRASTRUCTURE IMPROVEMENTS

This site concept requires several major infrastructural improvements, including culvert and bridge removals and parking reduction and reconfiguration.

MOBILITY AND ACCESSIBILITY IMPROVEMENTS

Mobility and accessibility is facilitated by the introduction of a pedestrian bridge and the construction of a multiuse path that leads to two spur paths in Twin Sister Hills Park. A pedestrian and bicycle enhanced street crossing at Charles Street will also improve safety for those using alternative methods of transportation.

ECOLOGICAL IMPROVEMENTS

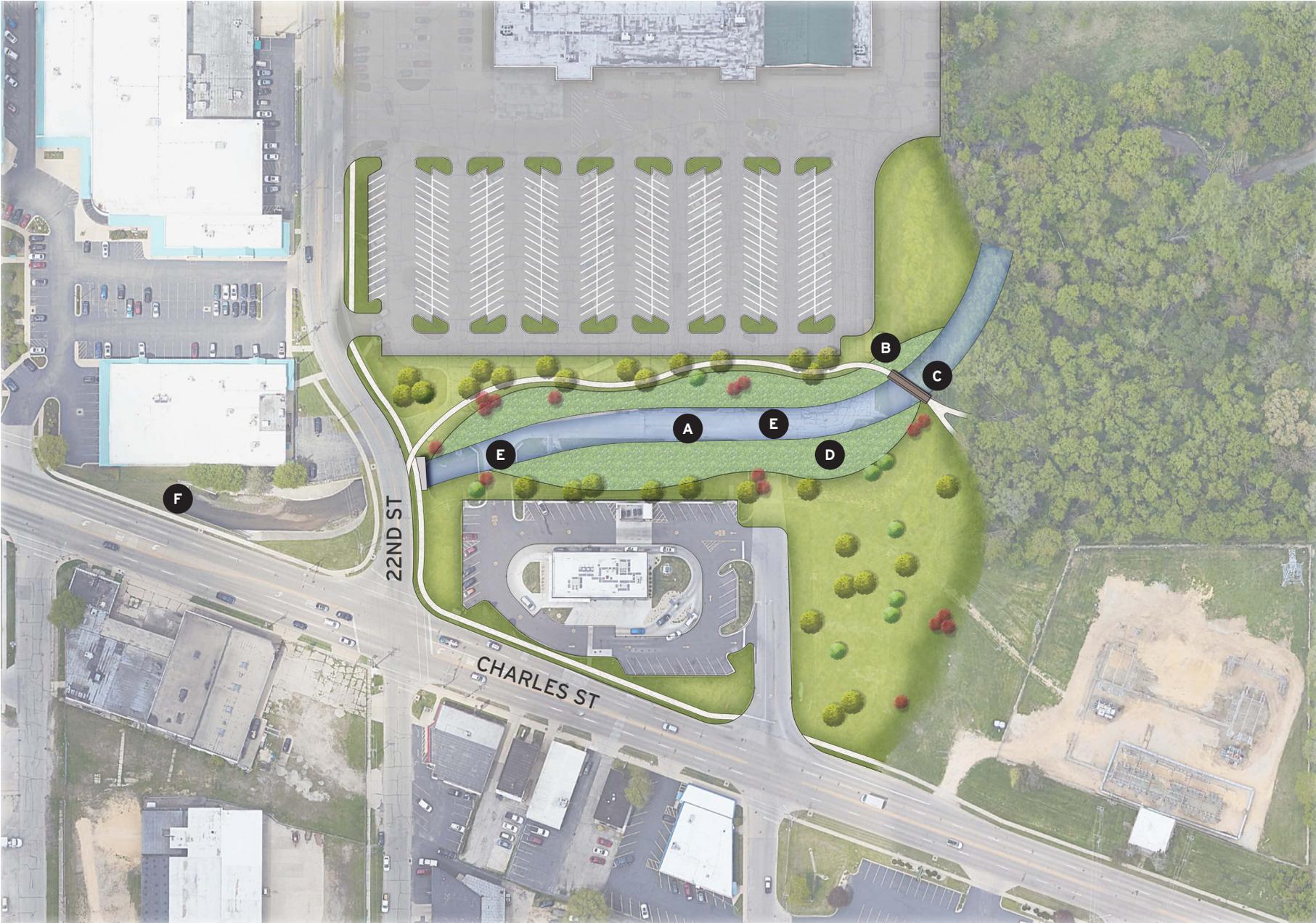
The site concept would alleviate a sharp 90-degree turn in the creek channel, remove several flow-restrictive culvert crossings, and provide a more naturalized channel structure and geometry. This improved channel will provide better aquatic habitat and be better

able to absorb low and moderate level flood flows. Reduced side slopes would provide improved stability and thus improved water quality through reduced erosion. Deep-rooted native vegetation will help stabilize the riparian corridor and provide pollinator habitat. This concept also gives the creek a somewhat broader naturalized floodplain.

KEY FEATURES AND IMPROVEMENTS

- A** NATURALIZED CREEK CHANNEL
- B** MULTIUSE PATH
- C** PEDESTRIAN BRIDGE
- D** RESTORED NATIVE PLANTS
- E** 2 REMOVED BRIDGES/CULVERTS
- F** REPLACED/EXPANDED CULVERT (CHARLES ST)

FIGURE 19: CHARLES & 22ND VISION OPTION 2



CHARLES & 22ND COST ESTIMATE

 OPTION 1 COSTS

DESCRIPTION		COST
DEMOLITION AND SITE PREPARATION		
DEMOLITION, PAVEMENT, AND UTILITIES REMOVAL		\$ 100,000
TEMPORARY BARRIERS AND SESC CONTROLS		50,000
PARK EARTHWORK		755,000
CREEKBED EXCAVATION AND EMBANKMENT EARTHWORK		612,000
CREEKBED LINER		100,000
CREEKBED BOTTOM STONE		560,000
CREEK EDGE STABILIZATION		
CREEKSIDE RIPRAP - BANK STABILIZATION		\$ 620,000
CREEK SOILS AND PLANTINGS		
SOIL MIX AT PLANTING BEDS		\$ 140,000
STREAM EDGE SEEDING - GRASSES, FORBES		475,000
STREAM EDGE PLUGS - GRASSES, FORBES		15,000
STREAM EDGE PLANTING - SOIL ENCAPSULATED CELL EROSION CONTROL		420,000
HARDSCAPE AND PAVING SYSTEMS		
CONCRETE WALKS (GREENWAY TRAIL + SIDEWALKS)		\$ 100,000

DESCRIPTION		COST
PARKSIDE SOILS AND PLANTINGS		
TOPSOIL AT PARK TURF		\$ 130,000
SHADE TREES (4" CALIPER)		12,000
ORNAMENTAL TREES (8' HEIGHT)		12,800
TURF SOD		145,000
IRRIGATION		150,000
UTILITIES AND INFRASTRUCTURE		
SANITARY SEWER	<input checked="" type="checkbox"/>	\$ 500,000
WATER MAIN	<input checked="" type="checkbox"/>	500,000
LOCAL STORM SEWER	<input checked="" type="checkbox"/>	100,000
LIGHTING/ELECTRICAL/FIBER	<input checked="" type="checkbox"/>	50,000
PEDESTRIAN BRIDGE		250,000
CHARLES STREET CULVERT	<input checked="" type="checkbox"/>	4,000,000
CHARLES STREET/20TH INTERSECTION REPLACEMENT	<input checked="" type="checkbox"/>	4,000,000
	SUBTOTAL (OPTION 1 ONLY)	\$ 12,997,000
	30% CONTINGENCY	\$ 3,899,100
	OPTION 1 CONSTRUCTION ESTIMATE	\$ 16,896,100
	SUBTOTAL	\$ 13,796,800
	30% CONTINGENCY	\$ 4,139,040
	TOTAL CONSTRUCTION ESTIMATE (SUBJECT TO CHANGE)	\$ 17,935,840

ALPINE HILLS

EXISTING CONDITIONS

The Alpine Hills site currently consists of a largely vacant strip shopping center with a large parking lot. The property is almost entirely impermeable surface between asphalt and building roofs, all draining directly into Keith Creek, which runs diagonally through the site under the paving in a culvert. The City of Rockford owns this parcel, but no definitive redevelopment or re-use plans have been determined.

VISION OPTION 1

The concepts for this site consider an alternate approach to redevelopment that balances potential new uses with daylighting the creek and re-establishing a riparian corridor. By placing new commercial or residential uses closer to State Street, along with the associated parking, the creek can be realigned and restored as a feature connecting to Alpine Hills Park to the east and the residential neighborhood to the west. Ample green space would feature new native planting and an expanded area for flood storage.

KEY FEATURES AND IMPROVEMENTS

- A** NATURALIZED CREEK CHANNEL
- B** PEDESTRIAN BRIDGES
- C** GATHERING NODE
- D** RESTORED NATIVE PLANTS

KEY CHALLENGES

- 1** BALANCING ECONOMIC DEVELOPMENT AND ENVIRONMENTAL ENHANCEMENTS
- 2** ESTABLISHING A LAND USE VISION
- 3** LIMITED FUNDING AVAILABILITY



SITE EXISTING CONDITIONS

FIGURE 20: ALPINE HILLS VISION OPTION 1



ALPINE HILLS

VISION OPTION 2

The second concept builds upon the first and depicts a potential new park space adjacent to the existing neighborhood in place of the unprogrammed green space. This open space includes new walking paths, a pavilion, gathering spaces, and mountain bike trails, as well as the multiuse greenway path. It also envisions establishing a wooded buffer with shade and ornamental trees as a better transition to the State Street corridor for the existing homes.

COMMUNITY BENEFITS

This concept includes linkages to adjacent neighborhoods, which will facilitate residents' access to the multiuse path and a gazebo-protected gathering node. This site serves as a linkage to Alpine Hills Adventure Park and will facilitate access to that greenspace, as well. Daylighting the creek, naturalizing the creek bed, and adding native plantings and inline storage will reduce flooding risk while providing visitors with a beautiful place to recreate.

STORMWATER IMPROVEMENTS

This concept adds approximately 30 acre-feet of inline flood storage within Alpine Park to provide additional flood protection. The concept also includes the daylighting of the creek and conversion of the Alpine Hills Plaza

downstream of Alpine Park to an open channel and greenway system with in-line stormwater storage. This would increase stormwater flood storage and provide additional flood protection of adjacent properties.

TRANSPORTATION AND UTILITIES INFRASTRUCTURE IMPROVEMENTS

This site concept will require a pedestrian bridge that connects the Greenway Trail to State Street. It will also require the construction of a multiuse path along the creek and a connection to Marieme Drive and State Street. Sanitary sewer interceptor rehabilitation or replacement may also be required, as well as fiber or Wi-Fi and video surveillance communication improvements.

MOBILITY AND ACCESSIBILITY IMPROVEMENTS

Pedestrian bridges that lead to State Street and Alpine Hills Adventure Park will help bikers and pedestrians to move between Keith Creek's more commercial areas to surrounding neighborhoods and green spaces.

ECOLOGICAL IMPROVEMENTS

The concept at Alpine Hills includes daylighting a reach of Keith Creek that is currently piped beneath an unused parking lot. Restoring this to a naturalized, above-ground stream will

provide continuity for the aquatic and riparian ecosystems that is not currently present. This will offer improvements in water quality, aesthetics, wildlife habitat, aquatic habitat, and flood attenuation. New aquatic habitat for fish and invertebrates will be provided by both the new channel, and the inline stormwater storage basin. The prairie landscape and the storage basin will be vegetated with deep-rooted native species adapted to life in the floodplain that will provide new habitat for pollinators and other wildlife.

KEY FEATURES AND IMPROVEMENTS

- A** NATURALIZED CREEK CHANNEL
- B** MULTIUSE PATH
- C** PEDESTRIAN BRIDGE
- D** RESTORED NATIVE PLANTS
- E** MOUNTAIN BIKE PATH
- F** GATHERING GAZEBO
- G** NEIGHBORHOOD CONNECTION

FIGURE 21: ALPINE HILLS VISION OPTION 2



MOUNTAIN BIKING



As mentioned in the Recreation section of this plan, mountain biking trails and courses can attract different types of users to green spaces and can round out amenity offerings. The Alpine Hills site provides an opportunity for a well-integrated ‘adventure path’ that children and adults can utilize while still staying close to the Greenway Trail.



Flooding control is vital, but why not make the land useful and appealing at the same time?

- Community Member

ALPINE HILLS COST ESTIMATE

 OPTION 1 COSTS

DESCRIPTION		COST
DEMOLITION AND SITE PREPARATION		
DEMOLITION, PAVEMENT, AND UTILITIES REMOVAL		\$ 100,000
TEMPORARY BARRIERS AND SESC CONTROLS		50,000
PARK EARTHWORK		735,000
CREEKBED EXCAVATION AND EMBANKMENT EARTHWORK		603,000
CREEKBED LINER		92,000
CREEKBED BOTTOM STONE		465,000
CREEK EDGE STABILIZATION		
CREEKSIDE RIPRAP - BANK STABILIZATION		\$ 765,000
CREEK SOILS AND PLANTINGS		
SOIL MIX AT PLANTING BEDS		\$ 510,000
STREAM EDGE SEEDING - GRASSES, FORBES		1,418,000
STREAM EDGE PLUGS - GRASSES, FORBES		40,000
STREAM EDGE PLANTING - SOIL ENCAPSULATED CELL EROSION CONTROL		525,000
HARDSCAPE AND PAVING SYSTEMS		
CONCRETE WALKS		\$ 20,000
MOUNTAIN BIKE PATH (ASPHALT)		50,000
PLAZA PAVERS		19,000

DESCRIPTION		COST
PARKSIDE SOILS AND PLANTINGS		
TOPSOIL AT PARK TURF	<input checked="" type="checkbox"/>	\$ 150,000
SHADE TREES (4" CALIPER)	<input checked="" type="checkbox"/>	168,000
ORNAMENTAL TREES (8' HEIGHT)	<input checked="" type="checkbox"/>	52,000
TURF SOD	<input checked="" type="checkbox"/>	110,000
IRRIGATION	<input checked="" type="checkbox"/>	150,000
ADDITIONAL ELEMENTS		
STREET ART MARKINGS		\$ 20,000
GAZEBO		500,000
UTILITIES AND INFRASTRUCTURE		
SANITARY SEWER	<input checked="" type="checkbox"/>	\$ 1,500,000
LOCAL STORM SEWER	<input checked="" type="checkbox"/>	100,000
LIGHTING/ELECTRICAL/FIBER	<input checked="" type="checkbox"/>	200,000
PEDESTRIAN BRIDGES		500,000
		SUBTOTAL (OPTION 1 ONLY) 7,733,000
		30% CONTINGENCY 2,319,900
		OPTION 1 CONSTRUCTION ESTIMATE 10,052,900
		SUBTOTAL \$ 8,842,000
		30% CONTINGENCY \$ 2,652,600
		TOTAL CONSTRUCTION ESTIMATE (SUBJECT TO CHANGE) \$ 11,494,600

LAND USE & DEVELOPMENT RECOMMENDATIONS

GOAL: DEVELOPING PROJECTS WITHIN THE KEITH CREEK WATERSHED THAT INCREASE INTERACTION WITH THE CREEK, THE RESILIENCE OF THE CORRIDOR, AND SUPPORT ECONOMIC DEVELOPMENT.

Recommendation #1: Prioritize and develop community gathering spaces that benefit the greater community and that incorporate amenities for people of all ages and abilities.  **DEI**

The development of community green space, multiuse paths, public art installations, playgrounds, and seating areas help support a healthy, accessible, and equitable community. The project concepts described in this plan incorporate all of these elements. In addition to guiding development on the four catalytic sites highlighted in this study, the concepts can be referenced when designing, planning, or approving projects throughout the corridor.

- » *Action 1.1: Develop more detailed plans for the Churchill Park area, which will enhance access to the creek, provide recreational opportunities, and facilitate mobility throughout the area via a Multi-Use Path. Conduct a Cost-Benefit Analysis to ensure development benefits outweigh costs.*
 - » *Action 1.2: Work with existing property owners and assist them in implementing privately-owned, site-specific improvements along the creek.*
 - » *Action 1.3: Work with the Land Bank to buy properties along the creek that are within the Property Buy-out Overlay District. Demolish properties and develop as community gathering spaces once consolidated.*
-

Recommendation #2: Incentivize commercial and residential developments that highlight Keith Creek and incorporate creek-facing, publicly accessible elements, such as overlooks, walking paths, and patios.  **DEI**

Future commercial and residential projects can provide an opportunity to promote corridor vibrancy, support the community, and celebrate the creek's natural assets. Developers can build off the proposed land use framework and the proposed design concepts presented in this study as benchmarks for future developments. Doing so will support the development of community

'hubs' that integrate a variety of amenities, thus attracting more people to gather, shop, and recreate, and better retain the existing heritage of Keith Creek.

- » *Action 2.1: Review land use regulations around the creek to identify and update municipal code to include land uses that function to de-intensify development near the creek.*
- » *Action 2.2: Develop regulatory codes to support entitlement incentives.*
- » *Action 2.3: Ensure incorporation of the Keith Creek Corridor Plan into the City's in-progress Comprehensive Plan.*

Recommendation #3: Encourage the appropriate development of opportunity sites, underutilized sites, and vacant lots.

These sites can be developed, redeveloped, or improved to support the overall land use framework and to alleviate flooding issues. In some cases, this could mean decreasing development intensity and reducing impervious surface area. The opportunity sites identified in this plan were selected based on site availability, location and access, and proximity to existing and future amenities, such as parks, multi-use paths, and economic development opportunities. These sites should be the focus of future development projects. Development can take the form of adaptive reuse projects, open spaces, multi-use paths, new development, and more.

- » *Action 3.1: Identify and acquire underutilized or vacant properties.*
- » *Action 3.2: Provide incentives for developers to develop or redevelop these sites in accordance with the land use framework.*
- » *Action 3.3: Consider creating a Keith Creek Corridor Design Guide that outlines best practices for developing within the watershed.*

Recommendation #4: Encourage land uses within the floodplain that enhance water quality and natural habitats.

Land uses that aid in the filtration of stormwater and preserve greenspace should be prioritized. Hardscapes and permeable surfaces should be minimized.

- » *Action 4.1: Develop open space which provides pervious surfaces, air filtration, and slows runoff to the creek within the floodplain.*
- » *Action 4.2: Require creek buffer standards for all communities near the creek.*
- » *Action 4.3: To the extent possible, avoid placing development, particularly that which includes impervious surfaces, within the floodplain.*
- » *Action 4.4: New developments should incorporate best management practices for development along the creek corridor.*

CHAPTER 5

TRANSPORTATION & UTILITIES INFRASTRUCTURE

TRANSPORTATION & UTILITY INFRASTRUCTURE

As the Keith Creek corridor and greenway develops, transportation and utility stakeholders should consider opportunities to replace and improve aging infrastructure along the Greenway Trail. The City of Rockford should consider how projects that are currently included in the City's and utilities' 5-year Capital Improvement Plan (CIP) could benefit or improve the vision for the corridor.

ROADWAY AND BRIDGE IMPROVEMENTS

As sections of Keith Creek are further studied and modeled for rain events, the City should consider ways to improve transportation connections and strategically review their transportation networks to explore the area where creek crossings can accommodate all multimodal users. The City's 5 year CIP includes the 8th Avenue bridge replacement in 2023, but no other larger street or bridge improvements in the Keith Creek area are planned in the next 5 years along the proposed greenway corridor. The 8th Avenue bridge design should consider the use of multimodal users for future greenway corridor use. Charles Street will be fully reconstructed in 2022, and a multiuse path will be installed on the south side of the roadway to accommodate pedestrians and cyclists traveling from East High School to the

neighborhoods and development along Alpine Road. This path could be extended to 22nd Street in the future to connect to the proposed greenway pathways.

SANITARY SEWER: FOUR RIVERS SANITATION AUTHORITY

Four Rivers Sanitation Authority (FRSA) does not have immediate plans to relocate sections of sanitary sewer under the creek but has expressed interest in future opportunities as joint channel reconstruction projects are planned. At a minimum, FRSA may consider lining sections of sanitary to reduce infiltration and inflow along the greenway route that does not conflict with proposed greenway improvements.

Overall sanitary corridor opportunities could include the following:

- Sewer main that is currently located within the creek could be replaced.
- Sections of parallel sanitary sewers running along the creek from Charles Street to East State Street could be combined into one sanitary interceptor pipe instead of two pipes on either side of the creek.
- Local sanitary sewer connections and laterals to the interceptor sewer could be replaced.

- New local sewer connections could be provided to township residents in the eastern part of the Keith Creek corridor where they currently do not exist along the creek. This would eliminate many local private septic systems improving groundwater quality.

TRANSPORTATION & UTILITY INFRASTRUCTURE

CHURCHILL PARK

Four Rivers Sanitation Authority has budgeted approximately \$7,000,000 annually on collection system rehabilitation projects over the next 10 years. This budget includes a sanitary sewer relocation under Keith Creek between 8th Street and 15th Street, which matches nicely with the proposed Churchill Greenway site redevelopment. A proposed relocation of that sewer main can be seen on the opposite page.



SEWER MANHOLE IN KEITH CREEK

CHURCHILL PARK SEWER RELOCATION

The existing sewer is outside of the Keith Creek channel from 18th Street to 14th Street. From 14th Street, onward, the sewer is rerouted underneath the creek. In order to naturalize the creek channel, the sewer would have to be relocated to 7th Avenue from 14th Street to 9th Street where it would reconnect to the existing sewer manhole.



ALPINE HILLS

The Alpine Hills Greenway site will also provide an opportunity for existing sanitary sewer improvements and rehabilitation. The existing sewer within that site could be replaced or lined as Alpine Hills is redeveloped.



WATER: CITY OF ROCKFORD WATER DIVISION

The Water Division has focused on replacing older water main in the City over the past five years and will continue to make replacement a priority. Upcoming water main replacement projects in this watershed include Seminary Street, 15th Avenue, 8th Avenue, 8th Street, and 11th Street. At the time of this study, none of the proposed greenway opportunity sites have concerns regarding water main along Keith Creek. As sections of Keith Creek are modified and improved, water main crossings can be improved, and the few short sections of the water main along the creek could be relocated. There may also be opportunities to provide new water main along the creek in the township sections of the corridor for new connections to township residents. This would eliminate local private wells and improve township residents' drinking water quality.

TELECOMMUNICATION

High-speed internet and a fiber-optic network are coming to the City based on a recent agreement between the City and SiFi Networks. SiFi Networks will develop a City-wide fiber-optic network. The City will allow access and use of the right-of-way to SiFi Networks, which will pay for and install the fiber-optic network. More than 1,100 miles of fiber-optic wire will be laid across the entire City in the next four years. Then, SiFi will work with multiple service providers to offer services to homes and businesses in the City. Those services include gigabit internet, TV, telephone, and home security. This opportunity should be leveraged by the City along the Keith Creek corridor by considering installing City-provided WiFi networks along the creek connecting the parks and gathering areas. Video surveillance could also be provided along the greenway routes.



TRANSPORTATION AND UTILITIES RECOMMENDATIONS

GOAL: IMPROVING INFRASTRUCTURE AND UTILITIES TO ALIGN WITH THE CONCEPTS AND VISIONS SET FORTH IN THIS PLAN

Recommendation #1: Improve the existing sewer utility infrastructure along the corridor.

Remove the existing sanitary sewer interceptor along the creek to improve water quality and maintenance access. This will allow for the naturalization and deepening of the creek bed and improve accessibility to the creek.

- » *Action 1.1: Collaborate with Four Rivers Sanitation Authority (FRSA) to replace and relocate the sewer interceptors along the Churchill Park from 9th Street to 18th Street. Locate the new sewer along 7th avenue.*
 - » *Action 1.2: Collaborate with Four Rivers Sanitation Authority (FRSA) to replace or rehabilitate the sewer interceptors along creek in Alpine Park.*
 - » *Action 1.3: Ensure the future sewer receptor improvements and replacements maintain or improve access to Keith Creek.*
-

Recommendation #2: Provide future water and sewer service expansion.

Extend sewer and water services along the greenway corridor to serve future Township parcels east of Alpine Road.

- » *Action 2.1: Work with township residents to plan and place sewer and water service within Township parcels.*
-

Recommendation #3: Provide fiber connection and reliability throughout the greenway corridor.

- » *Action 3.1: Work with SiFi Networks to provide high-speed internet and fiber-optic service along the greenway corridor for WiFi connections.*
- » *Action 3.2: Install video surveillance at community parks along the greenway for improved safety.*



“

I can imagine that more people would come to Keith Creek if the depth were increased. It might allow people to play in the water or even kayak.

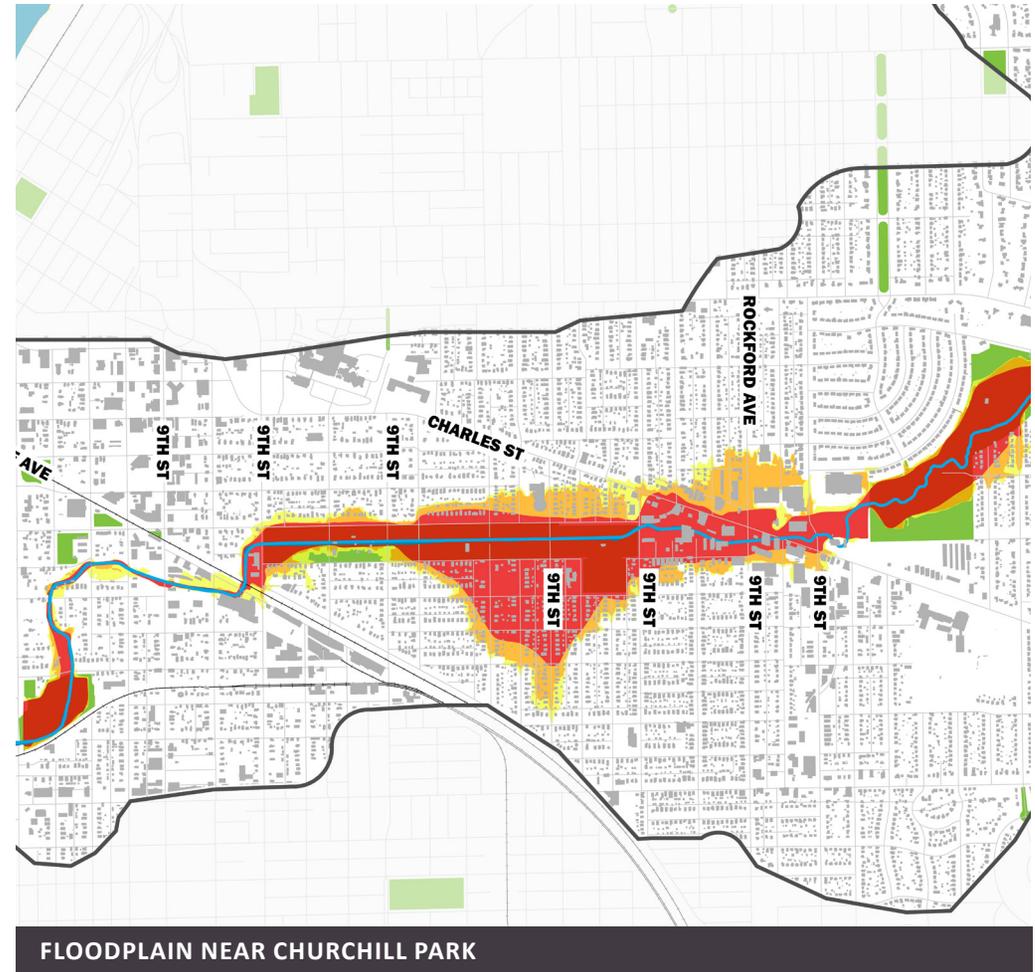
- Community Member

CHAPTER 6

FLOODING & STORMWATER MANAGEMENT

FLOODING & STORMWATER MANAGEMENT

Flooding is one of the most persistent issues that affects the Keith Creek Study Area, particularly the focus area from Alpine Road to the Rock River. Due to dense, early twentieth century development conditions and continued high-intensity development, the floodplain is extensive and covers much of the area, particularly near Churchill Park. Although the development concepts in this plan utilize stormwater best management practices in their designs, the area will continue to suffer from flooding unless more of the area is dedicated to greenspace. Within the past decade, efforts have been made to demolish the most at-risk properties and preserve the land as permeable greenspace. This effort should be continued in order to minimize damage to residents and their property, as well as to minimize the harmful environmental effects of stormwater runoff.



FLOODING & STORMWATER MANAGEMENT

EXISTING FLOODPLAIN

The Federal Emergency Management Agency (FEMA) has developed flood insurance rate maps (FIRM) for the City of Rockford that are utilized as official floodplain maps to delineate special flood hazard areas (SFHAs). These floodplain maps are a valuable tool used by the City to facilitate floodplain management regulation of land development in the floodplain. The existing floodplain and floodway boundaries are shown in Figure 24.

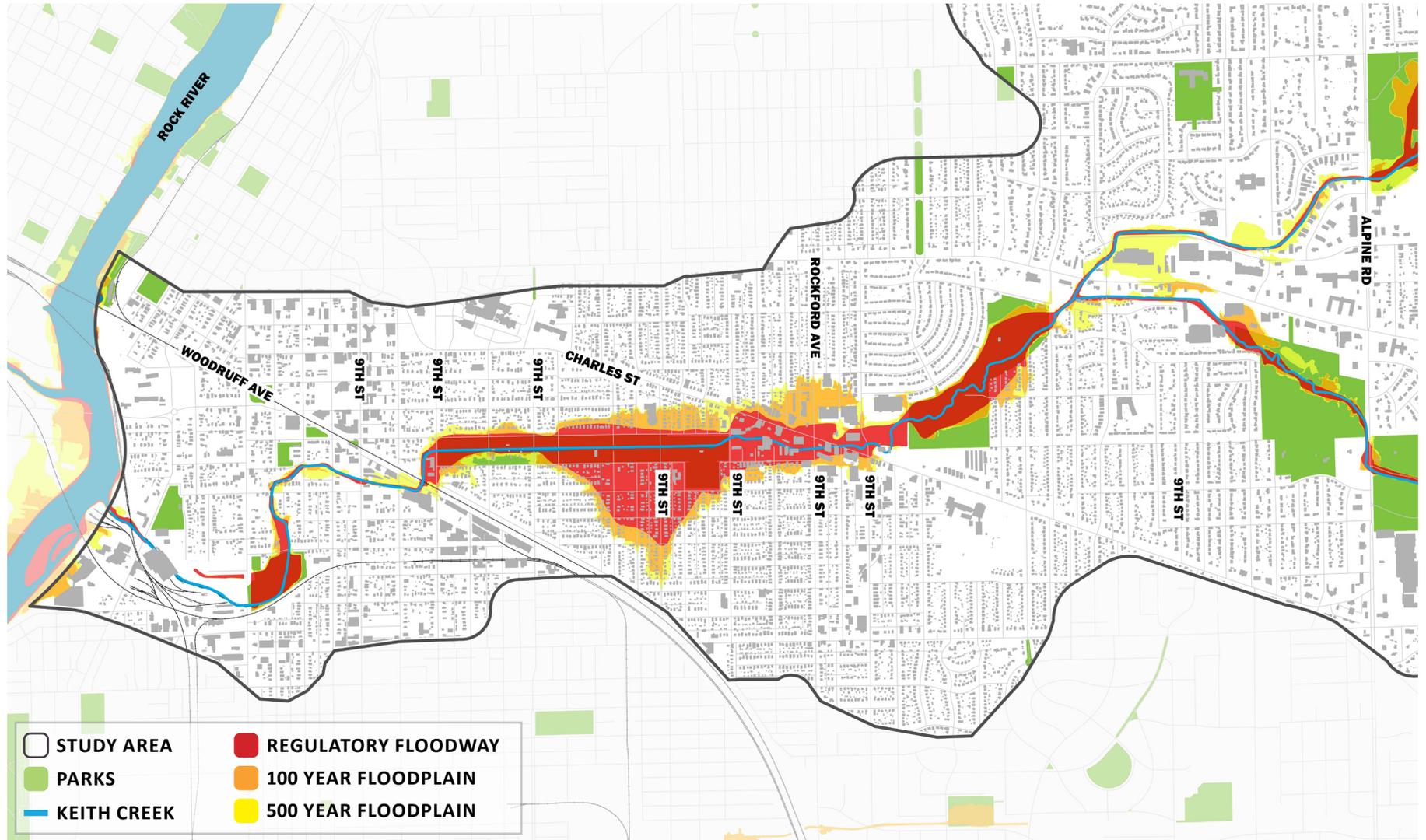
The regulatory floodway is defined as the portion of the 100-year regional floodplain that is utilized to convey the base flood (100-year storm event). Land development, including the construction of new structures or filling within the regulatory floodway is highly restricted by floodway construction regulations that consider potential impacts to regional 100-year base flood elevations. The 100-year floodplain is defined as flood prone areas of a watercourse with a 1 percent annual chance of flooding. The 500-year floodplain is defined as flood prone areas with a 0.2 percent annual chance of flooding. If hydraulic studies are provided and infrastructure improvements are made by a community, these official boundaries can be modified by FEMA to reflect these improvements.

“

One of the biggest concerns for people living near the creek is flooding. They don't want to see it happen again.

- Community Member

FIGURE 24: KEITH CREEK FOCUS AREA FLOOD HAZARD MAP



FLOODING & STORMWATER MANAGEMENT

FLOODING AND STORMWATER MANAGEMENT OPPORTUNITY AREAS

The following opportunity areas encapsulate the catalytic sites described in this plan. These areas should be targeted for stormwater improvements.

CHARLES STREET TO 9TH STREET

Churchill Park and Charles & 18th sites

In 2012, the United States Army Corps of Engineers (USCAE) partially completed an engineering study to evaluate potential flood mitigation alternatives to relieve flooding in the corridor. In reviewing that study, it is apparent that flooding of existing homes occurs during smaller, more frequent storm events. Figure 26 depicts the estimated flood boundary for a 10-year flood event (10 percent annual chance of flooding).

The results of this study led to phasing of property buy-outs and structure demolition for the City of Rockford. According to the Winnebago County Multi-Hazard Mitigation Plan (2019), the City has acquired and demolished 112 properties in the Keith Creek floodplain.

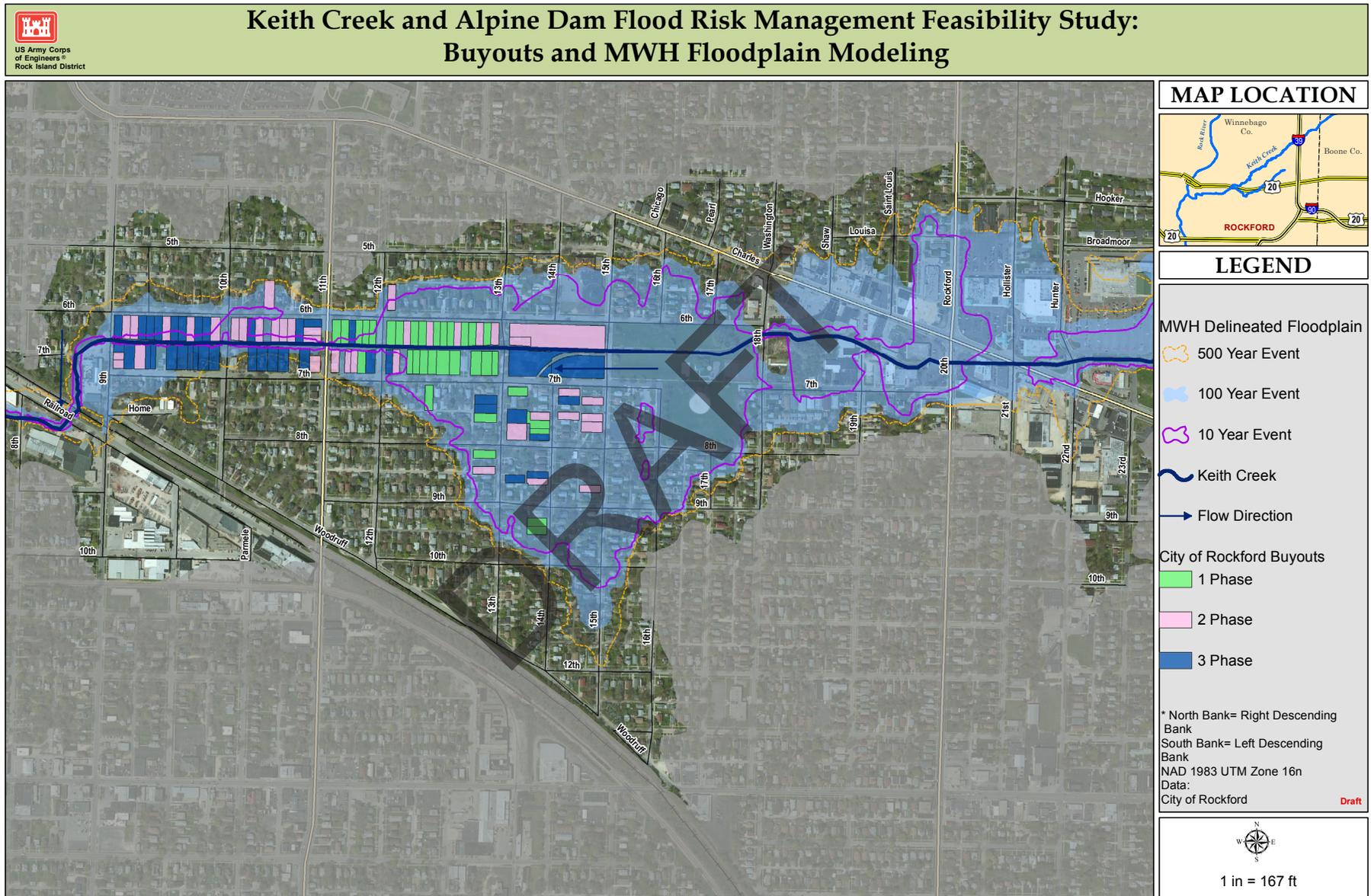
In March of 2022, the City of Rockford completed the Keith Creek Flood Mitigation Engineering (KCFME) Report, a preliminary hydraulic analysis of the Keith Creek corridor. In that study, a concept plan was provided to increase channel conveyance capacity and flood storage volume within current City of Rockford property footprint as shown in Figure 25.

The results of that study indicated that affordable flood protection could only be provided up to a 10-year storm event (10 percent annual chance of flooding).

FIGURE 25: KCFME CONCEPT PLAN FOR CHURCHILL PARK



FIGURE 26: USCAE STUDY BUYOUTS MAP



FLOODING & STORMWATER MANAGEMENT

GRADUAL PROPERTY BUYOUTS AND PROPERTY BUYOUT OVERLAY DISTRICT

Given the heavily urbanized area and sheer volume of stormwater that reaches this corridor in a short period of time during heavy rain events, the implementation of channel improvements, stormwater detention, and green infrastructure considered in KCFME report would not be sufficient to significantly reduce flooding for a 100-year design storm event.

To significantly reduce 100-year event flooding, additional property buyouts and transition of those properties to greenspace will likely be required. The extent of buyouts is dependent on the extent of other planned stormwater improvements. The following pages show conceptual property buyout boundaries, channel capacity improvements, and supplemental stormwater best management practices (BMPs) to provide flood protection for a 100-year storm event.

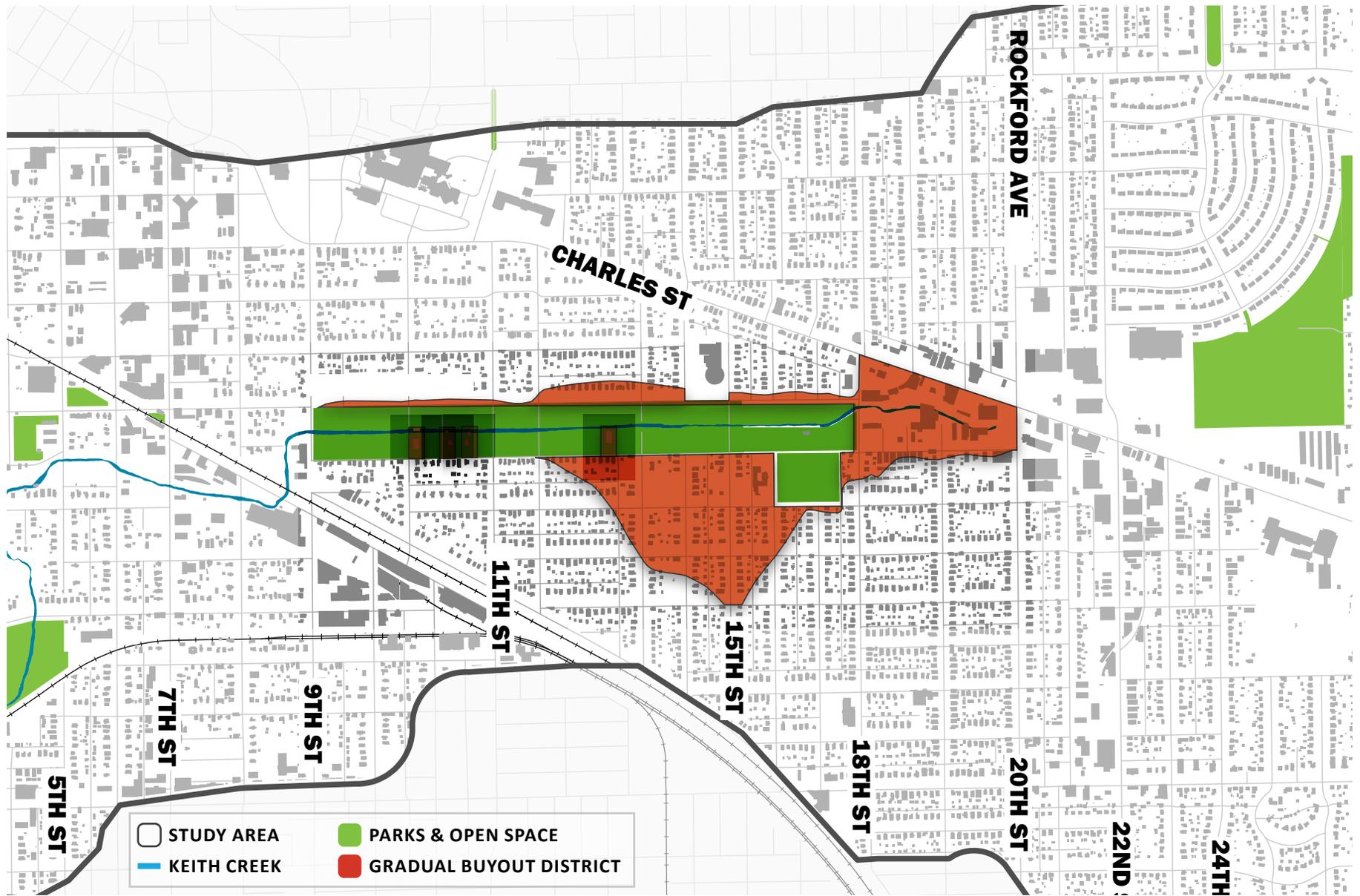
Figure 27 shows the proposed buyout district. It is recommended that the City of Rockford collaborate with the Northern Illinois Land Bank Authority to form a property buyout overlay district that aligns with the 100-year floodplain boundaries.

To significantly reduce 100-year event flooding, additional property buy-outs and transition of those properties to greenspace will likely be required.

The buyout process would take place gradually, as properties become available. The Northern Illinois Land Bank Authority would alert the City about subject properties, those with value-diminishing back-taxes or other liens and liabilities that prevent the properties from being sold on the private market. The Land Bank would acquire the property and sell it to the City of Rockford which would demolish any structures and rehabilitate the land to a naturalized state. This process would serve to reduce the impacts of flooding, as reclaimed and rehabilitated green spaces would absorb and filter stormwater runoff.

The property overlay district boundaries could be altered and minimized with other channel capacity improvements, such as the replacement or elimination of culverts east of 20th Street (see Charles and 22nd Street and Alpine Hills site concepts in Chapter 4). It is recommended that the floodplain is reassessed periodically in partnership with FEMA.

FIGURE 27: PROPOSED PROPERTY BUYOUTS OVERLAY DISTRICT



FLOODING & STORMWATER MANAGEMENT

SCHNUCKS ROCKFORD PLAZA (2642 CHARLES STREET)

Charles & 22nd Site

The City's KCFME Report included a flood mitigation alternative to realign the creek and implement additional stormwater flood storage in Dahlquist Park and Twin Sister Hills Park (upstream of Schnucks Plaza) to provide flood protection for a 10-year storm event. The report indicates that additional flood protection could be provided by removing private driveway bridges between Schnucks and McDonald's and by removing the southerly portion of the Schnucks parking lot.

In addition to these suggested improvements, the replacement of the box culvert under Charles Street (downstream of Schnucks Plaza) should be considered to increase stormwater conveyance capacity and provide flood protection of adjacent properties for a 100-year storm event.

ALPINE HILLS/ALPINE PARK

Alpine Hills Site

The City's KCFME Report includes a flood mitigation alternative to add 30 acre-feet of inline flood storage within Alpine Park to provide additional flood protection. In addition to these suggested improvements, the daylighting of the creek and conversion of the Alpine Hills Plaza downstream of Alpine Park to an open channel/greenway system with in-line stormwater storage would increase stormwater flood storage and provide additional flood protection of adjacent properties.

FIGURE 28: SCHNUCKS ROCKFORD PLAZA STORMWATER MANAGEMENT

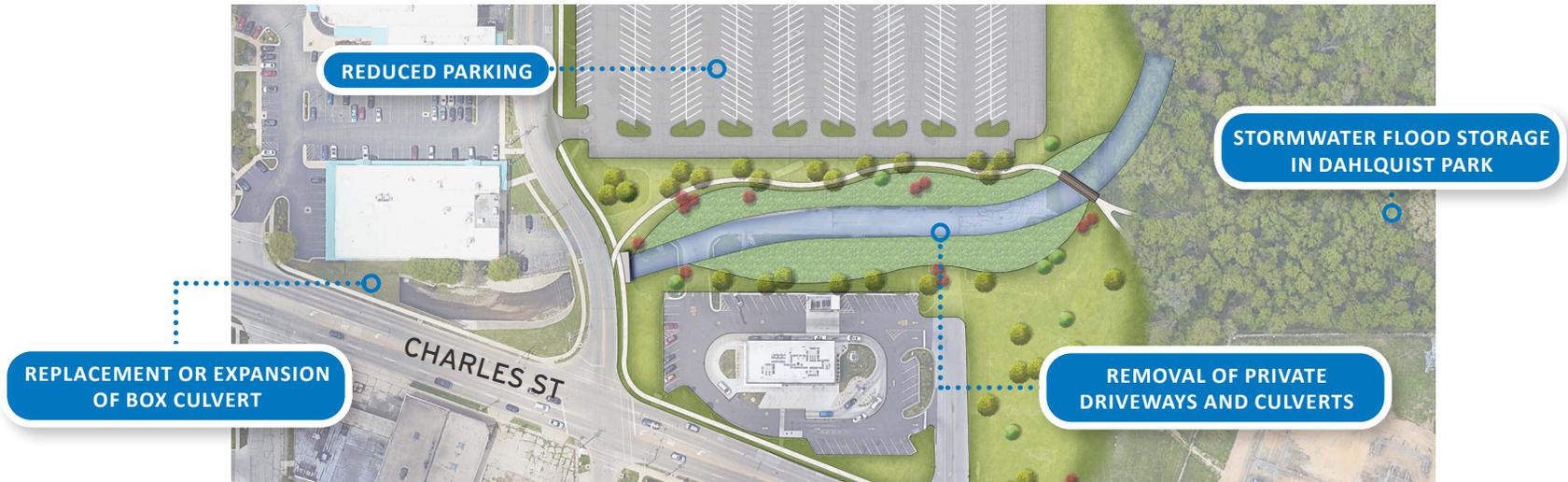


FIGURE 29: ALPINE HILLS AND ALPINE PARK STORMWATER MANAGEMENT





FLOODING & STORMWATER MANAGEMENT RECOMMENDATIONS

GOAL: MITIGATING FLOODING BY FOLLOWING STORMWATER BEST MANAGEMENT PRACTICES THROUGHOUT THE KEITH CREEK WATERSHED.

Recommendation #1: Create and implement a Keith Creek Drainage Master Plan

A comprehensive hydrologic and hydraulic flood mitigation study (i.e. Keith Creek Drainage Basin Master Plan) is necessary in order to further define potential flood buyout boundaries, channel conveyance capacity improvements, and specific stormwater BMPs required for the Keith Creek corridor to realize flood protection for a 100-year storm event. This study should be a comprehensive analysis of the entire Keith Creek watershed and include supporting stormwater modeling, the results of which will guide future improvements and be the foundation of future flood mitigation grant pursuits.

- » *Action 1.1: Engage a qualified engineering firm to carry out the creation of a Keith Creek Drainage Master Plan*
 - » *Action 1.2: Utilize completed plan to acquire grant funding, which can be used for property buyouts and other plan recommendations*
-

Recommendation #2: Begin an existing creek inspection and corridor maintenance program.

A thorough creek inspection program should be routinely performed to identify existing creek bank deficiencies and help identify stabilization measures needed throughout the corridor outside of the proposed development/improvement areas discussed. The deposition of sediment from deteriorating and eroding creek banks contributes to sediment accumulation, restriction of flood flows, and reduced flood storage that should be addressed in order to enhance existing and proposed flood conveyance performance.

With corridor flood mitigation improvements and the addition of BMPs comes required long-term maintenance. To ensure optimal hydraulic conveyance, debris and sediment accumulation should be removed on a pre-determined maintenance

schedule to identify critical restrictions. Access to the creek, structures, and BMPs should be provided with future improvements to allow the efficient removal of debris and sediment as necessary. The implementation of sediment traps (depressions within the creek) at critical locations should be considered. In addition, sediment forebays should be considered in stormwater flood storage features.

- » *Action 2.1: Hire dedicated creek inspection and maintenance staff. At a minimum, hire a creek inspection lead that is familiar with stormwater BMPs and who can work with existing City staff and maintenance personnel.*
- » *Action 2.2: Create an inspection and maintenance program that can be referenced by maintenance staff.*

Recommendation #3: Create a Keith Creek Watershed Development District.

Given that the majority of the Keith Creek watershed is located within the City of Rockford and unincorporated areas of Winnebago and Boone County, stormwater management regulations are primarily covered by the city's and county's requirements. The City of Rockford, Winnebago County and Boone County stormwater management standards each state that sufficient stormwater detention be provided that restrict peak rates of runoff from development sites to 0.2 cubic feet per second (cfs) per acre of development. More stringent development standards could be implemented to regulate post construction stormwater management specifically within the Keith Creek Watershed. These standards would encourage low-impact development and promote the use of green infrastructure to best replicate pre-development hydrologic conditions.

- » *Action 3.1: Determine Watershed Development District boundaries. Ideally these will be identified in a Keith Creek Drainage Master Plan.*
- » *Action 3.2: Create development guidelines and management standards for developments inside the district boundaries.*
- » *Action 3.3: Require developers to abide by Watershed Development District standards.*

Recommendation #4: Create a gradual property buyout district. Periodically reassess the Keith Creek floodplain boundaries.

Significant reduction of 100-year flooding can only occur with additional property buyouts and the transition of that land to green space. As improvements to the creek are made, the floodplain and floodway boundaries should be reassessed. If the floodplain diminished, the buyout district boundaries can be reduced.

- » *Action 4.1: Coordinate with the Northern Illinois Land Bank Authority to purchase properties as they become available.*
- » *Action 4.2: Periodically reassess floodway boundaries and reduce the size of the buyout district, as necessary.*



CHAPTER 7

**ENVIRONMENTAL
CONSIDERATIONS**

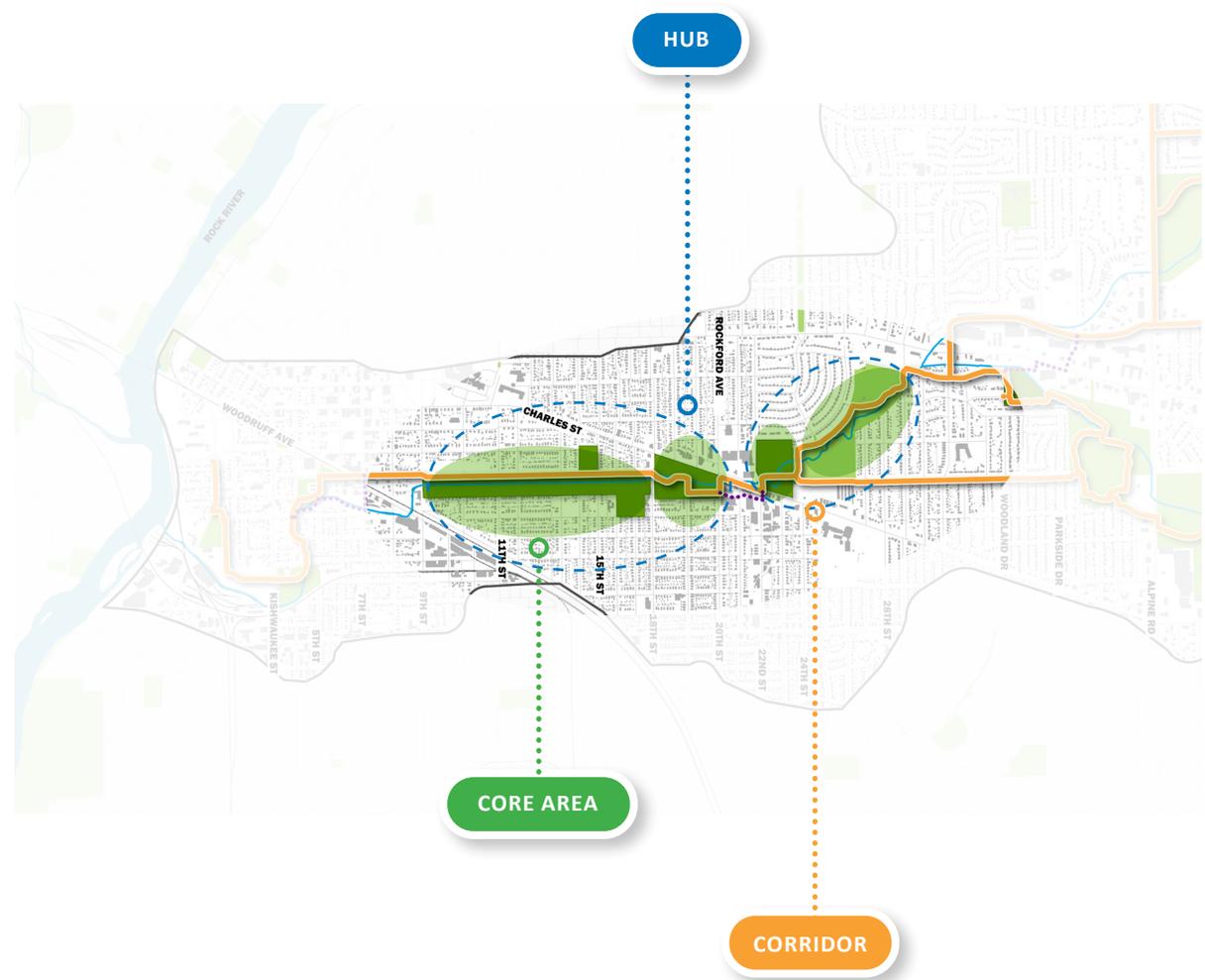
ENVIRONMENTAL CONSIDERATIONS

CORE-HUB-CORRIDOR CONCEPT

The vision for the Keith Creek greenway is to develop it into a green infrastructure network that aligns with a 'Core-Hub-Corridor' concept. In a Core-Hub-Corridor, an anchor site, such as Churchill Park, serves as a 'core area'. The building blocks of the network are these core areas, which contain well-functioning natural ecosystems that provide quality habitat for native plants and animals. By contrast, 'hubs' are aggregations of core areas and can include nearby lands that contribute to ecosystem services like clean water, flood control, carbon sequestration, and recreation opportunities. Finally, 'corridors' are relatively linear features linking cores and hubs together, providing essential connectivity for animal, plant, and human movement.

Using the Keith Creek Study Area as an example, the naturalized portions of Churchill Park and the adjacent Charles and 18th Street site would serve as individual 'core areas'. Together, these sites would form a 'hub'. Other hubs would include Twin Sister Hills Park and Alpine Hills Park further to the east. In this case, a 'corridor' would be the Greenway Trail or parcels that link each of the hubs together and form conduits for wildlife.

Key core areas in the study area include Tenth Avenue Park, Churchill Park, Twin Sister Hills Park, Dahlquist Park, Alpine Hills, and Alpine Park.



GREEN INFRASTRUCTURE

GREEN INFRASTRUCTURE NETWORK

This system of connected core areas is also known as a green infrastructure network. At a broad landscape-scale, green infrastructure provides important ecosystem services like clean air and water, critical plant and animal species habitat, and wildlife migration corridors, along with compatible working landscapes.

At a regional scale, green infrastructure can help protect water quality, reduce flood damages, and help ensure the availability of drinking water. Green infrastructure can also provide key recreational areas that link people to natural lands. It can also facilitate the use of transportation modes other than automobiles to reach key community assets via trails and walking paths.

At the site or neighborhood scale, green infrastructure enhances neighborhoods and downtowns through environmentally-sensitive site design techniques, urban forestry, and stormwater management systems that reduce the environmental impact of urban settlements. All of these scales of green infrastructure activity can be linked together and can ensure sustainability in urban, suburban, and rural areas of a watershed.

Climate adaptation can also be addressed through a well-planned green infrastructure network. During the process of planning the

green infrastructure network, elements of the landscape that face current and future threats can be identified. A green infrastructure network helps to provide a spatial framework for climate adaptation planning that aligns with land conservation efforts.

LOW-IMPACT DEVELOPMENT

Through a green infrastructure network approach and vision, the Keith Creek Greenway can become a connected system that provides many benefits to the community. At the individual site and neighborhood scale, this approach can guide redevelopment by using the lessons from the past, as well as incorporating ‘green’, low impact development principles.

According to the United States Environmental Protection Agency (USEPA), the term low impact development (LID) refers to systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration, or use of stormwater in order to protect water quality and the associated aquatic habitat.

LID is an approach to land development or re-development that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that

treats stormwater as a resource rather than a waste product. Several practices can be utilized to adhere to these principles. They include the creation of bioretention facilities, bioswales, rain gardens, vegetated rooftops, rain barrels, vegetated detention basins, and the use of permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and impervious surfaces while promoting the natural movement of water within an ecosystem or watershed.

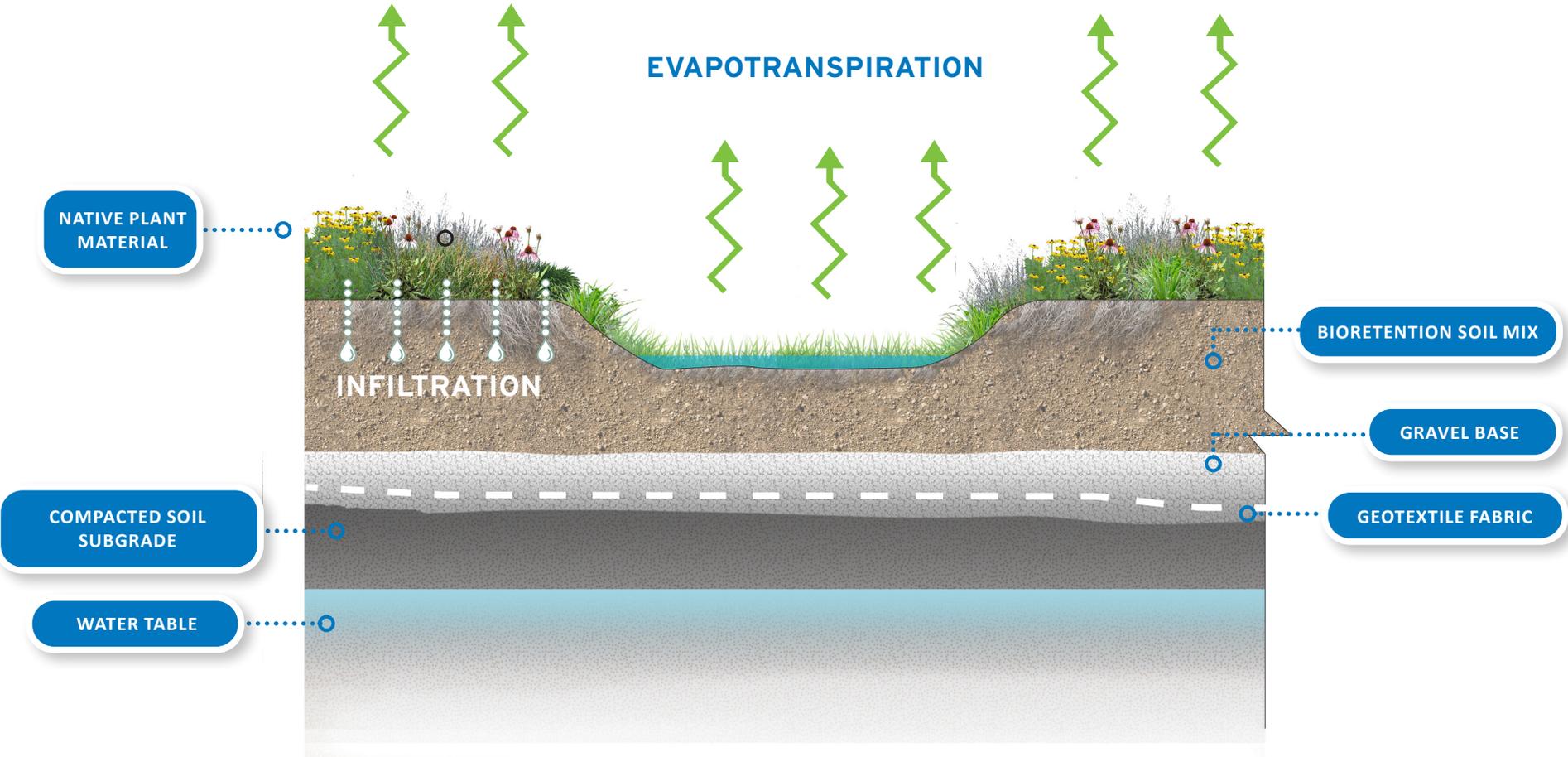
Each of the catalytic site concepts would provide new and improved naturalized eco-systems and riparian corridors that will provide connections for people, fish, and wildlife. Additionally, some wetland habitat would be restored. The Keith Creek Greenway concept will also reconnect floodplains to the creek channel in order to provide a functionality that is not currently present due to vertical walls and other barriers. This improves the stormwater management capacity locally and allows the creek to function more naturally.

The following page shows examples of some of the low-impact development features that communities can reference and utilize when developing or redeveloping within the Keith Creek watershed.

KEY IMPROVEMENTS

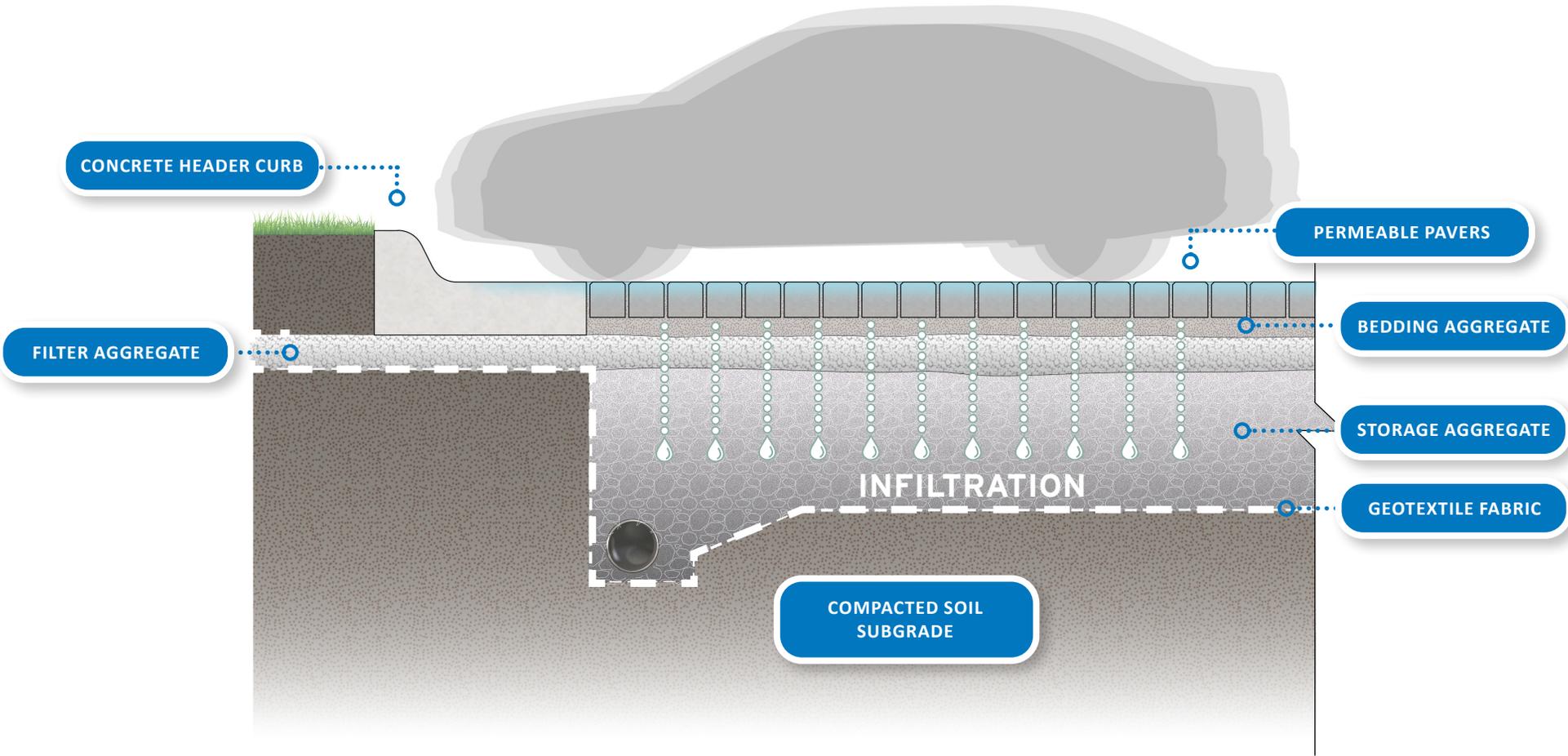
BIOSWALES

Bioswales utilize vegetation and soils to slow down the flow of stormwater, rather than capturing and filtering it.



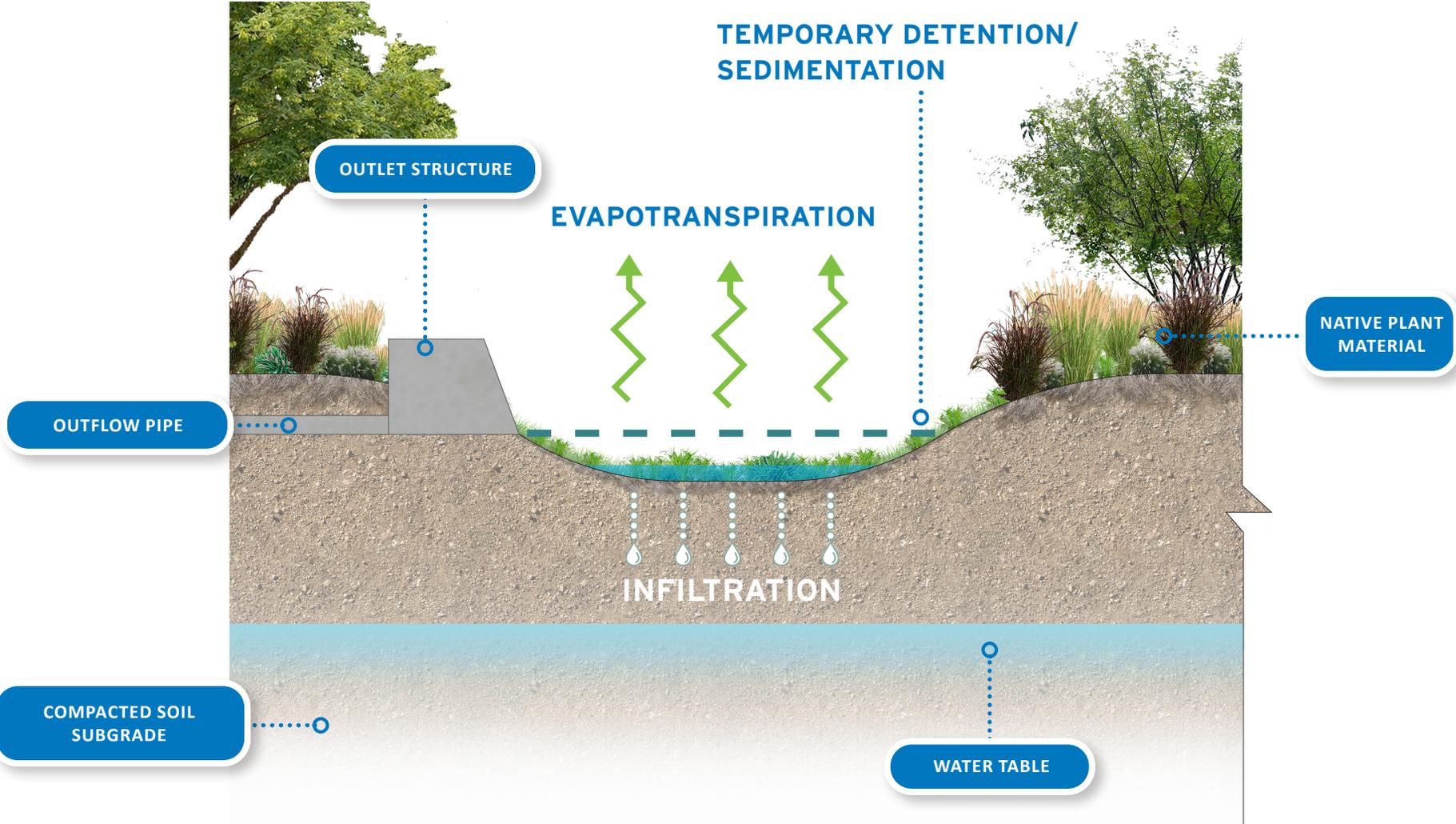
PERMEABLE PAVEMENTS

Permeable pavements help to reduce runoff by allowing stormwater to seep into the underlying soil.



DETENTION BASIN

A detention basin is a planted basin that temporarily holds and stores stormwater. The surrounding area can be used as a community greenspace.



ENVIRONMENTAL CONSIDERATIONS

RECOMMENDATIONS

GOAL: IMPROVING WATER QUALITY AND HABITATS WITHIN THE KEITH CREEK WATERSHED BY REDUCING STORMWATER RUNOFF AND PROTECTING ENVIRONMENTALLY SENSITIVE AREAS.

Recommendation #1: Align with the goals, policies, and recommendations set forth in the Keith Creek Watershed-Based Plan, a concurrent planning effort focused on improving water quality within the Keith Creek Watershed.

The recommendations and practices set forth in the Keith Creek Watershed-Based Plan will support increased biodiversity, aesthetics, community connectivity, natural resource protection, flood attenuation, and improved water quality. It is recommended that the following action items, which have been adapted from the Watershed-Based Plan *Green Infrastructure Network Policy Recommendations*, be considered and followed for any developments, redevelopments, and implementation of projects within the Keith Creek corridor. The Keith Creek Watershed-Based Plan should be the main point of reference when seeking to implement the following actions properly.

- » *Action 1.1: Utilize tools such as protection overlay zones, setbacks, open space zoning, conservation easements, and conservation and/or low impact development in municipal comprehensive plans and zoning ordinances to protect environmentally sensitive areas within the Keith Creek corridor.*
- » *Action 1.2: Utilize tools such as Development Impact Fees, Stormwater Utility Taxes, and Special Service Area (SSA) Taxes to help fund implementation of plan and future management of green infrastructure components where new and redevelopment occurs.*
- » *Action 1.3: Require developers to protect sensitive natural areas, restore degraded natural areas and streams, and then encourage donation of all natural areas and naturalized stormwater management systems to a public agency or conservation organization for long term management with dedicated funding.*
- » *Action 1.4: Establish incentives for developers who propose sustainable or innovative approaches to implement the Keith Creek Corridor Study concepts and the Keith Creek Watershed-Based Plan, including priority for preserving green infrastructure and using naturalized stormwater treatment trains.*
- » *Action 1.5: Encourage green stormwater management practices that clean and infiltrate water in any development or redevelopment.*

-
- » *Action 1.6: Limit increased impervious cover and encourage reduced imperviousness within new and redevelopments.*
 - » *Action 1.7: Encourage deicing best management practices such as utilizing alternative deicing chemicals, anti-icing or pretreatment, controlling the amount and rate of spreading, controlling the timing of application, utilizing proper application equipment, equipment calibration, and educating/training deicing employees. This will not only benefit the water quality of stormwater runoff, but also reduce salt damage to landscape plantings and wetland and prairie vegetation.*
 - » *Action 1.8: Encourage and permit the use of impervious pavement alternatives such as permeable pavers in appropriate areas within the Keith Creek corridor.*
 - » *Action 1.9: Require new development and redevelopment to use stormwater management techniques and facilities that serve multiple functions including storage, water quality benefits, infiltration, and wildlife habitat.*
 - » *Action 1.10: Require reduced runoff volume from any new and retrofitted detention basins. There are many basins in the upper reaches of Keith Creek that could be retrofitted that would then benefit the portions of the Keith Creek corridor that are downstream of them.*
 - » *Action 1.11: Allow native landscaping within local ordinances.*
 - » *Action 1.12: Ensure local “weed control” ordinances do not discourage or prohibit native landscaping.*
 - » *Action 1.13: Include short- and long-term management with performance standards for restored natural areas and stormwater features within new development and redevelopment projects.*
-

Recommendation #2: Protect, rehabilitate, and promote the Keith Creek green infrastructure network beyond the specific catalytic sites identified in this plan.

The core areas identified in this section should be protected and enhanced over time as resources become available.

- » *Action 2.1: Enhance the Tenth Avenue Park area to provide a more naturalized stream corridor and less mowed turf grass.*
- » *Action 2.2: Preserve and enhance naturalized areas along the creek in Twin Sister Hills Park and Dahlquist Parks.*
- » *Action 2.3: Preserve the high-quality ecosystem and stream channel in Aldeen Park.*



CHAPTER 8

IMPLEMENTATION

IMPLEMENTATION PLAN

IMPLEMENTATION STRATEGIES

The successful implementation of the Keith Creek Corridor Study recommendations and development concepts is dependent on collaboration between community organizations, coordination between planning efforts, and overall leadership and accountability. The following implementation strategies will help to guide the transformation of the Keith Creek corridor.

STRATEGY 1:

Create an Advisory Committee to oversee plan implementation.

Plan implementation can be achieved through the oversight and coordination of governmental organizations, non-profits, community advocacy groups, private businesses, and resident stakeholders. An Advisory Committee that consists of key representatives from these groups is needed to oversee the implementation of this plan over the next ten years. It is recommended that the Advisory Committee include representatives from the same groups that comprise the Working Group, which helped to guide the overall planning process. These groups are listed below.

- Region 1 Planning Council
- City of Rockford

- Winnebago County
- Boone County
- Rockford Park District
- Rockford Regional Health Council
- Miracle Mile District
- Natural Land Institute
- Rock River Water Reclamation District
- Rockford Mass Transit District

STRATEGY 2:

Appoint a part time project manager to lead the advisory committee and oversee plan implementation.

A part time project manager should be appointed to guide the planning process and bring the Advisory Committee together to meet regularly. The project manager should guide the collective as they work to identify priority recommendations and action items. Given the different backgrounds and interests of Advisory Committee members, it will be important to lead the group and help them to strategically implement the plan.

STRATEGY 3:

Coordinate with related planning efforts and plan administrators to facilitate the implementation of plan recommendations

along with related recommendations or strategies from other plans.

Specifically, efforts should be made to align closely with ZION Development's Keith Creek Watershed-Based Plan and the Keith Creek Flood Mitigation Engineering Report led by Fehr Graham. Funding and resources can and should be shared to achieve goals and recommendations proposed in each plans.

STRATEGY 4:

Form a non-profit Friends of Keith Creek entity.

Representatives from the non-profit entity should be included in the Keith Creek Advisory Committee. Friends of Keith Creek can assist with acquiring funding and can lead programming efforts throughout the corridor.

STRATEGY 5:

Create a shared fund that helps pay for corridor improvements, as needed, and that is managed by the Keith Creek Advisory Committee.

Advisory Group Members, particularly Friends of Keith Creek, once established, can contribute to this fund. This money can be used to pay for murals, wayfinding, programming, events, or larger-scale improvements based on the Committee's discretion.

FUNDING SOURCES

The following is a non-exhaustive list of funding sources that could be utilized for implementing Plan recommendations and action items.

MUNICIPAL FUNDING SOURCES

TAX INCREMENT FINANCING (TIF)

Tax Increment Financing is a State authorized program administered by a municipality that allocates future increases in property taxes from a designated area for improvements dedicated to that area. Under TIF, the property taxes due to an increased value from new development, increases in new assessment due to rehabilitation or improvement or tax rate changes, are allocated to the municipality in a Tax Increment Allocation Fund to be used for various redevelopment activities within the designated area. Other taxing districts continue to receive property taxes at the same level as before the TIF district was instituted.

Eligible implementation costs include:

- Zoning code revisions and design guideline updates.
- Building improvement programs.
- Placemaking initiatives for Downtown and along the corridors, including gateway and wayfinding signage design and installation.
- Streetscape design and construction, and various infrastructure improvements.
- Parcel assembly.

GENERAL REVENUE BONDS (GRB)

The Advisory Committee may investigate the ability of long-term bonds for specific portions of the Plan in order to facilitate redevelopment activities and capital improvements.

SPECIAL SERVICE AREA (SSA)

A Special Service Area is a State authorized financing program that can be administered by the City of Rockford or a designated service provider agency, such as a chamber of commerce, Main Street revitalization organization or other economic development entity. An SSA can help to deliver a wide range of additional services and physical improvements within a defined geographic area such as a central business district or commercial corridor. An SSA is funded by a special tax assessment paid by the property owners in the designated SSA district, which can finance a variety of district management activities, including marketing and special events, trash and snow removal, and sidewalk/public space maintenance. Special Service Areas can also underwrite infrastructure projects and building improvements initiatives.

Eligible implementation costs include:

- Building improvement program.
- Placemaking initiatives within the Downtown area and along the corridors.

- Streetscape design and construction.
- Business retention/attraction program.
- Salaries related to implementation activities.
- Branding and marketing activities.
- Special events.

The process for establishing an SSA requires obtaining support from property owners within the proposed SSA district. An overall strategy for organizing stakeholder support is important, along with determining the SSAs governing structure, level of services to be provided, and annual budget and boundaries.

BUSINESS IMPROVEMENT DISTRICT (BID)

A Business Improvement District BID is a State authorized financing program that municipalities may establish for improving infrastructure and attracting new commercial growth in a designated business improvement district. A BID is adopted by ordinance and is funded by small increments added to local sales or hotel taxes. Sales taxes can be used for several revitalization or redevelopment activities allowed under the BID statute; however, hotel taxes must be used for tourism and convention related activities. A BID remains in place for 23 years and revenues collected within it are placed in a Business District Tax Allocation Fund. One significant advantage of a BID is the flexibility and wider range of activities

in which BID monies can be used as opposed to a TIF district or Special Service Area.

Eligible implementation costs include:

- Zoning code revisions and design guideline updates in established BIDs.
- Building improvement programs.
- Placemaking initiatives along corridors, including gateway and wayfinding signage design and installation.
- Various infrastructure improvements within BIDs.
- Parcel assembly.

CAPITAL IMPROVEMENT FUNDS (CIF)

Most communities incorporate planning recommendations and initiatives within the municipal Capital Improvement Plan, which is prepared on an annual basis and reviewed every five years. Capital improvement funding could be used to support various projects outlined in the Plan, including:

- Street improvements and streetscape implementation, especially for the Downtown area and its surrounding residential blocks.
- Public parking improvements.
- Placemaking initiatives, including signage and wayfinding programs.
- Public Art

VENTURE FUND/COMMUNITY-SUPPORTED FINANCING (CSF)

Grants and contributions from foundations, corporations, institutions, and other businesses and individuals can also be secured to fund specific plan recommendations.

TRANSPORTATION-RELATED FUNDING SOURCES

MOTOR FUEL TAX

Motor Fuel Tax (MFT) revenues can be used for a number of transportation and road improvement projects, including streets and street extensions, alley enhancements, traffic control and school crossing signals, street lighting systems, sidewalks and pedestrian paths, and bicycle signs, paths, lanes, or bicycle parking facilities. Revenues are generated from a portion of the state tax levied on the purchase of motor fuel in the state.

ILLINOIS TRANSPORTATION ENHANCEMENT PROGRAM (ITEP)

The Illinois Transportation Enhancement Program promotes alternative transportation options and streetscape beautification. The federal funds are awarded competitively, and any local or state government is eligible to apply. Local matching funds are required, and work must begin on the projects within three

years. Projects must fall into specific categories in the ITEP Guidelines Manual, and they must relate to surface transportation to qualify.

SURFACE TRANSPORTATION PROGRAM (STP)

The Surface Transportation Program provides funding that may be used by states and localities on any Federal-aid highway, bridge projects on any public road, transit capital projects, and bus terminals and facilities. The federal share for the program is generally 80 percent.

TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

The Transportation Alternatives Program was authorized under the federal transportation bill, Moving Ahead for Progress in the 21st Century Act (MAP-21). It provides funding for programs and projects defined as transportation alternatives such as on- and off-road pedestrian and bicycle facilities, recreation trail program projects, and safe routes to school projects.

SAFE ROUTES TO SCHOOL (SRTS)

The Illinois Department of Transportation administers the Safe Routes to School program, which uses a multidisciplinary approach to improve conditions for students who walk or bike to school. Illinois SRTS funds infrastructure improvements and non-infrastructure projects. Schools, school districts, governmental entities,

and non-profit organizations are eligible. Projects may be organized and implemented on different jurisdictional levels.

ILLINOIS DEPARTMENT OF NATURAL RESOURCES (IDNR)

The Illinois Department of Natural Resources administers several outdoor recreation grant programs for bicycle paths and recreational trails.

WATER QUALITY AND ENVIRONMENTAL FUNDING SOURCES

ILLINOIS GREEN INFRASTRUCTURE GRANT PROGRAM (IGIG)

The Illinois EPA administers the Illinois Green Infrastructure Grant Program for Stormwater Management (IGIG). These grants are available to local units of government and other organizations in order to implement green infrastructure best management practices to control stormwater runoff for water quality protection in Illinois. There are three program categories under which organizations can apply: Combined Sewer Overflow Rehabilitation; Stormwater Retention and Infiltration; and Green Infrastructure Small Projects.

IEPA 319 NONPOINT SOURCE POLLUTION GRANT PROGRAM (319)

The Illinois EPA administers the 319 Grant Program to designated state agencies. Funds can be used for watershed-based planning projects and watershed-based plan implementation projects to prevent, eliminate, or reduce water quality impairments to Illinois' surface and groundwater resources. This grant can also be used to fund educational programs and the development of information for the installation of best management practices.

NATIONAL FISH AND WILDLIFE FOUNDATION GRANTS (NFWF)

The National Fish and Wildlife Foundation supports over 70 grant programs aimed at protecting and restoring wildlife and habitats. These grants are available to governmental entities and nonprofit organizations.

FLOOD MITIGATION FUNDING SOURCES

BUILDING RESILIENT INFRASTRUCTURE AND COMMUNITIES (BRIC) GRANT PROGRAM

FEMA administers this grant, which provides federal funds for hazard mitigation planning, planning-related activities, and projects. These funds could be used for impactful, catalytic projects that mitigate flooding while also providing community amenities.

COMMUNITY DEVELOPMENT FUNDING SOURCES

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)

The CDBG Program supports community development activities focused on strengthening community resilience. Grants can support infrastructure development, economic development projects, public facilities installation, community center development, public services, property acquisition, and more.

IMPLEMENTATION MATRIX

OVERVIEW

The implementation matrix that is presented on the following pages can be used by the Advisory Committee to track progress toward the achievement of goals, recommendations, and action items. It can also be used as a tool for mapping out a long term plan for corridor improvements over the next ten years. The matrix is organized by chapter and expands upon recommendations and action items. It includes columns that outline responsible parties, cost estimates, potential funding sources, time frame, and priority level. It is recommended that the Advisory Committee review the implementation matrix quarterly and adjust or mark items as complete as necessary.

RESPONSIBLE PARTIES

This column identifies entities or organizations that may be best suited for the successful implementation of each action item. In some cases, both a lead organization and a secondary (supportive) organization or organizations are identified.

ABBREVIATIONS

- BCSWCD – Boone County Soil & Water Conservation District
- CoR – City of Rockford
- CR – Connect Rockford
- FRSA - Four Rivers Sanitation Authority
- KC - Keith Creek Advisory Committee
- NILBA – Northern IL Land Bank Authority
- NLI – Natural Land Institute
- PW – Public Works
- RPC – Region One Planning Council
- RAAC - Rockford Area Arts Council
- RACVB – Rockford Area Convention and Visitors’ Bureau
- RGN – Rockford Great Neighborhoods
- RPD – Rockford Park District
- RPS 205 – Rockford Public Schools
- WC – Winnebago County
- WCSWCD - Winnebago County Soil & Water Conservation District

COST

The cost column provides a cost estimate range for applicable action items. In some cases, a number is provided and in others, the estimated cost is displayed generally as ‘\$’, ‘\$\$’, or ‘\$\$\$’. Some action items do not have a tangible cost associated with them and the cost is displayed as ‘N/A’.

\$	\$\$	\$\$\$
LOW COST	MID COST	HIGH COST
\$0-\$50K	\$50-\$500K	\$500K+

FUNDING

This column suggests potential funding sources, where applicable. Funding sources suggestions are referenced from the funding sources section on the previous pages.

TIME FRAME

The time frame column identifies the target timeline or time range for an action item or project to be completed. **Short term is 1-3 years; Mid-term is 4-7 years; Long-term is 7-10+ years.** Action items that are meant to be ongoing are marked as such.

DIVERSITY, EQUITY, AND INCLUSION

GOAL: ENSURING THAT ALL COMMUNITY MEMBERS, REGARDLESS OF RACE, INCOME, AGE, AND ABILITY, HAVE EQUAL ACCESS TO A SAFE, HEALTHY, AND VIBRANT LIVING ENVIRONMENT.

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
1: FOCUS THE DEVELOPMENT OF CATALYTIC, COMMUNITY-SERVING PROJECTS WITHIN COMMUNITY DEVELOPMENT BLOCK GRANT-ELIGIBLE AREAS (DIVERSITY, EQUITY, AND INCLUSION AREAS).	1.1: Consider an ongoing engagement platform that allows for a steady line of communication between community groups and government agencies.	Primary: CoR Support: CR, RGN	\$	KC Shared Fund	Short
	1.2: Identify development grant funding opportunities that target underserved populations.	Primary: RPC Support: CoR, CR	\$	KC Shared Fund	Short
2: CONSIDER IMPLEMENTING A NEIGHBORHOOD NAVIGATORS PROGRAM AS A GRASSROOTS INITIATIVE, REPRESENTED BY UNDERSERVED COMMUNITIES.	2.1: Develop a City-funded and managed Community Navigators program that employs community leaders.	Primary: CoR Support: CR, RGN	\$	KC Shared Fund, City of Rockford, CDBG	Mid
	2.2: Provide technical and educational support to Navigators to better connect leaders and community members to resource agencies.	Primary: CoR Support: CR, RGN	\$	KC Shared Fund, City of Rockford, CDBG	Mid
	2.3: Allow Navigators to represent underserved communities on City commissions and working groups.	Primary: CoR Support: CR, RGN	\$	KC Shared Fund, City of Rockford, CDBG	Mid
	2.4: Assist high-risk neighborhoods in preparing for and recovering from natural disasters (floods).	Primary: CoR Support: PW, CR, WC	\$\$	KC Shared Fund, City of Rockford, CDBG	Mid

MOBILITY & CONNECTIVITY

GOAL: IMPROVING TRANSPORTATION ACCESS AND EQUITY THROUGHOUT THE KEITH CREEK CORRIDOR BY CREATING SAFE CONNECTIONS TO KEY COMMERCIAL NODES, NEIGHBORHOODS, AND RECREATIONAL AND CULTURAL AMENITIES.

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
1: IMPROVE EXISTING TRANSPORTATION INFRASTRUCTURE TO PROVIDE IMMEDIATE ACCESS TO BIKE AND PEDESTRIAN CORRIDOR CONNECTIONS.	1.1: Apply design features to the route. This consists of signage, lane markings, directional/wayfinding markings, and more.	Primary: CoR Support: PW, RPD	\$\$\$	ITEP, STP, MFT	Short
	1.2: Incorporate wayfinding signage to inform route users of distance to key destination areas. The signage could incorporate branding elements that are further described in Chapter 3 recommendations.	Primary: CoR Support: PW, RPD	\$\$	ITEP, STP, MFT	Short
	1.3: Work with local running and cycling advocacy groups, nonprofits, and neighborhood associations to program the route with events.	Primary: KC Support: RPD	\$	KC Shared Fund	Short
	1.4: Collect ridership data on route users. Conducting bike counts is useful information for pursuing grants and considering additional capital improvements.	Primary: KC Support: RPD, RPC	\$	KC Shared Fund	Short
	1.5: Work with the Belle Meade Neighborhood Association to inform residents on route improvements on neighborhood path from Emerson Drive to Alpine Hills Adventure Park.	Primary: CoR Support: CR, RGN	N/A	KC Shared Fund	Short

MOBILITY & CONNECTIVITY

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
2: DEVELOP A FINAL GREENWAY THAT OPTIMIZES PROXIMITY, CONNECTIVITY, AND ACCESSIBILITY TO THE CREEK AND A VARIETY OF DESTINATIONS WITHIN THE STUDY AREA.	2.1: Work with the City of Rockford, Northern Illinois Land Bank Authority, and other stakeholders on acquiring and holding properties where it is deemed most suitable to place a greenway route.	Primary: KC Support: CoR, NILBA	\$\$\$	KC Shared Fund, CDBG	Mid
	2.2: Work with the City of Rockford and Rockford Park District on determining capital improvements and funding opportunities for greenway sections running through properties on which they own.	Primary: CoR Support: RPD	N/A	KC Shared Fund	Mid
	2.3: Create City-wide 10-year capital projects that promote the goals and priorities of the greenway corridor.	Primary: CoR Support: RPC	\$\$\$	City of Rockford	Mid
	2.4: Create a network of multi-modal paths from the College Ave. roundabout to Alpine Road through Churchill Park and Dahlquist Park.	Primary: CoR Support: RPD, Neighborhood Association	\$\$\$	CIF, MFT, ITEP, TAP, SRTS	Mid
	2.5: Ensure future Keith Creek bridge improvements include bike and pedestrian accommodations (The 8th Avenue bridge design should consider this)	Primary: CoR	\$\$	CIF, MFT, ITEP, TAP, SRTS	Mid

MOBILITY & CONNECTIVITY

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
	2.6: Work with business owners to build consensus on route sections where an easement may need to be considered.	Primary: KC Support: CoR, Chamber of Commerce, Neighborhood Association	N/A	KC Shared Fund	Mid
	2.7: Work with the Belle Meade Neighborhood Association to inform residents on route improvements .	Primary: KC Support: CoR, CR, RGN, Neighborhood Association	N/A	KC Shared Fund	Mid
3: IMPROVE KEY SIGNALIZED AND UN-SIGNALIZED INTERSECTIONS TO BETTER PRIORITIZE NON-MOTORIZED MOBILITY AND SAFETY.	3.1: Improve signalized intersections including Gregory and Kishwaukee and Charles and 20th Streets with the appropriate pedestrian- and bicycle-oriented treatments. This may include Leading Pedestrian Intervals, ladder crosswalks, and treatments that delineate the greenway route from the vehicle travel lane.	Primary: CoR Support: PW	\$	CIF, MFT, ITEP, TAP, SRTS	Long
	3.2: Improve un-signalized intersections such as 6th Avenue and 11th Street as well as mid-block crossings proposed in the final greenway with the appropriate pedestrian- and bicycle-oriented treatments.	Primary: CoR Support: PW	\$\$	CIF, MFT, ITEP, TAP, SRTS	Long
	3.3: Upgrade existing and planned bicycle routes on collector streets, such as Morsay Drive, with protective treatments that provide additional separation between greenway users and the vehicle travel lanes.	Primary: CoR Support: PW	\$\$	CIF, MFT, ITEP, TAP, SRTS	Long

EDUCATION, RECREATION, ART, & BRANDING

GOAL: CREATING AN IDENTITY FOR THE GREENWAY WHILE OFFERING MEANINGFUL, ENGAGING EXPERIENCES ALONG THE WAY.

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
1: DEVELOP A GRAPHIC LOGO, COLORWAY, AND BRANDING STANDARDS FOR THE GREENWAY THAT ARE RECOGNIZABLE CITY- AND REGION-WIDE.	1.1: Develop a focus group comprised of local residents and stakeholders in order to develop themes and integrate local culture into the branding.	Primary: KC Support: RAAC, Local Residents	N/A	KC Shared Fund	Short
	1.2: Integrate design standards into elements along the greenway; informational and directional signage, banners, trash cans, trails, bridges, and other public infrastructure.	Primary: KC Support: CoR, PW, RPD	\$\$	KC Shared Fund, MFT	Mid
	1.3: Create trailheads and gateways that reinforce the brand of the creek and act as key gathering areas.	Primary: RPD	\$\$	KC Shared Fund, MFT	Mid
	1.4: Incorporate branded wayfinding signage to inform greenway users of distance to key destination areas.	Primary: CoR Support: PW, RPD	\$\$	KC Shared Fund, MFT	Mid

EDUCATION, RECREATION, ART, & BRANDING

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
2: DEVELOP AN EDUCATION CAMPAIGN TO PROMOTE PUBLIC KNOWLEDGE OF THE WATERSHED, THE GREENWAY, AND ITS COMPONENTS	2.1: Coordinate with schools and non-profits serving children in the watershed for hands-on field trips and curriculum integration with water and nature-related subject matter.	Primary: KC Support: RPS, NLI, Severson Dells, Forest Preserves of Winnebago County	N/A	KC Shared Fund	Mid
	2.2: Identify or build a hub for outdoor education.	Primary: KC Support: Severson Dells, Forest Preserves of Winnebago County	\$\$\$	TIF, GRB, City of Rockford	Long
	2.3: Develop signage along the creek that provides information about water as a natural resource as well as the history of the area and its neighborhoods.	Primary: CoR Support: PW, Rockford Public Library	\$\$	319	Mid
3: PROVIDE VARIOUS MEANS OF RECREATION ALONG THE GREENWAY AT KEY NODES.	3.1: Enhance existing parks and playgrounds along the greenway.	Primary: RPD	\$\$\$	TIF, CIF, CSF	Long
	3.2: Encourage outdoor activities by providing equipment rentals at an urban ecology center, or interim location along the greenway.	Primary: KC Support: RPD	\$	TIF, CIF, CSF	Long
	3.3: Build upon the existing and growing mountain biking culture to offer side trails and mountain bike playgrounds.	Primary: RPD	\$\$	TIF, CIF, CSF	Long

EDUCATION, RECREATION, ART, & BRANDING

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
4: EMPHASIZE PUBLIC ART ALONG THE GREENWAY TO IMPROVE AESTHETIC QUALITY AND ALIGN WITH THE KEITH CREEK BRANDING.	4.1: Coordinate infrastructure and recreational improvements to include public art enhancements.	Primary: CoR Support: PW, RAAC	\$	KC Shared Fund	Short
	4.2: Develop committee to review artists' submission for mural and sculpture placement and content.	Primary: RAAC Support: RACVB	N/A	KC Shared Fund	Short
	4.3: Using identified key nodes, build critical mass of public art.	Primary: RAAC Support: RACVB, Neighborhood Association	\$	KC Shared Fund	Mid
	4.4: Paint murals on highly visible exterior walls and vertical faces of the Keith Creek channel walls.	Primary: RAAC Support: RACVB	\$	KC Shared Fund	Mid
	4.5: Incorporate regular event programming to bring local kids, novice, and professional artists to the creek to build/maintain momentum.	Primary: RAAC	\$	KC Shared Fund	Short
5: UPLIFT LOCAL ARTISTS, MAKERS, AND EDUCATORS FROM DIVERSE BACKGROUNDS.	5.1: Engage local artists, particularly those from diverse backgrounds, to create artworks, murals, and sculptures.	Primary: RAAC	N/A	KC Shared Fund	Short
	5.2: Work with hired artists to provide community benefits, such as mural painting workshops for local students.	Primary: RAAC	N/A	KC Shared Fund	Short
	5.3: Ensure that curriculums are reviewed and vetted by local educators and are informed by Keith Creek's history.	Primary: RAAC Support: Rockford Public Library	N/A	KC Shared Fund	Mid

LAND USE & DEVELOPMENT

GOAL: DEVELOPING PROJECTS WITHIN THE KEITH CREEK WATERSHED THAT INCREASE INTERACTION WITH THE CREEK, THE RESILIENCE OF THE CORRIDOR, AND SUPPORT ECONOMIC DEVELOPMENT.

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
1: PRIORITIZE AND DEVELOP COMMUNITY GATHERING SPACES THAT BENEFIT THE GREATER COMMUNITY AND THAT INCORPORATE AMENITIES FOR PEOPLE OF ALL AGES AND ABILITIES	1.1: Develop more detailed plans for the Churchill Park area, which will enhance access to the creek, provide recreational opportunities, and facilitate mobility throughout the area via a Multi-Use Path. Conduct a Cost-Benefit Analysis to ensure development benefits outweigh costs.	Primary: KC Support: KC Neighborhood Association, CoR, RPD	\$	CIF, BRIC, IGIG, 319	Short
	1.2: Work with existing property owners and assist them in implementing privately-owned, site-specific improvements along the creek.	Primary: KC Support: Private property owners	\$	CDBG, HOME, Rockford Local Development Corporation Loans, Winnebago County Soil and Water Conservation District Cost Sharing	Short
	1.3: Work with the Land Bank to buy properties along the creek that are within the Property Buy-out Overlay District. Demolish properties and develop as community gathering spaces once consolidated.	Primary: KC Support: NILBA, KC Neighborhood Association	\$\$	CIF, BRIC, IGIG, 319	Mid

LAND USE & DEVELOPMENT

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
2: INCENTIVIZE COMMERCIAL AND RESIDENTIAL DEVELOPMENTS THAT HIGHLIGHT KEITH CREEK AND INCORPORATE CREEK-FACING, PUBLICLY ACCESSIBLE ELEMENTS, SUCH AS OVERLOOKS, WALKING PATHS, AND PATIOS.	2.1: Review land use regulations around the creek to identify and update municipal code to include land uses that function to de-intensify development near the creek.	Primary: CoR Support: CED	N/A		Short
	2.2: Develop regulatory codes to support entitlement incentives.	Primary: CoR Support: CED	N/A		Short
	2.3: Ensure incorporation of the Keith Creek Corridor Plan into the City’s in-progress Comprehensive Plan.	Primary: CoR Support: CED	N/A		Short
3: ENCOURAGE THE APPROPRIATE DEVELOPMENT OF OPPORTUNITY SITES, UNDERUTILIZED SITES, AND VACANT LOTS.	3.1: Identify and acquire underutilized or vacant properties.	Primary: CoR Support: CED, NILBA	\$\$	CIF, BRIC, CDBG	Mid
	3.2: Provide incentives for developers to develop or redevelop these sites in accordance with the land use framework.	Primary: CoR Support: CED, NILBA	\$\$	City of Rockford, State and Federal Historic Tax Credits	Short
	3.3: Consider creating a Keith Creek Corridor Design Guide that outlines best practices for developing within the watershed.	Primary: CoR Support: CED, NILBA	\$	KC Shared Fund	Mid

LAND USE & DEVELOPMENT

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
4: ENCOURAGE LAND USES WITHIN THE FLOODPLAIN THAT ENHANCE WATER QUALITY AND NATURAL HABITATS.	4.1: Develop open space which provides pervious surfaces, air filtration, and slows runoff to the creek within the floodplain.	Primary: RPD Support: NLI, Severson Dells	\$\$\$	CIF, IGIG, BRIC, 319, NFWF Grants, Grand Victoria Foundation Grants	Mid
	4.2: Require creek buffer standards for all communities near the creek.	Primary: WCSWCD Support: BCSWCD	N/A		Short
	4.3: To the extent possible, avoid placing development, particularly that which includes impervious surfaces, within the floodplain.	Primary: CoR Support: City of Loves Park, WCSWCD, BCSWCD	N/A		-
	4.4: New developments should incorporate best management practices for development along the creek corridor.	Primary: CoR Support: City of Loves Park	N/A		-

TRANSPORTATION & UTILITIES INFRASTRUCTURE

GOAL: IMPROVING INFRASTRUCTURE AND UTILITIES TO ALIGN WITH THE CONCEPTS AND VISIONS SET FORTH IN THIS PLAN

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
1: IMPROVE THE EXISTING SEWER UTILITY INFRASTRUCTURE ALONG THE CORRIDOR.	1.1: Collaborate with Four Rivers Sanitation Authority (FRSA) to replace and relocate the sewer interceptors along the Churchill Park from 9th Street to 18th Street. Locate the new sewer along 7th avenue.	Primary: FRSA Support: Cor, RPD	\$\$	CIF, BRIC	Mid
	1.2: Collaborate with Four Rivers Sanitation Authority (FRSA) to replace or rehabilitate the sewer interceptors along creek in Alpine Park.	Primary: FRSA Support: RPD	\$\$	CIF, BRIC	Mid
	1.3: Ensure the future sewer receptor improvements and replacements maintain or improve access to Keith Creek.	Primary: KC Support: FRSA	\$\$	CIF, BRIC	Mid
2: PROVIDE FUTURE WATER AND SEWER SERVICE EXPANSION.	2.1: Work with township residents to plan and place sewer and water service within Rockford Township parcels.	Primary: Rockford Township Support: CoR	\$\$		Mid
3: PROVIDE FIBER CONNECTION AND RELIABILITY THROUGHOUT THE GREENWAY CORRIDOR.	3.1: Work with SiFi Networks to provide high-speed internet and fiber-optic service along the greenway corridor for WiFi connections.	Primary: CoR	\$	CIF	Mid
	3.2: Install video surveillance at community parks along the greenway for improved safety.	Primary: RPD	\$	CIF	Mid

FLOODING & STORMWATER MANAGEMENT

GOAL: MITIGATING FLOODING BY FOLLOWING STORMWATER BEST MANAGEMENT PRACTICES THROUGHOUT THE KEITH CREEK WATERSHED.

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
1: CREATE AND IMPLEMENT A KEITH CREEK DRAINAGE MASTER PLAN	1.1: Engage a qualified engineering firm to carry out the creation of a Keith Creek Hydrology Study and Drainage Master Plan	Primary: CoR Support: WC, BC	\$\$	IGIG, 319	Mid
	1.2: Utilize completed plan to acquire grant funding, which can be used for property buyouts and other plan recommendations	Primary: KC Support: RPC	\$		Long
2: BEGIN AN EXISTING CREEK INSPECTION AND CORRIDOR MAINTENANCE PROGRAM.	2.1: Hire dedicated creek inspection and maintenance staff. At a minimum, hire a creek inspection lead that is familiar with stormwater BMPs and who can work with existing City staff and maintenance personnel.	Primary: CoR Support: RPD	\$\$	IGIG, 319, NFWF Grants	Mid
	2.2: Create an inspection and maintenance program that can be referenced by maintenance staff.	Primary: CoR Support: RPD	\$	IGIG, 319, NFWF Grants	Mid

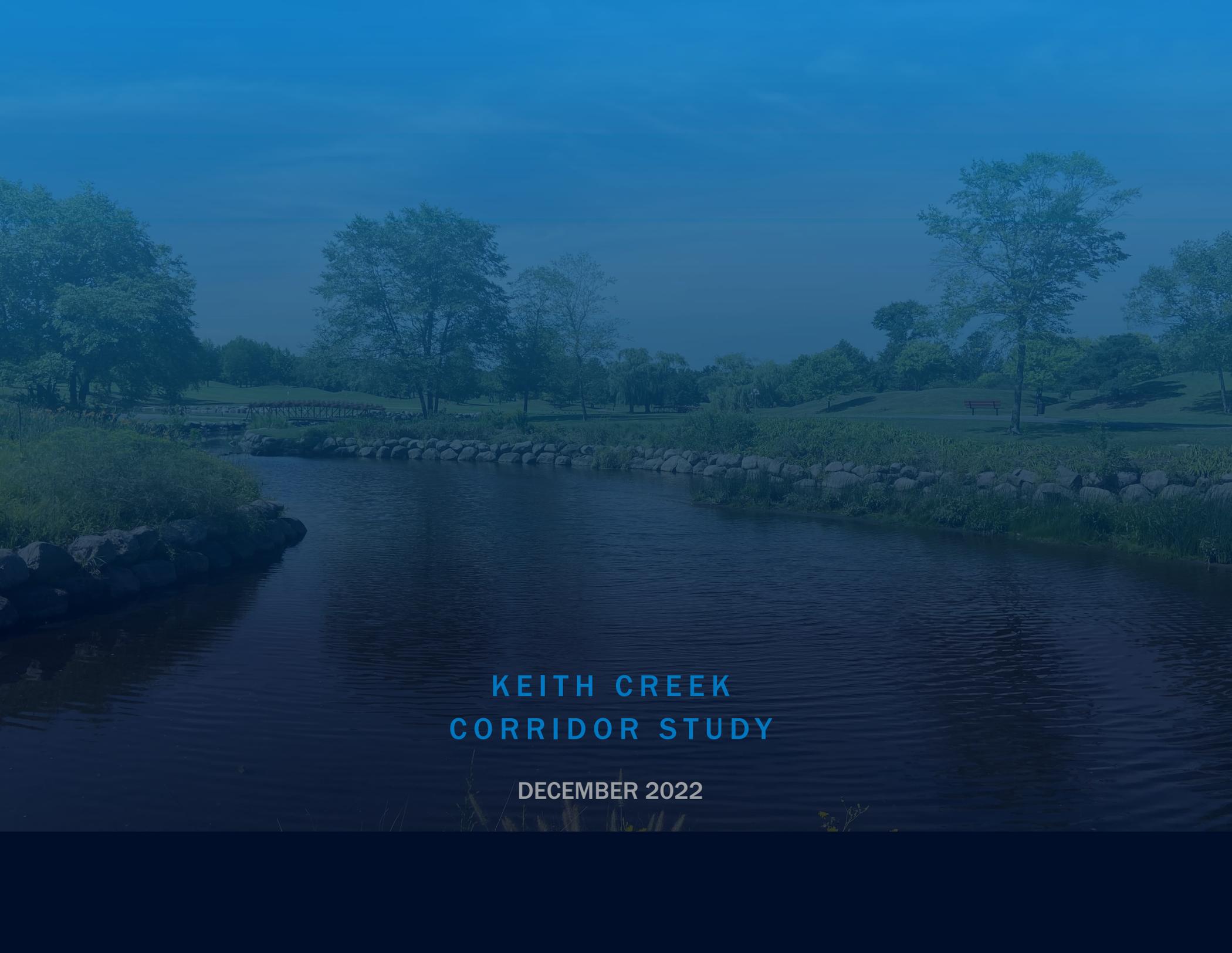
FLOODING & STORMWATER MANAGEMENT

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
3: CREATE A KEITH CREEK WATERSHED DEVELOPMENT DISTRICT.	3.1: Determine Watershed Development District boundaries. Ideally these will be identified in a Keith Creek Drainage Master Plan.	Primary: CoR Support: WC, BC	N/A		Mid
	3.2: Create development guidelines and management standards for developments inside the district boundaries.	Primary: CoR Support: WC, BC	N/A	IGIG, 319	Mid
	3.3: Require developers to abide by Watershed Development District standards.	Primary: CoR Support: WC, BC	N/A		Mid
4: CREATE A GRADUAL PROPERTY BUYOUT DISTRICT. PERIODICALLY REASSESS THE KEITH CREEK FLOODPLAIN BOUNDARIES.	4.1: Coordinate with the Northern Illinois Land Bank Authority to purchase properties as they become available.	Primary: CoR Support: WC, BC	\$\$	IGIG, 319, BRIC	Short
	4.2: Periodically reassess floodway boundaries and reduce the size of the buyout district, as necessary.	Primary: CoR Support: WC, BC	\$		-

FLOODING & STORMWATER MANAGEMENT

GOAL: IMPROVING WATER QUALITY AND HABITATS WITHIN THE KEITH CREEK WATERSHED BY REDUCING STORMWATER RUNOFF AND PROTECTING ENVIRONMENTALLY SENSITIVE AREAS.

REC	ACTION ITEM	RESPONSIBLE PARTY	COST	FUNDING	TIME FRAME
1: ALIGN WITH THE GOALS, POLICIES, AND RECOMMENDATIONS SET FORTH IN THE KEITH CREEK WATERSHED-BASED PLAN, A CONCURRENT PLANNING EFFORT FOCUSED ON IMPROVING WATER QUALITY WITHIN THE KEITH CREEK WATERSHED.	1.1-1.13: Reference and Implement the Green Infrastructure Network Policy Recommendations that are reflected in the Keith Creek Watershed Based Plan.	Primary: CoR Support: WC, BC	\$\$		-
2: PROTECT, REHABILITATE, AND PROMOTE THE KEITH CREEK GREEN INFRASTRUCTURE NETWORK BEYOND THE SPECIFIC CATALYTIC SITES IDENTIFIED IN THIS PLAN.	2.1: Enhance the Tenth Avenue Park area to provide a more naturalized stream corridor and less mowed turf grass.	Primary: RPD	\$\$	IGIG, 319	Mid
	2.2: Preserve and enhance naturalized areas along the creek in Twin Sister Hills Park and Dahlquist Parks.	Primary: RPD	\$\$	IGIG, 319	Mid
	2.3: Preserve the high-quality ecosystem and stream channel in Aldeen Park.	Primary: RPD	\$\$	IGIG, 319	Mid

A scenic view of Keith Creek flowing through a park-like setting. The creek is bordered by a stone-lined bank and lush greenery. In the background, there are rolling green hills, trees, and a wooden bridge. The sky is a clear, bright blue.

KEITH CREEK
CORRIDOR STUDY

DECEMBER 2022