Madison residents are fortunate to have inherited a park system built by the progressive vision and efforts of previous generations.

Today, the Board of Park Commissioners, Madison Parks Foundation, and City of Madison Parks Division ~~staff~~ continue a mission of enhancing Madison's legacy of diverse parklands; providing green space, safe environments, and recreational facilities; and meeting the changing needs of present and future generations.

The quality of life for City of Madison residents is influenced by the City's ~~great~~ natural resources; parks, greenways, and public access to the numerous waterways which ~~that~~ greatly define Madison culture. The mission statement, vision, and goals in this plan serve to guide the development of policies and facilities in the City of Madison park~~s~~ system.

Vision Statement

~~All residents of Madison have access to To provide the~~ Everyone shall have access to a ideal system of parks, natural resources, and recreational opportunities ~~which will~~ that enhance the quality of life for residents and visitors ~~for everyone~~. (LRP)

Mission Statement

~~Our Mission is to To p~~Provide an exceptional system of safe, accessible, well-planned and maintained parks, facilities, public cemetery, natural areas, and public shorelines.

~~Our Mission is to To p~~Provide affordable opportunities for recreational and educational experiences.

~~Our Mission is to To p~~Preserve and expand our urban forest resources through a well-planned and systematic approach to tree maintenance, planting, and natural area management.

~~Our Mission is to To p~~Preserve and promote City of Madison parks' historic legacy, as well as its future legacy~~.~~

~~Our Mission is to To p~~Provide opportunities for cultural interaction by facilitating community and events ~~ethnic festivals~~ and through the display of public art.

Chapter One: Introduction

The Park and Open Space Plan ~~plan~~ is~~seeks~~ to be evidence-based and, as such, utilizes extensive public input, census data, park use records, geographic information systems mapping, and other informational databases.

~~It~~ The plan has been~~is~~ subject to public review, ~~and~~ hearings, and is adopted by the Board of Parks Commissioners and the Common Council.

The Park and Open Space Plan is updated every five years to stay current with changing recreational trends, demographics, and park needs, as well as to reflect the integration with the planning efforts of complementary City boards, agencies, county, and statewide efforts.

~~A~~Maintenaining~~ce of~~ a current Park and Open Space Plan is a prerequisite for ~~to~~ participation in Federal and State park and open space financial aid programs. The City must continue to remain eligible for these program funds to accomplish many identified park, recreation, and open space objectives.

X.X Purpose of the Park and Open Space Plan

City of Madison parks play a vital role in the well-being of Madison residents. Parks improve the health and wellness of residents~~,~~ and in turn contribute to the well-being of the entire community. The City of Madison Park and Open Space Plan (~~or~~ POSP) serves as a guide to inform public policy and system-wide park facility decisions.

This Park and Open Space Plan supports ~~is intended to serve~~ City Boards, ~~and~~ Commissions, City agencies and staff, other governments ~~and~~ agencies, and interested residents and volunteers. It serves as a guide in decision-making related to park policies, acquisition and development of parkland and facilities, and C~~c~~ity financing and operations.

The recommendations and analysis discussed in this plan relate to park development, ~~and~~ management of core facilities, and broad concepts in park system planning. Specialized elements~~areas~~ of the Madison Parks Division such as Forestry, the State Street/Capitol Mall Concourse, Golf Enterprise, Olbrich Botanical Gardens~~, the Goodman Pool~~, and the Warner Park Community Recreation Center in many cases, have their own adopted plans, guiding committees, mission statements, ~~objectives,~~ and strategies. The 2018-2023 Park and Open Space Plan recognizes these ~~adopted~~ plans ~~efforts~~ as part of the recommendations of this plan.

Additionally, this plan does not address the City's bicycle and pedestrian system. ~~-~~Bicycle and pedestrian facilities are addressed in separate plans, with guidance provided by ~~from~~ the Park and Open Space Plan.

Analysis and recommendations provided in this plan were~~are~~ developed from an extensive public engagement strategy conducted from May 2016 through November 2017. This is discussed in more detail in Chapter Three.

Exhibit X provides an inventory map of the City of Madison's park and open spaces.

X.X Accomplishments

The past five years have included significant improvements to the City's park system. Appendix X: 2012-2017 Park Development Accomplishments highlights substantial achievements since the last Park and Open Space Plan. The ~~below table~~table below identifies the City's effort to fulfill the recommendations of the 2012-2017 Park and Open Space Plan.

Recommendation from the 2012-2017 Plan	Action
~~Promote and adhere to the Vision, Mission Statement, Goals and Objectives defined in Chapter Two.~~	~~The Vision and Mission that guides the Madison Parks Division.~~
Review and update existing park dedication ordinance and development fees including park impact fees and "fees in lieu of" dedications.	Adopted the Park Impact Fee and Land Dedication Policy and Public Facility Needs Assessment (2016) and updated Madison General Ordinances to reflect recommendations of the Needs Assessment.
Create a sustainable park system in terms of park size, amenities and maintenance.	Worked with staff team to update Neighborhood Development Plans to be more consistent with park goals for minimum 5-acre size parks to promote a sustainable park system. Implemented recommendations as part of plat approval and parkland dedication within the Neighborhood Development Plan areas.
Address park deficiencies through development of community and neighborhood parks.	Acquired new parkland for Acer Park, Allied Park, Blitzer Family Preserve, Camar Park, Highland Manor Park, Jeffy Trail Park, Kestrel Park, Sugar Maple Park, Thousand Oaks Park, and Woods Farm Park and expanded Hill Creek Park.
Prioritize acquisition of land adjacent to existing parkland to fill gaps in the park system in accordance with goals, objectives and policies in this plan.	Acquired additional land to expand Central Park, Cherokee Park, Cherokee Marsh - School Road Unit, Merrill Springs Park, North Star Park, Owl Creek Park, and Penn Park.

Continue to develop Master Plans for parkland which include both passive (non-developed, and active (developed) recreation.	Developed park master plans with both passive and active space for Allied Park, Owl Creek Park, Patriot Park, Sugar Maple Park, Thousand Oaks Park. Currently in the process of completing master planning for North Star Park Expansion, Camar Park, and James Madison Park.
Identify areas in our parks with significant natural resources for preservation and protection and develop land management goals for these areas.	Adopted the Madison Parks Land Management Plan (2017).
Improve and preserve the unique habitats and ecosystems within conservation parks.	Treated invasive species at 205 acres of invasive species at conservation parks; seeded native seed mix on 30 acres of prairie and oak woodland, performed controlled burns on 395 acres of conservation land, begun the draft Habitat Management Plan.
Increase connectivity between parks including pedestrian, biking and water trails.	Coordinated and improved 26 bike and pedestrian connections and added eight new canoe/kayak launches for water access.
Work with other agencies to support planning efforts across the City of Madison and Dane County.	Joint collaboration with Dane County on implementation of water quality enclosures at beaches to improve swimming conditions; joint efforts to fund improvements at Central Park; and improvements to the Capital City Trail System within Madison Parks.
Construct park facilities to provide access to City residents to standard park amenities.	Replaced 50 playgrounds, installed five new playgrounds. six new basketball courts, 11 sun shelters, two new shelters with restrooms, upgraded the existing Penn Park shelter, and added a reservable concession building.
Promote winter recreation opportunities.	Implemented new NiceRink program to improve efficiency and longevity of ice skating rink use. Partnered with MadNorski for snow making and trail grooming.
Build on the existing positive relationships with public and private organizations for donations and volunteers to aid in park system development.	Establishment of the Madison Parks Foundation, ~~created~~ a non-profit organization dedicated to acquiring financial resources through contributions and grants to make park improvements and support park programming. Supplemented efforts of over 1,994 park volunteers.
Develop reservable recreational fields that can be used for multiple purposes.	This has not yet been complete.
Respond to changing recreational trends by providing new facilities for popular new recreation trends.	Developed new pickleball complex and added pickleball line painting to 18 courts. Planned and developed mountain bike course at Quarry Park.

Pursue development of community gardens and edible landscapes.	Worked with the Mayor's Office on implementation of the Edible Landscape Permit, permitting three new edible landscapes sites in parks. Currently working with the Mayor's Office on expanding community gardening opportunities on the west side of Madison. Added additional community garden plots at Brittingham, Aldo Leopold Park, and Rennebohm Park.
Continue to construct and improve dog park and dog exercise areas levying funding generated from the sale of dog park permits.	Constructed two new dog parks (Walnut Grove and Odana School), and implemented improvements at Demetral, Sycamore, Warner, Brittingham, and Quann Park. Currently, planning implementation of the City's first synthetic turf dog park.
Continue to improve water access and quality to promote water recreation.	Developed private partnerships for operating three new canoe/kayak rental facilities at Olbrich, Brittingham and Marshall Park. Worked with Dane County on clean beaches efforts to install beach exclosures at several beaches, and a beach enclosure which filters lake water.
Continue to operate a sustainable golf enterprise.	Presented Financial and Operational Analysis of Course Closure and Hole Reduction Report (2017) addressing the financial challenges to the golf course to Golf Subcommittee and ~~of~~ Board of Park Commissioners.
Continue to optimize maintenance efforts in our parks by implementing sustainable practices within budget levels.	The City of Madison continues to identify and implement cost effective, sustainable maintenance strategies to supplement current efforts which include managed meadows and reduced mowing.
Focus on core facilities~~,~~ like playgrounds to ensure continued service levels.	Completed comprehensive inventory of all playgrounds, implementing significant playground infrastructure plan. Replaced 59 playgrounds in the past 5 years to bring them to U.S. Consumer Product Safety Commission standards.
Continue to recognize, preserve and enhance historic parks.	Implemented upgrades to historic Breese Stevens Field, worked with volunteers to improve Glenwood Children's Park, and worked with private developers on the rehabilitation and re-use of the historic Garver Feed Mill.
Investigate opportunities for a scientifically valid behavior role assessment of park use to provide insight on existing park uses throughout the City.	Piloted System of Observation for Play and Recreation in Communities (SOPARC) method and worked with ~~e~~City staff and board members to catalog park observations.
Pursue Crime Prevention Through Environmental Design (CPTED) analysis of park development to reduce inappropriate activities in parks.	Park planning staff have coordinated with rangers and operations staff to implement designs that reduce inappropriate activities such as activating spaces with private/public partnerships at Brittingham Park, Olbrich

	Park, and Marshall Park; and construction improvements to address community concerns at Aldo Leopold Park, Penn Park, and Worthington Park.
Coordinate with educational agencies to expand programming and opportunities for outdoor education.	Developed the Madison Connecting Children to Nature Implementation Plan in partnership with Public Health Madison & Dane County, the Children and Nature Network, and the National League of Cities Institute for Youth, Education, and Families.
Continue to expand Olbrich Gardens per the March 2009 Olbrich Park Land Use Plan.	Began design of the education addition to the visitor center with construction anticipated to begin in 2018.
Develop recommendations in future plans to be consistent with the recommendations, goals and objectives of this plan.	Underway.

X.X A History of the City of Madison Park System

The Dejope (Four Lakes) region that defines the majority of Madison today was formed by the retreat of glaciers approximately 13,000 years ago. Evidence suggests that humans occupied this area starting as early as 300 AD (Historic Madison, Inc., n.d.). Wisconsin was "home to one of the earliest socially complex societies in the Upper Great Lakes" and "what is now southern Wisconsin was a place where the Sauk, the Kickapoo, the Potawatomi, the Menominee, the Ho-Chunk, and the Ojibwe could all call their ancestral home in some way or another" (Aaron Bird Bear, 2011). By the time settlers began to arrive, the Ho-Chunk Nation called this area home. However, the Ho-Chunk~~, but~~ were forced to move west of the Mississippi River after the Black Hawk ~~conflict~~ War of 1832, a brief conflict between the United States and Native Americans, led by Black Hawk.

James Doty visited Madison in 1829, and in 1836 drew plats for the Four Lakes area. He also ~~and~~ persuaded the territorial legislature to designate Madison as the new capital (Historic Madison, Inc.). It did not have a single park, but was in a magnificent setting on the isthmus between Lakes Mendota and Monona. By 1892~~,~~ residents had realized the beauty of the surroundings and a group of private residents banded together to form the Madison Park and Pleasure Drive Association. The Association raised private donations to acquire and improve park land, to construct pleasure drives, and to plant trees and shrubs throughout the City.

In 1910, the Association engaged the services of the famous landscape architect, John Nolen, to prepare a comprehensive plan for the improvement and future growth of the City. ~~In 1911,~~ Nolen's plan was published in 1911.~~, in which h~~He recommended that the existing 150

acres of parkland and miles of pleasure drives be expanded into a coordinated system of parks under the responsibility of an official Park Commission.

In 1932, the Madison Park Commission (now the Board of Parks Commissioners) was created, and the City assumed full responsibility for the operation, maintenance, and acquisition of all park and pleasure drives.

In 1938, another civic organization, the Trustees of Madison Planning Trust, privately engaged the services of the famous city planner, Ladislas Segoe, to prepare a comprehensive plan for the City in cooperation with the Madison Park Commission and Plan Commission. This comprehensive plan included a park, playground, and open space system plan. It recommended that the existing 441 acres within 29 parks and a single public golf course be expanded dramatically to over 1,520 acres in recognition of forecasted urban growth.

In 1961, a Park and Open Space Plan was adopted that recommended preservation of natural drainageways and significant natural areas such as Cherokee Marsh and the Nine Springs wetlands. An emphasis of this plan and subsequent updates was to eliminate a deficiency of parkland. The Plan was updated regularly, raising the standard for the desirable amount of parkland, and dramatically increasing park acreage. Madison's historic commitment to public recreation and open space of all kinds provides the public today with a diverse system of parks and open spaces. Additional Park and Open Space Plans were completed in 1961, 1971, 1977, 1984, 1991, 1997, 2005 (an update to the 1997 plan), and 2012, and all include recommendations regarding eliminating parkland deficiencies.

Figure X.X Past City of Madison Park and Open Space Plans

Today, the City of Madison Parks Division manages over 270 parks ~~totalling~~totaling over 5,600 acres ~~of parkland~~ (shown on Exhibit X) and is responsible for ~~maintenance of~~ over 6,000~~6,000~~5,600 acres of public land in total. The additional acreage includes land such as street ends, right-of-ways, and stormwater facilities. The Parks Division is also responsible for the operation and maintenance of special facilities such as Olbrich Botanical Gardens, four public golf courses, and one public cemetery, State Street and the Capitol Mall Concourse, and pruning, planting, and removal of all trees in public right-of-ways.

The City Parks Division does not provide C~~c~~ity-funded recreational programming.~~;~~ R~~r~~ecreational programming is primarily offered through the Madison Metropolitan School System and other community recreational organizations.

The Madison Parks Foundation, formed in 2002, augments ~~supplements~~ the City of Madison Parks Division. This nonprofit organization creates and supports initiatives to improve and expand the park lands, facilities, and services offered through the City of Madison Parks Division. Further information on the Madison Parks Foundation is discussed in Chapters Seven and Eight.

X.X Planning Process

The planning process for the 2018-2023 Park and Open Space Plan involved three phases:

Phase I: Data Gathering and Public Engagement
The first phase of the project occurred from May 2016 until November 2017. This phase included data collection, public engagement, and geographical information system data analysis.

Phase II: Plan Development
Plan Development overlapped with Phase I and occurred from July 2017 to February 2018 with guidance from the Parks Long Range Planning Subcommittee.

Phase III: Plan Review and Approval
~~Beginning in~~From March 2018 until adoption ~~to August 2018~~, the Parks Long Range Planning Subcommittee, the Board of Park Commissioners, the Plan Commission, the Board of Public Works, and the Common Council reviewed the draft plan. Their comments are incorporated into the final Park and Open Space Plan.

~~The Madison Parks Foundation, formed in 2002, supplements the City of Madison Parks Division. This nonprofit organization creates and supports initiatives to improve and expand the park lands, facilities, and services offered through the City of Madison Parks Division.~~

X.X Public Engagement Strategies

Recognizing the limitations and bias associated with public input processes, the Park and Open Space Plan engagement process incorporated various methods to increase opportunities for public participation. This included hosting community visioning sessions and~~,~~ ~~-~~workshops, surveys, focus group discussions, and requests for input through comment cards distributed at various park events, community centers, libraries, and public meetings. Results from the "*Imagine Madison: Comprehensive Plan ~~Update~~*" engagement process related specifically to park and open space improvements are incorporated into this plan. Chapter X describes the engagement strategy in further detail.

~~X.X Guiding Lenses~~

~~In conjunction with "Imagine Madison: Comprehensive Plan Update", this plan investigates how to improve Madison Parks in~~

~~terms of public health, equity, sustainability, and adaptability.~~

~~Although distinct in their own manner, each of these lenses are also interrelated. In the face of climate change and demographic shifts, sustainability and adaptability efforts will be vital to~~o~~owards improving public health. The four icons shown below are used throughout this plan to identify recommendations that intersect with one or more of the plan's guiding lenses. These topics are further addressed in Chapter X: Guiding Lenses of the POSP.~~

Chapter Twohree: Guiding Lenses

In conjunction with the *Imagine Madison: Comprehensive Plan* update ~~*Update*~~, this plan investigates how to improve Madison Parks ~~in terms of~~through the lenses of public health, equity, sustainability, and adaptability.

~~Although distinct in their own manner, each of these lenses are also interrelated. In the face of climate change and demographic shifts, sustainability and adaptability efforts will be vital towards improving public health.~~ The four icons below are used throughout this plan to identify recommendations that intersect with one or more of the plan's guiding lenses. ~~These topics are further addressed in Chapter X: Guiding Lenses of the POSP.~~ The purpose of this chapter is to review these lenses and discuss their relevance to park planning.

Equity: The inherent worth of each individual in Madison should be esteemed and fostered, enabling them to reach full potential.

Public Health: The access and contribution to mental and physical health of a community.
Sustainability: Management of resources to promote welfare and equity for current and future generations.
Adaptability: Preparedness and ability to respond to, and recover from hazards and threats with minimal damage to safety, health, security, and the economy.

X.X Equity

A focus on equity is imperative to achieving the Parks Division's vision of providing parks to all Madison residents ~~access to an exceptional parks system. Older populations, residents of color, and low-income groups have historically faced barriers to accessing and enjoying urban parks. This is a not only a problem in Madison, but nationwide~~). The Parks Division recognizes that thoroughly understanding the population it serves is the first step towards developing an inclusive parks system. This section reviews ~~how~~ Madison's existing demographics and anticipated shifts ~~population is expected change in upcoming years~~ and the implications of these changes to park planning.

Population

Madison is the second largest city in the state of Wisconsin, having an estimated population of 252,551 (U.S. Census Bureau, 2016). The City's population has increased by 12% ~~percent~~ since 2000, by 6% ~~percent~~ since 2010, and is expected to continue growing in the near future. The Wisconsin Department of Administration predicts that by 2040 Madison's population may reach up to 345,109, making it the fastest growing city (by total population growth) in Wisconsin (Egan-Robertson, 2013).

Due in part to the presence of the University of Wisconsin, Madison has a relatively young population compared to the rest of the state. In 2006, the median age was 32.3, approximately five years younger than the statewide median of 37.6 (U.S. Census Bureau, 2016; U.S Census Bureau,

2014). Young adults aged 20-34 have historically been Madison's largest demographic. From 2011 to 2015 this group accounted for over one-third of Madison's total population (U.S Census Bureau, 2015).

The Wisconsin Demographic Services Center projections show that the population of older residents in Dane County are expected to grow substantially over the next few decades. The population ~~-~~of residents aged 65-84 is~~are~~ projected to nearly double between 2010 and 2040, increasing from 8.68 percent in 2010 to 16 percent by 2040. The population of residents aged 85 or older, who only made up 1.59 percent of the population in 2010, will account for 3.91 percent by 2040 (Wisconsin Department of Administration, 2017).

Conversely, Figure X.X shows that the population of younger residents is anticipated to decline. This nationwide demographic trend may result in changing recreational preferences. As this older demographic grows, park development needs to be both accessible and attractive to these individuals.

Housing

Figure X.X shows ~~identifies~~ that in comparison to the national average, the City of Madison has a high level of rental units. According to the 2015 American Community Survey, 53.9% ~~percent~~ of all occupied dwellings in Madison were rental units, compared to only 37% ~~percent~~ of all dwellings nationwide. From 2007 to 2015, nine out of ten new Madison residents were renters (U.S. Census Bureau, 2015) and the number of rental units added each year continues to increase (Figure X.X).

In the City of Madison, homeownership is disproportionately lower for communities of color compared to white households. Figure X.X shows ~~identifies~~ that communities of color represent 23% of owner occupied housing compared to 54% for individuals who identify as white.

Multi-family units typically lack outdoor spaces and their occupants rely more heavily on ~~public~~ public park and open spaces to serve their recreational needs. As the number of multi-family unit residents increase~~s~~, Madison Parks faces challenges to expand recreational opportunities in the City's more densely populated areas. The City recognizes the importance of adequate recreation opportunities for these residents ~~families~~, and will continue to ensure that their needs are incorporated into the planning and design process.

Race/Ethnicity

The City of Madison Comprehensive Plan suggests that Madison will continue to diversify as youth populations of color increase. The student population in the Madison Metropolitan School District (MMSD) is more diverse compared to those identified in the US Census datum~~a~~. MMSD reports, "Over the past five years, the number of students and the percent of the student population identifying as Hispanic or Latino has steadily grown [and] the number of students and the percent of the student population identified as low-income or as English Language Learner

has increased" (Chavira, 2016). While communities of color comprise more than 25% of Madison's population, many communities are geographically concentrated in just a few neighborhoods (see Exhibit X - Demographics by Race/Ethnicity).

~~Changing racial~~Racial demographics are an important factor to consider ~~take into account~~ when planning for an equitable parks system. Numerous studies have documented that different races often have distinct park use patterns and preferences for open space (Gobster, 2002; Salk, 2014).

Workforce and Employment ~~Economy and Opportunity~~

Workforce and Employment

Madison has a substantial professional population, which can be in part attributed to its position as the state capital and the presence of the flagship campus of the University of Wisconsin. Education and health services represented the City's largest sector in 2015, employing 31.7% of the workforce, followed by the professional, science and management industry at 14.7%, and the arts, entertainment and recreation industry at 10.7 percent (U.S. Census Bureau, 2015).

Income

In 2015, the City of Madison had a median household income of $57,690 and a median family income of $79,555 (U.S. Census Bureau, 2015). Figure X.X illustrates Madison's above average ~~-~~levels of income compared to state and national levels when measured on a ~~per capita,~~ median household, ~~and~~ median family, and per capita basis. Figure X.X shows that a greater percentage of communities of color have incomes less than $100,000 when compared to ~~corresponding~~ white communities.

Poverty

Despite these ~~above income~~ statistics, 19% ~~percent~~ of Madison residents were below the federal poverty level in 2015 (U.S. Census Bureau, 2015). This number is 6% ~~percent~~ higher than the statewide rate, and 3.5 percent higher than the national rate. For the City of Madison, 19% of the population is considered as living below the poverty line, of which 87% of this population are communities of color.

~~As shown in Figure X.X,~~According to the 2015 American Community Survey, ~~identified that~~ minority populations in Madison experience higher poverty rates than on a national scale (U.S. Census Bureau, 2015). The difference is most pronounced for Asians and African Americans, whose respective poverty rates are 2.17 and 1.4 times the national average.

Poverty rates influence access to parks, requiring more reliance on walking and public transportation. Access to parks is particularly important to these individuals, as low socioeconomic status groups face disproportionately higher rates of obesity and cardiovascular-related conditions (The State of Obesity, 2017).

Figure X.X ~~on the following page,~~ identifies poverty statistics for various demographics at the local, state, and national level. Madison may be considered a relatively affluent ~~city on the whole;~~city overall; however, various areas of the community still suffer from significant poverty. Identifying residents who are at the greatest disadvantage is vital to ensuring that Madison Parks provides equitable park access to all individuals.

~~*Workforce and Employment*~~

~~Madison has a substantial professional population, which can be in part attributed to its position as the state capitoland presence of the flagship campus of the University of Wisconsin. Education and health services represented the City's largest sector in 2015, employing 31.7 percent of the workforce, followed by the professional, science and management industry at 14.7 percent, and the arts, entertainment and recreation industry at 10.7 percent (U.S. Census Bureau, 2015).~~

X.X Public Health

Parks and open spaces serve a significant role in the promotion and protection of public health for those who live, work, learn, and play in the C~~c~~ity of Madison. According to the World Health Organization, health can be defined as "…a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." (World Health Organization, 2018). The many health benefits associated with parks align with this definition as they provide a place for people to be physically active, offer respite from busy schedules, provide opportunities to interact with neighbors, and support healthy ecosystems.

The City of Madison Parks Division embraces its role in creating a healthy environment for our residents and visitors alike. Applying a public health lens ~~framework~~ to park planning allows the Parks Division to boost the ~~broad and crosscutting~~ positive impacts associated with a robust, equitable, and safe parks system. Health benefits that have been shown to be associated with parks and open spaces include:

- Physical h~~H~~ealth
- Mental and e~~E~~motional w~~W~~ell-being
- Social c~~C~~ohesion
- Environmental h~~H~~ealth (ML)

Physical Health

~~The City of Madison boasts a thriving parks system that provides access for the majority of Madison's neighborhoods.~~ Parks provide an opportunity for park users ~~visitors~~ to engage in physical activities that promote positive health outcomes. Increased levels of physical activity have many health benefits including a reduced risk for heart disease, hypertension, colon cancer, and diabetes (Sherer, 2006). Furthermore, an increased level of physical activity is one of the most important factors in reducing obesity. Proximity to parks and walkable areas leads to an increase in physical activity levels in both adults and children (Bedimo-Rung et al, 2005; Brownson et al, 2001; Roux et al, 2007). Table X.X below illustrates the varying prevalence of obesity in Madison, Dane County, Wisconsin, and the entire United States. The table also includes ~~diseases which~~diseases ~~diseases~~ medical conditions, which may have reduced risks with increased levels of physical activity.

In addition to increasing levels of physical activity, parks and open spaces offer many other health-promoting features. For example, greenery and a mature urban tree canopy are important factors in improving respiratory health (Martineau, 2011). Time spent in park-like environments has been shown to lower pulse rate and blood pressure, increase parasympathetic nerve activity, and lower sympathetic nerve activity (Park et al., 2010). Parks and recreational opportunities are valuable assets for promoting optimum physical health as well as a proven tool in lowering obesity and decreasing cardiovascular-related illness and mortality (Coutts et al, 2010; Takano et al, 2002).

Mental and Emotional Well-being

Mental and emotional well-being is essential to living a healthy life, and parks, open spaces, and natural landscapes have significant potential to boost one's mood (Bedimo-Rung et al, 2005). Table X.X shows ~~identifies~~ that one in ten adults in Dane County experience frequent mental distress and over 10% experienced 14 or more days of poor mental health in the past month. Among Dane County residents receiving Medicare benefits, 17.7% suffer from symptoms of depression (Healthy Dane, 2017). Spending time in parks and open spaces can lead~~s~~ to improved mood, reduced anxiety, and ~~can~~ help reduce symptoms of depression when coupled with physical activity (Bedimo-Rung et al, 2005). Exposure to green spaces also ha~~s~~ve ~~ve~~ measurable effects on lowering concentrations of cortisol, often referred to as the stress hormone (Parks et al., 2010). Due to their natural environments, parks offer the perfect place to relax and de-stress from busy schedules.

Additionally, Attention Restoration Theory posits that exposure to natural environments allows one's mind to recoup from the daily demands of work or school, ~~which~~ lead~~ings~~ to the promotion of effective mental functioning (Berman et al, 2008). This theory also has implications for those suffering from attention deficit disorders. Even a twenty-minute walk in a park-like setting is sufficient to elevate attention performance in those suffering from ADHD (Faber Taylor & Kuo, 2008).

Social Cohesion

Social cohesion is present when members of a community work towards the well-being of all its members, trust one another, and feel a sense of belonging (OECD, 2018). Feeling a sense of community, safety, and trusting one's neighbors assists in navigating life's challenges. ~~However,~~ F~~f~~ostering such feelings is ~~are~~ increasingly difficult as opportunities for interacting with neighbors competes with other demands for our time. As focal points for neighborhoods, parks are well positioned to promote social interactions among park users ~~visitors~~ and offer opportunities to engage with old and new friends alike.

In Dane County, 15.4% of adults report that they do not get the social and emotional support they need (Health Dane, 2017). Parks provide neighborhood level gathering spaces, giving neighbors the chance to interact, which in turn increases social ties and boosts feelings of community (Sherer, 2006, Bedimo-Rung, 2005). Increased levels of social cohesion are associated with a number of personal and community level benefits such as increased social support, increased social interactions, increased trust in neighbors, and decreased levels of criminal activity (Kawachi and Berkman 2000, Miller & Buys, 2008; Weinstein et al., 2015)

Environmental Health

Parks and open spaces provide critical protections for water, air, and flora and fauna biodiversity and help mitigate urban heat islands. This results in benefits to the environment, ~~not only to the health of the environment, but~~and also personal and community health. A study of nine urban park systems across the country found that urban parks contribute to an average of $2.9 million in stormwater retention benefits and $1.8 million in
air pollution removal benefits to their respective municipalities (Harnik & Crompton, 2014). Exposure to pollutants can have both acute and chronic health implications, especially for sensitive populations such as children, older adults, and people with heart or lung diseases. Investments in parks and open spaces play a positive role in combatting pollutants and their negative effects on residents. The next section will explore in more depth the role parks play in these critical areas.

X.X Sustainability and Adaptability

A park system must both sustain and adapt ~~to existing resources~~ to continually serve the community Sustainability refers to a "state in which the demands placed on the environment can be met without reducing its capacity to allow all people to live well, now and in the future" (Financial Times, 2017). An example of a sustainable practice would be the use of solar panels to reduce reliance on fossil fuels, and to mitigate growing utility costs.

Adaptability, on the other hand, is "the quality of being able to adjust to new conditions or changes in the environment" (Hung et al., 2013). An example of an adaptable practice would be ~~the ability to maintain urban tree canopy after an infestation of a catastrophic pest or disease such as Dutch Elm Disease or the Emerald Ash Borer, without detrimental impacts to the City's budget.~~ the City's refocused efforts to increase species diversity in the urban tree canopy. Infestations of pests or diseases such as Dutch Elm Disease or the Emerald Ash Borer have had such

catastrophic impacts on the City because of the historic overplanting of one species of tree. With increased diversity, less trees are affected by a specific pest, the potential spread if minimized, and there is less effect on the overall quantity and quality of the urban tree canopy. Through this strategy, the adaptability of the urban tree canopy is maximized.

The Madison Parks Division uses both sustainability and adaptability as a framework for policies on environment. Additionally, Madison Parks uses these lenses to develop policies that influence the economic and cultural considerations that sustain a vibrant park system.

Environment

Planning for both sustainability and adaptability ensures that the City of Madison can ~~will~~ both reduce its environmental impacts~~,~~ and ~~also be prepared to~~ respond to adverse environmental pressures. Additionally, these practices increase the chance that biodiversity will be maintained over time and environmental shifts and changes can be addressed successfully. As an advocate for environmental health, Madison~~the~~ Parks ~~Division~~ recognizes its role ~~responsibility~~ (ML) lies at the forefront of managing and preparing for environmental ~~issues and~~ challenges. Specific topics frequently cited as concerns by Madison residents during the public engagement process include the following:

- Climate c~~C~~hange and other e~~E~~nvironmental p~~P~~ressures
- Pollinator d~~D~~ecline
- Water q~~Q~~uality
- Urban t~~T~~ree c~~C~~anopy
- Invasive s~~S~~pecies

Climate Change and O~~o~~ther Environmental Pressures

Focusing on s~~S~~ustainability and adaptability ~~are particularly important to the~~ can reduce the public health and equity implications of environmental pressures, such as climate ~~change which~~change, which ~~that~~ affects vegetation, stormwater, groundwater, air, and water quality.~~, etc.~~ Climate change is projected to have a disproportionate impact on vulnerable and disadvantaged communities (Rudolph, Gould & Berko, 2015). Those with greater economic, social and political resources ~~-~~are~~resources are~~ more likely to succeed in both managing and adapting to future climatic changes (Rudolph et al, 2015). Meanwhile, those in poorer living conditions will become increasingly vulnerable to the adverse effects of climate change. Climate change has the potential to further increase disparities in health outcomes. For example, lower-~~-~~income neighborhoods that lack trees and green space are at a greater risk of heat-related illness. This necessitates that sustainability and adaptability initiatives recognize, and subsequently emphasize, an additional focus towards assisting these vulnerable and disadvantaged communities.

The effects of climate change have already become apparent in the form of warmer temperatures and increased precipitation. Over the past century, temperatures throughout the state have increased by an average of two degrees Fahrenheit (United States Environmental Protection

Agency, 2016). By 2050, statewide annual temperatures are likely to be 6-7 degrees above the current averages (Dane County Climate Change Action Council, 2013). Lake Mendota, which used to remain frozen for four months out of the year in the 18th century, now only stays ice-covered for an average of three months (Dane County Climate Change Action Council, 2013).

Climate changes are also predicted to increase the frequency of flooding in Wisconsin. Annual precipitation has increased by five to ten percent in the Midwest over the last half century (United States Environmental Protection Agency, 2016). This trend is anticipated to continue in upcoming years, and the rain events that do occur are likely to be more intense (US EPA, 2016). Together, these changes pose a number of chal lenges that the Parks Division must respond to~~, including~~, including:

Increase in extreme heat events and subsequent heat-related illnesses
Shorter winters impacting winter recreational opportunities
Shifts in ecosystems and natural habitats
Increase in vector-borne disease
Increase in stormwater runoff
Increase in flooding
Increase in algal blooms

Pollinator Decline

Pollinators such as bees, moths, butterflies, bats, and hummingbirds provide vital services to our ecosystems. Between 75 to 95% ~~percent~~ of all flowering plants rely on these organisms for pollination (Ollerton,Winfree & Tarrant, 2011). Roughly, one out of every three bites of food a person eats is a result of pollinators (Klein et al, 2007; Buchmann & Nabhan, 1996), and pollinators are estimated to add $217 billion annually to the global economy (Gallai et al, 2009; Losey & Vaughan, 2006). Additionally, about 75% ~~percent~~ of the world's food crops rely on pollinators (Harvey, 2016). The decline of the pollinator population holds significant public health implications for Madison residents.
Over the last ~~decade~~decade, the United States has experienced a dramatic decline in honeybee hives resulting from colony collapse disorder. The State of Wisconsin has lost over 60% ~~percent~~ of its honeybee colonies since spring 2014-2015. The ~~s~~State's bumblebee and monarch butterfly populations have also decreased in recent years (City of Madison, 2015). Evidence points to a variety of factors, including climate change and habitat decline, as the cause of pollinator decline in Wisconsin.

Water Quality

Positioned between the two largest bodies of water in Dane County, Lake Mendota and Lake Monona, monitoring and managing water quality is unquestionably a significant community priority for Madison. The topography of Madison (see Appendix X) and formation of our lakes was sculpted by the Laurentide Ice Sheet. The result was the formation of over 23,000 acres of surface water and 52,000 acres of additional wetlands

in Dane County (Dane County Office of Lakes and Watersheds, 2008). The five Yahara lakes themselves include 58 miles of shoreline and 22 public beaches (Clean Lakes Alliance, 2016). While Madison's growth as a city has posed problems for the local ~~surrounding~~ water quality, recent decades have seen major improvements in pollution reduction and runoff management.

Threats to the health of Madison's waterways stem mainly from the introduction of pollutants such as phosphorous and nitrogen. Blue-green algae blooms, which can be caused by excess phosphorous levels and warm water temperatures, have plagued Madison's urban waterways for years. These algal blooms decrease water quality and have the potential to cause serious illness. Additionally, harmful bacteria (e.g., E. Coli) and heavy metals drain into Madison's lakes and rivers every year via stormwater runoff.

Long-term exposure to these pollutants can increase the risk of heart disease, kidney disease, and cancer (Public Health- Madison & Dane County, 2014). Improvements in agricultural practices and stormwater management have helped decrease surface-water pollution levels in recent years. While the number of annual beach closures in Dane County has declined since 2009, the ~~number still~~number remains higher than in the early 2000's (Public Health- Madison and Dane County, 2014). Further improvements in reducing phosphorous and other harmful agricultural runoff will be vital towards stemming future algal blooms and dangerous bacteria, particularly as annual precipitation and temperature levels in Madison are projected to increase in upcoming decades.

Urban Tree Canopy

Urban forests provide a variety of benefits to cities, ~~that make them~~ making city trees an especially useful tool for managing the effects of climate change. Urban trees help filter out many common air pollutants, including nitrogen dioxide, sulfur dioxide, ozone, carbon monoxide, and particulate air pollutants. A well-designed urban tree canopy can ~~also~~ substantially lower cooling and heating costs during the summer and winter months. This is particularly important in counteracting the urban heat island effect, which occurs when asphalt and concrete absorb and radiate solar heat, causing cities to be five to ten degrees warmer than their surrounding areas.

Urban trees also play a large role in reducing stormwater runoff. According to the U.S. Forest Service, a medium-sized maple tree (16" sugar maple) intercepts 1,550 gallons of stormwater per year. Urban forests are ~~also~~ important for the public health of city residents. For example, street trees in urban areas are associated with lower asthma rates among children (Lovasi et al, 2008). The shade created by tree canopy also plays a vital role in protecting residents from harmful UV rays (Heisler et al, 1995). Studies have ~~even~~ shown that living near urban forests can reduce physical and emotional stress among individuals (Dwyer et al, 2000; Ulrich, 1984).

There are approximately 11,000 acres of public and private tree canopy in the City of Madison, accounting for 22.4% ~~percent~~ of the City's entire land area. As of 2018, there were 96,074 public street trees in Madison, with each tree providing an estimated $122 worth of annual benefits. Table X.X details the various benefits that the City of Madison receives from its urban forest every year. Not only does Madison's tree canopy

provide environmental benefits ~~such as reduced energy usage and captured stormwater~~, the aesthetic value of the trees raises property values and can help reduce neighborhood crime (Martinueau, C., 2011).

Invasive Species

Invasive plants and animals ~~are an additional ecological pressure that~~ decrease the sustainability and adaptability of Madison's ecological resources. Plants such as Japanese knotweed, buckthorn, and garlic mustard compete and crowd out native vegetation. Invasive species can be difficult to remove, often requiring multiple herbicide applications for full eradication. Invasive pests such as the Emerald Ash Borer (EAB) and jumping worms can have substantial environmental impacts with significant implications for public health. Studies suggest that the resultant loss of tree canopy from EAB infestations can increase rates of cardiovascular diseases and lower-respiratory tract illness and mortality (AM J Prev Med. 2013).

Economic and Cultural

As Madison Parks prepares for the future, it will be ~~also~~ necessary to sustain and respond to economic and cultural shifts. Economic, and sometimes political shifts, influence many municipal funding mechanisms.

A parks system must be fiscally sustainable and adaptable in order to survive economic downturns and partisan funding sources. For example, the Parks Division utilizes impact fee ordinances (discussed in further detail in Chapter 7) to supplement ~~cover~~ the cost of new park development; however, these fees are also closely tied to the health of the economy. In situations of economic stagnation, impact fees will not be a reliable source of funding new parks.

Demographic Shifts and Cultural Preferences

Additionally, the Parks Division must be able to sustain and adapt to cultural shifts. As noted in the previous sections, the City of Madison is becoming both older and more diverse. Residents of different ages and cultures have distinct values for parks and open space; therefore, these trends have significant implications for park planning. An adaptable, flexible parks system should evolve in conjunction with changes in its user base.

As part of responding to demographic trends this plan utilized the City of Madison's Racial Equity and Social Justice (RESJ) tool. This tool is designed to "facilitate conscious consideration of equity and examine how communities of color and low-income populations will be affected by a proposed action/decision of the City" (City of Madison, RESJ Tool). The RESJ tool offers a complement to more traditional methods of ~~analyzing~~ planning park projects, and is further discussed in Chapter 5.

X.X How to Use these Lenses

In upcoming years the City of Madison and the Parks Division will be facing a variety of new challenges, including pressures from climate change, population growth, changing demographics, and increased fiscal demands. The lenses of equity, public health, sustainability, and adaptability represent key considerations when handling these issues. These four lenses are to be used as a framework to guide all park and open space planning. They assist the Division in informed decision-making and achieving its vision of providing residents access to an exceptional park system.

Chapter Three: Engagement and Outdoor Recreation

X.X Engagement ~~Strategies~~

This chapter examines recreational needs, demands, and concerns based on community engagement. The park and open space planning process incorporated multiple engagement strategies to understand park use and concerns amongst Madison residents. These methods reached a large number of residents, but also began ~~in~~ a dialogue with new voices who can contribute to the future planning of the park system. Madison Parks strives to ~~continually improve efforts~~ to engage ~~underrepresented communities~~ all residents to help ensure concerns of all residents are represented.

Engagement Methods

During the engagement process, ~~Madison residents~~ participants provided their input on a broad spectrum of topics such as park usage, future needs, environmental initiatives, and specific goals. Six distinct engagement methods ~~were used to~~ gathered ~~data~~ input from participants ~~Madison residents~~ of a variety of ages, races, and socioeconomic status. Each engagement method is described in further detail in the following sections. Recognizing the inherent limitations and bias associated with public input processes, efforts were made to ~~monitor and~~ track engagement strategies and comments, and to geolocate responses to evaluate distribution of input and improve future engagement methods.

Comment Cards

The Parks Division distributed comment cards at various locations across Madison in an effort to solicit feedback on how ~~City residents~~ people use the parks system. Comment cards were provided at nine City of Madison libraries, 12 community/neighborhood centers, and at the Madison Senior Center. Comment cards were collected at 44 different public events and community meetings, and could also be submitted electronically ~~were available to fill out online~~. The comment cards were distributed in English, Spanish, and Hmong, and also available in an images-only format. The City received 887 comment cards back from this effort.

Online Community Survey

As part of this process, the Parks Division also developed an online community survey. The survey aimed at understanding the public's perceptions and priorities regarding the Madison parks system. The survey included nine separate questions ~~asking~~ about items such as favorite activities, resident needs, and areas of potential improvement, as well as requesting information regarding age and race. The online community survey was completed by 1,609 separate individuals, one of the highest online survey response rates that any city agency ~~city~~ has received. As part of the survey, respondents identified their participation in park-related activities. ~~Figure X.X presents the top ten activities by participation rate.~~ A separate recreational survey ~~sent to athletic organizations~~ generated 32 responses from athletic organizations and is discussed further on page X.

System for Observing Play and Recreation in Communities

To gather additional data on park usage, the Parks Division utilized an observational research method called the System for Observing Play and Recreation in Communities (SOPARC). The method was ~~first~~ developed in 2006 by researchers at San Diego State University and the RAND Corporation ~~in an effort~~ to examine how ~~community~~ parks contributed to physical activity (McKenzie et al, 2006). Madison Parks collaborated with student volunteers, ~~c~~City staff, members of the Parks Long Range Planning Subcommittee, and members of the Board of Park Commissioners to use a modified SOPARC tool ~~as a method~~ to gather data on park usage. Parks chosen for this tool were based on park type, location, and the surrounding neighborhood's income and race/ethnicity demographics to provide a ~~comprehensive~~ snapshot of park use throughout the City. Data from SOPARC was gathered in 2016 from July through October. During this period, 2,766 residents were observed across 28 different parks.

Community Visioning Sessions and Workshops

With the assistance of the consulting group Urban Assets, LLC, the Parks Division facilitated five community visioning sessions in each of Madison's main geographic regions ~~from January through March of 2017~~. The community visioning sessions, listed below, were interactive workshops designed to identify the public's goals and vision for Madison's park system. ~~The dates and locations of the sessions were as follows:~~

North:	January 31, 2017	Warner Park Community Recreation Center
East:	February 6, 2017	Whitehorse Middle School
South:	February 13, 2017	The Village on Park
West:	March 1, 2017	Alicia Ashman Library
Downtown:	March 23, 2017	Central Library

At the community visioning sessions, Parks staff ~~provided an opening presentation detailing background~~presented information on the POSP and the purpose of its public engagement strategy. Session participants then engaged in a variety of activities allowing them to provide their input on topics related to park facility and programming needs, areas of potential improvement, and their vision for the Parks system. Individuals were also asked to provide demographic data including their age, race, and how long they have been living in Madison. A total of 120 individuals participated in the community visioning sessions. In addition to community visioning sessions, three ~~theme-focused~~ workshops, listed below, ~~were held by partnering with individuals and organizations to create engaging events that provided~~ facilitated in-depth discussion and analysis ~~focused~~ on specific topics. The first workshop, called "Hip Hop PARKitecture" facilitated by ~~with~~ Hip Hop Architect Michael Ford, engaged children and communities of color in a fun day of park planning. The second workshop, focused on climate change and environmental pressures, ~~and~~ was conducted in ~~collaboration~~ partnership with the Clean Lakes Alliance, the Board of Park Commissioners, and the Wisconsin Initiative on Climate Change Impacts. The last workshop was in partnership ~~a collaboration~~ with Public Health - Madison and Dane County, as well as with

local advocates for environmental education, ~~for a workshop~~to focus~~ed~~ on connecting children to nature. A total of 55 individuals participated in the workshops.

Hip Hop PARKitecture: April 22, 2017 - Badger Rock Neighborhood Center
Madison Parks & Resiliency in the Era of Climate Change:
May 18, 2017 UW - Union South
Connecting Kids to Nature:
June 4, 2017 - Warner Park Community Recreation Center

Focus Groups
Acknowledging that public participation must incorporate a variety of methods, the City of Madison collaborated with the University of Wisconsin – Madison, and Public Health - Madison and Dane County to conduct participatory research with children and underrepresented populations across Madison. This work focused on engaging communities in park planning within their neighborhoods. Focus group discussions occurred at the following locations:

Madison Senior Center
Vera Court Community Center
Capitol Center Apartments
Goodman Community Center
The Meadowood Neighborhood Center
The Lussier Community Center

Additionally, Public Health –Madison and ~~&~~ Dane County conducted 15 one-to-one interviews, and collaborated with Hawthorne Elementary School, Sandburg Elementary School, and Centro Hispano ~~as part of efforts~~ to create the "Youth-Engaged City Planning: Recommendations for the City of Madison, Wisconsin" report. An estimated 110 individuals participated in focus groups, and ~~with~~ an additional 150 individuals participated through ~~interviewed whose concerns and ideas were identified by~~ the City's Neighborhood Resource Teams.

Imagine Madison Comprehensive Plan
The Imagine Madison Comprehensive Plan included a ~~was a~~ public listening campaign launched by the City of Madison as part of the update to the City's c~~C~~omprehensive p~~P~~lan. It gathered feedback from a variety~~-~~ of sources including public meetings, online surveys, and resident panels made up of underrepresented segments of the population. ~~*Imagine Madison* gathered~~ P~~p~~ublic input was provided on major community issues

such as parks, housing, transportation, and economic development. During Phase I and Phase II or the public input process, ~~*Imagine Madison received*~~ a total of 135 comments on parks and open space were submitted via the online survey, public meetings, and resident panels.

Engagement Demographics

~~Through several methods,~~ Parks collected data through several methods to gain insight into ~~the demographic representation resulting from various engagement efforts.~~ broad community thoughts on park management and user needs.

Participant Ages

Figure X.X illustrates the age distribution of each engagement method's participants. Participation by age varied depending on engagement type. An increased ~~strong~~ youth presence appeared in the data from the comment cards. However, individuals under the age of 20 were nearly absent from both the online community survey ~~data~~ and the community visioning session~~s data~~. Residents between the ages of 21 and 40 were the most prominent age demographic in the online survey, while residents aged 51-69 were the most prominent age demographic in the community visioning sessions. The Imagine Madison data also consisted primarily of adults, with individuals under age 25 accounting for only 6 percent of all participants.

Participant Race/Ethnicity

Figure X.X shows the racial distribution of each method's participants in relation to that of the City of Madison. Demographic information was collected as part of the online survey, community visioning sessions, and through ~~certain~~portions of the Imagine Madison engagement process~~The data shown in Figure X.X does not include demographic information from strategies that were used specifically to engage historically underrepresented populations~~[1]. Figure X.X illustrates unintentional biases in traditional engagement methods such as public input meetings and online surveys. Recognizing that online surveys and public input meetings may disproportionately engage residents who identify as adult and white/Caucasian, the POSP engagement process also utilized methods specifically designed to encourage participation from historically underrepresented communities~~. These methods included focus group discussions, comment cards distributed at community events, libraries and neighborhood centers, and the Hip Hop PARKitecture workshop. Since the City did not request demographic information from these engagement methods, they are not included in Figure X.X).~~

~~Recommendation: Incorporate public engagement methods and partnerships which help to ensure all members of the Madison community are represented in the park planning process. X.X Outdoor Recreation Needs Assessment~~

[1] Data shown in Figure X.X does not include demographic information of approximately 4,000 people who provided input via comments cards, theme focused events, focus group discussions, the recreation league survey. Nor does it include people who were observed as part of the SOPARC study.

Outdoor Recreation Needs Assessment

An Outdoor Recreation Needs Assessment is an analysis used to identify and prioritize future planning efforts for natural areas and outdoor recreational resources. The assessment combines information obtained during the engagement process, ~~broad spectrum of sources~~ and examines past, present, and projected future demands in order to create informed recommendations. ~~These recommendations then act as guidelines for future planning efforts to ensure~~ guide that (~~the recreation demands of City of Madison residents are being met.~~

Engagement Outcomes

This section describes results from the engagement methods described above. Figure X.X aggregates information received from the comment cards, online community survey, and SOPARC data. The results help identify trends in preferred recreational activities across different engagement methods and ages. These recreational activities ~~can be~~are defined as either active or passive[2]. ~~If an activity requires a developed facility or manipulated landscape that requires on-going maintenance, that activity would be~~is(GF) ~~considered active. Some examples include soccer fields, disc golf courses, and basketball courts. In contrast, a passive activity does not require a developed setting or facilities~~facilityies ~~(SC) or setting (GF) to participate. Some examples of P~~passive ~~activities include bird watching/wildlife viewing, foraging, picnicking, hiking, and photography.~~

Amongst all engagement methods, the top ten shown in Figure X.X list includes a combination of passive recreation activities, such as hiking/biking, and active recreation activities, such as swimming and playing on playgrounds. Some activities, for example biking and walking/hiking, were popular regardless of age group or gender. However, there were some notable differences in the top activities based on the engagement method~~.~~, which are further discussed in this chapter.

Youth Outcomes of Top Reported Activities

Based on engagement input, younger residents indicated they ~~appear to~~ utilize parks and open space more for active recreation activities. ~~These individuals~~Youth were the primary users of park playgrounds. In the comment card data, playing on a playground was the fourth most popular activity among the under 20 age group, and the second most popular activity among the 21-40 age group(presumably because they take their children to playgrounds). Playing on the playground was the third most frequently observed activity for individuals under 20 in the SOPARC data.~~, while it was only the eighth most frequently observed activity for individuals over age 20.~~

[2] The American Heritage Dictionary identifies passive recreation as "Outdoor recreational activities, such as nature observation, hiking, and canoeing or kayaking, that require a minimum of facilities or development and that have minimal environmental impact on the recreational site.

The younger population also makes significant use of parks as an area to engage in team sports such as basketball, soccer and football. In the comment card data basketball and football were ranked as the second and third most popular activities for individuals under age 20, while soccer was ranked 7th. Another activity that appears to be especially popular among youth is swimming.

Adult Outcomes of Top Reported Activities

Collected data indicates adult residents tend to use parks for more passive recreation such as hiking and snowshoeing. For example, nature viewing was the third most popular activity for comment card respondents above the age of 40. Among online survey respondents, nearly all of whom were older than 20, nature viewing was the fourth most popular activity. Walking ~~Hiking~~ , biking, jogging, and dog walking were all activities that were more popular among adults than youth. Adults also appeared to gravitate towards individual sports more ~~so~~ than team sports. Pickleball, tennis and disc golf were all very popular among this group. Additionally, Ultimate Frisbee appears to be a sport growing in popularity for adults, particularly among the 21-40 age group.

Ice skating was another activity that was only listed as a top ten activity in the comment card data. However, it was also popular among online survey respondents, just narrowly missing the top ten, with 26.8 percent of respondents indicating they use parks for ice skating. It is ~~also~~ important to note that a winter activity such as ice skating would not be represented in the SOPARC data because direct observation was only done in the summer and fall.

~~Recommendation: Park and open space planning should provide diverse recreational facilities to accommodate the recreational preferences of all age groups.~~

Top Issues and Concerns

The Parks Division also sought public input on the current state of Madison parks, with the goal of using this information to assess which areas should receive additional focus in the upcoming years. The data presented in Figure X.X was gathered via the online community survey, ~~the~~ community visioning sessions and workshops, focus group discussions, and from the Imagine Madison process. Figure X.X shows the combined results from these engagement methods. The data was categorized to identify emerging trends and ~~prominent~~ issues among the public. Each comment was identified as a positive, or a concern~~, or neutral~~ in relation to the topic being mentioned. Major themes surfaced ~~as prominent concerns~~ including: water and the environment, park access, development, and ~~park~~ quantity, and facilities and activities that are equitable and inclusive.

Water and the Environment

Madison's proximity to water resources and historical wetland habitat has provided numerous opportunities for water-based recreation and natural habitats. A large portion of the feedback received from ~~Madison residents~~ engagement participants was focused on environmentally related topics. "Lakes, beaches, water access and water quality" was the most frequently mentioned issue in the community visioning sessions and the fifth most frequently mentioned in the *Imagine Madison* data. Likewise, "conservation/the environment/natural areas" was the second most frequently mentioned topic in both the community sessions and *Imagine Madison* feedback. In response to the question "What would you like to see more of in Madison Parks," the second most popular choice among online survey respondents was "More natural spaces and conservation areas."

Many of the comments related to the environment were positive. Residents expressed their pleasure with the park system's number of beaches, conservation parks, and the readily available access to water and nature. However, there was significant concern about water quality, pollution, and the future of Madison's lakes and natural areas in the face of continued development and population growth. ~~This was~~ A common theme seen in the feedback from ~~both~~ all methods was that the Parks Division would lose its focus on conservation and natural areas in an effort to meet the recreational demands of a continually expanding population.

Concerns related specifically to climate change also came up frequently in the comments. Fans of winter activities such as ice skating and skiing were concerned ~~that~~ a shortened season would affect their opportunity to enjoy these activities. Other climate change specific issues were mentioned, such as the increased occurrence of extreme heat events and the proliferation of invasive species~~, were also mentioned~~. Figure X.X displays the results of an online community survey question asking respondents whether they believed that the Parks Division should play a role in addressing these issues.

~~Recommendations:~~
~~Protect and enhance natural resources, and develop land management goals for our parks.~~
~~Improve water access and quality to promote water recreation.~~
~~Develop a strategy to introduce newimprove winter activities that are impacted by climate change~~.

Park Access and Quantity

The other major theme seen in the results was concern about park access and quantity, primarily related to the City's increasing population. This was the third most frequently mentioned topic in the community session comments and the most frequently mentioned topic in the *Imagine Madison* comments. Residents were concerned with how Madison's continually expanding population would affect their capacity to use the park system. The City of Madison is expected to add 40,000 residents by 2040. Concerns about future overcrowding and diminishing park access were extremely common among participants. Figure X.X shows how respondents to the online survey prioritized acquisition of land for recreation and/or preservation.

~~Recommendations:~~
~~Work with the City to create policies related to maintaining adequate parkland to offset~~ complement ~~projected development.~~ ~~and limited land supply.~~
~~Continue to address park deficiencies~~ ~~identified in Chapter Five~~ ~~through the development of community and neighborhood parks.~~

Park Equity and Inclusion
The community visioning sessions, focus group discussions, and Imagine Madison engagement methods all identified park equity and inclusion among the most prominent issues ~~of concern~~. When community visioning session participants were asked, "What do you worry about in Madison Parks?" equity and inclusion was the fourth most frequently mentioned topic. Additionally, participants in the meetings with Madison's senior and underserved populations placed a strong emphasis on equity in the park system. A focus group at the Madison Senior Center revealed that many seniors felt excluded from using Madison parks, as a lack of drinking fountains, crosswalks at entrances, and restroom facilities make them less welcoming for older residents.

Discussion with low-income individuals and youth from communities of color echoed similar concerns regarding equity and inclusion. Residents in low-income communities expressed concern that nearby parks often were not as safe or well-maintained as parks in wealthier sections of the city. Individuals from communities of color also felt that parks lacked amenities specific to the needs of different cultures. For example, Hmong residents were frustrated at the lack of Tuj Lub (a traditional Hmong game) courts and large picnic tables at parks. Residents also reported that it was difficult to hold large family gatherings at local parks.

The Parks Division ~~recognizes the importance of~~strives for an inclusive park system that meets the needs of varied cultures and age groups. It is clear that past planning efforts may have unintentionally excluded certain segments of the population. A ~~renewed~~ focus on equity and inclusion will be especially important as Madison's demographics continue to change, with residents becoming older and communities of color continuing to grow within the city.

~~Recommendation: Provide a park system that meets the needs of Madison's increasingly diverse population by working with neighborhood residents and local groups to remove barriers to park planning input opportunities and identify park and open space preferences that create equitable, inclusive park experiences.~~

Facility Demands

This section reviews park use and demands based on existing reservation data collected through RecTrac, the City's park and recreation management software. This data includes ~~information~~ the date of reservation, facilities reserved, and number of park users anticipated. This section also reviews permit sales from existing data collected through Accela, the City's asset management software, and the results of the athletic organization survey.

Athletic Facility Reservations

The City of Madison provides facilities for year-round athletic activities within the park system, but does not manage athletic recreation leagues. Instead, the City partners with Madison School & Community Recreation and other recreation organizations such as the Madison Ultimate Frisbee Association, Liga Latina Soccer Association, Madison Area Youth Soccer Association, and Southside Raiders Youth Football to program the athletic fields. As part of this plan update, Madison Parks reviewed reservation data and conducted a recreation league survey issued to over 130 organizers who have made park reservations for athletic facilities.

Review of the City's reservation data identifies that activities with the highest number of reservations include tennis, soccer, and softball. These three activities have the highest number of separate organizations that reserve facilities for their sport. However, demand for athletic facilities is growing for pickleball, lacrosse, and cricket, which compete for facilities with other historically popular sports.

Reservation data also identifies that the most frequently reserved parks include multi-field/multi-court facilities. These types of facilities allow users to host practices, games, and tournaments in a single location instead of spread out over multiple parks. Reserving multiple fields or courts at one park location is beneficial for organizers to accommodate the large size of their leagues, share referees across games, and to host multi-game events. Table X.X identifies the most park reservations by sport ~~reserved parks by sport~~, of which all have multiple fields/courts. Exhibit X identifies the number of athletic field reservations by park.

~~Recommendation: Develop reservable recreational fields and courts that can be used for multiple purposes.~~

~~Discussions with~~ -P~~p~~ark staff suggest that there is demand for lit fields and facilities that recover quickly from rain events. In particular, there is high demand for athletic field lighting for soccer, Ultimate Frisbee, flag football and volleyball. Madison Parks has lit softball diamonds, two lit baseball diamonds, one lit soccer and football field, and one lit volleyball location. Users currently take advantage of off-season softball outfields as lit spaces for ultimate frisbee and flag football.

~~Recommendation: Identify fields that could be lit to increase opportunities for recreation that would not be in conflict with the surrounding neighborhood.~~

In addition to reviewing internal reservation data, Madison Parks solicited feedback from a survey sent to over 130 athletic organizations. Of those who responded to the survey, 34% said they had to cancel an event or practice because there were no facilities available for reservation. Additionally, 31% noted that they had to limit the number of participants in their league due to of lack of facilities.

Shelter Reservations

Madison Parks has 83 reservable shelters including six large shelters without restrooms, 19 shelters with restrooms, one concession/restroom building and 57 sun shelters. Large shelters and shelters with restrooms are available mid-April through mid-October. Sun shelters are open year-round. Reservations of shelters are often made for wedding celebrations, family reunions, association/business picnics and community events. Shelters are typically booked for weekday evenings and weekend reservations. Madison Parks has about 1,900 reservations of shelters each year. The most reserved shelters in the park system are Gates of Heaven at James Madison Park, the large shelter at Elver Park, and the shelter at Garner Park.

Park Event Reservations

In addition to park athletic and shelter reservations, people ~~parks are~~ frequently reserve~~d~~ parks for community events. In 2017, there were 722 event days in Madison parks. This included 518 public or private events permitted by Madison Parks such as run/walks, farmer's markets, festivals/concerts, food cart nights (Let's Eat Out), concerts, and neighborhood ~~association~~ celebrations. The largest number of reserved park days for events were for State Street/Mall Concourse, Olin Park, Warner Park, McPike Park ~~Central Park~~ and Elver Park. Exhibit X illustrates the number of reservation events per park. 204 out of the 722 event days were held in Madison Parks. Parks-produced events included Movies in Parks, Learn To Events, Ride the Drive, Westfest, Earth Day Challenge, and Dog Park Clean-Up Day.

Park Permit Sales

The City of Madison requires permits for cross-country skiing, disc golf, dog parks, and lake access. Cross-country ski and lake access permits are joint permits for use on any designated site within the City of Madison, City of Monona, and Dane County. Disc golf permits are for use at City of Madison courses including Elver, Hiestand, and the winter course at Yahara Hills Golf Course. The dog park permit can be used at any City of Madison on-leash or off-leash dog parks, Dane County Parks, the City of Middleton, and the City of Sun Prairie pet exercise areas.

In 2015, the City of Madison Parks Division began directly collecting permits and tracking them in Accela. Table X-X identifies the annual and daily park permit sales from 2015 through 2017. Park permit sales generally remained steady during this time, with the exception of dog park permits which continue to grow with increasing demand for dog parks.

Chapter Four: Parkland Inventory

X.X City of Madison Park Classifications

The City of Madison provides its residents with a wide variety of recreational opportunities, with most public parks including play areas and equipment, ~~open space for active/passive recreation~~, landscaping~~, park sign, benches and/or picnic tables~~, signage, and seating. ~~Amenities Elements within each park are largely developed based on the master plan process, specific physical land constraints, identified need, existing natural resources, as well as budget. Where appropriate, the City of Madison follows the guidelines identified in Table X.X for facility development. There are no guidelines for unique facilities such as sports complexes, trafficways, open space, greenways, or conservation parks.~~ As shown in Table X.X, each park is classified according to property charateristics such as size, service area, amenities offered, programming, or special purpose. Exhibit X illustrates the geographic distribution of City of Madison parks by their park classification.

Mini, Neighborhood and Community Parks

Mini, neighborhood, and community parks form the core park facilities of most communities throughout the United States. The facilities in these parks usually provide some type of play equipment, athletic field and open green space (see Table X.X).Amenities within each park are largely developed based on the master plan process, specific physical land constraints, and budget. In the City of Madison, depending on the size and classification of the park, these parks can also include facilities such as community gardens, off-leash dog parks, and ski and hiking trails. There are no guidelines for unique facilities such as sports complexes, trafficways, open space, greenspace, or conservation parks.

Conservation Parks

The City of Madison has 20 conservation parks. Conservation parks are managed to preserve native plant communities, wildlife, and significant natural resources. These parks have controlled public access to preserve and restore native plant and animal habitat. The City of Madison currently has approximately 1,752 acres of conservancy land. These facilities are acquired based on environmental quality of land; ~~therefore~~therefore, nationally recognized guidelines for service areas or acres per thousand ~~guidelines~~ do not exist. Despite the lack of formal guidelines issued by the National Recreation and Park Association, the City of Madison highly prioritizes the preservation of these areas ~~conservation land~~ and will continue to acquire conservation land to preserve and protect sensitive and high quality natural areas for residents in the future.

Sports Complex

This category includes the facilities at Breese Stevens Athletic Field and the Duane F. Bowman Park, which ~~primarily~~ function primarily as venues for athletic games and practice, but have also been used for events such as concerts.

Trafficways

City of Madison trafficways are road right-of-ways that function as a public park. These include areas such as the Edgewood Pleasure Drive, certain street ends, and the State Street/Mall Concourse. The City of Madison has 25 acres of parks classified as trafficways, but there are also areas that are road right-of-way within larger classified parks (i.e., the non-vacated Esther Beach Road right-of-way within Esther Beach Park). The largest trafficway is the area known as State Street/Mall Concourse. The State Street/Mall Concourse includes State Street and Lisa Link Peace Park, and encircles the State Capitol grounds. It has five performing areas, walkways, fountains, biking routes, and numerous passive recreation facilities built into its design. With the shops and restaurants that line State Street, it is a primary destination for students, visitors, downtown employees, residents, and major community events.

Open Space

The classification of open space denotes land that does not have active recreation facilities but provides vital space for the community. This category includes lands that function as a park such as former landfill Mineral Point Park, land adjacent to waterways such as the Mud Lake Fishing Access, and heavily wooded slopes such as Highlands East Open Space.

Other

This classification is used for Pumping Station 8, which is used solely by the Water Utility.

Special Use Parks

Specialized facilities intended to serve a unique function are classified as Special Use Parks. These include golf courses, maintenance facilities, Forest Hill Cemetery~~cemeteries~~, the Olbrich Botanical Gardens, and the Henry Vilas Zoo (operated by Dane County).

The largest percentage of land in the special use category includes golf courses. Madison has developed regulation United States Golf Association (USGA) approved ~~golf~~ courses for the use of its residents and visitors. This ~~valuable~~ open space ~~has multiple uses for both recreation and environmental purposes. In addition to golf, these facilities are~~ is used by golfers, walkers, joggers, and cross country skiers. The four courses managed by the Madison Parks Division include ~~the~~ Yahara Hills ~~Golf Course~~, ~~the~~ Odana Hills ~~Golf Course~~, ~~the~~ Monona ~~Golf Course~~, and ~~the~~ Glenway Golf Courses. Madison's golf program continues to be financially independent of the levy~~,~~ through the Golf Enterprise Fund.

The next largest special use facility is Olbrich Botanical Gardens. Olbrich Botanical Gardens, which operates as a public-private partnership between the City of Madison Parks Division and the non-profit Olbrich Botanical Society, and attracts more than 325,000 visitors each year. The facility features the ~~a~~ 10,000 sq. ft. Bolz Conservatory with a collection of tropical plants from around the world, as well as 16 acres of outdoor gardens that feature sustainable horticulture and landscapes suitable to the region. Specialty gardens include the Sunken Garden ~~with an 80-foot long reflecting pool~~, the Herb Garden, the Meadow Garden, the Rose Garden, the Rock Garden, the Wildflower Garden, the Starkweather Creek and Atrium Shade Gardens, and the Thai Garden (a gift to the University of Wisconsin-Madison from the Wisconsin Alumni Association-

Thailand). Additionally, Olbrich Botanical Gardens ~~showcases~~displays raingardens, gravel gardens, and a variety of meadows as examples of sustainable horticulture.

Olbrich Botanical Gardens offers the community a broad range of programs and activities, including the Schumacher Library, ~~a library focusing on plants and gardening~~; an education program for adults and families ~~including guided tours, classes for all ages, early childhood and K-5 school programs, and interpretation~~; and a volunteer program that contributes more than 25,000 hours annually to the Gardens. Olbrich Botanical Gardens also offers a number of special events, including Rhapsody in Bloom~~, a garden gala held in June~~; GLEAM: Art in a New Light; Blooming Butterflies~~, an education-focused event that features live butterflies in the Bolz Conservatory~~; three concert series ~~– Holiday, Winter and Summer~~; Crackle: Fire and Froth; ~~an evening event featuring live music, bonfires, and local micro-brews~~; and three flower shows ~~– the Spring Flower Show, and Holiday Express~~. ~~Olbrich Botanical Gardens was named the #3 attraction in Wisconsin by USA Today readers in 2017. More information about the Gardens and current events and programs can be found at www.olbrich.org.~~

Greenways

Greenways are public land managed and administered by the City of Madison Engineering Division. ~~, which and provide passive recreation opportunities~~. They include lands such as detention ponds and drainage corridors. Greenways are sometimes considered part of the park (e.g., the drainage ponds at Owen Park), but can also be completely separate ~~distinct~~ from ~~the~~ Madison Parks ~~Division~~ (e.g., the retention pond on Mineral Point Drive). The Parks Division occasionally shares mowing and plowing responsibilities of greenways with the Engineering Division.

X.X Park Facilities

Madison Parks rank ~~perform~~ exceptionally well when compared to other cities of similar size across the nation. The Trust for Public Lands - City Park Facts~~,~~ ranked Madison in the top ten for basketball hoops, beaches, community gardens, dog parks, pickleball courts, and playgrounds. The 2017 rankings are shown in Figures X.X through X.X. The City offers not only a large number of facilities but also a significant variety of amenities and recreational opportunities for residents to enjoy.

The City of Madison Parks system has over 270 public parks, providing typical park features such as basketball courts and playgrounds, as well as beaches, community gardens, pickleball and tennis courts, golf courses, and the nationally renowned botanical gardens.

Within the Madison park system there are over 8,000 amenities~~;~~, some examples include athletic fields, buildings, and drinking fountains. Madison has historically ranked high for the quantity of tennis courts, playgrounds, and basketball courts, which for decades have been the core facilities of mini and neighborhood parks.

Table X.X below shows a summary of existing facilities within the Madison park system. A detailed summary by park is provided in Appendix X.

X.X: Other Park and Open Spaces

A variety of university, school, county, and state facilities add to the availability of park and open space systems within the City of Madison. These facilities are shown on Exhibit X.

University of Wisconsin

The University of Wisconsin-Madison (UW) contributes both athletic facilities and natural areas to the available open space in the City of Madison. The primary UW public facilities consist of the UW Arboretum and the UW Lakeshore Nature Preserve. These two areas provide over 1,500 acres of publicly accessible land for use by City of Madison residents and the ~~general public~~public.

The UW Arboretum and Lakeshore Nature Preserve provide the City with an ~~immense~~ additional recreational resource. The UW's Arboretum totals 1,262 acres of conservation land. Its footprint includes gardens, prairies, savannas, deciduous forests, conifer forests, wetlands, and horticultural gardens. The UW Arboretum provides opportunities for hiking, biking, picnicking, jogging, skiing, snowshoeing, and nature-viewing.

The Lakeshore Nature Preserve contains 300 acres of preserved land along four miles of the southern shore of Lake Mendota. ~~This includes Muir Woods, Observatory Hill, Willow Creek Woods, Triangle Marsh, University Bay Marsh, the Class of 1918 Marsh, Bill's Woods, Biocore Prairie, Eagle Heights Community Gardens, Caretaker's Woods, Second Point Woods, Frautschi Point, Tent Colony Woods, Raymer's Cove, Wally Bauman Woods, the Eagle Heights Woods, and the Howard Temin Lakeshore Path.~~ The Lakeshore Nature Preserve provides opportunities for nature viewing, swimming, picnicking, hiking, jogging, and biking, and has opportunities for launching kayaks, canoes, and small boats. Many people also use points along the Lakeshore Nature Preserve to access the frozen Lake Mendota for ice fishing or cross country skiing.

The UW's private recreational facilities (e.g., the Natatorium, the Nicholas Recreation Center, and Camp Randall Sports Center) include indoor/outdoor tennis courts, an indoor racquetball court, swimming pool facilities, tracks, softball diamonds, soccer fields and basketball courts. These facilities are reserved for the over 60,000 students, faculty, and staff affiliated with the University.

Public School Grounds

Public schools ~~are not counted as part of the~~ excluded from the City's inventory of existing park facilities~~,~~ but often serve the same functions as mini and neighborhood parks. ~~by providing athletic facilities, areas for passive recreation, and playgrounds~~. The Madison Metropolitan School

District (MMSD) serves as the City's primary recreation programming service, providing a wide variety of activities that use both Madison parks and MMSD facilities.

Existing school facilities such as playgrounds and athletic fields ~~are taken into account~~ are reviewed when evaluating overall City coverage of facilities. Using service area analysis, the City can identify whether school parks are able to fill demand in ~~communities which~~communities, which may otherwise lack parkland. Appendix X Table X: Schools with Recreation Facilities identifies MMSD school grounds with recreation facilities that are open to the public when not reserved or being occupied by students.

Dane County Parks

Dane County owns and manages ~~has~~ over 12,000 acres of park and open space areas throughout the County. ~~that residents may utilize~~ These areas are ~~which are~~ designed to offer recreational opportunities on a ~~more~~ regional scale. Some of these parks lie within or partially within the City of Madison limits. These parks are typically conservation-oriented and have specific recreational facilities related to the preservation of and/or education of cultural and natural resources. Nearby County parks that serve Madison residents are described below~~,~~ (see Exhibit X for locations):

Jenni and Kyle Preserve: A unique park, encompassing 163 acres, intended to provide children and persons with disabilities a place to enjoy outdoor activities. Visitors can learn about natural environments through accessible fishing, wildlife observation, wheelchair swings, and a picnic shelter building, trails lead around two spring-fed ponds containing trout and panfish.

~~-~~Lake Farm County Park: This 328-acre park is a unit of the Capital Springs Centennial State Park & Recreation Area, which also includes the Lewis Nine Springs E-Way, Capital City State Bike Trail and Lower Yahara River Trail. ~~This 328-acre park~~ The park is listed on the National Register of Historic Places and offers three shelter facilities, play equipment, a barrier-free boat launch with fish cleaning facility, two accessible fishing piers, group camping area, wildlife pond, overlook tower, and hiking and cross-country ski trails. The park also includes the Lussier Family Heritage Center, a reservable event venue, and a campground with 54 reservable sites, including 39 electrical hook ups for RV's, restroom and shower facilities.

~~-~~Lake View Hill Park: This 40-acre park is the highest point on the north side of the City of Madison. The site served as a County tuberculosis ~~sanitorium~~sanatorium from 1930-1966. It is classified as a Cultural/Historical Site and is listed on the National Register of Historic Places. Lake View Hill Park is heavily wooded and also contains restored savannas and prairie.

Lewis Nine Springs E-Way: A 7-mile environmental corridor extending from Dunn's Marsh to Lake Farm County Park. The corridor includes cultural and natural features of wetlands, prairies, sedge meadows, native forests, large springs, and Native American mound sites. It offers

opportunities for jogging, hiking, biking, nature study, photography, and cross-country skiing. ~~The Nine Springs E-way was dedicated as the "Lewis" Nine Springs E-Way in 2012 to recognize Phil Lewis, UW-Madison Professor of Landscape Architecture who envisioned and championed the E-way concept, and his wife Libby Lewis, who served on the Dane County Parks Commission for 26 years.~~

~~-~~Capital City Trail: Dane County Parks ~~developed and~~ maintains the 9-mile segment of Capital Trail that traverses through the Capital Springs Recreation Area from Verona Road to Industrial Drive. It provides multiple links around and through Madison between the Military Ridge State Trail and the Glacial Drumlin State Trail. In the City of Madison, the trail follows seven miles of bikeways, from Industrial Drive near Nob Hill, under the Beltline Highway, along John Nolen Drive, past the Monona Terrace Convention Center downtown, and through the east side of Madison. The Capital City Trail is used for bicycling, walking, jogging, and in-line skating.

~~-~~Lower Yahara Trail: This nearly 2.5-mile trail opened in August of 2017 and provides an off-road trail connection between the City of Madison and the Village of McFarland. ~~It includes the longest boardwalk bridge constructed solely for non-motorized transportation in Wisconsin,~~ The bridge spann~~s~~ing Lake Waubesa to connect the Capital City Trail at Lake Farm County Park with McDaniel Park in the Village of McFarland. The bridge runs alongside an active railroad corridor and includes an accessible fishing pier, rest stops, and multiple observation areas with picturesque views.

Yahara Heights County Park and Cherokee Marsh Natural Resource Area: The 141-acre Yahara Heights County Park is located adjacent to the Cherokee Marsh Natural Resource Area. Cherokee Marsh is the largest remaining wetland in Dane County and in Lake Mendota's Watershed. The recreational park offers a 20-acre dog ~~pet~~ exercise area, hiking trails, and a canoe and kayak launch, while the Natural Resource Area serves to preserve wildlife habitat and wetlands that are crucial to the water quality of Madison's chain of lakes. The Cherokee Marsh Natural Resource Area also contains some of the best examples of Native American mound sites in Dane County.

Blooming Grove Drumlins Natural Resource Area: This 1,646-acre area preserves glacial drumlin features that remain from the last glaciation. The site provides opportunities for hiking, fishing, cross-country skiing, wildlife observation, foraging, nature study, as well as hunting and trapping through limited-issued permit only.

Other Parks/Conservancy Areas

There are several other municipally~~-~~owned parks and conservancy areas under the jurisdiction of Madison's neighboring communities that are used by City of Madison residents, including but not limited to~~,~~ the Cities~~ty~~ of Fitchburg, ~~City of~~ Middleton, and ~~City of~~ Monona. A complete inventory of non-city owned public parks within a 1/2 mile radius of the City boundary is set out ~~available~~ in Appendix A.

X.X: Private Recreational Facilities

Private recreational facilities provide recreational resources to City of Madison residents who can afford and desire to seek out specialized facilities such as private gyms, pools, and tennis facilities. These facilities have not been included in this plan.

Chapter Five: Parkland Access and Demand

~~As part of the goal to maintain a high quality parks system, and ensure all Madison residents have access to adequate recreational opportunities,~~ T~~t~~his chapter will examine the existing distribution of City of Madison park facilities to ensure adequate, equitable access to parks. ~~There are numerous methods for reviewing parkland access across communities; t~~This plan evaluates parkland access using four different methods.

The first method compares park acreage with population using the National Recreation and Park Association (NRPA) guidelines (Lancaster, 1983). The second method reviews population density in relation to parkland proximity. The third method considers park access based on park service areas as defined by the NRPA. The last method reviews walkable and public transportation access to parks, and also reviews this access specific to residents living below the poverty line.

While these analyses are widely ~~highly~~ adopted methods for reviewing parkland access, they do not account for cultural preferences, park use and perception, or household type. Acknowledging and understanding the limitations of these analyses is essential, as they are only a few ~~one~~ of the many tools used in developing new facilities and parkland in the City of Madison.

Method One: Parkland Acreage and Parkland per Capita
Compares acreage of classifiable parkland (mini, neighborhood & community parks) to number of people (acres per 1,000 residents).

Method Two: Population Density and Parkland Proximity
Determines the number of people living in proximity to parks, identifying parks that may have more demands based on surrounding neighborhood density.

Method Three: Service Area Analysis
Projects a quarter to half mile distance around each classifiable park (mini, neighborhood, community) based on park classification.

Method Four: Access Analysis
Walkable Access - Defines a five to ten-minute walking route to mini, neighborhood, conservation and community parks along sidewalks and paths.
Public Transportation Analysis - Reviews public transportation access to parks within a twenty-minute combination bus ride and pedestrian trip.

X.X Method One: Parkland Acreage and Parkland per Capita

Mini, neighborhood, and community parks are intended to meet the core recreational demands for playgrounds, fields, shelters, and courts. The NRPA provides communities with a recommended range of acreage per 1,000 residents as a guideline to ensure these recreational needs are met.

The City of Madison has approximately 2,812 acres of NRPA categorized parkland or approximately 11 acres per 1,000 residents based on a 2017 population estimate of 250,073. When including the total amount of ~~public~~ park land owned by the City of Madison, the City has approximately 22 acres of public land per 1,000 residents. As illustrated in Table X.X and Figure X.X, the City of Madison falls within the NRPA guidelines of facilities for community parks, and exceeds the NRPA targets ~~maximum~~ for mini, neighborhood, and total parkland.

Park classifications are continuously updated and reviewed, taking into consideration the amount of area dedicated to greenways, active park space, and natural areas. For instance, parks that have acreage amounts within the community park range may be classified as a neighborhood park if a large portion of that acreage is dedicated to stormwater ponds[1]. ~~Blackhawk Park is one example; although the stormwater ponds provide passive recreation, they represent 12.7 acres of the total 28.7 acres for the park, and is thus classified as a neighborhood park (SC). ,so Blackhawk Park is classified as a neighborhood park rather than a community park. (ML)~~

Of these core park types, mini parks are the most prevalent type of park in the Madison park system. Table X.X shows ~~identifies~~ that ~~they~~ mini parks provide 3% of the total parkland~~,~~ but 36% of the total number of parks. These are typically small parks, less than five~~-~~acres in size with a playground, open field, and/or basketball court. Madison's high number of mini parks contributes to a system with an abundance of smaller-scale park amenities such as playgrounds and half basketball courts. Parks less than five~~-~~acres in size can be valuable open space; however, they typically lack larger recreational amenities such as sport courts and multi-use fields. Maintaining several small parks requires more resources and energy than maintaining the same acreage contained within a larger park. Chapter X provides a more in-depth description of the specific features included in mini, neighborhood, and community parks.

~~Recommendation: For new developments along the City's periphery, minimize the number of mini parks and instead by (and)requireing larger, minimum five-acre parks that can accommodate more activities and facilities.~~

X.X Method Two: Population Density and Parkland Proximity

[1] Blackhawk Park is one example; although the stormwater ponds provide passive recreation, they represent 12.7 acres of the total 28.7 acres for the park, classified as a neighborhood park.

Both increasing density and shifts in housing trends affect which parks have the highest neighborhood demand and competition for meeting community needs. Using population data from the U.S. Census, Table X.X illustrates which ~~the~~ parks have ~~with~~ the highest number of people within a half mile of ~~proximity to~~ the park, potentially increasing the demand for park use at these facilities. However, ~~it should be noted that~~ the most recent GIS data available at the time of this analysis was ~~information~~ extrapolated from the 2010 US Census Block Data. ~~Development in~~ Within the last eight ~~years~~years, ~~the downtown the downtown area within the past eight years~~ has seen growth in ~~development of~~ multi-story multifamily apartments and condominiums. This analysis will be updated as more accurate Census data are released.

Exhibit 8 illustrates the population density served by each park. Many of the parks located on or near the isthmus are surrounded by a higher density of residents, and experience greater demands for space and amenities, than the parks located on the periphery of the City.

~~Recommendation: Ensure parks in high-density areas provide a wide variety of uses to meet community and capacity demands by creating flexible spaces that can be used for multiple recreation opportunities.~~

X.X Method Three: Service Area Analysis

A standard NRPA method for reviewing parkland access is the park service area analysis. The size of a park's service area is determined according to ~~based on~~ park classification~~s~~ as defined by the ~~National Recreation and Park Association~~ NRPA(Lancaster, 1983), shown in Table 5.4 ~~The following service areas are identified by the NRPA~~:

~~Mini Parks: quarter-mile~~
~~Neighborhood Parks: half-mile~~
~~Community Parks: two-miles~~

Park Type	Service Area (Radius)
Mini	¼ mile
Neighborhood	½ mile
Community	Two miles

The intent of NRPA service area analysis is to identify existing gaps in traditional core facilities. This analysis ~~does not~~ only evaluates service areas for parks ~~not~~ classified as ~~either~~ mini, neighborhood, or community. Special parks, conservation parks, trafficways, greenways, open space or other such as are not covered in this analysis.

The park service area analysis is a commonly used method for determining park deficiencies but should not be used exclusively ~~to identify deficiencies.~~ This ~~None of these three~~ analysis method does not include other important factors such as population density, geographic or cultural limitations, or household type or size. For instance, the park needs in a neighborhood with backyards large enough to have gardens and play equipment are undoubtedly different from the needs of ~~areas such as the~~ downtown areas which area ~~is~~ comprised primarily of multifamily apartments and condominiums with little or no backyards. Acknowledgement and understanding of these limitations must be included in the analyses to identify park needs for communities.

Mini and Neighborhood Park Service Area Analysis

Mini and neighborhood park deficiencies are present if a residential area is not within a quarter-mile radius of a mini park or a half-mile radius of a neighborhood park or community park~~,~~. The City of Madison provides most core facilities in neighborhood parks~~, whereas m~~Mini parks are intended to fill voids between neighborhood park service areas, or in areas where land uses or geographical boundaries limit development of larger neighborhood parks.

(The City has mini and neighborhood park coverage for 93% of the City of Madison residential areas, excluding areas within the Neighborhood Development Plans that are not fully developed. The areas that lack mini and neighborhood park coverage are shown in Exhibit X.

~~This analysis did not include existing facilities in neighborhoods that are not fully developed, such as the Northeast and Elderberry Neighborhoods. Areas currently under development have proposed parks as part of their adopted Neighborhood Development Plans, which These proposed parks (ML) will contribute to eliminating deficiencies.)~~

As part of the service area analysis, school facilities were reviewed to evaluate their contribution to eliminating park deficiencies. Public schools often serve their adjoining residential areas by providing play fields and playground facilities. Exhibit X~~: Elementary and Middle School Parks Influence on Mini and Neighborhood Park Deficiencies~~ identifies park deficiencies when a ~~1/4~~ quarter-~~-~~mile service area radius is applied to elementary schools and a ~~1/2~~half-~~-~~mile service area radius is applied to middle schools. This analysis excluded high schools, which are typically heavily utilized by the high school during the day and after school hours.

The schools with the greatest contributions to eliminating park deficiencies include:
Lindberg Elementary School
Lincoln Elementary School
Muir Elementary School

Orchard Ridge Elementary School/Toki Middle School
Glendale Elementary School
Mendota Elementary School

Community Park Service Area Analysis

The City provides community park service area coverage for approximately 97% of all areas of residential land use, including ~~within~~ Neighborhood Development Plan areas. Areas that are deficient in community park coverage are shown in Exhibit X. Community park development ~~incorporates~~ relies on regional efforts~~:~~ ~~as well and also includes the service area radius of~~ when evaluating coverage, ~~thus and~~ community parks from neighboring municipalities are included in this analysis.

The City proposes development of Yahara Hills Community Park to provide community park facilities for the southeast side of Madison. This land is currently owned by the Parks Division and is partially developed with a golf course. Additional development of community parks is planned for the northeast side of the City. North-East Park is currently owned by the City of Madison Parks Division. ~~The initial stages of the master plan process, such as land surveying, will begin in 2018, with an anticipated master plan process occurring within the next few years~~.

The downtown area has many community parks~~,~~ but ~~does not have very many has~~ few neighborhood parks. The recommendations proposed in the City of Madison's *Downtown Plan* suggest acquiring land for development of a new downtown neighborhood park.

~~The Ppark service areas are highly adopted analysis is a commonly used methods of for determining park deficiencies, but should not be used exclusively to identify deficiencies. Neither None of these three analyses factor density, geographic or cultural limitations, or, household type, or size. For instance, the park needs in a neighborhood with backyards large enough to have gardens and play equipment are undoubtedly different than the needs of areas such as the Madison's downtown area which is, comprised primarily of multifamily apartments and condominiums with little or no backyards. Acknowledgement and understanding of these limitations must be included in the analyses to identify park needs for communities.~~

X.X Method Four: Access Analysis

An emerging method for evaluating the distribution of parkland is by examining ~~valuating~~ walkable and public transportation access to parks. Walkable access analysis evaluates the general accessibility of mini, neighborhood, community, conservation parks, and public elementary and middle schools within communities based on a five- to ten-minute walk along a sidewalk or path. While both schools and conservation parks are excluded from the NRPA service area standards, they play an important role in providing ~~nd provide~~ access to playgrounds, playing field games,

nature-viewing, environmental education, imaginative play, hiking, and cross-country skiing and snowshoeing, and thus have been included in this analysis.

Walkability

Walkable access to ~~the park facilities of~~ mini, neighborhood, community and conservation parks assumes the following:

Mini parks and elementary schools serve the community within a five-minute walk to the park.
Neighborhood parks and middle schools serve the community within a ten-minute walk to the park.
Community and conservation parks function as neighborhood parks ~~to their adjacent neighborhood,~~ serving the community within a ten-minute walk to the park.

The walkability analysis excludes ~~limits~~ walking routes where ~~when~~ the pedestrian has to cross a road with speeds greater than 35 mph and only evaluates walkability within residential or mixed use areas along sidewalks and paths. ~~Also~~In addition, ~~T~~this evaluation specifically excludes ~~property such as~~ agricultural, military, or industrial properties and ~~includes also only incorporates parks identified in the Madison Metropolitan Planning Organization Database., excluding p~~Pproperties owned by Dane County, other municipalities, or the University of Wisconsin. Walkable access within Neighborhood Development Plan Areas are excluded, as the network of pedestrian routes, parks, and paths is not yet fully developed.

A geographic analysis of walkability for mini, neighborhood, community, and conservation parks reveals that most residential neighborhoods in Madison are within a five- to ~~ten minute~~ten-minute walk to a mini, neighborhood, community, or conservation park. Areas that lack walkable access to these facilities are identified ~~in blue i~~on Exhibit X.

~~Recommendation: Increase connectivity in areas Build sidewalks and trail to connect parks (ML) that lack walkable access, to parks through sidewalks and trails and i Identify (ML) opportunities to partner with municipalities organizations (ML) that provide park space in areas where developing a walkable route to a public park is difficult.~~

Walkability Results in Areas Below the Poverty Line

The Parks Division worked with staff and members of the Parks Long Range Planning Subcommittee, using the City's Racial Equity and Social Justice (RESJ) tool to analyze the distribution of park facilities across Madison. The RESJ tool was developed as part of the City's Racial Equity and

Social Justice Initiative and is designed to "facilitate conscious consideration of equity and examine how communities of color and low-income populations will be affected by a proposed action/decision of the City" (City of Madison, RESJ TOOL). The Parks Division then examined these analyses to understand deficiencies in the distribution of park facilities and walkability to people living below the poverty line.

Exhibit X illustrates disparities in walkable access by poverty level. While some of these areas lack access to mini, neighborhood, conservation, and community parks~~,~~ and schools, they do have access to other forms of public open space, such as public land owned by the University of Wisconsin, Dane County, and other municipalities. Areas along the periphery of the City within identified Neighborhood Development Plans have been excluded, since the~~y~~ the plans do not reflect the most current demographic information available.

Schools that are the most important in providing access to a walkable open space where parks may not be accessible include the following:
Mendota Elementary School
Lake View Elementary School
Hawthorne Elementary School
Allis Elementary School
Glendale Elementary School
Randall Elementary School

Public Transportation

Exhibit X identifies areas of higher concentrations of poverty that are not within a 20-minute combination bus ride/walking route. These areas very closely match the areas identified above in the walkability analysis. Areas of neighborhoods with high concentrations of families living below the poverty line, which ~~that~~ lack both walkable access ~~to parkland,~~ and ~~accessible~~ public transportation to parkland are especially vulnerable to public health conditions. ~~which may be improved through by providing access to public parks.~~

~~It should be noted that the analysis in~~ Exhibit X~~,~~ uses existing Madison Metropolitan Planning Organization data to evaluate~~s~~ public transportation on a mid-day weekend, when both parents and children are ~~typically~~ may be able to spend time to travel to a park ~~using existing Madison Metropolitan Planning Organization data~~. Bus routes frequently change to meet customer demands, and the most up-to-date routes may not always be reflected in the MPO datum~~a~~.

~~Recommendation: Where there is no walkable access to mini, neighborhood, conservation, or community parkland, but there are other public recreation spaces that provide outdoor recreation amenities, engage these entities to explore partnerships to enhance outdoor recreation to the surrounding community.~~

Chapter Six: Relevant Plans

X.X How this Plan Relates to Other Plans

The Park and Open Space Plan provides analysis and recommendations regarding the overall system of parks in Madison. The ~~is p~~lan reviews city-wide parkland distribution, structure, funding mechanisms, and relationships to changing demographics, land development, and future growth across the C~~c~~ity. The plan works in conjunction with other planning documents, such as master plans, neighborhood plans, and special area plans, to inform the development of the park system~~s~~; ~~however~~ This plan ~~it~~ does not include specific recommendations for individual parks. Figure X.X illustrates the relationship of the Park and Open Space Plan to the over 60 planning documents that may include recommendations for parkland. The recommendations contained in the Park and Open Space Plan will be included as a supplement to *Imagine Madison: ~~City of Madison~~ Comprehensive Plan*.

X.X State Comprehensive Outdoor Recreation Plan

The State of Wisconsin Department of Natural Resources (WDNR) completes a study of outdoor recreation resources, called the Statewide Comprehensive Outdoor Recreation Plan (SCORP), every five years. The SCORP examines outdoor recreation supply, demand, trends, and issues, both on a state-wide and regional basis. ~~The results of the~~This study provide broad guidelines and data to governments at all levels, communities, and organizations on recreation needs and opportunities. The 2017-2022 SCORP was not completed at the time this plan was written, so the previous 2011-2016 SCORP is referenced for this Park~~s~~ and Open Space Plan.

The regional p~~P~~rofiles section in the 2011-2016 SCORP reviews social, development, and economic factors ~~that~~ influenc~~ing~~e public use and accessibility to outdoor recreation. Each regional profile includes a chapter on population trends, economic context, land use perspective, and recreation outlook. Madison falls within the WDNR's Southern Gateways region (Region 9), which includes Richland, Sauk, Columbia, Dane, Dodge, Iowa, Jefferson, Lafayette, Green, and Rock counties. The State of Wisconsin manages a variety of resources, primarily conservation-oriented, within this region. The management goals of the 20 state parks/recreation areas, 6 trails, and 36 state wildlife areas are available to view at http://dnr.wi.gov/topic/Lands/RecAnalysis/. The recreation outlook analysis for the Southern Gateways region indicates ~~suggests that~~ the top 10 uses include (listed in descending order of demand): picnicking, boating, visiting a beach, swimming ~~in lakes, or streams, etc.~~, snow/ice activities, visit a wilderness or primitive area, day hiking, freshwater fishing, motorized boating, and developed camping.

Tables X.X and X.X from the 2011-2016 SCORP identify~~ies~~ regional recreation supply shortages for the Southern Gateways Region: backcountry/walk-in camping, boat launches, natural areas, parks, public water access, trails for hiking, bicycle, and horseback riding ~~trails~~, educational camps, dog parks, ice skating rinks (2005 only), nature centers, picnic areas, sailboat clubs/rentals, and tennis courts, and associated programs. The study also suggests that ~~the Southern Gateways region is used by tourists from Chicago and the Twin Cities for downhill skiing,~~

~~sightseeing, picnicking, camping, bird watching, (ML)~~tourists from Chicago and the Twin Cities use the Southern Gateways region for downhill skiing, sightseeing, picnicking, camping, bird watching, and hiking~~. Two tables, located below, identify and compare regional recreation shortages, as shown in the 2005-2010 and 2011-2016 plans.~~

The SCORP regional profile brings together vast amounts of information regarding demographics, land use patterns, and projected recreational trends ~~outlook~~. The~~detailed~~ summary of this analysis identifies the following important recreation issues for the Southern Gateways Region.

The region is densely populated and experiencing rapid population growth. Dane and Sauk cities are growing the fastest, with over 10% population growth between 2000 and 2008.

"As a whole, Region 9 is slightly more educated, has a higher median income and is considerably younger than the state as a whole. While the region is currently relatively young, the population is expected to age considerably over the next decade with the 65 and older group projected to increase in size by 49%. The rapidly increasing over 65 age class will increase demand for more passive types of recreation and more easily accessible facilities" (p. 24, Regional Profile: Region 9, Wisconsin Department of Natural Resources).

"The population of the region is somewhat more diverse than the state as a whole; 14% of the state's minorities live in the region. Dane County is the most diverse with its minority population steadily increasing. The region is home to over 19% of the state's Asians and has a rapidly growing Hispanic population. The diverse and growing ethnic populations typically have somewhat different recreation preferences and rates of participation than whites. For example, the Hispanic community tends to heavily use various facilities for family gatherings"(p. 24, Regional Profile: Region 9, Wisconsin Department of Natural Resources).

In comparison to the state of Wisconsin overall, the region has a greater proportion of agricultural land ~~that is agricultural~~. The economic vitality and population growth subjects agricultural land to intense development pressure, resulting in high land values, ~~and~~ parcelization, and decreasing opportunities for significant recreational and conservation land acquisition.

"With its proximity to Wisconsin's population centers, Region 9 offers some of the most accessible recreational opportunities in the state. Public lands and waters are very heavily used and demand for recreation is rapidly exceeding the capacity of existing facilities and resources.

~~Supply shortages were identified by SCORP for back country/walk-in camping, boat launches (carry-in and trailerable) and other public water access, parks and natural areas, hiking and horseback riding trails, picnic areas, and nature centers. Addressing these recreational supply shortages will take additional effort, and the high demand, cost, and parcelization of land in the region will make it increasingly difficult to acquire significant amounts of additional recreation land". (p. 24, Regional Profile: Region 9, Wisconsin Department of Natural Resources).~~

~~Recommendation: Where possible, c~~Enhance ~~or develop regional recreation facilities identified by the SCORP for the Southern Gateways Region to address supply shortages.~~

The ~~WDNR also has information from the~~ 2011 Wisconsin Outdoor Recreation Demand report, developed by the WDNR, ~~that provides an indication of~~ also presents information on statewide recreation trends relevant to the City of Madison. The ~~Wisconsin Outdoor Recreation Demand~~ report describes the results of the 2005-2009 National Survey on Recreation and the Environment (NSRE). The NSRE was initiated by the federal government in 1960 and has since conducted eight surveys. The NSRE is an in-home phone ~~survey which~~survey, which gathers data from over 90,000 households across all ethnic groups throughout the United States. Chapter three of the Wisconsin Outdoor Recreation Demand Report lists activity trends and activity popularity for the State of Wisconsin. ~~The following t~~Tables~~,~~ X.X through X.X~~,~~ are from the Wisconsin Outdoor Recreation Demand Report ~~which uses NSRE data to describe statewide trends~~. This data does not take into consideration regional differences within the state of Wisconsin, and should not be construed as data that is specific to local municipalities such as Madison. For more information on recreational trends in Wisconsin, refer to ~~-~~http://dnr.wi.gov/topic/lands/scorp/

X.X Dane County Park~~s~~ and Open Space Plan

Similar to the City of Madison, Dane County completes a Parks and Open Space Plan (~~or~~ POSP) every five years. The goal of the County's 2018-2023 POSP is to identify significant cultural, historical, and natural resources to be considered for protection, preservation, or restoration. In addition, the plan seeks to analyze recreation needs and demands on a county-wide level.

The County's POSP draws information from the Wisconsin Statewide Comprehensive Outdoor Recreation Plan, Wisconsin Demographic Services Center, Bicycle Transportation Plan (published by the Madison Area Transportation Planning Board), and the Outdoor Recreation Participation Report (published by The Outdoor Foundation). Dane County also gathered ~~sought~~ input through an online survey and examined trends in activity participation rates based on past permit sales (disc golf, dog park, lake access, etc.).

The goal of the County's online survey was to gauge user satisfaction, recreation trends, barriers, and areas of potential improvement. Overall, survey responders indicated that they would be most interested in seeing more of the following: land acquisition and natural resource management, trails (hiking, bicycle/pedestrian, and mountain bike), dog parks, walk-in or rustic camping, disc golf courses, activities to attract youth, facilities for the elderly and disabled, and greater overall connectivity of land, trails, and facilities.

Tracking of annual permit sales allows the County to monitor recreation user numbers, demand for facilities, and trends over many years. The following graphs, provided by Dane County Parks, illustrate the quantity of permits sold per year. Overall, there have been steady increases in the demand for mountain bike trails, dog exercise areas, lake access points/boat launches, and disc golf courses.

Dane County has several natural resource areas and park properties that lie within the City of Madison limits. These properties are identified in Chapter Four and include the Jenni & Kyle Preserve, Lake Farm County Park, Lake View Hill Park, the Nine Springs E-Way, the Capital City Trail, the Lower Yahara River Trail, Yahara Heights County Park, the Cherokee Marsh Natural Resource Area and the Blooming Grove Natural Resource Area. The following ~~below~~ recommendations from the 2018-2023 Dane County POSP support specific joint planning efforts between the City and County for these properties:

~~Recommendations:~~
~~The network of trails and parks in the City of Madison is a joint effort by Dane County and the City of Madison. City and county agencies should continue to work together to create a comprehensive system of greenspace connections.~~
~~Cherokee Marsh Natural Resource Area: Continue to work with the Friends of Cherokee Marsh, City of Madison, and WDNR on acquiring lands within the Dane County project area boundary.~~
~~Blooming Grove Drumlins Natural Resource Area: Partner with the City of Madison to expand hiking/cross country ski trails into Door Creek Park.~~
~~Blooming Grove Drumlins Natural Resource Area: Consider a future joint planning effort by local units of government to coordinate resource and recreation management strategies for the entire project area.~~
~~Door Creek Wetlands Natural Resource Area: This boundary should be revised in the future as local units of government complete more detailed neighborhood plans for developing areas.~~

X.X Imagine Madison: City of Madison Comprehensive Plan

~~Waiting for Draft Comprehensive Plan.~~
Wisconsin State Statutes Section 66.1001 mandates local governments to create and maintain and update a comprehensive plan every 10 years. The City of Madison is currently in the process of developing the *Imagine Madison Comprehensive Plan*, and expects to adopt this plan in the summer of 2018. Since this plan is not yet adopted, the discussion in this section is based on the draft plan.

Development of the draft *Imagine Madison Comprehensive Plan* included a robust public commentary campaign, starting in Fall 2016. This plan included over 13,900 comments collected through community meetings, resident panels, and Neighborhood Resource Teams. This information was synthesized into major themes and trends, which were used to draft the Plans goals, strategies, actions and priorities.

Several themes emerged which pose significance to City of Madison Parks including: changing demographics, changing preferences in housing and neighborhoods, continued desire for public transportation and trails, strong community value in culture and character of neighborhoods, and continued concerns regarding the environment.

Changing Demographics

Both the *Imagine Madison Comprehensive Plan* and this plan identify that Madison's demographics are changing. Baby boomers are aging, millennials are moving to Madison in large numbers, and racial and ethnic diversity continues to increase. Madison Parks must be able to accommodate these changing demographics and provide recreation opportunities for diverse community groups.

Changes in Housing and Neighborhoods

The comprehensive plan also identifies that Madison is facing increased development and density. These changes will increase the demand for parks and open spaces, especially in downtown areas. The plan estimates that the City will grow by another 70,000 residents by 2040, and a majority of residents surveyed through *Imagine Madison* supported accommodating a majority of this growth through infill and redevelopment.

Desire~~d~~ for Trails and Increased Connectivity

Madison in Motion, the City of Madison's Transportation Master Plan identifies existing and proposed sidewalks and paths. This plan is the City's adopted pedestrian plan that identifies priorities for improving the City's connectivity and eliminating gaps. Some of these paths are located in parks, reviewed, and budgeted for as part of the annual budget processes.

Strong Community Value in Culture and Character of Neighborhoods

As increasingly diverse population contributes to cultures and experiences to the community, the City's investment in opportunities that provide for a broad range of users is increasingly important. The comprehensive plan identifies that places such as cultural and entertainment venues, historic and special places, and vibrant community spaces add to the value of communities.

Concerns Regarding the Environment

Similar to the Park and Open Space Plan engagement process, *Imagine Madison* heard concerns from the public about environmental health, specifically to lakes, streams, urban canopy, biodiversity, agriculture, landfills, energy usage, and drinking water. Parks play a vital role in preservation of natural habitat, and rely significantly on healthy lakes and streams for community recreation. On-going efforts to improve our environment under increasing environmental pressure will be a priority of the City.

X.X Neighborhood Development Plans

Neighborhood Development Plans (NDP~~'~~s) identify land use and proposed parkland along largely undeveloped lands at the City of Madison's periphery. The plans provide a framework for the growth and development of the City's peripheral urban expansion areas where development is expected to occur in the ~~foreseeable~~near future. ~~Neighborhood Development Plan~~NDPs are created through an extensive planning and public input process. New parkland proposed by NDP~~'~~s is shown in Exhibit X: New Parkland Identified in Neighborhood Development Plans.

Current ~~Neighborhood Development Plan~~NDPs identify 52 new parks along the City's periphery totaling 384 acres. Of the seventeen developed Neighborhood Plans, ten plans call for new parkland development, with 20 of the 52 proposed new parks in the Northeast Neighborhoods Development Plan. The proposed quantity of new parks in each NDP are as follows:

New parkland identified in NDP~~'~~s is determined ~~defined~~ by using parkland dedication requirements for new residential development. Reviewing the existing NDP proposed population build-out, in comparison with the City's standard for parkland dedication, many of these neighborhoods would fall short of the City's standards for parkland dedication once the neighborhood is fully developed. Staff will continue to work with City agencies involved in developing these plans to ensure that future neighborhoods have adequate parkland to meet future population growth.

~~Recommendation: Ensure that new parkland in Neighborhood Development Plans meet parkland requirements identified in Chapter Five of this plan.~~

X.X City of Madison Downtown Plan

The purpose of the *Downtown Plan* is to describe the desired future for Madison's downtown and to provide a framework to help achieve it. It establishes a decision making framework to ensure that incremental actions made over time (such as budgeting and land use decisions) achieve a common vision for the future. The City of Madison *Downtown Plan* was adopted in July 2012.

The recommendations proposed in the *Downtown Plan* were prepared and developed through a 3+ year planning process based on a vigorous public input process. The public comments and suggestions from this process can be viewed at the City's website for the Downtown Plan at: https://www.cityofmadison.com/dpced/planning/documents/Downtown_Plan.pdf

The Downtown Plan's recommendations regarding parks and open spaces are primarily found in the sections entitled "Key 1: Celebrating the Lakes" and "Key 8: Expanding Recreational, Cultural and Entertainment Offerings". Notable ~~parks and open space~~ recommendations include:

Expanding the eastern portion of Law Park to create a signature city park and public gathering place, including a shelter based on Frank Lloyd Wright's boathouse design for this park, short term boat docking and land bridge/plazas connecting the park to the heart of Downtown.

+ This is currently in progress with $500,000 allocated to the Parks Capital Budget in 2018.

Completing the Lake Mendota pedestrian-bicycle path by acquiring the remaining parcels and constructing the segment between Butler Street and Lake Street. This segment will complete the remaining 25% of the 3-mile long lakeshore path from James Madison Park to Picnic Point.

Creating a gateway entrance in that portion of Brittingham Park along John Nolen Drive between Bedford Street/North Shore Drive and Broom Street. This area is proposed to be redesigned to include greatly enhanced landscaping, expanded use opportunities, and a redesigned dog park.

+ This work is currently in process with the redesigned Brittingham dog park anticipated to be completed in 2019.

Restoring Brittingham Beach and reactivating the existing shelter, including the potential rental of small sailboats, canoes and kayaks, a new fishing pier and possibly establishing food service.

+ The Madison Parks Division partnered with Brittingham Boats in 2013 to improve the shelter~~,~~ and provide rentals for kayaks, canoes, stand up paddle boards, row boats, and paddle boats, and a small cafe.

Establishing a new neighborhood park ~~in the vicinity of~~near the Bassett Street and West Johnson Street intersection to meet the needs of the under~~-~~-served high-density housing at this location.

+ The City is currently reviewing options for developing a new neighborhood park.

Preparing new master plans for James Madison Park and Brittingham Park.

+ The Parks Division is currently conducting a robust master planning effort for James Madison Park, with anticipated completion in 2018.

Chapter Seven: Parkland Development

Resources are continuously needed to build and maintain City parks. The City of Madison has established a strong record of ~~making such investment, particularly when no other alternatives can be found. As the City of Madison continues to~~ developing innovative ~~planning projects designed to enhance our great community, staff must explore formalized~~ funding mechanisms for infrastructure and programming~~related to the current planning visions~~.

This Chapter focuses on four ~~factors of~~ mechanisms used to fund parkland development and improvements:
Parkland a~~A~~cquisition
Parkland d~~D~~evelopment
Revenues
Volunteer p~~P~~rograms and p~~P~~artnerships

X.X Parkland Acquisition

Needs Assessment

Wisconsin State Statutes permit local governments to enact ordinances requiring developers to provide land and/or funds for the development of public parks. Municipalities codified these developer obligations in two ways, either through the land dedication ordinance and/or through impact fees. Land dedication ordinances require developers to dedicate a specific amount of land area for public parks as part of the subdivision approval process. This amount of land is based on a formula relating the parkland area to the number of proposed dwelling units ~~being proposed~~. In situations where the City of Madison determines it is not feasible or desirable to acquire additional parkland, this requirement includes the option for the City to receive a monetary amount in lieu of the land. The fees collected are then used by the City to acquire parkland in a more appropriate location.

Prior to 2017, the requirements for land dedication and impact fees were based on a P~~p~~ublic F~~f~~acility N~~n~~eeds A~~a~~ssessment prepared internally in 2002 by Parks Division staff. In accordance with State Statutes ~~requiring municipalities to review impact fees~~, the City hired an outside consultant to prepare a new Public Facility Needs Assessment. This new needs assessment was prepared in 2016 using data gathered from around the nation and within Wisconsin, ~~using~~ the City's P~~p~~ark and O~~o~~pen S~~s~~pace P~~p~~lan, and the City's existing park inventory. Recommendations from the Needs Assessment were enacted on November 1, 2016 through Legislative File 43500, amending sections ~~16.23(5)(h)1.,16.23(8)(f), 20.04,20.09(03), and 20.16(5), repealing Sections 20.08(2) and (6), and recreating Section 20.08(2~~) of the Madison General Ordinances. Implementation of the new park impact fees based on this Needs Assessment began on January 1, 2017 and will be fully implemented over a three-year period (80% in 2017, 90% in 2018, and 100% in 2019 and beyond).

Parkland Dedication

The ~~2017 adopted~~ parkland dedication requirements adopted in 2017, ensure that new residential development will ~~also~~ be provided with parkland at the current level of service of 10+ acres/1,000 residents. Previous land dedication requirements fell short of meeting this standard as shown in Figure X.X. The 2017 parkland dedication requirements reflect a level of service of 10.13 acres/1,000 residents as identified in the Needs Assessment. This level of services includes all active parkland such as sports complexes, some trafficways, and some special parks.

The new parkland dedication ordinance ~~also~~ added a category for large multifamily units (four bedrooms or more), as well as updating the requirement for age-restricted units and group living quarters reflective of housing development trends. The new ordinance also provided exemptions for low-cost housing and updated requirements for accessory dwelling units, which became permissible with enactment of the new Zoning Code in 2013.

Park-Land Impact Fees

In situations where the City of Madison determines it is not feasible or desirable to acquire additional parkland as part of new residential development, developers are required to pay a monetary amount (Park-Land Impact Fee) in lieu of the land. The Park-Land Impact Fee ~~works in combination with the parkland dedication requirements to~~ ensures that when a development cannot dedicate parkland within its ~~their~~property, the developer provides funding to the City to independently purchase parkland. This requirement assures that the demand for parkland caused by the increase in population from new residential development is met.

The Park-Land Impact Fee is calculated based on the average assessed value of land in the City as determined by the annual certified tax roll to accommodate varying square foot land prices across the city. By using this method, the Park-Land Impact Fee better recognizes the cost to the City to acquire parkland and the annual fluctuations in land values, as well as eliminating confusion and potential challenges to the impact fee determination.

~~Recommendation: Review parkland dedication and park impact fees every ten years to ensure that policies are updated to meet park and open space demands.~~

Intergovernmental Agreements

In addition to parkland dedicated in conjunction with new residential development, Madison will acquire existing parkland in neighboring communities as part of intergovernmental agreements. The City of Madison has intergovernmental agreements with the Towns of Blooming Grove, Burke, Madison, and Middleton to attach parcels in these communities to the City of Madison. This will result in the City of Madison obtaining several new parks that were previously in other municipalities. The City of Madison anticipates seven new parks will become part of the City of Madison park system by 2027. The ~~city~~ City has also reached agreements with three neighboring communities to acquire 15 new parks by 2036. See Exhibit X for new parks due to Intergovernmental Agreements.

Town of Madison - Final Attachment in 2022
Three new parks.
Town of Blooming Grove - Phased Attachments in 2020 and 2027
Four new parks
Town of Burke - Final Attachment in 2036
Eight new parks

~~Evaluate parks coming into the City through intergovernmental agreements to provide adequate funding to address necessary infrastructure and conservation improvements.~~

X.X Parkland Development

Funding for development of facilities in new parks is typically through Park-Infrastructure Impact Fees and/or general obligation debt ~~that is~~ appropriated through the Capital Budget process. This section of the plan reviews the role of Park-Infrastructure Impact Fees. Information regarding park development funding through general obligation debt and other mechanisms is discussed ~~later in this chapter and in~~ in ~~in~~ Chapter X.

Park-Infrastructure Impact Fees

In addition to the Park-Land Impact Fee, the Madison General Ordinances require~~s~~ developers to pay a Park-Infrastructure Impact Fee to ~~help pay for the~~ offset costs necessary to develop the park. The Park-Infrastructure Impact Fee provides ~~funding to develop park facilities for new residents~~ funds park development at a comparable level to existing park facilities and is based on the number of units and type of housing developed. This fee was updated in 2016~~,~~ as part of the updated Needs Assessment and subsequent ordinance amendment and implemented on January 1, 2017.

~~The 2017 adopted fee structure is based on park infrastructure costs per service unit, and is adjusted annually for inflation. The fee was created by assessing the existing total costs to replace the City's park amenities ($171 million), divided by the 2015 population (239,196), less outstanding debt and grant funding ($15,074,648) to develop a park development net cost per person ($620), and then multiplied by the number of persons per unit for each housing type.~~

~~Because~~ Prior to the 2017 ordinance update, impact fees had to ~~must~~ be spent in the district where they were ~~are~~ accumulated~~, prior to the ordinance update~~, development patterns lent themselves to create some districts flush with impact fees, while other adjoining districts were short on funding to address infrastructure needs. The 2017 ordinance amendment ~~also~~ reduced the existing 11 benefit districts to 4 districts to create a more equitable distribution of impact fee funding.

While park impact fees offset park development costs, they typically do not fund the entire park development. For example, Table X.X on the following page identifies potential ~~park~~ facility development costs for a mini, neighborhood, and community parks. Using the City's standard of 10+ acres/1,000 population, a new 10-acre neighborhood park for 1,000 residents would require a payment of between $530,000 and $640,000 in Park-Infrastructure Impact Fees. As shown in Figure X.X, compared to the cost to develop a 10-acre neighborhood park (Table X.X), the acquired fees may only offset the park development costs by an average of 74% depending on the type of housing development.

~~It should be noted that providing~~ Providing a direct cost correlation is complex and includes many factors. Figure X.X shows ~~identifies~~ that the type of housing development within a community is one of many variables impacting funding available for park development due to park impact fees and therefore cannot be the only source for funding park development.

~~It is important to note that the~~The estimated park development costs in Table X.X are only for new development on undeveloped (typically agricultural) property, which is less expensive than redeveloping an existing developed property (infill development). As the City continues to increase the density of residential areas, the City may need to rely more heavily on acquisition and development of existing developed sites for parkland as opposed to ~~existing~~ agriculture land. The City is ~~already~~ looking towards existing developed sites to locate~~d~~ a park as part of the recommendations of the Downtown Plan.

Park development to convert an existing developed property to parkland (especially in the downtown) will incur significant costs, including acquisition, demolition, and potential site remediation. As can be seen in Appendix X: DNR Inventory of Contaminated Properties, properties in developed areas such as the downtown may have contamination issues. Depending on the proposed construction and existing contamination, remediation of the site can cost anywhere from several thousand to several hundreds of thousands of dollars per acre.

As the City of Madison relies more on redevelopment for park facilities, it is reasonable to expect that the total park development costs could triple or quadruple when dealing with redevelopment of existing parcels, resulting in impact fee revenue contributing significantly less of the total park development costs.

~~Recommendation: Provide adequate funding to acquire and develop parkland in high-density areas, particularly as it relates to the conversion and redevelopment of low or non-residential properties as identified in the Comprehensive Plan.~~

The City has allowed developers to construct park improvements on parkland dedicated through a subdivision plat rather than pay park-infrastructure fees. This process requires an approved developer's agreement, approved by City staff and the Common Council, to construct park amenities identified in the adopted master plan, and constructed to City standards. This process allows developers to expedite parkland development, constructing the park along with the subdivision development, rather than waiting for the City to develop the park through the capital budget process. Since the 2012-2017 Park and Open Space Plan, the City has entered into developer agreements for construction of Sugar Maple Park and Thousand Oaks Park. Sugar Maple Park was constructed and opened in 2017, and Thousand Oaks Park is anticipated to be completed in 2018.

X.X Revenues

The City of Madison collects Park-Land and Park-Infrastructure Fees as discussed previously in this chapter. These fees must be used to acquire land or to make park improvements. Impact fee revenues are highly variable, as they depend on the strength of the local real estate market. Large developments can also push revenues higher in certain years. As shown in Figure X.X, ~~identifies that~~ there was a market downturn in 2009~~;~~, the market ~~and~~ began seeing a dramatic increase in the number of residential building permits starting in 2011. Table X.X shows the ~~identifies~~ fees collected from 2012-2017.

Since 2012, parkland dedications and/or Park-Land Impact Fees have resulted in the following park acquisitions or park expansions:

Parkland Dedication
Acer Park
Allied Park
Camar Park
Hill Creek Expansion
Jeffy Trail Park
Kestrel Park

North Star Park Expansion
Sugar Maple Park
Thousand Oaks Park
Woods Farm Park

The City of Madison offsets a portion of operational costs with General Park Revenues, which is generated from items such as athletic field reservation fees, lake access fees, concessions, cross country ski permits, dog park licenses, disc golf fees, lease agreement revenue, scheduling fees, shelter reservations, and special event permits. Park use fees (athletic field use fees, event permits, and shelter reservation fees) account for approximately 40% of the General Park Revenue, and lake access and boating permit fees account for an additional 15%. Additional revenues that are not associated with General Park Revenue include the Warner Park Community Recreation Center (WPCRC), Aquatics (the Goodman Pool and beaches), Olbrich, mall special charges, cemetery, and golf course revenues. These facilities generate revenue that is reinvested into their respective operations and programs. Grants and private donations are used primarily in funding capital improvement projects. Many of the City's largest park projects include significant amounts of private contributions.

Starting in 2015, the City of Madison imposed an Urban Forestry special charge on City parcels to offset operational costs in the Forestry Section. ~~The City services provided by the City's urban forestry program ensure a healthy, vibrant and sustainable urban forest, which benefits all residents and properties in the City.~~ This special charge partially offset Forestry operational costs in 2015 and 2016 and will fully offset Forestry operational expenses in 2017 and 2018. The fee determination is annually approved by the Common Council as adopted in MGO Sec. 4.095 and is collected as part of the municipal services bill issued monthly by the Madison Water Utility

~~General Park Revenue consists of athletic field reservation fees, concessions, cross country ski permits, dog park licences, gift shop merchandise, lease agreements, scheduling fees, shelter reservations, and special event permits. Athletic and shelter reservation fees account for approximately 60% of all listed general revenue. Lake access and boating permit fees account for approximately 20% of the General Park Revenue. General Park Revenue is used primarily to offset operational expenses.~~

The City of Madison Parks Division manages one trust fund with a total value of approximately $700,000. This trust fund covers approximately $25,000 of annual parks beautification expenses. The Parks Divisions also manages the Forest Hill Cemetery perpetual care fund which has been funded with proceeds from lot sales. An annual allocation is made towards the maintenance of the cemetery from this fund. Trust and donation funds are used for appropriate projects and improvements pursuant to the terms of the donation or trust and with the Board of Park Commissioners' approval.

X.X Partnerships and Volunteer Programs

Madison Parks Foundation

The Madison Parks Foundation is a private non-profit organization. ~~It was f~~Founded in 2002, the Foundation ~~and~~ is an enthusiastic advocate for City of Madison's parks and open spaces. The Foundation is ~~-~~committed to identifying and supporting park improvement opportunities by encouraging and mobilizing the financial support of neighborhood groups, foundations, and individuals . ~~residents~~ The resources of the Madison Parks Foundation are not intended to replace or substitute for tax revenues generated for the annual ongoing maintenance activities of the Parks Division.

~~The Madison Parks Foundation is dedicated to future generations of residents through efforts to preserve, maintain and expand parks and open space in Madison. The intended purpose of the Madison Parks Foundation is to acquire financial resources to make park improvements through memberships, grants and other contributions. The resources of the Madison Parks Foundation are not intended to replace or substitute for tax revenues generated for the annual ongoing maintenance activities of the Parks Division.~~

The Madison Parks Foundation has been instrumental in fund-raising and providing neighborhood resources for significant park projects ~~including~~ such ~~projects~~ as the Goodman Pool, Cypress Spray Park, Period Garden Park improvements, Carpenter-Ridgeway park labyrinth, Wexford Park playground, Elver and Reindahl splash parks, and the Rennebohm Park playground. They also assist with coordinating donor memorial bench and tree installations.

Madison Parks and Volunteers

Volunteers are critical to creating and maintaining our vibrant park system, contributing on either a one-time basis or as an ongoing commitment. In 2016, Madison Parks had 1994 volunteers who provided over 30,000 hours of time towards improving and enhancing the park system. These donated hours supplement a significant amount of Parks staff time and budget, which allows Madison Parks to provide an even greater level of service to the community. Parks staff ~~also~~ work together with neighborhood associations and other groups to approve projects and identify potential private fund-raising sources and goals. The ~~City~~ Parks Division can ~~has the ability to~~ leverage these funds with existing City resources to move ~~forward with~~ projects forward more quickly. Projects funded through these means vary, but some examples are additional playground equipment, landscaping, and shelters.

Some of the notable volunteer programs and events of 2016 are summarized in Table X.X.

Table X.X 2016 Notable Volunteer Events

Name	Dates	Number of Parks	Number of Volunteers

Adopt Ice	Jan. & Feb.	7	25	
Dog Park Cleanup	Sat., March 26	8	76	
Earth Day Challenge	Sat., April 23	31	186	
Flower Garden Program	May - Sept.	17	33	
Ride the Drive	Sun., July 31	4	91	
West Fest	Sat., Aug. 27	1	54	
Pickleball Lessons	June 16 - Sept. 29	1	2	
Bird & Nature Walks	Sundays, year-round	3	40	

~~Madison Parks endeavors to collaborate with volunteering individuals and organized groups such as neighborhood associations, corporations, Friends groups, and other affiliated organizations to support recurring maintenance projects which are ideal volunteer opportunities. Engaging more stakeholders in this manner fosters long-term investment, interest, and advocacy in our parks. Examples of volunteer maintenance activities include invasive species management, "Adopt Ice" ice rink maintenance, litter pick-up, and flower garden planting. Madison Parks has over 30,000 hours of time donated annually for maintenance projects. The efforts of these volunteers increase the value of our Parks system beyond what the available budgeted funds can accomplish alone.~~

~~In addition, over the past several years Parks has had success with creative programing, (ML) and placemaking initiatives, many of which would not have been possible without public-private partnerships which facilitated repairs to aging infrastructure. Entities that enter into agreements/contracts with Parks for these type of uses are held to high standards and specified goals, operations, and reporting procedures. Example of these initiatives include the Wingra, Brittingham, Marshall, and Olbrich boat rentals and camps, Let's Eat Out food cart nights, the Mendota and Camp Randall Rowing Clubs improvements to historic boathouses, the Biergarten at Olbrich Park, and the Mallards Baseball Stadium at Warner Park and Breese Stevens Field.~~

Madison Parks strives to involve additional individuals and organized groups such as neighborhood associations, corporations, Friends groups and other affiliated organizations to commit on an ongoing basis to a specific park or project. These sustained engagements encourage collaboration between Madison Parks~~'~~ staff and volunteers to address large scale improvements, safety issues in our parks, and other initiatives.

Public Private Partnerships

Over the past several years Parks has had success with creative programing and placemaking initiatives, many of which would not have been possible without public-private partnerships, which facilitated repairs to aging infrastructure. Entities that enter into agreements/contracts with Parks for these type of uses are held to high standards and specified goals, operations, and reporting procedures. Example of these initiatives

include the Wingra, Brittingham, Marshall, and Olbrich boat rentals and camps, Let's Eat Out food cart nights, the Mendota and Camp Randall Rowing Clubs improvements to historic boathouses, the Biergarten at Olbrich Park, and the Mallards Baseball Stadium at Warner Park and Breese Stevens Field.

Madison School and Community Recreation

The City of Madison provides year-round activities within the park system, but does not manage recreation programs. Madison School and Community Recreation (MSCR) is the primary public recreation provider for the residents of Madison. MSCR provides the organization and coordination for a variety of athletic organizations that use City of Madison Park recreational facilities. Madison School and Community Recreation (MSCR) typically has the highest number of athletic facility reservations per year with over 80,000 participants in its recreation programs. The primary Madison park facilities used by MSCR are for softball, baseball, tennis, kickball and pontoon rides. MSCR also uses the City of Madison Park's Warner Park Community Recreation Center (WPCRC) for various programs ranging from childcare to art classes. The partnership between Madison Parks and MSCR provides a large portion of the recreational programming in Madison Parks.

Chapter Eight: Park Division Operations and Staff

In this Chapter

Structure and Responsibilities

Operating and Capital Budgets

Staffing Analysis

The Parks Division has numerous responsibilities, which include ~~including~~ designing, planning, and maintaining the City's park system, ~~as well as the~~ programming and coordination of special events and reservations. The Parks Central, East and West Operations staff are responsible for the maintenance and care of over 270 parks ~~city-wide~~ and 580 park facilities. Parks facilities includ~~e~~~~ing~~ 82 reservable park shelters (including sun shelters) and~~,~~ approximately 500 athletic facilities, such as ball diamonds, tennis courts and multiuse

fields areas. They are also responsible for mowing an additional 925 acres of public land outside park boundaries, including greenways and road-right-of way. The Parks Conservation staff are~~is~~ responsible for managing over 1,700 acres of city-owned conservation parks.

The Parks Division also manages non-traditional facilities, such as the State Street/Mall Concourse, Olbrich Botanical Gardens, Goodman Pool, Forest Hill Cemetery (on the National Register of Historic Places) ~~one cemetery~~, four golf courses, and the Warner Park Community Recreation Center. The Forestry Section is included within this Division and is responsible for street trees in public rights-of-way.

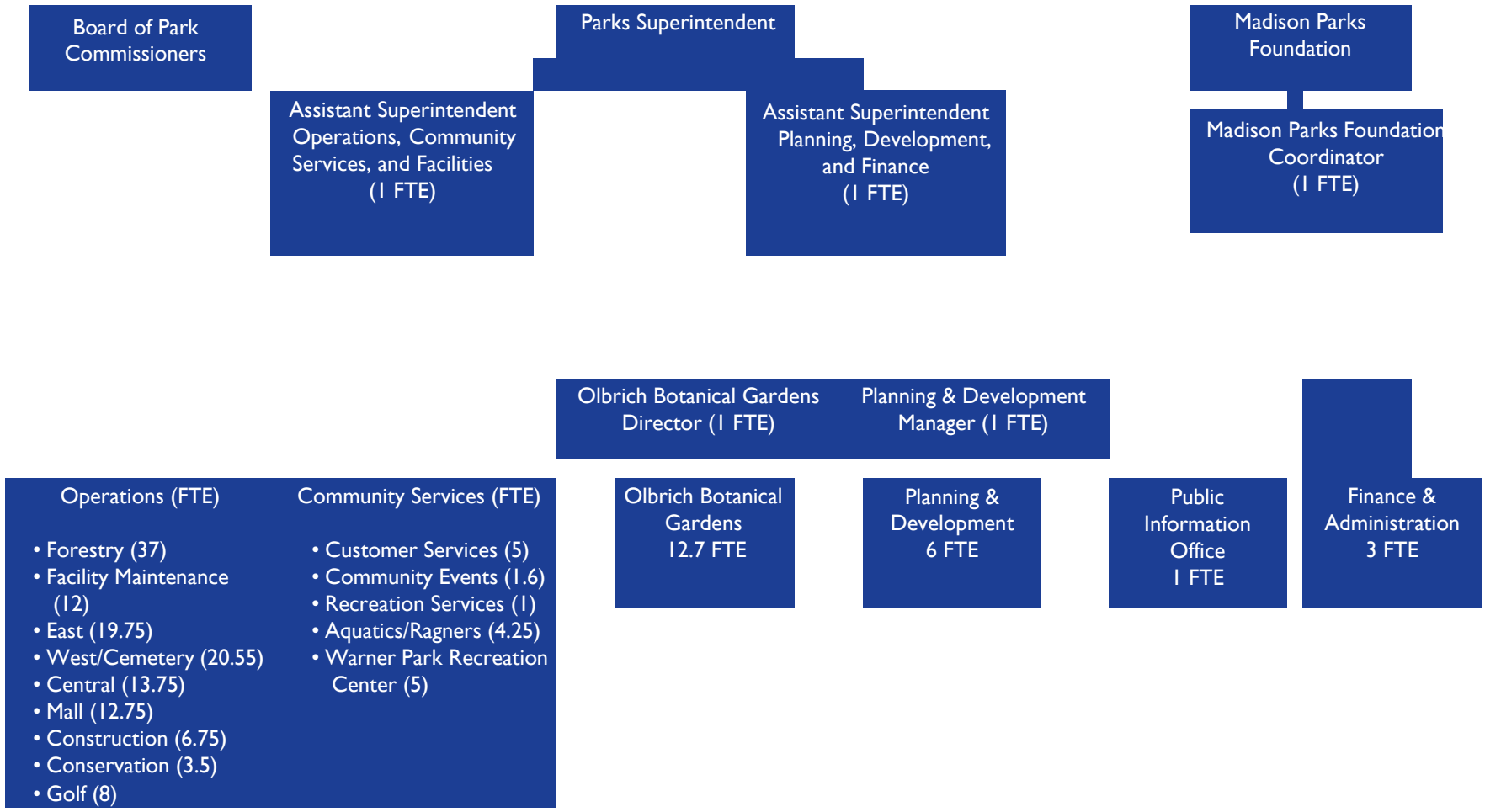
These duties are performed throughout the year by 180 full-time employees and 370 seasonal employees.

X.X Structure and Responsibilities

In the City of Madison, the Parks Division is separate from recreation programming services. The primary recreation program is the responsibility of Madison Community and School Recreation (MSCR) run by the Madison Metropolitan School District, which has had a recreation program since 1926.

Figure X.X outlines the various divisions and sections within the Parks Division. The two main categories are Operations, Community Services and Facilities; and Planning, Development, and Finance. The following is a general description of the main responsibilities of each section.

Figure X.X: Parks Division Organizational Structure



Community Services

Community Services coordinates all special events and festivals on public land, provides new event initiatives, coordinates programming events on State Street/Capitol Mall Concourse, schedules and coordinates athletic field and shelter reservations, coordinates and processes permitting such as electrical, vending, lake access, dog park, Capitol Square and State Street street-use, and public amplification, coordinates volunteer programs, and manages operations of aquatics, park rangers, and Warner Park Community Recreation Center.

finance and administration

Parks Finance and Administration manages payroll, purchasing, revenue billing, budgeting, and administrative policy. It also coordinates hiring procedures, human resource tasks, and employee onboarding.

olbrich botanical gardens

The Olbrich Botanical Gardens provides horticultural displays and botanical collections. The garden is a public/private partnership between the Parks Division and the non-profit Olbrich Botanical Society. Olbrich Botanical Gardens serves approximately 325,530 visitors throughout the year and provides educational programs and workshops to the public.

operations

Parks Operations is in charge of operations and maintenance of all parks, including the State Street/Capitol Mall Concourse district~~,~~ and ~~includes~~ the Forestry Section. Responsibilities of Operations staff are vast and include facility construction, maintenance and repairs, shoreline cleanup and maintenance of boat ramps, docks, boathouses, and sailboat storage facilities, mowing and maintaining athletic facilities, and maintenance of trails and parking lots. Parks operation staff also maintains several boulevards, street right of ways, historic sites and bike trails. Parks Operation staff also maintain the City's cemetery, conservation lands, four public golf courses, and several landfills used as parks.

As a component of the Parks Operations department, the Forestry Section manages all street trees. They provide professional tree care and planting for over 100,000 street trees along Madison's 700 miles of city streets. Forestry is also responsible for public safety by responding to broken limbs or storm damaged trees that pose a risk to the public. Plans and recommendations regarding urban forestry and specific concerns regarding Emerald Ash Borer (EAB) are not addressed in this plan as they are being addressed separately through the City's EAB Task Force process.

planning and development

Planning and Development oversees all aspects of park planning and development, including long range planning and policies, park master planning, design and construction of parks, intergovernmental coordination of policies and ordinances, and assists with the site design approval process related to the dedication of parkland and park impact fees, including collection of park impact fees.

Public Information Office

The Public Information Office oversees communications by managing the Parks Division's website, blog posts, social media, news releases, photo library, and publications such as the annual calendar, the Parks Newsletter: Out & About, kiosk messaging, and promotional materials. The Public Information Office also coordinates media inquiries.

X.X. Operating and Capital Budgets

The Parks Division is funded through the City's annual budgeting process. The Parks Operating Budget includes funding for staffing, maintenance, utilities, and operational expenses. The Capital Budget provides funding for the Parks Division's capital improvement projects including new facilities, major equipment, and infrastructure repairs.

Operating Budget

The Operating Budget is funded via the property tax levy, permit fees, parks use fees, leases, and reimbursement of expenses. The Parks Division has a 2018 Operating Budget of approximately $19.9 million, excluding golf. The operating budget is ~~(~~offset with total revenue of approximately $6.3 million~~)~~. The operating budget ~~, which~~ includes funding for the maintenance and operations of all parkland~~,~~ and ~~also~~ operation of specialized facilities and services, such as the Warner Park Community Recreation Center, Olbrich Botanical Gardens, and Forestry. The City of Madison offsets a portion of operational costs with revenues generated from items such as shelter fees, dog park licenses, cross country ski permits, concessions, and lease agreements revenues.

Table X.X: 2012-2018 Operating Budget[01]

Year	2012	2013	2014	2015	2016	2017	2018
Parks Expenditure Authority	$12,492,725	$12,447,736	$12,955,424	$12,923,768	$14,180,676	$14,496,704	$14,850,122
Parks Revenues	$2,185,606	$2,360,852	$2,501,317	$2,550,583	$2,694,942	$2,815,442	$2,794,757
Levy Support	$10,307,119	$10,086,884	$10,454,107	$10,373,185	$11,485,734	$11,681,262	$12,055,365

The above Table X.X details the operating budget for the Parks Division, excluding Forestry, Golf, and Olbrich Botanical Gardens. Forestry is excluded, because it maintains right-of-way trees and is funded by the urban forestry special charge. Olbrich Botanical Gardens is excluded due to its public-private relationship with the Oblrich Botanical Society. The Parks Expenditure Authority is the total appropriation for salaries, benefits, supplies, services, and other expenditure types. Parks Revenues is all funding sources other than levy support that is attributed to the Parks operating budget. Levy support is general property tax funding. Approximately 81% of the operational expenses are funded through levy support. Levy support over the 2012 to 2018 period has been relatively stable. Operating funding beyond 2018 will be provided as a part of the City's annual budget process.

Table X.X: 2012-2018 Parks Expenditure Authority By Service Area

Year	2012	2013	2014	2015	2016	2017	2018
Community Services	$2,347,842	$2,562,831	$2,488,140	$2,772,058	$2,509,454	$2,675,092	$2,797,409
Conservation	$357,093	$367,509	$392,626	$391,223	$354,148	$348,790	$357,509
General Parks Maintenance	$9,100,399	$8,938,988	$9,448,751	$8,923,044	$10,459,058	$10,594,233	$10,938,482
Planning and Development	$687,391	$578,408	$625,907	$837,443	$858,016	$878,589	$756,772
Total Expenditure Authority	$12,492,725	$12,447,736	$12,955,424	$12,923,768	$14,180,676	$14,496,704	$14,850,122

Table X.X above further breaks down the total expenditure authority into the four main service areas: community services, conservation, general parks maintenance and planning and development. The funding levels for the four service areas has stayed relatively stable from year-to-year. Changes from year-to-year are caused by changing funding levels, charges to capital projects and changes in employee positions and expense allocations.

Table X.X: 2012-2018 Golf Budgets

Year	2012	2013	2014	2015	2016	2017	2018
Golf Expenditure Authority	$2,247,000	$3,263,842	$3,167,400	$3,016,662	$3,235,333	$3,257,656	$3,245,313
~~Golf Revenues~~	~~$2,247,000~~	~~$3,263,842~~	~~$3,167,400~~	~~$3,016,662~~	~~$3,235,333~~	~~$3,257,656~~	~~$3,245,313~~

Table X.X above details the 2012-2018 operating budgets for the four city golf courses that are managed by the Parks Division. The golf service is budgeted to cover all expenditures with golf course revenues. It does not receive levy support.

~~Approximately 85% of these operational expenses in Table X.X below are funded through the property tax levy. Table X.X identifies that levy support over the 2012 to 2018 period has been relatively stable. Operating funding beyond 2018 will be provided as a part of the City's annual budget process.~~

Overall, if external revenue streams to the City are not significantly reduced, the Parks Division's budgetary outlook for the next five to ten years is positive. Anticipated growth in levy support is not likely to be high, but in conjunction with other revenue opportunities, should provide additional resources for the Parks Division. The City's system of parks and open spaces will continue to expand to meet the demands of an ever-growing population and increased funding will be needed to continue providing quality service delivery. Additionally, increasing volunteerism, growing private fund-raising, and evolving land management practices will also play a significant role in the overarching budgetary picture for Madison Parks.

There are numerous potential funding challenges facing the City in coming years mostly related to declining or stagnating state revenues. It is probable that revenue limitations to the City as a whole will have an adverse impact on funding levels for the Parks Division.

~~The City of Madison offsets a portion of operational costs with revenues generated from items such as shelter fees, dog park licenses, cross country ski permits, concessions, and lease agreements revenues.~~

~~**Table X.X: 2013-2018 Operating Budget**~~[01]

Capital Budget

The Parks Division develops and updates its five-year Capital Improvement Program every year based on a review of existing infrastructure needs, planned development, and resident and aldermanic input. Depending on funding availability and priorities, projects are identified each year to move forward for review and approval as part of the Capital Budget process. This annual adjustment accounts for changes in available funding, as well as infrastructure improvements required as part of new development.

The Capital Budget includes an annual allocation for capital improvement projects. These projects are funded primarily using ten-year general obligation bonds issued by the City with the debt service being paid by the property tax levy. Significant other revenues for Capital projects include private contributions, state grants, federal grants and impact fees. Table X.X~~: 2012-2018 Capital Budget~~ highlights the Capital Budget for the Parks Division for the period 2012-2018. This funding provides for new capital assets and/or improvements to existing park assets. The level of funding has grown for over this period. Table X.X shows significant increases and decreases over the five years of the Capital Improvement Program due to the impact of large projects budgeted in future years. Table X.X~~: 2012-2016 Capital Donations/Contributions~~ identifies the role of donations and contributions becoming an ever more important aspect of capital funding. Given the potential for the overall funding reductions highlighted above, it is important to recognize that future planned capital improvements are still subject to annual appropriation as part of the City's budget process.

Table X.X: 2012-2018 Capital Budget[02]

Year	2012	2013	2014	2015	2016	2017	2018
General Obligation	$4,134,500	$4,651,000	$6,859,000	$4,862,000	$6,791,000	$6,838,240	$9,556,000
Other	$4,512,400	$5,699,000	$2,362,000	$3,950,000	$9,481,000	$7,912,000	$12,152,000
Total	$8,646,900	$10,350,000	$9,221,000	$8,812,000	$16,272,000	$14,750,240	$21,708,000
% Change from Previous Year	-	+19.7%	-10.9%	-4.4%	+84.7%	-9.4%	+47.2%

~~01 Excludes the operating budget for Warner Park Community Recreation Center, Olbrich Botanical Gardens, Aquatics, Forestry and Golf. Numbers are net of park revenues which are shown in Table X.X.~~

~~02~~01 "Other" funding includes grants, impact fees and donations. Budgets are original adopted budgets and do not include budget revisions.

Table X.X: 2012-2016 Capital Donations/Contributions

Category	2012	2013	2014	2015	2016	2017
Donations/Contributions	$99,725	$91,682	$137,219	$383,391	$471,382	$171,814.57
~~% Change from Previous Year~~	~~-~~	~~-8.1%~~	~~+49.7%~~	~~+179.8%~~	~~+22.8%~~	~~-63.5%~~

Table X.X: 2019-2023 Capital Improvement Program[02~~3~~]

Source	2019	2020	2021	2022	2023
General Obligation	$6,579,000	$8,625,750	$8,370,000	$12,558,750	$9,108,750
Other	$3,806,000	$5,521,000	$2,113,000	$5,147,250	$2,201,250
Total	$10,385,000	$14,146,750	$10,483,000	$17,706,000	$11,310,000
~~% Change from Previous Year~~	~~-~~	~~+36%~~	~~-25%~~	~~+68%~~	~~-36%~~

X.X Staffing Analysis

This section of the plan analyzes staffing hours within the past five years in regards to planning, maintenance, and development of the City's general park facilities. It is difficult to make definitive correlations between operating and capital budgets versus additional land and responsibilities as demands placed on staff members differ from year to year, varying in terms of weather, difficulty and size of public works projects, specific requests from alder person and neighborhood associations, etc. Additionally, while staff hours may decrease, corresponding increases in technology and efficiency may reduce the required number of staff hours to complete the work.

The comparison provided in this chapter is purely an informative table. It compares data within a five-year period, corresponding to the required five year updates of the Park and Open Space Plan.

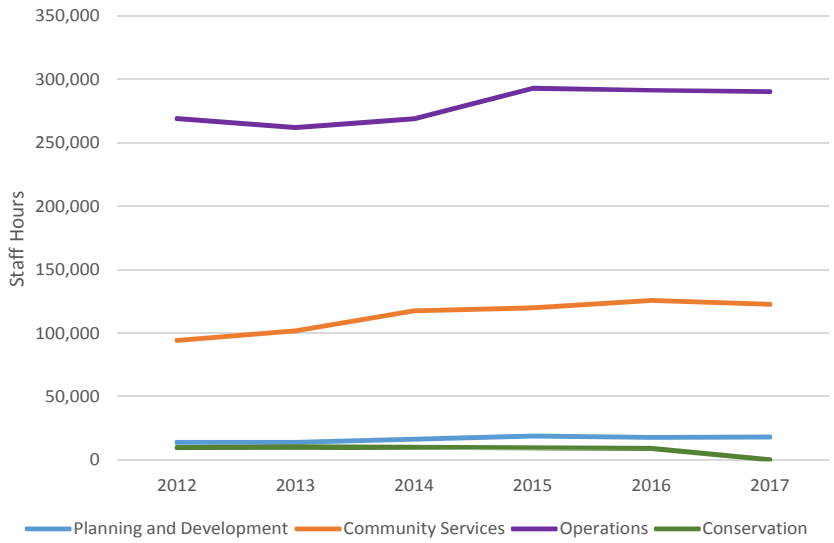
Because of the general analysis of this plan specifically as it relates to parkland, the following service areas ~~divisions~~ within the Parks Division~~e department~~ are used as indicators to compare staff hours with increased park acreage. This analysis does not include staff hours ~~or budgeting~~ for Olbrich Botantical Gardens, Forestry or~~for special facilities such as the Warner Park Community Recreation Center, Forestry (which primarily manages trees in street right of way), Olbrich Botanical Gardens, Aquatics and~~ Golf.

[03~~02~~] The Capital Improvement Program is a plan of future expenditures for Parks Capital needs, which is subject to annual appropriation as part of the Capital Budget process.

Table X.X: 2012-2017 Staff Hours

Year	2012	2013	2014	2015	2016	2017
Community ServicesPlanning and Development	69,92013,796	13,79678,854	15,87688,029	18,75285,356	17,70491,201	18,01289,103
ConservationCommunity Services	9,62894,125	101,79610,253	117,4989,734	119,7469,573	125,7118,848	122,6578,987
General Parks MaintenanceOperations	203,415269,169	197,529261,975	202,568268,832	292,916209,866	291,187210,707	290,368210,163
Planning and DevelopmentConservation	13,7969,588	10,25313,796	15,8769,702	9,57318,752	8,84817,704	8.98718,012
Total	296,759386,678	387,821300,432	411,908316,207	440,987323,547	443,450328,460	440,024326,265
Acreage Change from Previous Year% Change from PreviousYear		+2.25 5.61 Acres.3%	-25.18 9.95 Acres 6.2%	+2.97 -25.18 Acres 7.1%	+35.76 2.78 Acres 0.6%	+6.12 36.11 Acres -0.8%
Acreage Change from Previous Year		+5.61	-9.95	-25.18	+2.78	+36.11

Figure X.X: 2012-2017 Staff Hours



PLACEHOLDER FOR ATHLETIC AND SHELTER RESERVATION HISTORY