2018-2023 Park and Open Space Plan

Madison, Wisconsin

play MADISON PARKS

Photo Courtesy of Wendy Murkve

Accepted by Common Council October 30, 2018

Legislative File ID No. 52928

This page intentionally left blank.

Acknowledgements

The City of Madison Parks Division would like to thank the following for their contributions to the development of this plan:

Paul R. Soglin, Mayor

Prepared by the City of Madison Park Division
Eric Knepp, Parks Superintendent
Kay Rutledge, Assistant Parks Superintendent

Park and Open Space Plan Staff Team
Ann Freiwald, Parks Planning and Development Manager
Sarah Lerner, Project Manager
Sarah Close, Landscape Architect
Cody Oltmans, Park Planning Assistant
Janet Schmidt, Principle Engineer (Storm)

Long Range Planning Subcommittee
Grant J. Frautschi
Edward A. Jepsen
Madelyn D. Leopold
David L. Wallner
Stephen A. Webster

Board of Park Commissioners
Samba Baldeh
Maurice S. Cheeks
Emily R. Gnam
Moira Harrington
Madelyn D. Leopold
Nancy T. Ragland
Venus D. Washington

Special Thanks to Professor Samuel Dennis (University of Wisconsin) & Public Health - Madison & Dane County

This page intentionally left blank.

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 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 natural resources: parks, greenways, and public access to the numerous waterways which 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 system.

Vision Statement

Everyone shall have access to an ideal system of parks, natural resources, and recreational opportunities that enhance the quality of life for residents and visitors.

Mission Statement

Provide an exceptional system of safe, accessible, well-planned and maintained parks, facilities, public cemetery, natural areas, and public shorelines.

Provide affordable opportunities for recreational and educational experiences.

Preserve and expand our urban forest resources through a well-planned and systematic approach to tree maintenance, planting, and natural area management.

Preserve and promote City of Madison parks' historic legacy, as well as its future legacy.

Provide opportunities for cultural interaction by facilitating community and events and through the display of public art.

This page intentionally left blank.

Executive Summary

Chapter One: Introduction....p. 1
1.1 Purpose of the Park and Open Space Plan....p. 1
1.2 Accomplishments....p. 3
1.3 A History of the City of Madison Park System....p. 5
1.4 Planning Process....p. 8
1.5 Public Engagement Strategies....p. 9

Chapter Two: Guiding Lenses....p. 11
2.1 Equity....p. 12
Population....p. 12
Housing....p. 14
Race/Ethnicity....p. 15
Economy and Opportunity....p. 17
2.2 Public Health....p. 19
Physical Health....p. 19
Mental and Emotional Well-being....p. 20
Social Cohesion....p. 21
Environmental Health....p. 21
2.3 Sustainability and Adaptability....p. 22
Environment....p. 23
Economic and Cultural....p. 26
2.4 Conclusion....p. 27

Chapter Three: Engagement Strategies and Outdoor Recreation Needs Assessment....p. 29
3.1 Engagement Strategies....p. 29
Engagement Methods....p. 29
Engagement Demographics....p. 33
3.2 Outdoor Recreation Needs Assessment....p. 35
Engagement Outcomes....p. 35
Top Issues and Concerns....p. 37
Facility Demands....p. 42
3.3 Conclusion....p. 51

Chapter Four: Parkland Inventory....p. 53
4.1 City of Madison Park Classifications....p. 53
Mini, Neighborhood, & Community Parks....p. 54
Conservation Parks....p. 52
Sports Complex....p. 56
Trafficways....p. 56
Open Space....p. 56
Other....p. 56
Special Use Park....p. 56
Greenways....p. 57
4.2 Park Facilities....p. 58
4.3 Other Park and Open Space Facilities....p. 60
University of Wisconsin....p. 60
Public School Grounds....p. 62
Dane County Parks....p. 62
Wisconsin Department of Natural Resources....p. 64
Other Parks/Conservancy Areas....p. 62
4.4 Private Recreational Facilities....p. 64
4.5 Conclusion....p. 64

Chapter Five: Parkland Access....p. 65
5.1 Method One: Parkland Acreage and Parkland per Capita....p. 66
5.2 Method Two: Population Density and Use....p. 68
5.3 Method Three: Service Area....p. 70
Mini and Neighborhood Park Service Areas....p. 68
Community Park Service Areas....p. 74
5.4 Method Four: Access Analysis....p. 76
Walkability....p. 76
Public Transportation....p. 78
School Influence on Walkability and Transportation Access..p. 79
5.5 Conclusion....p. 82

Chapter Six: Relevant Plans..... p. 83
6.1 How this Plan Relates to Other Plans..... p. 83
6.2 Statewide Comprehensive Outdoor Recreation Plan..... p. 84
6.3 Dane County Parks and Open Space Plan..... p. 90
6.4 Intergovernmental Agreements..... p. 91
6.5 Imagine Madison City of Madison Comprehensive Plan..... p. 93
Changing Demographics..... p. 93
Changes in Housing and Neighborhoods..... p. 93
Desire for Trails and Increased Connectivity..... p. 94
Strong Community Value in Culture and Character of Neighborhoods..... p. 94
Concerns Regarding the Environment..... p. 94
6.6 Neighborhood Development Plans..... p. 94
6.7 City of Madison Downtown Plan..... p. 96
6.8 Conclusion..... p. 98

Chapter Seven: Park Development Resources..... p. 99
7.1 Parks Division Capital Budget..... p. 99
7.2 Funding the Capital Budget..... p. 100
General Obligation Bonds..... p. 100
Parkland Dedication and Impact Fees..... p. 100
Donations and Partnerships..... p. 104
Grants..... p. 105
Other..... p. 105
7.3 Conclusion..... p. 106

Chapter Eight: Park Operational Resources..... p. 109
8.1 Parks Division Operating Expenses..... p. 109
8.2 Golf Enterprise Operating Expenses..... p. 112
8.3 Parks Division Staff..... p. 112
Community Services..... p. 114
Finance and Administration..... p. 114
Olbrich Botanical Gardens..... p. 114
Operations..... p. 114
Planning and Development..... p. 114
Public Information Office..... p. 115
8.5 Partnerships and Volunteers..... p. 115
Madison Parks and Volunteers..... p. 116
8.6 Conclusion..... p. 117

Chapter Nine: Recommended Strategies..... p. 119

Appendix A: Works Cited..... p. 125
Appendix B: Engagement Summary Data..... p. 131
Appendix C: Supplemental Tables..... p. 153
Appendix D: Additional Maps..... p. 179
Appendix E: ADA Accessibility..... p. 191
Appendix F: Historic and Landmark Parks..... p. 199
Appendix G: 2018 Capital Budget..... p. 203

FIGURES

1.1: Catalogued Native American Legacy....p. 6
1.2: Past City of Madison Park and Open Space Plans....p. 7
1.3: Project Timeline....p. 8
1.4: Engagement Strategy Matrix....p. 9
2.1: Population Trends and Forecasts for Madison and Dane County....p. 12
2.2: Projected Population by Age Bracket....p. 13
2.3: Owner Occupancy Comparison Across Race/Ethnicity....p. 14
2.4: Owner Occupancy Comparison....p. 14
2.5: Number of Residential Units Added by Year (City of Madison).p. 14
2.6: 2006 and 2014 Race and Ethnicity....p. 15
2.7: Race and Ethnicity Trends for MMSD Students....p. 15
2.8: Median Income Comparison....p. 17
2.9: Household Income by Race/Ethnicity....p. 17
2.10: Percentage of Residents Below Federal Poverty Threshold....p. 18
2.11: Dane County Water Quality Beach Closures by Year....p. 24
3.1: Engagement Numbers....p. 31
3.2: Ages of Respondents from Engagement Methods....p. 33
3.3: Ethnicity/Race Demographics of Engagement Methods....p. 34
3.4: Top Activities as Reported per Engagement Method....p. 36
3.5: Top Comments During Engagement Process....p. 38
3.6: Online Survey Response....p. 39
3.7: Online Survey Question Response....p. 40
3.8: 2012-2017 Street Use Permits....p. 48
3.9 2017 Permit Type Breakdown....p. 48
5.1: Parkland Access Analysis Methods....p. 65
5.2: NRPA Guidelines Compared to City of Madison Acreage....p. 66
6.1: Planning Document Organizational Hierarchy....p. 83
6.2: Dane County Annual Trail Permit Sales....p. 90
6.3: Dane County Annual Recreation Permit Sales....p. 90
7.1: Comparison of 2002 and 2016 Parkland Dedication Requirements....p. 101
7.2: Example Scenario of Park Impact Fees vs. Park Development Costs....p. 104
7.3: 2009-2016 City of Madison New Residential Construction....p. 106
8.1: Parks Division Organizational Structure....p. 113

TABLES

1.1 Accomplishments from the 2012-2017 POSP....p. 3
1.2: Madison's Historical Population....p. 5
2.1: Physical Health Indicators Compared Across Madison, Dane County, Wisconsin, and the United States....p. 20
2.2: Mental Health Indicators....p. 21
2.3: Economic Impacts of Madison's Urban Forest....p. 25
3.1: 2017 Top Park Reservations by Sport....p. 42
3.2: 2017 Top Twenty Reserved Parks for Athletics....p. 43
3.3: Athletic Organization Recreation Survey Results....p. 43
3.4: 2017 Top Twenty Reserved Shelters....p. 45
3.5: 2017 Top Twenty Reserved Parks for Events....p. 47
3.6: 2015-2017 Permit Sales....p. 50
4.1: City of Madison Park Type Classification Descriptions....p. 53
4.2: Typical Park Facilities by Park Classification....p. 54
4.3: 2017 Facility Inventory Summary....p. 58
4.4: City Park Facts- Beaches....p. 59
4.5: City Park Facts- Pickleball Courts....p. 59
4.6: City Park Facts- Playgrounds....p. 59
4.7: City Park Facts- Community Gardens....p. 59
5.1: NRPA Metrics Compared to Madison Park Acreage....p. 66
5.2: City of Madison Parkland Acreage....p. 67
5.3: Parks with Highest Number of People Within Half Mile....p. 68
5.4: NRPA Service Area by Park Type....p. 70
5.5: Comparison of School Influence on Parkland Access and Demand....p. 79
6.1: 2005 Regional Recreation Supply Shortages for the Southern Gateways Region....p. 85
6.2: 2011 Regional Recreation Supply Shortages for the Southern Gateways Region....p. 85
6.3: Draft 2018 Recreation Opportunities Analysis- Top 10 Most Frequently Identified Recreation Opportunities Needed in the Southern Gateways Region....p. 85
6.4: 2018 Draft Recreation Opportunities Analysis- Anticipated Future Recreation Needs for the Southern Gateways Region....p. 86
6.5: 10 Most Popular Outdoor Recreation Activities....p. 88
6.6: Participation Rates for Developed-setting Land Activities....p. 89
6.7: Participation Rates for Outdoor Sports....p. 89

TABLES (continued)

6.8: Participation Rates for Snow and Ice-based Activities.....p. 89
6.9: Participation Rates for Nature-based Land Activities.....p. 89
6.10: Participation Rates for Viewing/Learning Activities.....p. 89
6.11: Participation Rates for Water-based Activities.....p. 89
6.12: Neighborhood Development Plan Proposed Park Acreages as of 1/1/2018.....p. 96
7.1: 2012-2017 Capital Budget .....p. 99
7.2: 2018 Adopted Capital Budget &2019-2023 Capital Improvement Program.....p. 100
7.3: Parkland Dedication Analysis.....p. 101
7.4: 2012-2017 Collected Park-Land Fees.....p. 102
7.5: 2012-2017 Collected Park-Infrastructure Fees.....p. 103
7.6: 2012-2017 Collected Donations/Contributions.....p. 105
8.1: 2012-2017 Parks Division Operating Expenses by Funding Source.....p. 110
8.2: 2015-2017 Operating Budget Revenue Support by Section....p. 107
8.3: 2012-2017 Golf Enterprise Operating Budget.....p. 108
8.4: 2015-2017 Parks Operating Budget by Section.....p. 109
8.5: 2017 Notable Volunteer Events.....p. 112

EXHIBITS

Exhibit 1: City of Madison Park and Open Space Inventory Map.....p. 2
Exhibit 2: City of Madison Demographics by Race/Ethnicity.....p. 16
Exhibit 3: POSP Engagement Locations.....p. 30
Exhibit 4: Park Reservations - Athletics.....p. 44
Exhibit 5: Park Reservations - Shelters.....p. 46
Exhibit 6: Park Event Days.....p. 49
Exhibit 7: City of Madison Parks by Type.....p. 55
Exhibit 8: Other Park and Open Space Facilities.....p. 61
Exhibit 9: Population Served by Park.....p. 69
Exhibit 10: Mini and Neighborhood Park Deficiencies Based on Service Areas.....p. 72
Exhibit 11: Elementary and Middle School Influence on Park Deficiencies.....p. 73
Exhibit 12: Community Park Deficiencies Based on Service Areas.....p. 75
Exhibit 13: Madison Parks Walkability Analysis.....p. 77
Exhibit 14: Madison Parks Walkability Analysis - Residents Below Poverty Level.....p. 80
Exhibit 15: Public Transportation Analysis - Residents Below Poverty Level.....p. 81
Exhibit 16: Intergovernmental Boundary Agreements.....p. 92
Exhibit 17: New Parkland Identified in Neighborhood Development Plans.....p. 95

Executive Summary

The 2018-2023 Park and Open Space Plan (POSP) assists City Boards, Commissioners, City agencies and staff, other governmental agencies, interested residents, and volunteers in decision-making related to park development and operations policies.

The development of this document included a robust public engagement process. A record number of over 30,000 contacts were made through the planning process, the highest number of people engaged ever in the development of the City's Park and Open Space Plan, and amongst the highest number of engaged nationally for any municipally developed plan document.

This document serves as a supplement to the *Imagine Madison Comprehensive Plan* and uses the four crosscutting lenses of equity, public health, sustainability, and adaptability to select and prioritize recommendations.

This plan includes review of the extensive opportunities provided by the existing City of Madison parks system, and identifies additional public land provided by Dane County, the State of Wisconsin, neighboring municipalities, and educational institutions. It incorporates four assessments to identify areas of uneven access, including National Recreation and Park Association standard analyses, as well as innovative approaches that identify walkability to parks along paths and sidewalks.

Finally, the plan describes the resources available and those that are needed to support the future system of parks and open spaces in conjunction with population increase, changing cultural and recreational preferences, equity, and fiscal and environmental pressures.

In addition to extensive supportive appendices, the plan closes with recommended strategies designed to achieve the plan's vision. The strategies included in this plan direct future park and open space development and are influenced by one or more of the guiding lenses.

The plan, adopted by the Board of Park Commissioners, is evidence-based and must be updated every five years. This plan is an update to the 2012-2017 Park and Open Space Plan that was adopted on May 15, 2012.

This page intentionally left blank.

Chapter One: Introduction

1.1 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 (POSP) serves as a guide to inform public policy and system-wide park facility decisions.

This Park and Open Space Plan supports City Boards, Commissions, City agencies and staff, other government 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 City financing and operations.

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

This plan does not address the City's bicycle and pedestrian system which are addressed in separate plans, with guidance provided by the Park and Open Space Plan.

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

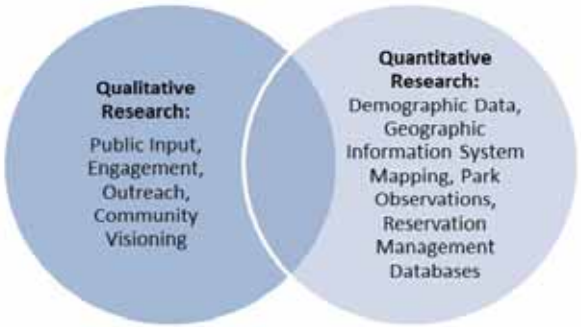
Exhibit 1 provides an inventory map of the City of Madison's park and open spaces.

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

The plan has been subject to public review, 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.

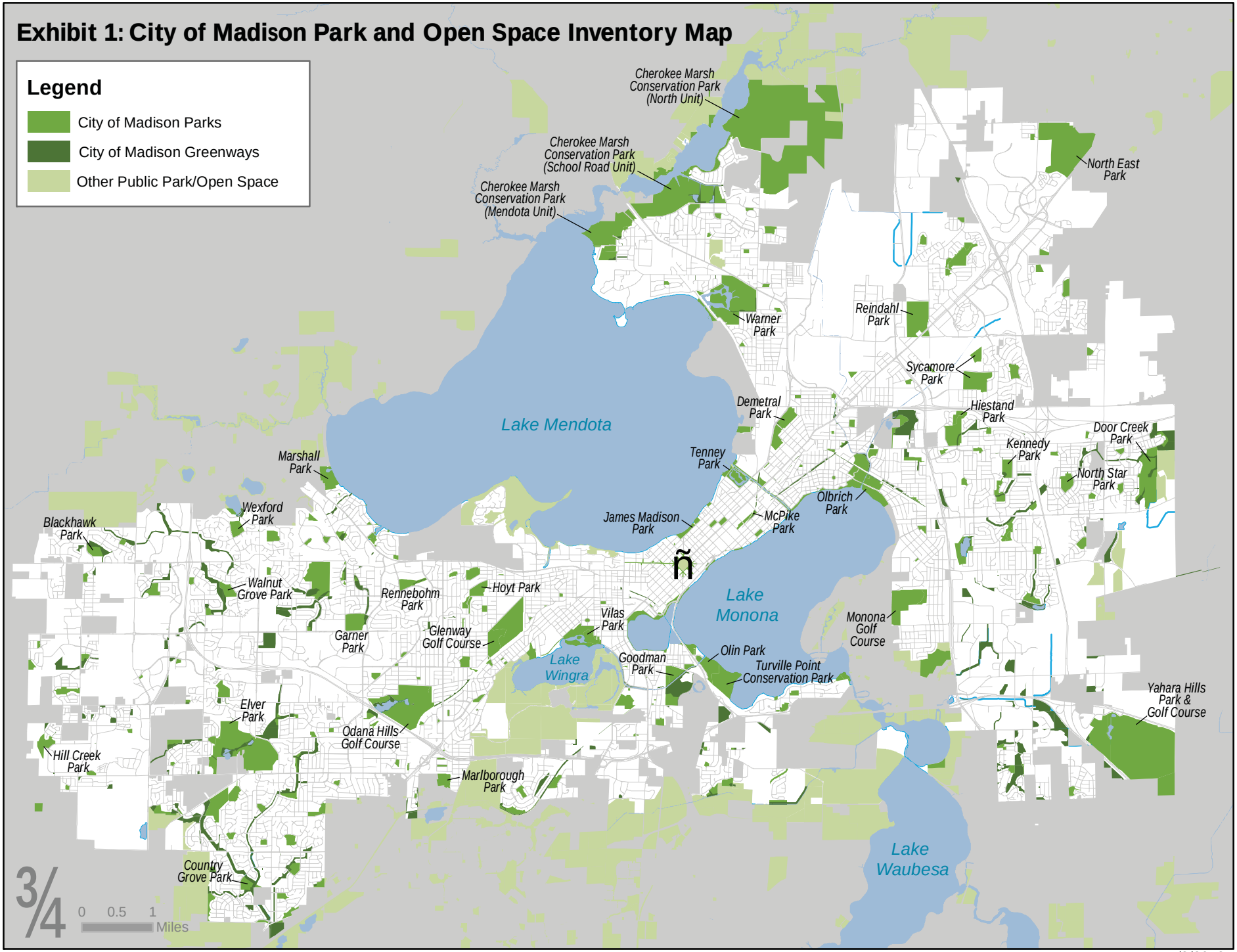
Maintaining a current Park and Open Space Plan is a prerequisite for participation in Federal and State park and open space financial aid programs. The City must continue to remain eligible for these program funds to accomplish many identified park, recreation, and open space objectives.



In this Chapter

Purpose of the Parks and Open Space Plan
Accomplishments
History of Madison Parks
Planning Process
Public Engagement Strategies

Exhibit 1: City of Madison Park and Open Space Inventory Map



1.2 Accomplishments

The past five years have included significant improvements to the City's park system. Appendix C, Table 2: 2012-2017 Park Development Accomplishments highlights substantial achievements since the last Park and Open Space Plan. The table below identifies the City's effort to fulfill the recommendations of the 2012-2017 Park and Open Space Plan.

Table 1.1: Accomplishments from the 2012-2017 Park and Open Space Plan

Completed. Advancements since 2012-2017 POSP On-going project.

Recommendation from the 2012-2017 Plan	Action
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 in 205 acres of conservation parks; seeded native seed mix on 30 acres of prairie and oak woodland; performed controlled burns on 395 acres of conservation land; began 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.
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, a non-profit organization dedicated to acquiring financial resources through contributions and grants to make park improvements and support park programming. The Parks Division also supplemented the efforts of over 1,994 park volunteers.

Develop reservable recreational fields that can be used for multiple purposes.	Underway.
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.
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, 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 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 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, Olbrich, 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.

1.3 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 Taychopera (land of four lakes) and considered it their home. However, the Ho-Chunk were forced to move west of the Mississippi River after the Black Hawk War of 1832, a brief conflict between the United States and Native Americans (led by Black Hawk).

Table 1.2 Madison's Historical Population

Year	Population
1829	<200
1851	1,600
1900	19,000
1910	25,531
1930	57,899
1960	126,706
1990	190,816
2016	252,551

Source: Historic Madison, Inc.

James Doty visited Madison in 1829, and in 1836 drew plats for the Four Lakes area. He also 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.

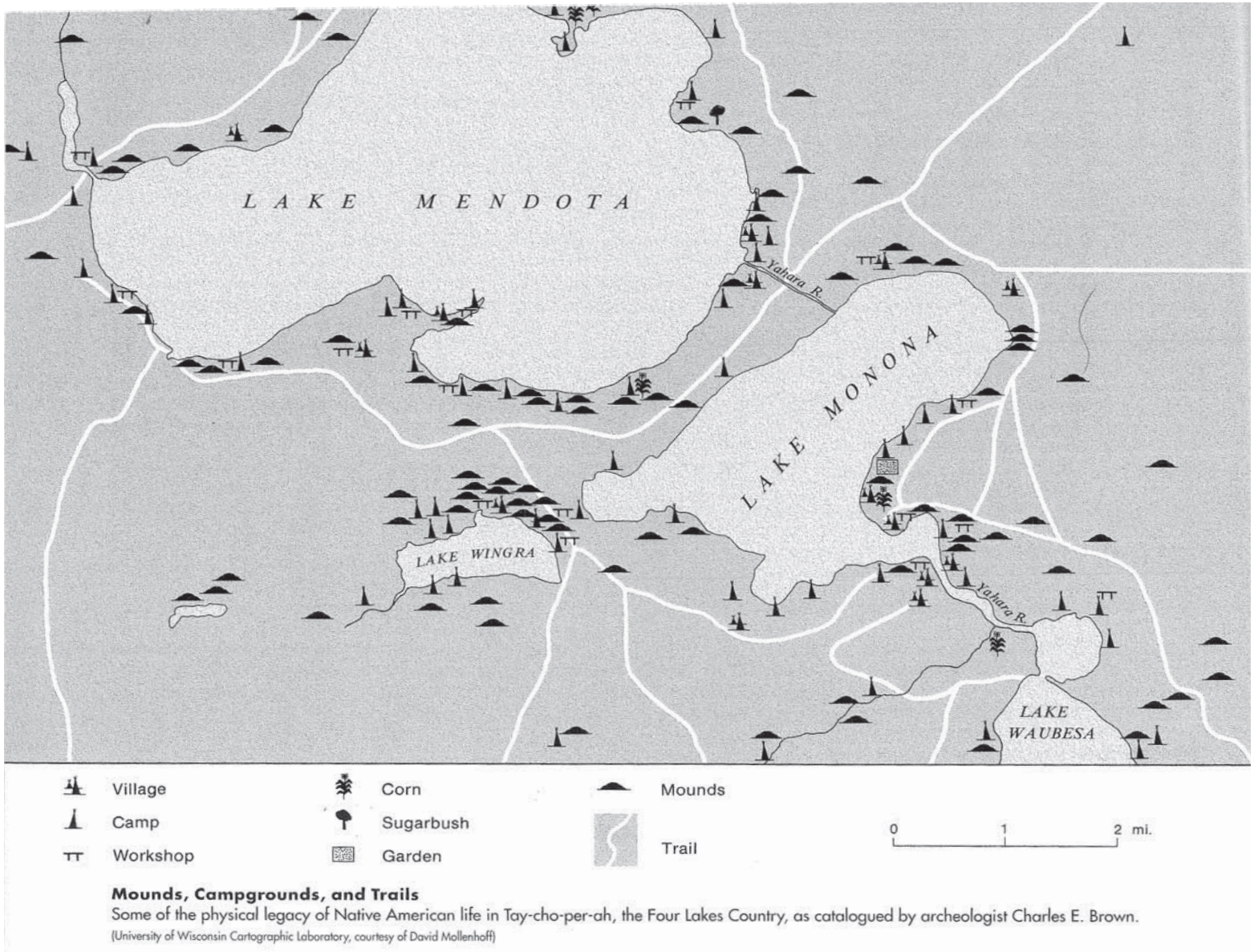
In 1910, the Association engaged the services of the famous landscape architect, John Nolen, to prepare a comprehensive plan for the improvement and future growth of the City. In 1911, Nolen's plan was published in which he recommended that the existing 150 acres of parkland and miles of pleasure drives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

Figure 1.1: Catalogued Native American Legacy



The Dane County 2018-2023 POSP includes a recommendation from Earth/Art® Resources to explore the feasibility of a Earth Day Heritage public lands/water trail to celebrate and highlight the unique cultural legacy of Dane County.

Source: Charles E. Brown, Lake Mendota, Prehistory, History and Legends, (Madison: The Wisconsin Archeological Society, 1933)

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.

Today, the City of Madison Parks Division manages over 270 parks totaling more than 5,600 acres of land (shown on Exhibit 1) and is responsible for over 6,000 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 City-funded recreational programming. Recreational programming is primarily offered through the Madison Metropolitan School District and other community recreational organizations.

The Madison Parks Foundation, formed in 2002, augments 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.

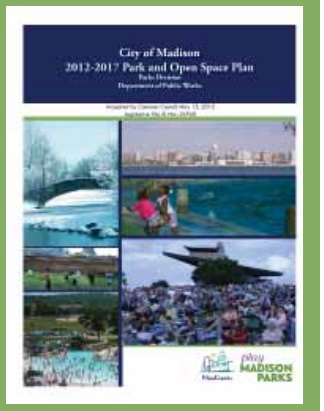
Figure 1.2: Past City of Madison Park and Open Space Plans

1961

1984

1991

1997



2012

1.4 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.

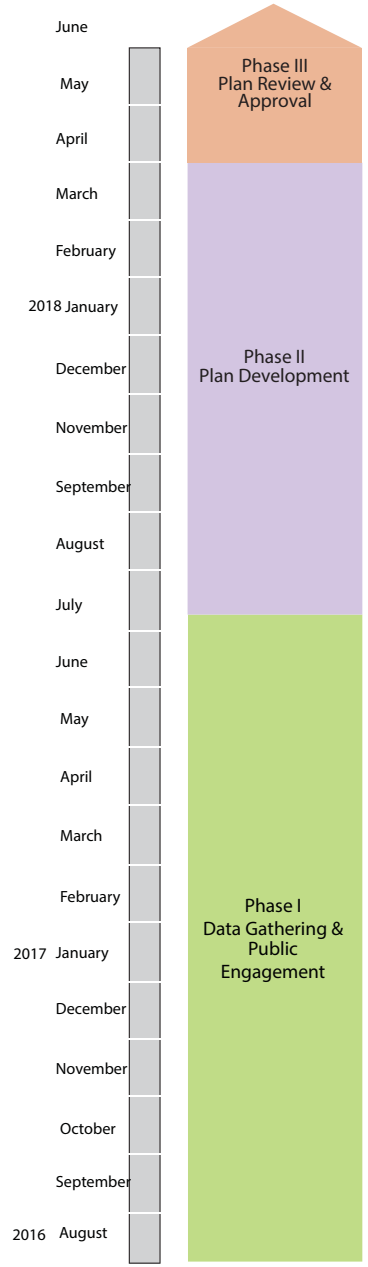
Phase II: Plan Development
Plan Development overlapped with Phase I and occurred from July 2017 to February 2018 with guidance from the Parks Long Range Planning Subcommittee.

Phase III: Plan Review and Approval
From March 2018 until adoption, 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.

Photo: Community Visioning Session at Alicia Ashman Library

Photo: Students designing a park as part of a planning activity at Lussier Community Education

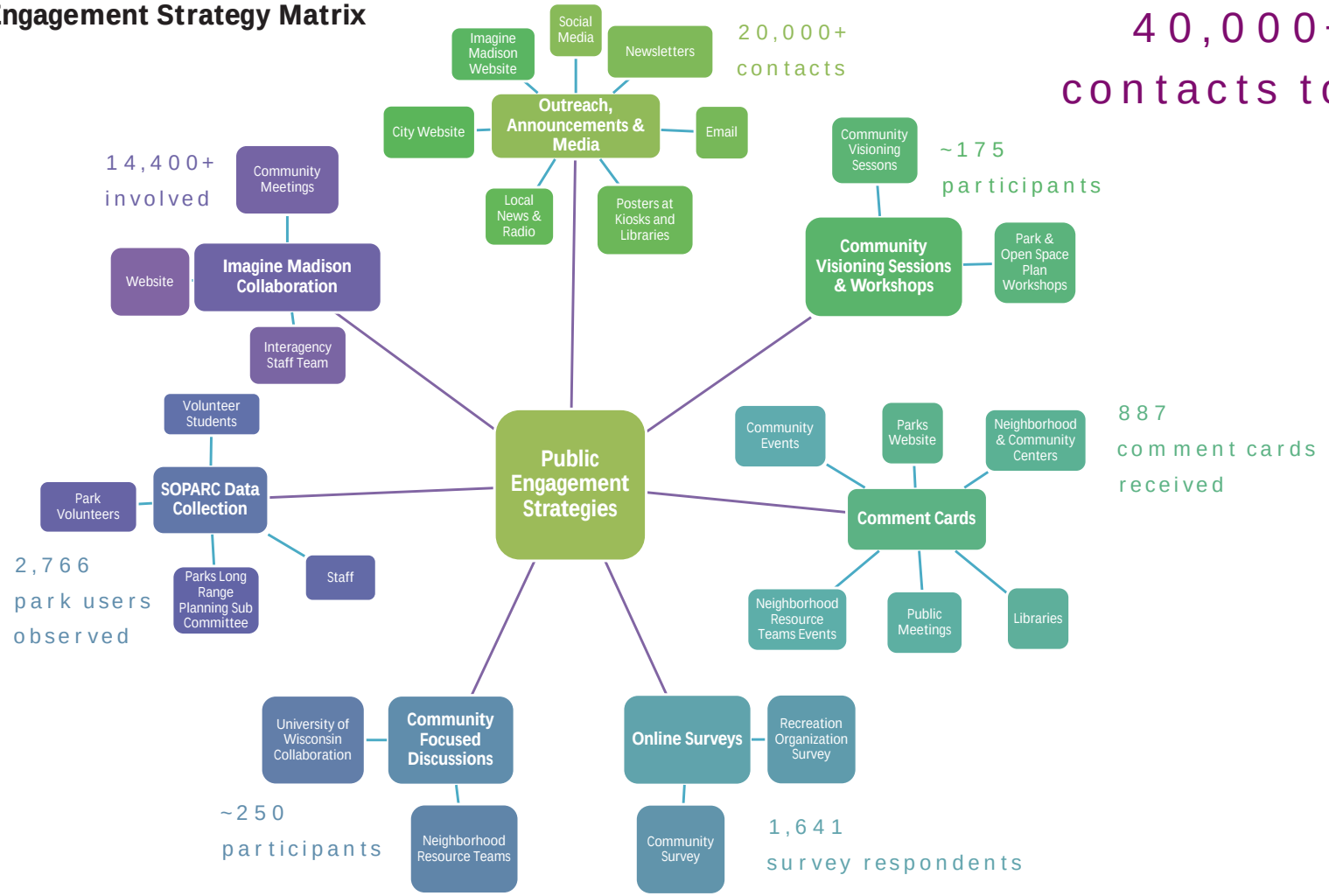
Figure 1.3: Project Timeline



1.5 Public Engagement Strategies

Recognizing the limitations and bias associated with no random samples in the public input processes, the Park and Open Space Plan engagement process incorporated various methods to increase opportunities for public participation. These included hosting community visioning sessions, 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* engagement process related specifically to park and open space improvements are incorporated into this plan. Chapter Three describes the engagement strategy in further detail.

Figure 1.4: Engagement Strategy Matrix



This page intentionally left blank.

Chapter Two: Guiding Lenses

In alignment with the *Imagine Madison Comprehensive Plan* update, the Park and Open Space Plan investigates how to improve Madison Parks through the lenses of equity, public health, adaptability and sustainability. The definition of each lens was defined as part of the process of developing the Comprehensive Plan.

The four icons below are used throughout this plan to identify recommendations that may be associated with one or more of the plan's guiding lenses. The purpose of this chapter is to review these lenses and discuss their relevance to park planning. Lenses provide an opportunity to think in-depth of the ideals that Madison Parks strives to achieve and to inform the dialogue of these large goals in context of limited resources, balancing objectives, and occasionally competing priorities. The following discussion describes these goals and reviews why and how they relate to the Park and Open Space Plan.

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.

In this Chapter
Equity
Public Health
Sustainability & Adaptability
Conclusion

2.1 Equity

A focus on equity is imperative to achieving the Parks Division's vision of providing parks to all Madison residents. The Parks Division recognizes that thoroughly understanding the population it serves is the first step towards developing an inclusive parks system. This section reviews Madison's existing demographic profiles and anticipated shifts, and the implications of these changes to park planning.

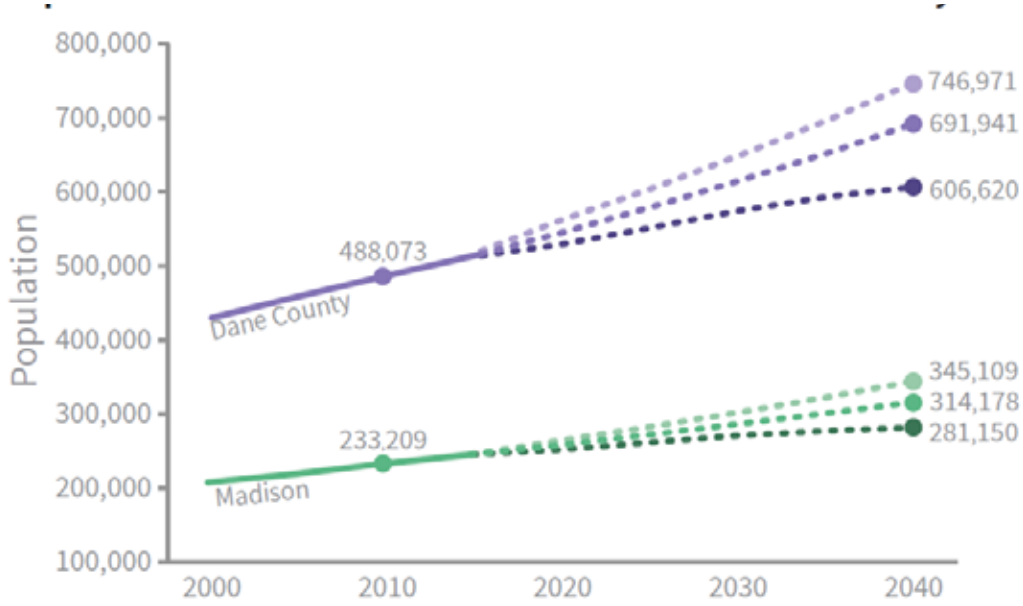
Population

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% since 2000, by 6% 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 grow up to 345,109[01], 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 age segment. 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 is expected to grow substantially over the next few decades. The population of residents aged 65-84 is projected to nearly double between 2010 and 2040, increasing from 8.68% in 2010 to 16% of the overall population by 2040. Residents aged 85 or older, who only made up 1.59% of the population in 2010, will account for 3.91% by 2040 (Wisconsin Department of Administration, 2017).

Figure 2.1: Population Trends and Forecasts for Madison and Dane County



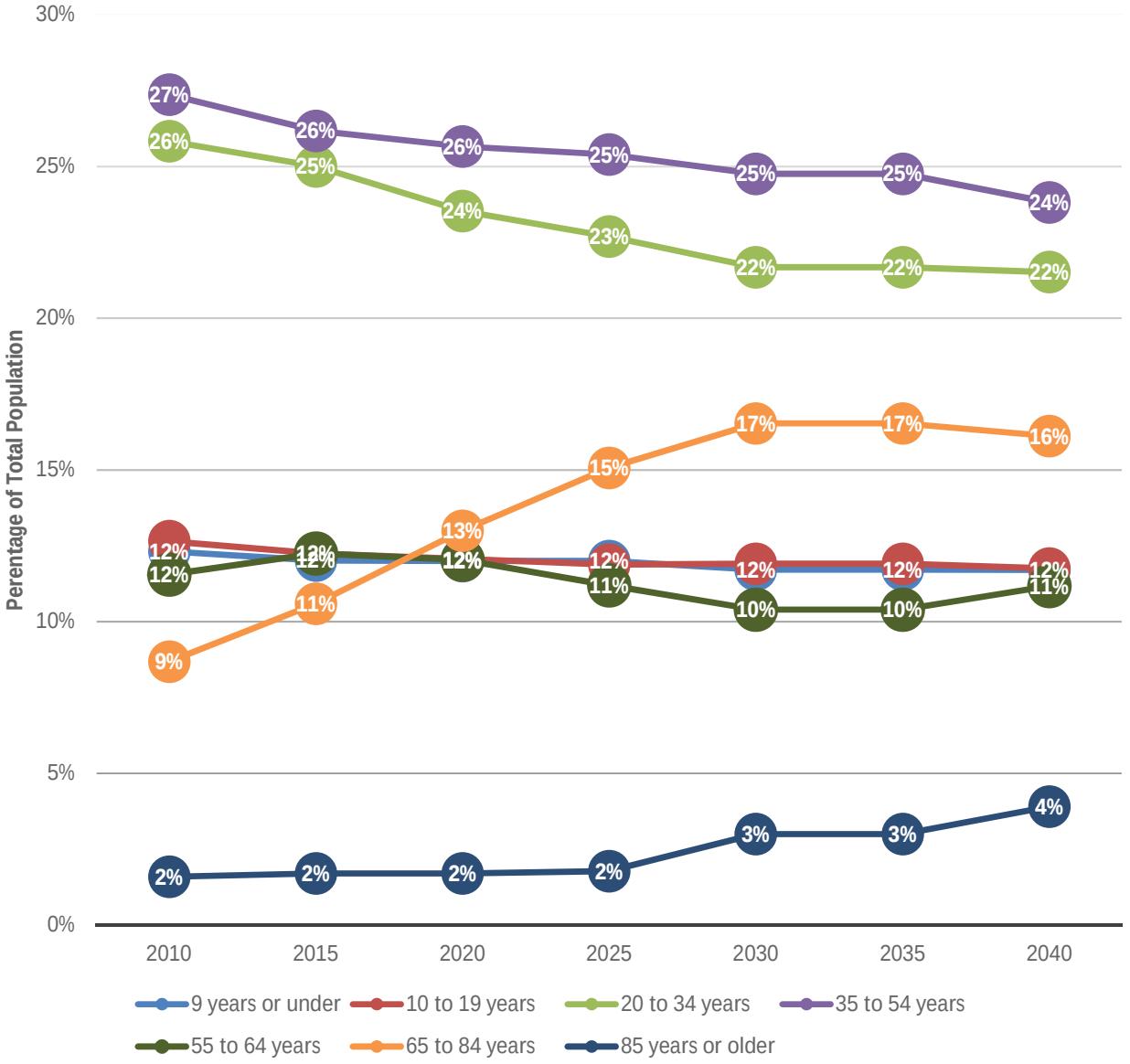
Source: Egan - Robertson, 2013

01 Low estimates from Wisconsin D.O.A. Demographic Services Lab Population Projects. High estimates based on 5-year growth trend according to U.S. Census Bureau; Middle estimate based on average of 5-, 15-, and 25-year growth rates from U.S. Census and Wisconsin D.O.A. Projections through 2040.

Conversely, Figure 2.2 shows that the population of younger residents is anticipated to decline. This nationwide demographic trend may result in changing recreational preferences. As the number of older residents grows, parks and park amenities need to be both accessible and attractive to these individuals. The City's priorities for accessible improvements is available in Appendix E: ADA Accessibility.

Photo: Park visitor playing pickleball

Figure 2.2: Projected Population by Age Bracket



Source: Wisconsin Department of Administration, 2017

Housing

Figure 2.3 shows 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% of all occupied dwellings in Madison were rental units, compared to only 37% 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 2.4).

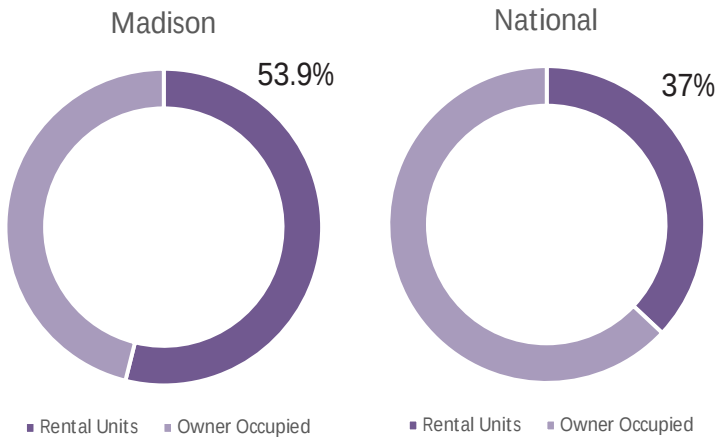
In the City of Madison, homeownership is disproportionately lower for communities of color compared to white households. Figure 2.3 shows that communities of color represent 23% of owner-occupied housing compared to 54% for individuals who identify as white.

Multi-family units typically lack outdoor spaces and their occupants rely more heavily on public park and open spaces to serve their recreational needs. As the number of multi-family unit residences increase, 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, and will continue to ensure that their needs are incorporated into the planning and design process.

Figure 2.3: Owner Occupancy Comparison Across Race/Ethnicity

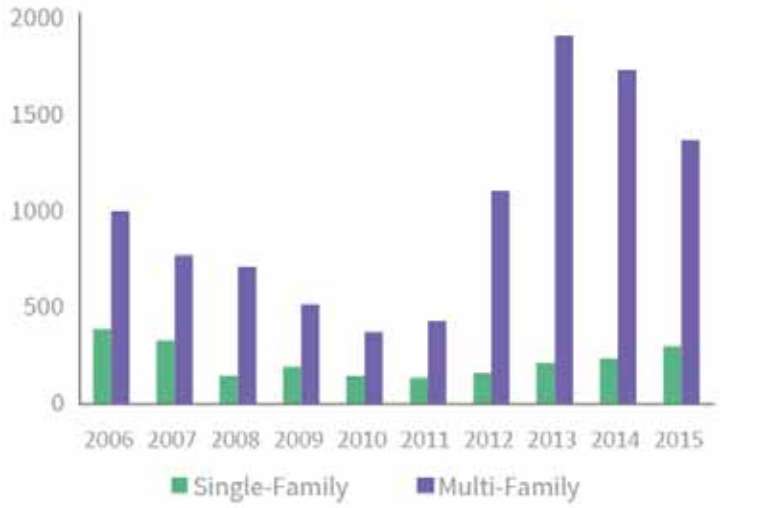
Source: City of Madison, 2016

Figure 2.4: Owner Occupancy Comparison



Source: U.S. Department of Housing and Urban Development, 2017

Figure 2.5: Number of Residential Units Added by Year (City of Madison)



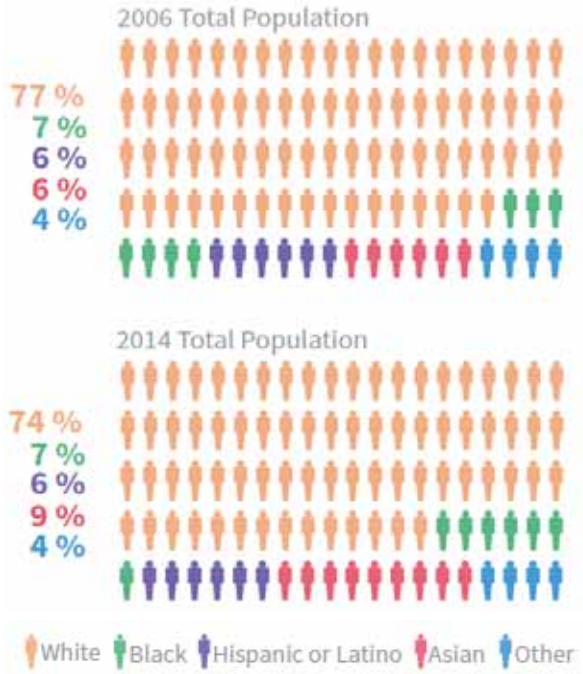
Source: City of Madison, 2016

Race/Ethnicity

Numerous studies have documented that different races often have distinct park use patterns and preferences for open space (Gobster, 2002; Salk, 2014). The *Imagine Madison Comprehensive Plan* posits 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 data. 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 2: City of Madison Demographics by Race/Ethnicity).

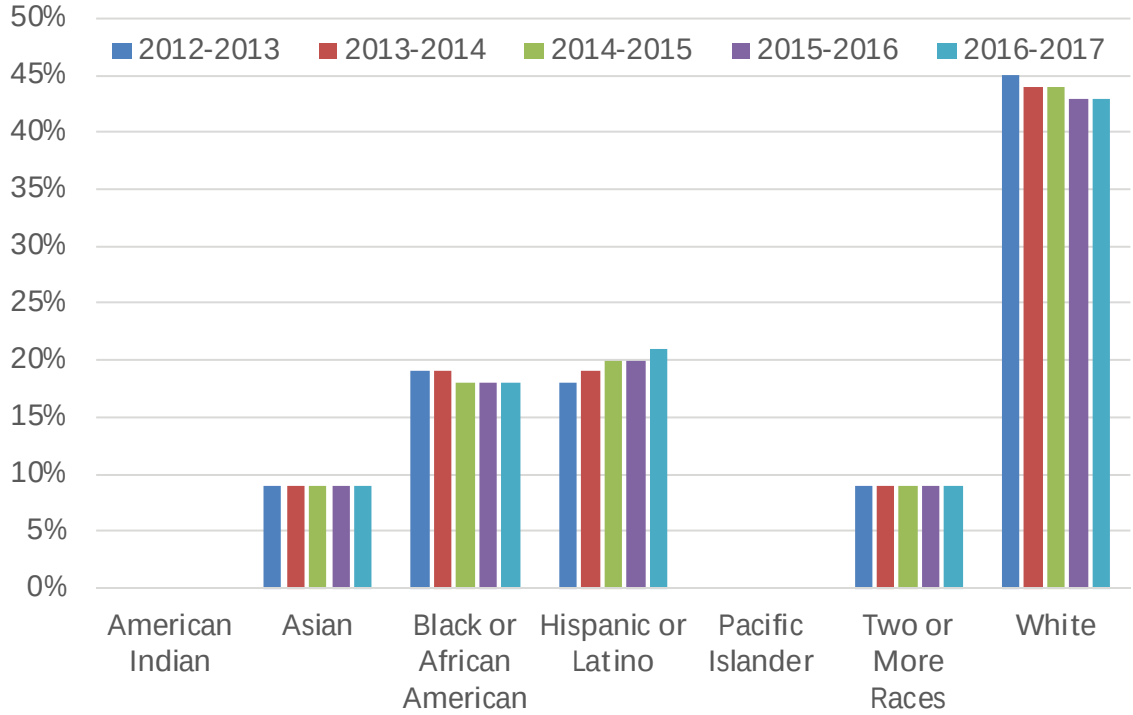
This plan utilized the City of Madison's Racial Equity and Social Justice (RESJ) tool. This tool is design to "facilitate conscious consideration of equity and examine how communities of color and low-incomes populations will be affected by a proposed action/decision of the City" (City of Madison, RESJ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

Figure 2.6: 2006 and 2014 Race and Ethnicity



Source: City of Madison, 2016

Figure 2.7: Race and Ethnicity Trends for MMSD Students



Source: Chavira, 2016

Exhibit 2: City of Madison Demographics by Race/Ethnicity

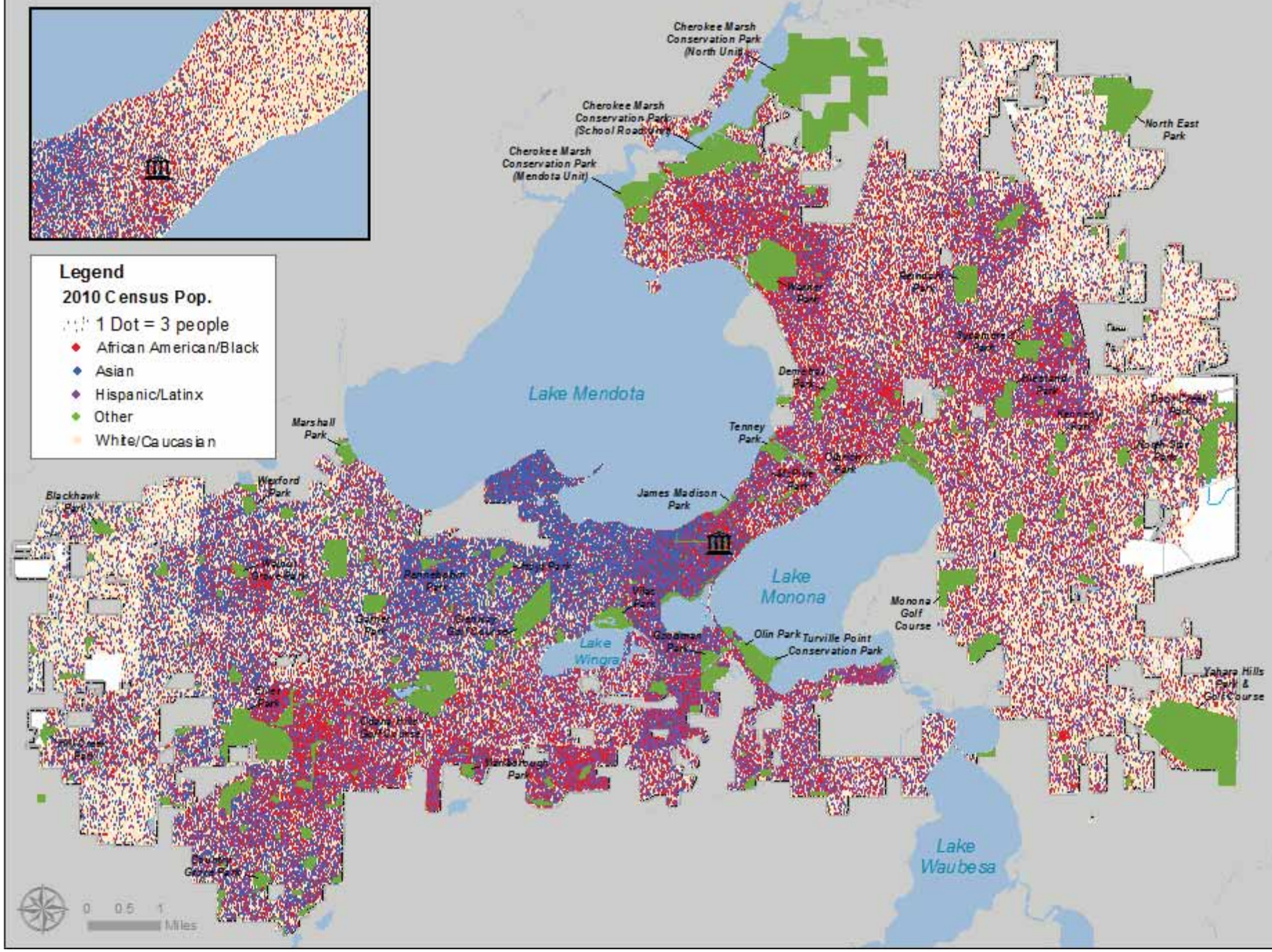
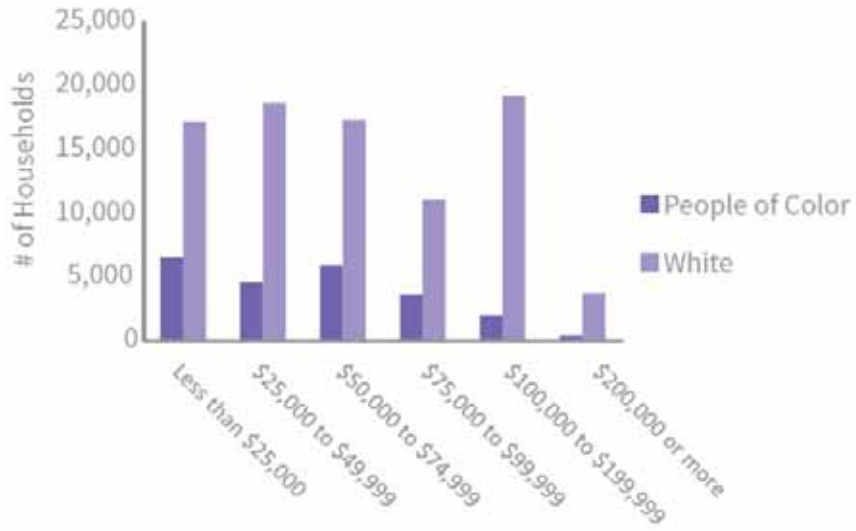


Figure 2.8: Median Income Comparison

Source: U.S. Census Bureau, 2016.

Figure 2.9: Household Income by Race/Ethnicity



Source: City of Madison, 2016.

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% (U.S. Census Bureau, 2015).

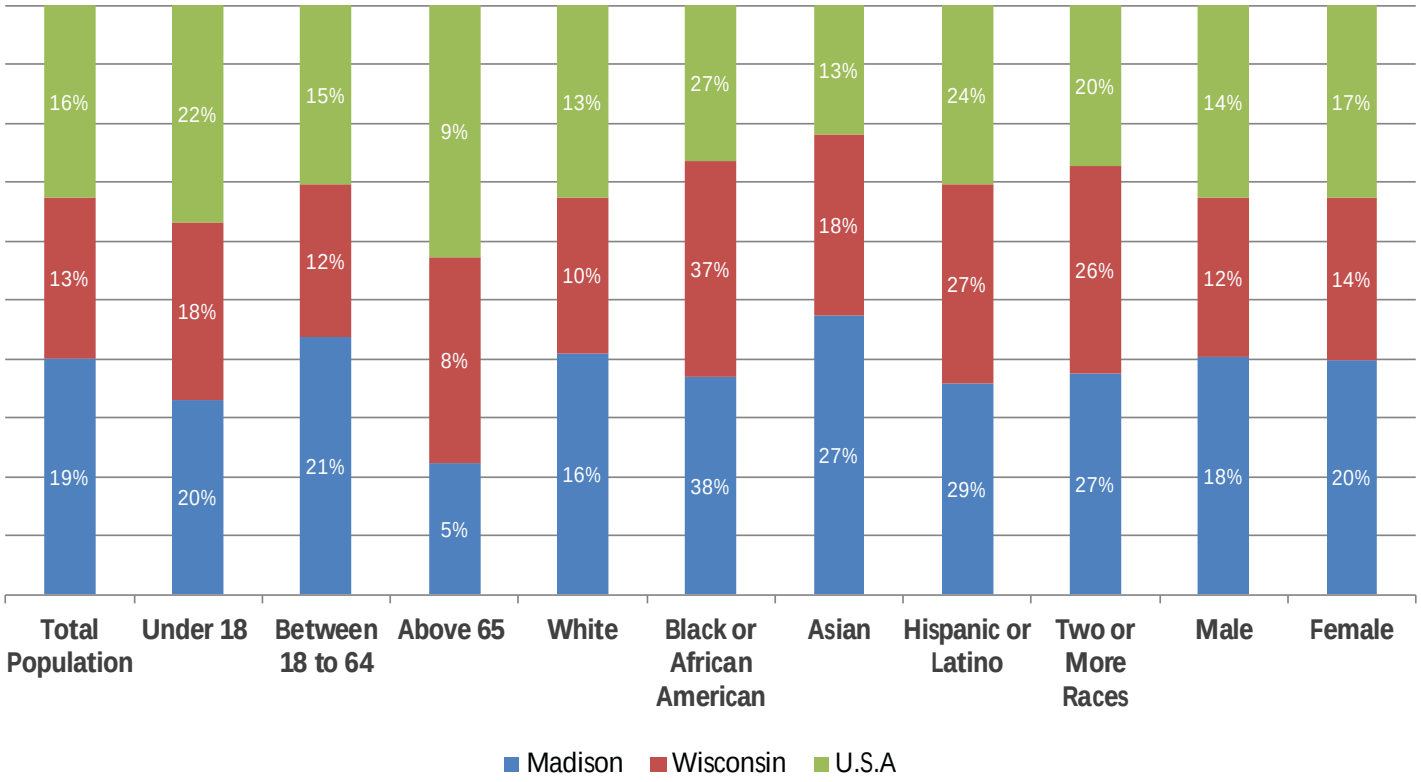
Income

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 2.8 illustrates Madison's above-average levels of income compared to state and national levels when measured on a median household, median family, and per capita basis.

Poverty

Despite these statistics, 19% of Madison residents were below the federal poverty level in 2015 (U.S. Census Bureau, 2015). This number is 6% higher than the statewide rate, and 3.5% 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. According to the 2015 American Community Survey, 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. Figure 2.9 shows that a greater percentage of communities of color have incomes less than $100,000 when compared to white communities.

Figure 2.10: Percentage of Residents Below Federal Poverty Threshold



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 cardiovascular-related conditions (The State of Obesity, 2017).

Figure 2.10 identifies poverty statistics for various demographics at the local, state, and national level. Madison may be considered a relatively affluent 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 people.

2.2 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 City of Madison. According to the World Health Organization, health may 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 to park planning allows the Parks Division to boost the positive impacts associated with a robust, equitable, and safe parks system. Health benefits which have been shown to be associated with parks and open spaces include:

- Physical health
- Mental and emotional well-being
- Social cohesion
- Environmental health

Physical Health

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). Parks provide an opportunity for park users 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, Coutts et al., 2010; Takano et al., 2002). 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 2.1 on the following page illustrates the varying prevalence of obesity in Madison also includes medical conditions, which may have reduced risks with increased levels of physical activity.

Photo: Enjoying a basketball game at Penn Park

Table 2.1: Physical Health Indicators Compared Across Madison, Dane County, Wisconsin, and the United States

Measure	Madison	Dane County	Wisconsin	U.S.	Data Year
Adults age 18+ who are obese	23.5%	****	28.2%	29.8%	2014
Children, 2 to 4 years old WIC participants who are obese	****	13.0%	15.2%	15.9%	2010
7th-12th graders who are obese	****	14.1%	14.9% (2011)	15.2% (2011)	2012
Adults age 18+ who are sedentary	17.1%	****	22.2%	26.2%	2014
Population with access to exercise opportunities	****	95.0%	81.0%	62.0%	2014
Adult Diabetes Rate	6.3%	****	8.5%	9.9% (2015)	2014
Hypertension Rate in Medicare Population	****	43.5%	48.5%	55.0%	2015
Adult Asthma Rate	****	9.8%	9.7%	14.3% (2015)	2014

Source: The State of Obesity, 2017 County Health Rankings, Healthy Dane

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).

Mental and Emotional Well-being

Mental and emotional well-being are essential to living a healthy life, and parks, open spaces, and natural landscapes have significant potential to boost mood (Bedimo-Rung et al., 2005). Table 2.2 shows 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 may lead to improved mood, reduced anxiety, and help reduce symptoms of depression when coupled with physical activity (Bedimo-Rung et al., 2005). Exposure to green spaces also has 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.

Photo: Downtown Madison from Olin Park

Table 2.2: Mental Health Indicators

Measure	Madison	Dane	Wisconsin	U.S.	Data Year
Frequent Mental Distress	****	9.7%	10% (2014)	11.0%	2015
Depression: Medicare Population	****	17.7%	17.0%	16.7%	2015
14+ poor mental health days in the past month	10.5%	****	****	****	2015

Source: Healthy Dane

Additionally, Attention Restoration Theory posits that exposure to natural environments allows one's mind to recoup from the daily demands of work or school, leading 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. As focal points for neighborhoods, parks are well positioned to promote social interactions among park users 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 (Healthy 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, as well as to 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 all living things.

2.3 Sustainability and Adaptability

A park system must be sustainable and adaptable to continually serve the community. Madison Parks Division uses both sustainability and adaptability as a framework for policies and recommendations in this plan. This is especially the case with regard to environmental considerations, but also to economic change and changing recreational preferences. The goals, if achieved, result in a vibrant park system.

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. Sustainability also relates to ensuring that the park system has widespread budgetary support. A park system must be fiscally sustainable in order to survive economic downtowns. For example, the Parks Division utilizes impact fee ordinances (further discussed in Chapter 7) to supplement 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 supplementing funding of new parks.

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 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 over-planting of one species of tree. With increased diversity, fewer trees are affected by a specific pest, the potential spread is 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. Adaptability also refers to the capacity of park system to respond to demographic changes that result in shifting priorities. 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 park system should evolve in conjunction with changes in it's users. The adoption of movable skating rinks is an example of an adaptable policy.

Photo: Installing solar panels at the Warner Park Community Recreation Center

This section reviews sustainability and adaptability and their relation to the following aspects of the park system:

- environment,
- economic and cultural.

Environment

Planning for both sustainability and adaptability ensures that the City of Madison can both reduce its environmental impacts and 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 Parks recognizes that its role lies at the forefront of managing and preparing for environmental challenges. Specific topics frequently cited as concerns by Madison residents during the public engagement process include the following:

- climate change and other environmental pressures,
- pollinator decline,
- water quality,
- urban tree canopy, and
- invasive species.

Climate Change and Other Environmental Pressures

Focusing on sustainability and adaptability can reduce the public health and equity implications of environmental pressures, such as climate change, which affects vegetation, stormwater, groundwater, air, and water quality. 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 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 increased risk necessitates that sustainability and adaptability initiatives recognize, and subsequently emphasize, an additional focus towards assisting these vulnerable and disadvantaged communities.

Photo: Monarch butterfly at Olin Park

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 challenges that the Parks Division must respond to, 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, and
- increase in algal blooms.

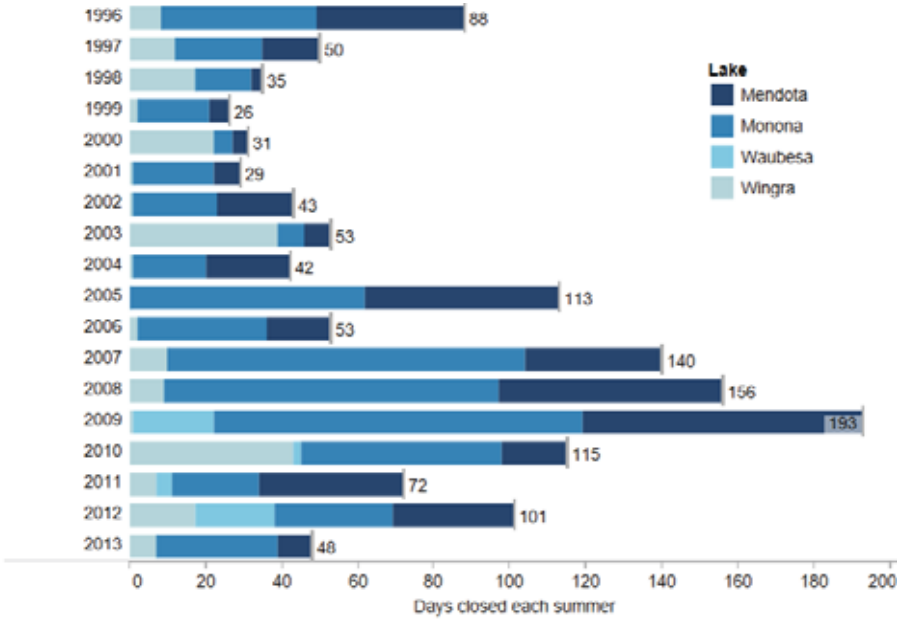
Additional information regarding climate change is available through the Nelson Institute Center for Climatic Research at the University of Wisconsin-Madison. The Center's website can be accessed at this web address: https://nelson.wisc.edu/ccr/ Research related to water resources is available through the organization Water@UW-Madison and through their website at: https://water.wisc.edu/

Pollinator Decline

Pollinators such as bees, moths, butterflies, bats, and hummingbirds provide vital services to our ecosystems. Between 75 to 95% 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% 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, the United States has experienced a dramatic decline in honeybee hives resulting from colony collapse disorder. The State of Wisconsin has lost over 60% of its honeybee colonies since spring 2014-2015. The 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 (Pollinator Protection Task Force Report, 2015).

Figure 2.11: Dane County Water Quality Beach Closures by Year



Source: Kate Golden, Wisconsin Center for Investigative Journalism

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 an essential community priority for Madison. The topography of Madison (see Appendix D, Exhibit A) 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 the number of annual beach closures in Dane County has declined since 2009, the number remains higher than in the early 2000's (Public Health - Madison and Dane County, 2014).

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. 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, 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

Table 2.3: Economic Impacts of Madison's Urban Forest

Madison's Urban Forest	Annual Benefit
Per tree	$122
Stormwater Reduction	$3,126,965
Pollution Removal	$492,489
Sequestered Carbon	$399,384
Aesthetics and Other Benefits	$3,949,689
Energy	$3,766,538

Source: Madison Parks i–Tree Inventory: Tool for Assessing and Managing Forests & Community Trees

Photo: Trees at Turville Point Conservation Park

urban tree canopy can 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 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 shown that living near urban forests can reduce physical and emotional stress among individuals (Dwyer et al., 2000; Ulrich, 1984).

Photo:Volunteers removing invasive species

There are approximately 11,000 acres of public and private tree canopy in the City of Madison, accounting for 22.4% 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 2.3 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, the aesthetic value of the trees raises property values and can help reduce neighborhood crime (Martinueau,C., 2011).

Invasive Species

Invasive plants and animals decrease the sustainability and adaptability of Madison's ecological resources. Plants such as Japanese knotweed, buckthorn, and garlic mustard out-compete 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 necessary to sustain and respond to economic and cultural shifts. Economic cycles 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. For example, the Parks Division utilizes impact fee ordinances (discussed in further detail in Chapter Seven) to supplement 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. Knowing this anticipated demographic shift, provides opportunities to proactively develop park amenities in anticipation of changing preferences. 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 park planning and is further discussed in Chapter Five.

2.4 Conclusion

Madison Parks shall promote equity, contribute to mental, physical and environmental health, and be sustainable and adaptable in light of a variety of new challenges. Viewing proposed and future policies and practices through these lenses requires City parks stakeholders to ask how the policies impact these goals. While the answers may not always be obvious or be fully agreed to, asking the question is essential to informing the dialogue and decision-making in the context of limited resources and competing priorities. These four lenses, used as a frame to review and guide all park and open space planning, assist the Division in achieving its vision of providing residents access to an exceptional park system.

This page intentionally left blank.

Chapter Three: Engagement Strategies and Outdoor Recreation Needs Assessment

3.1 Engagement Strategies

In this Chapter

Engagement Strategies

Outdoor Recreation Needs Assessment

Conclusion

This chapter examines recreational needs, demands, and concerns based on community engagement processes. 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 a dialogue with new voices which can contribute to the future planning of the park system. Madison Parks strives to engage all residents to help ensure concerns of all residents are represented.

Photo: Hip Hop PARKitecture Workshop

Engagement Methods

During the engagement process, 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 gathered input from participants 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 non-random public input processes, efforts were made to track engagement strategies and comments, and to geolocate responses to evaluate distribution of input and improve future engagement methods. Exhibit 3 identifies the locations of each of the strategies below.

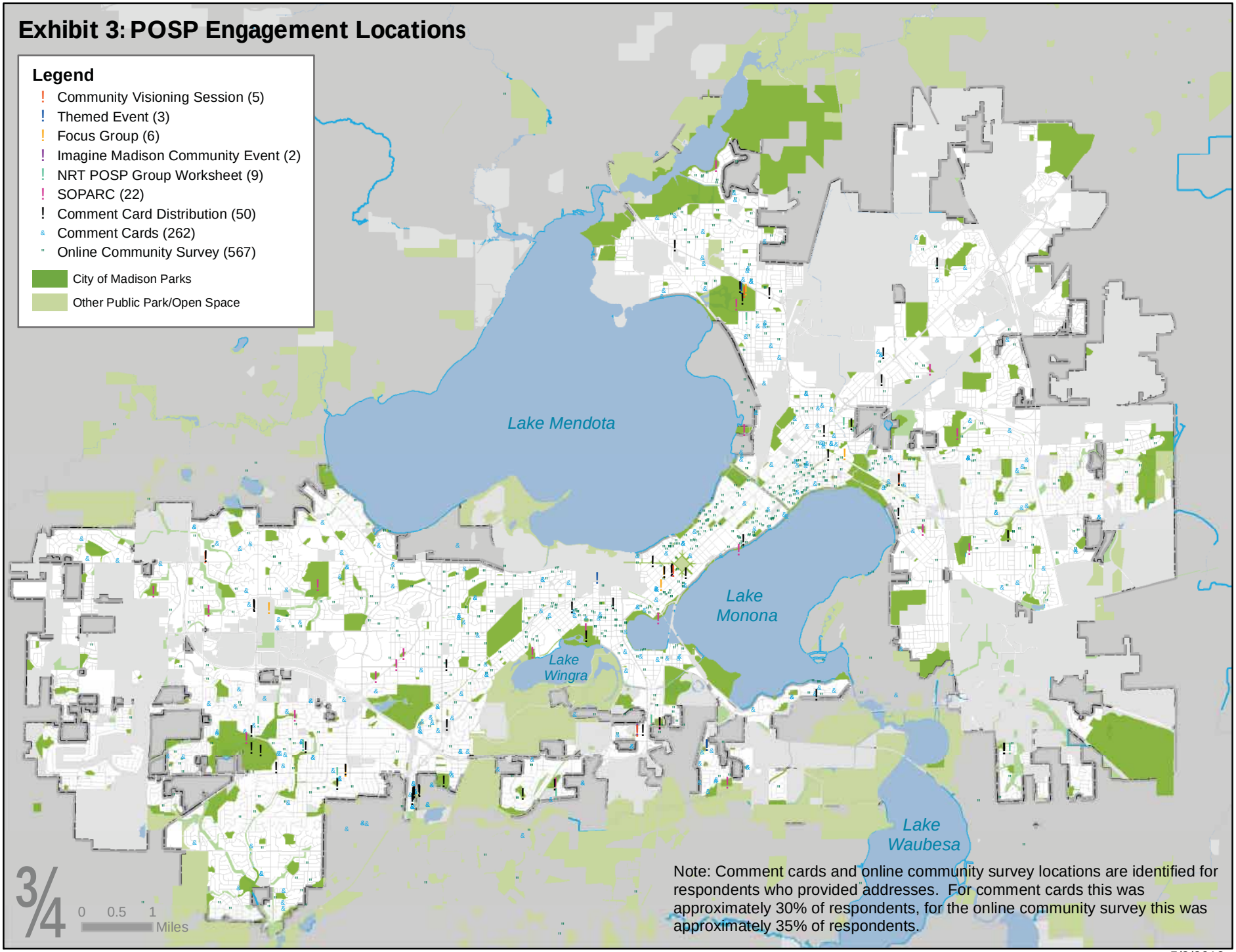
Comment Cards

The Parks Division distributed comment cards at various locations across Madison to solicit feedback on how people use the parks system. Comment cards were provided at nine City of Madison libraries, 12 community/neighborhood centers, and the Madison Senior Center. Comment cards were collected at 44 different public events and community meetings and respondents could also submit comments electronically. 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 respondents. A summary of the comment card results may be found in Appendix B.

Online Community Survey

As part of this process, the Parks Division 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 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 has received. As part of the survey, respondents identified their participation in park-related activities. Input from the online survey has been summarized and may be found in Appendix B. A separate recreational survey generated 32 responses from athletic organizations and is discussed further on page 38.

Exhibit 3: POSP Engagement Locations



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 developed in 2006 by researchers at San Diego State University and the RAND Corporation to examine how community parks contributed to physical activity (McKenzie et al., 2006). Madison Parks collaborated with student volunteers, City staff, members of the Parks Long Range Planning Subcommittee, and members of the Board of Park Commissioners to use a modified SOPARC tool 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 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. Results from the SOPARC method are summarized in Appendix B.

Figure 3.1 Engagement Numbers

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. The community visioning sessions, listed below, were interactive workshops designed to identify the public's goals and vision for Madison's park system.

- 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

Photo: Community Visioning Session

At the community visioning sessions, Parks staff 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. See Appendix B for a summary of the community visioning workshops comments. In addition to community

visioning sessions, three workshops, listed below, facilitated in-depth discussion and analysis on specific topics. The first workshop, called "Hip Hop PARKitecture" facilitated by 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, was conducted in 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 with Public Health - Madison and Dane County, as well as with local advocates for environmental education, to focus on connecting children to nature. A total of 55 individuals participated in the three 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

A report on the engagement efforts of the Community Visioning Sessions and Theme-Focused workshops is available at:
https://www.cityofmadison.com/parks/projects/2018-2023-park-open-space-plan

Photo: Hip Hop PARKitecture

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 other underrepresented populations across Madison. This strategy was neighborhood-based focused on engaging communities in park planning where they lived. 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

A summary of the focus group discussions may be found in Appendix B.

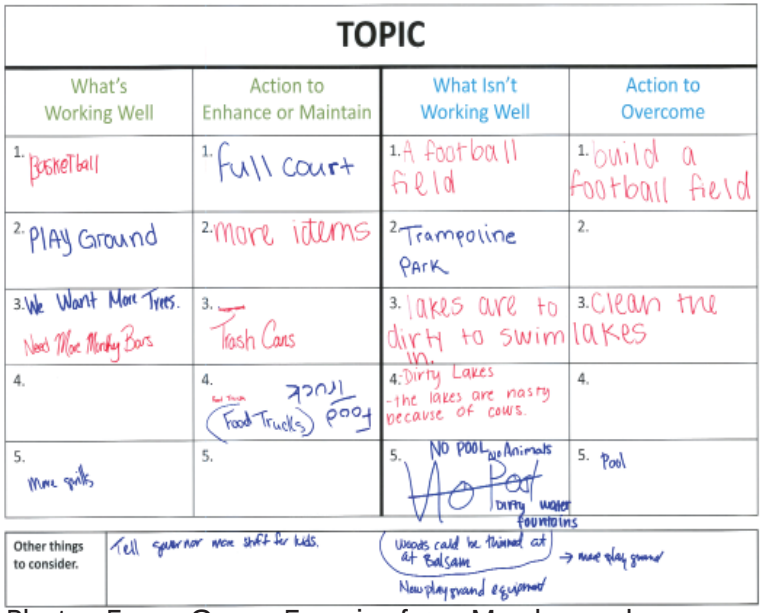


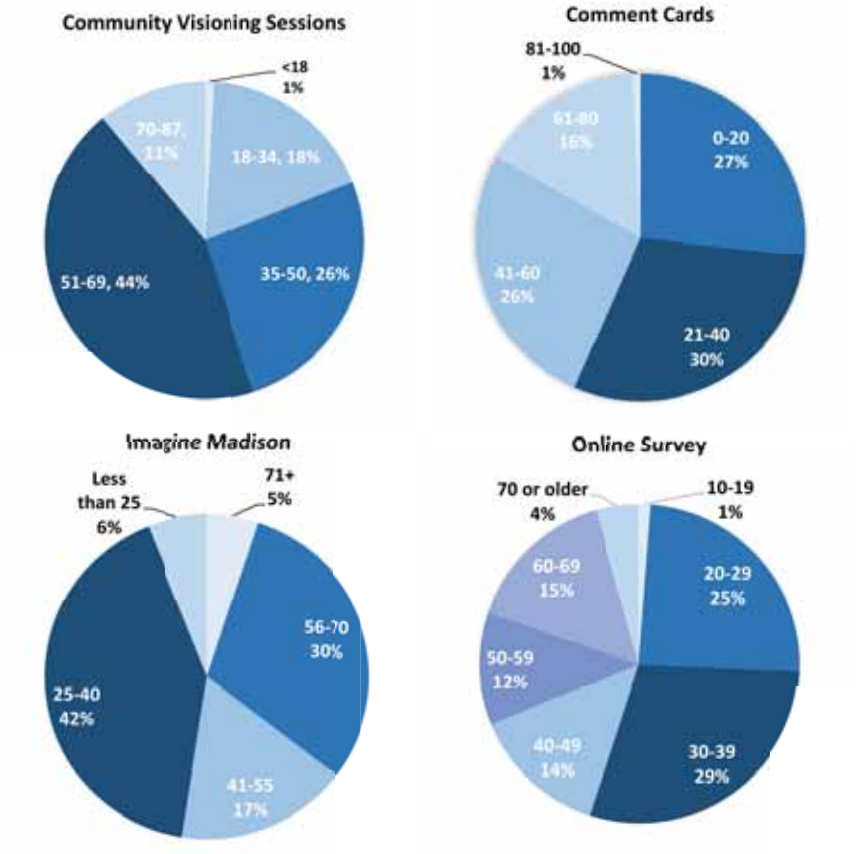
Photo: Focus Group Exercise from Meadowood Neighborhood Center

Additionally, Public Health - Madison & 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 an additional 150 individuals participated through the City's Neighborhood Resource Teams (NRT). A summary of input from the NRT focus groups can be found in Appendix B.

Imagine Madison Comprehensive Plan

The *Imagine Madison Comprehensive Plan* included a public listening campaign launched by the City of Madison as part of the update to the Comprehensive Plan. It gathered feedback from a variety of sources including public meetings, online surveys, and resident panels made up of underrepresented segments of the population. Public input was provided on major community issues such as parks, housing, transportation, and economic development. During Phase I and Phase II of the public input process, a total of 135 comments on parks and open space were submitted via the online survey, public meetings, and resident panels. A summary of parks-related input from the *Imagine Madison* process can be found in Appendix B.

Figure 3.2: Ages of Respondents from Engagement Methods



Engagement Demographics

The following discussion seeks to provide perspective on the demographic characteristics of participants engaged in these various methods.

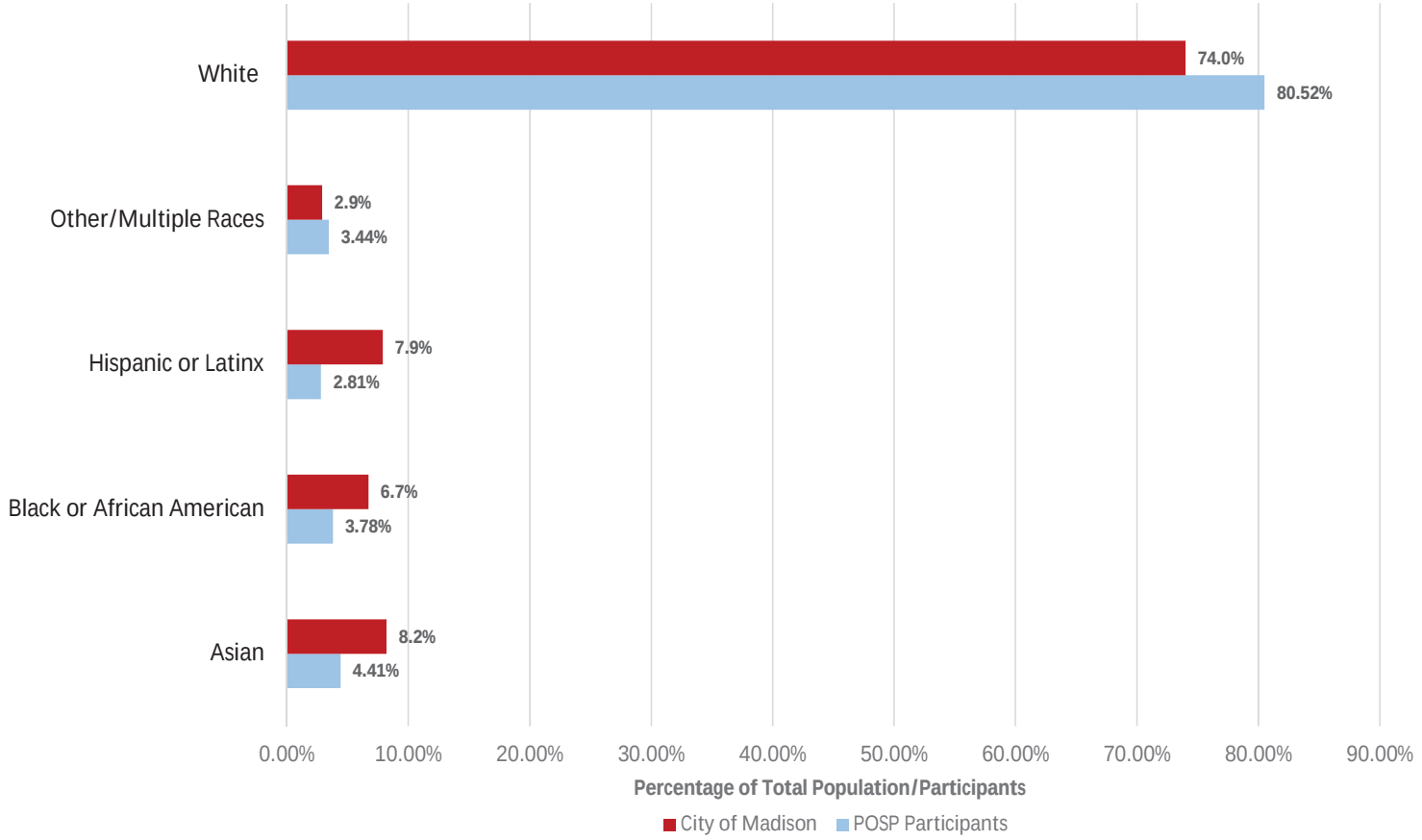
Participant Ages

Figure 3.2 illustrates the age distribution of each engagement method's participants. Participation by age varied depending on engagement type. An increased 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 and the community visioning sessions. 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% of all participants.

Participant Race/Ethnicity

Figure 3.3 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 portions of the *Imagine Madison* engagement process. Figure 3.3 illustrates unintentional biases in traditional engagement methods such as public input meetings and online surveys[01]. 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, which included focus group discussions, comment cards, and the Hip Hop PARKitecture workshop, specifically designed to encourage participation from historically underrepresented communities. Since the City did not request demographic information from these engagement methods, they are not included in Figure 3.3.

Figure 3.3: Ethnicity/Race Demographics of Engagement Methods



01 Data shown in Figure 3.3 do not include demographic information of approximately 4,000 people who provided input via comments cards, theme-focused events, NRT's, focus group discussions, and the recreation league survey. Nor do they include people who were observed as part of the SOPARC study.

3.2 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, and examines past, present, and projected future needs in order to create informed recommendations.

Engagement Outcomes

This section describes the information derived from the engagement methods described above. Figure 3.4 aggregates information received from the comment cards, online community survey, and SOPARC data. These data help identify trends in preferred recreational activities across different population segments. These recreational activities are defined as either active or passive[02].

Amongst all engagement methods, the top ten activities shown in Figure 3.4 include 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.

Top Reported Activities for Youth

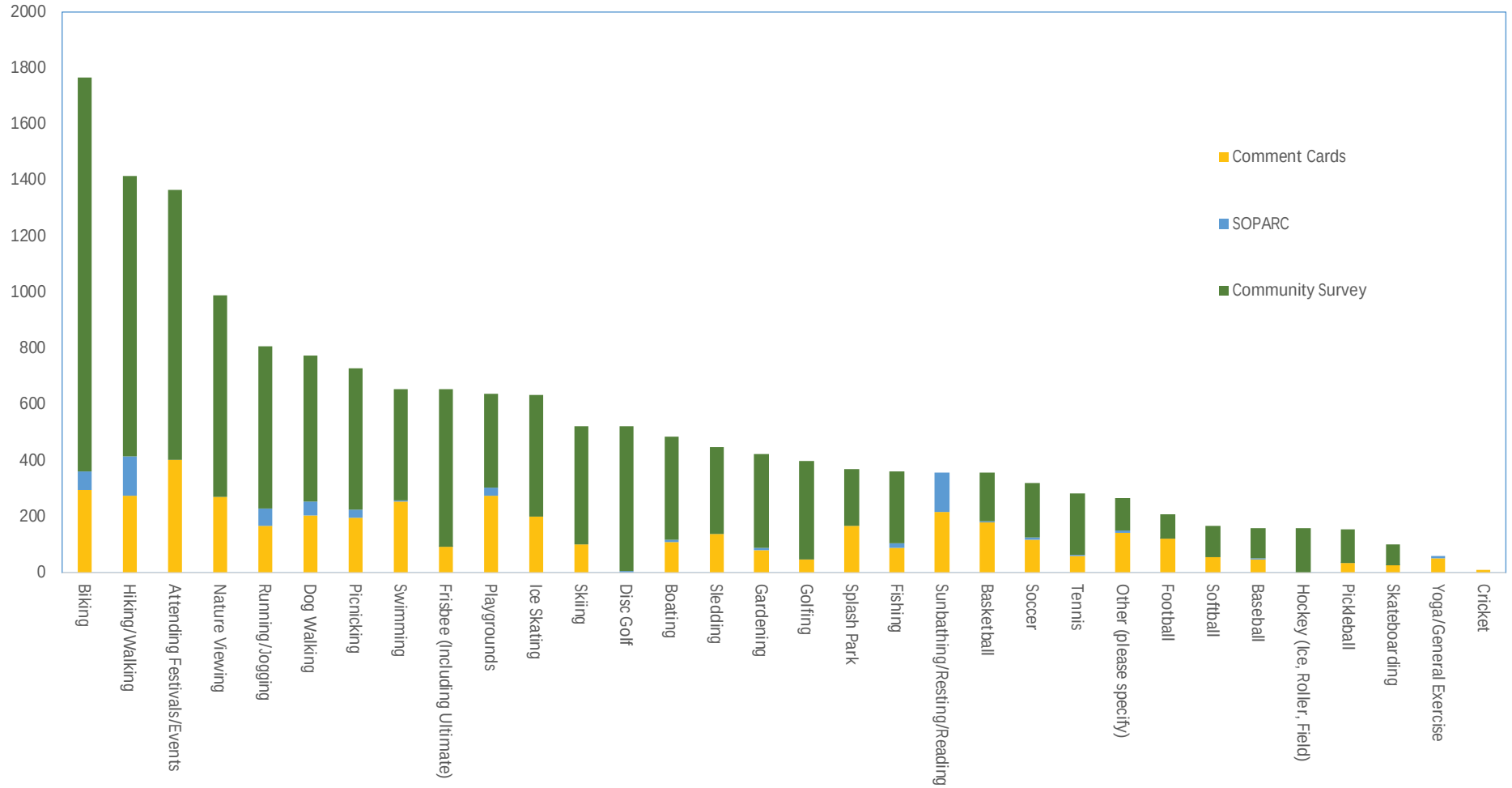
Based on engagement input, younger residents indicated they utilize parks and open space more for active recreation activities. Youth were the primary users of park playgrounds. In the comment card data, playing on a playground was the fourth most popular activity among the under 20 age group, and the 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.

The younger population also makes significant use of parks 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.

Photo: Wexford Ridge Playground

02 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."

Figure 3.4: Top Activities as Reported per Engagement Method



Top Reported Activities for Adults

Collected data indicate 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, 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 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.

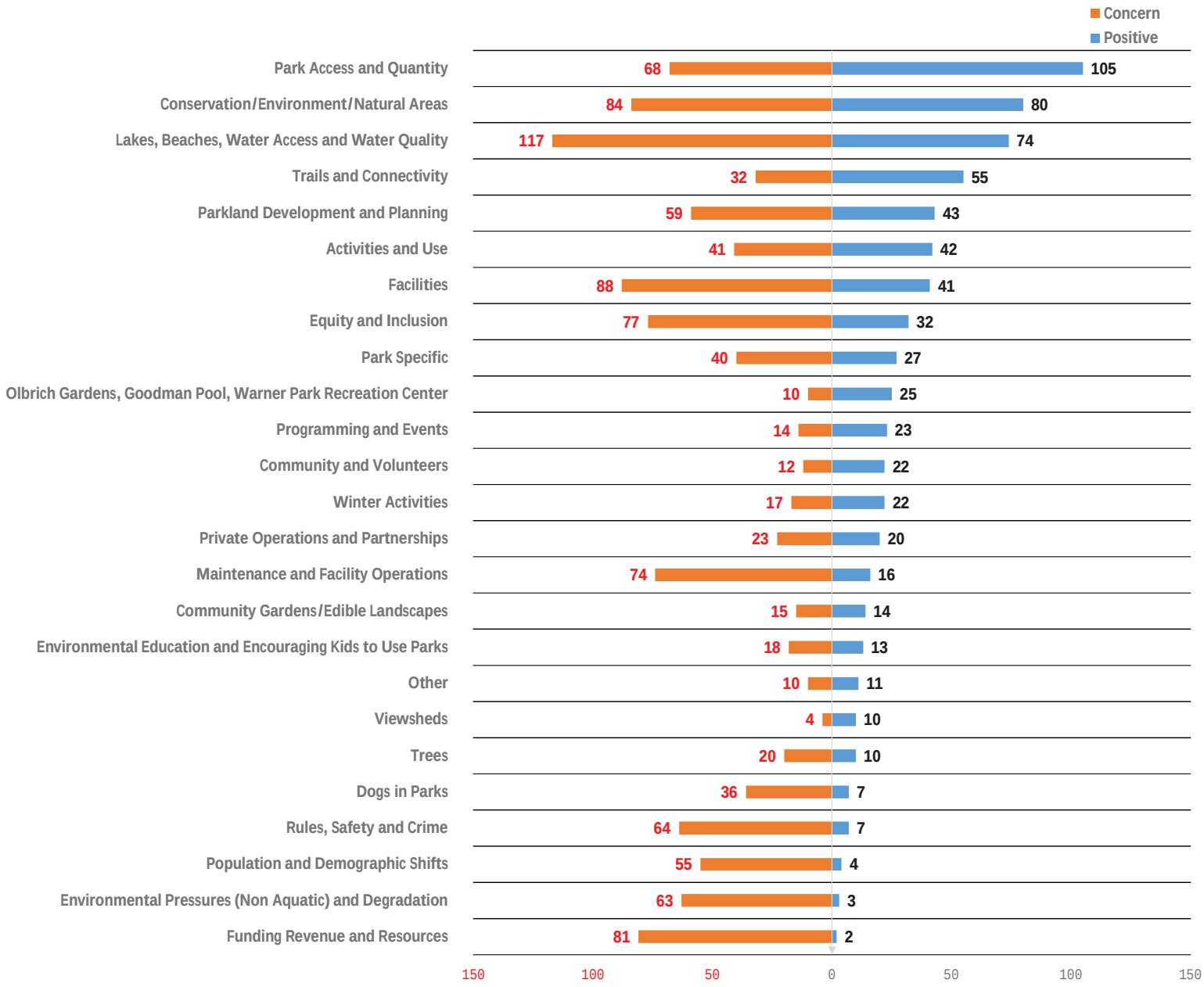
Ice skating was another activity that was listed as a top ten activity, though only in the comment cards. However, it was also popular among online survey respondents, just narrowly missing the top ten, with 26.8% of respondents indicating they use parks for ice skating. It is important to note that 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.

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 3.5 were gathered via the online community survey, community visioning sessions and workshops, focus group discussions, and from the *Imagine Madison* process. Figure 3.6 shows the combined results from these engagement methods. The data were categorized to identify emerging trends and issues among the public. Each comment was identified as a positive or a concern in relation to the topic being mentioned. Major themes surfaced including: water and the environment; park access and quantity; and facilities and activities that are equitable and inclusive.

Photo: Ice skating at Tenney Park

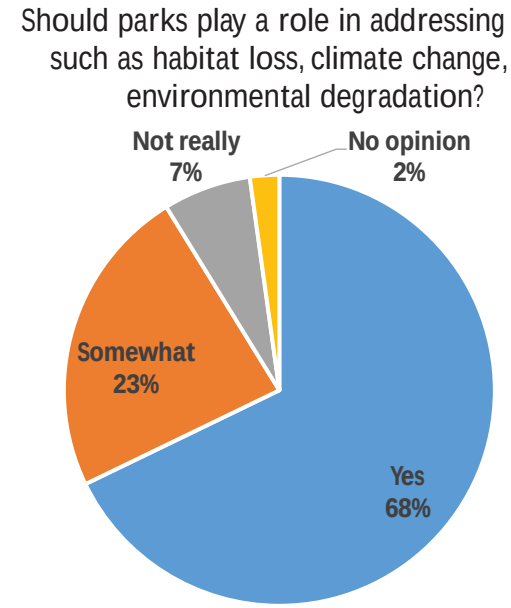
Figure 3.5: Top Comments During Engagement Process



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 engagement participants addressed 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."

Figure 3.6: Online Survey Response



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. A common concern voiced in the feedback from all methods was a concern that the Parks Division might lose its focus on conservation and natural areas in an effort to meet the recreational demands of a continually expanding population.

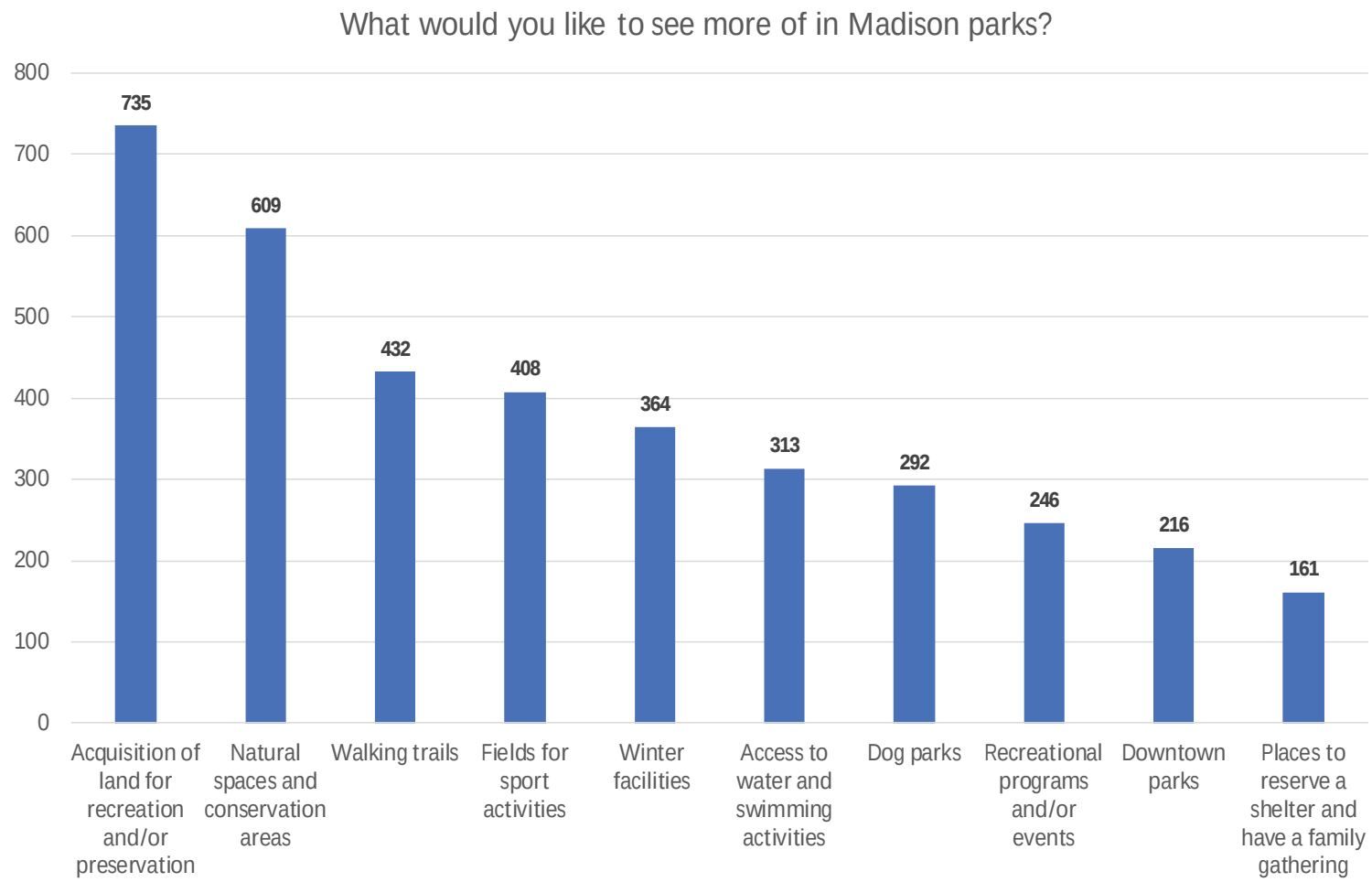
Concerns related specifically to climate change also came up frequently in the comments. Fans of winter activities such as ice skating and skiing were concerned that a shortened season would affect their opportunity to enjoy these activities. Other climate change specific issues were mentioned, such as the increased occurrence of extreme heat events and the proliferation of invasive species. Figure 3.7 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.

Photo: Learning to canoe

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 prevalent among participants. Figure 3.5 shows how respondents to the online survey prioritized acquisition of land for recreation and/or preservation.

Figure 3.7: Online Survey Question Response



Park Equity and Inclusion


Photo: Tuj Lub (Hmong Top Spin Demonstration)

The community visioning sessions, focus group discussions, and *Imagine Madison* engagement methods all identified park equity and inclusion among the most prominent issues. 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 parks 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.

Track and field activities were also brought up as a diverse sport which lacks amenities in local public parks. City of Madison Park Commissioner Venus Washington stressed, "That's a big thing, and we don't even have it [track and field] in parks. I'm a track coach, I've been in the track community and have seen...how diverse you get with track and field. We don't have any track space. It's hard to get access somewhere, we have all this park but nowhere where communities can keep a thriving club going. It's hard."

Facility Demands

These data include 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 (MSCR) 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. A summary of the recreation league survey can be found in Appendix B.

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 share facilities with other historically popular sports.

Reservation data also indicate that the most frequently reserved parks include multi-field and multi-court complexes. 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 host multi-game events. Table 3.1 identifies the most park facility reservations by sport. Exhibit 4 identifies the number of athletic field reservations by park.

Park staff suggest that there is demand for lighted 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.

Table 3.1: 2017 Top Park Reservations by Sport

Sport	Number of Facility Reservations
Soccer	3653
Tennis	2844
Ultimate Frisbee	1344
Softball	1185
Youth Football	283
Lacrosse	281
Volleyball	117
Pickleball	116
Baseball	93
Baseball - Little League	77
Football	71
Cricket	55
Rugby	49
Skate Park	48
Kickball	36
Basketball	27

Note: Reservations are based on the number of events at each individual court or field (i.e., a pickleball tournament using all six courts at Garner equates to six reservations). Table 3.1 only identifies facilities that have been reserved, and excludes "pick up games" without reservations.

In addition to reviewing internal reservation data, Madison Parks solicited feedback from a survey sent to over 130 athletic organizations. Of those that 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 lack of facilities.

Table: 3.2: 2017 Top Twenty Reserved Parks for Athletics

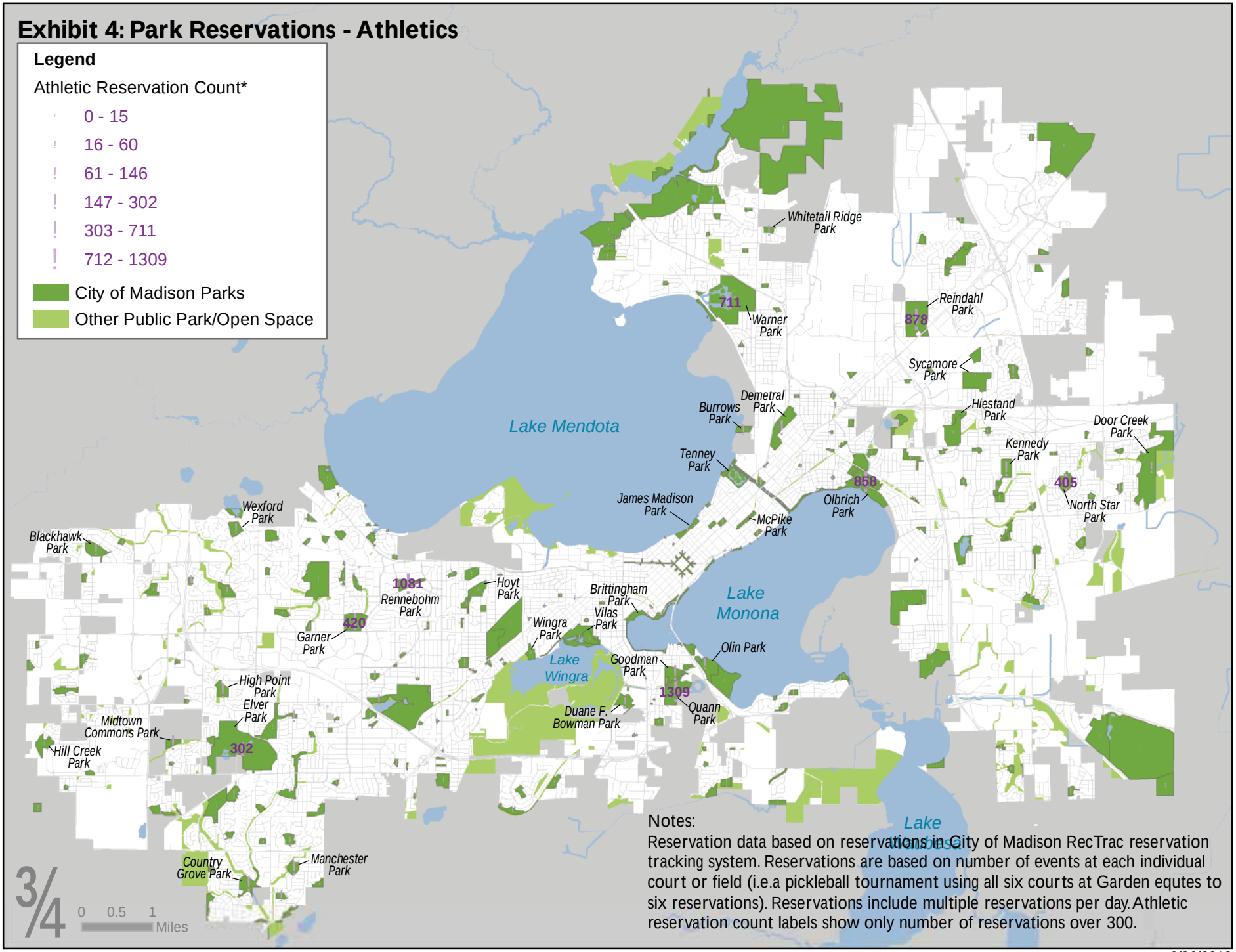
Park	Number of Reservations	Primary Reservation
Quann Park	1309	Tennis Courts
Rennebohm Park	1081	Tennis Courts
Reindahl (Amund) Park	878	Soccer
Olbrich Park	858	Softball, Soccer, Volleyball
Warner Park	711	Youth Football, Soccer, Softball
Garner Park	420	Lacrosse, Rugby
North Star Park	405	Ultimate Frisbee
Elver Park	302	Soccer, Softball, Tennis
Country Grove Park	280	Soccer
Kennedy Park	262	Soccer
Manchester Park	254	Ultimate Frisbee
Midtown Commons Park	232	Ultimate Frisbee
Demetral Park	221	Softball
Goodman Park	191	Softball
High Point Park	176	Soccer
Duane F. Bowman Park	146	Baseball, Softball
Wingra Park	145	Soccer
Wexford Park	129	Soccer, Tennis
Burrows Park	118	Soccer
Whitetail Ridge Park	113	Soccer
Door Creek Park	109	Tennis, Soccer

Table 3.3: Athletic Organization Recreation Survey Results

	Yes	No
Respondents whose program relies solely on City of Madison Park Facilities for athletic court or field space	34%	66%
Respondents whose program needs to limit the number of participants due to lack of fields/courts available	69%	31%

Photo: Ultimate Frisbee at Burr Jones Park

Exhibit 4: Park Reservations - Athletics



Notes:
Reservation data based on reservations in City of Madison RecTrac reservation tracking system. Reservations are based on number of events at each individual court or field (i.e.a pickleball tournament using all six courts at Garden equtes to six reservations). Reservations include multiple reservations per day. Athletic reservation count labels show only number of reservations over 300.

Shelter Reservations

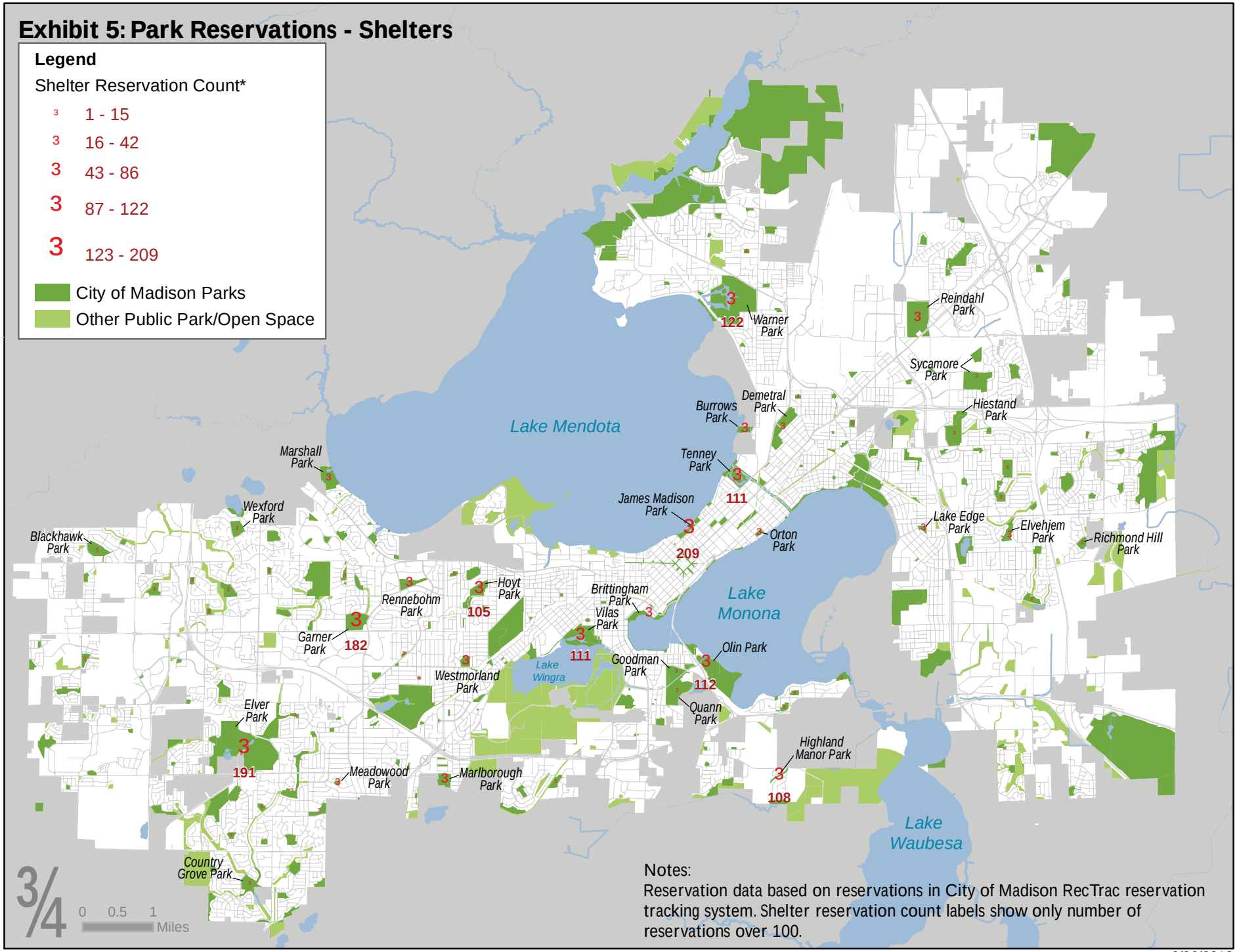
Madison Parks has 83 reservable shelters including six large shelters without restrooms, 19 large shelters with restrooms, one concession/restroom building and 57 sun shelters primarily without restrooms. Large shelters and shelters with restrooms are available mid-April through mid-October. Sun shelters 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 weekends. 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.

Photo: Gates of Heaven at James Madison Park

Table: 3.4: 2017 Top Twenty Reserved Shelters

Park	Large Shelter Reservations	Sun Shelter Reservations
Elver Park	191	--
Garner Park	182	--
James Madison - Gates of Heaven	154	--
Warner Park	80	42
Olin Park	112	--
Tenney Park	111	--
Vilas Park	111	--
Highland Manor Park	108	--
Hoyt Park	105	--
Rennebohm Park	86	--
Brittingham Park	81	--
Westmorland Park	69	--
Reindahl (Amund) Park	60	--
Burrows Park	59	--
James Madison - Large Shelter	55	--
Marlborough Park	--	54
Marshall Park	42	--
Meadowood Park	--	42
Demetral Park	34	--
Orton Park	--	33
Elvehjem Park	27	--
Lake Edge Park	19	--

Exhibit 5: Park Reservations - Shelters



Notes:
Reservation data based on reservations in City of Madison RecTrac reservation tracking system. Shelter reservation count labels show only number of reservations over 100.

Park and Street Use Event Reservations

In addition to park athletic and shelter reservations, people frequently request park and street permits for events. In 2017, there were 804 non-athletic events in Madison parks. This number includes the total number of event days. Some events, such as such as farmer's markets, festivals and concerts are more than one-day or are part of a series. The largest number of reserved park days for events were for State Street/Mall Concourse, Olin Park, Warner Park, McPike Park, and Breese Stevens Field. Exhibit 6 illustrates the number of reservation events days per park. Out of the 804 event days, 204 were produced by 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. A full list of events is available in Appendix C, Table 1.

Table 3.5: 2017 Top Twenty Reserved Parks for Events[03]

Park	# of Event Days	Most Recurring Event (# of days)
State Street/Mall Concourse	149	Dane County Farmers Market (31)
Olin Park	70	Fantasy in Lights (43)
Warner Park	63	Bird & Nature Outings (13), Family Fun Night (10), Run/Walks (10)
McPike Park	43	Farmers Market (26), Central Park Sessions (7)
Breese Stevens Field	39	Festivals (13), Concerts (7), Bodegas (5)
Elver Park	32	Farmers Market (15)
Olbrich Botanical Complex	31	Concert Series (13)
Vilas (Henry) Park	25	Let's Eat Out (10), Run/Walks (8)
Reindahl (Amund) Park	21	Let's Eat Out (10), Anji Play (9)
Country Grove Park	19	Let's Eat Out (18)
Haen Family Park	19	Let's Eat Out (10), Anji Play (9)
Quann Park	17	AEC Events Closures (8), Cross Fit Games (5)
Cherokee Marsh - North Unit	17	Bird & Nature Outings (12)
Garner Park	16	Pickleball Lessons (12)
Turville Point Conservation Park	14	Bird & Nature Outings
Brittingham Park	12	Colsac Skiers (6)
Nakoma Park	11	Let's Eat Out (10)
Tenney Park	11	Ice Skating Lessons (6)
Olbrich Park	10	10 Separate Events
Law Park	8	8 Separate Events

03 Excludes events that are on-going programmed athletic practices and games (e.g. fields used by MSCR, MAYSA, and MUFA, etc.). Also excludes daily programming activities for special facilities such as classes at boat rental facilities, Warner Park Community Recreation Center, and Olbrich Botanical Gardens. Combines street use, amplification and event permits.

Street-use permits and park event permits are the largest number of park permitting events. Street-use permits which are required for any of the following:

- The event/activity would close or reserve any portion of a Madison street, sidewalk, parking lane or space.
- The proposed time for the event/activity would create more than minimal disruption or rerouting of traffic from the requested street(s).
- The event/activity is scheduled at one of the downtown performance spaces outside of the time periods allowed by an Amplification Permit.

Park Event permits are separate from street-use permits which are required for any of the following:

- The event will use extensive space in a park.
- A large number of participants are expected.
- The event will be promoted to the general public.
- Admission will be charged.
- A park not normally used for events, such as a neighborhood park or beach, has been requested.
- Vending will occur.
- The purpose of the event is to raise money, whether for a non-profit/charity or as a commercial venture.

Figure 3.8 identifies the growth in the number of street use permits from 2012-2017. Park event permit tracking changed in 2017 and is more complex to track. However, by April 25, 2018 were 215 proposed street use events, 143 park events and 26 events that have both kinds of permits. A percentage breakdown of permits is identified in Figure 3.9 below.

Figure: 3.8: 2012-2017 Street Use Permits

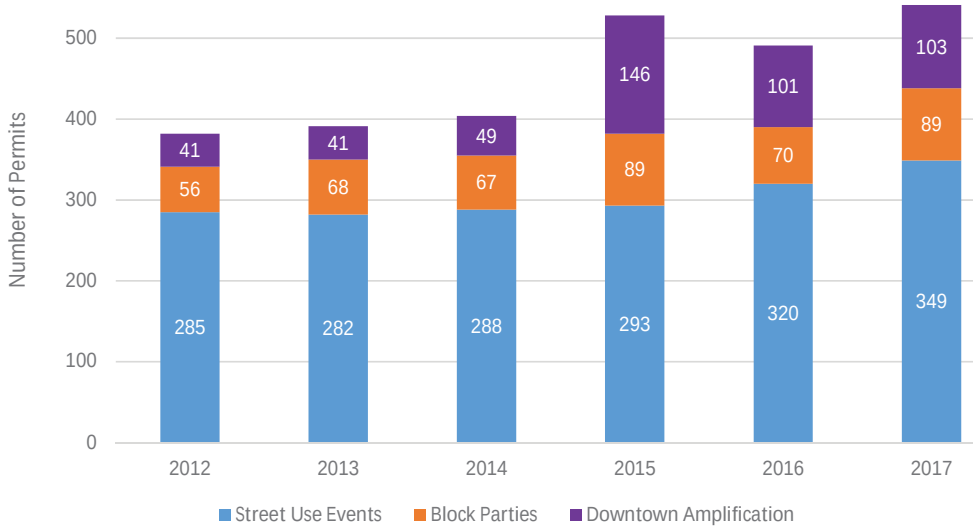


Figure: 3.9: 2017 Permit Type Breakdown

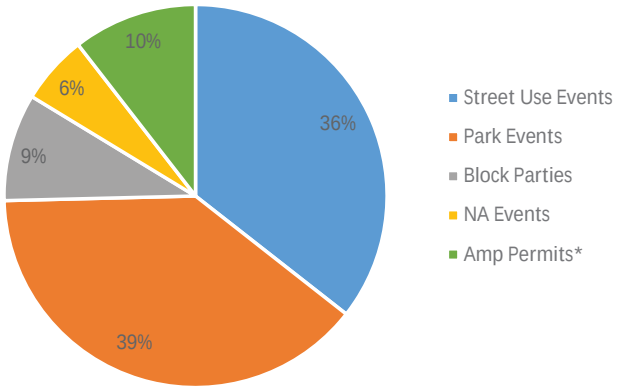
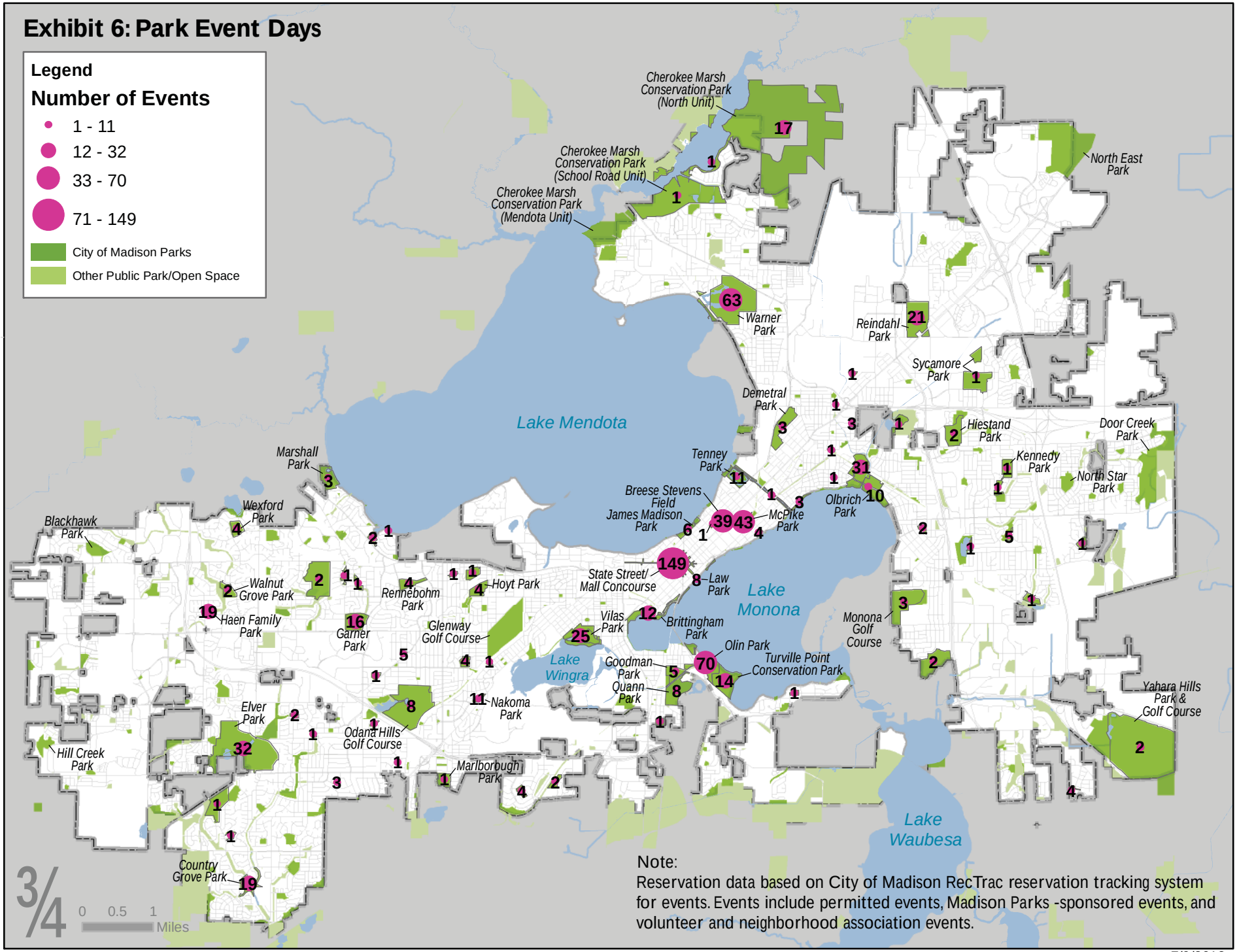


Exhibit 6: Park Event Days



Note:
Reservation data based on City of Madison RecTrac reservation tracking system for events. Events include permitted events, Madison Parks -sponsored events, and volunteer and neighborhood association events.

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[04]. Table 3.6 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.

Figure 3.8: 2015-2017 Permit Sales

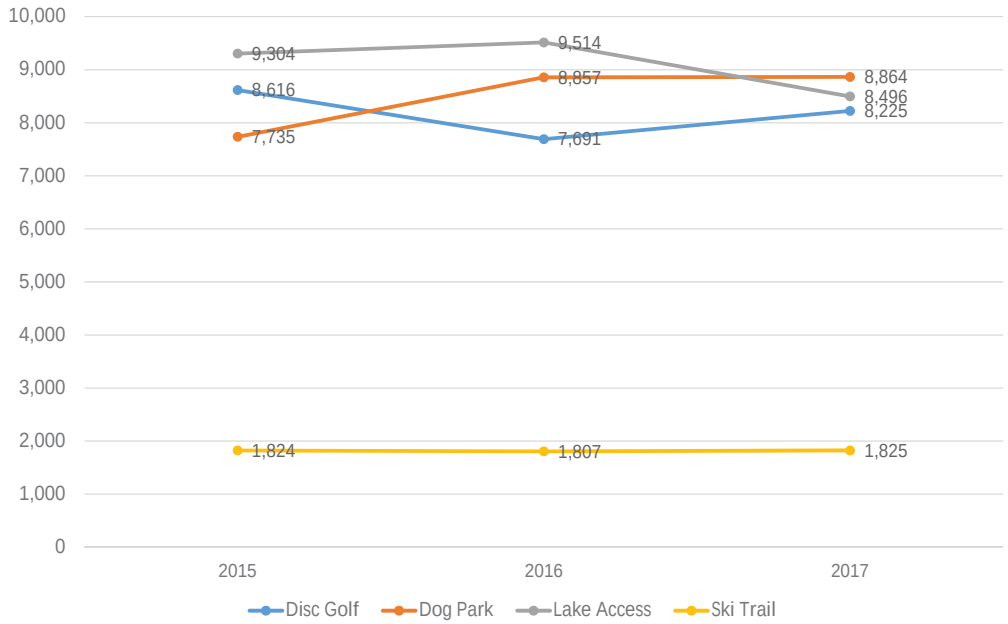


Table 3.6: 2015-2017 Permit Sales

	2015		2016		2017	
	Annual Permits	Daily Permits	Annual Permits	Daily Permits	Annual Permits	Daily Permits
Disc Golf	1,420	7,196	1,443	6,248	1,456	6,769
Dog	7,143	592	8,239	618	7,972	892
Lake Access	4,099	5,205	4,322	5,192	3,559	4,937
Ski Trail	1,266	558	1,318	489	1,325	500

04 Accela is one of the City of Madison's resource management software programs.

3.3 Conclusion

The engagement process revealed that preferences, issues, and concerns varied depending on the type of method used for gathering input. For example, collectively biking was the top activity reported through the engagement process, but this outcome was primarily driven by online responses. In contrast, attending a festival/event was the top activity for people filling out comment cards which were distributed at events and locations where diverse and youth voices were prevalent. When talking with youth at the Lussier Community Center and The Meadowood Neighborhood Center, their top request was to have food or concessions at parks. The varying perspectives and priorities received during the engagement process point to the importance of using varying methods to obtain input likely to generate diverse perspectives.

Feedback from engagement was supplemented by the review of existing data from Madison Parks databases on reservations, events and permits. Shelter reservations are most in demand at Gates of Heaven (James Madison Park), Elver Park, and Garner Park, while athletic reservations are most requested for Quann, Rennebohm, and Reindahl Park. Event reservation data identify State Street Mall, Olin Park, and Warner Park are the most heavily reserved for special events, while permit sales provide a glimpse into the popularity of disc golf, dog parks, lake access (boat trailer parking permits), and ski trails. The information provided in this section points to the need for varying park facilities to accommodate diverse uses and often competing goals. In general, the growing and diversity of activities that the community would like to engage in a park have been increasing. The number of special event days has also been increasing. Both are seen as an asset and a challenge with need to balance resources with growing demand. Parks will continue evaluate processes for these activities to determine how they can be equitably and sustainably provided.

This page intentionally left blank.

Chapter Four: Parkland Inventory

4.1 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, landscaping, signage, and seating. As shown in Table 4.1, each park is classified according to property characteristics such as size, service area, amenities offered, programming, or special purpose. Exhibit 7 illustrates the geographic distribution of City of Madison parks by their park classification.

Table 4.1: City of Madison Park Type Classification Descriptions[05]

Classification	General Description
Mini Park	Fewer than 5 acres and used to address limited, isolated, or unique recreational needs.
Neighborhood Park	Greater than 5 acres, neighborhood parks remain the basic unit of the park system. These parks serve as the recreational and social focus of the neighborhood.
Community Park	Typically greater than 20 acres, these parks serve a broader purpose than a neighborhood park. They focus on meeting community-based recreation needs, as well as preserving unique landscapes and open spaces.
Conservation Parks	Lands set aside for preservation of sensitive and/or high quality natural resources.
Sports Complex	Heavily programmed athletic fields and associated facilities whose primary purpose is programmed active recreation.
Trafficway	Public right-of-way used as parkland. Development of this land is limited. Trafficway acreage is counted as parkland for the purposes of inventorying quantity of acreage and number of parks.
Special Use	The City of Madison considers special use to include parkland whose primary function serves unique recreation opportunities (i.e., golf courses).
Open Space	Typically undevelopable land that is not of environmental quality to develop as a park and is not intended to be developed as conservation land and is not intended to be developed with park facilities.
Greenways	Public land owned or administered by City Engineering for stormwater purposes. Greenway acreage within parks is counted as parkland for purposes of inventorying.
Other	Non park facilities. In the City of Madison this category includes the MMSD Pump Station 8 which is located on land owned by the Parks Division.

In this Chapter
City of Madison Park Classifications
Park Facilities
Other Park and Open Space Facilities
Private Recreational Facilities
Conclusion

05 For the purposes of identifying park types, greenways are listed in this table. Greenways are areas of stormwater management within parks.

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 4.2). 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, greenways, or conservation parks.

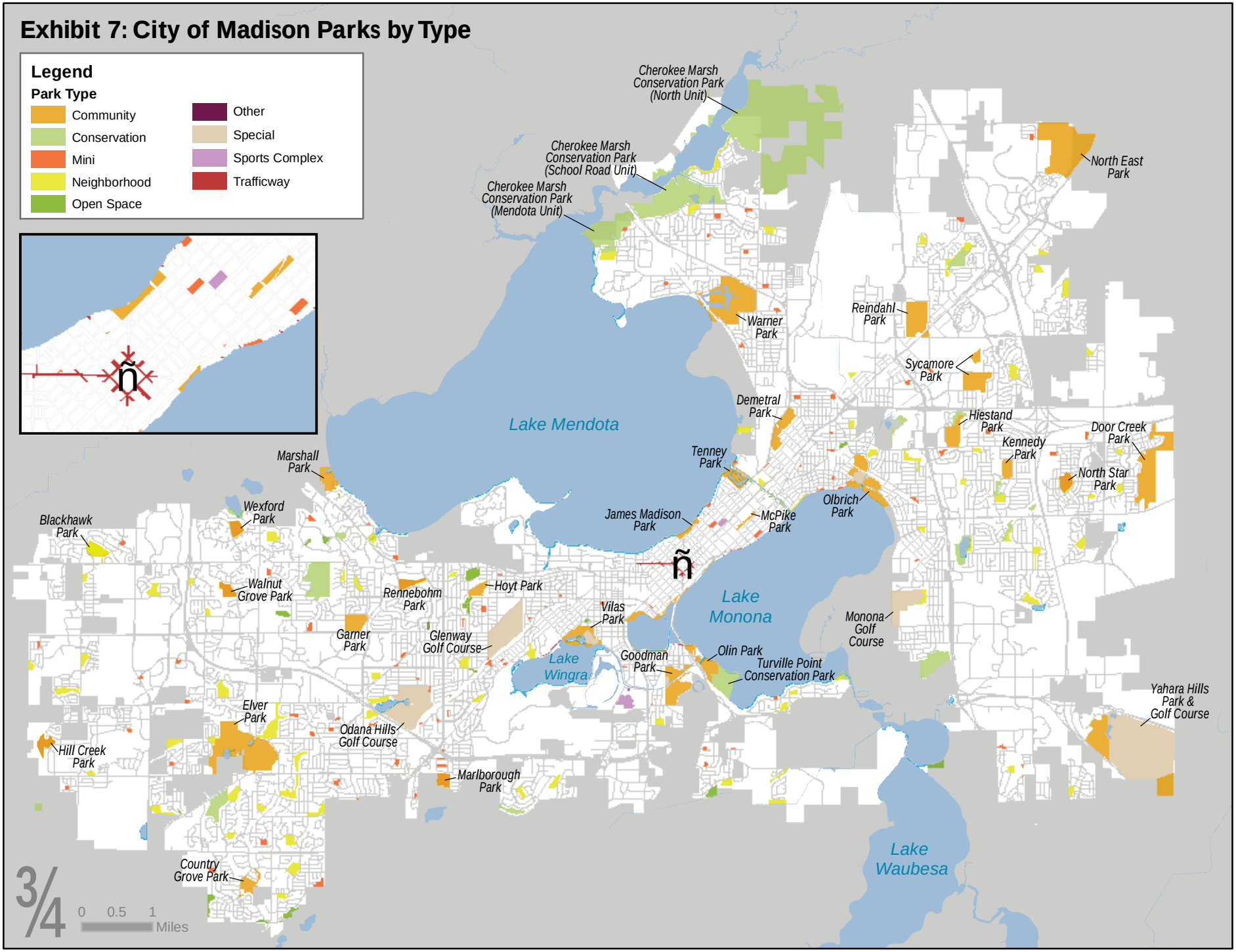
Table 4.2: Typical Park Facilities by Park Classification

Mini	Neighborhood	Community
• Playground • Open play area • Benches • Landscaping • Park sign • Park kiosk/info board • One small recreational amenity (i.e., 1/2 basketball court, small soccer field, volleyball, etc.) • Picnic areas	• Playground • Two medium-sized recreational facilities (i.e., softball diamond, soccer field) • One small recreational amenity (i.e. ,small basketball court, small soccer field, bocce ball, etc.) • Accessible path system • Open play area with space for adult soccer • Benches • Landscaping • Park sign • Park kiosk/info board • Open air shelter • Small parking area if programmed • Community gardens (based on space available)	• Playground for both two to five and five to twelve year olds • Two to three medium-sized recreational amenities (i.e., softball diamond, soccer field, full-size basketball court) • Accessible path system • Open play area • Benches • Landscaping • Park sign • Park kiosk/info board • Reservable shelter with restrooms • Drinking fountain • Picnic area • Large parking area • Ice rink with lights • Community gardens (based on space available)

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, nationally recognized guidelines for service areas or acres per thousand 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 and will continue to acquire conservation land to preserve and protect sensitive and high quality natural areas for residents in the future.

Exhibit 7: City of Madison Parks by Type



Sports Complex

This category includes the facilities at Breese Stevens Athletic Field and the Duane F. Bowman Park, which 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-ways 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, 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 courses for the use of its residents and visitors. This open space is used by golfers, walkers, joggers, and cross country skiers. The four courses managed by the Madison Parks Division include Yahara Hills, Odana Hills, Monona, and Glenway Golf Courses. Madison's golf program continues to be financially independent of the levy through the Golf Enterprise Fund.

Photo: Guided tour at Forest Hill Cemetery

The next largest special use facility is Olbrich Botanical Gardens, which operates as a public-private partnership between the Parks Division and the non-profit Olbrich Botanical Society and attracts more than 325,000 visitors each year. The facility features the 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 , 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 displays raingardens, gravel gardens, and a variety of meadows as examples of sustainable horticulture.

Photo: Fall at Olbrich Botanical Gardens

Olbrich Botanical Gardens offers the community a broad range of programs and activities, including the Schumacher Library, an education program for adults and families, 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; GLEAM: Art in a New Light; Blooming Butterflies; three concert series; Crackle: Fire and Froth; and three flower shows.

Greenways

Greenways are public land managed and administered by the City of Madison Engineering Division. 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 from Madison Parks (e.g., the retention pond on Mineral Point Drive). The Parks Division occasionally shares mowing and plowing responsibilities with the Engineering division for greenway properties.

Photo: Thai Pavilion, Olbrich Botanical Gardens

4.2 Park Facilities

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, ice skating rinks, 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 4.3 below shows a summary of existing facilities within the Madison park system. A detailed summary by park is provided in Appendix C, Table 3.

Madison Parks rank exceptionally well when compared to other cities of similar size across the nation. The Trust for Public Lands - City Park Facts 2017 ranked Madison in the top ten for basketball hoops, beaches, community gardens, dog parks, pickleball courts, and playgrounds as shown in Tables 4.4 through 4.7. The City offers not only a large number of facilities but also a significant variety of amenities and recreational opportunities for residents to enjoy.

Table 4.3: 2017 Facility Inventory Summary[06]

#	Types of Facility
118	Ballfield Backstops
151	Basketball Courts
12	Beaches
155	Bike Racks
1	Bike Polo Courts
32	Boat Mooring Slips
29	Boat Ramps
1	Botanical Garden
6	Buildings - Large Shelters without Restrooms
21	Buildings - Maintenance
8	Buildings - Olbrich Gardens
65	Buildings - Other
1	Buildings - Recreation Center
1	Buildings - Reservable Kitchenette
1	Buildings - Reservable Shelter with Restrooms
24	Buildings - Restroom Building
57	Buildings - Sun Shelter without Restrooms
4	Canoe and Kayak Rentals
20	Canoe and Kayak Launches
813	Community Garden Plots
1	Cricket Field
1	Cyclocross Practice Trail
1	Disc Golf (Winter) Course
1	Disc Golf (Basket)
2	Disc Golf Courses
8	Dog Off-Leash Exercise Areas
178	Drinking Fountains
5	Horseshoe Pits
16	Ice Skating Rinks
1	Mountain Bike Course
1	Outdoor Fitness Equipment
71	Parking Lots
25	Pickleball Courts
34	Piers
174	Playgrounds
1	Pool
445	Rentable Canoe/Kayak Racks
2	Reservable Baseball Fields
82	Reservable Multi Use Fields
21	Reservable Softball Fields
1	Skate Park
7	Ski Trail Locations
11	Sledding Hills
3	Splash Parks
85	Tennis Courts
162	Trails/Paths
29	Volleyball Courts

06 Current as of January 1, 2018.

Table 4.4: City Park Facts - Beaches

City	Beaches	Beaches per 10,000 Residents
Madison	12	0.49
Virginia Beach	14	0.31
Minneapolis	12	0.29
Corpus Christi	7	0.21
St. Petersburg	5	0.20
San Diego	26	0.19
Long Beach	9	0.19
Boston	12	0.19
Seattle	9	0.13
Cleveland	5	0.13

Source: 2017 City Park Facts, Trust for Public Lands

Table 4.5: City Park Facts - Pickleball Courts

City	Pickleball Courts	Courts per 10,000 Residents
St. Paul	30	1.0
Madison	21	0.85
Omaha	31	0.70
Chesapeake, Virginia	16	0.65
Albuquerque	37	0.65
Baton Rouge	12	0.50
Minneapolis	19	0.45
Virginia Beach	18	0.40
Colorado Springs	16	0.35
Cincinnati	10	0.35

Source: 2017 City Park Facts, Trust for Public Lands

Madison is ranked 1st in the number of basketball hoops and 6th in the number of off-leash dog parks per 10,000 residents, among surveyed cities.

Table 4.6: City Park Facts - Playgrounds

City	Park Playgrounds	Playgrounds per 10,000 Residents
Madison	173	7.1
Cincinnati	152	5.0
Detroit	309	4.7
Omaha	193	4.4
Norfolk	103	4.2
Virginia Beach	189	4.2
Corpus Christi	135	4.1
Pittsburgh	128	4.0
Glendale	97	4.0
Cleveland	141	3.7
Arlington, Virginia	80	3.5
Boise	77	3.5

Source: 2017 City Park Facts, Trust for Public Lands

Table 4.7: City Park Facts - Community Gardens

City	Community Garden Plots	Plots per 10,000 Residents
Portland	2,246	36
Washington, D.C.	2,300	35
Madison	739	30
Milwaukee	1,078	18
Seattle	1,113	17
Arlington, Virginia	301	13
Long Beach	574	12
San Jose	1,014	10
Baltimore	550	09

Source: 2017 City Park Facts, Trust for Public Lands

4.3 Other Park and Open Space Facilities

A variety of university, school, county, and state facilities adds to the availability of park and open space systems within the City of Madison. These facilities are shown in Exhibit 8.

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.

The UW Arboretum and Lakeshore Nature Preserve provide the City with an 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.

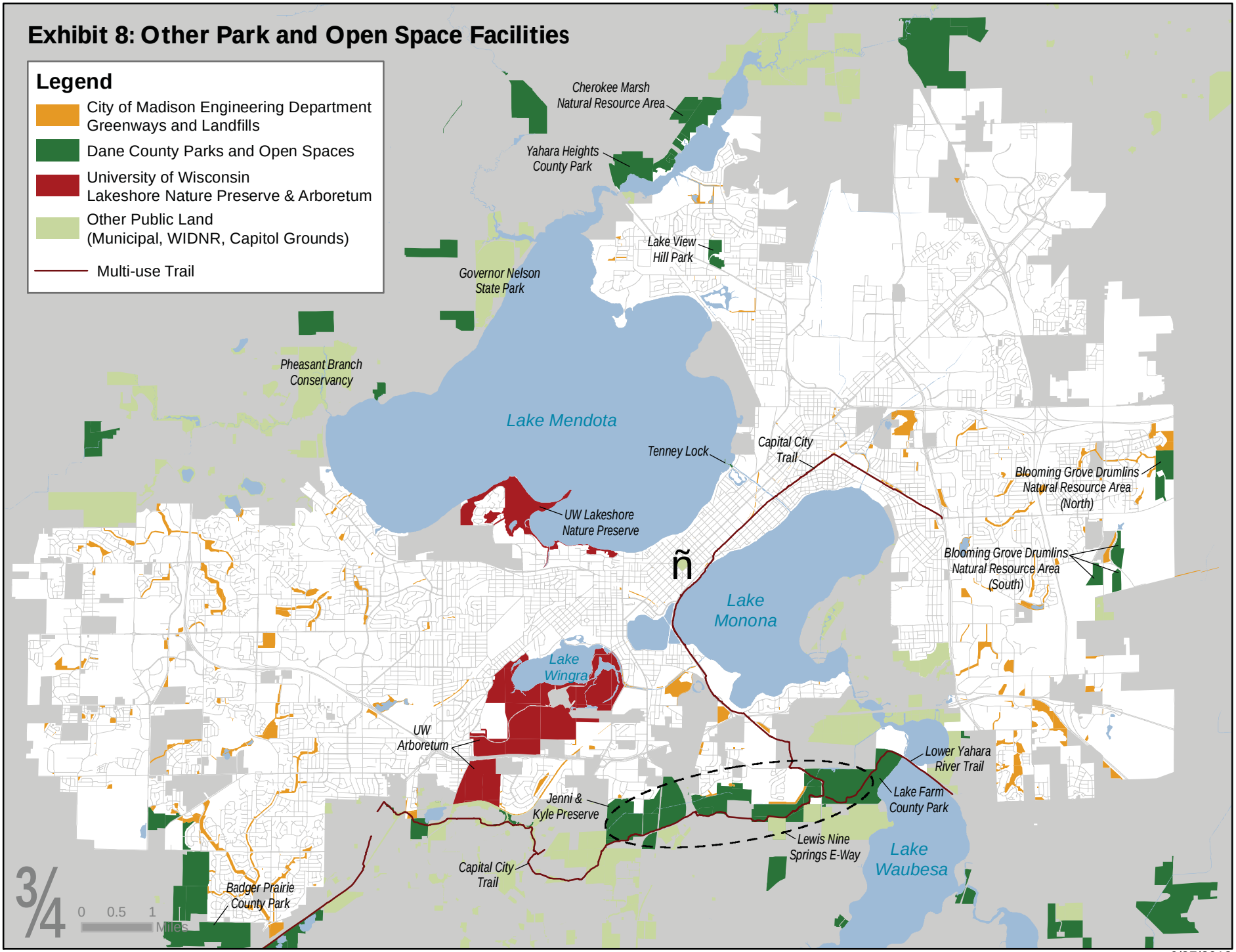
The Lakeshore Nature Preserve contains 300 acres of preserved land along four miles of the southern shore of Lake Mendota. The Lakeshore Nature Preserve provides opportunities for nature viewing, swimming, picnicking, hiking, jogging, and biking, and has opportunities for launching kayaks, canoes, and 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.

Photo: UW Lakeshore Nature Preserve

Photo: UW Arboretum

Exhibit 8: Other Park and Open Space Facilities



Public School Grounds

Public schools are excluded from the City's inventory of existing park facilities but often serve the same functions as mini and neighborhood parks. 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 reviewed when evaluating overall City facilities. Using service area analysis, the City can identify whether school parks are able to fill demand in communities which may otherwise lack parkland. Appendix C, Table 4: 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 over 12,000 acres of park and open space areas throughout the County. These areas are designed to offer recreational opportunities on a 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 regarding cultural and natural resources. Nearby County parks and facilities that serve Madison residents are described below (see Exhibit 8 for locations):

Photo: Shelter at Badger Prairie County Park

- Badger Prairie County Park: This park is located just east of the City of Verona at the intersection of County Highway PB and US Highway 18 and 151. It serves as the center of the Ice Age Trail Junction Area. The park has a shelter facility, play fields, mountain bike trails, a playground, a dog exercise area, and an aero-modeling field. The park also provides access to Military Ridge State Trail and a segment of the Ice Age National Scenic Trail.

- 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.

- Capital City Trail: Dane County Parks 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.

- 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. 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, restrooms, 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 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.

- 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. The bridge spans 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 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.

Photo: Trail Users at Lower Yahara River Trail

- Tenney Lock: The first dam at this site was constructed in 1847, to accompany a mill and brewery, and has been reconstructed several times throughout its history. The Tenney lock and dam has been operated and maintained by Dane County since 1981. Prior to this time, it was operated by the City of Madison. The lock structure allows boats to pass between Lake Mendota and Lake Monona and accommodates approximately 10,000 boats annually.

Wisconsin Department of Natural Resources

The Wisconsin Department of Natural Resources (WIDNR) owns and manages a variety of natural resources. Of closest proximity to the City of Madison is Governor Nelson State Park, a 422 acre parcel located on the north shore of Lake Mendota. As shown in Exhibit 8, the park is a conveniently-located recreational resource for Madison residents. Founded in 1975, this day use park offers amenities including a sand beach, boat launch, picnic areas, prairie restorations, and approximately 8 miles of hiking/cross-country ski trails.

Photo: Beach at Governor Nelson State Park

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 of Fitchburg, Middleton, and Monona. A complete inventory of non-city owned public parks within a 1/2-mile radius of the City boundary is set out in Appendix C, Table 5

4.4 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. Additionally, there are several privately owned spaces within the City that are used as public amenities. These areas often provide local neighborhood open space and are owned by private organizations. These facilities have not been included in this plan.

4.5 Conclusion

Residents of Madison are fortunate to live in a place known for great natural resources and recreational amenities. As the largest land owner in the City, Madison Parks play a large role in providing the community these assets. However, they are also supplemented by local and regional public land provided by the University of Wisconsin, Dane County, and the Wisconsin Department of Natural Resources. These combined resources create a nationally renowned park system, recognized as one of the top cities for parks by the 2017 Trust for Public Lands.

Chapter Five: Parkland Access

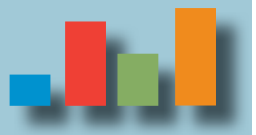
This chapter examines the existing distribution of City of Madison park facilities to ensure adequate, equitable access to parks. This plan evaluates parkland access using four different methods.

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.

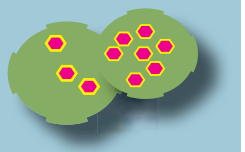
These four methods were chosen because they include NRPA standardized park metrics, but also address specific concerns heard through the engagement process related to walkability and demand in high density neighborhoods. While these comparisons are widely adopted methods for reviewing parkland access, they do not account for cultural preferences, park use, or household type. Acknowledging and understanding the limitations of these tools are essential, as they are only a few of the many tools used in developing new facilities and parkland in the City of Madison.

Figure 5.1: Parkland Access Analysis Methods

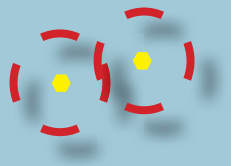
Method One: Parkland Acreage and Parkland per Capita
- Compares acreage of classifiable parkland (mini, neighborhood & community parks) to number of people (acres per 1,000 residents).



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, and 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.

In this Chapter

Method One: Parkland Acreage and Parkland per Capita

Method Two: Population Density and Parkland Proximity

Method Three: Service Area Analysis

Method Four: Access Analysis

Conclusion

5.1 Method One: Parkland Acreage and Parkland per Capita

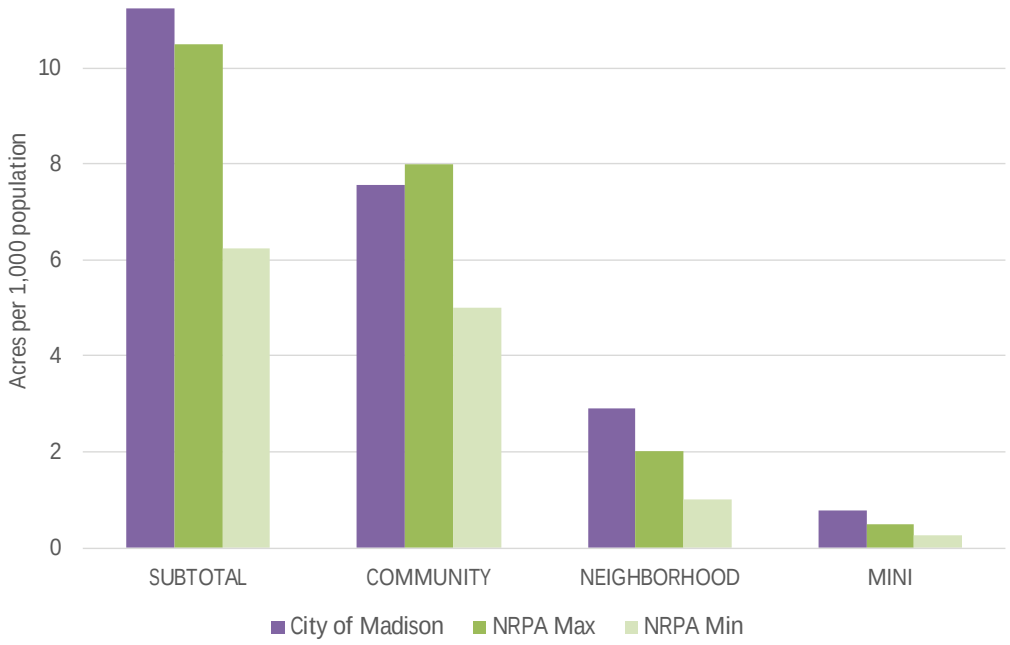
Mini, neighborhood, and community parks are intended to meet the core recreational demands for playgrounds, fields, shelters, and courts. The NRPA provides communities with a recommended range of acreage per 1,000 residents as a guideline to ensure these recreational needs are met.

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 5.1 and Figure 5.2, the City of Madison falls within the NRPA guidelines of facilities for community parks, and exceeds the NRPA targets for mini, neighborhood, and total parkland.

Table 5.1: NRPA Metrics Compared to Madison Park Acreage

	NRPA Guidelines			City Adopted Standards	2017 Actual
Park Type	Service Area	Size (Acres)	Acres per 1,000 residents	Acres per 1,000 residents	Acres per 1,000 residents
Mini	1/4 mile	< 5	0.25 -0.5	As appropriate	0.8
Neighbor-hood	1/2 mile	5+	1.0-2.0	3.75	2.9
Community	2 mile	20+	5-8	6.25	7.6
Total			**6.25-10.5**	**10+**	**11.2**

Figure 5.2: NRPA Guidelines Compared to City of Madison Park Acreage



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[07].

Of these core park types, mini parks are the most prevalent type of park in the Madison park system. Table 5.2 shows that 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 Four provides a more in-depth description of the specific features included in mini, neighborhood, and community parks.

Table 5.2: City of Madison Parkland Acreage[08]

Park Type	Number of Parks Based on Classification	Acres (percentage of total parkland)
Mini Parks	99 (36%)	194.7 (3%)
Neighborhood Parks	76 (28%)	729.0 (13%)
Community Parks	31 (11%)	1888.6 (34%)
Subtotal	**206 (75%)**	**2812.3 (50%)**
Conservation	20 (7%)	1752.5 (31%)
Trafficways	14 (5%)	25.7 (0.4%)
Other	1 (0%)	0.6 (0%)
Open Space	22 (8%)	110.8 (2%)
Special	10 (4%)	884.2 (16%)
Sports Complex	2 (1%)	27.9 (.5%)
Subtotal	**69 (25%)**	**2801.7 (50%)**
TOTAL PARKLAND	**275**	**5614**

Photo: Opera in the Park event at Garner Park, which is classified as a Community Park

07 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, which is classified as a neighborhood park.

08 Park acreages current as of 1/1/2018.

5.2 Method Two: Population Density and Parkland Proximity

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 5.3 illustrates which parks have the highest number of people within a half mile of the park, potentially increasing the demand for park use at these facilities. However, the most recent GIS data available at the time of this analysis was extrapolated from the 2010 US Census Block Data. Within the last eight years, the downtown has seen growth in multi-story multifamily apartments and condominiums. This analysis will be updated as more accurate census data are released.

Table 5.3: Parks with Highest Number of People Within Half Mile

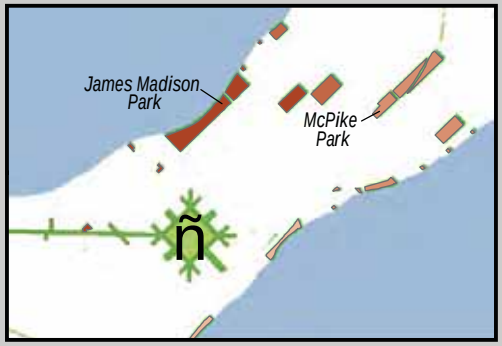
Park Name	Approximate Population
Brittingham Park	> 15,000
James Madison Park	> 10,000
Vilas (Henry) Park	> 5,000
Hoyt Park	> 5,000
Huegel-Jamestown Park	> 5,000
Tenney Park	> 5,000
Warner Park	> 5,000
Olbrich Park	> 5,000
Yahara Place Park	> 2,500
Central Park	> 2,500

Exhibit 9 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.

Photo: A busy day at Brittingham Park

Photo: Enjoying Warner Park beach

Exhibit 9: Population Served by Park



Legend
Population* Served by Park (Half Mile from Park)
- 274 - 1,500
- 1,501 - 3,000
- 3,001 - 4,500
- 4,501 - 6,500
- 6,501 - 20,000
- Other Public Park/Open Space

* Based on 2010 Census data

Note: Population data based on 2010 U.S. Census

Cherokee Marsh Conservation Park (North Unit)
North East Park
Reindahl Park
Warner Park
Sycamore Park
Demetral Park
Hiestand Park
Door Creek Park
Kennedy Park
North Star Park
Lake Mendota
Marshall Park
Tenney Park
Wexford Park
Blackhawk Park
James Madison Park
McPike Park
Olbrich Park
Walnut Grove Park
Rennebohm Park
Hoyt Park
Brittingham Park
Vilas Park
Lake Monona
Garner Park
Lake Wingra
Goodman Park
Olin Park
Turville Point Conservation Park
Elver Park
Hill Creek Park
Marlborough Park
Lake Waubesa

3/4 0 0.5 1 Miles

5.3 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 park classification as defined by the NRPA (Lancaster, 1983), shown in Table 5.4.

Table 5.4: NRPA Service Area by Park Type

Park Type	Service Area (Radius)
Mini	1/4 Mile
Neighborhood	1/2 Mile
Community	Two miles

The intent of NRPA service area analysis is to identify existing gaps in traditional core facilities. This analysis only evaluates service areas for parks classified as mini, neighborhood, or community. Special parks, conservation parks, trafficways, greenways, open space or other 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. This 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 downtown areas which are comprised primarily of multifamily apartments and condominiums with few or no backyards. Acknowledgement and understanding of these limitations must be included in the analyses to identify park needs for differing 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[09,10]. The City of Madison provides most core facilities in neighborhood parks. 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 10.

09 This analysis excluded neighborhoods that have adopted Neighborhood Development Plans or Special Area Plans that are not fully developed.
10 For this evaluation, community parks have a half-mile service area, serving as neighborhood parks to their immediate neighborhood.

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 11 identifies park deficiencies when a quarter-mile service area radius is applied to elementary schools and a 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:

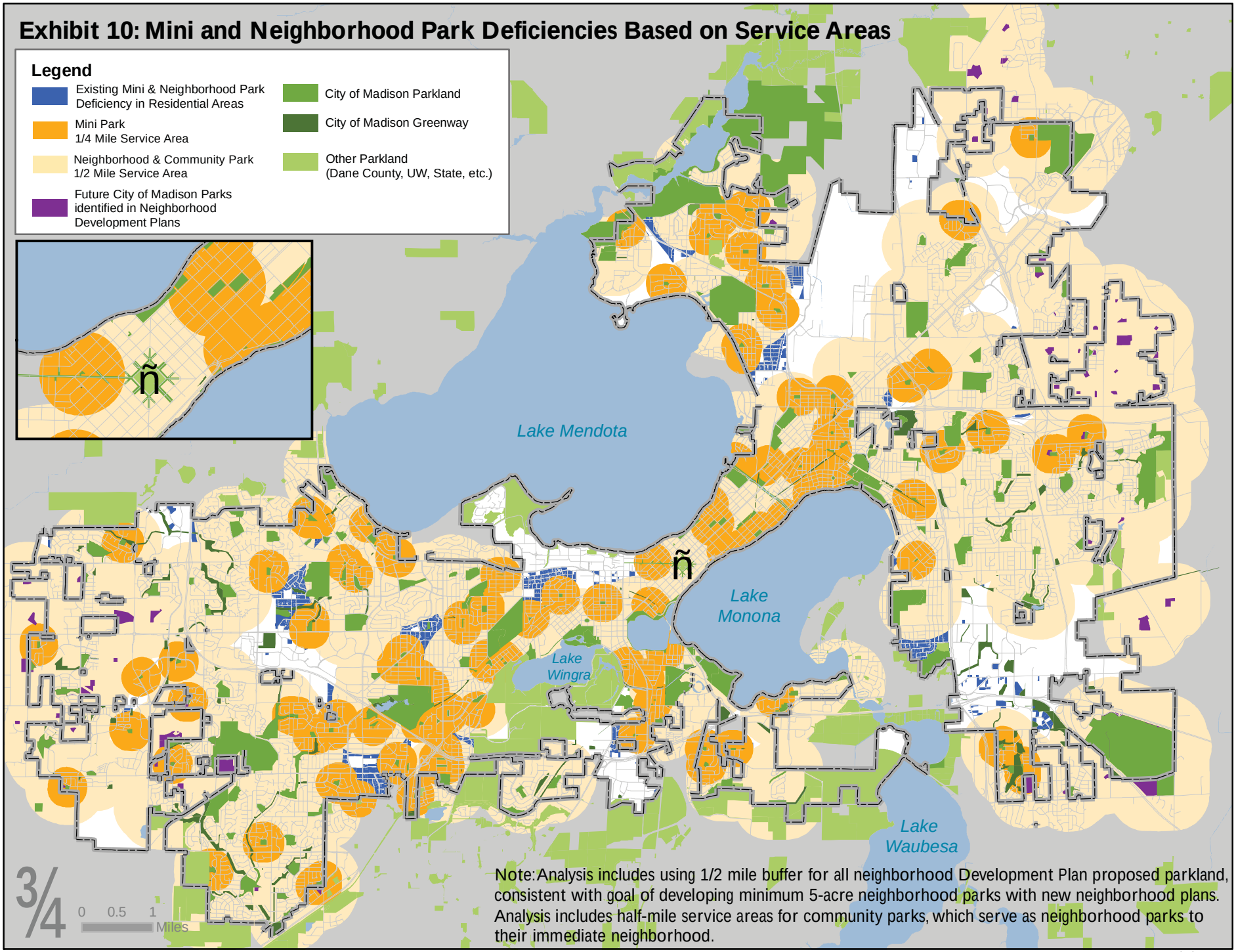
- Lindberg Elementary School
- Lincoln Elementary School
- Muir Elementary School/Jefferson Middle School
- Orchard Ridge Elementary School/Toki Middle School
- Glendale Elementary School/Sennett Middle School
- Mendota Elementary School
- Sherman Middle School
- Hawthorne Elementary School
- Allis Elementary School
- Olson Elementary School

Photo: Lindberg Elementary School

Photo: Muir Elementary School

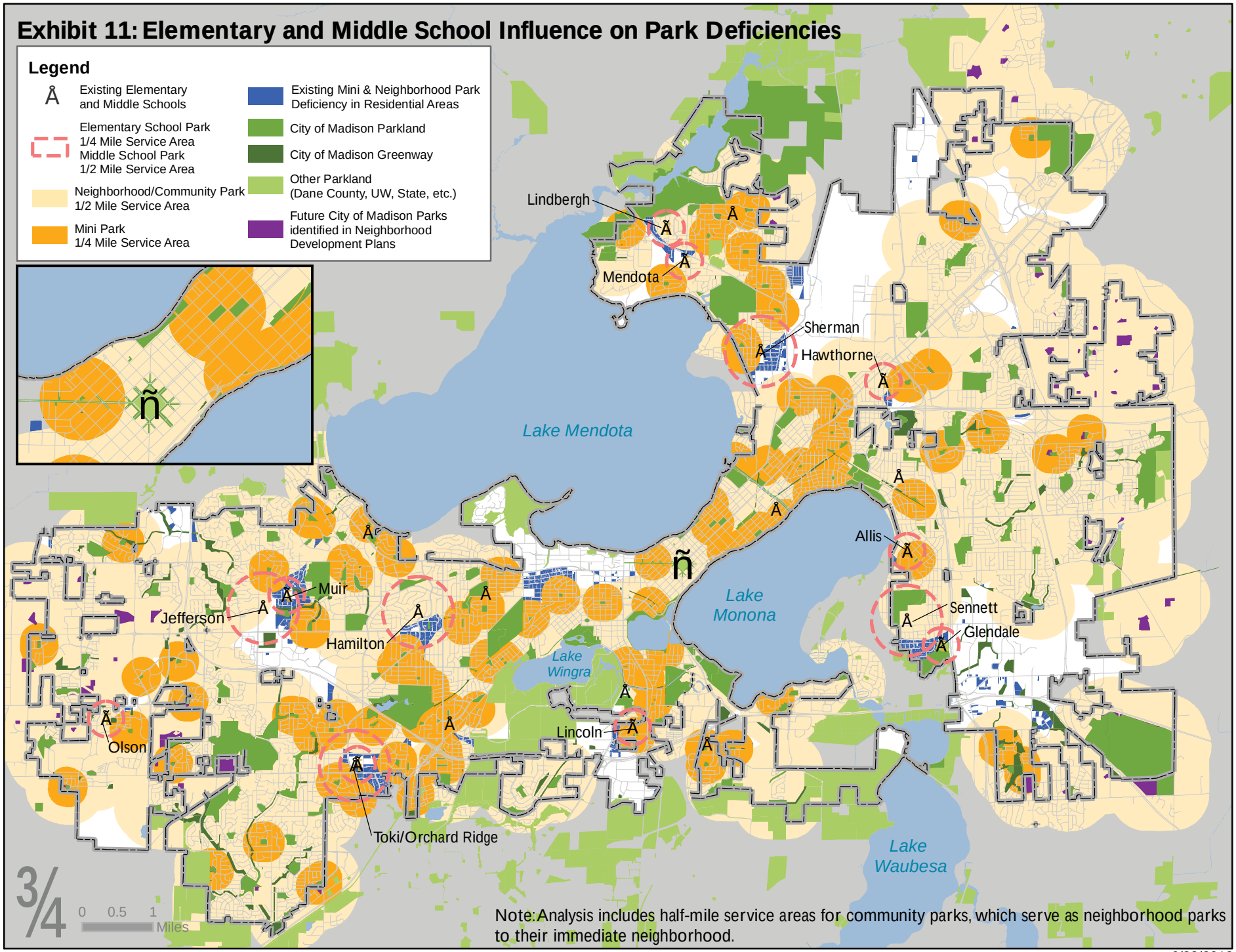
Photo: Glendale Elementary School

Exhibit 10: Mini and Neighborhood Park Deficiencies Based on Service Areas



Note: Analysis includes using 1/2 mile buffer for all neighborhood Development Plan proposed parkland, consistent with goal of developing minimum 5-acre neighborhood parks with new neighborhood plans. Analysis includes half-mile service areas for community parks, which serve as neighborhood parks to their immediate neighborhood.

Exhibit 11: Elementary and Middle School Influence on Park Deficiencies

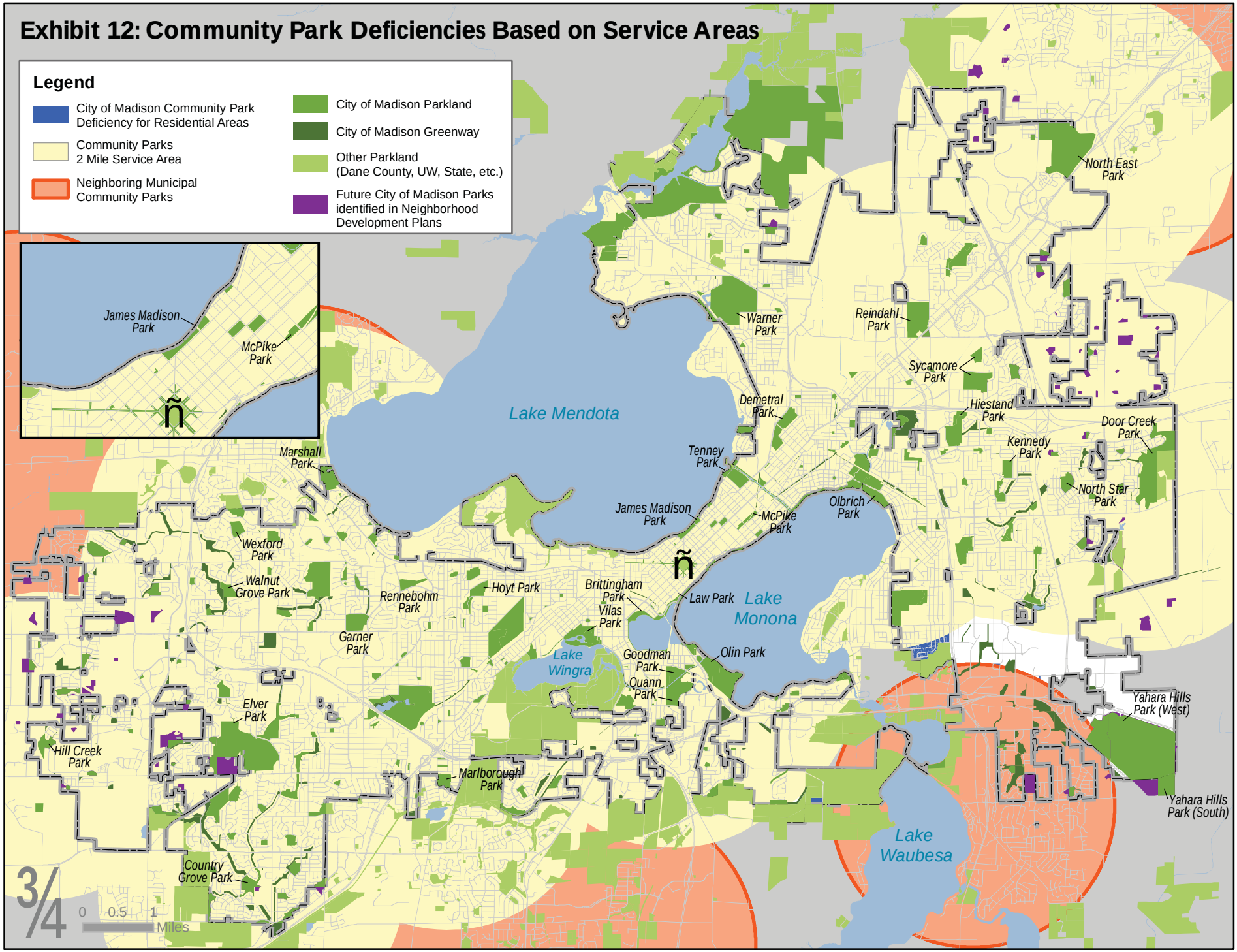


Community Park Service Area Analysis

The City provides community park service area coverage for approximately 97% of all areas of residential land use, including Neighborhood Development Plan areas. Areas that are deficient in community park coverage are shown in Exhibit 12. Community park development relies on regional efforts when evaluating coverage; thus community parks from neighboring municipalities are included in the analysis.

Photo: James Madison Park by Denise DeSerio

Exhibit 12: Community Park Deficiencies Based on Service Areas



5.4 Method Four: Access Analysis

An emerging method for evaluating the distribution of parkland is by examining 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 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.

"Parental safety perceptions of safe walking routes have decreased throughout the decades."
(J Transp Health. 2014 Jun; 1(2): 108–115.).

"Declines in walking have been greatest among elementary-aged children and for children who live within one mile of their school" (Ibid.).

Walkability

Walkable access to mini, neighborhood, community and conservation parks assumes the following:

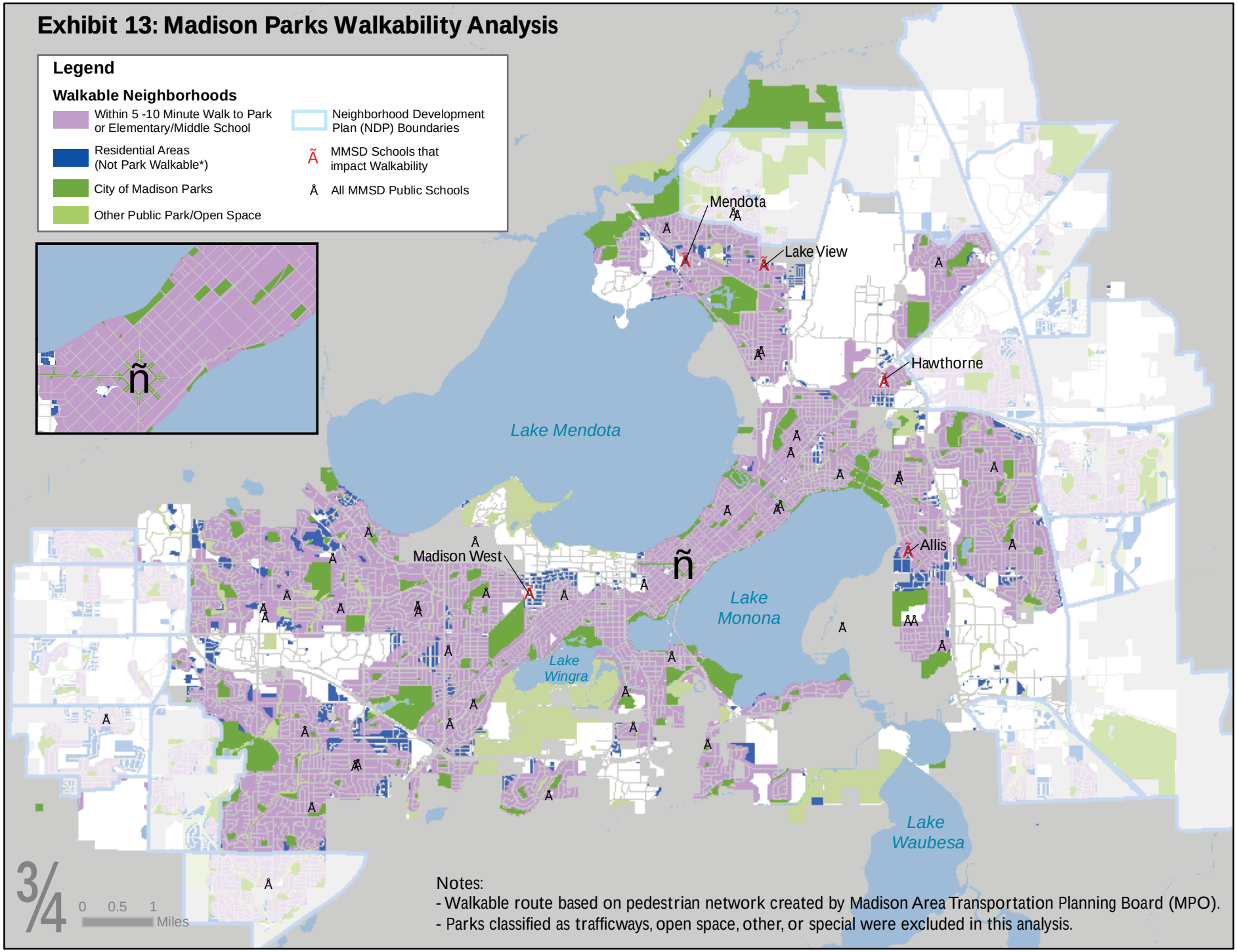
- Mini parks and elementary schools serve the community within a five-minute walk to the park.
- Neighborhood parks and middle schools serve the community within a ten-minute walk to the park.
- Community and conservation parks function as neighborhood parks, serving the community within a ten-minute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

Photo: Enjoying a stroll in a park

The walkability analysis excludes walking routes where 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. In addition, this evaluation specifically excludes agricultural, military, or industrial properties and properties 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 walk to a mini, neighborhood, community, or conservation park. Areas that lack walkable access to these facilities are identified in Exhibit 13.

Exhibit 13: Madison Parks Walkability Analysis



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 14 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 existing demographic data do not reflect recent development in these areas.

Public Transportation

Exhibit 15 identifies areas of higher concentrations of poverty that are not within a 20-minute combination bus ride/walking route to a park. These areas generally match the areas identified above in the walkability analysis. Areas of neighborhoods with high concentrations of families living below the poverty line, which lack both walkable access and public transportation to parkland are especially vulnerable to public health conditions.

This exhibit uses existing Madison Metropolitan Planning Organization data to evaluate public transportation on a mid-day weekend, when both parents and children typically may be able to spend time to travel to a park. Bus routes frequently change to meet customer demands, and the most up-to-date routes may not always be reflected in the MPO data.

Photo: Using the Madison Metro Rack-n-Roll bike racks

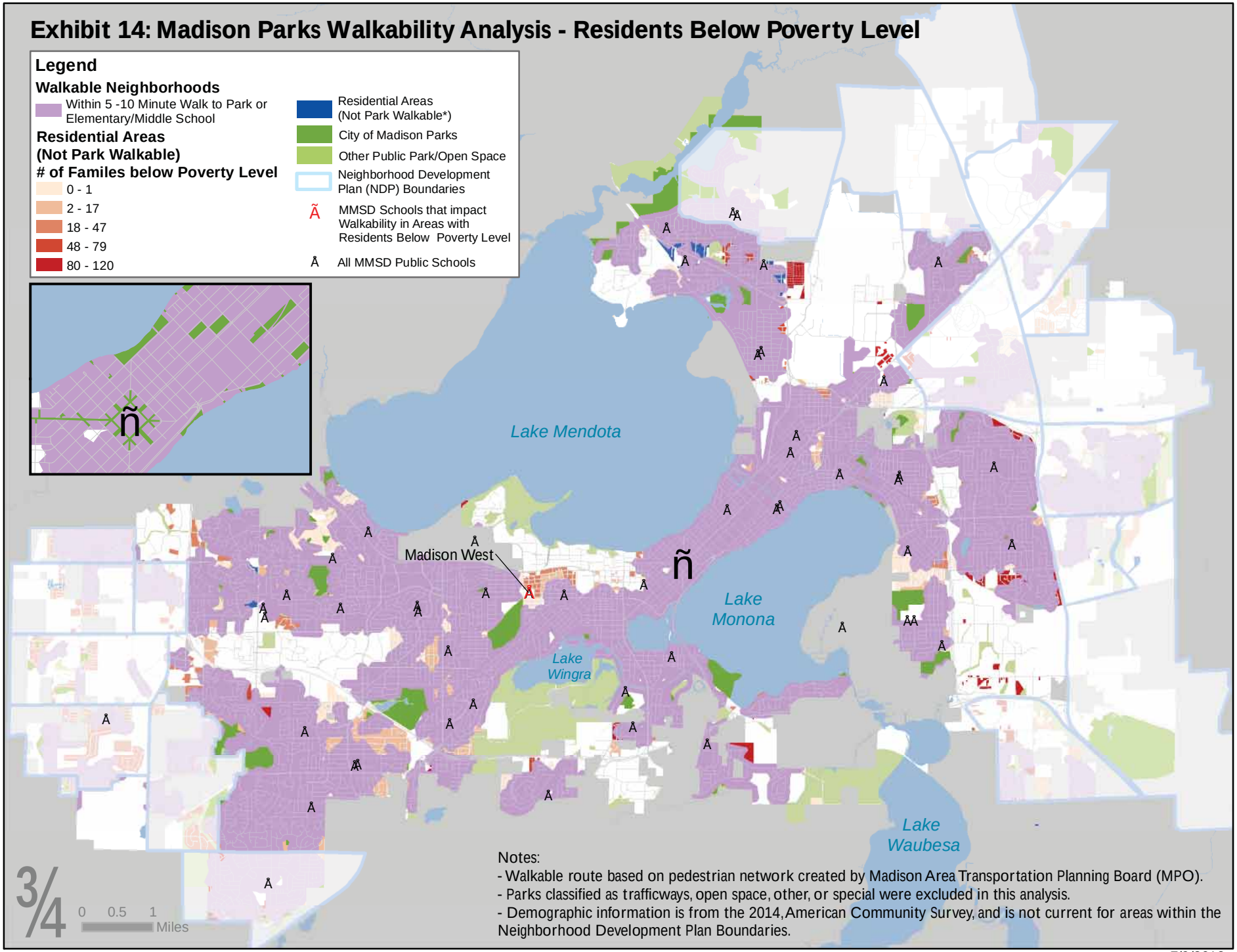
School Influence on Walkability and Transportation Access

As discussed in the park service area analysis section of this chapter, schools often provide open space and recreational amenities similar to parks. The walkability analysis suggests that the following schools may alleviate park deficiencies in areas that are not within a park service area, a five to ten minute walk to a park, or a 20-minute combination bus/ride to a park.

Table 5.5: Comparison of School Influence on Parkland Access and Demand

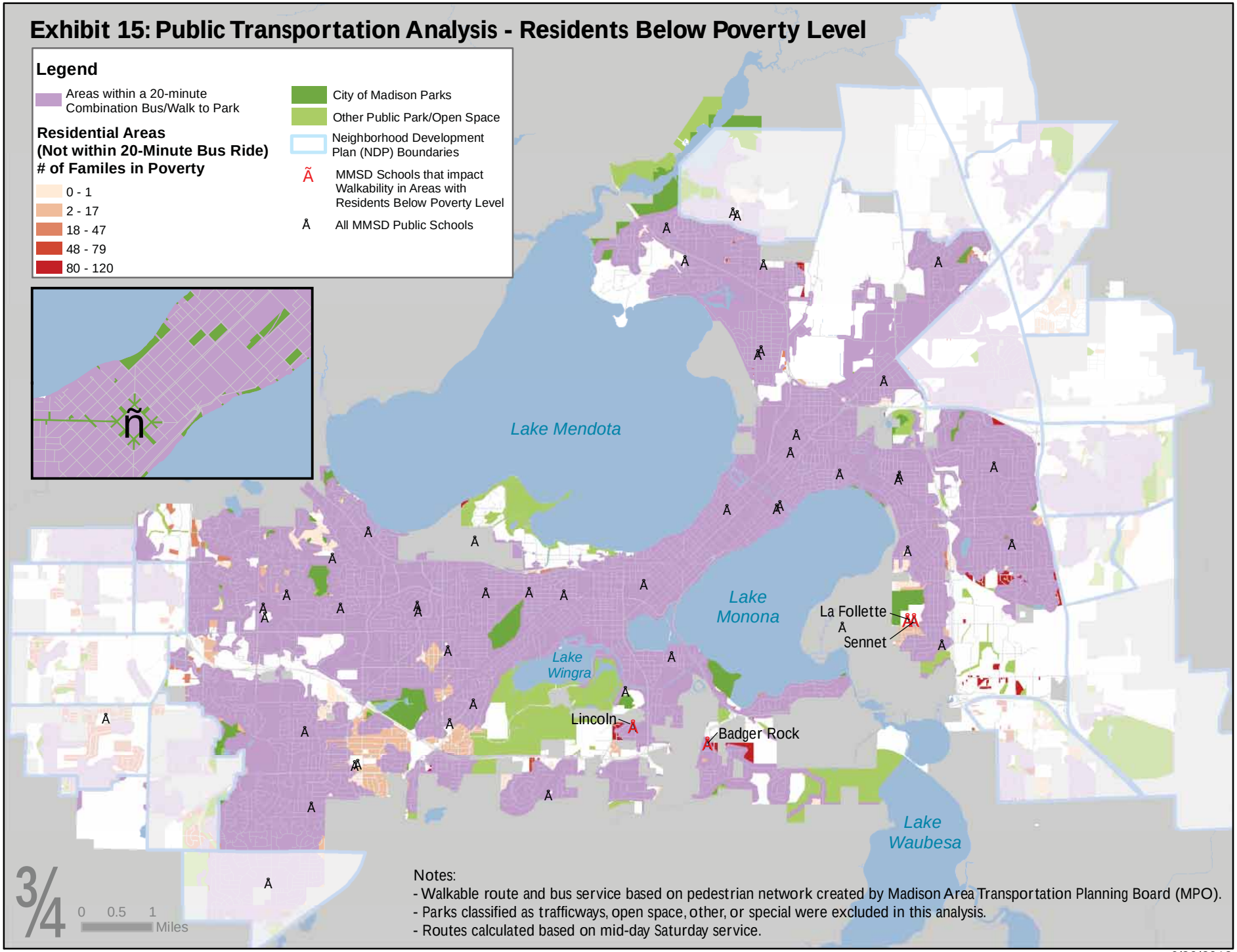
School	Park Service Area	Walkability Analysis	Walkability Analysis - Residents Below Poverty Level	Public Transportation Analysis - Residents Below Poverty Level
Allis Elementary School				
Badger Rock Middle School				
Glendale Elementary School				
Hamilton Middle School				
Hawthorne Elementary School				
Jefferson Middle School				
La Follette High School				
Lake View Elementary School				
Lindberg Elementary School				
Lincoln Elementary School				
Madison West High School				
Mendota Elementary School				
Muir Elementary School				
Olson Elementary School				
Sennett Middle School				
Sherman Middle School				
Toki Middle School/Orchard Ridge Elementary School				

Exhibit 14: Madison Parks Walkability Analysis - Residents Below Poverty Level



Notes:
- Walkable route based on pedestrian network created by Madison Area Transportation Planning Board (MPO).
- Parks classified as trafficways, open space, other, or special were excluded in this analysis.
- Demographic information is from the 2014, American Community Survey, and is not current for areas within the Neighborhood Development Plan Boundaries.

Exhibit 15: Public Transportation Analysis - Residents Below Poverty Level



Notes:
- Walkable route and bus service based on pedestrian network created by Madison Area Transportation Planning Board (MPO).
- Parks classified as trafficways, open space, other, or special were excluded in this analysis.
- Routes calculated based on mid-day Saturday service.

5.5 Conclusion

A variety of data-driven metrics can assist in evaluating park systems. This chapter incorporated both NRPA standardized park metrics to review parkland per capita and park service areas, and also included analysis of population density and walkable and public transportation-based access to parks.

The parkland acreage and parkland per capita analysis identified that Madison exceeds the NRPA guidelines of parkland per capita for mini parks, neighborhood parks, and total parkland and is within the guidelines for community parks. In general, mini parks provide the largest number of different park properties, whereas conservation parks provide the largest number of total parkland.

The population density and parkland proximity analysis found that certain parks, primarily on or near the isthmus, serve densely populated neighborhoods, pointing towards higher demand and use of facilities in these parks.

When reviewing park services areas for mini, neighborhood, and community parks. This chapter identified that 93% of residential areas are within the NRPA defined service area of a mini and/or neighborhood park, and that some MMSD schools contribute to providing recreational amenities in areas that lack park service coverage. When reviewing community park coverage, 98% of residential areas are within 2 miles of a community park, leveraged by the adjoining community parks in the Town and City of Middleton, City of Sun Prairie, and Village of McFarland.

Lastly, when reviewing walkable access to parks along bike paths and sidewalks, there's a larger deficiency of walkable access compared to park service area deficiencies. Comparing this information with data on communities living in poverty from the U.S. Census Bureau, there did not seem to be a disproportionately large portion of communities living in poverty without walkable access. Madison West High School does help to increase access to recreational amenities in an area identified as having residents living below the poverty level. When reviewing access to parks through public transportation, in general most neighborhoods are within a 20-minute combined walk/bus route to a Madison park. Similar to the walkable access analysis, communities living in poverty are not disproportionately without public transportation access to parks, and are aided by three public schools that provide recreational amenities.

Chapter Six: Relevant Plans

6.1 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 plan reviews city-wide parkland distribution, structure, funding mechanisms, and relationships to changing demographics, land development, and future growth across the City. 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. This plan does not include specific recommendations for individual parks. Figure 6.1 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 Comprehensive Plan.*

Figure 6.1: Planning Document Organizational Hierarchy

Imagine Madison: City of Madison Comprehensive Plan

Park and Open Space Plan

Citywide Plans
- Community Gardens: Opportunities for Madison & Dane County
- Connecting Children to Nature Implementation Plan
- Madison Cultural Plan
- Public Art Framework Plan
- Public Health Madison and Dane County Strategic Plan
- Transportation Master Plan

Environmental Plans
- CARP Land Use Water Quality Plan
- Cherokee Special Area Plan
- Dane County Water Quality Plan
- Lake Wingra Watershed Management Plan
- Madison Sustainability Plan
- Pollinator Task Force Report
- Warner Lagoon Plan
- Yahara Monona Priority Watershed Plan

Neighborhood Plans
- Allied-Dunn's Marsh
- Allied-Dunn's Marsh-Belmar
- Arbor Hills-Leopold
- Bay Creek
- Brittingham-Vilas
- Broadway-Simpson
- Carpenter-Ridgeway
- Emerson-East-Eken Park-Yahara
- Greenbush
- Greenbush-Vilas Neighborhood Housing Revitalization Plan
- Hiestand
- Hoyt Park Area
- Marquette Neighborhood Center
- Marquette-Schenk-Atwood
- Midvale Heights-Westmorland
- Northport-Warner Park-Sherman
- Regent Street-South Campus
- Schenk-Atwood-Starkweather-Worthington
- South Madison
- Southwest
- Spring Harbor
- Tenney-Lapham
- University Avenue Corridor
- University Hill Farms
- Wingra Creek BUILD

Special Area Plans
- Downtown Plan
- Dane County Land Use & Transportation Plan
- East Washington Avenue Capitol Gateway Corridor Plan
- Lamp House Block
- Monroe Street Commercial District Plan
- South Capitol Transit Oriented Development Plan
- Stoughton Road Revitalization Project Plan
- University Avenue Corridor Plan

Neighborhood Development Plans
- Blackhawk
- Cherokee
- Cottage Grove
- Cross Country
- East Towne-Burke Heights
- Elderberry
- Felland
- Hanson Road
- High Point-Raymond
- Junction
- Marsh Road
- Midtown
- Nelson
- Northeast Neighborhoods
- Pioneer
- Pumpkin Hollow
- Rattman
- Sprecher
- Yahara Hills

In this Chapter

How this Plan Relates to Other Plans
State Comprehensive Outdoor Recreation Plan
Dane County Parks and Open Space Plan
Intergovernmental Agreements
Imagine Madison: City of Madison Comprehensive Plan
Neighborhood Development Plans
City of Madison Downtown Plan
Conclusion

6.2 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. This study provides 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 and Open Space Plan. However, this plan does incorporate the draft 2018 *Recreation Opportunities Analysis* which will inform the updated SCORP.

The regional profiles section in the 2011-2016 SCORP reviews social, development, and economic factors influencing 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. See Appendix D, Exhibit B for a map of the Southern Gateways Region. 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 the top 10 uses include (listed in descending order of demand): picnicking, boating, visiting a beach, swimming, snow/ice activities, visit a wilderness or primitive area, day hiking, freshwater fishing, motorized boating, and developed camping.

Photo: Regional planning boundaries used for the SCORP, image courtesy of WDNR

Tables 6.1 and 6.2 from the 2011-2016 SCORP identify regional recreation supply shortages for the Southern Gateways Region including: backcountry/walk-in camping, boat launches, natural areas, parks, public water access, trails for hiking, bicycle, and horseback riding, 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 tourists from Chicago and the Twin Cities use the Southern Gateways region for downhill skiing, sightseeing, picnicking, camping, bird watching, and hiking.

Tables 6.3 and 6.4 present information from the draft 2018 *Recreation Opportunities Analysis* (ROA). The ROA is a study, conducted by the WNDR, of existing outdoor-based recreation opportunities and future recreation needs in each region of the state. Based on extensive public input, the ROA is routinely updated and informs the SCORP. These two tables present frequently identified and anticipated future demand for recreation opportunities in the Southern Gateways region according to the ROA results.

Table 6.1: 2005 Regional Recreation Supply Shortages for the Southern Gateways Region

Nature-based	Developed Settings
Backcountry/walk-in camping	Boat launches - trailerable
Boat launches	Camps - educational
Natural areas	Dog parks
Parks	Ice Skating Rinks
Public water access	Nature Centers
Trails-hiking	Picnic Areas
Trails-horsebackriding	Sailboat clubs/rentals
	Tennis courts
	Tennis programs
	Trails - bicycle

Table 6.2: 2011 Regional Recreation Supply Shortages for the Southern Gateways Region

Nature-based	Developed Settings
Backcountry/walk-in camping	Boat launches - trailerable
Boat launches - carry-in	Camps - educational
Natural areas	Dog parks
Parks	Nature Centers
Public water access	Picnic Areas
Trails-hiking	Sailboat clubs/rentals
Trails-horsebackriding	

Table 6.3: Draft 2018 Recreation Opportunities Analysis- Top 10 Most Frequently Identified Recreation Opportunities Needed in the Southern Gateways Region

Activity	# of responses
More trails for motorized recreation (ATVs, UTVs, off-road motorcycles, etc.)	1182
More hiking/walking/running trails	1001
More natural surface (dirt) biking trails	724
More paved bicycling trails	676
More rustic/quiet campgrounds (pit toilets, no electricity or generators)	618
More public shore access to lakes and streams	618
More developed campgrounds (electric hook-ups, flush toilets, showers)	489
More local parks and playgrounds	405
More horse trails	401
More public shooting ranges	399

Based on public input gathered during the ROA process.

Table 6.4: 2018 Draft Recreation Opportunities Analysis- Anticipated Future Recreation Needs for the Southern Gateways Region

Future recreation needs in the Southern Gateways Region- High	Future recreation needs in the Southern Gateways Region- Medium	Future recreation needs in the Southern Gateways Region- Low
ATV/UTV riding	Bicycling- fat tire/snow biking	Dog sledding/skijoring
Bicycling- bicycle touring/road riding	Cross country skiing	Dog training
Bicycling- mountain biking/off-road biking	Fishing- ice fishing	Dog trialing
Bird or wildlife watching	Fishing- lake fishing from a boat, canoe, or kayak	Horse cart driving
Camping- developed	Fishing- river fishing from a boat, canoe, or kayak	Hunting- migratory birds
Camping- primitive	Fishing- stream/river fishing from shore or wading	Hunting- small game
Canoeing or kayaking	Four-wheel vehicle driving	Sailing, windsurfing, rowing, stand-up paddling
Fishing- lake fishing from shore or a pier	Geocaching	Scuba diving/snorkling
Gather mushrooms, berries, etc.	Horseback riding	Trapping
Hiking, walking, trail running, backpacking	Hunting- big game	Whitewater rafting
Motorboating (waterski/tubing, personal watercraft)	Hunting- turkey	
Picnicking	Nature photography	
Snowshoeing	Off-highway motorcycle riding	
Swimming in lakes and rivers	Participating in nature-based education programs	
	Rock climbing	
	Snowmobiling	
	Target shooting- archery	
	Target shooting- firearms	
	Visiting a beach, beach walking	

Based on public input gathered during the ROA process.

The SCORP regional profile brings together extensive amounts of information regarding demographics, land use patterns, and projected recreational trends. The 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 counties 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. The economic vitality and population growth subjects agricultural land to intense development pressure, resulting in high land values, 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).

Photo: Warner Park boat launch

The 2011 *Wisconsin Outdoor Recreation Demand Report*, developed by the WDNR, also presents information on statewide recreation trends relevant to the City of Madison. The 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 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. Tables 6.5 through 6.10 are from the *Wisconsin Outdoor Recreation Demand Report*. These data do not take into consideration regional differences within the state of Wisconsin, and should not be construed as data that are specific to local municipalities such as Madison. For more information on recreational trends in Wisconsin, refer to http://dnr.wi.gov/topic/lands/scorp/

Table 6.5: 10 Most Popular Outdoor Recreation Activities

2011 Wisconsin Outdoor Recreation Demand

Activity	% Participating	Number of participants (1,000's)
Walk for pleasure	87.7	3,947
Gardening or landscaping for pleasure	65.4	2,944
View/photograph natural scenery	65.3	2,939
Attend outdoor sports events	65.0	2,926
Family gathering	63.5	2,858

Photo: An organized nature walk at Cherokee Marsh Conservation Park

Table 6.6: Participation Rates for Developed-setting Land Activities
2011 Wisconsin Outdoor Recreation Demand

Activity	% Participating	Number of participants (1,000's)
Walking for pleasure	87.7	3,947
Gardening or landscaping for pleasure	65.4	2,944
Family gathering	63.5	2,858
Driving for pleasure	52.8	2,377
Bicycling	48.7	2,192

Table 6.7: Participation Rates for Outdoor Sports
2011 Wisconsin Outdoor Recreation Demand

Activity	% Participating	Number of participants (1,000's)
Attend outdoor sports events	65.0	2,926
Golf	41.8	1,881
Running or jogging	32.1	1,445
Handball or racquetball outdoors	23.5	1,058
Tennis outdoors	8.5	383

Table 6.8: Participation Rates for Snow and Ice-based Activities
2011 Wisconsin Outdoor Recreation Demand

Activity	% Participating	Number of participants (1,000's)
Snow/ice activities (any type)	45.9	2,066
Sledding	28.2	1,269
Snowmobiling	18.3	824
Ice skating outdoors	13.5	608
Ice fishing	13.1	590

Table 6.9: Participation Rates for Nature-based Land Activities
2011 Wisconsin Outdoor Recreation Demand

Activity	% Participating	Number of participants (1,000's)
Day hiking	36.7	1,652
Visit a wilderness or primitive area	33.7	1,517
Mountain biking	30.7	1,382
Developed camping	25.4	1,143
Hunting (any type)	22.2	999

Table 6.10: Participation Rates for Viewing/Learning Activities
2011 Wisconsin Outdoor Recreation Demand

Activity	% Participating	Number of participants (1,000's)
View/photograph natural scenery	65.3	2,939
Visit nature centers, etc.	63.5	2,858
View/photograph other wildlife	57.9	2,606
View/photograph wildflowers, trees, etc.	52.4	2,359
Sightseeing	50.6	2,278

Table 6.11: Participation Rates for Water-based Activities
2011 Wisconsin Outdoor Recreation Demand

Activity	% Participating	Number of participants (1,000's)
Boating (any type)	47.3	2,129
Visit a beach	42.3	1,904
Swimming in lakes, streams, etc.	41.7	1,877
Freshwater fishing	37.4	1,683
Motor boating	36.0	1,620

6.3 Dane County Parks and Open Space Plan

Similar to the City of Madison, Dane County completes a Parks and Open Space Plan (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. See Appendix D, Exhibits C and D for maps related to the County's POSP.

The County's POSP drew 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 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.

Figure 6.2: Dane County Annual Trail Permit Sales

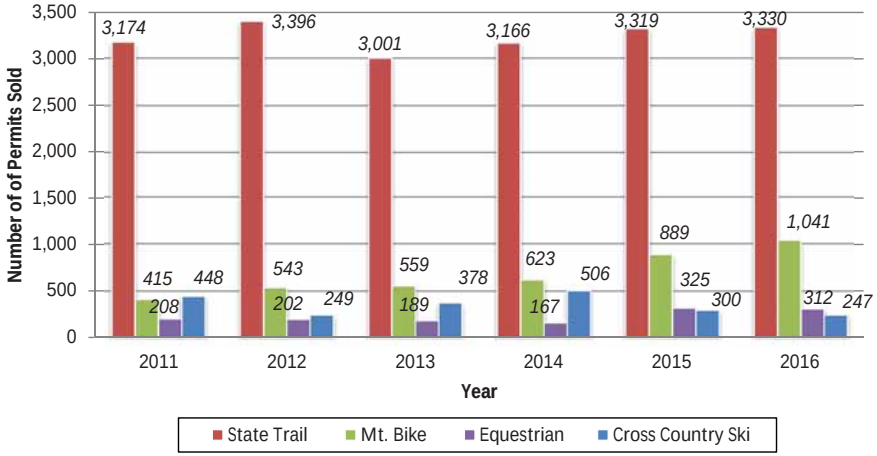
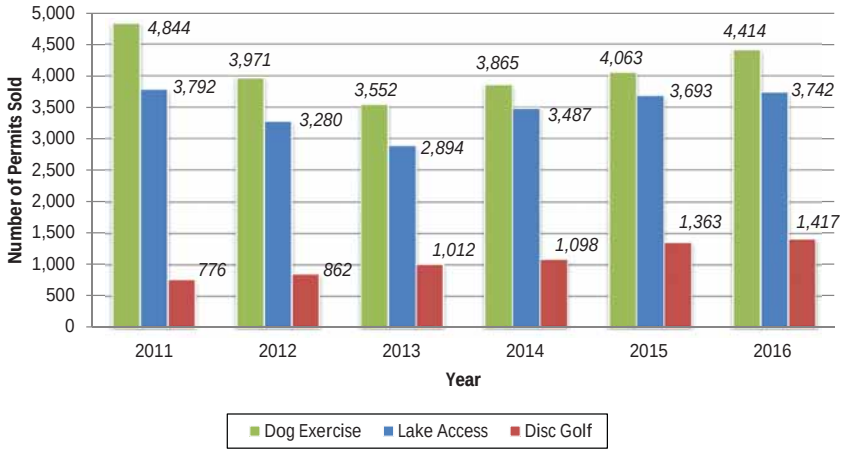


Figure 6.3: Dane County Annual Recreation Permit Sales



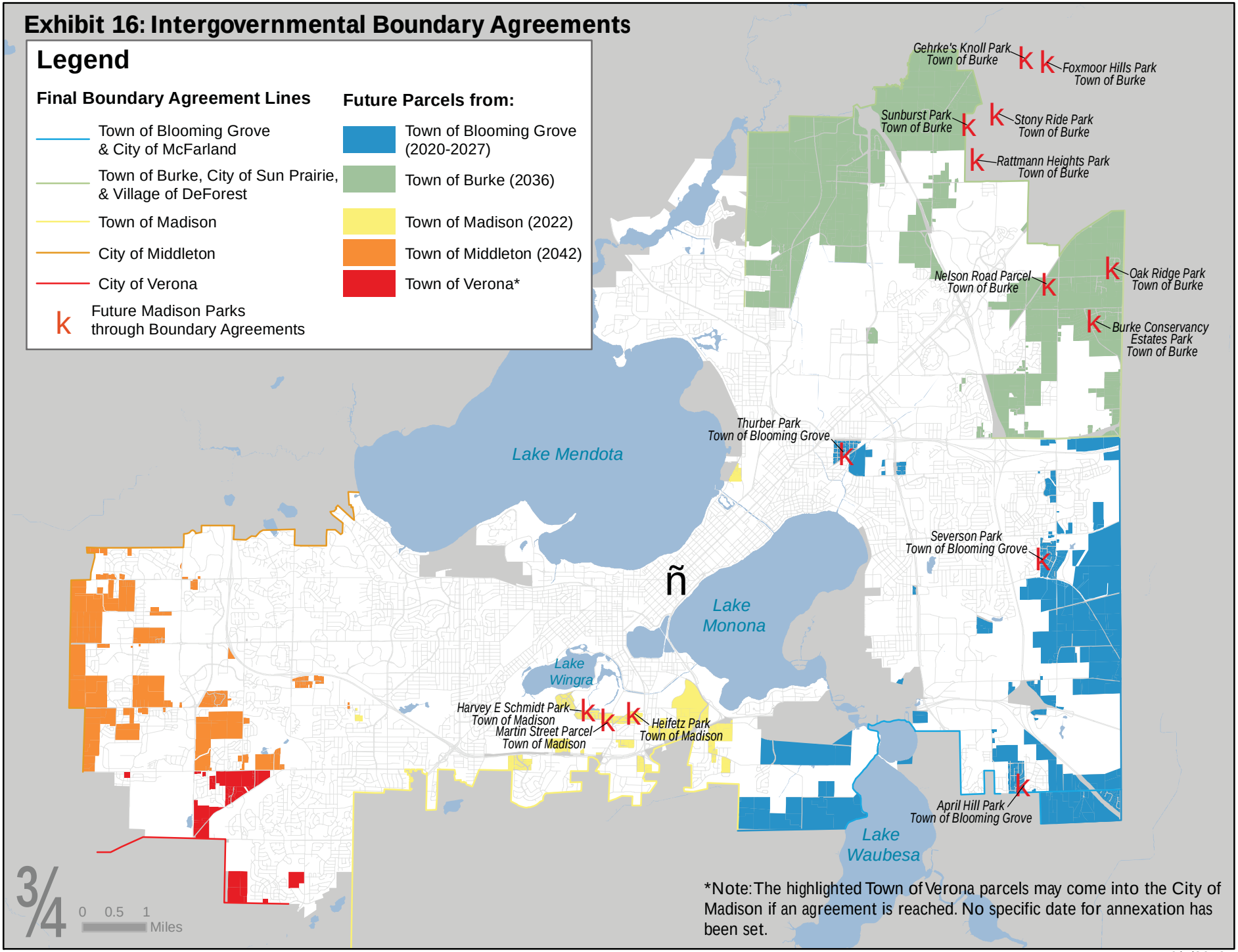
Dane County has several natural resource areas and park properties that lie within the City of Madison limits. These properties are identified in Chapter Four and include the Jenni & Kyle Preserve, Lake Farm County Park, Lake View Hill Park, the Nine Springs E-Way, the Capital City Trail, the Lower Yahara River Trail, Yahara Heights County Park, the Cherokee Marsh Natural Resource Area and the Blooming Grove Natural Resource Area.

6.4 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 has also reached agreements with three neighboring communities to acquire 14 new parks by 2036. See Exhibit 16 for new City parcels and future City of Madison 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
  - Three new parks
- Town of Burke - Final Attachment in 2036
  - Eight new parks

Exhibit 16: Intergovernmental Boundary Agreements



6.5 Imagine Madison: City of Madison Comprehensive Plan

Wisconsin State Statutes Section 66.1001 mandates local governments to create, 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. Maps corresponding with the draft plan may be found in Appendix D; see Exhibits E and F.

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 Plan's goals, strategies, actions and priorities.

The City's Park and Open Space Plan was developed at the same time as the *Imagine Madison Comprehensive Plan*. Engagement efforts of both the Comprehensive Plan and the Park and Open Space Plan informed the interrelated recommendations of these two documents.

Several themes emerged which inform development of 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 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.

6.6 Neighborhood Development Plans

Neighborhood Development Plans (NDPs) 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 near future. NDPs are created through an extensive planning and public input process. New parkland proposed by NDPs is shown in Exhibit 17: New Parkland Identified in Neighborhood Development Plans.

Current 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:

- Cherokee: 1
- Elderberry: 5
- Felland: 1
- Junction Road: 1
- Marsh Road: 1
- Midtown: 3
- Northeast: 20
- Pumpkin Hollow: 9
- Sprecher: 5
- Yahara Hills: 6

New parkland identified in NDPs is determined 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.

Exhibit 17: New Parkland Identified in Neighborhood Development Plans

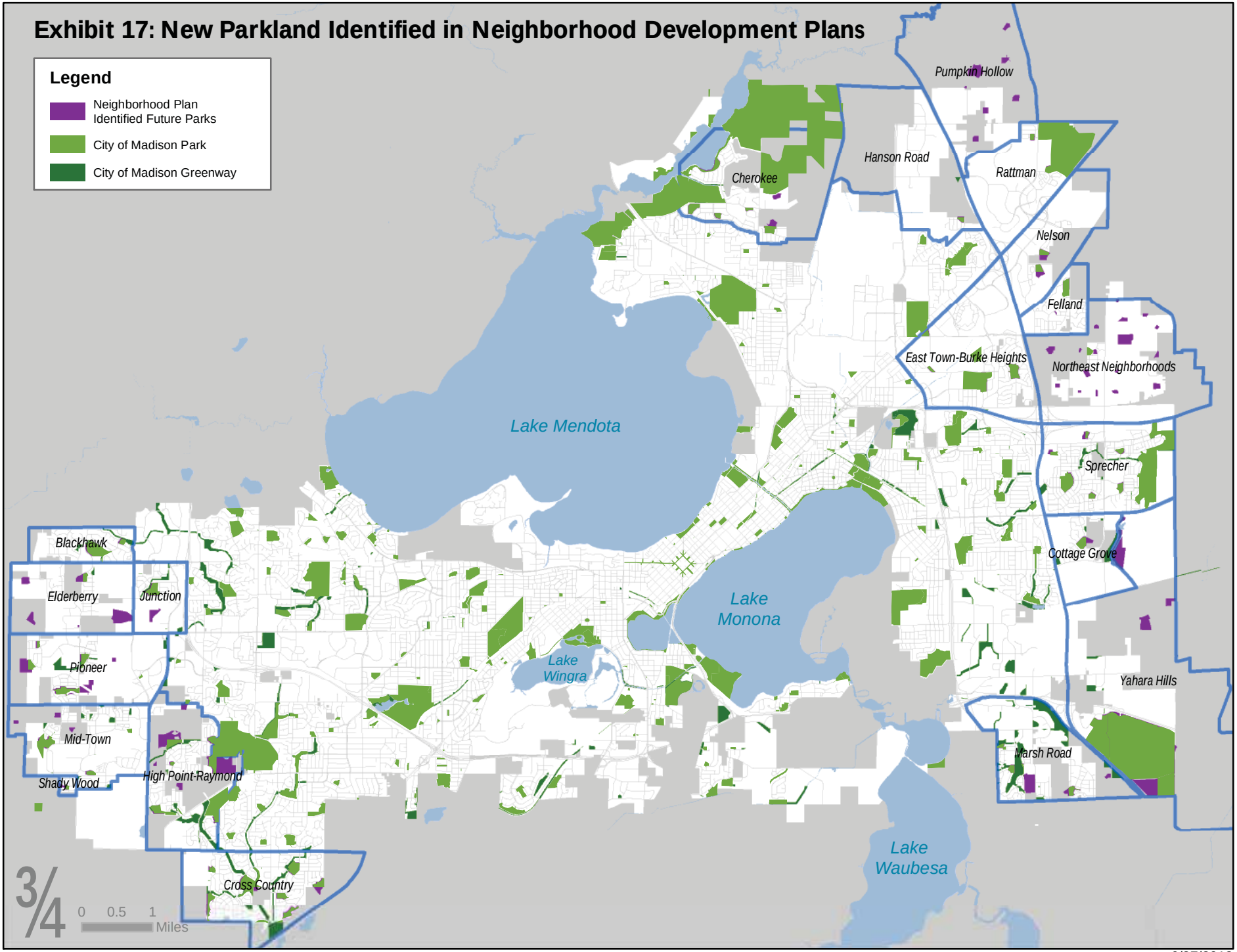


Table 6.12: Neighborhood Development Plan Proposed Park Acreages as of 1/1/2018[11]

Neighborhood Development Plan	Estimated Population at Build-Out	Existing City of Madison Parkland	Proposed City of Madison Parkland	Mini,Neigh, & Community Parkland at Full Build Out	Park Acreage per 1,000 residents
Cherokee	5,236	44.07	6.11	50.18	9.58
Cottage Grove	5,262	10.25	3.77	14.02	2.66
Cross Country	7,803	63.86	5.99	69.85	8.95
Elderberry	9,441	4.6	46.28	50.88	5.39
Felland	2,747	13.52	0.59	14.11	5.14
Hanson Road	917	3.03	0.90	3.93	4.29
High Point-Raymond	12,155	285.9	19.86	305.76	25.15
Junction	4,139	14.33	8.89	23.22	5.61
Marsh Road	4,699	13.32	5.72	19.04	4.05
Midtown	7,189	31.88	7.90	39.78	5.53
Nelson	3,642	11.15	9.43	20.58	5.65
Northeast Neighborhoods	18,433	4.75	50.96	55.72	3.02
Pioneer	9,340	16.73	26.78	43.51	4.66
Pumpkin Hollow	10,779	0	40.85	40.85	3.79
Shady Wood	301	2.16	1.98	4.14	13.74
Sprecher	11,177	204.57	4.89	209.46	18.74
Yahara Hills	6,856	43.59	138.30	181.89	26.53
Grand Total	120,116	762.96	383.96	1146.92	9.55

6.7 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 may be viewed at the City's website for the *Downtown Plan* at: https://www.cityofmadison.com/dpced/planning/documents/Downtown_Plan.pdf

11 This table will be updated with the anticipated 2018 adoption of Junction, Elderberry & Pioneer NDP's. NDP's without increase in proposed parkland are excluded from this table.

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 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 near Bassett Street and West Johnson Street intersection to meet the needs of the under served high-density housing at this location.
    + 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.

6.8 Conclusion

There are over sixty planning documents that include recommendations related to parks. This plan reviewed six of the most relevant planning documents related to broad recreational trends and anticipated park development including the 2011-2016 SCORP, the 2018-2022 Dane County POSP, Intergovernmental Agreements, the *Imagine Madison Comprehensive Plan*, Neighborhood Development Plans, and the City of Madison *Downtown Plan*. Recreational preferences were primarily identified in the 2011-2016 SCORP, the 2018-2023 Dane County POSP, and through the engagement process of the *Imagine Madison Comprehensive Plan*. Common themes throughout these plans include:

- a strong desire for increased connectivity of land, trails, and facilities;
- demand for public lands continue to grow; and
- concern for environmental health.

Three of these planning documents point to new parkland acquisitions through Intergovernmental Agreements, Neighborhood Development Plans, and the City of Madison *Downtown Plan*. Additionally, the Future Land Use Map in the *Imagine Madison Comprehensive Plan* suggests increasing residential infill development which will require acquisition of new parkland. As the City continues to grow, it will be important to ensure corresponding increases in public land, especially along the periphery where several neighborhood development plans identify park acreages of less than the 10 acres/1,000 population.

Chapter Seven: Park Development Resources

In this Chapter

Resources are continuously needed to build new parks, improve and maintain facilities, and update infrastructure within City parks. The Capital Budget is the primary funding mechanism that supports these projects. This section discusses the Capital budget, which is the main resource for park development, as well as partnerships that help create some of Madison's popular park facilities.

7.1 Parks Division Capital Budget

Parks Division Capital Budget

Each year, the Parks Division develops and updates its Capital Budget and corresponding five-year Capital Improvement Program. The Capital Improvement Program and the budget are based on a review of existing and emerging 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 City's Capital Budget process. This annual adjustment reflects changes in available funding and shifting needs, as well as infrastructure improvements required as part of adopted master plans.

Funding the Capital Budget

The Capital Budget is primarily funded using ten-year obligation bonds. General obligation bonds between 2012-2018 funded approximately 40% to 70% of the budget. Other large revenues for capital projects came from impact fees, private donations, and grants. These sources on average account for approximately 30% to 60% of the annual Capital Budget. Table 7.1 contains the adopted Parks capital budgets for the period 2012-2017; the Parks Division's Capital Budget has grown by nearly 67% during this time period, which has helped to address some of the deferred maintenance needs in the park system.

Table 7.1: 2012-2017 Capital Budget

Year	2012	2013	2014	2015	2016	2017
General Obligation Debt	$4,284,500	$5,299,500	$8,530,500	$8,521,250	$6,791,000	$6,838,240
Park-Land Impact Fees	$250,000	$250,000	$250,000	$250,000	$7,750,000	$250,000
Park-Infrastructure Impact Fees	$495,000	$1,660,000	$1,480,000	$2,165,000	$1,263,000	$2,042,000
Donations/Contributions	$237,500	$650,000	$210,000	$305,000	$30,000	$4,703,000
Grants	$3,150,000	$1,390,000	$15,000	$0	$15,000	$49,000
Other	$429,900	$1,774,000	$1,107,000	$1,230,000	$423,000	$868,000
Total	$8,846,900	$11,023,500	$11,592,500	$12,471,250	$16,272,000	$14,750,240

Conclusion

The Capital Improvement Program (CIP) shown in Table 7.2 is a plan of future expenditures for Parks capital needs. The CIP is subject to annual appropriation as part of the Capital Budget process. The CIP identifies significant increases and decreases over the next five years due to large anticipated projects budgeted in future years.

Table 7.2: 2018 Adopted Capital Budget and 2019-2023 Capital Improvement Program

Source	2018	2019	2020	2021	2022	2023
General Obligation Debt	$4,617,075	$6,579,000	$8,625,750	$8,370,000	$12,558,750	$9,108,750
Other	$7,809,384	$3,806,000	$5,521,000	$2,113,000	$5,147,250	$2,201,250
Total	$12,426,459	$10,385,000	$14,146,750	$10,483,000	$17,706,000	$11,310,000

7.2 Funding the Capital Budget

The Parks Capital Budget is funded by multiple sources including general obligation bonds, impact fees, donations/contributions, grants, and other revenues such as special assessments, tax incremental financing (TIF) funds, revenues from leases, etc.

General Obligation Bonds

Capital improvement 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. As mentioned previously, general obligation funding typically ranges between 40% to 70% of the Capital Budget. In 2018, approximately 37% of the adopted Capital Budget is funded through levy support (general property tax funding), which is slightly lower than previous years. State legislative changes in 2013 enacted levy limits that define the maximum a town, village, city and county may implement as a property tax levy. These changes allow a municipality to increase its levy over the amount it levied in the prior year by the percentage increase in equalized values from net new construction. Since new construction has allowed Madison to increase levy support, these legislative changes have not impacted levy support significantly between 2012 to 2018.

Parkland Dedication and Impact Fees

The requirements codified in the General Planning and Impact Fee Ordinances provide both fiduciary support to the Capital Budget as well as new parks through parkland dedication and impact fees. Wisconsin State Statutes permit local governments to enact ordinances requiring developers to provide land (or fees in lieu of) and impact fees for the development of public parks. The City of Madison codified these developer obligations in Chapter 16: General Planning and Chapter 20: Impact Fee Ordinance. Impact fee funding identified in the Capital Budget varies and is contingent upon fees received and anticipated projects. From 2012-2017 impact fee funding represented between 9% and 55% of the Capital Budget.

Parkland Dedication

The Capital Budget typically includes development of facilities in new parks created through parkland dedication. Parkland dedication is the requirement in the Madison General Ordinance that mandates developers of residential properties 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

The City completed a Public Facility Needs Assessment in 2016 that recommended new parkland dedication requirements and fees. The Needs Assessment was prepared using data gathered from around the nation and within Wisconsin, the City's 2012-2017 Park and Open Space Plan, and the City's existing park inventory. Recommendations from the Needs Assessment were enacted on November 1, 2016 through Legislative File 43500, amending sections 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). The new impact fee ordinance 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.

Figure 7.1: Comparison of 2002 and 2016 Parkland Dedication Requirements

These updated parkland dedication requirements ensure that new residential development will provide 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 7.1[12]). The new parkland dedication requirements by unit type are shown in Table 7.3.

Table 7.3: Parkland Dedication Analysis[13]

Unit Type	2017 Dedication Required (sf)	2002 Dedication Required	2017 Park Ac./1,000 Residents	2002 Park Ac./1,000 Residents
Single Family Dwelling Unit (Detached)	1081	1100	10.13	9.71
Multi Family Dwelling Unit (fewer than 4 bedrooms)	734	700	10.40	8.46
Multi Family Dwelling Unit (4 bedrooms or more)	1424	700	9.85	8.46
Age Restricted Multifamily	573	350	10.12	8.46
Group Living Quarters	410	350	10.12	8.46

12 Based on analysis of 100 proposed units of each dwelling type.
13 The 2002 land dedication requirements did not differentiate between multifamily units with more than 3 units and group living quarters.

Impact Fees Used for Acquisition of Park Land

In situations where the City of Madison determines it is not feasible or desirable to acquire additional parkland through parkland dedication, developers are required to pay a monetary amount (Park-Land Impact Fee) in lieu of the land. The Park-Land Impact Fee ensures that when a development does not dedicate parkland within its property, the developer provides funding to the City to independently purchase parkland. This requirement assures that the City has funding to purchase parkland outside of the property tax levy to meet park demand, which is critical to maintaining the existing service level of 10+ acres/1,000 residents.

Park-Land Impact Fees have been a reliable source of park acquisition funding for the past five years. Table 7.4 outlines the annual Park-Land Impact Fees collected from 2012 through 2017.

Table 7.4: 2012-2017 Collected Park-Land Fees

	2012	2013	2014	2015	2016	2017
Park-Land Impact Fees	$1,280,182	$3,521,143	$1,682,318	$4,158,798	$3,658,532	$3,179,735

The Park-Land Impact Fee is determined based on the average assessed value of the certified tax roll and it does not account for the higher cost of land in the downtown and other rapidly developing urban areas. As Madison continues to grow, additional parkland will be required to meet community needs. The City is already experiencing increased park demands with new residential infill development in the downtown area and East Washington Avenue corridor. Increasing density and infill development are identified in both the Downtown Plan and the Imagine Madison Comprehensive Plan. As Madison plans for the future, it is important to note that the cost for parkland to meet these needs will be more expensive than the cost of land on the periphery of the City, and will disproportionately consume the land acquisition budget compared to properties in other areas of the City.

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

- Acer Park
- Allied Park
- Cherokee Marsh Expansion
- Galaxy Park (formerly Camar Park)
- Hill Creek Park Expansion
- Jeffy Trail Park
- Kestrel Park
- McPike Park (formerly Central Park) Expansion
- Merrill Springs Park Expansion
- North Star Park Expansion
- Sugar Maple Park
- Thousand Oaks Park
- Woods Farm Park

Impact Fees Used for Park Infrastructure

Park-Infrastructure Impact Fees provide a significant source of funding in the Capital Budget. The Madison General Ordinance Chapter 20 – Impact Fee Ordinance requires developers to pay a Park-Infrastructure Impact Fee to offset costs necessary to develop parkland to accommodate new residential development. This fee funds park development at a comparable level to existing park facilities and is based on the number of units and type of housing developed. As recommended in the Needs Assessment (2016), this fee was updated in 2017. Table 7.5 identifies Park-Infrastructure Fees collected from 2012-2017. The yearly variations reflect the differing number and type of new residential development projects that are constructed each year.

Table 7.5: 2012-2017 Collected Park-Infrastructure Fees

	2012	2013	2014	2015	2016	2017
Park-Infrastructure Impact Fees	$558,551	$1,371,752	$812,433	$1,662,660	$1,864,063	$2,187,331

Impact fees must be spent in the district where they are accumulated. Prior to 2017, and based upon development patterns within the City, this resulted in some districts receiving significantly higher levels of impact fees than others. The ordinance amendments implemented on January 1, 2017 reduced the existing 11 benefit districts to four districts to create a more equitable distribution of impact fee funding. In addition, 20% of all Park-Infrastructure Impact Fees are placed into a City-wide benefit district to be used throughout the City. The end result of these changes to the benefit districts will create a more equitable distribution of impact fees throughout the City.

The City's Annual Capital Budget includes statements regarding each impact fee district, including fees collected and expenditures. This information is available at: https://www.cityofmadison.com/budget/documents/

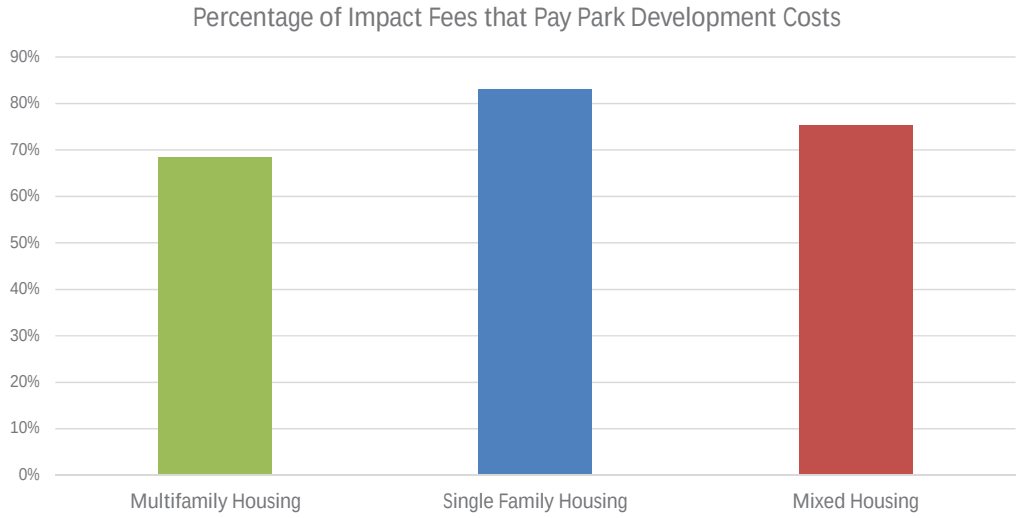
While park impact fees help to offset park development costs, they typically do not fund the entire park development. For example, using the City's standard of 10+ acres/1,000 residents, a new 10-acre neighborhood park for 1,000 residents would require a payment of between $530,000 and $640,000 in Park-Infrastructure Impact Fees (see Appendix C, Table 6). As shown in Figure 7.2, compared to the cost to develop a 10-acre neighborhood park, the impact fees collected may only offset the park development costs by an average of 74% depending on the type of housing development.

Additionally, impact fees provide a much smaller fraction of park development funding when looking at improvements in community parks or historic parks. Community parks often provide specialized amenities such as splash pads, skate parks, and boat launches. These facilities are more costly to both construct and operate compared to mini and neighborhood parks.

Likewise, the City of Madison has 61 parks that have features or the park itself is on the National Register of Historic Places and 20 parks with facilities that are designated City Landmarks (see Appendix F - Historic Resources). Parks with historic resources must meet strict guidelines for improvements to historic structures, typically costing more than improvements to similar non-historic facilities to meet local and national regulations.

It should also be noted that the ordinance has a provision that allows 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 by constructing the park along with the subdivision development, rather than having the City 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.

Figure 7.2: Example Scenario of Park Impact Fees vs. Park Development Costs



Donations and Partnerships

Over the past several years Madison Parks has been successful with creative place-making initiatives, many of these place-making projects which would not have been possible without public-private partnerships. These partnerships facilitate and in many cases fund 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. Several of the City's most popular destinations are enhanced by these partnerships including Olbrich Botanical Gardens; Warner Park Community Recreation Center; Mallards Stadium; boat rentals at Wingra, Olbrich, Marshall, and Brittingham Parks; the Biergarten at Olbrich Park; and athletics and events at Breese Stevens Field. Several of these groups are required to invest their own funding into improving existing park facilities specific for their needs including expediting upgrades to electrical and plumbing systems, bathroom fixtures, painting and water projection, and landscaping.

Madison Parks Foundation

The Madison Parks Foundation (MPF) plays a significant role in securing donations for the Madison park system. The Madison Parks Foundation is a private non-profit organization founded in 2003 as the non-profit partner of Madison Parks. The intended purpose of the MPF is to acquire financial resources via grants and other contributions to make park improvements. The resources of the MPF are not intended to replace or substitute for tax revenues generated for the annual ongoing maintenance activities of the Madison Parks Division. The Madison Parks Foundation has been instrumental in fund-raising and providing neighborhood resources for significant park projects such as the Goodman Pool, Period Garden Park Improvements, the Goodman Skatepark, the pickleball complex at Garner Park; Elver and Reindahl splash parks, and

playground improvements at Nakoma, Sunset, Odana Hills, and Reger Parks, among others. The Foundation also coordinates donor memorial benches, picnic tables, memorial tree requests, and other donation naming opportunities within the parks.

Voluntary contributions are increasingly used to fund park development projects. Many of the City's largest park projects include significant levels of private contributions. Table 7.6 identifies the total capital donations and contributions received from 2012 through 2017. Parks staff and the Madison Parks Foundation work together with neighborhood associations and other groups to approve projects and identify potential private fund-raising sources and goals. The Parks Division can leverage these funds with existing City resources to move projects forward more quickly. Projects partially funded through these means vary, but some examples are additional playground equipment, landscaping, and shelters.

Table 7.6: 2012-2017 Collected Donations/Contributions

Category	2012	2013	2014	2015	2016	2017
Donations/Contributions	$99,725	$91,682	$137,219	$383,391	$471,382	$171,814

Grants

Grants vary from year to year, depending on funding availability from the grantor and whether or not the grant application is awarded. Significant grant awards that Madison Parks received for capital improvements between 2012-2017 include:

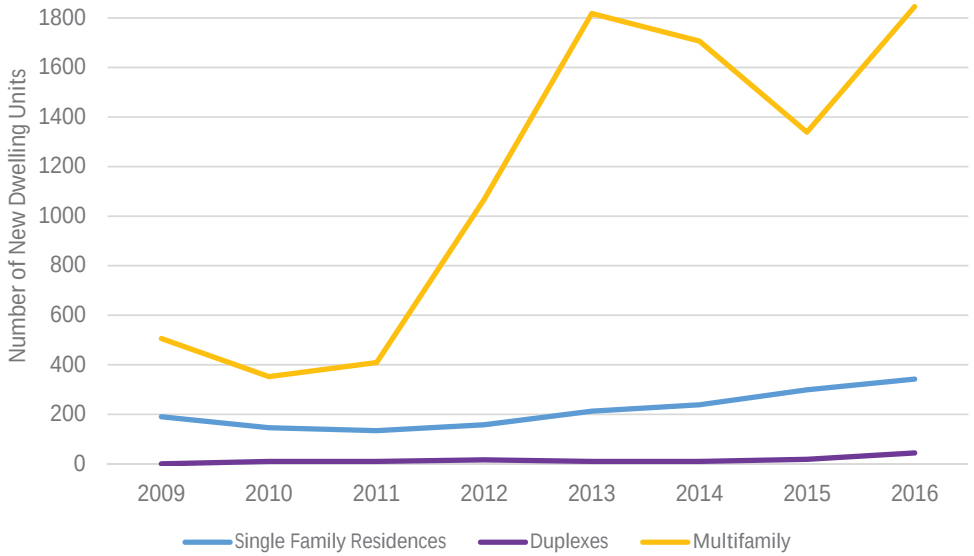
- 2012 - $3,150,000 WisDOT federal earmarked funds for transportation-related facilities at McPike Park (formerly Central Park);
- 2012 - $200,000 WDNR Knowles Stewardship funding for Expansion of Merrill Springs Park;
- 2013 - $1,372,184 FEMA and Wisconsin Emergency Management funding for community safe room at Highland Manor Park;
- 2014 - $80,000 Dane County PARC program for Reindahl and Elver splash parks; and
- 2015 - $295,308 Land and Water Conservation Fund grant for the Irwin A. and Robert D. Goodman Skatepark at McPike Park.

Other

Other funding includes special assessments, revenues from leases, TIF funding, etc. Special assessments are generally between $120,000 and $150,000 in the Capital Budget and include funding for street trees in newly developed areas. TIF has been utilized for street tree improvements as well as improvements to parks.

7.3 Conclusion

Figure 7.3: 2009-2016 City of Madison New Residential Construction



The primary funding sources of the Capital Budget are levy support through property taxes and impact fees. Both of these sources are reliant on a healthy real estate economy. Within the past few years, Madison's population growth and strong real estate market have helped keep the tax levy stable and provided impact fee funding generated from new residential development. When forecasting long-term capital funding, the budgetary outlook of the Parks Division will closely mirror the City's real estate economy; during slower periods of growth funding for capital projects will be reduced. Figure 7.3 illustrates Madison's changing real estate economy between 2009 and 2016, for 2009 there was a market downturn, and 2011 when the market began seeing a dramatic increase in the number of residential building permits issued.

As Madison plans for the next five years, accommodating Madison's rapid growth will be an important aspect of parkland development. From 2015-2016 Madison and Dane County more than doubled the national growth rate for the year (Wroge, Logan; "Madison, Dane County lead the state population growth in the latest U.S. Census Estimates." Wisconsin State Journal 5, May 2017). Madison is growing both in development of single family homes on the periphery of the City, but also in the number of new multifamily residential complexes in the City's existing urban areas. Parkland on the periphery will likely be acquired through parkland dedication identified in neighborhood development plans. However, as the City continues to increase the density of existing developed areas, it may rely more heavily on acquisition and development of developed sites for parkland as opposed to agriculture land. Park development to convert an existing developed property to parkland (especially in the downtown area) will incur significant costs including acquisition, demolition, and potential site remediation. As can be seen in Appendix D, Exhibit G: DNR Inventory of Contaminated Properties, properties in developed areas 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.

Overall, if Madison continues to experience a strong local real estate market and if external revenue streams to the City are not significantly reduced, the Parks Division's budgetary outlook for the next several years is positive. The healthy real estate economy has allowed Madison Parks to invest in both infrastructure improvements and development of new facilities. Infrastructure improvements will continue to be a large portion of the Capital Budget in order to continue addressing the backlog of deferred maintenance, as well as providing new facilities for Madison's growing and diversifying population.

As the major funding source for the Capital Budget, levy support needs to remain consistent with growth. However, understanding that the majority of the Capital Budget is tied to a healthy real estate economy, it is also important that Madison Parks prepares for future market downturns. This includes investigating resources to diversify revenue streams for capital projects such as grants, donations, changing user fee structures, and reviewing any other potential funding sources that could supplement levy and impact fee funding. Other forms of income and partnerships are critical to helping to protect the future of the City's park system.

This page intentionally left blank.

Chapter Eight: Park Operational Resources

In this Chapter

Parks Division Operating Expenses

Golf Enterprise Operating Expenses

Parks Division Staff

Partnerships and Volunteers

Conclusion

The Parks Division has numerous responsibilities including planning, designing, constructing, and maintaining the City's park system as well as programming and coordination of special events and registrations. Citywide Operations staff are responsible for maintenance and care of over 270 parks citywide and facilities including 82 reservable shelters (including sun shelters); approximately 500 athletic facilities such as ball diamonds, tennis courts, and athletic fields; 174 playgrounds (Madison continues to lead the country in both the number of playgrounds and beaches in cities of similar size according to the Trust for Public Land – City Park Facts 2017); and many other recreational amenities. Parks Conservation staff are responsible for managing over 1,700 acres of conservation parks. Forestry is part of the Parks Division and is responsible for street trees in public rights-of-way and overall guidance regarding park trees. The Parks Division also manages non-traditional facilities such as the State Street Mall Concourse, Olbrich Botanical Gardens, Forest Hill Cemetery, four golf courses, and the Warner Park Community Recreation Center. The Parks Division is also responsible for snow plowing 65 miles of bike paths and sidewalks; snow removal at 336 bus stops; and litter pickup, mowing, and trimming of 123 acres of medians. These responsibilities steadily increase as Madison's population grows and new parks and facilities are developed. This chapter discusses the operational resources necessary for a growing City of Madison park system.

8.1 Parks Division Operating Expenses

The annual City of Madison Operating Budget provides resources for the staffing, supplies, services, utilities, and other operational expenses. The Parks Division's Operating Budget is funded through multiple revenue sources including General Park Revenues, Other Restricted Funds, and Permanent Funds, with the General Fund (primarily through the property tax levy) providing the remaining amount needed to offset the annual expenses of the Parks Division. Table 8.1 details the actual expenses from 2012-2017 for the Parks Division and what portion of the expenses were supported by revenues or the General Fund. General Fund support for the Parks Division has decreased while revenues have nearly tripled during the same six-year period.

Table 8.1: 2012-2017 Parks Division Operating Expenses by Funding Source

Year	2012	2013	2014	2015	2016	2017
General Revenues	$2,138,046	$2,233,456	$2,303,836	$3,120,307	$4,895,334	$5,928,475
General Fund Levy Support	$14,358,839	$14,690,132	$15,391,012	$15,252,378	$14,263,909	$13,388,362
Total Expenditures	$16,496,885	$16,923,588	$17,694,848	$18,372,686	$19,159,243	$19,316,837

Revenues clearly provide an important funding source for the growing park system. General Park Revenues are generated through many mechanisms. Lease/Use Agreements (e.g., Marshall Park Use Agreement with Marshall Boats) require annual payments as well as reimbursement of expenses such as utilities. Other revenues in this category are generated from boat launch permits; catering and concessions; facility rentals, admissions, program revenues and memberships at Olbrich Botanical Gardens, Goodman Pool, and Warner Park Community Recreation Center (WPCRC); swim, skating, and ski lessons; cross-country ski passes; contributions and donations; ranger fees to support shelter reservations and other park uses; trade-in allowance for equipment; and State Street Mall Concourse Special Charges charged to local businesses and property owners within the defined service area. The actual revenues received by section for the last three years are shown in Table 8.2 (in 2015 the City of Madison began using a new financial system which provided this breakdown by section).

Table 8.2: 2015-2017 Operating Budget Revenue Support by Section

Category	2015	2016	2017
Forestry	$1,004,125	$2,503,174	$3,111,066
Olbrich Botanical Gardens	$278,024	$313,180	$708,768
WPCRC	$400,745	$313,524	$322,942
Aquatics	$262,160	$335,416	$325,051
Other Park Revenues	$1,175,252	$1,430,040	$1,460,648
Total	$3,120,307	$4,895,334	$5,928,475

Other Restricted Funds support the Parks Division Operating Budget. These include revenues from off-leash dog park permits and disc golf permits. Revenues from use agreements with athletic groups such as the Madison Ultimate Frisbee Association (MUFA) and the Urban Forestry Special Charge are also included under Other Restricted Funds.

The Common Council has recognized some of the unique expenses and revenue aspects of Parks Operations and have authorized supplemental funding streams. Starting in 2015, the City of Madison imposed an Urban Forestry Special Charge on city parcels to offset operational costs to maintain the urban forest in the city. This is a special charge on all real property in the City, established to allow the City to recover its costs in performing the services associated with the City's Urban Forestry Program. 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. The special charge partially offset Forestry operational costs in 2015 and 2016. The majority of Forestry operational expenses were offset in 2017. 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.

In 2017, Olbrich Botanical Gardens began receiving revenues from the Room Tax, authorized by state law to be used for tourism promotion and tourism development per Wis. Stat. 66.0615.

Resources identified under the Permanent Fund in the 2018 adopted Parks Operating Budget include the Olin Trust Fund and the Cemetery Perpetual Care Fund. The Parks Division oversees the management of the Olin Trust Fund (a total value of approximately $700,000), established in 1924 by John M. Olin for the purposed of beautification and enhancement of the City's parks. Each year, the Trust provides approximately $25,000 of the revenue from this fund for parks beautification efforts. The Parks Division also manages the Forest Hill Cemetery Perpetual Care Fund, which is 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. Annually these resources represent approximately $300,000 of the total revenues in the adopted budget.

The Parks Division also generates revenues that help to support the General Fund. Cemetery fees generate between $250,000 and $300,000 annually to the General Fund. Parks Use Charges generate approximately $600,000 in revenue for the General Fund. The sources of these revenues include shelter reservations and other associated permits, athletic field reservations, vending permits, etc.

8.2 Golf Enterprise Operating Expenses

Golf is budgeted to cover all expenditures with golf course revenues and does not receive levy support. Table 8.3 details the 2012-2017 Golf Enterprise Operating Budget for the four city golf courses (Glenway, Monona, Odana Hills and Yahara Hills).

Table 8.3: 2012-2017 Golf Enterprise Operating Budget[14]

Year	2012	2013	2014	2015	2016	2017
Revenues	$2,447,580	$2,798,144	$2,666,954	$3,065,705	$3,217,296	$2,859,254
Expense	$2,452,094	$3,051,566	$3,004,360	$3,016,580	$3,610,671	$3,232,037
Profit (loss)	$(4,514)	$(253,422)	$(337,406)	$49,125	$(393,375)	$(372,783)

The 2016 Annual Report for the Golf Enterprise discusses in detail the current financial situation and provides a number of recommendations to address future infrastructure needs. Discussions are currently underway to evaluate these options. The 2016 Annual Report for the Golf Enterprise Fund is available at: https://madison.legistar.com/

8.3 Parks Division Staff

The Parks Division employs 180 full time employees (FTEs) and 370 seasonal employees who are responsible for the development, maintenance, and care of over 5,600 acres of parkland and over 270 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), four golf courses, city street trees, and the Warner Park Community Recreation Center. Table 8.4 includes actual expenditures per section within the Parks Division for 2015-2017 using data from the City's new financial system.

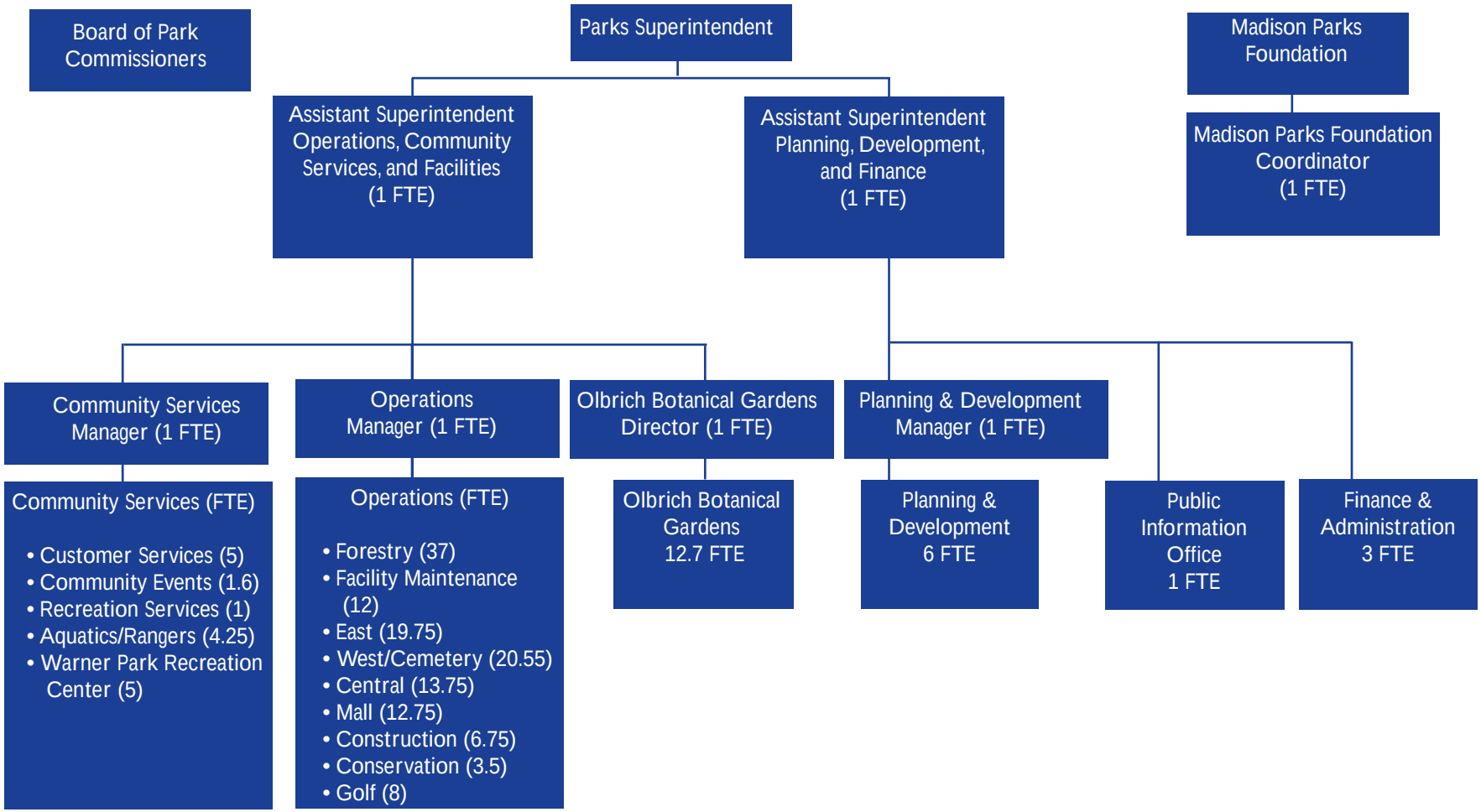
Table 8.4: 2015-2017 Parks Operating Expenses by Section

Year	2015	2016	2017
Community Services	$2,646,791	$2,650,226	$2,745,742
Operations	$13,667,127	$14,331,557	$14,189,733
Olbrich Botanical Gardens	$1,524,622	$1,476,690	$1,698,717
Planning and Development	$534,145	$700,770	$682,645
Total	$18,372,686	$19,159,243	$19,316,837

Figure 8.1 outlines the various branches and sections within the Parks Division. The two main areas are Operations, Community Services and Facilities; and Planning, Development, and Finance. A general description of the main responsibilities of each section follows Figure 8.1.

14 Golf expenditure authority covers salaries, benefits, supplies, and services.

Figure 8.1: Parks Division Organizational Structure



Community Services

Community Services coordinates all special events and festivals on public land including State Street/Capitol Mall Concourse, as well as coordinates new community event initiatives, use agreements, and schedules athletic field and shelter reservations, and processes permitting such as vending, lake access, dog park, disc golf, and public amplification. Community Services also coordinates volunteer programs and manages operations of aquatics, park rangers, Warner Park Community Recreation Center and use agreements.

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 16 acres of sustainable outdoor gardens and a 10,000-square foot tropical conservatory. The garden is operated as a public/private partnership between the Parks Division and the non-profit Olbrich Botanical Society. Olbrich Botanical Gardens serves more than 325,500 visitors throughout the year and provides education programming for adults and families as well as garden-related exhibitions and events.

Operations

Parks Operations is in charge of operations and maintenance of all parks, the State Street Capitol Mall Concourse district, and the Forestry Section. Responsibilities of Operations staff are vast and include facility construction, maintenance and repairs, shoreline cleanup and maintenance of beaches, boat ramps, docks, boathouses, and sailboat storage facilities; mowing and maintaining athletic facilities; and maintenance of buildings and parking lots. Parks Operations staff also maintain the City's cemetery, conservation lands, four public golf courses, and several closed landfills used as parks. Parks Operations staff also remove snow from bike trails, bus stops, and mow medians throughout the City.

As a component of the Parks Operations, the Forestry Section manages the care, installation and removal of 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. The City's EAB Task Force addresses these issues separately.

Planning and Development

Planning and Development oversees all aspects of park planning and development, including involvement with neighborhood development plans, long range planning and policies, park master planning, design and construction of parks, and intergovernmental coordination of policies and ordinances. Planning and Development also 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 responses to media inquiries.

8.4 Partnerships and Volunteers

In the City of Madison, the Parks Division is separate from recreation programming services. Primary recreation programming 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. MSCR provides the organization and coordination for a variety of athletic organizations that use City of Madison Park recreational facilities. MSCR typically has over 80,000 participants in its recreation programs. The primary Madison park facilities used by MSCR are softball, baseball, and kickball fields, tennis courts, and docks for pontoon rides. MSCR also uses the City of Madison Park's Warner Park Community Recreation Center (WPCRC) for various programs ranging from fitness to art classes. The partnership between Madison Parks and MSCR provides a large portion of the recreational programming in Madison Parks.

In addition to MSCR, there are dozens of other organizations that program activities such as baseball, football, Ultimate Frisbee, and soccer that, combined with MSCR, add up to over 11,000 recreational programming reservations each year. Organizations such as Southside Raiders, cricket clubs and Liga Latina De Futbol connect communities and expand recreational programming to a wider audience.

In addition to recreational programming, Madison Parks has had success with creative programing through public-private partnerships. Entities that enter into agreements/contracts with Parks for these types of uses are held to high standards and specified goals, operations, and reporting procedures. Examples of these initiatives include the Wingra, Brittingham, Marshall, and Olbrich boat rentals and camps, the Mendota and Camp Randall Rowing Clubs, the Biergarten at Olbrich Park, the Mallards Baseball Stadium at Warner Park, and Breese Stevens Field.

Over the past several years Madison Parks has collaborated with the Madison Parks Foundation and has had success with programming initiatives such as the Madison Parks Foundation "Learn To" series, scholarships at Goodman Pool, and the Connecting Children to Nature program.

The Board of Park Commissioners

The Board of Park Commissioners is the policy-making and recommending body for the Parks Division and consists of seven members: five appointed citizens and two Alder persons. Within its purview is the acquisition and/or maintenance of general recreation parks, conservation parks, Olbrich Botanical Gardens, Warner Park Community Recreation Center, forestry, golf courses, beaches, municipal swimming pool, cemetery, athletic fields, boulevards, greenways, and boating. To assist its decision-making and establishment of level of service standards, the Commission oversees long range planning, needs assessments, and strategic planning.

The Madison Parks Foundation

Founded in 2003, the Madison Parks Foundation is the non-profit partner of Madison Parks that acts as the fiduciary agent for contributions, grants, and donations to fund park improvements and support park programming. As the non-profit partner of Madison Parks, the Madison Parks Foundation helps the Madison community conserve, promote and enhance its parks. The Madison Parks Foundation provides an innovative opportunity to fund parks, with successes including securing more than $300,000 for the Elver and Reindahl Splash Parks and awarding the annual Goodman Pool Swimming Scholarships.

Madison Parks and Volunteers

Volunteers play a crucial role in maintaining our vibrant park system, contributing either on a one-time basis or an ongoing commitment. In 2017, Madison Parks had 1,994 volunteers who provided over 30,000 hours of time towards improving and enhancing the park system. Of these volunteers, Olbrich Botanical Gardens has the largest volunteer base, with over 579 volunteers providing over 27,000[15] hours of volunteer service. There are over twenty "Friends of" groups that actively volunteer in Madison Parks and numerous individuals that contribute outside of "Friends of" groups, including five individuals alone who provided over 830 volunteer hours in parks. 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.

Table 8.5 summarizes some of the notable volunteer programs and events of 2017.

Table 8.5: 2017 Notable Volunteer Events

Name	Dates	Number of Parks	Number of Volunteers
Adopt Ice	Jan. & Feb.	7	30+
Dog Park Cleanup	Sat., March 24	4	66
Earth Day Challenge	April 28	27	907
Flower Garden Program	May - Sept.	14	33
Ride the Drive	Sun., June 3	3	87
West Fest	Sat., July 14	1	9+
Pickleball Lessons	June 19 - Oct. 4	1	4
Bird & Nature Walks	Sundays, year-round	8	100

Madison Parks strives to involve 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 and other initiatives. Conservation Parks have long been a recipient of extensive volunteer efforts; outreach by parks staff has helped continue to grow these programs.

15 These hours are a conservative estimate based on self reporting.

8.6 Conclusion

Overall, there are four primary factors increasing operational expenses:

- development of new parks citywide,
- citywide development due to population growth,
- historic facilities with specific requirements for maintenance, and
- facilities that require higher levels of maintenance such as splash parks.

Photo: Family Fun Night at Warner Park Community Recreation Center

The City's adopted Neighborhood Development Plans, Intergovernmental Agreements, and the Downtown Plan project that the number of Madison parks will grow by 25% at full build out with a combined 67 new parks identified in these plans. While development of these parks is incremental, the past several years have seen rapid growth in both new and infill development that has outpaced the increase in operational funding. Development of these parks will require additional staff to plan and design these parks, and also to maintain, schedule, and coordinate their activities.

City-wide development also increases demand on operational resources to maintain the boulevards, bike paths, bus stops, medians, and sidewalks. In 2010, the City of Madison Streets Division, Engineering Division, and Parks Division divided maintenance of these transportation-based city facilities. Since then, the number of transportation-based facilities maintained by Madison Parks has increased, including an additional 308 bus stops, 14 acres of medians, and 20,000 linear feet of sidewalk and bike paths. As these new facilities develop, they continue to draw upon the resources in the Parks Operating Budget.

The number of historic facilities owned and maintained by the Parks Division requires significant resources to manage and maintain. Additional levels of review are required before infrastructure needs can be addressed and improvements can occur. Costs to maintain historic facilities are significantly higher than regular park facilities. A list of historical resources including historic buildings maintained by Madison Parks is included in Appendix F. This list includes Gates of Heaven in James Madison Park, Breese Stevens Field, and Forest Hill Cemetery.

An additional draw on operational resources is development of recreational facilities that have higher maintenance demands. Park facilities such as dog parks, ice rinks, shelters with restrooms, and splash parks require higher levels of maintenance. Additionally, athletic fields for popular sports such as flag football, ultimate frisbee, and soccer require higher maintenance so they remain playable throughout the year. While the role of volunteers is important in assisting with maintenance, significant coordination is required by staff to manage these volunteer resources. Current funding levels are not sufficient to sustain the existing and growing park system and other facilities the Parks Division is required to maintain such as medians. Madison Parks needs to evaluate how future development, as well as the increasing number of facilities, affects operational resources. The location of operating facilities and staff to serve Madison's growing park system will become more of a concern as

development continues along the periphery of the City. For example, parks on the far west side periphery, such as Thousand Oaks Park, are approximately seven miles from the Madison Parks facility that houses the staff and equipment needed to maintain this park. Improvements in technology and efficiency will likely play a role in reducing staff hours, and metrics such as Results Madison and Performance Excellence should be used to inform a comprehensive analysis of operational needs and resources to maintain an expanding park system.

The Golf Enterprise Operating Budget has sustained losses in most years since 2003. Additionally, the golf program has not reinvested in capital assets over the past 16 years. The City is currently reviewing the existing golf program to address the overall liquidity problem of this program. On January 10, 2018, a Financial and Operational Analysis of Course Closure and Hole Reduction was presented to the Golf Subcommittee which reviewed golf course closure options as a potential solution to the golf program's negative net income. Additionally, a restructuring analysis framework was presented to the Board of Park Commissioners on April 18, 2018 and an anticipated business plan will be presented to the Board later in 2018. These supporting documents will aid in decision-making regarding future funding of the golf program.

The City's system of parks and open spaces must continue to address the demands of an ever-growing population with diverse needs. Providing resources to meet these demands requires cash and in-kind support to cover additional operational expenses necessary to design, construct, maintain, and operate these facilities.

Figure 8.2: Parks Division Maintenance Sidewalk and Path Snow Plowing Linear Feet vs. Year

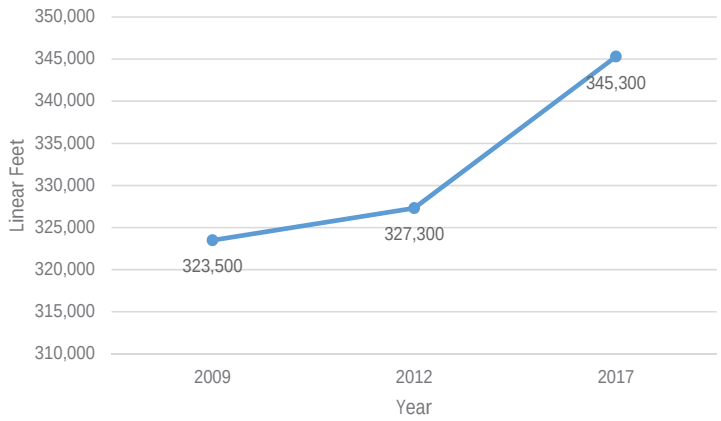
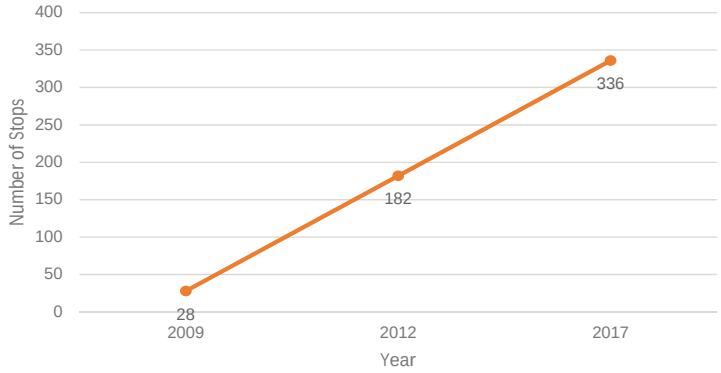


Figure 8.3: Parks Division Maintenance Bus Stop Maintenance Plowing Number of Stops vs. Year



Chapter Nine: Recommended Strategies

The following list includes recommended strategies for the City of Madison park system. The recommendations and analysis discussed in this plan relate to park development, management of core facilities, and broad concepts in park system planning. These strategies reflect values, opportunities, and concerns identified in this planning document. This plan uses information from the engagement process and outdoor recreation needs assessment, relevant planning documents and park analyses and using data-driven supported research on equity, public health, sustainability, and adaptability, to develop data- and information-driven strategies. Each recommended strategy below includes a guiding lens symbol. The symbols and corresponding definitions identified in Chapter Two are provided here to help orient readers regarding the guiding lens that influenced each strategy. The predominant guiding lens addressed by the strategy is boxed.

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.

STRATEGY: IMPROVE PUBLIC ACCESS TO LAKES.

- Connect the community to water by designing areas for increased water access on public lands, including access for low income populations.
- Provide opportunities for water recreation.
- Support efforts to improve water quality in Madison's lakes and waterways.

STRATEGY: DESIGN PARK FACILITIES TO ACCOMMODATE DIVERSE ACTIVITIES AND POPULATIONS.

- Provide flexible spaces that can respond to changing recreational trends.
- Incorporate spaces and facilities appropriate for different cultures, age groups, and abilities.
- Provide sufficient fields and courts to accommodate tournaments and other multiple field or court competitions.

STRATEGY: PROTECT AND ENHANCE NATURAL AND CULTURAL RESOURCES.

- Manage invasive species in high quality natural areas.
- Continue to acquire conservation parkland to preserve unique habitats.
- Develop native plant habitats and ecosystems within parks, increasing biodiversity.
- Continue to recognize, preserve, and enhance historic parks.
- Preserve landmark vistas from public access areas.
- Respect and protect tribal sacred sites.

STRATEGY: ACQUIRE PARKLAND TO REDUCE PARKLAND DEFICIENCIES AND ADDRESS INCREASING RESIDENTIAL DENSITY.

- Review and revise parkland dedication and park impact fees every ten years to maintain funding to support future population and density demands.
- In areas of high residential density, preserve undeveloped land for open space or acquire new parkland on existing developed property, where feasible.
- Ensure that Neighborhood Development Plans identify adequate parkland for proposed residential density.
- 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, partner with these groups to enhance outdoor recreation for the surrounding community.

STRATEGY: ENSURE THAT NEW PARK DEVELOPMENT OCCURS IN A FISCALLY SUSTAINABLE MANNER.

- Minimize the number of mini parks along the City's periphery by requiring dedication of larger, minimum five-acre parks for new residential developments.
- Investigate opportunities to expand existing parkland.
- Ensure adequate funding is available to provide necessary infrastructure improvements for parks acquired by the City through intergovernmental agreements.
- Seek out and utilize innovative sources of support to enhance parkland and amenities.

STRATEGY: ENSURE THAT EXISTING LEVELS OF SERVICE ARE MAINTAINED AND SUPPORTED THROUGH THE PARK SYSTEM AND ARE INCREASED AS NEW PARKS AND FACILITIES ARE DEVELOPED.

- Seek adequate funding for the Parks Division through the budget process.
- Pursue grant opportunities and other funding sources to support programs and park maintenance.
- Evaluate operational resources including staffing and location of operational facilities to optimize resources for new city facilities.
- Evaluate operational resources for park and street use events to ensure sustainable and equitable opportunities for building and promoting community.
- Provide technical and administrative support to volunteers whose work supplements park maintenance and improvements to foster and encourage volunteer efforts in parks.

STRATEGY: CREATE EQUITABLE ACCESS AND FUNDING FOR PARKS.

- Remove barriers to engagement.
- Identify and develop parkland and amenities that create inclusive park experiences.
- Incorporate public engagement methods and partnerships during the park planning process to help ensure all members of the Madison community are represented.
- Ensure funding is allocated equitably for development of new facilities, upgrading of existing infrastructure, and acquisition of new parkland.

STRATEGY: IMPROVE THE PARK SYSTEM'S CAPACITY TO WITHSTAND FUTURE ENVIRONMENTAL CHANGES.

- Improve the Parks Division's capacity to analyze and plan for the impacts of climate change and other environmental pressures.
- Ensure best management practices for stormwater runoff and infiltration to reduce impacts of increasing storm severity.
- Ensure park design and amenities are flexible to accommodate dynamic climate patterns.
- Design and support opportunities for winter activities that are less impacted by climate change.

STRATEGY: INCREASE CONNECTIVITY BETWEEN PARKS TO ENHANCE ACCESS.

- Work with other city agencies as well as Dane County and neighboring communities to create a comprehensive system of greenspace connections by means of pedestrian, biking, and water trails through parks.
- Connect parks with other city amenities through trails and public transportation.

STRATEGY: DEVELOP A HEALTHY AND DIVERSE URBAN TREE CANOPY WITHIN PARKS.

- Improve the City's resiliency through increasing tree canopy diversity.
- Recognize environmental and public health benefits of trees by promoting and expanding the urban tree canopy.

STRATEGY: INCREASE ENGAGEMENT WITH GROUPS AND ORGANIZATIONS AND DEVELOP NEW ONES.

- Strengthen opportunities and partnerships dedicated to engaging diverse communities in parks.
- Improve existing partnerships to ensure efforts are equitably distributed across geographic regions of the City and that efforts are aligned with identified land management strategies and master plans.
- Encourage engagement within parks through Friends Groups and other volunteer groups, support the efforts of such groups, and recognize their contributions to the park system in development and maintenance of park facilities.
- Develop joint-use agreements with organizations that provide recreational amenities that can fill recreation demands.

STRATEGY: PURSUE REGIONAL SOLUTIONS TO REGIONAL ISSUES.

- Where possible, enhance or develop regional recreation facilities identified by the Wisconsin SCORP for the Southern Gateways Region to address supply shortages.
- Continue joint planning efforts with Dane County to implement recommendations of the Dane County Park and Open Space Plan on property within the City of Madison.
- Collaborate with park advocacy organizations to meet park and recreation demands.

This page intentionally left blank.

Appendices

Appendix A – Works Cited

Appendix B – Engagement Summary Data
- Comment Cards Summary Data
- Online Survey Summary Data
- SOPARC Summary Data
- Community Visioning Sessions & Theme Events
- Focus Groups Summary Data
- NRT Comment Summary Data
- Imagine Madison Summary Data
- Recreation League Survey Summary Data

Appendix C – Supplemental Tables
- Table 1: 2017 Park Events
- Table 2: 2012-2017 Park Development Accomplishments
- Table 3: Park Facility Inventory
- Table 4: Schools with Public Recreation Facilities
- Table 5: Non-city Owned Parks within a 1/2-mile Radius
- Table 6: Potential Park Facility Development Costs

Appendix D - Additional Maps
- Exhibit A: Topography
- Exhibit B: WDNR ROA Southern Gateways Region
- Exhibit C: Dane County Parks and Open Space Plan, 2018-2023
- Exhibit D: Dane County Parks and Open Space Plan- Regional Trail Map
- Exhibit E: Draft Future Land Use Map
- Exhibit F: Generalized Future Land Use Map
- Exhibit G: WDNR Contaminated Site Inventory
- Exhibit H: Previous Park Impact Fee Districts
- Exhibit I: 2017 Updated Park Impact Fee District Map

Appendix E - ADA Accessibility
Appendix F - Historic Resources
Appendix G - 2018 Capital Budget

This page intentionally left blank.

Appendix A - Works Cited

This page intentionally left blank.

Bedimo-Rung, A.L., Mowen, A.J., & Cohen, D.A. (2005). The significance of parks to physical activity and public health: a conceptual model. American Journal of Preventive Medicine, 28(2), 159-168.

Berman, M. G., Jonides, J., & Kaplan, S. (2008). The cognitive benefits of interacting with nature. Psychological science, 19(12), 1207-1212.

Bernthal, T.W., & Hatch, B.K. (2008). Mapping Wisconsin wetlands dominated by reed canary grass, Phalaris arundinacea L.: a landscape level assessment. Madison, WI: Wisconsin Department of Natural Resources.

Brownson, R. C., Baker, E. A., Housemann, R. A., Brennan, L. K., & Bacak, S. J. (2001). Environmental and policy determinants of physical activity in the United States. American Journal of Public Health, 91(12), 1995-2003.

Buchmann S., & Nabhan, G.P. (1996). The Forgotten Pollinators. New York: Island Press.

Center for Resilience. (2017). What is Resilience? Retrieved from http://resilience.osu.edu/CFR-site/concepts.htm

Chavira, K. (2016). Enrollment History and Projections Fall 2016. Madison Metropolitan School District. Madison, WI.

City of Madison Parks Division. (2017). Madison Emerald Ash Borer Information. Madison, WI. Retrieved from https://www.cityofmadison.com/parks/forestry/EAB/

City of Madison. (2015). Pollinator Protection Task Force Report. Madison, WI. Retrieved from https://www.cityofmadison.com/mayor/priorities/food/madison-food-policy-council/pollinator-protection-task-force

City of Madison. (2016). Madison City Snapshot 2016: How Madison Is Changing, Data & Trends for the Comprehensive Plan Update. Retrieved from https://imaginemadisonwi.com/sites/imaginemadisonwi.com/files/document/pdf/City%20Snapshot.pdf

City of Madison. (DATE). RESJ Tool: Comprehensive Version. Retrieved from https://www.cityofmadison.com/mayor/programs/racial-equity-social-justice-initiative/tools-resources

Clean Lakes Alliance. (2016). 2016 State of the Lakes & Clean Lakes Alliance Report. Madison, WI. Retrieved from https://cleanlakesalliance.org/state-of-the-lakes/

Clean Lakes Alliance. (2017). About Zebra Mussels in Madison Lakes. Madison, WI. Retrieved from https://cleanlakesalliance.org/zebra-mussels/

Clean Lakes Alliance. (2017). Invasive Species Highlight: Spiny Water Flea. Madison, WI. Retrieved from https://cleanlakesalliance.org/invasive-species-highlight-spiny-water-flea/

Cohen, D. A., Han, B., Nagel, C. J., Harnik, P., McKenzie, T. L., Evenson, K. R., ... & Katta, S. (2016). The first national study of neighborhood parks: Implications for physical activity. American Journal of Preventive Medicine, 51(4), 419-426.

Coutts, C., Horner, M., & Chapin, T. (2010). Using geographical information system to model the effects of green space accessibility on mortality in Florida. Geocarto International, 25(6), 471-484.

County Health Rankings. (2017). County Health Rankings & Roadmaps: Wisconsin. Retrieved from http://www.countyhealthrankings.org/app/wisconsin/2017/overview

Dane County Climate Change Action Council. (2013). Dane County Climate Change and Emergency Preparedness. Madison, WI.

Dane County Office of Lakes and Watersheds. (2008). Dane County State of the Waters Report. Madison, WI.

Davey Resource Group. (2017). I-Tree thing!

Donovan, G. H., Butry, D. T., Michael, Y. L., Prestemon, J. P., Liebhold, A. M., Gatziolis, D., & Mao, M. Y. (2013). The relationship between trees and human health: evidence from the spread of the emerald ash borer. American journal of preventive medicine, 44(2), 139-145.

Dwyer, J.F., Nowak, D.J., Noble, M.H., & Sisinni, S. (2000). Connecting People With Ecosystems in the 21st Century: An Assessment of Our Nation's Urban Forest (PNW-GTR-490). Portland, OR: United States Department of Agriculture, Forest Service, Pacific Northwest Research Station.

Egan-Robertson, D. (2013). Wisconsin's Future Population: Projections for the State, It's Counties and Municipalities, 2010-2040. Retrieved from https://doa.wi.gov/DIR/FinalProjs2040_Publication.pdf

Ellis, A.M., Myers, S.S., & Ricketts, T.H. (2015). Do Pollinators Contribute to Nutritional Health? PLoS ONE, 10(1): e114805. doi:10.1371/journal.pone.0114805

Emerald Ash Borer Information Network. (2017). Emerald Ash Borer. Retrieved from http://www.emeraldashborer.info/

Faber Taylor, A., & Kuo, F. E. (2009). Children with attention deficits concentrate better after walk in the park. Journal of attention disorders, 12(5), 402-409.
Financial Times. (2017). Definition of Environmental Sustainability. Retrieved from http://lexicon.ft.com/Term?term=environmental-sustainability

Gallai, N., Salles, J.M., Settele, J., & Vaissiere, B.E. (2009). Economic valuation of the vulnerability of world agriculture confronted with pollinator decline. Ecological Economics, 68(3), 810-821.

Gobster, P. H. (2002). Managing urban parks for a racially and ethnically diverse clientele. Leisure sciences, 24(2), 143-159.

Gobster, P. H. (2002). Managing urban parks for a racially and ethnically diverse clientele. Leisure sciences, 24(2), 143-159.

Gordon, S., & Faster, K. (2016). Brown Marmorated Stink Bug a Growing Agricultural Pest in U.S. Retrieved from https://www.wpr.org/brown-marmorated-stink-bug-growing-agricultural-pest-u-s

Guedot, C., & Jensen, B. (2014). Brown Marmorated Stink Bug. Madison, WI: University of Wisconsin-Extension. Retrieved from https://hort.uwex.edu/articles/brown-marmorated-stink-bug/

Harnik, P., & Crompton, J. L. (2014). Measuring the total economic value of a park system to a community. Managing Leisure, 19(3), 188-211.

Healthy Dane. (2017). Community Health Dashboards. Retrieved from http://www.healthydane.org/
Heisler, G.M., Grant, R.H., Grimmond, S., & Souch, C. (1995). Urban forests-cooling our communities? Kollin, C.; Barratt, M., eds. Proceedings: 7th national urban forest conference. Washington, DC: American Forests: 31-34.

Higgins, S. N., & Vander Zanden, M. J. (2010). What a difference a species makes: a meta–analysis of dreissenid mussel impacts on freshwater ecosystems. Ecological monographs, 80(2), 179-196.

Hinterthuer, A. (2016). Zebra mussels invade Lake Mendota. Retrieved from https://news.wisc.edu/zebra-mussels-invade-lake-mendota/

Historic Madison, Inc. of Wisconsin. (2018). Madison's Past- Early History. Retrieved from http://www.historicmadison.org/Madison%27s%20Past/madisonspast.html

Hung, D., Lim, K. Y., & Lee, S. S. (Eds.). (2013). Adaptivity as a transformative disposition: For learning in the 21st century. Springer Science & Business Media.

Ibes, D.C. (2014). Sustainable Urban Park Systems. Cities and the Environment (CATE), 7(2), 1-30.
Kawachi, I., & Berkman, L. (2000). Social cohesion, social capital, and health. Social epidemiology, 174, 190.

Klein, A.M., Vaissiere, B., Cane J.H., Steffan-Dewenter, I., Cunningham, S.A., & Kremen, C. (2007). Importance of crop pollinators in changing landscapes for world crops. Proceedings of the Royal Society B: Biological Sciences, 274(1608), 303-313.

Losey, J.E., & Vaughan, M. (2006). The Economic Value of Ecological Services Provided by Insects. BioScience, 56(4), 311-323.

Lovasi, G.S., Quinn, J.W., Neckerman, K.M., Perzanowski, M.S., & Rundle, A. (2008). Children living in areas with more street trees have lower asthma prevalence. Journal of Epidemiology & Community Health, 62(7), 647-649.

Lucas, J. (2011). Native American Heritage Runs Deep at UW-Madison. Retrieved from https://indiancountrymedianetwork.com/news/native-american-heritage-runs-deep-at-uw-madison/

Martineau, C. (2011). Public Health Benefits of Urban Trees. Retrieved from https://canopy.org/wp-content/uploads/Public-Health-Benefits-of-Trees-2-15-11.pdf
Mertes, J. D., & Hall, J. R. (1995). Park, recreation, open space and greenway guidelines. Urban Land Inst.

Miller, E., & Buys, L. (2008). Does social capital predict happiness, health, and life satisfaction in an urban Australian community?. Kotuitui: New Zealand Journal of Social Sciences Online, 3(1), 15-20.

Miller, M. (2016). Jumping Worms: The Creepy, Damaging Invasive You Don't Know. Retrieved from https://blog.nature.org/science/2016/10/31/jumping-worm-the-creepy-damaging-invasive-you-dont-know/

New York Invasive Species Information. (2017). Japanese Knotweed. Retrieved from http://www.nyis.info/index.php?action=invasive_detail&id=43

OECD. (2018). Social Cohesion. Retrieved from http://www.oecd.org/dev/inclusivesocietiesanddevelopment/social-cohesion.htm

Ollerton, J., Winfree, R., & Tarrant, S. (2011). How many flowering plants are pollinated by animals? Oikos, 120, 321-326.

Panke, B. & Renz, M. (2012). Garlic mustard (Alliaria petiolata). Madison, WI: University of Wisconsin Cooperative Extension. Retrieved from https://learningstore.uwex.edu/Assets/pdfs/A3924-07.pdf

Park, B. J., Tsunetsugu, Y., Kasetani, T., Kagawa, T., & Miyazaki, Y. (2010). The physiological effects of Shinrin-yoku (taking in the forest atmosphere or forest bathing): evidence from field experiments in 24 forests across Japan. Environmental health and preventive medicine, 15(1), 18.

Pimentel, D., Zuniga, R., & Morrison, D. (2005). Update on the environmental and economic costs associated with alien-invasive species in the United States. Ecological economics, 52(3), 273-288.

Public Health Madison and Dane County. (2014). Madison and Dane County Environmental Health Report Card Series-2014. Madison, WI. Retrieved from https://www.publichealthmdc.com/publications/envReportCard.cfm

Roux, A.V. D., Evenson, K. R., McGinn, A. P., Brown, D. G., Moore, L., Brines, S., & Jacobs Jr, D. R. (2007). Availability of recreational resources and physical activity in adults. American Journal of Public Health, 97(3), 493-499.

Rudolph, L., Gould, S., & Berko, J. (2015). Climate change, health, and equity: opportunities for action. Public Health Institute.

Salk, R. (2014). Regional Park Use among Select Communities of Color. A Qualitative Investigation. Twin Cities Metropolitan Council.

Salk, R. (2014). Regional Park Use among Select Communities of Color. A Qualitative Investigation. Twin Cities Metropolitan Council.

Sherer, P. M. (2006). The Benefits of Parks: Why America Needs More City Parks and Open Space. The Trust for Public Land. Retrieved from http://www.eastshorepark.org/benefits_of_parks%20tpl.pdf

Smith, M.R., Singh, G.M., Mozaffarian, D., & Myers, S.S. (2015). Effects of decreases of animal pollinators on human nutrition and global health: a modeling analysis. The Lancet, 386(10007), 1964-1972.

Southeastern Wisconsin Invasive Species Consortium. (2017). Garlic Mustard. Retrieved from https://sewisc.org/invasives/invasive-plants/65-garlic-mustard

Takano, T., Nakamura, K., & Watanabe, M. (2002). Urban residential environments and senior citizens' longevity in megacity areas: the importance of walkable green spaces. Journal of Epidemiology and Community Health, 56(12), 913-918.

The State of Obesity. (2017). Inequity and Obesity. Retrieved from https://stateofobesity.org/inequity-obesity/

The State of Obesity. (2017). The State of Obesity in Wisconsin. Retrieved from https://stateofobesity.org/states/wi

U.S. Census Bureau. (2006). S0101 Age and Sex, 2006 American Community Survey. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_06_EST_S0101&prodType=table

U.S. Census Bureau. (2007). CP05 ACS Demographic and Housing Estimates, 2007 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_07_1YR_CP5&prodType=table

U.S. Census Bureau. (2013). A Century of Population Change in the Age and Sex Composition of the Nation. Retrieved from https://www.census.gov/dataviz/visualizations/055/

U.S. Census Bureau. (2014). CP05 Comparative Demographic Estimates, 2014 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_1YR_CP05&prodType=table

U.S. Census Bureau. (2015). CP05 Comparative Demographic Estimates, 2015 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_1YR_CP05&prodType=table

U.S. Census Bureau. (2015). DP03 Selected Economic Characteristics, 2015 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_1YR_DP03&prodType=table

U.S. Census Bureau. (2015). DP03 Selected Economic Characteristics, 2011-2015 American Community Survey 5-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_5YR_DP03&prodType=table

U.S. Census Bureau. (2015). S0101 Age and Sex, 2015 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_1YR_S0101&prodType=table

U.S. Census Bureau. (2015). S1701 Poverty Status In The Past 12 Months, 2011-2015 American Community Survey 5-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_5YR_S1701&prodType=table

U.S. Census Bureau. (2015). S2501 Occupancy Characteristics, 2015 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_1YR_S2501&prodType=table

U.S. Census Bureau. (2016). B01003 Total Population, 2016 American Community Survey 1-Year Estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_1YR_B01003&prodType=table

U.S. Department of Housing and Urban Development. (2017). Consolidated Planning/CHAS Data-Table 9. Retrieved from https://www.huduser.gov/portal/datasets/cp.html#2006-2014_data

Ulrich, R.S. (1984). View through a window may influence recovery from surgery. Science, 224, 420-421

United States Department of Agriculture. (2017). ARS Honey Bee Health and Colony Collapse Disorder. Retrieved from https://www.ars.usda.gov/oc/br/ccd/index/

United States Environmental Protection Agency. (2016). What Climate Change Means for Wisconsin (EPA Publication No. 430-F-16-051). Washington, DC.
University of Wisconsin-Madison Arboretum. (2017). Invasive Species. Retrieved from https://arboretum.wisc.edu/land-stewardship/invasive-species/

Urban Tree Alliance. (2017). The Benefits of Trees. Madison, WI. Retrieved from http://www.urbantreealliance.org/resources/why-trees/

Weinstein, N., Balmford, A., Dehaan, C. R., Gladwell, V., Bradbury, R. B., & Amano, T. (2015). Seeing community for the trees: The links among contact with natural environments, community cohesion, and crime. BioScience, 65(12), 1141-1153.

Williams, B., & Klug, C.R. (2015). Jumping Worms. Wisconsin Natural Resources Magazine, June 2015. Retrieved from http://dnr.wi.gov/wnrmag/2015/06/worms.htm

Wisconsin Department of Administration. (2017) Population and Household Projections: County Age-Sex Population Projections, 2010-2040. Madison, WI. Retrieved from https://doa.wi.gov/Pages/LocalGovtsGrants/Population_Projections.aspx

Wisconsin Department of Natural Resources. (2017). Japanese Knotweed. Retrieved from http://dnr.wi.gov/topic/invasives/fact/japaneseknotweed.html

Wisconsin Department of Natural Resources. Emerald Ash Borer and Forest Management. Retrieved from http://dnr.wi.gov/topic/foresthealth/documents/eabwimanagementguidelines.pdf

Wisconsin Department of Natural Resources. Spiny Water Flea (Bythotrephes cederstroemi). Retrieved from http://dnr.wi.gov/topic/invasives/fact/spinywaterflea.html

Wisconsin Reed Canary Grass Management Working Group. (2009). Reed Canary Grass (Phalaris arundinacea) Management Guide: Recommendations for Landowners and Restoration Professionals. Madison, WI: Wisconsin Department of Natural Resources.

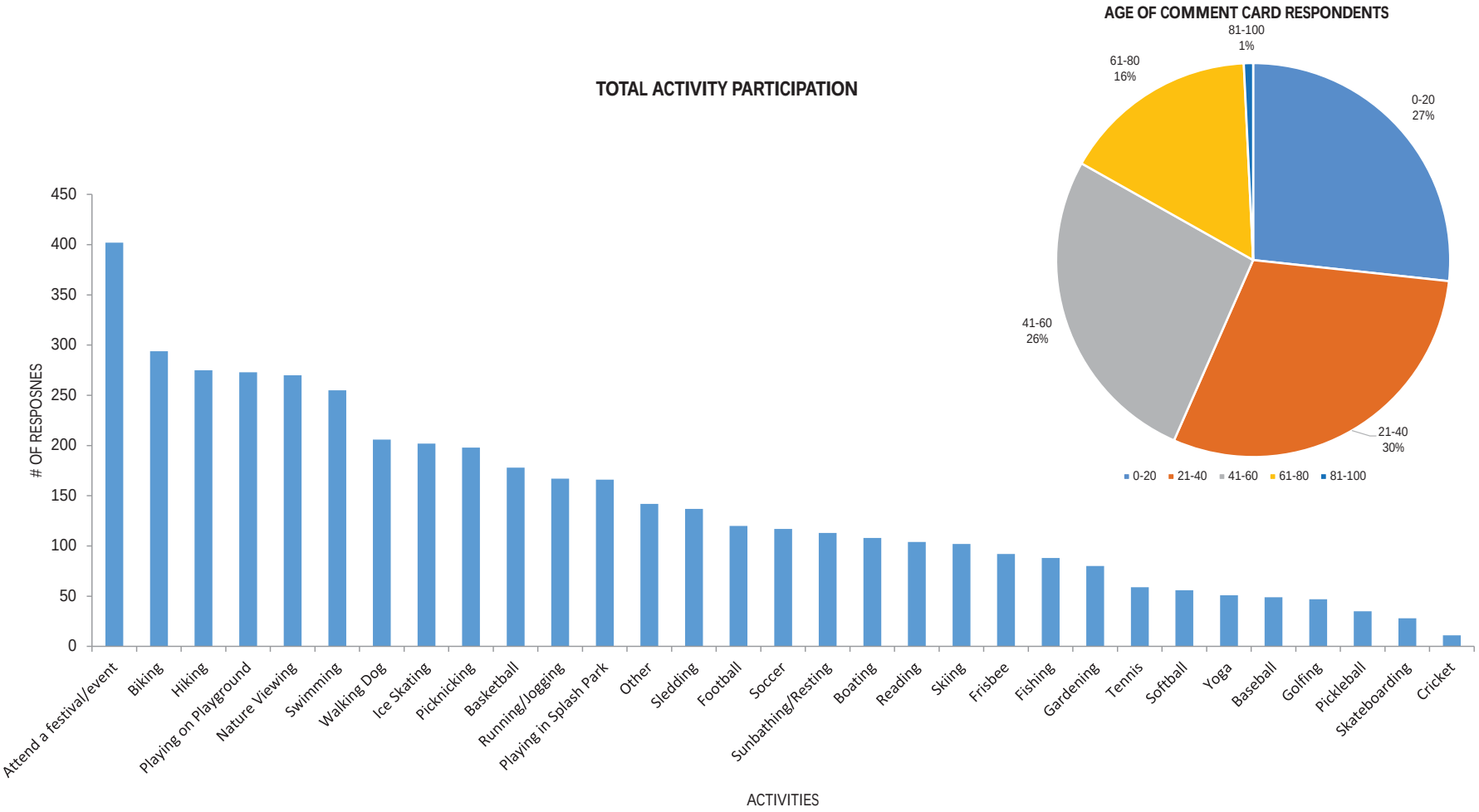
Wisconsin Wetlands Association. (2017). Invasive plant profile: Reed canary grass. Retrieved from https://wisconsinwetlands.org/updates/invasive-plant-profile-reed-canary-grass/

World Health Organization. (2018). Constitution of WHO: Principles. Retrieved from http://www.who.int/about/mission/en/

Appendix B - Engagement Summary Data

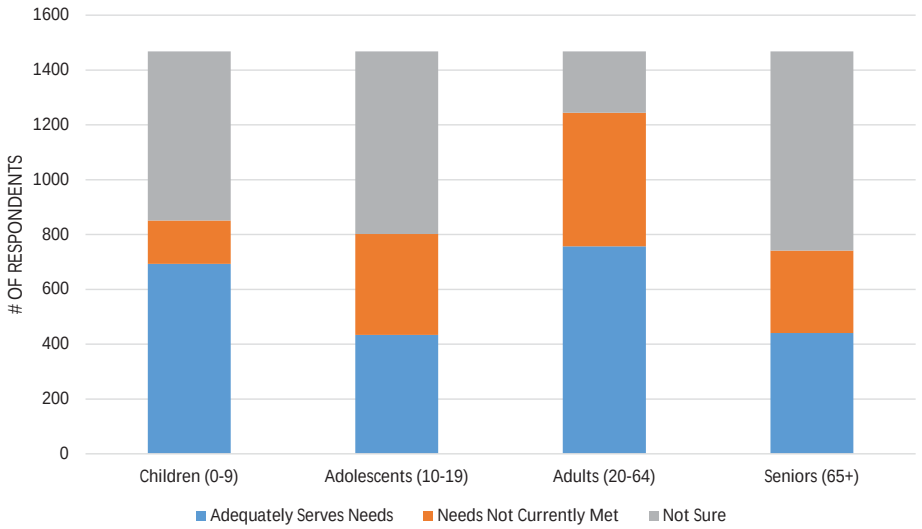
This page intentionally left blank.

Comment Cards Summary Data

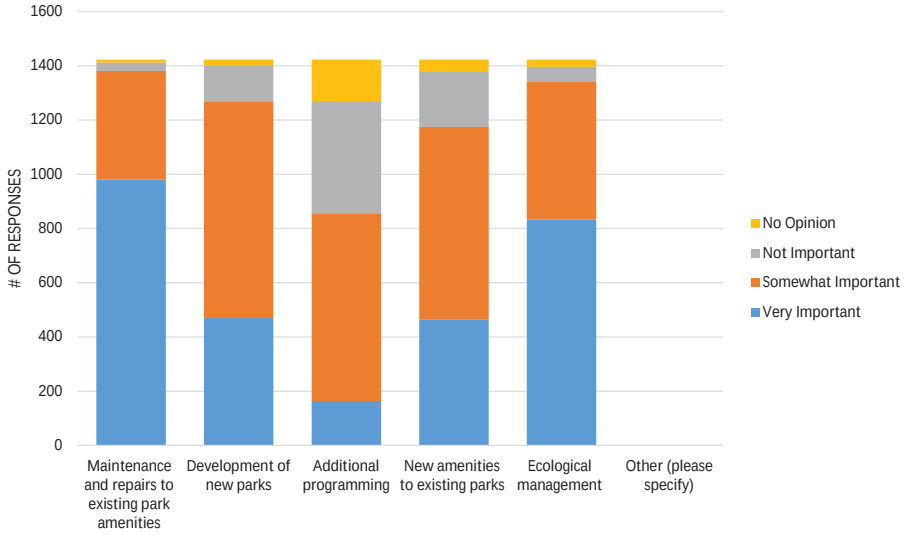


Online Survey Summary Data

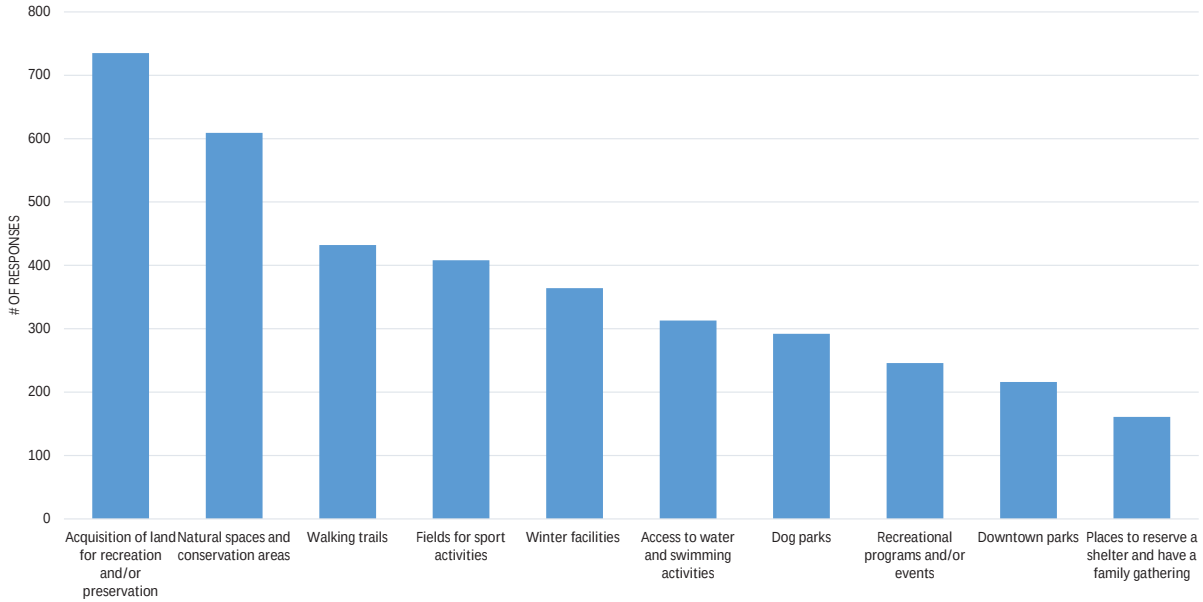
HOW DO YOU FEEL MADISON'S EXISTING PARK SYSTEM MEETS THE NEEDS OF THE AGE GROUPS BELOW?



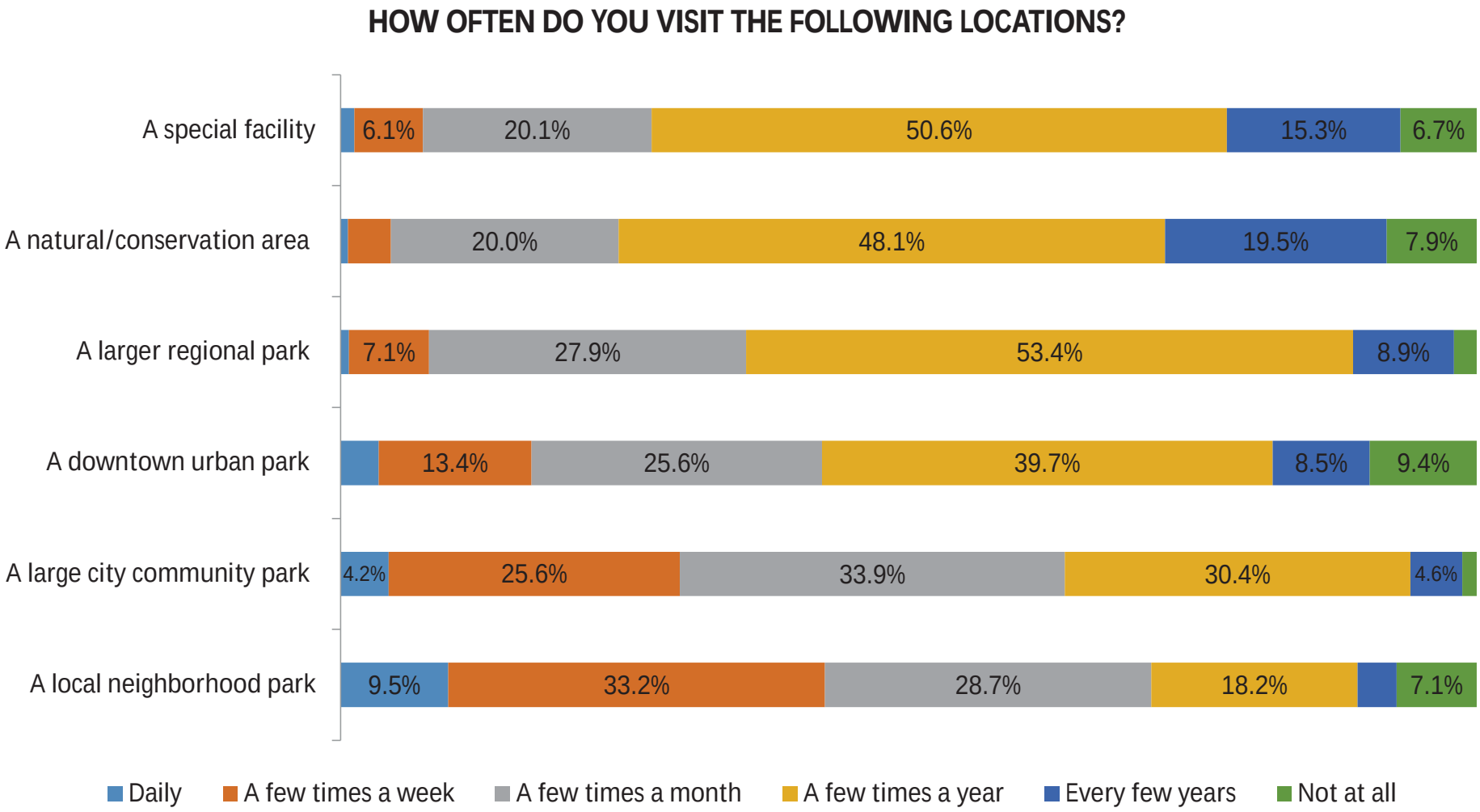
HOW IMPORTANT DO YOU FEEL THE FOLLOWING ARE TO MADISON'S PARK AND OPEN SPACES?



WHAT WOULD YOU LIKE TO SEE MORE OF IN MADISON PARKS?

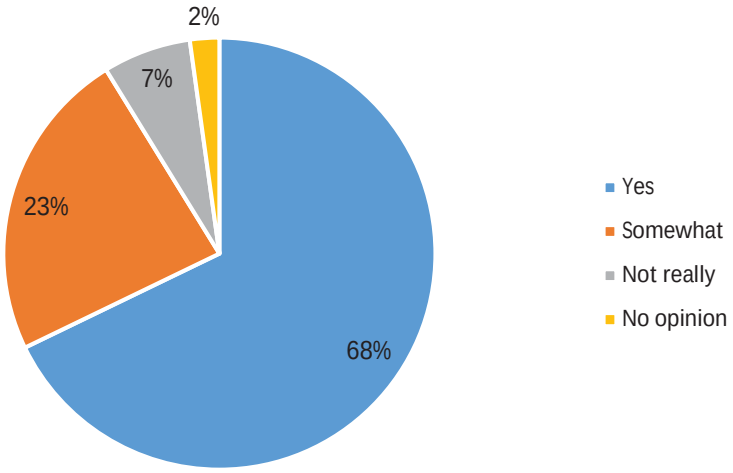


Online Survey Summary Data

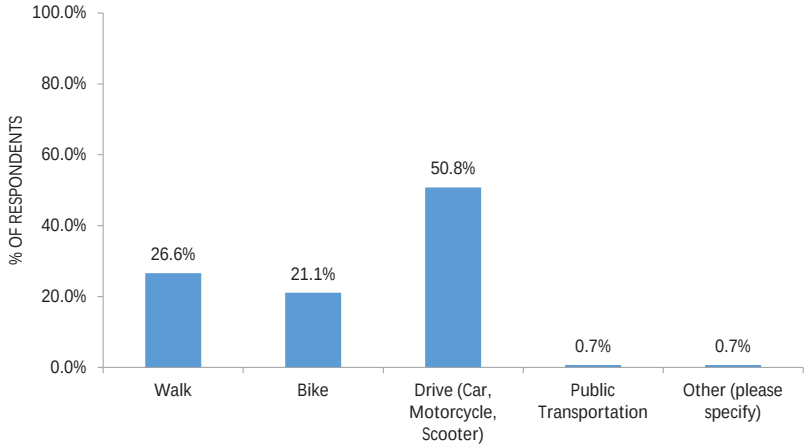


Online Survey Summary Data

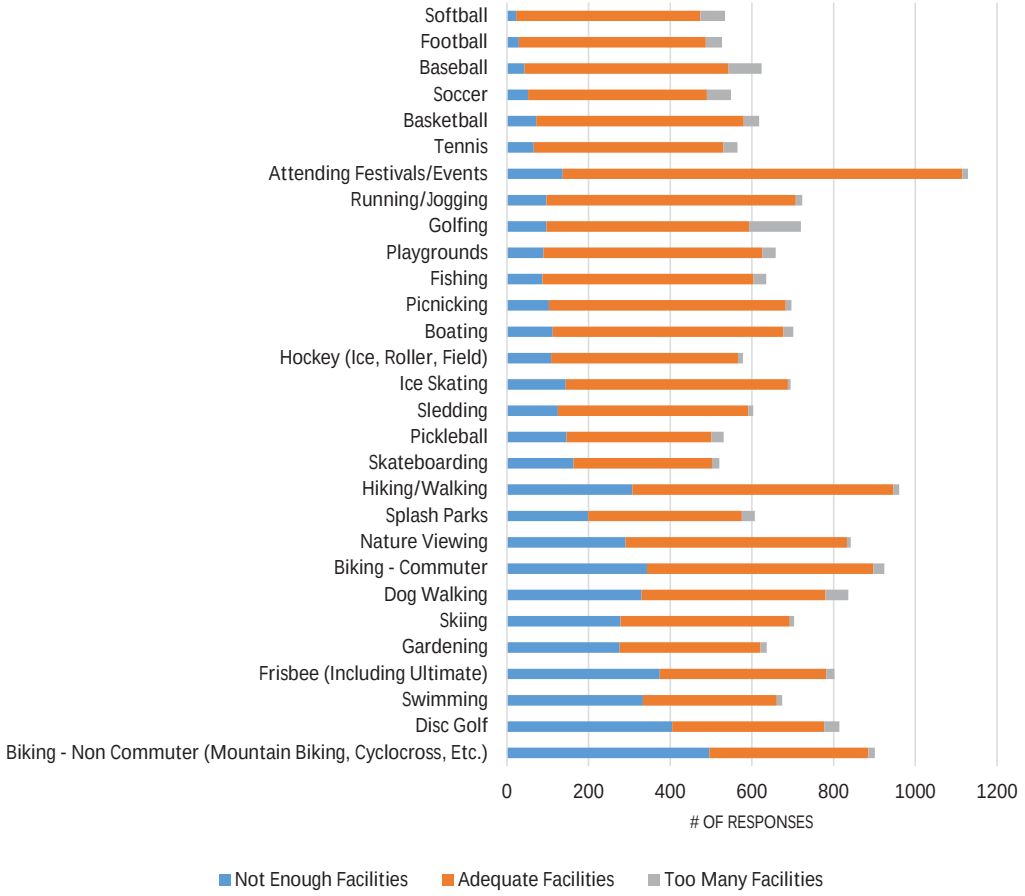
Do you feel parks should play a role in addressing issues such as habitat loss, climate change, and environmental degradation?



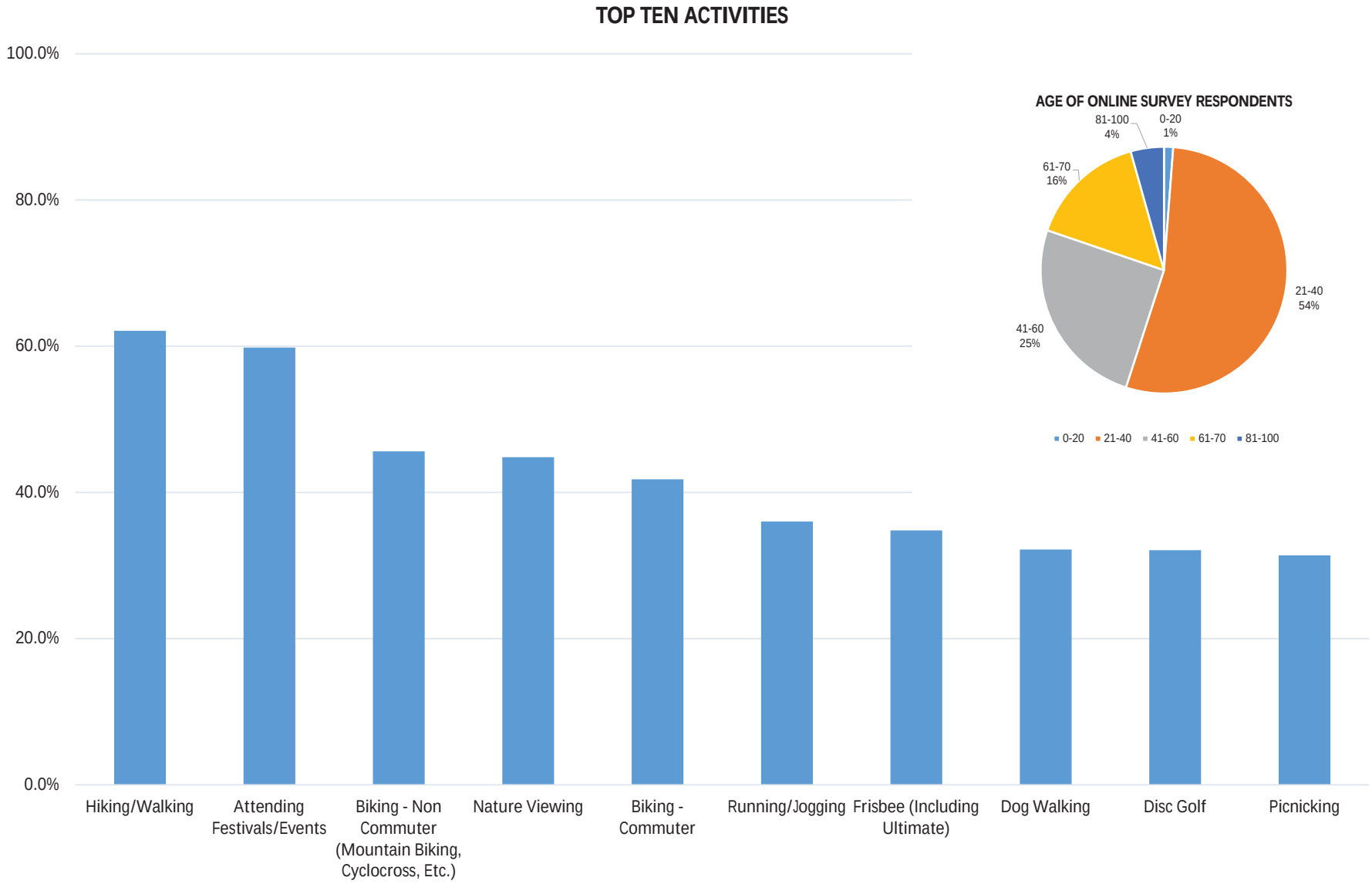
HOW DO YOU GET TO MADISON PARKS?



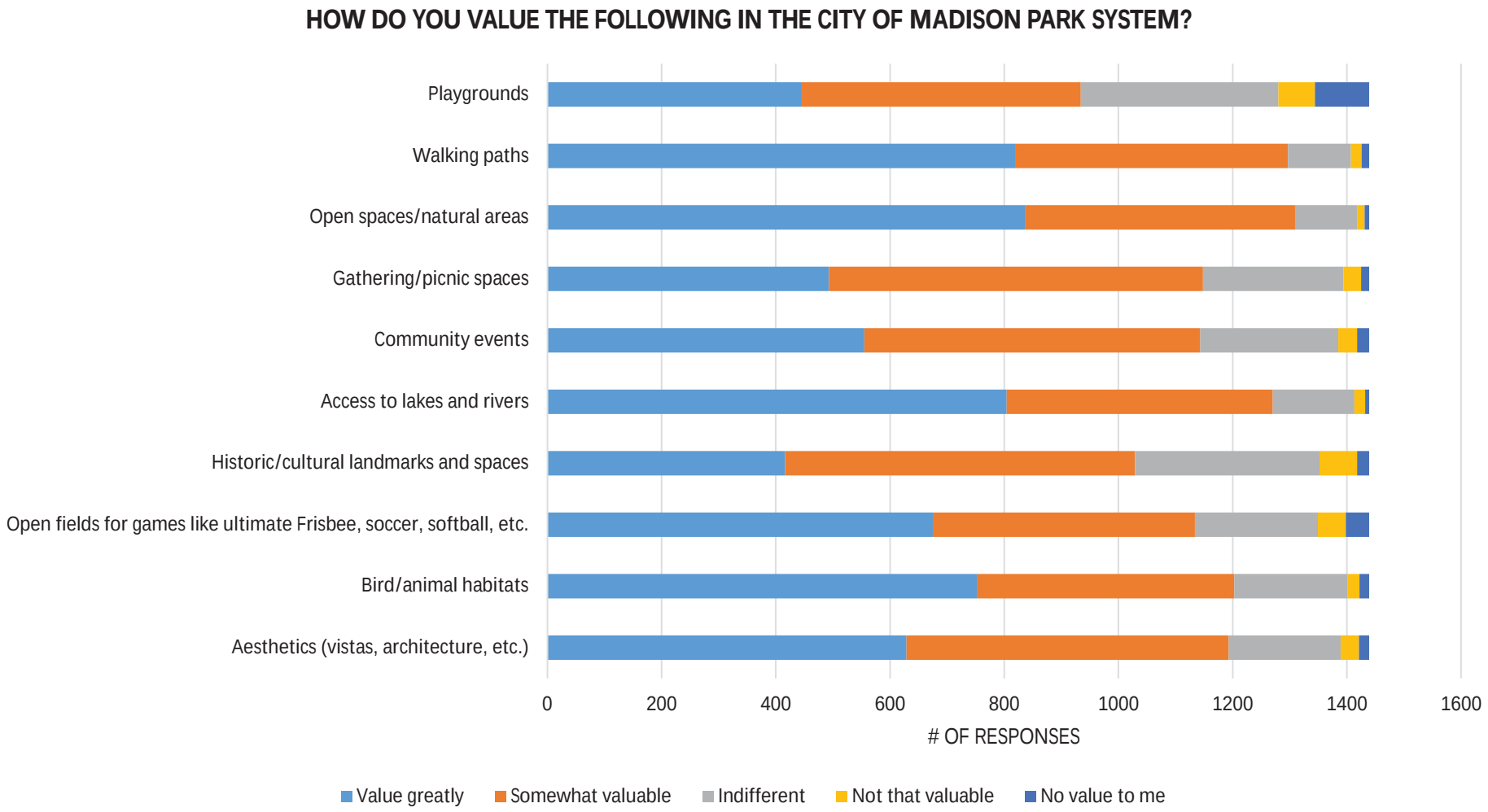
DO YOU FEEL THAT THE CITY OF MADISON PARK SYSTEM HAS SUFFICIENT FACILITIES FOR THE BELOW ACTIVITIES?



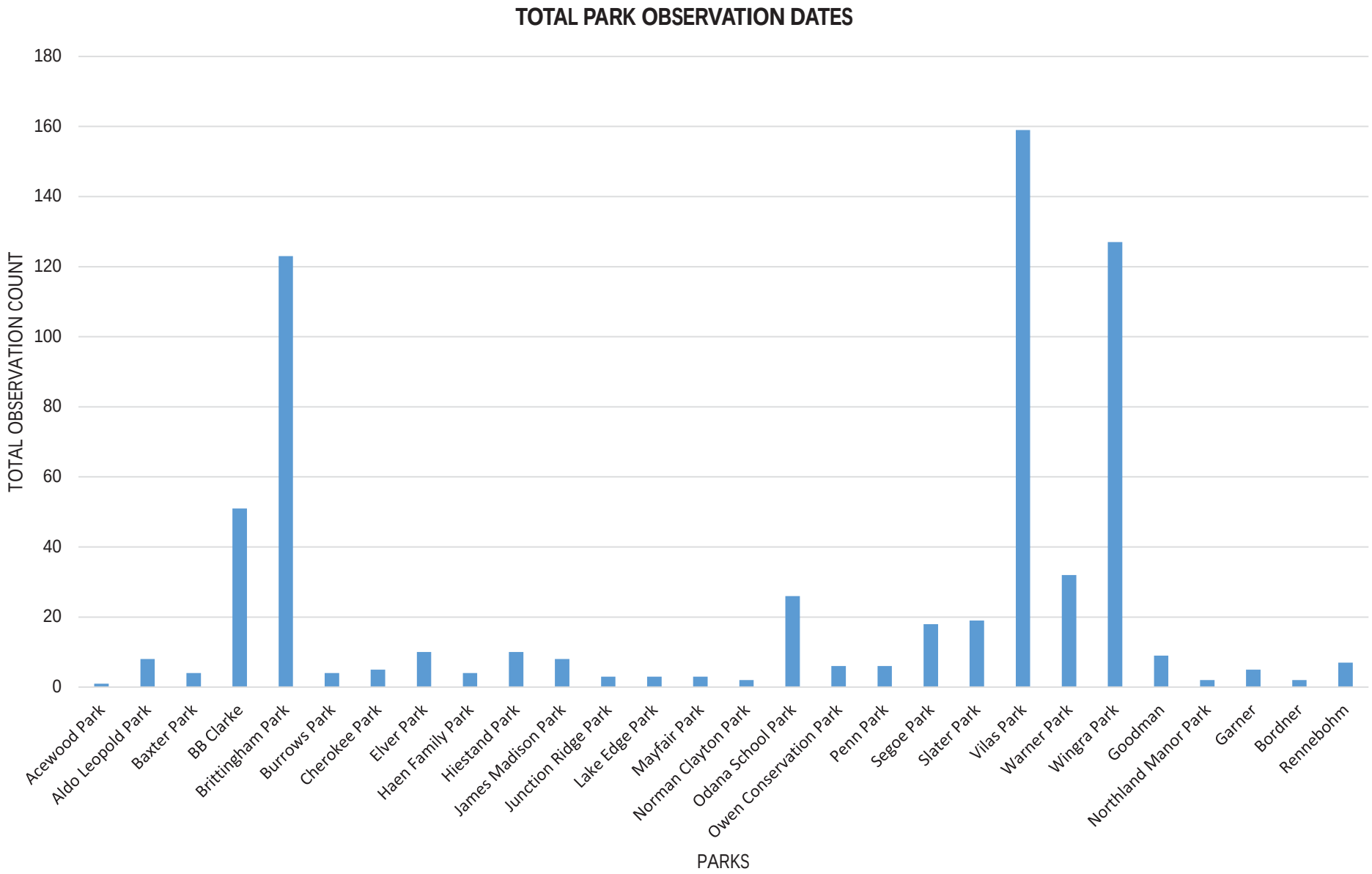
Online Survey Summary Data



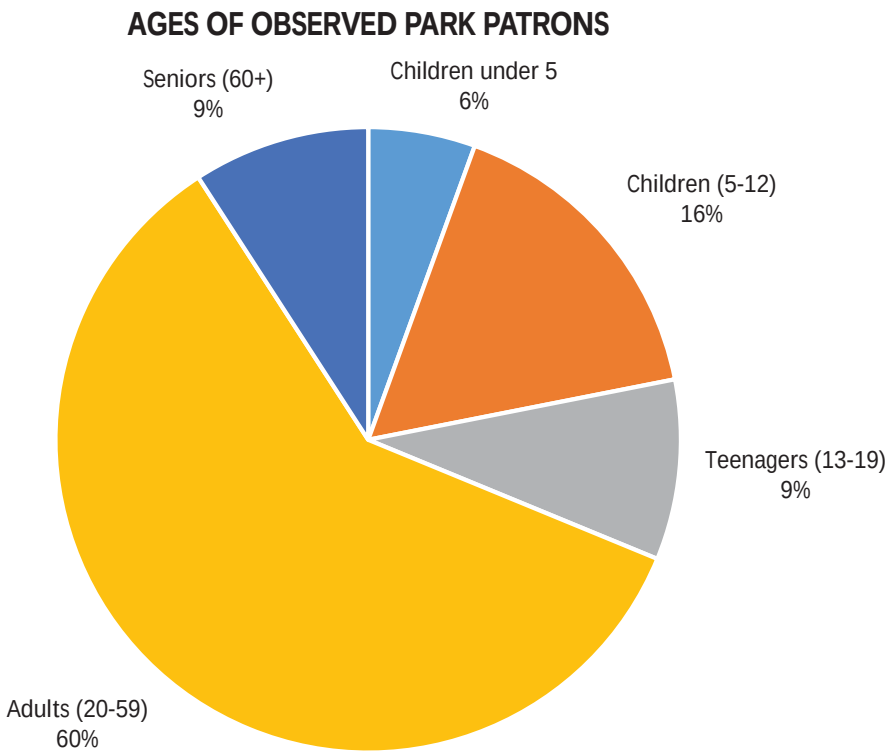
Online Survey Summary Data

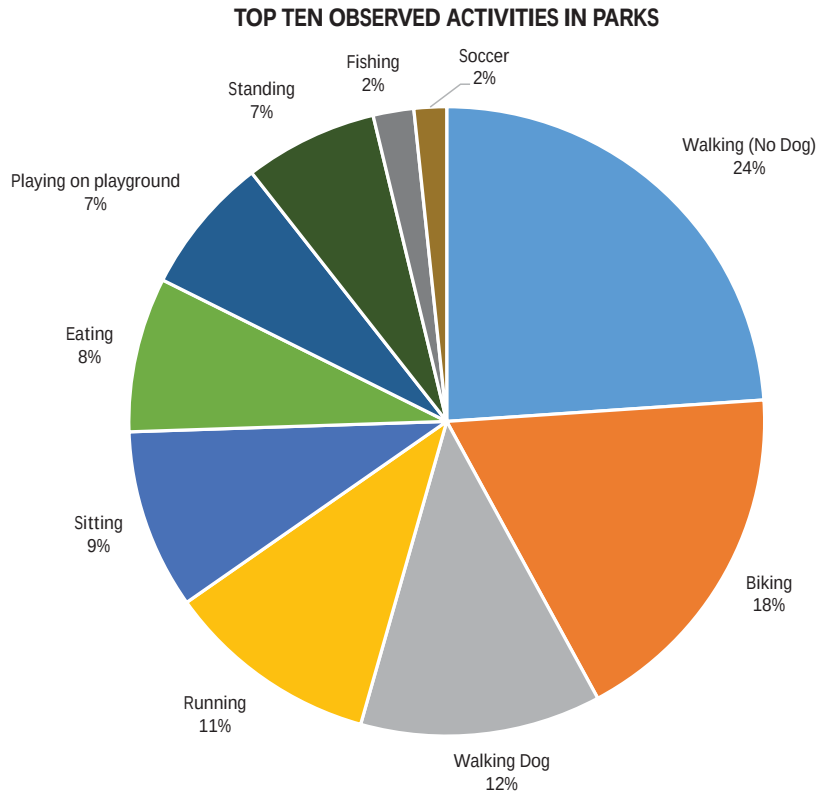


SOPARC Summary Data



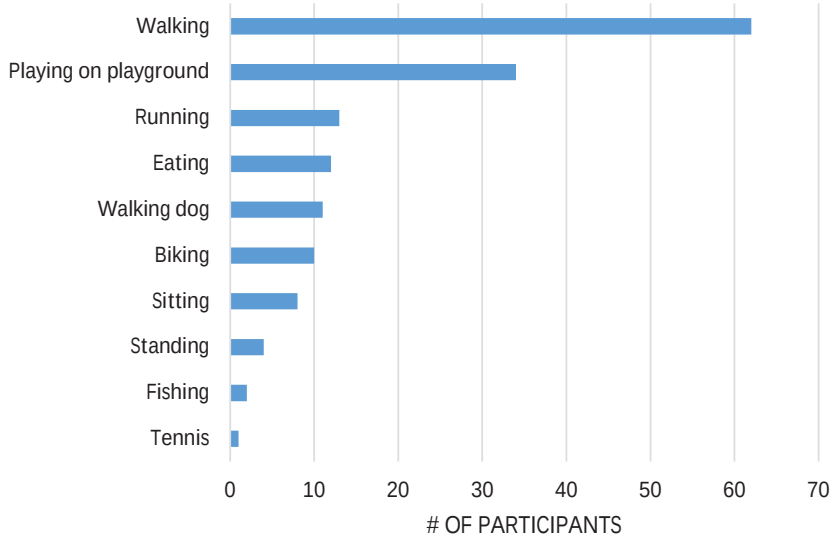
SOPARC Summary Data



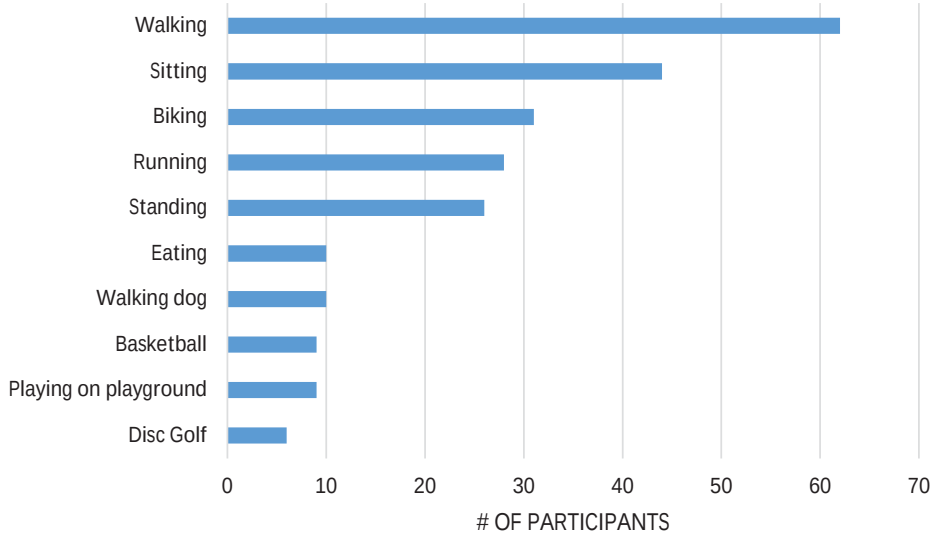


SOPARC Summary Data

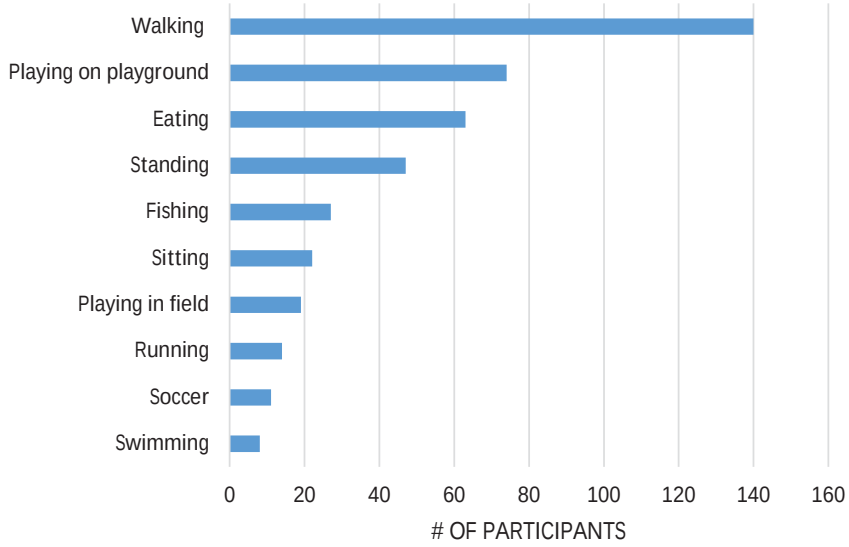
TOP TEN ACTIVITES- CHILDREN UNDER 5



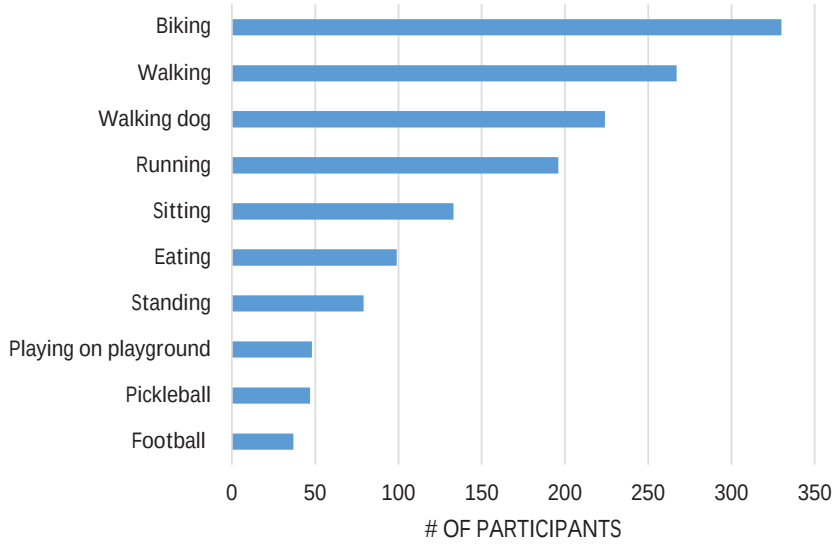
TOP TEN ACTIVITIES- TEENAGERS 13-19



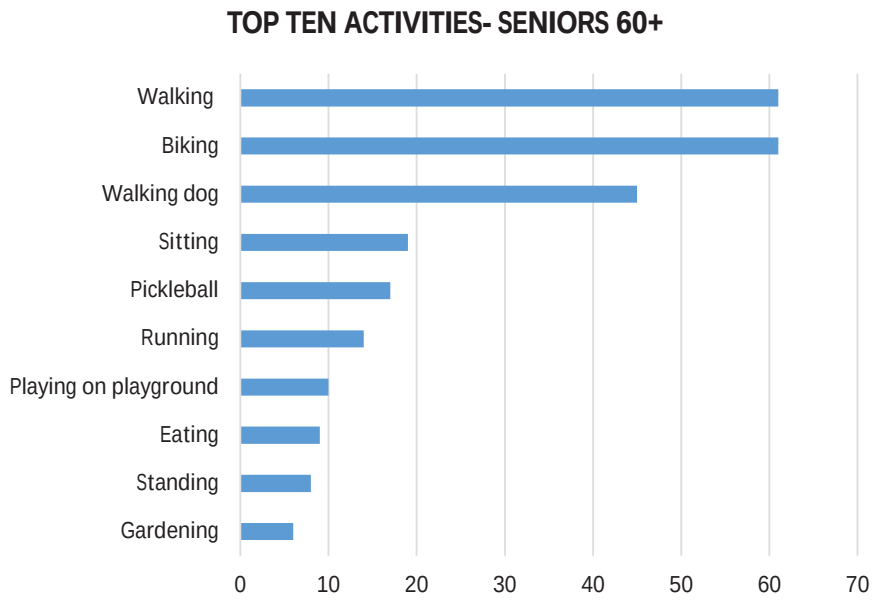
TOP TEN ACTIVITIES- CHILDREN 5-12

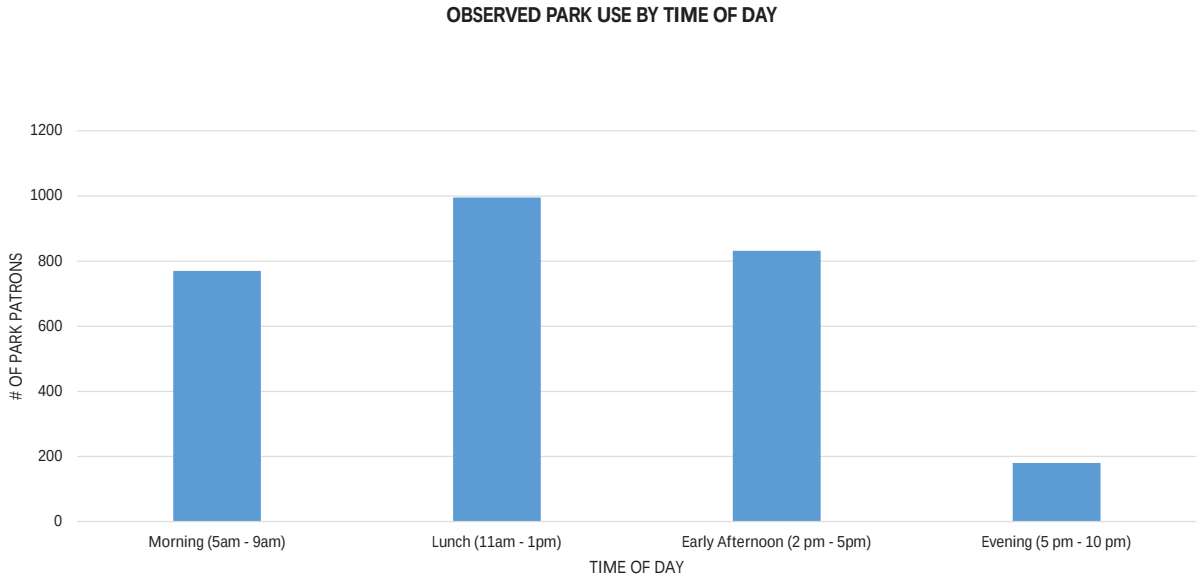


TOP TEN ACTIVITIES- ADULTS 20-59



SOPARC Summary Data

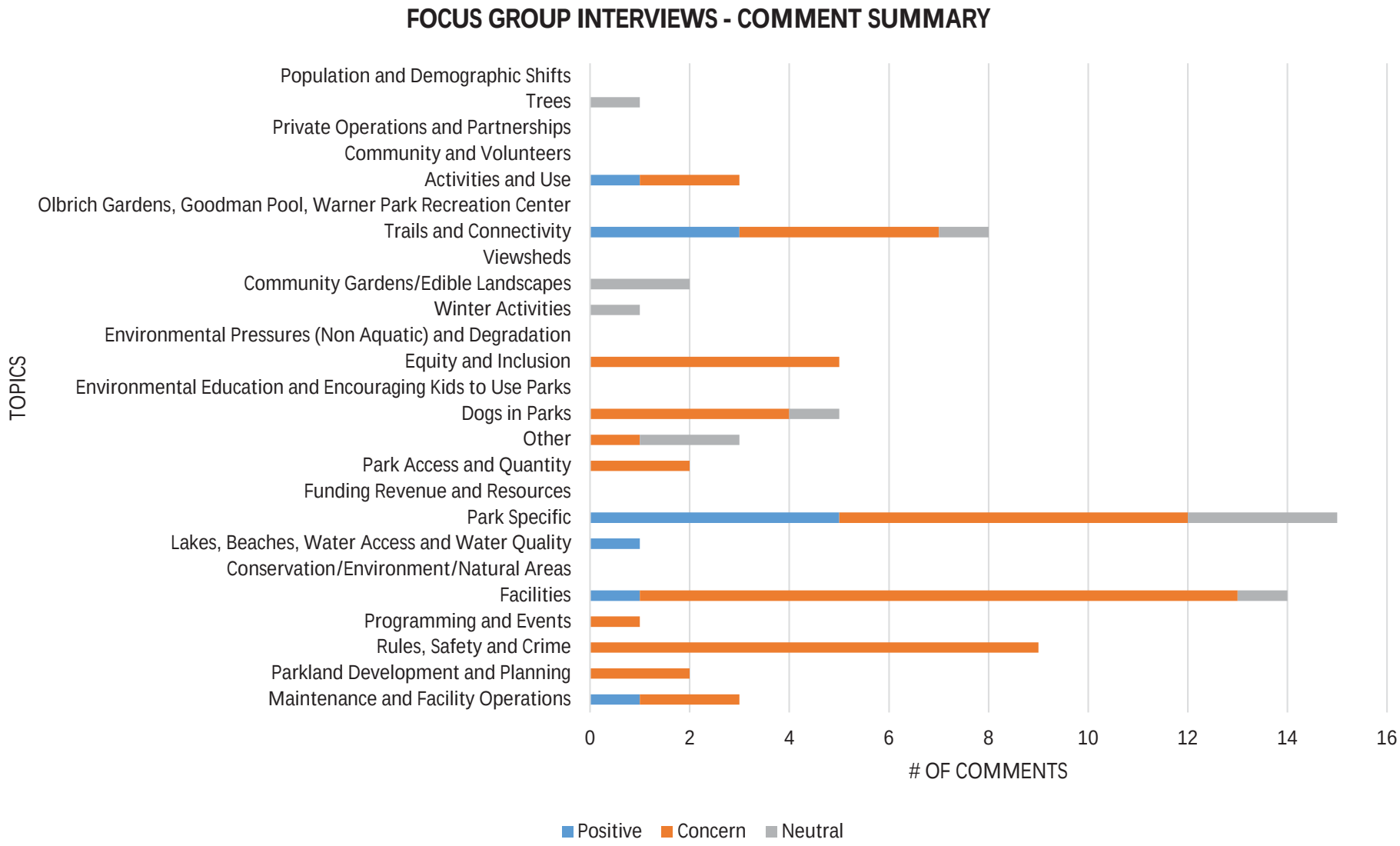




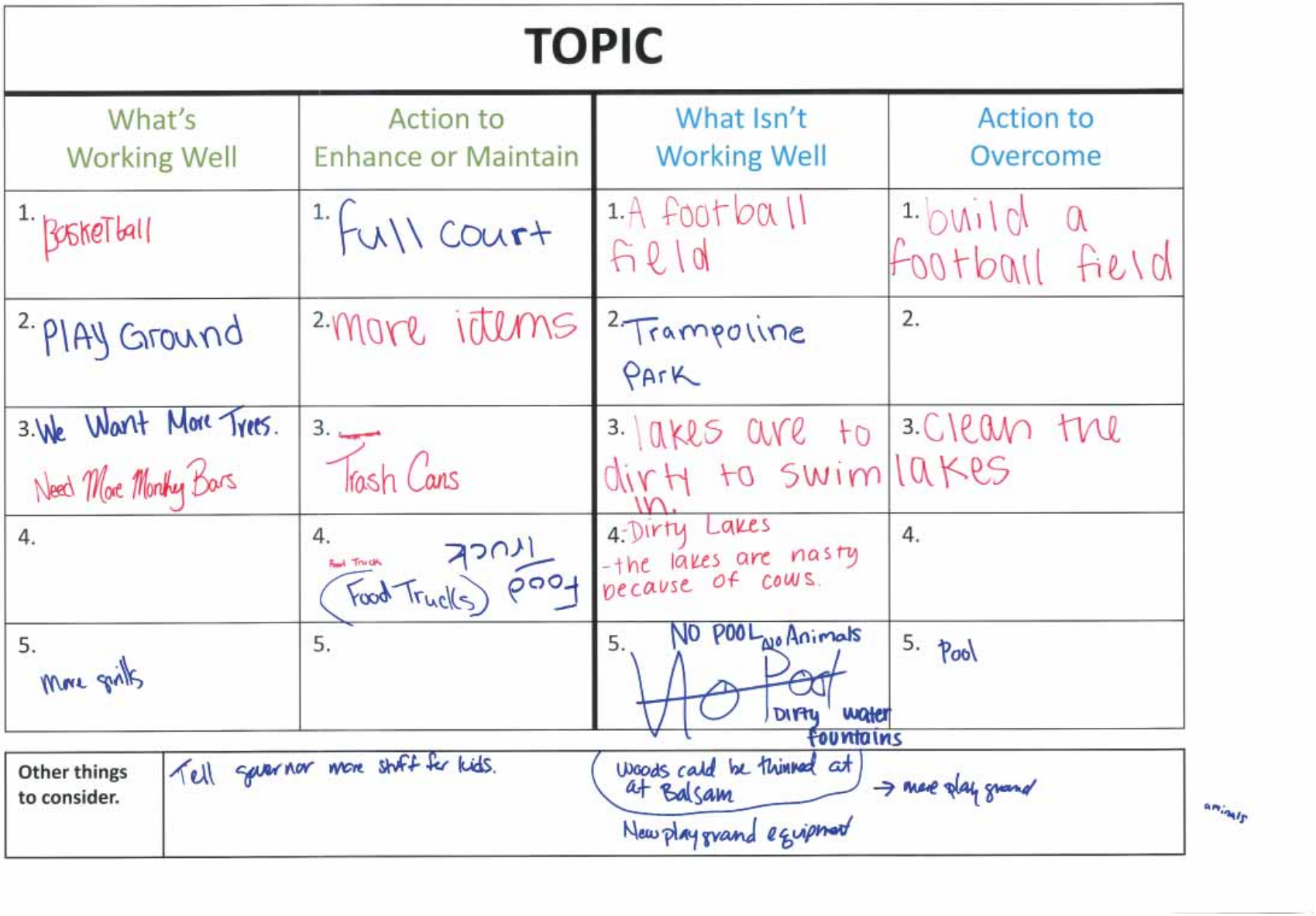
Community Visioning Sessions & Theme-Focused Workshops

A report of the Community Visioning Sessions & Theme-Focused Workshops was prepared by Urban Assets, and is available online at: https://www.cityofmadison.com/parks/projects/2018-2023-park-open-space-plan

Focus Groups Summary Data



Focus Groups Summary Data



TOPIC

What's Working Well	Action to Enhance or Maintain	What Isn't Working Well	Action to Overcome
1. Basketball	1. full court	1. A football field	1. build a football field
2. PLAY Ground	2. more items	2. Trampoline Park	2.
3. We Want More Trees. Need More Monkey Bars	3. Trash Cans	3. lakes are to dirty to swim in.	3. Clean the lakes
4.	4. Food Trucks (Food Truck) pool	4. Dirty Lakes -the lakes are nasty because of cows.	4.
5. more spirits	5.	5. NO POOL No Animals No Pool Dirty water fountains	5. Pool

Other things to consider.	Tell governor more stuff for kids.	Woods could be thinned at at Balsam → more play ground New playground equipment

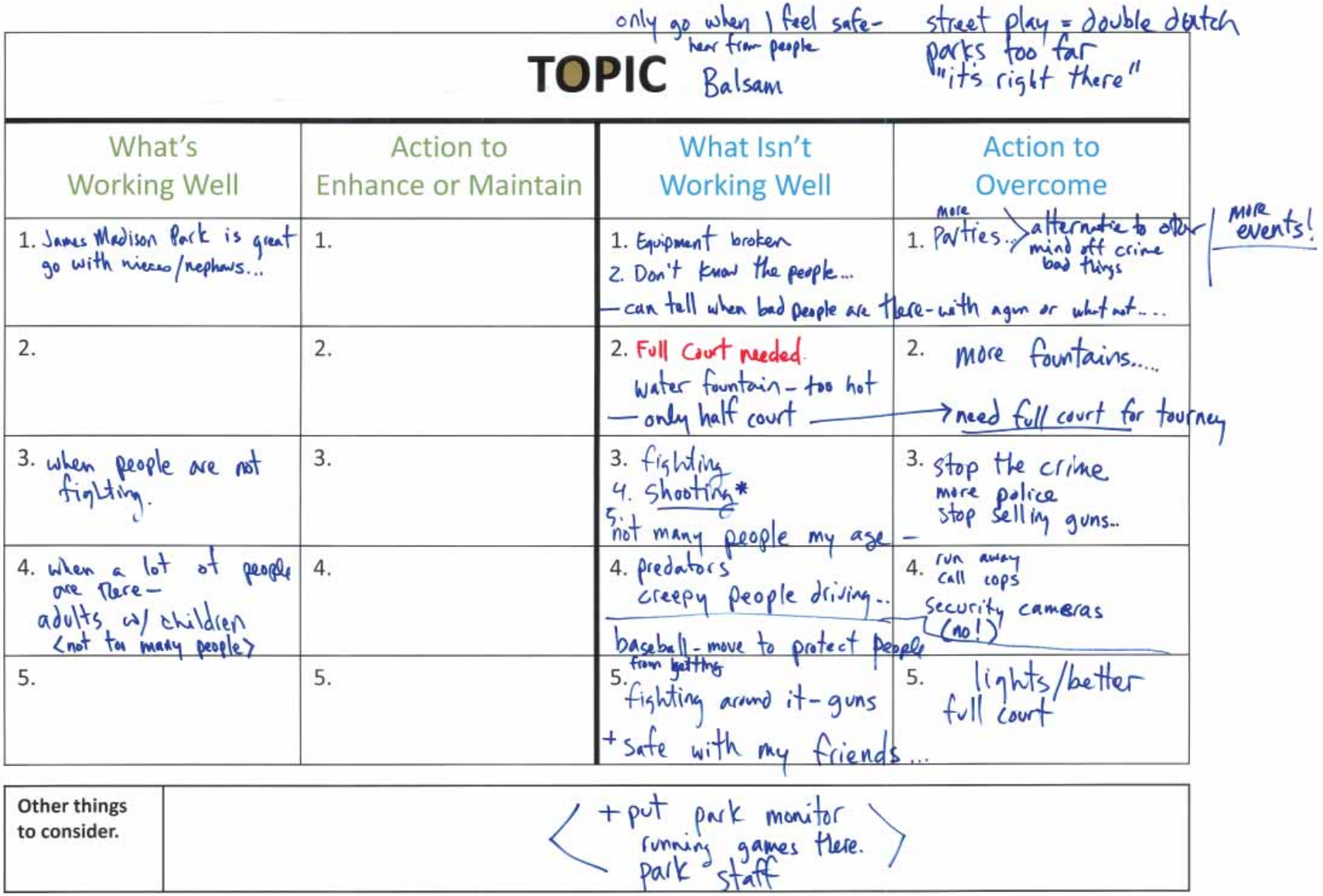
animals

Focus Groups Summary Data

TOPIC			
What's Working Well	Action to Enhance or Maintain	What Isn't Working Well	Action to Overcome
1. Close by	1.	1. Splash pad/community pool	1.
2. Elder winter activities	2.	2. Bigger slides + Bigger jungle gym	2.
3. Meet new friends	3.	3. Program park out-reach	3.
4. Swing sets - Nothing fell apart... yet (Chance was there)	4.	4. free food	4.
5.	5.	5. The basketball hoops is dingy & The courts are small.	5.

Other things to consider.	

Focus Groups Summary Data



only go when I feel safe- hear from people

street play = double dutch

parks too far "it's right there"

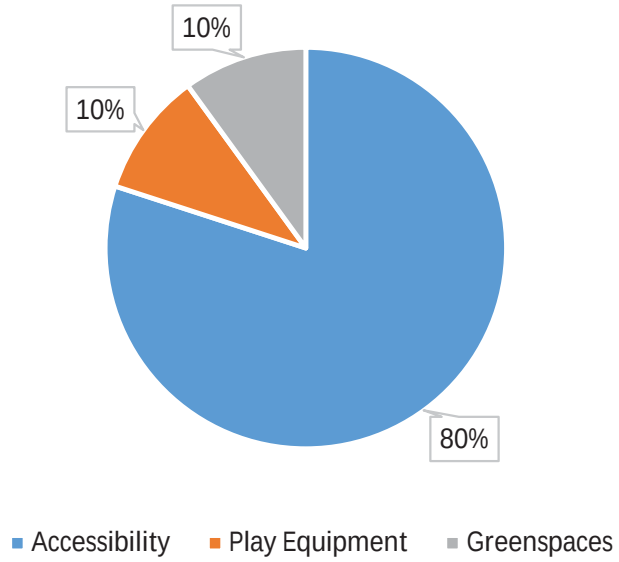
TOPIC Balsam

What's Working Well	Action to Enhance or Maintain	What Isn't Working Well	Action to Overcome
1. James Madison Park is great go with nieces/nephews...	1.	1. Equipment broken 2. Don't know the people... — can tell when bad people are there - with gun or what not....	1. more Parties... > alternative to other mind off crime bad things / more events!
2.	2.	2. Full Court needed. water fountain - too hot — only half court → need full court for tourney	2. more fountains....
3. when people are not fighting.	3.	3. fighting 4. Shooting* 5. not many people my age —	3. stop the crime more police stop selling guns..
4. when a lot of people are there — adults w/ children <not too many people>	4.	4. predators creepy people driving.. baseball - move to protect people from getting	4. run away call cops security cameras (no!)
5.	5.	5. fighting around it - guns + safe with my friends...	5. lights/better full court

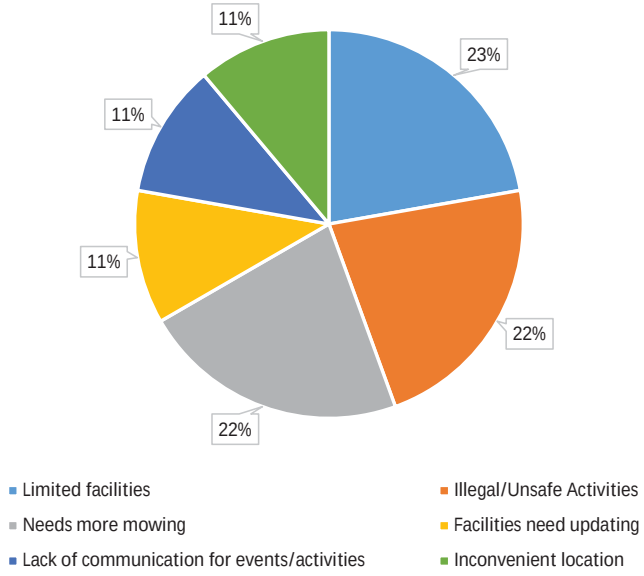
Other things to consider.	+ put park monitor running games there. park staff

Neighborhood Resource Team (NRT) Summary

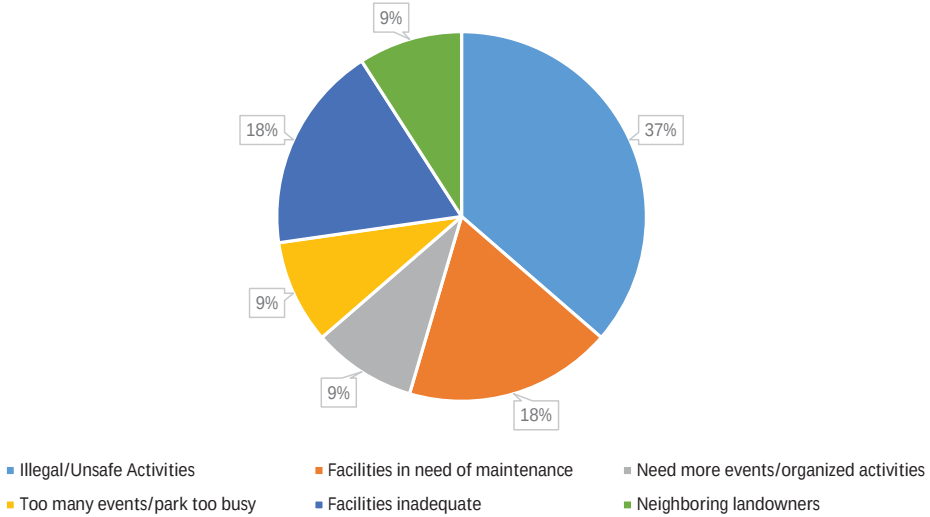
What do you think makes it easy to visit your local parks?



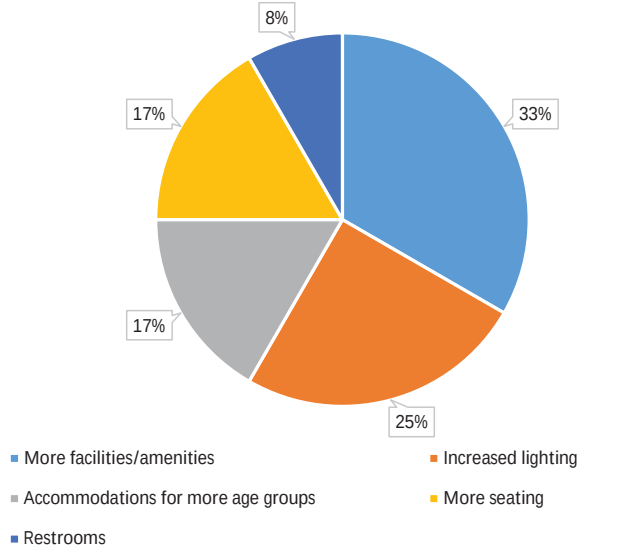
What do you think makes it difficult to visit your local parks?



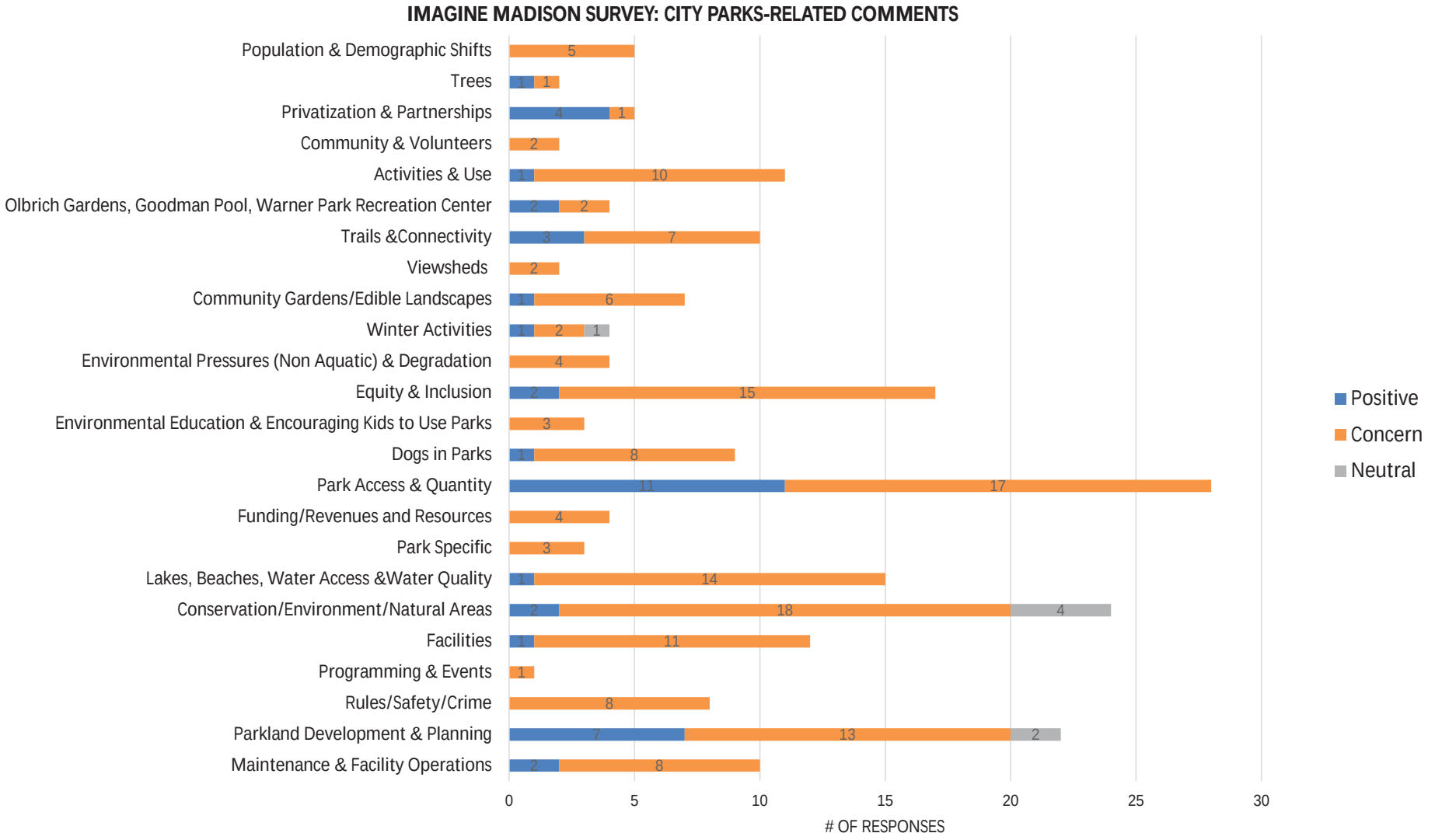
Do any concerns come to mind when thinking about visiting your local parks?



What improvements do you think are necessary for your local parks?

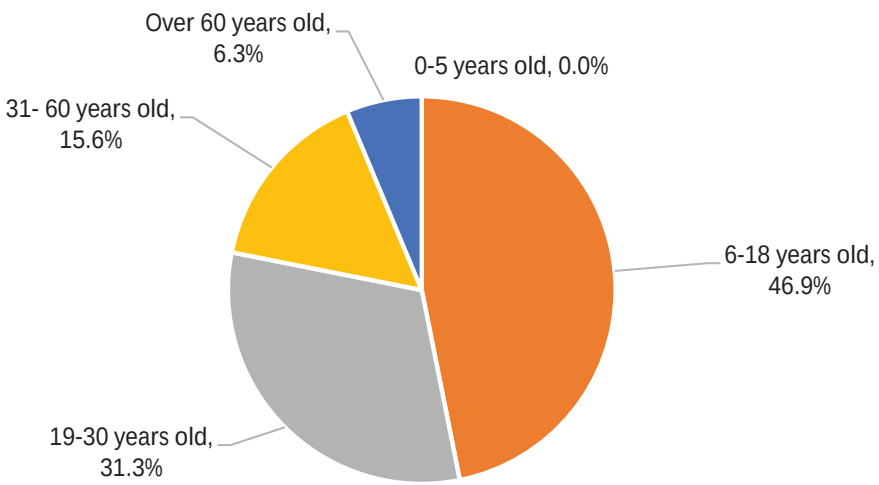


Imagine Madison Summary Data

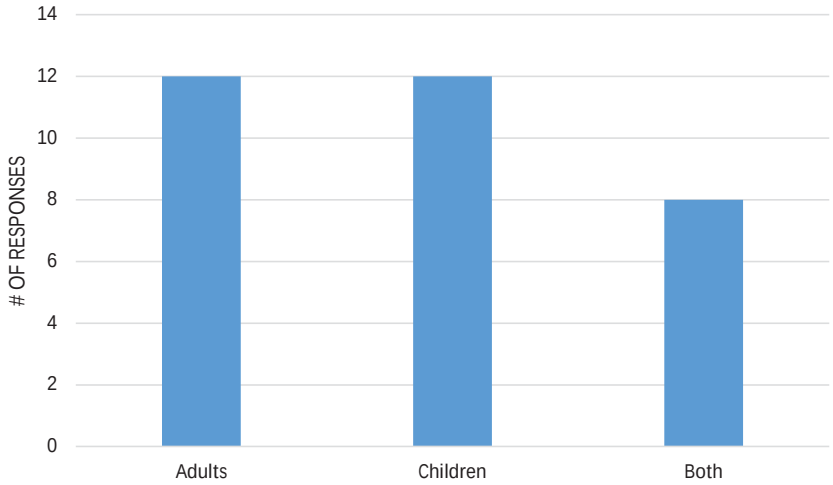


Recreation League Survey Summary Data

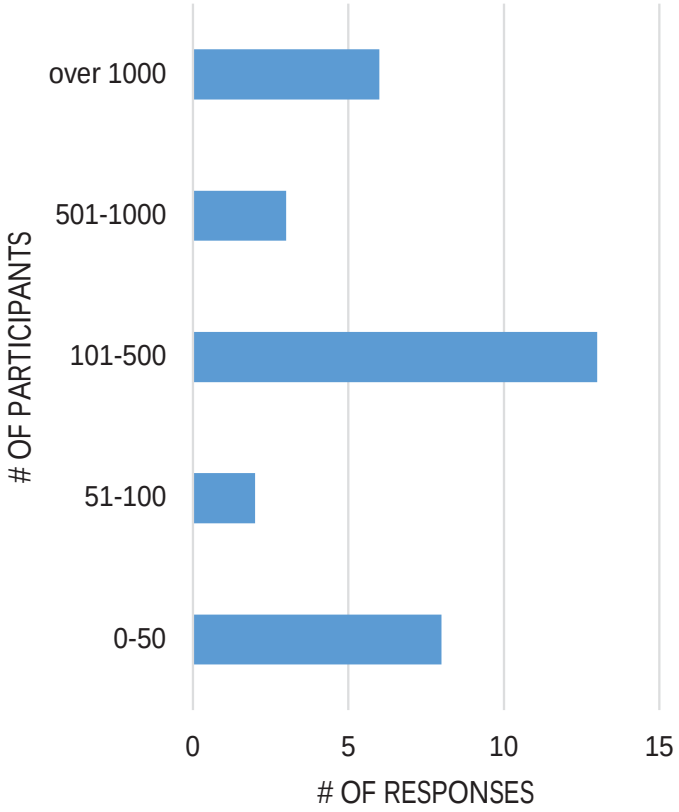
WHAT IS THE AGE RANGE OF THE MAJORITY OF YOUR PARTICIPANTS?



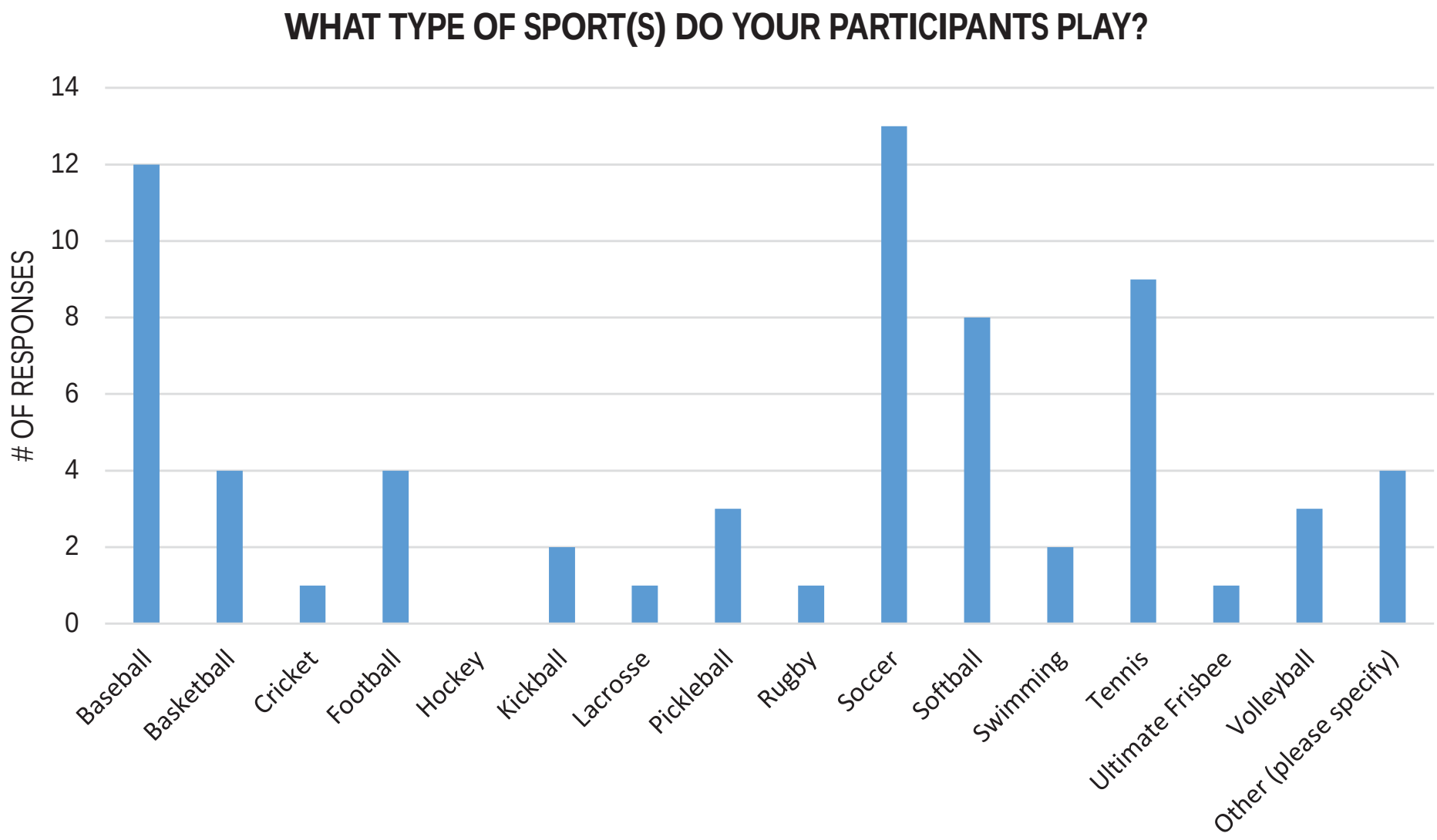
ARE YOUR PARTICIPANTS CHILDREN OR ADULTS?



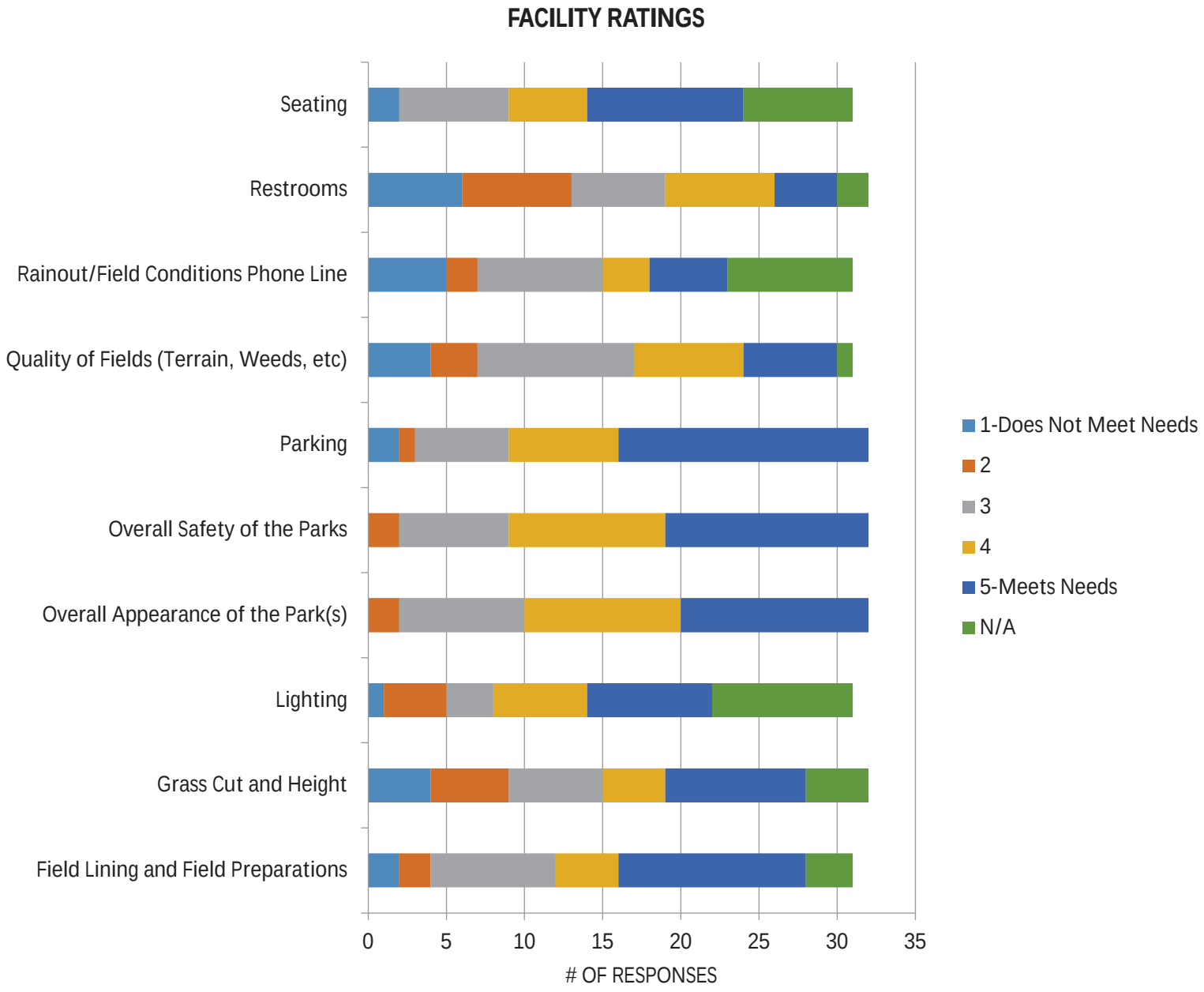
HOW MANY PARTICIPANTS WERE PART OF YOUR ORGANIZATION OR TEAM IN 2016?



Recreation League Survey Summary Data



Recreation League Survey Summary Data



Appendix C - Supplemental Tables

This page intentionally left blank.

Table 1: 2017 Park Events

Park	Total Number of Events
Acewood Park	1
Aldo Leopold Park	2
Allied Park	2
Arbor Hills Park	4
Bordner Park	1
Brittingham Park	12
Carpenter - Ridgeway Park	1
Central Park	43
Cherokee Marsh - North Unit	17
Cherokee Marsh - South Unit (School Road Unit)	1
Cherokee Park	1
Country Grove Park	19
Demetral Park	3
Edna Taylor Conservation Park	2
Elmside Circle Park	1
Elvehjem Park	5
Elver Park	32
Everglade Park	1
Flad Park	1
Forest Hill Cemetery	7
Garner Park	16
Glen Oak Hills Park	1
Glenwood Park	1
Goodman Park	5
Haen Family Park	20
Hammersley Park	1
Heritage Sanctuary	1
Hiestand Park	2
Hoyt Park	4
James Madison Park	6
Kennedy Park	1
Kingston - Onyx Park	1
Lake Edge Park	2
Law Park	8
Lucia Crest Park	1
Marlborough Park	1
Marshall Park	3
McCormick Park	1
Meadowood Park	52
Merrill Springs Park	1
Monona Golf Course	3
Nakoma Park	11
Norman Clayton Park	2
Odana Hills Golf Course	8
Odana School Park	1
Olbrich Botanical Complex	31
Olbrich Park	10
Olin Park	70
Orchard Ridge Park	1
Orlando Bell Park	1
Orton Park	4
Owen Conservation Park	2
Owl Creek Park	2
Penn Park	1
Prairie Ridge Conservation Park	1
Quann Park	58
Quarry Park	1
Reindahl (Amund) Park	21
Rennebohm Park	4
Reynolds Park	1
Richmond Hill Park	1
Secret Places Park	4
Segoe Park	5
Spring Harbor Park	2

Table 1: 2017 Park Events (continued)

Starkweather Park	1
State Street/Mall Concourse	149
Sycamore Park	1
Tenney Park	11
Turville Point Conservation Park	14
Vilas (Henry) Park	25
Walnut Grove Park	2
Warner Park	63
Waunona Park	1
Westhaven Trails Park	1
Westmorland Park	4
Wexford Park	4
Wingra Park and Boat Livery	5
Wirth Court Park	1
Worthington Park	3
Yahara Hills Golf Course	2
Yahara Place Park	3
Yahara River Parkway	1
Grand Total	**779**

Table 2: 2012-2017 Park Accomplishments - 2012

General	Designed and oversaw new landscaping at 10 parks; Completed invasive plant removals at 4 parks; Installed wetland and woodland plants at 4 parks; Installed one new playground and made improvements to playgrounds at 5 parks.
Cherokee Marsh	Acquired additional 3.6 acres. Constructed new stormwater ponds and improved wetland habitat.
Cherokee Park	Constructed new playground.
Churchill Heights Park	Constructed new shelter.
Door Creek	Installed culverts and trail crossing as part of the development of cross country ski trail system.
Esther Beach	Completed design of the Esther Beach Master Plan.
Goodman Park	Replaced and upgraded existing playground.
Hoyt Park	Regrading and new asphalt at the Owen Parkway Overlook; Installed railings and completed repairs to the existing stone wall near restroom; Installed over 2,000 native plants.
Hudson Park	Installed a terraced seating area, canoe/kayak boat launch and ramp and stairway access to shoreline.
James Madison Park	Replaced and upgraded existing playground.
Marshall/Spring Harbor Parks	Boat launches dredged to a depth of 5' from summer minimum.
Odana School Park	Designed and constructed new off leash dog park.
Olbrich Park	Reinstalled netting above softball diamonds backstop and removed old scoreboard.
Olive Jones Park	New segmented retaining wall, replaced fencing and asphalt surface.
Quann Park	Reconstructed 6 of the 12 tennis courts.
Tenney Park	Redesigned shelter parking lot, replaced tennis court lighting with energy efficient lighting system.
Thut Park	Installation of native plants and seed along the swale adjacent to the soccer field.
Warner Park	Reconstructed parking lot and added sidewalks. Improved storm sewer system.
Westhaven Trails Park	Replaced and upgraded existing playground.
Westmorland Park	Replaced old hockey lights with new energy efficient lighting system.
Yahara Place Park	Replaced and updated existing playground.

Table 2: 2012-2017 Park Accomplishments - 2013

General	Installed new/updated playgrounds at 6 parks; Designed and oversaw new landscaping at 18 parks; Finished native plant installations at 5 parks, including 3,000 native forbs and grasses and 2 acres of native prairie seed; Resurfaced tennis courts at 3 parks. New playgrounds at 4 parks.
Acewood Park	Reconstructed basketball court.
Blackhawk Park	Installed new shelter; added upgraded equipment to playground.
Breese Stevens Park	Completed concrete deck repairs and water proofing of field.
Cypress Spray Park	Installed new sun shelter.
Droster Park	Reconstructed basketball court.
Duane F. Bowman Park	Installed new electrical distribution system.
Eastmorland Park	Upgraded play structure including the addition of double-bay swing structure and removed outdated equipment.
Hoyt Park	Replaced approximately 950 linear feet of fencing; removed 40 invasive, dead or dying trees.
James Madison Park	Completed walkway improvements along the seawall.
Kennedy Park	Resurfaced tennis courts.
Nakoma Park	Installed new playground equipment.
Odana Golf Course	Improvements for HWY 12/18 buffer including landscaping, fencing and berms.
Odana Hills East Park	Resurfaced tennis courts.
Olbrich Botanical Complex	Replaced roof and added additional restroom capacity that is ADA compliant.
Rennebohm Park	Replaced existing 12 light system with energy efficient 4 light system that cuts cost by 50%.
Reservoir Park	Installed new playground equipment.
Reynolds Park	Designed and oversaw construction of new playground.
Tenney Park	Replaced old bridge at Thornton Avenue; installed new control gate to replace existing log dam structure.
Waltham Park	Replaced backstop.
Warner Park	Upgraded bike path and two bridges to meet AASHTO and ADA accessibility standards.
Washington Manor Park	Designed and installed new path.
Westmorland Park	Designed and constructed improvements to current path system.
Wexford Park	Resurfaced tennis courts.
Worthington Park	Removed old fencing and reconstructed basketball courts; Upgraded playground with new equipment and surfacing.
Yahara Parkway	Removed invasives and completed installation of native forbs and shrubs along southwestern shore of the Yahara River between East Washington Ave and East Main Street.

Table 2: 2012-2017 Park Accomplishments - 2014

General	Installed new/updated playgrounds at 8 parks; designed and oversaw landscaping at 15 parks; installed native plants and seeding at 6 parks; conducted lighting replacements at 4 parks; resurfaced tennis courts at 3 parks; completed softball backstop replacements at 3 parks.
Aldo Leopold Park	Contructed new shelter.
Breese Stevens Field	Designed and oversaw new field lighting and sound system improvements; installed new artificial turf surface
Burrows Park	Replaced and upgraded existing playground.
Central Park	Completed construction phase 1A and opened park to public.
Churchill Heights Park	Installed new accessible asphalt path.
Droster Park	Replaced and upgraded existing playground.
Elver Park	Resurfaced basketball and tennis courts; installed splash pad
Everglade Park	Replaced and upgraded existing playground.
Forest Hill Cemetery	Completed stonework and masonry repairs to Chapel and the Receiving Vault.
Haen Family Park	Replaced and upgraded existing playground.
Hiestand Park	Installed a culvert crossing and accessible asphalt path .
Hoyt Park	Completed stair improvements; installed native seeding and tree plantings.
Huegel Park	Replaced and upgraded existing playground.
Kennedy Park	Reconstruction of the asphalt path system.
Northland Manor Park	Replaced storm sewer.
Pilgrim Park	Replaced and upgraded existing playground.
Reservoir Park	Replaced and upgraded existing playground.
Reindahl Park	Installed new splash pad.
Sauk Creek Park	Replaced and upgraded existing playground.
Tenney Park	Completed reconstruction of Marston and Sherman Avenue Bridge; reconstruction of beach parking lot using 40% less asphalt.
Walnut Grove Park	Constructed new dog park and installed new accessible path; replaced 2 softball backstops with new fencing.
Warner Park	Dredged boat launch to a depth of 5 ft below summer minimum.
Westport Meadows Park	Replaced and upgraded existing playground.
Wingra Park	Repaired limestone steps along shoreline.
Yahara River Parkway	Improvements to stabilize stream bank on eastern shore from Rutledge St to Jenifer St.

Table 2: 2012-2017 Park Accomplishments - 2015

General	Installed 1 new playground and updated/replaced existing playgrounds at 14 parks; Oversaw tree planting installations at 13 parks; Installed new rain gardens at 2 parks; Resurfaced tennis courts at 6 parks and basketball courts at 5 parks.
Badger Park	Replaced and updated existing playground.
Bernie's Beach Park	Replaced and updated existing playground.
Breese Stevens Field	Completed final phase of artificial turf installation; installed maintenance road around turf field; repaired the historic roof tiles along the Paterson St side of Breese Stevens.
Central Park	Completed construction of new skate park, new entry plaza and pedestrian railroad crossing.
Cherokee Marsh	Installed new gravel path.
Demetral Park	Completed fencing and paving improvements at dog park; replaced and upgraded existing playground.
Duane F. Bowman Park	Installed new energy efficient lighting system and 4 custom lighting poles.
Flad Park	Replaced and upgraded existing playground.
Fisher Street Park	Replaced and upgraded existing playground.
Forest Hill Cemetery	Replaced the John Catlin Chapel Roof; completed repointing of the cemetery office.
Goodman Facility	Constructed new topsoil storage shed.
Hiestand Park	Replaced and upgraded existing playground.
High Point Park	Replaced and upgraded existing playground.
Highland Manor Park	Completed construction of new shelter; installed new playground, basketball court and walking path.
Junction Ridge Park	Replaced and upgraded existing playground.
Lucia Crest Park	Installed edible landscape on west end of park.
Nakoma Park	Replaced historic stone steps due to deteriorating condition of existing steps.
Olbrich Botanical Gardens	Installed new and updated boilers; installed high efficiency HVAC system to replace old one; resurfaced tennis courts at Olbrich Park.
Owl Creek Park	Improvements include regrading, installation of new play equipment, basketball poles and hoops and asphalt path.
Quann Park	Reconstructed 6 of 12 tennis courts; regraded soccer field.
Reindahl Park	Installed new concession room to serve splash pad users.
Reynolds Park	Installed new bike polo court.
Stevens Street Park	Replaced and upgraded two existing playgrounds; reconstructed basketball court and completed path and fencing improvements.
Tenney Park	Completed shoreline improvements; reconstructed bike path; upgraded playground at Tenney Beach; installed pickleball court lines.
Waltham Park	Replaced and upgraded existing playground; installed new basketball court and asphalt path.
Warner Park	Completed paving and fencing improvements at dog park; recarpeted WPCRC; replaced electrical line near softball fields.
Waunona Park	Resurfaced tennis court.
Westhaven Trails Park	Resurfaced tennis and basketball courts
Wingra Creek Parkway	Completed dredging to approximate depth of 5 feet; completed shoreline repair including bank stabilization and canoe launch.
Woodland Hills Park	Resurfaced basketball court.

Table 2: 2012-2017 Park Accomplishments - 2016

General	Replaced and upgraded existing playgrounds at 13 parks; Installed new sun shelters at 5 parks; Completed paving and resurfacing projects at 6 parks; Designed and oversaw landscaping at 14 parks and 1 golf course, including planting 331 trees to offset loss due to EAB.
Aldo Leopold Park	Replaced and upgraded existing playground; resurfaced basketball court.
Berkely Park	Replaced and upgraded existing playground.
Brittingham Park	Completed sidewalk extension at the crossing of North Shore Drive to S. Bedford St; installed new double gate entrance and improved accessibility at dog park entrance; completed tennis court improvements.
Cardinal Glenn Park	Installed new sun shelter; expanded playground; installed new asphalt path and planted park's signature sign and added trees to park.
Central Park	Planted native species to create rain garden.
Cherokee Park	Oversaw canoe/kayak launch improvements.
Demetral Park	Completed park and bike path improvements.
Eken Park	Installed new edible landscape.
Elver Park	Installed additional splash pad features; installed additional shade shelter at splash pad.
Garner Park	Converted existing tennis courts into city's first dedicated 6-court pickleball facility.
Goodman Park	Oversaw removal of invasive plants and planting of new plant plugs.
Hollister Avenue Triangle Park	Installed new edible landscape.
Honeysuckle Park	Replaced and updated existing playground.
Junction Ridge Park	Installed new sun shelter.
Lake Edge Park	Constructed a new sun shelter and new restroom facility.
Lerdahl Park	Replaced and upgraded existing playground.
Olin Park	Oversaw removal of invasive plants and planting of new plant plugs.
Owl Creek Park	Installed new sun shelter and planted the park's signature sign and added trees to park.
Raymond Ridge Park	Replaced and upgraded existing playground.
Reindahl Park	Installed additional shade shelter at splash pad.
Reynolds Field Park	Completed work to regrade and reseed the heavily used athletic fields.
Rimrock Park	Installed new basketball court; replaced and upgraded existing playground.
Sauk Heights Park	Installed new sun shelter.
Sugar Maple Park	Completed construction of new path and half basketball court.
Tenney Park	Oversaw habitat restoration including installation of over 30,000 native forbs, grasses, sedges; over 800 shrubs; and over 200 trees. Completed tennis court improvements. Installed new memorial benches.
Vilas Park	Installed sidewalk along Drake street.
Westmorland Park	Installed new park path.
Wheeler Heights Park	Relocated, replaced and upgraded existing playground.
Worthington Park	Installed new sun shelter.
Yahara River Parkway	Completed invasive plant removals.

Table 2: 2012-2017 Park Accomplishments - 2017

General	Replaced and upgraded existing playgrounds at 14 parks; Installed new sun shelters at 3 parks; Completed sport court resurfacing projects at 6 parks; Completed paths at X parks; Designed and oversaw landscaping at 10 parks.
Allied Drive	Completed construction of new park, including a new playground, new sun shelter with wireless internet, four square courts, drinking fountain, benches and full court basketball.
Arbor Hills Park	Repaved basketball court and installed new poles and hoops.
Baxter Park	Replaced and upgraded existing playground.
BB Clarke Park	Oversaw shoreline improvements including maintenance/repair of the existing stepped stone access.
Bordner Park	Replaced and upgraded existing playground.
Brittingham Park	Opened new fully accessible playground, including ramp-connected main play structure, poured-in-place contiguous rubber play surface and two accessible swing seats; replaced and upgraded existing community garden playground, including the addition of new 2-bay swing set, 3 new benches and an accessible path. Completed sidewalk extension at the crossing of North Shore Drive and the WSOR railroad.
Burr Jones Park	Resurfaced basketball courts.
Central Park	Acquired privately owned land on E. Wilson st. and Baldwin st., completing the necessary land acquisition for that quadrant of the park.
Cherokee Marsh	Completed construction of gravel parking lot and walking path and addition of new entry gate.
Country Grove Park	Replaced and upgraded existing playground.
Demetral Park	Installed new adult fitness equipment which includes 9 total fitness stations and 2 fully accessible pieces that closely mimic the workout to be found in an indoor fitness gym.
Esther Beach Park	Completed construction of new restroom building and new canoe/kayak boat launch, upgraded stormwater facilities and reconstructed parking lot.
Garner Park	Repaved park paths from Shelter to Pickleball Courts.
Glenway Golf Course	Established new Winter Fat Bike Route around course perimeter to be maintained by volunteers.
Goodman Ice Rink	Replaced outdated lighting system with new energy efficient lighting system. Repaired storm sewer rink outlet pipe.
Heritage Heights Park	Resurfaced tennis courts.
Hiestand Park	Installed new seating area.
James Madison Park	Oversaw invasive species removal and planting of native vegetation for rain garden.
Lerdahl Park	Repaved basketball court and installed new poles and hoops.
Norman Clayton Park	Installed new sun shelter.
Reindahl Park	Painted lines at pickleball court.
Rennebohm Park	Installed new area for table tennis and chess.
Reynolds Park	Installed new modular athletic court surfacing at tennis courts.
Sauk Creek Park	Installed new sun shelter.
Sugar Maple Park	Completed construction of the new park, including new playground, sun shelter, path and half basketball court.
Sunset Park	Replaced and upgraded existing playground including the addition of a nature-based play area.
Tenney Park	Replaced and upgraded existing island playground; oversaw landscaping an invasive plant removal as part of shoreline improvements.

Table 2: 2012-2017 Park Accomplishments - 2017 (continued)

Vilas Park	Resurfaced tennis courts. Added new concrete abutment and ramp for accessible fishing pier. Installed new edible landscape.
Waldorf Park	Completed construction of new park, including new playground, path and basketball court.
Walnut Grove Park	Oversaw invasive species removal and planting of native vegetation for rain garden.
Warner Park	Completed breakwater and dredging and boat launch repair.
Waunona Park	Painted lines at pickleball court.
Westchester Gardens Park	Repaved basketball court and installed new poles and hoops.
Westmorland Park	Replaced and upgraded existing playground including the addition of a nature-based play area; resurfaced tennis courts.
Wexford Park	Replaced and upgraded existing playground.
Yahara Place Park	Oversaw shoreline improvements including construction of steel abutment walls with two stepped stone revetments for canoe/kayak access.
Zook Park Playground	Replaced and upgraded existing playground.

Table 3: Park Facility Inventory (as of 1/1/2018)

	Ballfield Backstop	Basketball Court - Full	Basketball Court - Half	Basketball Court - Small Full Court	Bathhouse	B-Cycle	Beach	Bike Polo	Bike Rack	Boat Mooring	Boat Trailer Parking	Botanical Gardens	Canoe and Kayak Rental	Canoe/Kayak Launch	Concrete Boat Launch Ramp	Cricket	Cyclocross Practice Trail	Disc Golf Basket	Dog Off Leash	Drinking Fountain - Building	Drinking Fountain - Stand Alone	Gravel Boat Launch Ramp	Horseshoe	Ice Skating	Large Shelter without Restrooms	Parking Lot - Boat Trailer	Parking Lot - Boat Trailer and Standard	Parking Lot - Standard	Pickleball Courts	Pier - Boat Launch	Pier - Other	Playground	Pool	Recreation Center	Rentable Canoe/Kayak Rack	Reservable Baseball	Reservable Multi Use Field	Reservable Shelter with Restrooms	Reservable Softball	Restroom Building	Skate Park	Ski Trail	Sledding Hill	Splash Park	Stand Alone Fireplace	Sun Shelter Without Restrooms	Tennis Courts	Trails
Acewood Conservation Park																																															1
Acewood Park	1	1																			1											1													1		
Aldo Leopold Park	1	1																														1					1					1			1		1
Allied Park		1							4												1											1													1		1
Apple Ridge Park																																															1
Arbor Hills Park		1																			1											1										1			1		1
B.B. Clarke Beach Park					1		1		36					1						2	1									1	1			18												1
Badger Park	1		1																												1														1
Baldwin Street End																																														1
Baxter Park				1					16																						1					1										1
Berkley Park	1			1																											1										1				
Bernies Beach Park					1		1													1											1														1
Blackhawk Park				1																											1					2								1		1
Blount Street (South) Street End Park																																														1
Bordner Park	1		1																		1										1													1	2	1
Brearly Street (South) Street End Park																																														1
Breese Stevens Athletic Field									24											3	1															1			1							
Breese Terrace Triangle						13																																								
Brentwood Park	1			1																	1										1														
Brigham Park			1																												1														
Brittingham Park		1		1		9	1		127				1	3					1	3	2							3		1	3			79		1	1		1				2		4	1
Burr Jones Park		2																										1							1										1
Burrows Park	1																				1				1			1		1	1					1			1				1			1
Cardinal Glenn Park				1																											1													1		1
Carpenter - Ridgeway Park	1																				1										1														1
Central Park									20											1	1																		1	1						1
Cherokee Marsh - Mendota Unit																																														1
Cherokee Marsh - South Unit (School Road Unit)									10						1							1				1				1											1						1
Cherokee Marsh - North Unit									36											1								1		1									1							1
Cherokee Park	1			1										1							1										1			22		1									1
Churchill Heights Park				1																	1										1													1		1

Table 3: Park Facility Inventory (as of 1/1/2018) (continued)

	Ballfield Backstop	Basketball Court - Full	Basketball Court - Half	Basketball Court - Small Full Court	Bathhouse	B-Cycle	Beach	Bike Polo	Bike Rack	Boat Mooring	Boat Trailer Parking	Botanical Gardens	Canoe and Kayak Rental	Canoe/Kayak Launch	Concrete Boat Launch Ramp	Cricket	Cyclocross Practice Trail	Disc Golf Basket	Dog Off Leash	Drinking Fountain - Building	Drinking Fountain - Stand Alone	Gravel Boat Launch Ramp	Horseshoe	Ice Skating	Large Shelter without Restrooms	Parking Lot - Boat Trailer	Parking Lot - Boat Trailer and Standard	Parking Lot - Standard	Pickleball Courts	Pier - Boat Launch	Pier - Other	Playground	Pool	Recreation Center	Rentable Canoe/Kayak Rack	Reservable Baseball	Reservable Multi Use Field	Reservable Shelter with Restrooms	Reservable Softball	Restroom Building	Skate Park	Ski Trail	Sledding Hill	Splash Park	Stand Alone Fireplace	Sun Shelter Without Restrooms	Tennis Courts	Trails
Country Grove Park	1	1							16												1											1					1								1		1
Cypress Spray Park									40												1											1											1		1		
Demetral Park	3			1															1		1							2				1					4	1	3							1
Dixon Open Space																																														1
Dominion Park		1																														1					1									
Doncaster Park																																1														
Door Creek Park		1																										1				1					2				1				4	1
Droster Park	1	1																			1											1														
Duane F. Bowman Park	4																			2								1							1			3	1							1
Dudgeon School Park	1			1																												1														1
Eastmorland Park	1			1																												2												1		1
Edgewood Pleasure Drive																																														1
Edna Taylor Park																												1																		1
Edward Klief Park	1	1																			1											1														1
Eken Park	1			1																	1											1												1		1
Elmside Circle Park																					1											1														1
Elvehjem Park	1																												2			1					1	1						2	1
Elvehjem Sanctuary																																														1
Elver Park	4	3							16									20		3	2			1				2				1					3	2	4	1		1	1	1		3	1
Esther Beach Park							1							1						1								1				1			6					1						
Everglade Park	1																															1													1		
Filene Park															2															2																1
Fisher Street Park																																1														1
Flad Park	1		1																													1														
Flagstone Park		1							32																							1					1									
Forest Hill Cemetary																				2								2																		1
Garner Park	1	1																		1								1	6			1					3	1				1				1
Giddings Park																																														1
Glacier Crossing Park																																														1
Glacier Hill Park		1																														1					4									
Glen Oak Hills Park																																1														1
Glenway Golf Course									36											1	1							1																		1
Glenwood Park			1																		1											1														1
Goodman Park	2	2							200					1						6	1			1				2				1	1				1		2						1		1
Greentree - Chapel Hills Park	1		1																																										1		1
Haen Family Park	1			1																												1					1								1		1

Table 3: Park Facility Inventory (as of 1/1/2018) (continued)

	Ballfield Backstop	Basketball Court - Full	Basketball Court - Half	Basketball Court - Small Full Court	Bathhouse	B-Cycle	Beach	Bike Polo	Bike Rack	Boat Mooring	Boat Trailer Parking	Botanical Gardens	Canoe and Kayak Rental	Canoe/Kayak Launch	Concrete Boat Launch Ramp	Cricket	Cyclocross Practice Trail	Disc Golf Basket	Dog Off Leash	Drinking Fountain - Building	Drinking Fountain - Stand Alone	Gravel Boat Launch Ramp	Horseshoe	Ice Skating	Large Shelter without Restrooms	Parking Lot - Boat Trailer	Parking Lot - Boat Trailer and Standard	Parking Lot - Standard	Pickleball Courts	Pier - Boat Launch	Pier - Other	Playground	Pool	Recreation Center	Rentable Canoe/Kayak Rack	Reservable Baseball	Reservable Multi Use Field	Reservable Shelter with Restrooms	Reservable Softball	Restroom Building	Skate Park	Ski Trail	Sledding Hill	Splash Park	Stand Alone Fireplace	Sun Shelter Without Restrooms	Tennis Courts	Trails
Hawthorne Park			1																		1										1															
Heritage Heights Park	2	1																			1			1					2		1													1	2	1
Heritage Prairie																																														1
Heritage Sanctuary																																														1
Hiestand Park	2	1							9									20			1						1				1				2					1			1		1
Hiestand Woods																																														1
High Crossing Park				1																											1														1
High Point Park	2	1																			1										1				1										1
Highland Manor Park			1						10											1							1				1					1									
Hill Creek Park	1	1																													1														1
Hillington Triangle Park			1																					1							1														
Hillpoint Park																															1														1
Honeysuckle Park	1	1																													1														
Hoyt Park	1	1																		2				2			1				1							1					5			1
Hudson Park														1							1																									
Huegel Park																					1										1													1	2	1
Ice Age Ridge Park																																														1
Indian Hills Park	1																				1										1														1
Indian Springs Park																																														1
James Madison Park		2				23	1		36					1						4	3						1		1		2			36			2		1						1
Junction Ridge Park		1																													1					1							1		1
Kennedy Park	2	1																			1										1					1								1	2	1
Kerr-Mcgee Triangle Park																																														1
Kettle Pond																																														1
Kingston - Onyx Park	1			1																											1														
Kingswood Park			1																		1										1														
Knollwood Conservation Park									12												1																									1
Lake Edge Park	1			1																1											1						1								1
Lake View Heights Park	1			1																											1						1								1
Law Park						11								2							1						1		1	1				6											1
Lerdahl Park	1		1																												1														
Linden Grove Park																																														1
Lost Creek Park																															1														
Lucia Crest Park	1		1																		1										1													1		
Lucy Lincoln Hiestand Park	1			1																											1														1

Table 3: Park Facility Inventory (as of 1/1/2018) (continued)

	Ballfield Backstop	Basketball Court - Full	Basketball Court - Half	Basketball Court - Small Full Court	Bathhouse	B-Cycle	Beach	Bike Polo	Bike Rack	Boat Mooring	Boat Trailer Parking	Botanical Gardens	Canoe and Kayak Rental	Canoe/Kayak Launch	Concrete Boat Launch Ramp	Cricket	Cyclocross Practice Trail	Disc Golf Basket	Dog Off Leash	Drinking Fountain - Building	Drinking Fountain - Stand Alone	Gravel Boat Launch Ramp	Horseshoe	Ice Skating	Large Shelter without Restrooms	Parking Lot - Boat Trailer	Parking Lot - Boat Trailer and Standard	Parking Lot - Standard	Pickleball Courts	Pier - Boat Launch	Pier - Other	Playground	Pool	Recreation Center	Rentable Canoe/Kayak Rack	Reservable Baseball	Reservable Multi Use Field	Reservable Shelter with Restrooms	Reservable Softball	Restroom Building	Skate Park	Ski Trail	Sledding Hill	Splash Park	Stand Alone Fireplace	Sun Shelter Without Restrooms	Tennis Courts	Trails
Maple Prairie Park	1	1																												1					1											1
Marlborough Park	3	1																			1		2								1					2	1										1
Marshall Park					1		1			32	1				5						1				1	1		1		4		1			114				1							1
Mayfair Park	1			1																											1													1		
McClellan Park				1																											1														1
McCormick Park																			1																											
McGinnis Park	1																				1										1															
Meadow Ridge Conservation Park																																														1
Meadow Ridge Park				1																											1														1
Meadowood Park	1		2						6												1										1					1								1		
Merrill Springs Park														1																				16												
Midland Park			1																												1														
Midtown Commons Park																																			1										1
Mineral Point Park																																													1
Monona Golf Course																				2	2							2															1		1
Monona Park																															1														
Morrison Park																														1	1														
Nakoma Park			1																		1			1				1			1													1	1
Nautilus Point Park																															1														
Newbery Park				1																											1														
Newville (Kenneth) Park																																													1
Norman Clayton Park			1																		1							2			1												1	2	1
North Star Park	1			1																	1										1					2									1
North-East Park				1													1														1														1
Northland Manor Park	1	1																			1							2			1												1	2	1
Oak Park Heights Park	1		1																		1										1												1		
Ocean Road Park																															1														
Odana Hills East Park		1							36												1										1													3	
Odana Hills Golf Course																				3	2							1													1				1
Odana Hills Park	1																														1					1					1				1
Odana School Park		1																	1									1								1									
Olbrich Botanical Complex												1																1																	1
Olbrich Park	5	3		1	1	18	1		110		1			1	3					4	3			3			2	3		5	3	3			32		3		4	2		1			2	1
Olin Park	1						1		24		1				6						2				1		2	4		5		1				1			1						1
Olive Jones Park (Randall School)			2																												1														

Table 3: Park Facility Inventory (as of 1/1/2018) (continued)

	Ballfield Backstop	Basketball Court - Full	Basketball Court - Half	Basketball Court - Small Full Court	Bathhouse	B-Cycle	Beach	Bike Polo	Bike Rack	Boat Mooring	Boat Trailer Parking	Botanical Gardens	Canoe and Kayak Rental	Canoe/Kayak Launch	Concrete Boat Launch Ramp	Cricket	Cyclocross Practice Trail	Disc Golf Basket	Dog Off Leash	Drinking Fountain - Building	Drinking Fountain - Stand Alone	Gravel Boat Launch Ramp	Horseshoe	Ice Skating	Large Shelter without Restrooms	Parking Lot - Boat Trailer	Parking Lot - Boat Trailer and Standard	Parking Lot - Standard	Pickleball Courts	Pier - Boat Launch	Pier - Other	Playground	Pool	Recreation Center	Rentable Canoe/Kayak Rack	Reservable Baseball	Reservable Multi Use Field	Reservable Shelter with Restrooms	Reservable Softball	Restroom Building	Skate Park	Ski Trail	Sledding Hill	Splash Park	Stand Alone Fireplace	Sun Shelter Without Restrooms	Tennis Courts	Trails
Ontario Park	1		1																											1																1
Orchard Ridge Park	1		1																											1																
Orlando Bell Park	1	1																			1		2								1					3						1			1		1
Orton Park	1			1					36												1									2														1		1
Owen Conservation Park									40												1							1											1			1				1
Owen Parkway																																												9			1
Owl's Creek Park				1																	1									1														1		1
Paunack (A.O.) Park				1										1																1			7										1		1
Peace (Elizabeth Link) Park						9														1																										1
Penn Park	1	2																			1							1			1					1	1							2	1
Period Gardens Park												1									1																									1
Pilgrim Park	1	1							18																					1					1									1		1
Portland Park	1	1																												1														1		
Prairie Ridge Conservation Park																																															1
Quaker Park																														1																
Quann Park																			1		2							1								1								1	12	1
Quarry Cove Park																														1																1
Quarry Park																																															1
Raemisch Homestead Park	1		1																											1																
Raymond Ridge Park	1			1																										1					1										1
Reger (George) Park																														1																1
Reindahl (Amund) Park	1	1							48							1				2	2							3		1					3	1		1				1		8	2
Rennebohm Park	1			1					36											1				1						1					1	1								6	1
Reservoir Park			1																		1									1																1
Reston Heights Park				1																										1																
Reynolds Park	1							1													1									1					1									2	
Richmond Hill Park	1	1																			1								2	1					1									1	2	1
Rimrock Park	1		1																											1																1
Rustic Park																														1																
Sandburg Park	1			1																										2																1
Sandburg Woods																																															1
Sandstone Park				1																										1					1										1
Sauk Creek Park	1			1																										1					1									1		
Sauk Heights Park		2																												1														1		1
Secret Places Park		1																												1					1										1

Table 3: Park Facility Inventory (as of 1/1/2018) (continued)

	Ballfield Backstop	Basketball Court - Full	Basketball Court - Half	Basketball Court - Small Full Court	Bathhouse	B-Cycle	Beach	Bike Polo	Bike Rack	Boat Mooring	Boat Trailer Parking	Botanical Gardens	Canoe and Kayak Rental	Canoe/Kayak Launch	Concrete Boat Launch Ramp	Cricket	Cyclocross Practice Trail	Disc Golf Basket	Dog Off Leash	Drinking Fountain - Building	Drinking Fountain - Stand Alone	Gravel Boat Launch Ramp	Horseshoe	Ice Skating	Large Shelter without Restrooms	Parking Lot - Boat Trailer	Parking Lot - Boat Trailer and Standard	Parking Lot - Standard	Pickleball Courts	Pier - Boat Launch	Pier - Other	Playground	Pool	Recreation Center	Rentable Canoe/Kayak Rack	Reservable Baseball	Reservable Multi Use Field	Reservable Shelter with Restrooms	Reservable Softball	Restroom Building	Skate Park	Ski Trail	Sledding Hill	Splash Park	Stand Alone Fireplace	Sun Shelter Without Restrooms	Tennis Courts	Trails
Sheridan Triangle Park			1																												1															
Sherman Village Park	1			1																											1													1		1
Sherry (O.B.) Park	1																				1										1													1		1
Sherwood Forest Park			1																												1															
Skyview Park																															1															
Skyview Park																																														1
Slater (William) Park																															1															
Spring Harbor Beach Park					1		1													1							1																			
Spring Harbor Park				1					36						1						1									1	1		19					1							1
State Street/Mall Concourse						9			855												1																									1
Stevens Street Park			1						6												1										2													1
Stricker's Pond																																													1
Sugar Maple Park			1																												1					1							1		
Summit-West Maintenance																												1																	
Sunridge Park			1																												1														1
Sunset Park			1																												1														1
Swallowtail Park	1			1																											1													1		1
Sycamore Park	3	1	1																1		1							1				1					2					1			1		1
Tenney Park	1	1	1		1	17	1		16		1		1	2						2	1			2		1		3	3			2			69		2	1							3	1
Thut Park				1																	1										1					1								1		1
Turville Point Conservation Park																																										1					1
Valley Ridge Park				1																											1					1									
Veterans Memorial Park				1																	1										1														1
Vilas (Henry) Park	2	1			1		1		165											1	3			1				6			3			12		3	1					1		6	1
Village Park				1																											1														1
Waldorf Park			1																												1														1
Walnut Grove Park	2	1																	1		1								2		1					1								1	2	1
Waltham Park	1		1																												1													1		1
Warner Park	6	3			1		1		36		1				6				1	10	3			1		1	1	4		1		2		1		1	3	1	5	2			1		2	3	1
Warner Park																				1																											
Washington Manor Park				1																											1															
Waunona Park		1																			1										1					1								1	2	1
Westchester Gardens Park	1			1																											1														1
Western Hills Park																															1															
Westhaven Trails Park	1	1																			1																								1	2	1
Westmorland Park	1			1					5											1				1							1						1								2	1

Table 3: Park Facility Inventory (as of 1/1/2018) (continued)

	Ballfield Backstop	Basketball Court - Full	Basketball Court - Half	Basketball Court - Small Full Court	Bathhouse	B-Cycle	Beach	Bike Polo	Bike Rack	Boat Mooring	Boat Trailer Parking	Botanical Gardens	Canoe and Kayak Rental	Canoe/Kayak Launch	Concrete Boat Launch Ramp	Cricket	Cyclocross Practice Trail	Disc Golf Basket	Dog Off Leash	Drinking Fountain - Building	Drinking Fountain - Stand Alone	Gravel Boat Launch Ramp	Horseshoe	Ice Skating	Large Shelter without Restrooms	Parking Lot - Boat Trailer	Parking Lot - Boat Trailer and Standard	Parking Lot - Standard	Pickleball Courts	Pier - Boat Launch	Pier - Other	Playground	Pool	Recreation Center	Rentable Canoe/Kayak Rack	Reservable Baseball	Reservable Multi Use Field	Reservable Shelter with Restrooms	Reservable Softball	Restroom Building	Skate Park	Ski Trail	Sledding Hill	Splash Park	Stand Alone Fireplace	Sun Shelter Without Restrooms	Tennis Courts	Trails
Westport Meadows Park				1																											1																
Wexford Park	2	1																2			1			1							1					2									1	2	1
Wheeler Heights Park	1		1																												1																
Whitetail Ridge Park	1	1																													1					1											1
Windom Way Park	1			1																											1																
Wingra Park	1			1					45				1							1								1		4		1			9		1			1							1
Wirth Court Park	1			1																	1										1													1		1
Woodland Hills Park	1	1																													1																1
Worthington Park	1	2																			1										1													1		1
Yahara Hills Golf Course																				6	5							1																1		1
Yahara Hills Park (West)																																															1
Yahara Place Park			1																		1		1								1																
Yahara River Parkway									5					3																																1
Zook Park	1																														1																

Table 4: Schools with Public Recreation Facilities

Elementary School	Playground	Public Open Play Field	Court Sports (Basketball/Four Square/Tennis)
Allis Elementary School	Yes	Yes	Yes
Chavez Elementary School	Yes	Yes	Yes
Elvehjem Elementary School	Yes	Yes	Yes
Emerson Elementary School	Yes	Yes	Yes
Falk Elementary School	Yes	Yes	Yes
Franklin Elementary School	Yes	No	Yes
Glendale Elementary School	Yes	Yes	Yes
Gompers Elementary School (combined with adjacent Black Hawk Middle School)	Yes	Yes	Yes
Hawthorne Elementary School	Yes	Yes	Yes
Heugel Elementary School	Yes	Yes	Yes
Kennedy Elementary School	Yes	Yes	Yes
Lake View Elementary School	Yes	Yes	Yes
Lapham Elementary School	Yes	Yes	Yes
Lincoln Elementary School	Yes	Yes	Yes
Lindberg Elementary School	Yes	Yes	Yes
Marquette Elementary School (combined with adjacent O'Keeffe Middle School)	Yes	Yes	Yes
Mendota Elementary School	Yes	Yes	Yes
Midvale Elementary School	Yes	Yes	Yes
Muir Elementary School	Yes	Yes	Yes
Nuestro Mundo Community School	Yes	Yes	Yes
Olson Elementary School	Yes	Yes	Yes
Orchard Ridge Elementary School (combined with adjacent Toki Middle School)	Yes	Yes	Yes
Randall Elementary School	Olives Jones Park	Olives Jones Park	Olive Jones Park
Sandburg Elementary School	Yes	Yes	Yes
Schenk Elementary School (combined with adjacent Whitehorse Middle School)	Yes	Yes	Yes
Shorewood Hills Elementary School	Yes	Yes	Yes
Stephens Elementary School	Yes	Yes	Yes
Thoreau Elementary School	Yes	No	Yes
Van Hise Elementary School (combined with adjacent Hamilton Middle School)	Yes	Yes	Yes

Table 4: Schools with Public Recreation Facilities (continued)

Middle School	Playground	Public Open Play Field	Court Sports (Basketball/Four Square/Tennis)
Black Hawk Middle School (combined with adjacent Gompers Elementary School)	Yes	Yes	Yes
Cherokee Heights Middle School	No	Yes	Yes
Hamilton Middle School (combined with adjacent Van Hise Elementary School)	Yes	Yes	Yes
Jefferson Middle School (adjacent Lussier Community Center has play equipment)	No	Yes	Yes
O'Keeffe Middle School (combined with adjacent Marquette Elementary School)	Yes	Yes	Yes
Sennett Middle School	No	Yes	Yes
Sherman Middle School	Yes	Yes	Yes
Spring Harbor Middle School	No	Yes	Yes
Toki Middle School (combined with adjacent Orchard Ridge Elementary School)	Yes	Yes	Yes
Whitehorse Middle School (combined with adjacent Schenk Elementary School)	Yes	Yes	Yes
Wright Middle School	No	Duane F. Bowman	Yes
High School	Playground	Public Open Play Field	Court Sports (Basketball/Four Square/Tennis)
East High School	No	Yes	Yes
La Follette High School	No	Yes	Yes
Memorial High School	No	Yes	Yes
West High School	No	Yes	Yes

Table 5: Non-city Owned Parks within a 1/2-mile Radius

Middleton		
Bakersville Park	Lake Street Boat Launch	Penni Klein Park
Boundary Road Park	Lakeview East and Community Parks	Pheasant Branch Conservancy
District Administrative Center	Meadows Park	Pheasant Branch Ridge Park
Elm Lawn/Tiedeman Conservatory	Middleton Hills Oak and Savanna	Pleasant View Golf Course
Esser Pond	Middleton Hills Park North	Quarry Skate Park
Firefighters Memorial Park	Middleton Hills Park South	Stonefield Park
Graber Pond	Middleton Hills Pond and Conservatory	Strickers Park
Harvey John & Lucille Taylor Memorial Park	Middleton Ridge	Stricker Pond
Hawkridge Park	Orchid Heights Park	Tiedeman Pond
Hillcrest Park	Parisi Park	Walter Bauman Aquatic Center
Hinrichs Family Farm Park/Hidden Oaks	Parkside Heights Park	Woodside Heights Park
Shorewood Hills		
Bradley Park	Koval Woods	Post Farm Park
Four Corners Park	McKenna Park	Quarry Park
Fitchburg		
Arrowhead Park	Fitchburg Center Park (Community Center)	McGaw Park
Belmar Hills Park	Fitchburg Springs	McKee Farms Park
Black Walnut Preserve	Goodland Park Road Lands	Mickleson Woods
Bluestem Park	Gorman Wayside Veterans Memorial Park	Nannyberry Park
Briarwood Park	Greenfield Park	Nevin Village Green
Byrne Park	Gunflint Trail Park	Nine Springs Golf Course
Chicory Meadows Park	Harlan Hills Park	Nobel Woods
Clayton Park	Hatchery Hills Park	Oak Meadow Park
Commerce Park Hillside	Hillside Heights Park	Orchard Pointe Natural Areas
Country Vineyard Park	Huegel-Jamestown Park	Perry J Schappe Park
Dawley Park	Irish Lane Open Space	Pine Ridge Park
Dunn's Marsh Preserve	McCoy/West Clayton Open Space	Quarry Hill Park

Table 5: Non-city Owned Parks within a 1/2-mile Radius (continued)

Fitchburg (continued)		
Quarry Ridge Recreational Area	S Johnson Park	Western Hills Park
Rimrock Park	Stoner Prairie Park	Wildwood Park
Rose Commons Park	Tower Hill Park	Wildwood South Prairie Park
Seminole Glen Park		
Monona		
Ahuska Park	Indian Mounds Park	Schluter Beach
Aldo Leopold Nature Center	Interlake Park	Stone Bridge Park
Arrowhead Park	Lake Edge Park	Tecumseh Park
Birch Haven Park	Lottes Park and Boat Launch	Three Meadows Park
Bridge Road Park	Maywood Park	Tonywatha Park
Frost Woods Beach	Monona Community Pool	Waterman Park
Frost Woods Park	Monona Woodland Park	Winnequah Trail and Boat Launch
Graham Park	Oneida Park	Wyldhaven Park
Town of Madison		
Harvey Schmidt Park	Southdale Park	
Heifetz Park	Town Hall and Fraust Park	
McFarland		
Arnold Larson Park	Indian Mound Conservation Park	Siggelkow Road Park
Autumn Grove Park	John Urso Community Park	Taylor Road Conservancy Area
Brandt Park	Legion Memorial Park	Thurn Marsh Park and Conrad Jaeger Park
Cedar Ridge Park	Lewis Park	Valley Tot Lot
Discovery Gardens	Marsh Woods Park	Woodland Commons Park
Egner Park	McDaniel Park	Woodland Estates Park
Glenway Tot Lot	Ridgeview Tot Lot	Wm. McFarland Park
Grandview Conservancy Area	Schuetz Property	Yahara River Park
Highland Oaks Park		

Table 5: Non-city Owned Parks within a 1/2-mile Radius (continued)

Burke		
Rattman Heights Park		
Sunburst Park		
Town Hall Park		
Blooming Grove		
April Hill Park		
Severson Park		
Thurber Park		
Deforest		
Tierney Park		
Village of Cottage Grove		
Bakken Park	Dublin Park	
Community Park	Strouse Park	
Sun Prairie		
Evergreen Park	Oakridge Park	Thoreau Park
Fox Point Park	Providence Green Park	Windy Ridge Park
Hunter's Ridge Park	Sheehan Park	Wyndham Hills Park
Misty Meadow Park	Sunny Valley Park	
Waunakee		
Hanover Park	Peaceful Valley Park	Settlers Park
Montondon Park	Savannah Village Park	Woodland Wayside Park

Table 5: Non-city Owned Parks within a 1/2-mile Radius (continued)

Town of Westport		
Mary Lake Neighborhood Park	Town Center Park	
Steeplechase Park	Westshire Conservancy-Jacksons Landing Park	
Village of Windsor		
Revere Trails Conservancy		
Token Creek Conservancy		
Verona		
Behnke Park	Hometown Junction	Silent Street Pond Park
Central Park	Kay Park	Thompson Park
Community Park	Meister Park	Tollefson Park
Cross Country Park	Neff Park	Tower Park
EPIC Park	Palmer Park	Vande Grift Park
Firemans Park	Prairie View Park	Veterans Park
Harmony Hills Park	Raywood Park	Westridge Park
Harriet Park		
WI DNR		
Capitol Springs Centennial State Park	Dorn Creek Fishery Area	Lower Mud Lake Fishery Area
Castle Marsh Fishery Area (In City)	Empire Prairies Westport Drumlin Natural State Area	Nevin Marsh Fishing Area
Cherokee Marsh Fishery Area	Glacial Drumlin State Trail	Upper Waubesa Fishery Area
Darwin Road Facility (In City)	Governor Nelson State Park	
Dane County		
Babcock County Park	Lake Farm County Park	Token Creek County Park
Badger Prairie County Park	Lake View Hill County Park	Yahara Heights County Park
Goodland County Park	Lewis Nine Springs E-way	
Jenni and Kyle Preserve	Mendota County Park	
University of Wisconsin		
Lakeshore Nature Preserve		
University of Wisconsin Arboretum		

Table 6: Potential Park Facility Development Costs[01]

Mini Park (1.7 ac)		Neighborhood Park (10 ac)		Community Park (50 ac)	
Master Plan	$8,000	Master Plan	$20,000	Master Plan	$80,000
Site Engineering	$10,000	Site Engineering	$20,000	Site Engineering	$250,000
Grading and Site Prep	$20,000	Grading and Site Prep	$50,000	Grading and Site Prep	$100,000
Finish Grading & Restoration	$10,000	Finish Grading and Restoration	$100,000	Finish Grading and Restoration	$300,000
Landscaping	$10,000	Landscaping	$40,000	Landscaping	$80,000
Utility Services	$5,000	Utility Services	$10,000	Utility Services	$20,000
(1) Playground	$80,000	(1) Playground	$80,000	(1) Playground with play equipment for 2-5 and 5-12	$160,000
(2) Picnic Tables	$6,000	(5) Picnic Tables	$15,000	(7) Picnic Tables	$21,000
(1) Park Sign	$2,000	(1) Park Sign	$2,000	(1) Park Sign	$2,000
(1) Park Kiosk	$7,000	(1) Park Kiosk	$7,000	(1) Park Kiosk	$7,000
(3) Trash/Recycling Bins	$1,500	(7) Trash/Recycling Bins	$3,500	(10) Trash/Recycling Bins	$5,000
(3) Benches	$4,500	(6) Benches	$9,000	(10) Benches	$15,000
(1) Paved 1/2 Basketball Court	$30,000	(1) Bike Rack	$5,000	(1) Bike Rack	$5,000
(1/4 mi) Paved Trails	$65,000	(1) Neighborhood Backstop	$5,000	(8) Tennis Courts with lights	$900,000
		(1) Open-air Shelter	$60,000	(3) Baseball Diamonds (with lights and bleachers)	$600,000
		(3) Soccer Fields	$15,000	(1) Shelter building with restroom	$1,000,000
		(25) Car parking lot with lighting	$100,000	(1) Open air shelter	$50,000
		(1/2 mi) Paved Trails	$130,000	(4) Soccer Fields	$10,000
				(100) Car parking Lot with lighting	$400,000
				(1 mi) Paved Trails	$260,000
Subtotal	$259,000		$671,500		$4,265,000
Contingency (15%)	$38,850		$100,725		$639,750
TOTAL	$297,850		$772,225		$4,904,750

01 The above list is not a list of typical facilities, and is only used specifically as an analysis to better understand impact fees. Cost includes a general amount for site grading, utility constructions, and subbase preparation. Conditions will vary for each park depending on specific facilities installed. Master Planning and Site Engineering Costs are estimated using City Staff costs for Mini and Neighborhood Parks based on 2018 pricing. Master Planning and Site Engineering costs for Community Parks are estimated using consultant fees.

This page intentionally left blank.

Appendix D - Additional Maps

This page intentionally left blank.

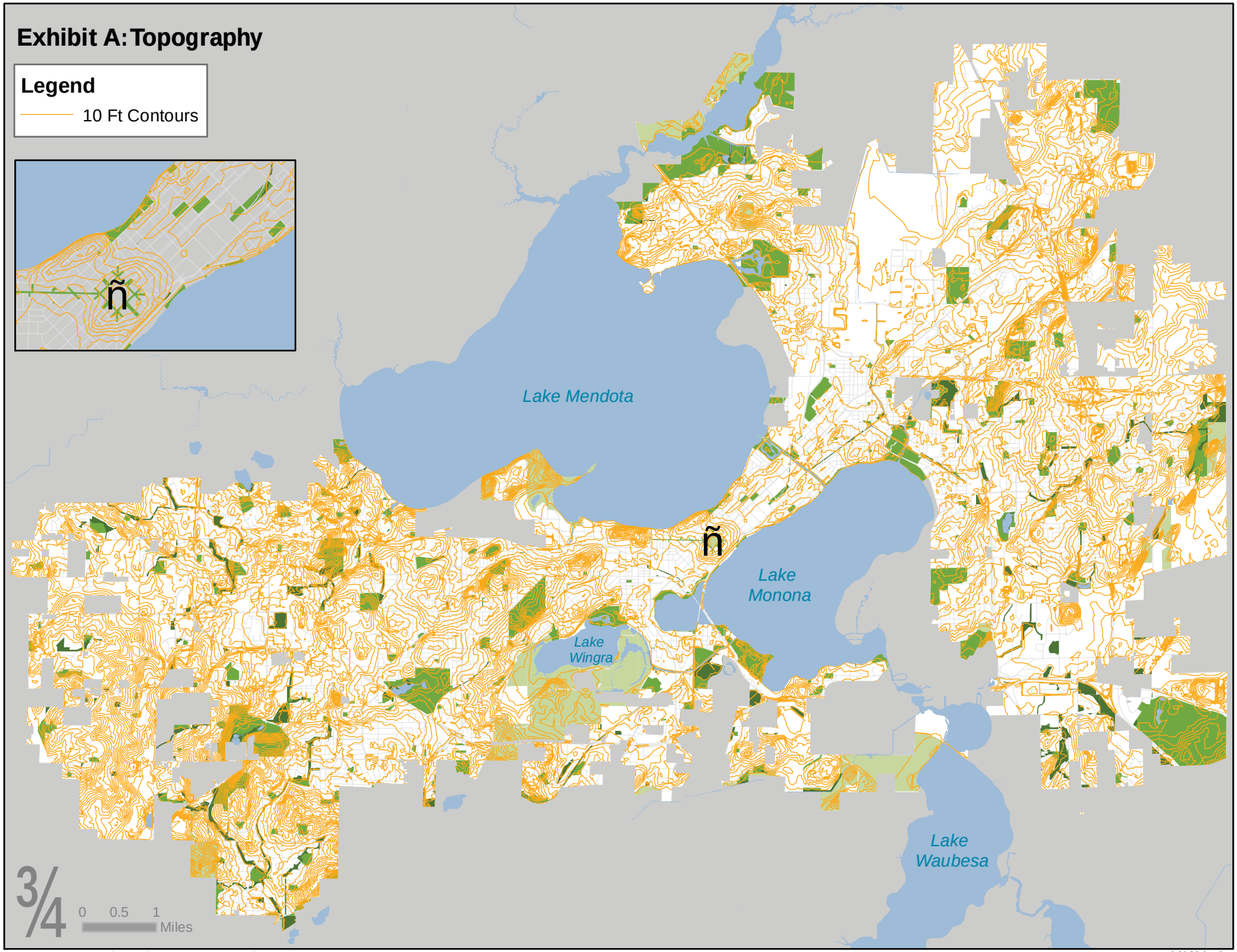


Exhibit A: Topography
Legend
10 Ft Contours
Lake Mendota
Lake Monona
Lake Wingra
Lake Waubesa
3/4
0 0.5 1
Miles

Exhibit B - WDNR ROA Southern Gateways Region

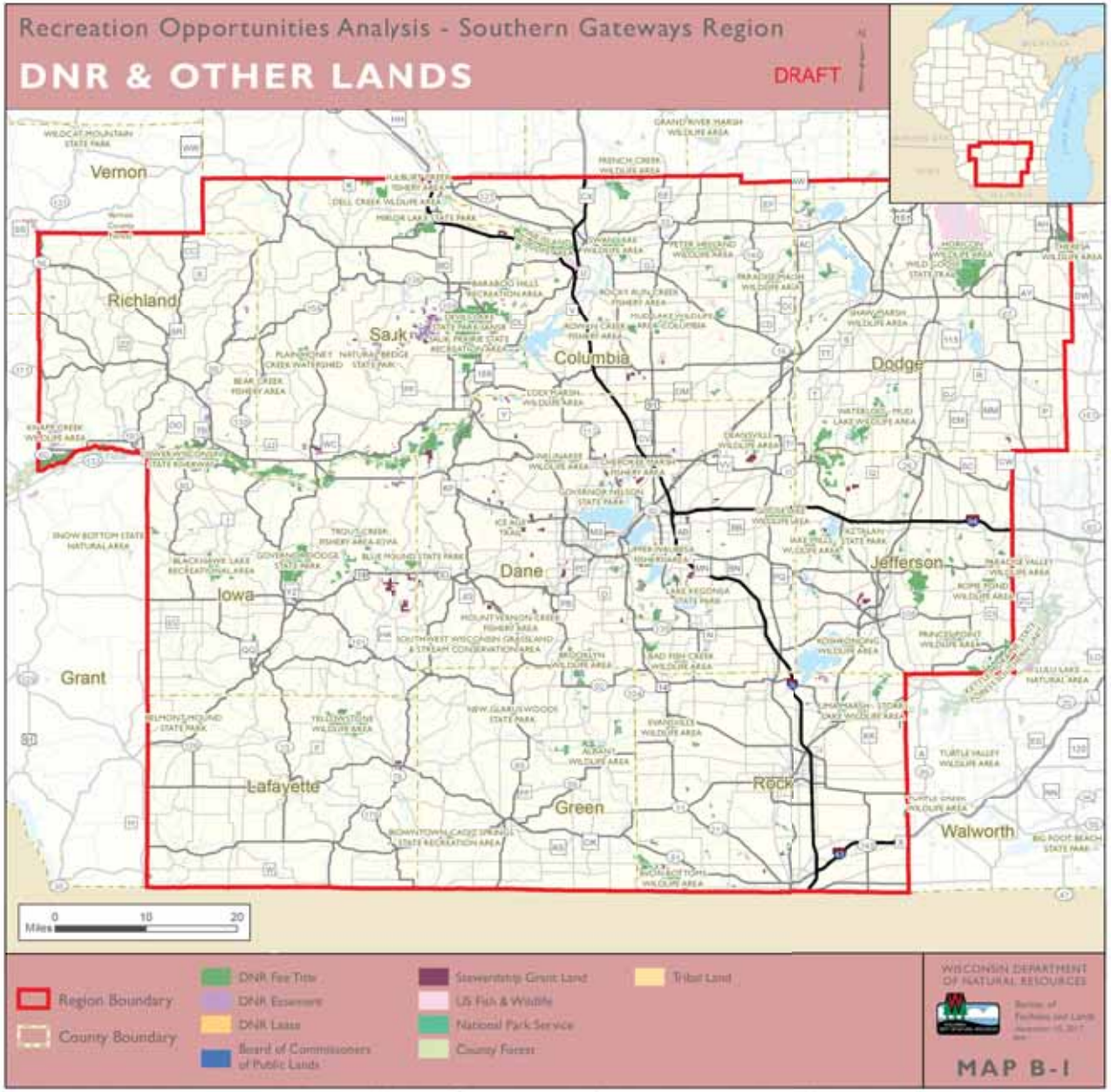


Exhibit C - Dane County Parks and Open Space Plan 2018-2023

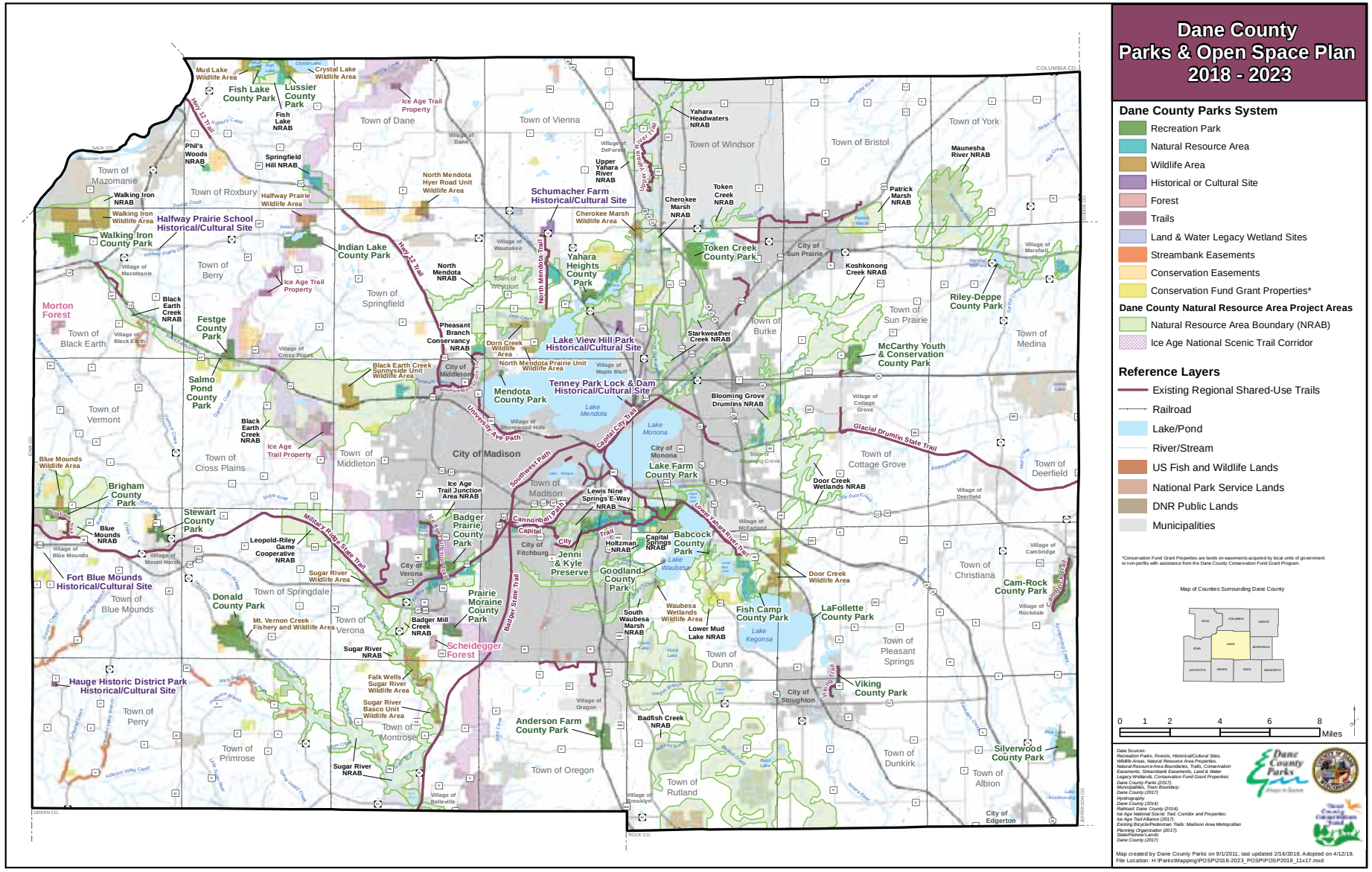


Exhibit D - Dane County Parks and Open Space Plan, Regional Trail Map 2018-2023

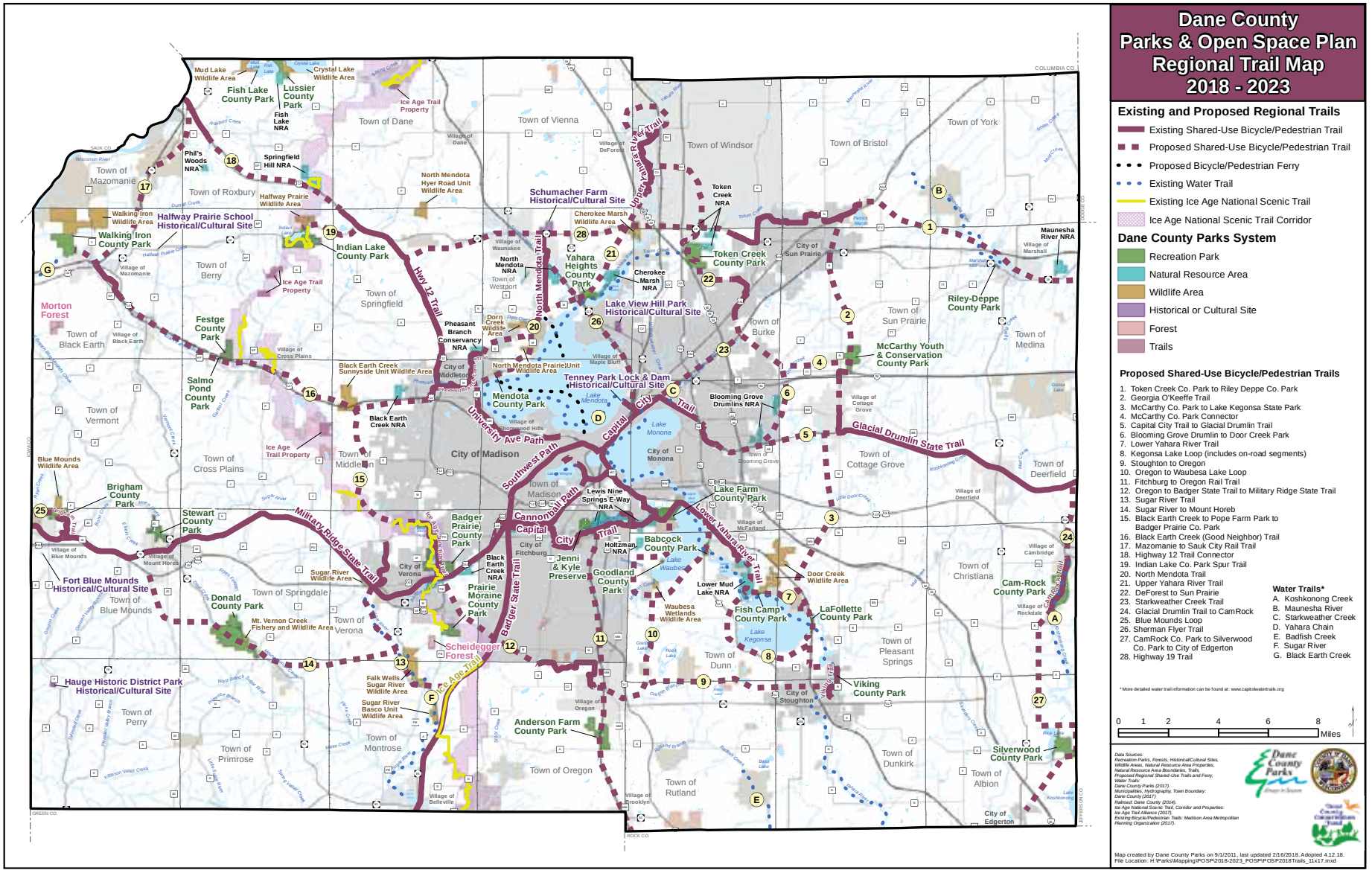


Exhibit E: Draft Future Land Use Map

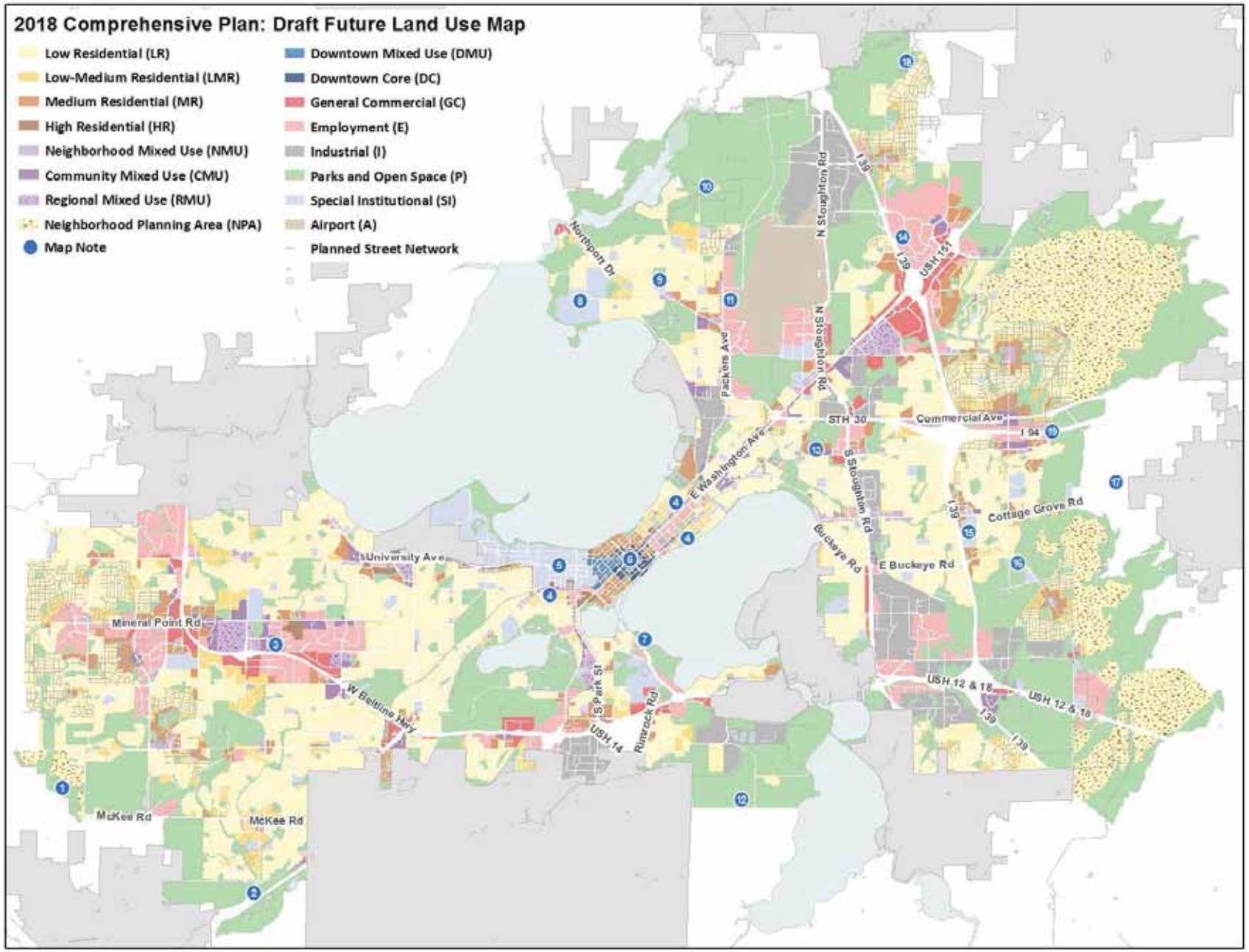
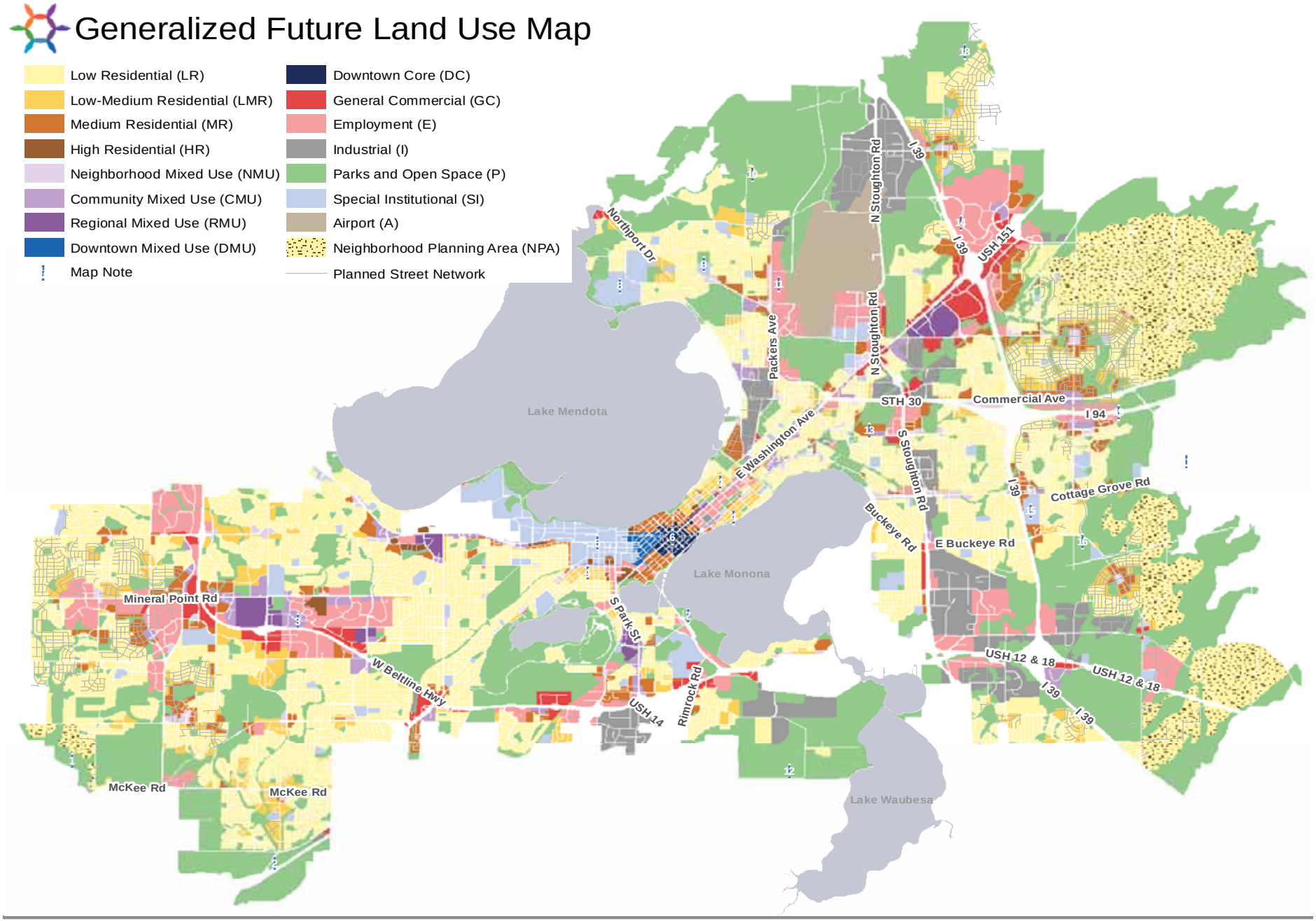


Exhibit F: Generalized Future Land Use Map



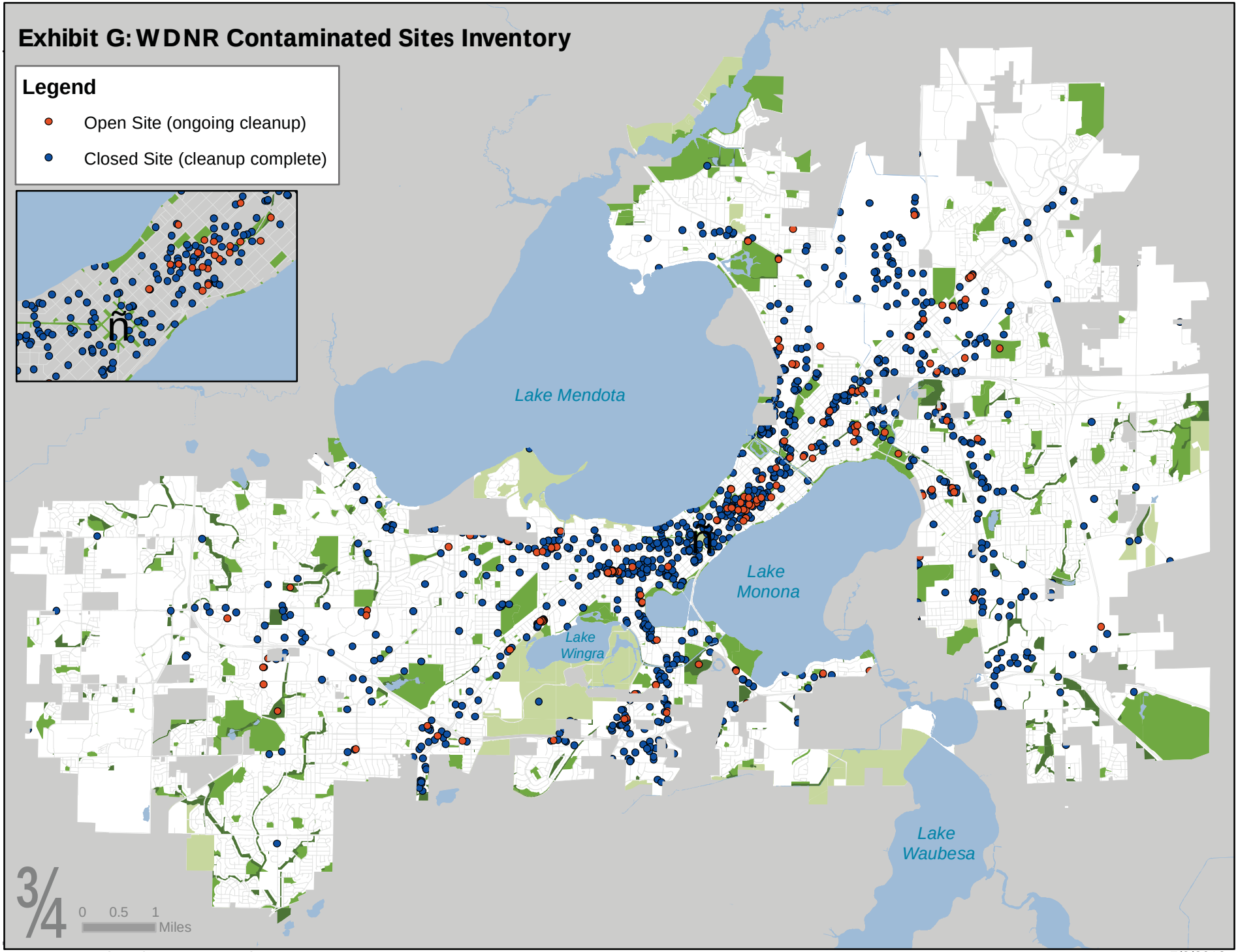


Exhibit G: WDNR Contaminated Sites Inventory
Legend
Open Site (ongoing cleanup)
Closed Site (cleanup complete)
Lake Mendota
Lake Monona
Lake Wingra
Lake Waubesa
0 0.5 1
Miles

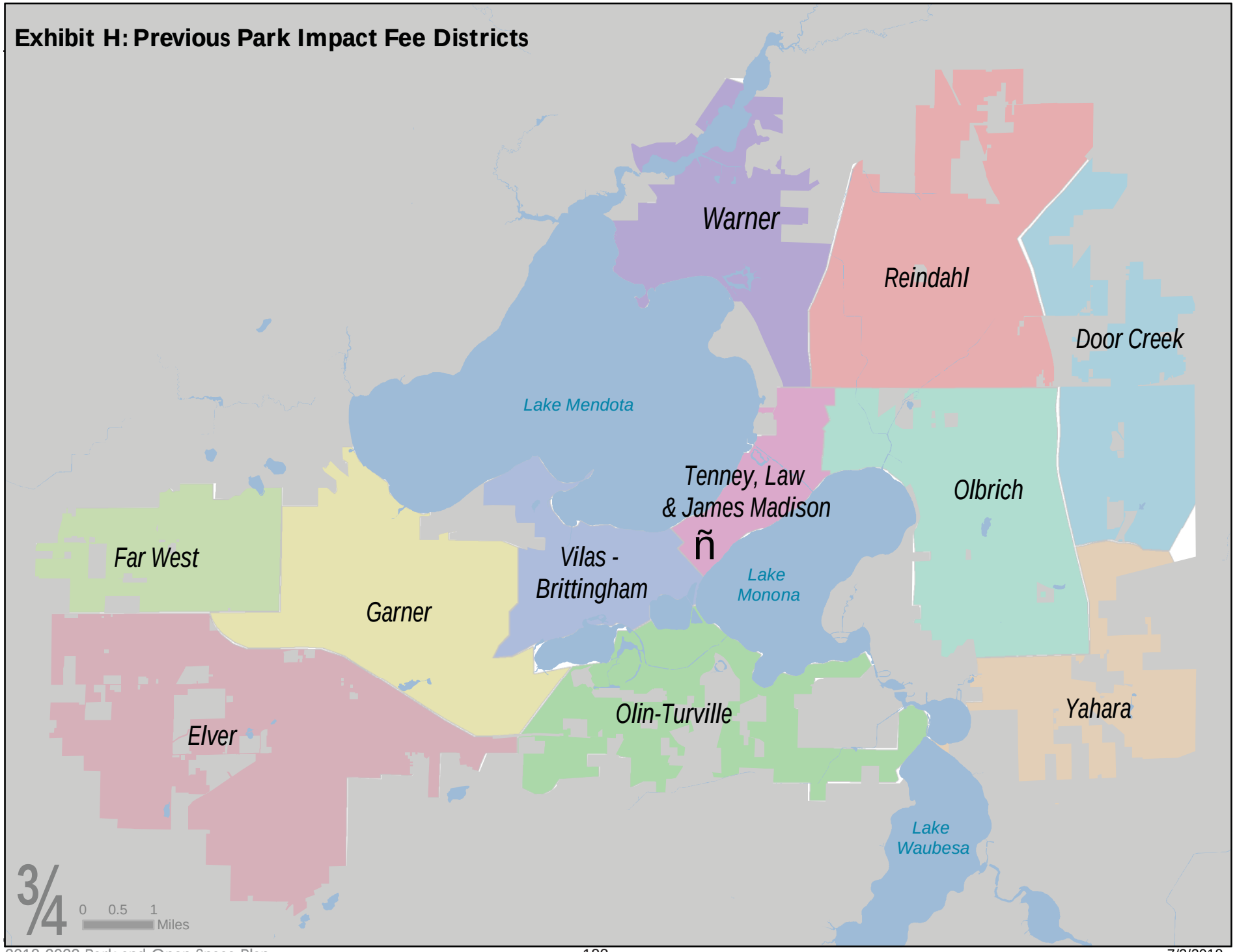


Exhibit H: Previous Park Impact Fee Districts
Warner
Reindahl
Door Creek
Lake Mendota
Tenney, Law
& James Madison
Olbrich
Far West
Vilas -
Brittingham
Lake
Monona
Garner
Olin-Turville
Yahara
Elver
Lake
Waubesa
0 0.5 1
Miles

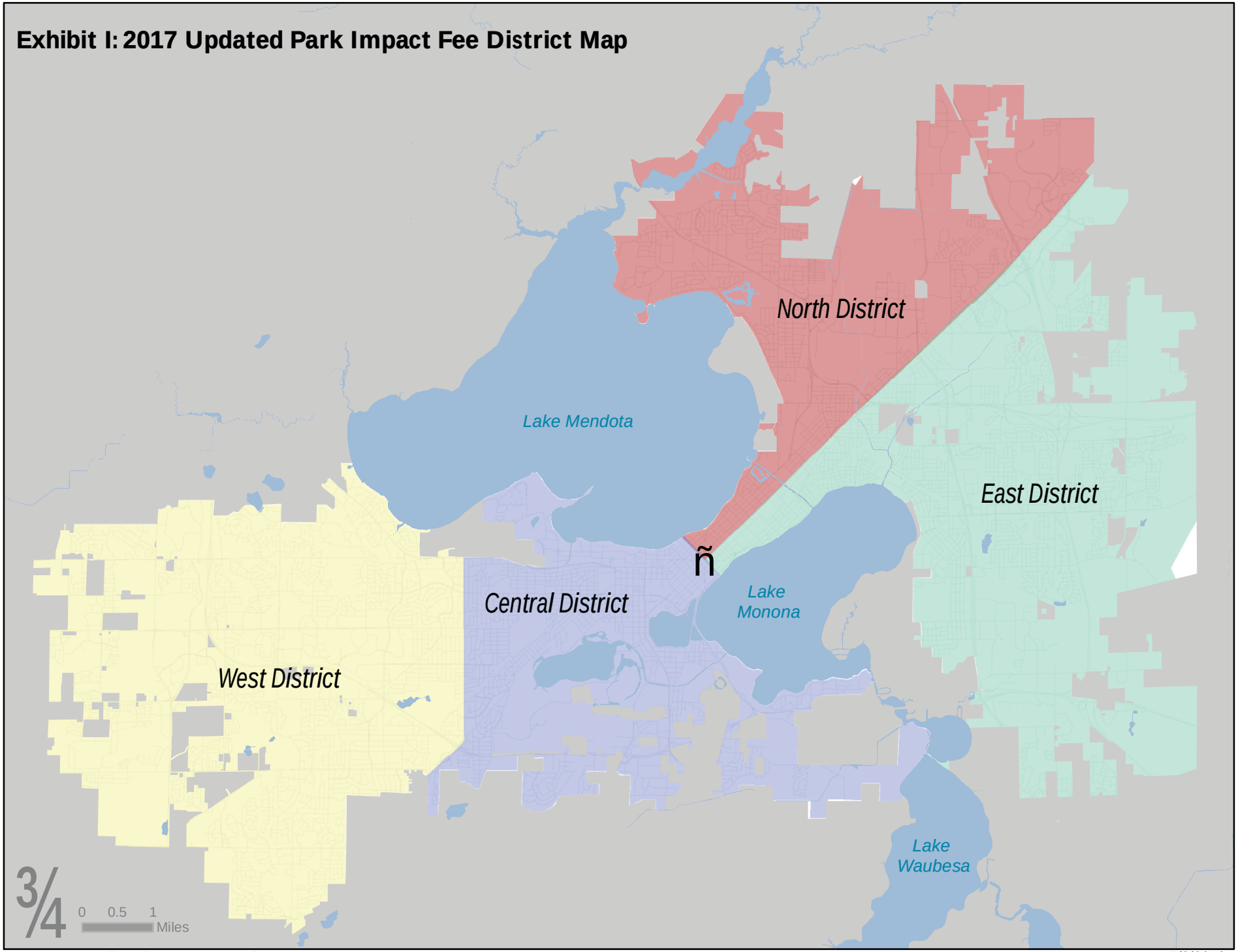


Exhibit I: 2017 Updated Park Impact Fee District Map
North District
Lake Mendota
East District
Central District
Lake Monona
West District
Lake Waubesa
0 0.5 1
Miles

This page intentionally left blank.

Appendix E - ADA Accessibility

This page intentionally left blank.

Purpose

The Commission on Persons with Disabilities and the City of Madison Parks Division hired ADA Limited, a consultant specializing in public accommodation and the Americans with Disabilities Act, to assist in establishing a set of design standards and priorities. These standards and priorities comply with the Americans with Disabilities Act Accessibility Guidelines and will be used for both the modification of existing facilities and the construction of new accessible facilities. This document was updated in 2018 by Jason Glozier, the City of Madison's Disability Rights and Services Program Coordinator.

Introduction

The design standards of the Madison Parks Division will be compared and analyzed for their applicability to the priorities of the Americans with Disabilities Act Accessibility Guidelines (ADAAG). The ADAAG were originally developed for buildings and structures and had to be adapted for open spaces, such as picnic areas or soccer fields. It is also difficult to account for differences in disabilities and how they relate to accessibility. As a result, recommended ADAAG standards and priorities may not always correspond with the Madison Parks Division's standards for parkland development. An attempt to incorporate the two has been made. With this in mind, ADAAG standards and priorities are translated as closely as possible, to accessibility standards for the City of Madison Parks System.

Analysis

The Madison Parks system is organized through a hierarchical classification system, which is based on the size of the park and service area. This relationship is represented in the Park and Open Space Plan, Table 4.1: City of Madison Park Type Classification Descriptions.

The Park and Open Space Plan also outlines potential available facilities in each category of park (Appendix C, Table 6: Potential Facility Development Estimated Costs). Both charts tell us that the larger the park, the more facilities it will have, and, that if a certain facility is not offered in a neighborhood park it is likely to be offered in the area or community park serving that same neighborhood.

This report will focus on two areas —

1.) Revising all recreational facilities to meet ADA accessibility standards. An example of this would be how tennis courts are designed. Up until now, tennis courts were built with 2' wide mazes at the corners to keep out bicycles, yet allow people in. These unfortunately, also kept out wheelchairs.

2.) The second area of focus relates to the development of an "accessible path system" for each park. As mentioned above, facility standards have been revised to eliminate all barriers to people with disabilities. A key element in eliminating barriers and providing recreational opportunity is an "accessible path system". It does not matter how accessible a facility is if you cannot get to it. Most community- and neighborhood-level parks have path systems, and some smaller parks as well.

Like other Madison Parks facilities, the extent of the path system will also be based on a hierarchical classification system. In larger parks, the path system will be more extensive and "touch" or be located closer to facilities. In smaller parks, because of limited space, the path system will be less extensive and may merely come within a reasonable distance of a facility.

As with most standards, exceptions will exist that may limit the extensiveness of a path system in a certain park or may require a more extensive path system. Further explanation of these exceptions can be found below in Priority 2.

The recommended priorities from the ADAAG are listed below. Following each are our recommendations relating them to a parks environment based on our analysis.

Priorities from the Americans with Disabilities Act Accessibility Guidelines

Priority One
The first recommended priority is access from public transportation, sidewalks, and parking lots/loading zones to the entrance of a building. The assumption is that if one cannot get to the front door, no facilities or spaces are accessible.

The Madison Parks Division also interprets access to parks as the first priority. In parking lots, accessible parking stalls that comply with the ADAAG in terms of specific measurements and number of stalls will be provided. A 2004 improvement to parking at Warner baseball stadium exceeded the required number of accessible spaces and relocated them to the front of the facility, eliminating the need to cross drive aisles.

Priority Two
The second recommended priority from the ADAAG is for an accessible route that leads to all significant public areas. The Madison Parks Division interprets this priority as an accessible path system.

The surface treatment of the path system will depend on the size of the park and service area. The paths could be entirely hard surfaced or a combination of a hard surface and relatively flat lawn.

As indicated earlier, the path systems in larger parks will generally be more extensive than in smaller parks. In smaller parks, the path system will be determined by a number of factors. Some of these factors are listed below:
A facility may be already considered within a reasonable distance from an existing accessible path system or form of public access (sidewalks), especially in smaller parks.
In smaller neighborhood parks, the overall effect of numerous asphalt paths to and from each facility will diminish the aesthetic quality of the park.
A path should not conflict with another use (e.g., a path should not cross a large play area where neighborhood children play football).
The type of recreational programming available in a park may require a more extensive path system, regardless of the size of the park and service area.
Better access to a neighborhood park facility may be required if the same facility is not accessible in other parks which serve the same neighborhood.
Steep grades may make accessible paths unfeasible in some parks.

It is important to remember that if a facility is not accessible in a neighborhood park, the same facility will be available and more accessible in another park (or school for playgrounds) serving the same neighborhood.

Priority Three
The third recommended priority in the ADAAG is restrooms and shelters.

The Madison Parks Division interprets restrooms and shelter buildings as the third priority. Accessibility surveys conducted under Section 504 of the Rehabilitation Act of 1973 revealed that most of restroom and/or shelter buildings needed renovation to be brought up to today's accessibility standards. Since 1990, Madison Parks has renovated all its buildings to current accessibility standards except a few that are physically or financially unrealistic to upgrade beyond a certain point. As those facilities are replaced, all current standards will be met.

Priority Four

The fourth recommended priority from the ADAAG is access to goods and services.

The Madison Parks Division considers its facilities to be its goods and services. Examples of park facilities include playground equipment, tennis courts, shelters, softball diamonds, basketball courts, etc. Most facilities that are played on flat surfaces are by their nature accessible and do not need modification, only a means of access. Others, such as playground equipment, may not be accessible or even usable. In situations like this we are limited by industry standards and/or the lack of new technology. Using playground equipment as an example, older, less accessible facilities are being replaced with what the industry standards consider accessible as budgets allow.

Implementation Process

The Parks Division has systematically been assessing the accessibility needs of the park system, budgeting, and completing improvements on an annual basis since at least 1990. Citizen concerns and complaints are analyzed and included in the next year's capital improvements where warranted.

Summary

These are the four priorities the Madison Parks Division will use when developing or renovating parks. All Madison Parks Division buildings and structures (e.g., shelters, restrooms, clubhouses and boating facilities) can be renovated to meet the physical accessibility standards as outlined in the Americans with Disabilities Act Accessibility Guidelines (ADAAG). In 2010 the ADAAG (ADA Architectural Guidelines) were amended to include recreational facilities, including Pools, Playgrounds, Golf Courses and Athletic Fields. These amendments shifted priorities, and in 2012 the Parks department began working with the Disability Rights and Services Program to continually review parks facilities and programs for compliance with new standards. A schedule consisting of 10 annual reviews of parks facilities was established and the DR&SP has continually reviewed parks since. This schedule was determined based on the hierarchical structure of the Parks department and is primarily focused on destination and Community-level parks.

Finally, it should be mentioned that what may be accessible to one individual may not be to another. An individual's decision whether or not to participate in an activity is largely his or her own, based on their skills and abilities. To remedy issues associated with differing levels of ability the Parks department chose to focus efforts on usability. For example, the Parks department identified 5 potential placements for barrier-free playgrounds, the first of which was constructed in 2017 with the remainder to follow.

Standards for Park Facilities and Activities

Described below are construction standards and/or maintenance procedures which will be used to enhance the accessibility of a particular recreational activity.

PARKING LOT: ADAAG standards will apply.

ACCESSIBLE PATH(S): An accessible path system is a key component for providing accessibility within parks. The extensiveness of the path system depends on the park classification and feasibility in response to the physical constraints of the site. The path system will provide access to and through the shelter cluster. Examples of facilities included in a cluster are a shelter, a path system, a picnic area, and a playground area. The path system within a shelter cluster will be designed to provide access to each facility. As indicated in Priority 2, surfaces could be entirely hard or a combination of a hard surface and relatively flat lawn.

SHELTER(S): All Madison Parks Division buildings and structures will meet the physical accessibility standards in the ADAAG.

SIGNAGE: People requesting general park information in alternative formats can contact the Madison Parks Division at 266-4711 (voice) and 267-4980 (TDD).

PLAYGROUND EQUIPMENT: A path system will provide direct access to the playground equipment. Since the adoption of the Americans with Disabilities Act (ADA),

the Consumers Product Safety Commission (CPSC), the American Society for Testing and Materials (ASTM), and the Access Board have evaluated different types of safety surfaces. Based on their recent recommendations the Parks department is providing new playgrounds with a shredded rubber or wood mulch material that meets these requirements. Community-level park playgrounds have been upgraded to these new surfaces. Throughout the park system, older equipment has been replaced with newer, more accessible equipment and safety surfaces. Hard surface paths were brought into the play equipment area, so children can reach the play structure and integrate into whatever level of play matches their capabilities. Currently, all park system playgrounds meet ADA compliance, and efforts continue to focus on increased access.

PICNIC AREA: The Madison Parks Division will provide a minimum of one accessible picnic table at each designated picnic shelter and at any designated picnic area within a reasonable distance from the accessible path system or designated picnic shelter.

OPEN PLAY AREA: An open play area is any large, unobstructed grassy area used for unorganized play. An open play area will be considered accessible only when the maximum cross slope of the play area is less than 4%, and a hard surfaced accessible route is provided or is located within a reasonable distance from the accessible route.

BASKETBALL COURT(S): The City of Madison Parks Division considers a basketball court accessible in its current state. Viewing areas will be considered when siting a basketball court and its proximity to the path system. If the court is enclosed with fencing, ADAAG standards for access will apply.

BENCH(ES): Transfer pads will be provided for all benches located along the accessible path system.

TENNIS COURT(S): The City of Madison Parks Division considers tennis courts accessible in their current state. The accessible path system will provide direct access to tennis courts via a 4' wide accessible gate.

PLAYFIELD(S) (includes softball, baseball, soccer, football): The accessible path system will be installed from the parking lot to each field, bleacher pad and accessible seating area. If a restroom facility is included, the path will be extended to include the restroom. Fenced-in fields will be retrofitted with at least a 4' wide accessible gate, one on each side.

DRINKING FOUNTAIN(S): The City of Madison Parks Division has already replaced older, inaccessible drinking fountains with new, accessible models. The parks system continues to assess and replace drinking fountains with input from the DR&SP.

OUTDOOR SKATING: The City of Madison Division will concentrate on creating accessible skating facilities at all Community-level parks that provide skating. This includes access to the shelter and ice surface.

SLEDDING HILL(S) AND SKI TRAIL(S): The City of Madison Parks Division feels that any physical changes made to sledding hills or cross country ski trails would adversely impact the nature of the activity. Access to the facility will remain a high priority.

VOLLEYBALL: Grass volleyball courts are considered accessible; sand courts are not. A listing of grass and sand courts will be provided in the Parks Division's administrative office. In both cases, proximity to the accessible path system and viewing will be considered when siting volleyball courts.

BOAT LAUNCHES: All boat launches will have a minimum of one accessible launching pier.

TRACK AND FIELD FACILITIES: Madison high schools hold cross country and track meets on trails and golf courses. The Madison Parks Division will provide a mowed grass path from parking areas to the start/finish line.

ACCESSIBLE GOLF COURSES: The Madison Parks Division considers golf courses accessible in their current state. The Madison Parks Division will provide an accessible path from the clubhouse to a reasonable distance at the first tee of nine holes, practice putting greens, and practice driving ranges. Golf courses will install TDD to allow complete access to reservations and other services. Special provisions will be made for access with carts and for use of wheelchairs and mobility devices, and coaches will be allowed to accompany blind or visually impaired golfers.

ACCESSIBLE SAND BEACH: Currently a study on sand surface accessibility is being conducted by the National Center on Accessibility for beaches. The results of this study will be used to revise the Madison Parks Division standards. Two major beaches at Tenney Park and Vilas Park provide a grid system accessible path over the sand, the same system used at Wisconsin State Park beaches.

FISHING PIER: Any fishing pier installed in a City of Madison park will be accessible. The City of Madison Parks Division will set a goal of having one accessible fishing pier per lakeside community park, up to two (2) per lake. The accessible fishing pier will be directly connected to an accessible path, parking lot, or street parking.

CONSERVATION LANDS: Conservation land access is still being evaluated, and is intended to be a future effort of the department. Currently Architectural Board guidance on accessible trail systems exists for federal properties, however no guidance for state and local municipalities have been provided. The City of Madison is working in conjunction with the Department of Natural Resources to provide equal facilitation of federal guidance for local trail systems.

This page intentionally left blank.

Appendix F - Historic Resources

This page intentionally left blank.

HISTORICAL RESOURCES
City of Madison Landmark Parks or Parks with Landmark Features

Bear Mound Park
Breese Stevens Field
Brittingham Park
- Brittingham Boathouse

Burrows Park
Edgewood Pleasure Drive
Edna Taylor Conservation Park
Filene Park
Forest Hill Cemetery
Glenwood Children's Park
Hoyt Park
Hudson Park
James Madison Park
- Collins House
- Connor House
- Gates of Heaven
- Lincoln School
- Bernard Hoover Boathouse

Monona Golf Course
- Dean House

Olbrich Park
Olin Park
Orton Park
Period Garden Park
Tenney Park
Vilas Park
Yahara Place Park
Yahara River Parkway

HISTORICAL RESOURCES

Parks on or with Features on the National Register of Historic Places

Baxter Park
B.B. Clarke Beach
Bear Mound Park
Beld Triangle
Bill Kettle Park
Bowman (Duane F.) Field
Brittingham Park
Breese Stevens Field
Burrows Park
Cherokee Conservation Park - Mendota Unit
Cherokee Conservation Park - North Unit
Cherokee Conservation Park - School Road Unit
Demetral Field
Dudgeon School Park
Edgewood Pleasure Drive
Edna Taylor Conservation Park
Elvehjem Sanctuary
Elver Park
Filene Park
Forest Hill Cemetery
Glenway Golf Course
Glenwood Children's Park
Hillington Triangle
Hoyt Park
Hudson Park
Indian Springs Park
James Madison Park
Lakeland-Schiller Triangle
Law Park
Marshall Park
Meadow Ridge Conservation Park
Meadow Ridge Park
Merrill Springs Park
Midland Park
Monona Golf Course
Nakoma Park
Nesbitt Open Space
Oak Park Heights Park
Odana Hills Golf Course
Odana Hills Park
Olbrich Botanical Complex
Olbrich Park
Olin - Turville Park
Olive Jones Park (Randall School)
Orton Park
Owen Conservation Park
Owen Parkway
Paunack (A.O.) Park
Penn Park
Period Gardens
Proudfit Open Space
Reindahl (Amund) Park
Sandburg Park
Sandburg Woods
Sauk Heights Park
Slater (William) Park
South & West Shore Parkways
Spring Harbor Beach
Spring Harbor Park
State Street / Mall-Concourse
Stricker's Pond
Tenney Park
Turville Point
Vilas (Henry) Park
Vilas (Henry) Zoo
Warner Park
Waunona Park
Wingra Creek Parkway
Wingra Park & Boat Livery
Yahara River Parkway

Appendix G - 2018 Adopted Capital Budget Expenditure Categories and Funding Type

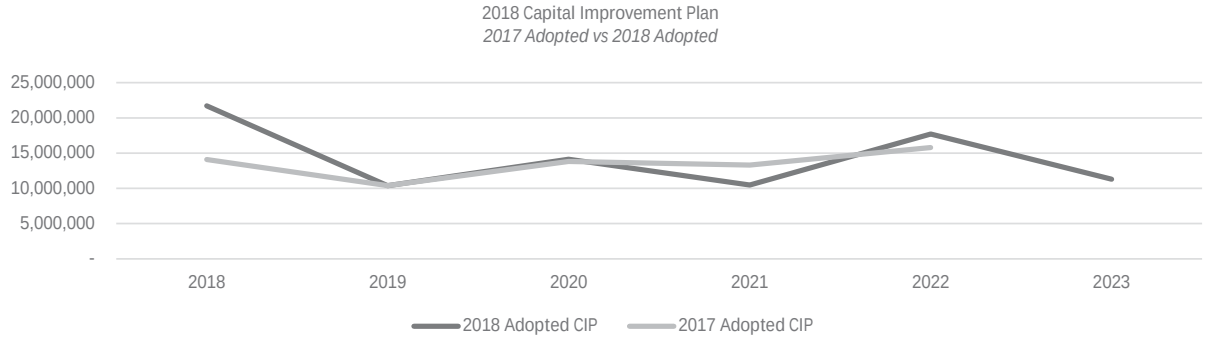
Parks Division

Capital Improvement Plan

Project Summary

	2018	2019	2020	2021	2022	2023
Assessable Trees	150,000	150,000	150,000	150,000	150,000	150,000
Beach & Shoreline Improvements	1,360,000	135,000	710,000	235,000	150,000	725,000
Breese Stevens Improvements	475,000	-	-	700,000	-	-
Brittingham Park Improvements	-	-	-	-	-	200,000
Central Park Improvements	-	200,000	-	-	-	-
Conservation Park Improvements	150,000	375,000	265,000	330,000	230,000	130,000
Disc Golf Improvements	35,000	35,000	35,000	225,000	35,000	40,000
Dog Park Improvements	500,000	50,000	200,000	125,000	400,000	50,000
Elver Park Improvements	-	-	-	-	490,000	1,500,000
Emerald Ash Borer Mitigation	1,125,000	1,175,000	1,175,000	1,200,000	1,200,000	1,200,000
Field Improvements	30,000	30,000	190,000	30,000	195,000	30,000
Forest Hill Cemetery Improvements	60,000	500,000	700,000	-	-	-
Hill Creek Park Improvements	-	50,000	750,000	-	1,500,000	-
James Madison Park Improvements	-	900,000	-	-	-	-
Land Acquisition	9,000,000	250,000	250,000	250,000	250,000	250,000
Law Park Improvements	200,000	300,000	-	-	-	-
North-East Park Improvements	-	175,000	-	1,055,000	5,000,000	-
Odana Hills Clubhouse Improvements	-	200,000	2,000,000	-	-	-
Olbrich Botanical Complex	4,500,000	-	-	-	-	-
Park Equipment	375,000	375,000	375,000	425,000	375,000	375,000
Park Land Improvements	1,821,000	2,305,000	4,076,750	3,353,000	3,331,000	2,755,000
Parks Facility Improvements	380,000	1,095,000	490,000	485,000	1,750,000	1,105,000
Playground/Accessibility Improvements	1,345,000	1,495,000	1,440,000	1,180,000	1,100,000	1,250,000
Public Drinking Fountains	-	40,000	40,000	40,000	50,000	50,000
Street Tree Replacements	202,000	200,000	200,000	200,000	200,000	200,000
Vilas Park Improvements	-	-	-	500,000	1,300,000	1,300,000
Warner Park Community Center	-	350,000	1,100,000	-	-	-
Total	**$ 21,708,000**	**$ 10,385,000**	**$ 14,146,750**	**$ 10,483,000**	**$ 17,706,000**	**$ 11,310,000**

Changes from 2017 CIP



2018 CIP by Expenditure Type

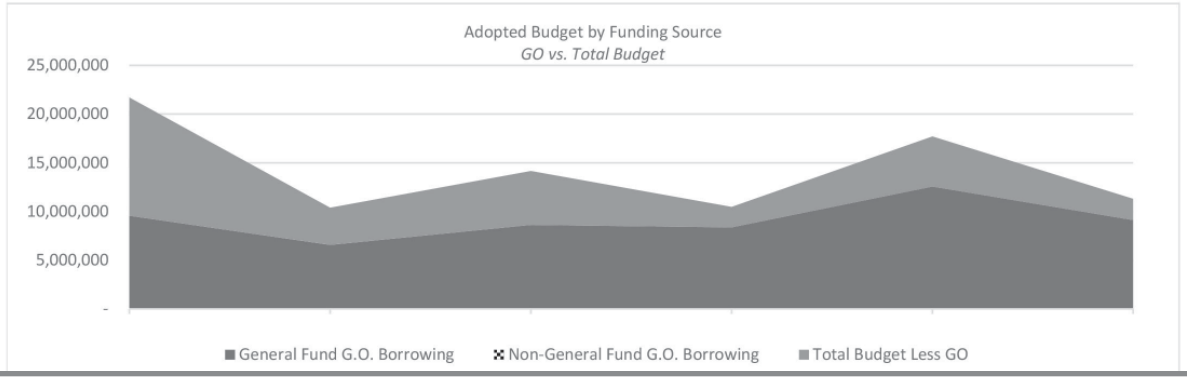
	2018	2019	2020	2021	2022	2023
Building	5,425,000	2,145,000	3,830,000	1,665,000	3,240,000	1,195,000
Land	9,000,000	250,000	250,000	250,000	250,000	250,000
Land Improvements	5,236,000	5,640,000	7,906,750	6,328,000	12,046,000	6,460,000
Machinery and Equipment	425,000	395,000	425,000	480,000	425,000	455,000
Other	1,622,000	1,955,000	1,735,000	1,760,000	1,745,000	1,650,000
Street	-	-	-	-	-	1,300,000
Total	**$ 21,708,000**	**$ 10,385,000**	**$ 14,146,750**	**$ 10,483,000**	**$ 17,706,000**	**$ 11,310,000**

2018 CIP by Funding Source

	2018	2019	2020	2021	2022	2023
GF GO Borrowing	9,556,000	6,579,000	8,625,750	8,370,000	12,558,750	9,108,750
Federal Sources	5,000	-	-	-	-	-
Impact Fees	11,689,000	3,000,000	2,605,000	1,285,000	4,299,250	1,743,250
Miscellaneous Revenue	3,000	3,000	3,000	-	-	-
Private Contribution/Donation	91,000	490,000	600,000	295,000	505,000	135,000
Reserves Applied	-	-	2,000,000	-	-	-
Sale Property/Capital Asset	25,000	25,000	25,000	25,000	25,000	25,000
Special Assessment	150,000	150,000	150,000	150,000	150,000	150,000
TIF Proceeds	21,000	20,000	20,000	25,000	25,000	25,000
Trade In Allowance	3,000	3,000	3,000	3,000	3,000	3,000
Transfer From Other Restricted	165,000	115,000	115,000	330,000	140,000	120,000
Total	**$ 21,708,000**	**$ 10,385,000**	**$ 14,146,750**	**$ 10,483,000**	**$ 17,706,000**	**$ 11,310,000**

Borrowing Summary

	2018	2019	2020	2021	2022	2023
Borrowing Schedule						
General Fund G.O. Borrowing	9,556,000	6,579,000	8,625,750	8,370,000	12,558,750	9,108,750
Non-General Fund G.O. Borrowing	-	-	-	-	-	-
Total	**$ 9,556,000**	**$ 6,579,000**	**$ 8,625,750**	**$ 8,370,000**	**$ 12,558,750**	**$ 9,108,750**
Annual Debt Service						
General Fund G.O. Borrowing	1,242,280	855,270	1,121,348	1,088,100	1,632,638	1,184,138
Non-General Fund G.O. Borrowing	-	-	-	-	-	-



This page intentionally left blank.

This page intentionally left blank.