### **Connecting and Restoring Ramsey**



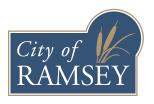
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The project on which this report is based was completed in collaboration with the City of Ramsey as part of the 2017–2018 Resilient Communities Project (RCP) partnership. RCP is a program at the University of Minnesota's Center for Urban and Regional Affairs (CURA) that connects University faculty and students with Minnesota communities to address strategic projects that advance local resilience and sustainability.

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# Connecting and Restoring Ramsey

ESPM 3245/5245 Fall 2017 | Graduate Team Project Report

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#### I. Introduction and Background

Graduate students enrolled in Sustainable Land Use Planning and Policy (ESPM 5245) at the University of Minnesota, have partnered with the city of Ramsey, Minnesota on a research project designed to identify the ecological, economic, and social value of open spaces in Ramsey, Minnesota. This research project was facilitated through the University of Minnesota's Resilient Communities Project (RCP), which supports cross-disciplinary partnerships between selected communities and university programs, offering students with practical opportunities for applying their knowledge while providing cities with the resources and manpower necessary to achieve sustainability goals. While scoping this research project, the graduate team met with Ramsey city officials, toured key sites throughout the city and interviewed community stakeholders to better understand current uses and perceptions of open space in Ramsey. The insights gained from this process led the graduate team to create a community survey in collaboration with city officials in order to better understand community preferences and perceptions of city parks, trails and greenways. This survey is a tool that Ramsey officials may continue to distribute and the report details findings from data collected in the initial phase of survey administration. This report will identify action steps to help Ramsey officials articulate the communal benefits of pursuing the open space initiatives of the RCP projects Connecting Ramsey and Restoring Our Edge.

The City of Ramsey has identified "rural character" and "parks, recreation, and open space" as two key themes for its 2040 Comprehensive Plan update. These two themes are central elements RCP fact sheets for the *Connecting Ramsey* and *Restoring Our Edge* projects, which aim to promote ecological and recreation corridors in the community. The Connecting Ramsey project is a preferred route for connecting community members with city parks by linking existing parks and trails in an effort to improve community accessibility and connectivity. The City's broader vision for improving community connectivity, ecological connectivity, and accessibility via trails across the city, referred to as the "Circle of Ramsey," employs a strategy for connecting key ecological corridors with larger community parks using greenways and trail corridors. The proposed greenway system would also serve the dual purpose of providing sustainability and resiliency goals for the city's diverse ecology and natural habitat. The Circle of Ramsey concept has helped to focus community discussions about park dedication for new developments while assisting the community in identifying priority trails that tie into the available recreational landscapes and link the "Circle of Ramsey."

The City of Ramsey, in partnership with shoreline restoration specialists at the Anoka Conservation District, recently completed a shoreline inventory along the Mississippi River, which runs along the city's southern border. The results of the soil erosion study estimated the river is taking 5,000 tons of sediment from the city's six miles of shoreline (Anderson, 2017). The notable degree of soil erosion equates to loss of property, damage to natural resources, and impacts to water quality. Ramsey officials are now seeking effective strategies, and existing models, for successfully communicating impactful restoration strategies to shoreline property owners and community members. The graduate team conducted stakeholder interviews, discussions with Ramsey officials and academic literature reviews to help identify multiple perspectives for open space protection and future land uses in the City of Ramsey.

The graduate team selected stakeholder interviewees by emphasizing a desire to gather a broad range of community perspectives on the perceived importance of protecting open spaces

and expanding the greenway project. Individual group members contacted the Ramsey Community Development Director, the Parks and Assistant Public Works Superintendent, representatives from the Anoka Conservation District (ACD), Ramsey Homeowner's association and a member of the Ramsey Environmental Policy Board. The opposing perspectives highlighted in these interviews demonstrated divergent perceptions amongst the residents of Ramsey; a community which has maintained its rural character while encountering notable growth as a result of its location at the northern edge of major metropolitan area.

Protecting open space was a priority issue identified by Ramsey's City Council and community advisory commissions, as well as its general public. The 2016 National Citizen Survey showed that more than 80% of residents positively rated the community's natural environment, however only 57% percent of residents positively rated the community's natural area preservation efforts (National Research Center, 2016). One city official the graduate team interviewed expressed a communal desire to "keep the rural feel of the town". The City of Ramsey is uniquely situated along the northern boundary of the seven-county metro area. As the Twin Cities metropolitan region has grown in size and influence, Ramsey has had to seek a balance between urban development and open space protection. The community survey on open space and greenways around Ramsey was designed, in part, to better understand the current uses of green space, trails, parks and ecological corridors amongst community stakeholders. The survey showed the importance of connectivity for the "Circle of Ramsey" project, but also demonstrated the need for Ramsey officials to continue employing different communication strategies with specific stakeholder groups in order to assure the communal benefits of ecological protection are understood and enjoyed throughout the community.

At the outset of the semester the graduate team focused this research project on identifying action steps Ramsey officials can use to articulate the ecological, economic, and social value of protecting open spaces in Ramsey, Minnesota. This report will synthesize survey data, stakeholder interviews, and relevant academic literature in an effort to address the benefits that protecting open space can have on community connectivity, ecological connectivity, and equity and accessibility in Ramsey, Minnesota. The community survey shows support for the sustainability objectives in the *Connecting Ramsey* and *Restoring Our Edge* initiatives and our final report identifies strategic ways for Ramsey officials to address issues of sustainability, resilience, and preservation of open space with stakeholders in Ramsey.

#### II. Principles of Sustainable Land Use Planning and Policy

Sustainable land use planning and policy research has highlighted many useful strategies and tools city planners can use to meet their sustainability and resiliency goals. In the sections that follow are key findings from the literature about three areas of sustainable land use planning that Ramsey city planners identified as top priorities for the city: Community Connectivity, Ecological Connectivity, and Equity and Accessibility. Our readings on these topics influenced both the questions we asked in our survey and the recommendations we offer Ramsey to support their sustainability planning efforts, which we will discuss further in later sections of this report.

#### a. Community Connectivity

Community connectivity is a primary goal for Ramsey city officials and in particular, of the Circle of Ramsey project. Simply put, community connectivity is the availability and directness

of routes for getting from point A to point B within a town or city network (Handy et al, 2002). If destinations within a community are linked by multiple routes that can be accessed by diverse methods of travel, or if locations within a community are more closely integrated, the degree of connectivity is greater (Perz et al, 2012). In other words, if a community transit system has more links (routes) between nodes (destinations), there is greater connectivity (Mishra et al, 2012). The Ramsey Parks and Public Works department aims to provide residents with more connections to destinations in the city. Currently, they are focused on linking parks throughout the community to make walking or biking safer, easier, and more enjoyable for residents. As mentioned previously, a key part of the Circle of Ramsey plan is providing Ramsey residents with a suite of trails and greenways that connect the various developed and natural areas of the city via bicycle transit corridors and walking paths. The hope is that these efforts will both shift the transportation system in Ramsey towards one that is more sustainable and increase resident use and support of local parks. Planning research has shown that transportation systems that increase community connectivity specifically by increasing the viability of walking, biking, and public transit relative to car travel can improve the health of the community environment and residents, while making communities more livable (Daniels, 2014; Handy et al, 2002). A key driver of the Circle of Ramsey project is improving the economic, social, and environmental wellbeing of their residents. The Public Works department feels that if they can improve the connectivity and sustainability of their transportation system, they can get closer to that goal.

Transitioning to sustainable transportation systems is a major component of many citylevel sustainable planning efforts in the US because current transportation systems are a leading cause of environmental degradation (Vig and Kraft, 2012; Daniels, 2014; Profillidis et al, 2014). Automobile-centered transportation, which is the norm across much of the US (Handy et al, 2002), is responsible for approximately 25% of the country's greenhouse gas emissions (Daniels, 2014) and roads and highways take a lot of land away from other potential uses (Profillidis et al, 2014). Shifting from car-centered transportation towards a public-transit oriented system can help cities break away from this vicious cycle and progress towards healthier environments and communities (Profillidis et al, 2014; Pternea et al, 2015): good public transit systems can decrease traffic problems, lessen environmental impacts, and provide social and economic benefits (Pternea et al, 2015). This research demonstrates that Ramsey is on the right path towards sustainability, but the question of how to successfully make the shift from a car-centered transit system to a more connected, public transit system still remains. Beyond the funding challenges that Ramsey officials expressed as some of the biggest barriers to implementing the Circle of Ramsey project, a bigger issue is understanding how to design the new transit system in Ramsey such that residents will choose to use the trails and greenways instead of car travel.

The sprawling built environment that is typical across much of the US is a primary reason for the dominance of automobile-centric transportation systems throughout the country (Handy et al, 2002). Most Americans do not want to spend more than one hour per day traveling and most are only willing to walk up to half of a mile to reach their destination, or a public transit stop (Profillidis et al, 2014; Daniels et al, 2014). The low-density development pattern typical in many American cities, including Ramsey, makes it difficult to implement a cost effective public transit system that meets community preferences and enjoys wide use (Daniels, 2014). As a result, even when cities improve public-transit options, residents often continue to prefer traveling by car. The persistence of American preference for automobile travel has led to generations of federal, state, and local transportation policies that remain focused on improving

the system we have rather than changing the system, so transportation funding at the state and local level tends to be focused on roads and highways (Daniels, 2014).

Car travel is still very much a part of US culture and is so widely used that cities cannot simply abandon roads and highways. The conundrum with this is that improvements and expansions of roads and highways create induced demand: more quality roads encourage more people to use them over other methods of travel (Daniels, 2014). In turn, these transportation planning actions encourage further car dependency, increase greenhouse gas emissions and traffic and congestion, and further the unsustainability of the travel system. Shifting funds away from roads and towards more sustainable transportation systems can help change this. Moving some funding from roads and highways towards public transit has been part of the reason for success in other US sustainable transportation transitions (Daniels, 2014).

Improving community connectivity in sustainable ways is not simply about providing alternative options to car travel, but also about making those alternatives appealing to residents so they actually opt to use the public transit system instead of driving. Sustainable transportation systems are more successful and widely-adopted when planners use transit oriented development (TOD) and transit efficient development (TED) methods (Daniels, 2014). Using TOD and TED when planning new development means creating a higher density of residential, commercial, and open space mixed zoning in order to maximize the potential for intermodal transportation. Planners need to build transit systems that minimize user costs and maximize user benefits (Pternea et al, 2015; Handy et al, 2002; Daniels, 2014). Public transit options should be more efficient in terms of time and expense than car-travel in order to make using these options appealing to residents. Increasing, not only density of developments, but also diversity of developments and land uses in an area puts more within a reasonable public-transit radius, encouraging less driving and more walking, biking, and bus or train usage (Handy et al, 2002; Pternea et al, 2015; Daniels, 2014).

Increased density of development decreases the cost of using public transit for residents, while also providing additional community benefits. For example, when walking and biking are efficient modes of travel, residents can have the added benefit of getting exercise while commuting (Handy et al, 2002). Well-managed and easy-to-use public transit systems also encourage further development near transit hubs (Daniels, 2014). This gives residents access to more amenities within a smaller radius while providing direct benefits to the local economy by increasing employment opportunities, accessibility, efficiency, and desirability of an area (Profillidis et al, 2014). This concentrated development minimizes need for sprawl and large roadways because residents can get more of what they need close by. What's more, public transit infrastructure requires much smaller land allotments than the infrastructure needed to support automobile-dominated systems (Profillidis et al, 2014). Successful sustainable transit systems result in less land committed to transportation than with car-centered systems. In turn, land is freed up for parks, restoration, or other uses that can provide benefits to community health and increase community resilience (Profillidis et al, 2014).

#### **Community Connectivity: Key Takeaways:**

These research findings together with the evolution of sustainable transportation systems using TED and TOD offer some guiding principles that Ramsey officials may consider in their efforts to increase community connectivity in Ramsey. We will expand on these principles further in the recommendations section of this report.

- Shifting funding away from roads and highways and towards public transit
  development can help get public transit projects off the ground and decrease the
  demand that results from improvements and expansions of roads and highways
- Denser, mixed-use development helps make public transit systems both easier to implement and more appealing to residents. This type of development decreases user costs and increases user benefits while also providing benefits to the city's economy.
- Decreasing the tradeoffs for residents who choose public transit over car travel is key. Public transit options need to be equally efficient, or provide sufficient benefits to residents for sustainable public transit systems to be viable methods of travel.

#### b. Ecological Connectivity

Broadly, ecological connectivity describes the degree to which organisms and biological materials can move from one space to another. In the context of urban planning, ecological connectivity refers to the ability of organisms to move unimpeded from one fragment of habitat, whether it's a park, river, or natural area, to another. In metropolitan areas, roads and sprawl have caused severe fragmentation of habitats, and little is done to provide natural corridors between these fragments for wildlife to move from one area to another (Dickman, 1987). As a result, wildlife populations get isolated or wiped out, disrupting the biodiversity of the area. Loss of biodiversity can impact ecosystems services such as water filtration, carbon sequestration, pollination, and pest control (Cardinale et al., 2012), increasing the operational costs for a city attempting to replace these services.

Many challenges stand in the way of Ramsey's ability to achieve ecological connectivity. A review of 50 State Wildlife Action Plans (SWAPs) across the US found that less than 30% of SWAPs prioritized connectivity when assessing their conserved land (Lacher & Wilkerson, 2013). While some cities feel that there is no opportunity for conservation because the land is "already developed," there is much that can be done, even in highly developed areas (Stokes, Hanson, Oaks, Straub, & Ponio, 2009). Despite perceived barriers, there are many steps that cities can take in working towards the goal of ecological connectivity. The city of Ramsey's "City Wide Greenway Plan" offers an opportunity to provide biological corridor connections throughout the city. By using the proposed greenway to connect all of the city's major parks and natural landscapes, a more linked habitat system will emerge, producing more biological diversity and connectivity, while also reducing fragmentation caused by roads, highways, and development.

Size, connectivity, and context of habitat fragments can all play a role in promoting or stifling biodiversity (Collinge, 1996; Dickman, 1987). One of the biggest factors to consider in an urban environment is the "edge effect." The amount of "edge" that a habitat fragment has, as well as the context of that edge, can play a huge role in determining whether species in that fragment will be successful. The "edge effect" is especially noticeable in areas of suburban sprawl, where a forest edge may also be the edge of a housing subdivision. These are areas where it is common to dump grass clippings, construction debris, or trash. An "edge effect" appears consistently in the City of Ramsey, where developmental sprawl has led to some housing divisions approaching within thirty feet of a forest or wetland area. Depending on the size of the

edge, these effects can permeate several yards into the fragment, and impose significant effects on the overall ecological health of Ramsey (Collinge, 1996).

In these cases, it is especially important to consider habitat connectivity. Vegetated corridors connecting various habitat fragments have proven to decrease the negative impacts of the "edge effect," as well as increase the ecological value of those smaller fragments that might otherwise not be very high in biodiversity (Collinge, 1996; Dickman, 1987). With the proposed greenway system, integrating biological corridors into its design and creating a loop within the City of Ramsey will help to negate the negative effects caused by developmental sprawl as well as reconnect wildlife throughout the city limits. These corridors allow plants and animals to move between habitat fragments, facilitating a higher degree of species richness than would otherwise have existed.

The City of Ramsey is boarded on two sides by the Mississippi River and the Rum River, making the health of the rivers synonymous with the health of the city. In particular, riparian buffers are critical to the ecosystem health of Ramsey's waterways; they can provide erosion control, filter urban and agricultural runoff, control flow volume, regulate light infiltration and temperature of the water, and provide habitats for aquatic life in the form of woody debris. Because of these services, the downstream benefits of riparian buffers are especially apparent and deserving of attention in Ramsey's future development and design, especially with such significant soil erosion problems along the Mississippi river.

Waterways surrounding urban areas are particularly susceptible to ecological disruptors. Fertilizer chemicals, car fluids, litter, heavy metals, excess sediment, and bacteria all make their way into waterways instead of getting filtered through soil and vegetation, and upset many natural ecosystems in the process. With a large portion of Ramsey's residents living within close proximity to both the Mississippi and Rum Rivers, contamination of waterways by non-point source pollution is common. Studies have linked toxins from urban runoff to fish kills, but it is the cumulative effect of pollutants, eutrophication, and high-volume flows from sewer systems that have the biggest impact. These same contaminants can also cause illnesses in humans, through drinking water, recreation, and seafood (Subramanian, 2016). Riparian buffers along rivers have been shown to be extremely effective in removing these nonpoint sources of pollution, removing up to 95% of sediment, 80% of total-nitrogen, and 78% of total-phosphorus (Lee, Isenhart, & Schultz, 2003).

The challenges of working with property owners, or acquiring the lands necessary to facilitate ecological connectivity, still remain, but there are a number of tools that Ramsey can use to achieve their goals. The tool that provides the most certainty for natural spaces to be protected is public acquisition of land, but it is also the most costly. Partnerships between nonprofit organizations and local government agencies can help with the costs and ensure that the land is being protected in the ways that it was naturally intended. Less costly options for Ramsey include regulations and incentives for open space protection. Local government agencies can require developers to set aside environmentally sensitive areas, as well as areas for parks, protecting pockets of habitat in areas that would otherwise have been fully developed. Conservation incentives have grown in popularity in recent years, and can provide landowners with financial incentives for choosing not to develop or farm their land (Bengston, 2004).

Overall, the value of protecting open space extends beyond just the ecological benefits. Multiple studies have found that access to nature and green space fulfills an important psychological need, and promotes a healthier lifestyle (Thompson, 2010; Chiesura, 2004). Ramsey's Greenway proposal offers the chance to not only provide a recreational pathway for its

residents, but also provides biological corridors for wildlife, erosion and soil protection throughout the community and along the Mississippi and Rum Rivers. Contamination mitigation that will not only benefit Ramsey, but also their downstream neighbors.

#### **Ecological Connectivity: Key Takeaways:**

- In metropolitan areas, roads and sprawl have caused severe fragmentation of habitats, and little is done to provide natural corridors between these fragments for wildlife to move from one area to another (Dickman, 1987) disrupting the biodiversity of the area.
- Communities often underestimate the importance of ecological connectivity when making determinations on conservation of lands, expanding trail corridors and promoting housing development.
- An effectively linked habitat system will yield greater biological diversity and connectivity, while also reducing fragmentation caused by roads, highways, and development.
- Vegetated corridors connecting various habitat fragments have proven to decrease the negative impacts of the "edge effect," as well as increase the ecological value of those smaller fragments that might otherwise not be very high in biodiversity (Collinge, 1996; Dickman, 1987).
- Riparian buffers are critical to the ecosystem health of Ramsey's waterways; they can provide erosion control, filter urban and agricultural runoff, control flow volume, regulate light infiltration and temperature of the water, and provide habitats for aquatic life in the form of woody debris.
- The downstream benefits of riparian buffers are especially apparent and deserving of attention in Ramsey's future development and design, especially with such significant soil erosion problems along the Mississippi river.
- Waterways surrounding urban areas are particularly susceptible to ecological disruptors. Fertilizer chemicals, car fluids, litter, heavy metals, excess sediment, and bacteria all make their way into waterways instead of getting filtered through soil and vegetation, and upset many natural ecosystems in the process.
- Overall, the value of protecting open space extends beyond the ecological benefits. Multiple studies have found that access to nature and green space fulfills an important psychological need, and promotes a healthier lifestyle (Thompson, 2010; Chiesura, 2004).

#### c. Equity and Accessibility

There are two primary equity concerns that must be central in the planning of parks and trails, and especially the proposed greenway trail in the RCP project *Connecting Ramsey*. The first is socio-economic equity. Ramsey will be growing substantially over the coming decades. The Metropolitan Council and the City of Ramsey forecasts both put the population for 2030 around 44,000 people. This will certainly include a more racially and economically diverse population of people, especially considering the addition of greater living density in the Center of Ramsey area and the travel convenience of the Northstar Commuter Rail within an expanding

metropolitan light rail system. The needs of these diverse populations should be considered in long-term planning of trails and parks throughout Ramsey.

The second concern is accessibility for persons with disabilities. The Americans with Disabilities Act of 1990 created the first nationwide standards for disability accommodations in public spaces. Since then, accessibility has become more salient and more broadly acknowledged as a key public value. Despite this, many public officials are unaware of how to make public spaces more meaningfully accessible. This is especially true for local parks departments, who create public spaces that are both visibly and spatially complex. These must be made accessible for a wide variety of impairments, including visual, cognitive, and mobility-related.

#### Accessibility

Accessibility initiatives must take into account a wide variety of disabilities, under the ADA, this is an "impairment" that "substantially limits one or more major life activities." This can include any number of chronic illnesses, mental conditions, and physical limitations. The University of New Hampshire's Institute on Disability (Kraus, 2016) created a report with a typology including six categories of disability: ambulatory, cognitive, independent living, hearing, self-care, and vision. These categories all had far higher levels of prevalence among the elderly. It should be noted that these disability types exclude several other conditions considered disabilities, including various learning disabilities and extreme allergies.

For Ramsey, providing residents who have mobility-related disabilities with access to trails and park spaces that are physically navigable should be a top priority. Navigability allows users of wheelchairs, walkers, and canes critical community access and the ability to fully appreciate the outdoor amenities provided by the Ramsey parks department. This entails the evaluating the availability and proximity of benches and bathrooms, curb cuts, crosswalks and the setting aside of seating space for persons in wheelchairs. Parks and park facilities should be accessible on walkways, without having to cross grass. Trails, furthermore, should be consistently level, without bumpy stretches or potholes, and must have a slope of 1:20 to be accessible to wheelchair users. More detailed standards on accessibility in parks are available from a guide created by the Mountains Recreation and Conservation Authority (2006). Fortunately, many of Ramsey's parks and trails are paved. It is important that the parks department maintain the quality of paved trails to avoid potholes. The survey results showed a common desire for crosswalks at busy streets along the greenway. It is also important that, as new pathways such as the greenway are built, the needs of the mobility impaired are considered, and that paving remains a priority, with slopes minimized.

For residents with visual impairments, comprehensive signage is a vital need. Public signs are often available in braille, but only about 10% of legally blind persons can actually read braille. The latest Americans with Disabilities Act standards require signage to include raised lettering for non-braille readers to read. Important signs should also have large text with strongly contrasting colors, for people who are visually impaired without being entirely blind (Humrickhouse, 2012). Signage should be well distributed and provide directional arrows on trails. The presumption of a variety of different levels of sightedness among patrons makes them easy to use for the largest number of community members.

More recently, in addition to the physical accessibility concerns needed to maintain ADA compliance, there has been increased attention for incorporating mental and cognitive disabilities into parks programming. For example, the city of Tampa, FL has worked to make its youth

programming more accommodating to autistic youth, by providing opportunities for children experiencing sensory overload to distract themselves or relax (Bauman, 2017). In creating accessible programming, Voight et al (2008) recommends that, wherever possible, disability accommodations be integrated into recreation programs for abled people, instead of segregated into unique programs. This is an especially prudent recommendation for a smaller municipality such as Ramsey, which can provide integrated services much more affordably and conveniently than separated services.

While city officials should strive whenever possible to anticipate the needs of disabled residents, feedback mechanisms are also vital to ensure that unanticipated needs can be incorporated. Therefore, parks departments must adopt best practices for public engagement with, and feedback from, disabled community members. A national best practices survey by Voight et al. (2008) provides several recommendations for how to ensure disabled community members are properly engaged in parks and recreation planning. These include the creation of an Accessibility Advisory Board of disabled persons; money set aside in budgetary processes to address shortcomings; and the hiring of disabled staff in parks departments. Some larger jurisdictions recommend having a staff person dedicated to addressing and resolving complaints from disabled patrons of park services. Not all of these best practices are viable in a city with around thirty full-time staff. However, it is important that these options be available in a scaledback form, and that existing resources be used to fill some of these spaces. For example, Ramsey's senior social organization could provide feedback on mobility- and visual-related impairments, which are much more common among seniors. There should also be procedures in place for existing parks staff to receive, process, and address complaints from disabled community members about the quality of the parks, and this process should be made easy both to hear about and to complete.

#### Equity

The City of Ramsey is in a unique position to provide equitable and accessible public facilities including, parks and trails. The notion of providing equitable and accessible parks for everyone in a community has coined the term environmental justice (Maroko et al, 2009). Shane Bennett, the Chair of the Parks and Recreation Commission, detailed the importance of environmental justice to all the residents of Ramsey, by referring to connecting everyone to the parks and trails system. This was reiterated throughout the community engagement conducted by the Parks and Recreation Commission, and the most feedback was back to the point of wanting connectivity to all the parks and trails in Ramsey. Therefore, there is a need for the Circle of Ramsey to provide accessible routes, through multiple modes of transportation, throughout the whole community.

When analyzing spatial equity in certain cities, a distributional model is used to locate the public facilities or services near a specific socio-economic group; this is known as "equity mapping" (Talen et al, 1998). The problem with this sort of analysis is that it does not account for accessibility problems that certain groups may struggle with (Talen et al, 1998). The issue that most cities deal with is that greenways and parks are already constructed for and in closer proximity to wealthy white people (Lindsey et al, 2006). Since the planning field is still predominantly white men, this discriminatory process has continued (Shafer et al, 2000). This comes back to the unique position that Ramsey is currently in, because Ramsey can provide these green amenities to all of their residents as the city develops.

When the problem of equity is addressed, the next major difficulty communities face is planning for every economic, social, cultural, gender, and age group. Environmental justice is difficult to accomplish because each resident must benefit equally to every other resident (Maroko et al, 2009). The use of parks and trails differ between specific populations, so it is extremely important to understand how each group utilizes the public facilities. For example, most women are not comfortable using trail systems that have pedestrian underpasses, and poor lighting (Greed, 2006). In addition, textured pavements will deter families with strollers or residents that use wheelchairs for mobility (Greed, 2006). Older residents will also not use specific trails or parks that do not provide access to public restrooms (Greed, 2006). An important demographic to address in Ramsey is the median income of families. In Ramsey, the median household income is \$68,988 (U.S. Census Bureau, 2000). This demographic is important because if families are unable to own a car then it becomes increasingly difficult for families to access parks that are further from their home, especially if there are not any safe trails for the families to use to access different parks or areas of the community. These types of specific issues need to be addressed when planning how certain groups and neighborhoods can benefit from all of the different parks in Ramsey. When communities understand the needs of the different stakeholder groups, the planning process can then determine how to maximize its benefits for everyone.

Environmental justice discussions are mainly geared towards the racial aspect, as people of color have less access to environmental "goods," including parks, while having closer proximity to environmental "bads" such as, hazardous waste sites (Maroko et al, 2009). Since parks and trails are correlated with a healthier lifestyle, there is more chance for people of color to fall victim to obesity, diabetes, and other diseases (Maroko et al, 2009). This type of racial discrimination in the parks and trails systems has been present in our nation for many years. Even in Minnesota, our racial divide between the Chain of Lakes park system compared to the park amenities of the Northside Minneapolis are extremely distinct, as only 3 percent of the total visitors to the Chain of Lakes system are people of color (Campbell, 2016). Also, parks in the Northside received no more than \$85,000, but parks surrounding the Chain of Lakes received no less than \$150,000 in 2015 (Campbell, 2016). Overall, the city officials in Ramsey have a responsibility to provide these environmental amenities to all the residents, not just the wealthy, white class.

Many complications including lack of trust and underrepresented community engagement can arise when planners try to incorporate an equitable community. In Ramsey, complications can be seen with the disparities and lack of engagement within the Mexican population. One city official specifically described the difficulty in engaging the Mexican immigrants that live in a manufactured home park along Highway 10. Certain minority groups have built up distrust of the government over the years (Lindsey, 2001); therefore, it becomes more difficult to engage certain population groups to learn what would benefit them. These issues of distrust and lack of engagement have solidified because of the current environmental discrimination in our nation. In this case, Ramsey has been proactive in trying to engage the Mexican population in discussion, with little success. This difficulty has been addressed in many communities and regions, where the lack of trust leads to underrepresented voices in a government setting.

There is a great emphasis in the U.S. on housing and education inequalities, but the equal usage of parks and trails needs to be addressed to a greater degree in every community. The American Planning Association states, "We shall seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the

disadvantaged and to promote racial and economic integration" (American Planning Association, 2016). Planners are responsible for improving the quality of life for all people no matter their race, gender, religion or any other classification. In Ramsey, parks and trails bring people together which leads to a healthier, more vibrant, connected community. Everyone should be able to benefit equally to the great environmental amenities that Ramsey has to offer.

#### **Equity: Key Takeaways:**

Through this research there is a trend of inequity and lack of accessibility for green spaces and trails. These takeaways will help Ramsey to address the problems of inequity so the community can develop in a way that benefits everyone. We will expand on these principles further in the recommendations section of this report.

- As Shane Bennett described, different parks such as; Central Park, Alpine Park, Elmcrest Park, etc. have different amenities that are unique to each park. There needs to be modes of safe and affordable transportation that everyone can access so there is not only one population benefitting from a certain park.
- As City of Ramsey officials have stated, putting more resources into protecting the rural character and outstanding environmental amenities. As these funds are allocated towards certain projects there needs to be a balance of investments towards every park and trail system within Ramsey.
- Conversations need to be proactively started with every population, especially underrepresented groups, to start building trust. If discussions are held then relationships will build between the city officials and underrepresented groups, which can lead to equitable decisions.
- Once Ramsey understands the needs for all of their residents, then there can be an open dialogue with the stakeholders to develop an equitable and accessible parks system. As people become more comfortable engaging the city, there can be changes in the planning process to maximize the benefits for everyone.

#### III. Survey

#### a. Methods

A survey was developed to assess citizens' concerns and needs associated with parks and trails in the City of Ramsey. Using the online survey platform Qualtrics, a variety of scale and fixed-choice questions were used to answer four big questions: How often do residents of Ramsey use parks, what activities do they engage in when they use parks, what do they want from their parks, and what are top environmental concerns in the City of Ramsey? (see Appendix A). The City of Ramsey provided feedback and consultation during survey development.

Officials from Ramsey's Parks Department distributed the survey to residents from the City of Ramsey. We believed that having city officials distribute the survey would make it more trustworthy and authoritative, increasing the response rate. Officials distributed the survey through pre-existing email lists collected by city boards and commissions.

Care was taken in writing the items to minimize measurement error as much as possible. Each item required very little cognitive effort so that participants could answer items quickly and

accurately. Items were technically accurate, succinct, and clear and understandable to ensure that everyone was interpreting and answering the question the same way. Each question had a reason it was included, and a plan for analysis. The analysis presented here represents two weeks of survey data.

#### **b.** Respondent Profile

The respondent profile highlights the limitations of the survey. The first is the number of responses: with only fifty respondents, we are unable to draw many statistically significant conclusions. There is also considerable evidence that the responses were not representative of the whole population. Half of respondents were 45 or younger, though 62% of the city's adult population fits in this bracket. The median household income bracket was \$100,000-\$149,999, higher than the city's median income of \$68,000. Survey participants that included demographic information were 100% white, while the city's population is only 92% white. Lastly, for reasons we are not clear on, there was a substantial geographic bias in results, as demonstrated by the heat map of responses (Figure 1), which could bias the results as to which parks and amenities are used.

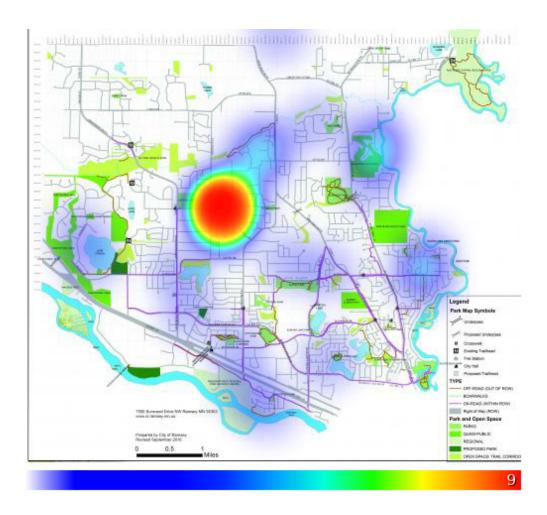


Fig. 1: Heat map of where in Ramsey respondents to the survey live.

We recommend that Ramsey continue to distribute the survey to gain more representative and statistically significant results. It is possible that the decision to use city commissions created a more involved, wealthier, older, and whiter demographic profile than the city at large. When using the survey instrument in the future, Ramsey should specifically seek feedback from other demographics through door-to-door distribution, mailings, or community meetings to ensure that access to parks and recreation are provided to all residents For older residents, an online survey may not be the preferred format, and a paper survey may have been more effective in increasing response rates. Having the survey available at community meetings or city offices where residents could fill it out with assistance may increase response rates in the future.

#### c. Survey Findings

To determine park usage and importance to residents, the survey asked respondents to share how close they live to parks, how frequently they use parks, and what activities they engage in when they visit parks. 78% of survey respondents live under 1 mile from the closest park to their residence, and the typical resident will periodically visit most of the parks (Figure 2). When examining the breakdown of specific parks, remember that many of the residents are congregated in the same area.

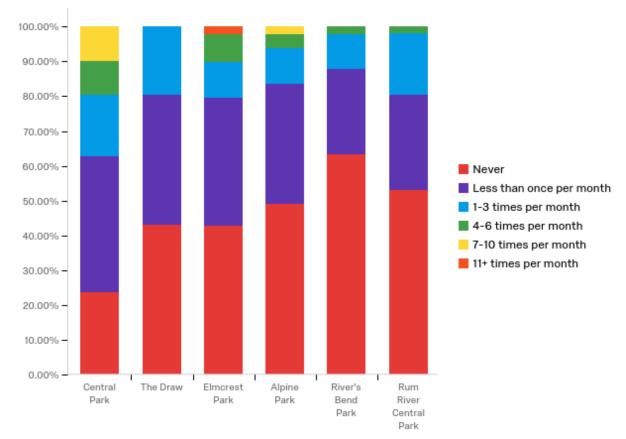


Figure 2: How frequently survey respondents visit specific parks around Ramsey (not in winter).

When respondents visit parks, walking, hiking, biking, dog walking, and family gatherings were the most common activities they use city parks for (Figure 3). Activities such as skating, running, and fishing were less common. Many people who specified "other" wrote in activities related to playground use, which was mistakenly omitted as a response option.

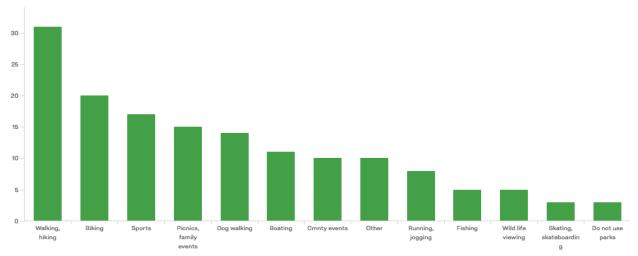


Fig. 3. Number of respondents who use parks for different activities.

In order to understand how Ramsey residents feel about the quality of parks in their city, the survey asked respondents to share opinions about the quantity and quality of city parks and amenities. 52% of respondents felt that Ramsey has the right amount of parks, trails, and greenways, 43% felt there are too few, and 4% felt there are too many. Figure 4 shows there was also broad approval for a wide variety of priorities, suggesting that city residents believe parks and trails can and should provide a wide variety of functions.

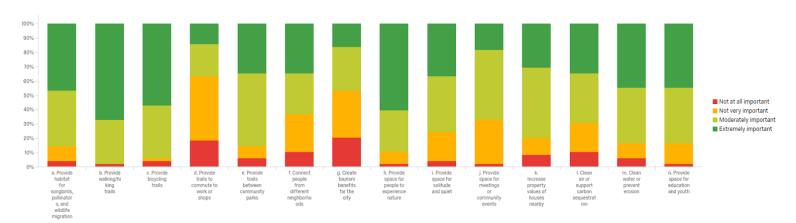


Fig. 4: Importance of various functions of parks, trails, and greenways to Ramsey residents. X-axis is percentage of respondents.

Because parks and greenways are helpful tools for environmental and natural resource protection, we also used the survey to gauge respondents' feelings about top environmental and resource concerns in Ramsey. In general, the respondents all felt that it is important to protect Ramsey's natural resources, and that the responsibility is shared between residents and government. Respondents were divided as to whether there is an existing problem with shoreline erosion or water resource protection (Figure 5).

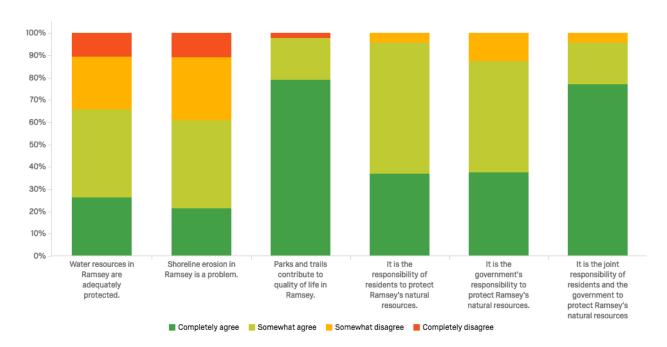


Fig. 5: Agreement/disagreement with several value statements about the environment.

Although the majority of respondents agreed that protecting Ramsey's natural resources is important, the trend in responses demonstrated that Ramsey residents have mixed concerns about resource issues in their city. Respondents see poor roads and highways as the city's top area of concern. Other notable concerns amongst respondents were loss of rural character and the potential for water resource pollution, although residents had previously said they believe pollution to be low. An additional concern amongst respondents was the loss of private property rights (Figure 6).

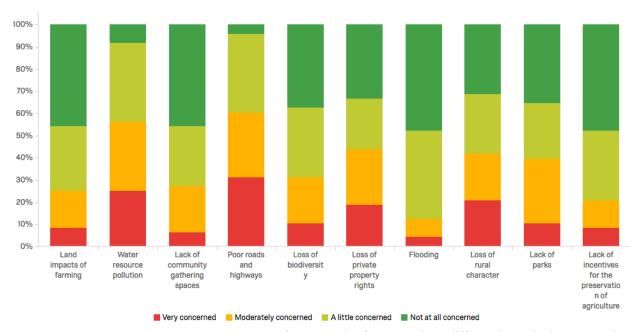


Fig. 6: Levels of concern about different issues in the community.

Despite differences of opinion between respondents about environmental concerns and top priorities for the city, survey respondents in general support all the actions for open space protection and greenway creation that Ramsey city planners are considering. The actions that respondents supported most are: connecting parks with existing right-of-ways, restoration of natural landscapes, and installing pedestrian bridges over busy highways (Figure 7). However, it is important to note that respondents were also fairly concerned about the loss of private property rights (Figure 6), and when considering open space protection, the city of Ramsey will have to be cautious in pursuing land acquisition.

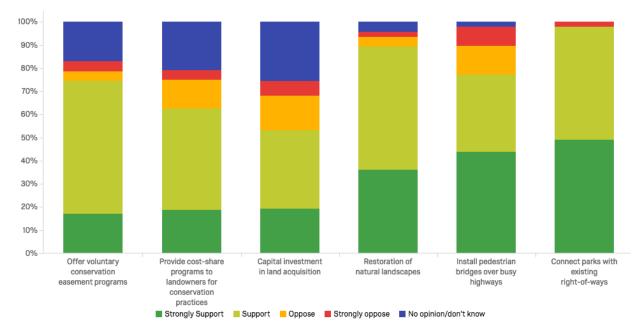


Fig. 7: Levels of support for different actions.

In summary, the survey data so far is a work in progress. The survey should be expanded and conducted with greater attention to demographic and geographic distribution. Preliminary results indicate that park use is widespread for a wide variety of activities. Residents strongly support protecting local natural spaces, and this environmental protection is seen as a shared responsibility.

#### VI. Recommendations

The results of the survey, coupled with the information gathered from our stakeholder interviews and academic literature reviews, suggests that connectivity is a central theme Ramsey officials can focus upon, not only in achieving the open space objectives of their RCP initiatives *Connecting Ramsey* and *Restoring Our Edge*, but also in effectively addressing the key themes of "rural character" and "parks, recreation, and open space" identified in their 2040 Comprehensive Plan update. Emphasizing community and ecological connectivity can improve the quality of life for both Ramsey's residents and its natural habitats (Thompson, 2010; Chiesura, 2004). However, community connectivity must respond to the needs and desires of Ramsey's residents in order to be effective, whereas the benefits of ecological connectivity need to be effectively communicated in order to achieve the support necessary for implementation. The graduate team recommends that Ramsey officials continue to gather stakeholder feedback on preferences for community connectivity, while simultaneously developing strategies for communicating the ecological and economic benefits of open space protection. Our team was encouraged to find that our initial survey results demonstrate that respondents are in favor of open space protection and trail connection in Ramsey.

The graduate team's survey data provides an initial glimpse, but the limited respondent profile highlights an important need to continue distributing the survey. The graduate team survey on open space in Ramsey was designed, in part, to better understand the current uses of green space, trails, parks and ecological corridors amongst community stakeholders. The survey showed that respondents have an interest in the "Circle of Ramsey" project, but also demonstrated the need for Ramsey officials to continue employing an array of communication strategies in order to reach specific stakeholder groups and assure the communal benefits of ecological protection are understood and enjoyed throughout the community. There is considerable evidence to suggest that the survey responses were not representative of Ramsey's demographics. Half of respondents were from adults 45 or younger, although 62% of the city's adult population fits in this bracket. All respondents self-identified as white, and the heat map showed a vast majority were concentrated near Central Park. This means our results do not reflect the perceptions of the entire Ramsey community. This brings up an equity issue that has already been identified by Ramsey city staff. City officials need to focus on finding better ways to distribute the survey to underrepresented populations in Ramsey. With only fifty respondents, the graduate teams is unable to draw many statistically significant conclusions, however the data collected is a great start that Ramsey officials can build upon.

A majority of the survey responses came from young families, and these families showed that they want a safe trail system that would allow them to walk to the park. The survey results also showed that there should be a higher priority on the development of safe trail systems that connects neighborhoods to parks as well connecting the parks together. 78% of the residents live

within one mile of a park, yet the survey clearly showed that, amongst respondents, a vast majority frequent the park less than 3 times a month. The question that arises is, why aren't respondents going to the park? Respondents are less likely to access the greenway without safe and convenient trail access that links neighborhoods with nearby parks. An effective and well-used trail system will not only connect residents with community parks, but also with other neighborhoods. The lack of park access coupled with the desire for safe trails amongst respondents, suggests that linking neighborhoods together via trails and pathways may encourage greater use of Ramsey's greenways.

The survey results also showed a shared concern amongst respondents for crosswalks at busy streets along the greenway. Crosswalks provide safety and comfort for families who would like to access the parks, or perhaps, would like to send their kids to the park alone. The Circle of Ramsey is a great amenity for the community, and survey data suggests that expanding safe and aesthetically pleasing trail connections between homes and parks in a "Circle of Ramsey" would have strong support amongst respondents.

Close to half of the respondents use the greenways for walking, hiking or biking, and therefore residents want easy access to trail systems where they can enjoy these activities. The Circle of Ramsey is an amenity which bolsters the quality of life in Ramsey, but the success of the city's greenway depends upon its use. If there is greater connectivity between homes and parks then people are better able to enjoy the Circle of Ramsey. Scenic and aesthetically pleasing trailways will help to the Circle of Ramsey grow as a community asset. Providing space for people to experience nature had strong support in the survey and provides a close community connection to the rural character of Ramsey. Prioritizing safe and scenic trails that connect neighborhoods to parks will encourage greater use of the Circle of Ramsey for a wide range of the community's population.

The trails and greenways survey can be a useful tool for gathering more stakeholder feedback, but it is important to understand the constraints of the survey and look to hear from underrepresented communities. Since most of our respondents were mostly white, middle age families, our results were mainly based on providing a family-friendly greenway. This is shown in our comments, as the residents stated that they would enjoy more playgrounds and family based activities in the parks. A family-focused type of use can also be seen in our other results. Providing safe, scenic, and connected trails is repeated throughout our survey results. This may be based on the specific demographics and location of the respondents, but as more results are collected, these sentiments may be reinforced or there may be a broader scope of opinions in Ramsey. To achieve what was represented in our survey results we propose 5 action steps that the City of Ramsey can work towards.

#### Recommendations for Community Connectivity:

• Car travel is still so ingrained in the Ramsey city system that local officials cannot ignore the roads and highways they have in place already. However, Ramsey officials could still shift some funds from road and highway construction and maintenance towards the Circle of Ramsey project. This can both provide funding for the project and reduce the problem of induced demand from increased and improved roads and hopefully create induced demand for the trail corridors and greenway paths instead. Using the money otherwise distributed to construction and maintenance of roads and highways can support the shift to a more robust and sustainable transit system that provides access to destinations via

- non-car travel. With time, this can reduce car dependency, reduce greenhouse gas emissions and transportation costs, and improve overall community connectivity (Frank et al, 2010, Perz et al, 2012).
- The City of Ramsey could offer tax incentives to commercial businesses to encourage development of commercial businesses in residential areas. This could help Ramsey with TED and TOD and increase the likelihood that the trails, greenway, and public transit system they create minimize user costs and maximize user benefits, as the literature stresses. Increasing mixed-use areas in the city that include residential, commercial, and open spaces in land use planning efforts can increase the viability of non-car travel by decreasing the costs associated with these options and creating a transportation system that generates money rather than only uses money.
- Beyond decreasing user costs, the sustainable transit options Ramsey is considering also have added user benefits and Ramsey should capitalize on those benefits (such as opportunities for exercise, encouraging development near transit hubs can help build up areas of the city in need of a boost, increase proximity of residents to commercial needs, increasing land available for other uses because public transit uses less land than roads and highways, etc.) by marketing them to the community through education campaigns in order to encourage use of these non-car options.
- To further encourage use of alternative forms of transit, the city could reduce the amount of available parking in areas served by public transit. The City of Ramsey could also work with local businesses to create an incentive program to encourage employees not to drive by offering benefits for every time they use public-transit such as stipends or gift certificates which would, again, reduce the amount of parking needed in the city.
- Ramsey planners have started creating the "Center of Ramsey", also known as "the COR" in hopes of making non-car travel more appealing to residents that live in the COR or nearby. Many Ramsey residents supported the COR in its early stages and there are people living in new housing within the COR currently; however, residents living in or near the COR are frustrated because they are still waiting for the business and commercial areas to come to the COR. The COR currently holds housing options and one of Ramsey's largest parks, but is lacking in shops, restaurants, supermarkets, and other developments that were promised in the original plan. We recommend Ramsey address this soon both to respond to residents' frustration and to have an area of true concentrated mixed-use development in the city that can be used to test new public transit options
- None of these methods will eliminate the need for car travel completely, but they can help make the public-transit options more beneficial than costly to travelers, creating the balance between modes of travel that Ramsey envisions. To successfully shift away from automobile travel and towards public transit-orientated travel, Ramsey should work to create a denser, mixed-use strategy for the city's land use in the future. These actions will increase the viability of a public transit system and create a source of revenue for the city, while simultaneously creating a healthier city for both the residents and the environment. The addition of public transit to the City of Ramsey will improve community connectivity, generate a greater economy for the city by connecting residents with local businesses, and create a more interwoven community. If Ramsey can minimize the trade-offs consumers face when deciding whether to drive versus take the bus, bike, or walk, the city can maximize residents' desire to use public-transit and decrease regional transportation impacts on the environment.

#### Recommendations for Ecological Connectivity:

- Despite perceived barriers, there are many steps that cities can take in working towards the goal of ecological connectivity. The city of Ramsey's "City Wide Greenway Plan" offers an opportunity to provide biological corridor connections throughout the city.
- A more linked habitat system will produce more biological diversity and connectivity, while also reducing fragmentation caused by roads, highways, and development.
- Riparian buffers are critical to the ecosystem health of Ramsey's waterways; they can
  provide erosion control, filter urban and agricultural runoff, control flow volume, regulate
  light infiltration and temperature of the water, and provide habitats for aquatic life in the
  form of woody debris.
- Vegetated corridors connecting various habitat fragments have proven to decrease the
  negative impacts of the "edge effect," as well as increase the ecological value of those
  smaller fragments that might otherwise not be very high in biodiversity (Collinge, 1996;
  Dickman, 1987).
- With the proposed greenway system, integrating biological corridors into its design and creating a loop within the City of Ramsey will help to negate the negative effects caused by developmental sprawl as well as reconnect wildlife throughout the city limits. These corridors allow plants and animals to move between habitat fragments, facilitating a higher degree of species richness than would otherwise have existed.
- The downstream benefits of riparian buffers are especially apparent and deserving of attention in Ramsey's future development and design, especially with such significant soil erosion problems along the Mississippi river.
- The tool that provides the most certainty for natural spaces to be protected is public acquisition of land, but it is also the most costly. Partnerships between nonprofit organizations and local government agencies can help with the costs and ensure that the land is being protected in the ways that it was naturally intended. Less costly options for Ramsey include regulations and incentives for open space protection.

#### Recommendations for Equity and Accessibility:

- Provide and develop transportation from different parks to neighborhoods, especially for city events and festivals so everyone can benefit.
- Distribute the survey to as many residents as possible, so there is a better understanding of what every resident in Ramsey needs. This can be done through different methods that are stated in our Action Steps section.
- Develop a balanced system when receiving park and trail funds from developments. With the funds, make sure that neighborhoods that are in need of a better park and trail system get investments in that neighborhood.
- The best way to build relationships and start discussions with underrepresented populations is to first build trust with the leaders and trusted members of those groups. It will be easier to start constructive conversations with these groups if they know that the Ramsey officials have put effort into building trust with their leaders. When Ramsey receives the survey results, there needs to be an analysis of which neighborhoods need

- more investment of parks and trails. Once these areas are noted, then there can be more resources spread to these neighborhoods more effectively.
- During the construction process, Ramsey must ensure that trails created are accessible to users in walkers or wheelchairs through consistent and smooth paving. Maintenance of the trails is also key to making them more accessible.
- The city should also provide comprehensive signage along the new greenway and potential restored shoreline. This should include both braille and raised lettering, as well as translations of signage for recent immigrants moving to Ramsey.
- Conversations need to be proactively started with every population, especially underrepresented groups, to start building trust. If discussions are held then relationships will build between the city officials and underrepresented groups, which can lead to equitable decisions.
- The city must also have a feedback process for disability and equity concerns. This process itself should be simple and accessible to people with different abilities, mobilities, and languages. Complaints should be dealt with in a timely manner as per procedures laid out.

#### V. Action Plan and Steps

The Circle of Ramsey is an amenity that can bolster the community's quality of life and improve the ecological connectivity in Ramsey, however the success of the greenway depends upon its public perceptions and degree of use. It is important for Ramsey officials to clearly and succinctly present the benefits of the Circle of Ramsey and restoring the edge. It is essential to understand the particular issues various stakeholders are most concerned about when discussing the greenway. Focusing on the preferences of particular stakeholders while communicating the benefits of these RCP initiatives can effectively frame the projects in a context that generates community-wide support. The community survey shows that there is support for the sustainability objectives within the *Connecting Ramsey* and *Restoring Our Edge* initiatives. The following action steps offer Ramsey officials with strategic next steps for addressing issues of sustainability, resilience, and preservation of open space within Ramsey's 2040 Comprehensive Plan and update. These action steps may also assist Ramsey officials in effectively communicating the benefits of these RCP projects with community stakeholders.

Action Step	
1. Build strategic relationships with particular stakeholders	<ul> <li>Building community trust will elicit more meaningful feedback</li> <li>Protecting open space and expanding greenways improves quality of life, but only if residents recognize the benefits. Messages should be focused on communicating the benefits of these efforts to the community.</li> <li>In particular, Ramsey officials should look to build relationships with underrepresented populations.</li> <li>Building relationships and trust with the leaders of underrepresented groups is beneficial and can lead to an easier transition in getting feedback from all of the residents</li> </ul>

2. Distribute the survey to all Ramsey residents	<ul> <li>The open space survey is a tool Ramsey may continue to utilize</li> <li>For complete results, Ramsey officials should look to distribute the survey to underrepresented populations in the community, older residents, residents with a household income less than \$100,000, and residents outside of the heatmap concentration.</li> <li>Ramsey officials could distribute the survey in parks, at city events, and community meetings. The survey can easily be distributed via email or door-to-door. The survey can be printed or administered on an iPad/electronic device.</li> <li>A more diversified survey will help Ramsey officials understand community preferences for greenways and open space protection. This information can help city officials to include these initiative within the 2040 Comprehensive Plan update by emphasizing the key themes of "rural character" and "parks, recreation, and open space."</li> </ul>
3. Develop focused strategies for communicatin g benefits of trails, open space protection, and restoring the edge	<ul> <li>Community connectivity and ecological connectivity provide the community with         <ul> <li>Improved quality of life</li> <li>Ecosystem services</li> <li>Scenic trails are one clear way to simultaneously improve community connectivity and ecological connectivity</li> </ul> </li> <li>The Circle of Ramsey is an amenity however, its success depends upon its use.</li> <li>It's important for Ramsey officials to communicate the benefits of open space protection and community connectivity strategically.</li> <li>It's advisable to present data and information about open space protection from the stakeholder's perspective. For example the conversation can be approached differently with</li></ul>
4. Develop family friendly parks and trails that link neighborhoods to parks and trails, but also link the community together	<ul> <li>Trails from neighborhoods to parks</li> <li>Crosswalks, scenic trails, etc.</li> <li>Pedestrian bridges over busy highways</li> <li>More playgrounds and family based activities in parks</li> <li>Continue to add trails and parks as Ramsey develops</li> <li>Cash fee vs. putting in a park/trail</li> <li>Develop a balanced policy that gives resources to the neighborhoods in the most need of parks and trails</li> </ul>

#### VII. Conclusion

The City of Ramsey has presented itself with a great opportunity to address a series of issues that they will be faced with in the next ten years. Population increase, excess greenhouse gas emissions due to automobile dependency, soil erosion along both the Mississippi and Rum River banks, developmental sprawl, biological diversity loss and habitat loss are just some of the major problems that the City of Ramsey needs to address in the future planning and development of the City. The City of Ramsey has the opportunity to emphasize the key themes of "rural character" and "parks, recreation, and open space" in its 2040 Comprehensive Plan update through the development and integration of the proposed "City Wide Greenway Plan." By using the proposed greenway as a catalyst, Ramsey can organize and reprioritize the city's development goals to better serve the city's residents, business owners, and environment in more sustainable and equitable ways. Ramsey must plan its future development in a manner that balances the needs of its residents and the environment equally. With the projected increase in population, more stress and strain than ever will be placed on the environment and residents within Ramsey and will need to be addressed in a multiple phased strategy.

The City of Ramsey is growing outward and it's placing unnecessary strain on the surrounding environment and ecological services. Developmental sprawl separates the community and fragments it into a disconnected system while simultaneously increasing its dependence on automobiles and greenhouse gas emissions. The proposed greenway system offers the chance to reconnect the city using the greenway loop and focus development into denser areas located around the major parks that the greenway connects. Providing for more community connectivity in the forms of alternative forms of transportation such as public transit buses, biking lanes, and walking paths, creating denser development following TOD and TED development plans that make public transit more economically viable will reduce greenhouse gas emissions, limit the distance between residents by reducing developmental sprawl, produce a larger economy through public transportation revenue, and finally minimize environmental degradation due to developmental sprawl. With the development of the greenway system, accessing the parks throughout Ramsey by walking and biking will become significantly easier and will lead to more events and opportunities for Ramsey residents to meet and interact. With the integration of sustainable public transit, residents won't have to rely on expensive personal automobiles, which will save them money, and will generate more revenue for the City of Ramsey while also lowering the funds allocated to maintaining and building roads and highways. The integration of the proposed greenway system allows for a more connected community within the City of Ramsey.

The proposed greenway system would benefit more than just Ramsey residents, it also would provide benefits for the wildlife and ecologies that surround and exist within Ramsey. The proposed greenway system would require a large amount of land to connect all of the major parks within the City of Ramsey, and so would provide the perfect opportunity to use that land to provide more than one service. The land surrounding the proposed greenway could be used for biological corridors, increasing biodiversity, protected land for wildlife, riparian buffers to minimize soil erosion and contaminated water filtration. Habitat and biodiversity loss is one of the major issues that Ramsey is facing in the wake of their predicted population growth, but vegetated corridors connecting various habitat fragments have proven to decrease the negative

impacts of development, and the greenway can be the element that ensures Ramsey's biology and ecology doesn't suffer the increase in residents.

The benefits of integrating parks and trails into a city's landscape have been studied and confirmed, but those benefits are only available to those who can reach them. The greenway system, therefore, needs to be accessible to all of Ramsey's residents, despite physical or mental restrictions, or socio-economic barriers. Designing the greenway system to be ADA accessible is the first step allowing all of Ramsey's residents to be able to enjoy it. While connecting all of Ramsey's major parks throughout the city would create an extensive and enjoyable recreational attraction, it could also become arduous and exhausting for residents who have disabilities. For Ramsey's park and park facilities, it is important to not separate the different types of visitors into different groups during their time on the greenway, but to create an integrated experience that is enjoyable and accessible to all of the visitors. Equitable justice is another facet of the design of the greenway system that Ramsey's parks and park facilities must address. Planners are responsible for improving the quality of life for all people no matter their race, gender, religion or any other classification. In Ramsey, parks and trails bring people together which leads to a healthier, more vibrant, connected community. Everyone should be able to benefit equally to the great environmental amenities that Ramsey has to offer.

The community, economic, environmental, accessible, and equitable benefits that the proposed greenway system would provide the City of Ramsey in its future sustainable development far exceed the typical benefits of a simple park. It would help provide the city's residents with more community connectivity and equitable access to quality parks and recreational areas while simultaneously buffering the degradation of Ramsey's wildlife, biodiversity, and ecologies from the effects of Ramsey's projected increased population. Implementing the land use planning tools and strategies needed to achieve these goals will require long-term planning and development strategies to be adopted by the city of Ramsey and integrated into the city's comprehensive plan. The benefits, however, of adopting these changes and tools will greatly improve the current developmental trends in Ramsey and prepare them for the rapid change that the city will face in the next ten years of growth, development, and conservation of natural resources. The City of Ramsey's proposed greenway system and riparian buffers would provide the city's residents and wildlife with the connection needed to improve quality of life, diversity of environments, and easy access to Ramsey's natural resources and recreation.

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**Appendix A: Survey Instrument** 

# Greenways and Parks in the City of Ramsey

We are conducting this survey to better understand your values and priorities in existing and future parks, trails and other greenways in Ramsey. This survey is voluntary and anonymous. It should take about 10 minutes to complete this questionnaire. Please answer the questions as completely as possible.

This survey was developed by graduate students in the Sustainable Land Use Planning and Policy course at the University of Minnesota (UMN) in partnership with the City of Ramsey as part of UMN's Resilient Communities Project.

Before you begin the survey, please review the definition of greenways below: 1. A corridor of protected open space that is maintained for conservation, recreation, and non-motorized transportation. 2. A natural areas (protected or unprotected) that connects developed, urban areas, providing trails for bicycling, hiking, and other recreation opportunities.

The Resilient Communities Project (RCP) is a cross-disciplinary program at the University of Minnesota whose mission is to connect Ramsey with University faculty and students to advance local resilience through collaborative, course-based projects.

you have questions about the survey or project, please contact Dr. Mae Davenport, Department of Forest Resources, 115 Green Hall, 1530 Cleveland Avenue N., St. Paul, MN 55108. Phone: (612) 624-2721 or by email at mdayen@umn.edu.

1. Approximately how close is the	ne nearest public park to your home?
O Under 1 mile (1)	
○ 1-2 miles (6)	
O More than 2 miles (7)	

If

2. On average, about how many times a month (not in winter) do you visit the following public parks?

$\circ$
$\circ$
$\circ$
$\circ$
$\circ$

3. When you visit public parks and trails in Ramsey, which activities do you engage in most often? (Choose all that apply)
Walking or hiking (1)
Biking (2)
Running or jogging (3)
Skating or skateboarding (4)
Oog walking (5)
Organized sports (6)
Picnics or family gathering (7)
Canoeing, kayaking, or other boating (8)
Fishing (9)
Wildlife viewing/photography (10)
Community gatherings (11)
Other (please specify) (12)
I do not use parks and trails (13)
4. A greenway is a corridor of protected open space that is maintained for conservation, recreation, and non-motorized transportation. Based on your experiences of greenways and natural areas in Ramsey, which of the following best captures your beliefs (choose one):
O There are too many parks, trails, and other greenways in Ramsey (1)
O There are about the right amount of parks, trails, and other greenways in Ramsey (2)
O There are <u>too few</u> parks, trails, and other greenways in Ramsey (3)
5. How unimportant or important are the following functions of parks, trails, and greenways in Ramsey to you?

	Not at all important (1)	Not very important (2)	Moderately important (3)	Extremely important (4)
a. Provide habitat for songbirds, pollinators, and wildlife migration (1)	0	0	0	0
b. Provide walking/hiking trails (2)	0	$\circ$	0	0
c. Provide bicycling trails (3)	0	$\circ$	0	$\circ$
d. Provide trails to commute to work or shops (4)	0	0	0	0
e. Provide trails between community parks (5)	0	0	0	0
f. Connect people from different neighborhoods (6)	0	0	0	0
g. Create tourism benefits for the city (7)	0	0	0	0
h. Provide space for people to experience nature (8)	0	$\circ$	0	0
i. Provide space for solitude and quiet (9)	0	0	0	0
j. Provide places for meetings or community events (10)	0	0	0	$\circ$

k. Increase property values of houses nearby (11)	0	0	$\circ$	$\circ$
l. Clean air or support carbon sequestration (12)	0	0	0	0
m. Clean water or prevent erosion (13)	0	0	$\circ$	0
n. Provide space for education and youth (14)	0	0	0	$\circ$
6. From the above is from choices above	tems you identified as	important, which	are most important?	(specify letter

# 7. To what extent do you agree or disagree with the following?

	Completely agree (1)	Somewhat agree (2)	Somewhat disagree (3)	Completely disagree (4)	Don't know (5)
Water resources in Ramsey are adequately protected. (1)	0	0	0	0	0
Shoreline erosion in Ramsey is a problem. (2)	$\circ$	0	0	0	0
Parks and trails contribute to quality of life in Ramsey. (3)	0	0	0	0	0
It is the responsibility of residents to protect Ramsey's natural resources. (4)	0	0	0	0	0
It is the government's responsibility to protect Ramsey's natural resources. (5)	0	0	0	0	0
It is the joint responsibility of residents and the government to protect Ramsey's natural resources (6)					

## 8. How concerned are you about the following issues in your community?

	Not at all concerned (1)	A little concerned (2)	Moderately concerned (3)	Very concerned (4)
Land impacts of farming (1)	0	0	0	0
Water resource pollution (2)	$\circ$	$\circ$	$\circ$	0
Lack of community gathering spaces (3)	0	0	0	0
Poor roads and highways (4)	$\circ$	$\circ$	$\circ$	$\circ$
Loss of biodiversity (5)	$\circ$	$\circ$	$\circ$	$\circ$
Loss of private property rights (6)	0	$\circ$	$\circ$	$\circ$
Flooding (7)	$\circ$	$\circ$	$\circ$	$\circ$
Loss of rural character (8)	$\circ$	$\circ$	$\circ$	$\circ$
Lack of parks (9)	$\circ$	$\circ$	$\circ$	$\circ$
Lack of incentives for the preservation of agriculture (10)	0	0	0	0

9. To what extent would you support or oppose the following actions to create or enhance greenways in Ramsey?

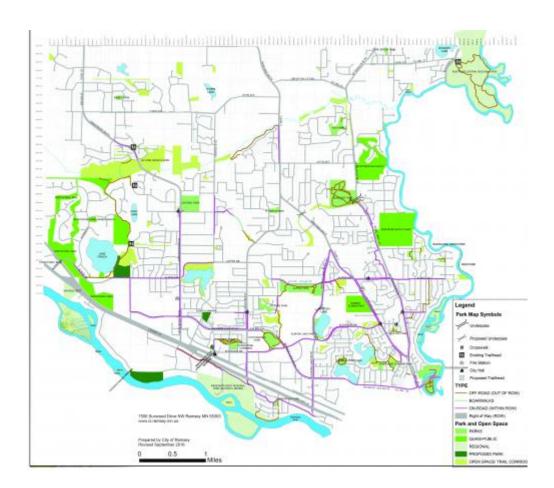
	Strongly oppose (1)	Oppose (2)	Support (3)	Strongly Support (4)	No opinion/don't know (5)
Offer voluntary conservation easement programs (1)	0	0	0	0	0
Provide cost- share programs to landowners for conservation practices (2)	0		0	0	0
Capital investment in land acquisition (3)	0	0	0	0	0
Restoration of natural landscapes (4)	0	$\circ$	0	0	0
Install pedestrian bridges over busy highways (5)	0	0	0	0	0
Connect parks with existing right-of-ways (6)	0	0	0	0	0

10. Se	elect your age bracket
	18-25 (1)
	26-35 (2)
	36-45 (3)
	46-55 (4)
	56-65 (5)
	66-75 (6)
	76 or older (7)
11. Se	elect your gender
	Male (1)
	Female (2)
	Prefer not to respond (3)
12. Se	elect your race/ethnicity (choose all that apply)
	White (1)
	Black or African American (2)
	Asian (3)
	American Indian or Alaska Native (4)
	Asian (5)
	Native Hawaiian or Pacific Islander (6)
	Hispanic or Latino (7)
	Other (8)
	Prefer not to respond (9)

13. Are there any children or dependents under the age of 18 in your household?
○ Yes (1)
O No (2)
O Prefer not to answer (3)
Display This Question:
If Are there any children or dependents under the age of 18 in your household? = Yes
13a. How many children or dependents under the age of 18 are in your household?
14. In what sector are you employed?
O State or local government (1)
O Health care or social assistance (2)
O Retail (3)
O Professional and business services (4)
O Leisure and hospitality (5)
O Construction (6)
O Agriculture (7)
O Retired (8)
O Unemployed (9)
Other (please specify) (10)

15. Which of the following best describes your total household income from all sources in 2016 before taxes?
O Under \$20,000 (1)
\$20,000-\$49,999 (2)
\$50,000-\$74,999 (3)
\$\infty\\$75,000-\\$99,999\ (4)
\$100,000-\$149,999 (5)
\$150,000-\$199,999 (6)
\$200,000-\$249,000 (7)
\$250,000-\$299,999 (8)
\$300,000 or more (9)
O Prefer not to respond (10)

16. On the map below, please click on the approximate area of Ramsey that you live in:



17. Do you have any other comments on parks, trails, and greenways in Ramsey?