## MILWAUKEE RECREATION PLAYFIELD PRIORITIZATION



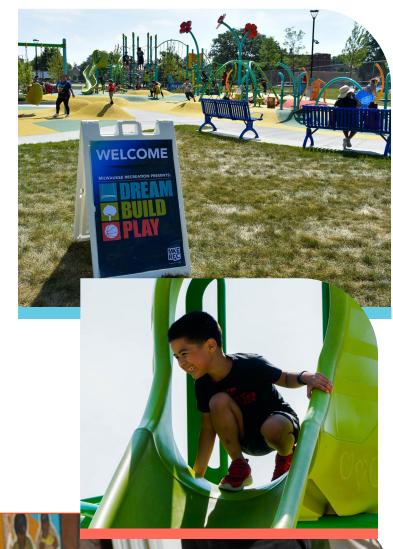
2025-2030





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# ENHANCING THE PRIORITIZATION FRAMEWORK FOR MILWAUKEE RECREATION FACILITY IMPROVEMENTS

Milwaukee Recreation, a department of Milwaukee Public Schools, strives to promote healthy lifestyles, personal development, and fun by offering recreational and educational programs for people of all ages and abilities. The department proudly builds connections between Milwaukee Public School facilities and the communities we serve.

In 2016, Milwaukee Recreation developed its first Equity Plan and identified a model and methodology to prioritize critical facility improvements. The intent was to provide fair and equitable allocation of district resources, support, and opportunities when addressing improvements that were set forth in the Milwaukee Outdoor Recreation Facilities Master Plan: 2015-2024. The original 2016 Equity Plan set the groundwork to apply racial and economic equity to determine which sites required more immediate action. That effort was updated in 2022-23 as a matrix to incorporate best practices we gathered from communities across the country.

The effort summarized herein builds on and enhances the methodology created in 2016. Included is an updated model and methodology to weight and then rank priorities for the 52 playfields within Milwaukee Recreation's system (see Figure 1). Data was normalized from multiple sources to help set priorities based on facts.

We're excited to share this updated method and model that builds on Milwaukee Recreation's mission of enriching and strengthening communities fairly and equitably. This model can be used and applied as future needs shift and evolve. Please take time to familiarize yourself with the information in this summary. We routinely conduct community engagement sessions and encourage you to get involved – we welcome your feedback! Collectively, we will revitalize these important spaces in our community, ensuring safe play for all!

Sincerely,



**BRIAN D. LITZSEY**Senior Director,
Milwaukee Recreation



ANDREW ROSSA
Assistant Director/
Manager of Operations,
Milwaukee Recreation

#### MILWAUKEE RECREATION PLAYFIELDS AT A GLANCE



**Operates** 

**52** 

playfields across Milwaukee



15+

playfields renovated or in process



80+

community engagement sessions



700+
new trees planted
at all playfields
annually



\$6.8M+

raised in grant funding



154

summer playgrounds operational each year



20K-25K

free meals served on summer playgrounds annually



200+

mobile recreation site visits to summer playgrounds

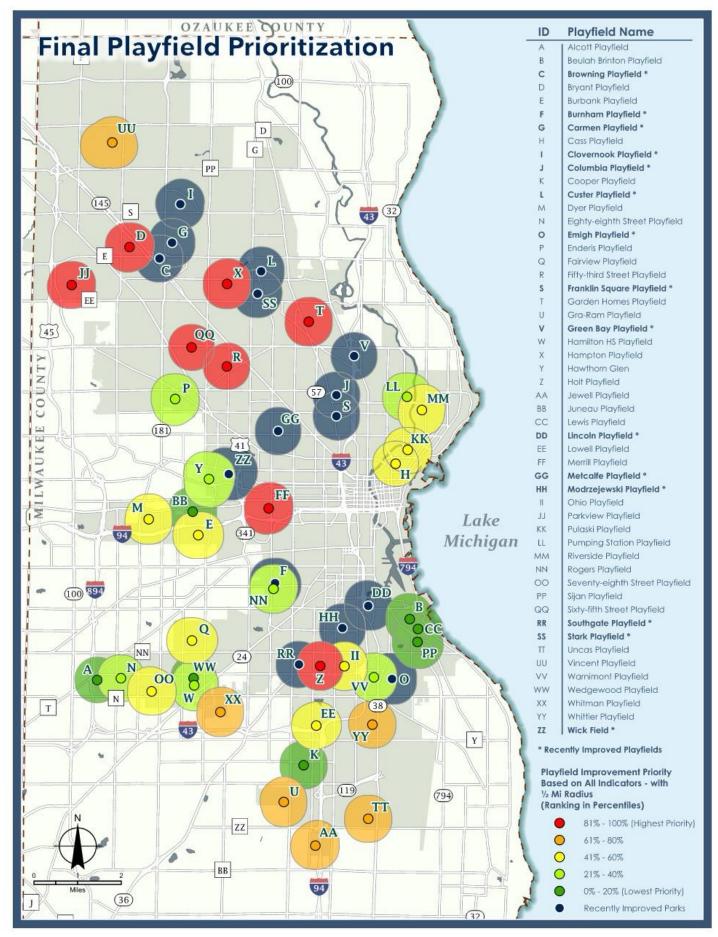


Figure 1: Final Park Prioritization Map

## **EXECUTIVE SUMMARY**

Milwaukee Recreation's mission is "To enrich and strengthen the community through memorable recreational and educational experiences for people of all ages and abilities."

We know that open spaces and well-maintained, safe facilities throughout the city of Milwaukee are vital to community health and well-being.

Milwaukee Recreation operates and maintains 52 recreation playfields, many of which complement existing neighborhood parks and help build community within the neighborhoods they serve. These playfields play a major role in defining the community's quality of life, branding an area as an attractive place to live, work, and play and attracting investments.

The relationship between community development and these shared facilities presents a unique opportunity for Milwaukee Recreation to enhance existing resources. As a result, Milwaukee Recreation determined that an updated data standardization and weighted prioritization model was necessary to help set priorities and rank playfields beginning in 2025 and moving forward.

Milwaukee Recreation retained the multi-disciplinary firm, GRAEF, to develop an updated model to prioritize investments in its outdoor recreation facilities based on standardizing up-to-date data that was compiled from multiple city, state, and federal sources.

**THE OBJECTIVE:** Create a prioritization system for playfields and facilities by combining existing datasets, weighting multiple factors, and displaying results on maps that show both the ranking framework and priority locations.

**THE GOAL:** Develop a database of normalized data that can be applied and recreated in the future as new and/ or additional datasets become available.







#### **BACKGROUND**

This study builds on previous planning and prioritization projects developed by Milwaukee Recreation and Milwaukee Public Schools.

In 2015, the Milwaukee Outdoor Recreation Facilities Master Plan was developed to guide future growth and development of playfields and facilities through 2024 and beyond, highlighting key initiatives.

In particular, "Strategic Objective #3 - Redefine the MPS Experience" is aligned with the mission to guide future improvements and/or development of Milwaukee Recreation-managed outdoor recreation facilities.

The facilities are grouped into nine categories as part of the Outdoor Recreation Facilities Master Plan and are detailed here: <a href="bit.ly/facilitiesmasterplan">bit.ly/facilitiesmasterplan</a>. Within the category of "Maintenance and Operations Management Standards", "Prioritize the ongoing operations and maintenance of outdoor recreation facilities with existing funding" is a strong driver for the effort developed herein. The Milwaukee Outdoor Recreation Facilities Master Plan provides further details and guideposts that inform the current effort.

In addition, the Milwaukee Public Schools Strategic Plan for 2023-2028 included six strategic initiatives. Initiative #6, "Rightsizing – Facilities and Upgrades," identified implementing a long-term facilities master plan to address the needs identified in a recently conducted strategic planning survey. For more information regarding the MPS Strategic Plan, visit bit.ly/MPSstrategicplan.

And, in 2016, the first equity-based prioritization model and report was developed to identify prioritization needs for the 52 playfields. Since that time, new data sets have become available – specifically the Environmental Justice Index (or EJI). With the passage of nearly 10 years since the original model and report, data sets used then are now outdated as well.



Figure 2: Milwaukee Outdoor Recreation Facilities

Master Plan





## EQUITABLE ACCESS

The 2016 effort successfully helped prioritize needs for 52 recreational playfields, but it was a one-time snapshot of Milwaukee Recreation properties and their context.

The Environmental Justice Index (EJI) is the first national, place-based tool designed to measure the cumulative impacts of environmental burden through the lens of human health and health equity. The EJI delivers a single rank for each community to identify and map areas most at risk for the health impacts of environmental burden. See here to learn more: Environmental Justice Index I Place and Health - Geospatial Research, Analysis, and Services Program (GRASP) I ATSDR

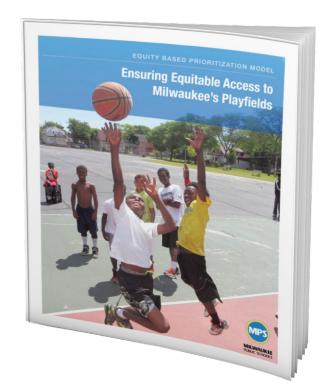


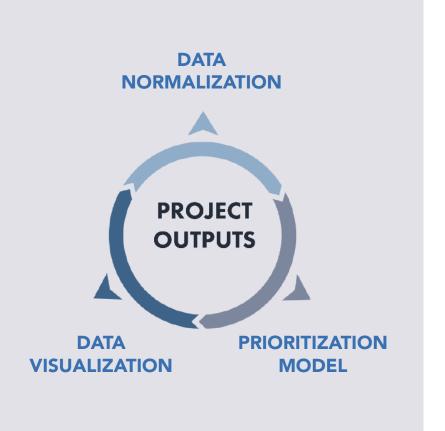
Figure 3: 2016 Equity Based Prioritization Model Report

#### THREE OUTPUTS OR DELIVERABLES ARE PROVIDED THROUGH THIS PROJECT:

**DATA NORMALIZATION:** Standardization of existing data sets related to parks and facilities from Milwaukee Recreation, the City of Milwaukee, the US Census Bureau, the US Centers for Disease Control and Prevention, and other federal entities to ensure consistency and usability.

**PRIORITIZATION MODEL:** Update of the 2016 weighted prioritization model with new/additional data sets that account for a range of factors (e.g., facility condition, social factors, environmental factors, community needs, geographic location) to rank playfields for modifications and improvements.

**DATA VISUALIZATION:** Maps that illustrate the prioritization framework and highlight areas most in need of modifications and improvements and an ArcGIS Pro Project package containing geodatabase with all processed data, and scripting tools to help replicate future renditions of the analysis.



#### **APPROACH**

This 2025 effort includes the relatively newer EJI data set, updates some of the important data sets used previously, incorporates new data sets not used in 2016, ensures no duplication of data sets used, and re-weights data sets to reflect current Milwaukee Recreation priorities. As such, this effort provides the tools to Milwaukee Recreation staff as a replicable model that can be updated as necessary and used to create a time-consistent analysis and ranking in the years to come.

Various factors, identified as indicators, were considered to help set the priorities, and they were grouped within four categories, identified as modules of Neighborhood, Park Pressure, Condition Rating, and Security. Data was compiled from multiple sources (including the Milwaukee Recreation Design and Development team, the City of Milwaukee, Milwaukee County, the U.S. Census Bureau

and other federal entities). The data was then condensed and normalized to create a consistent format and then gaps and inconsistencies were identified and corrected. A weighted system that balanced the indicators was developed and a prioritization model was created for ranking the parks. The weights were assigned on a scale of 1 to 5, with 1 being the lowest priority and 5 the highest. Weighted values were given to each indicator and summed within their respective four modules. A second layer of weights was assigned to each module, further emphasizing indicators that have a greater impact on park prioritization.

The results are contained herein, and below is a synthesis of that data with illustrations to further distinguish and visualize how criteria were developed and priorities set.



Figure 4: Indicator Modules

#### **METHODOLOGY**

The rating system for Milwaukee Recreation properties was developed from a variety of sources. The methodology described below and on the following pages was developed with Milwaukee Recreation staff to ensure process and findings were consistent with expectations.

#### That collaborative process involved Milwaukee Recreation staff from the following teams:

- Facilities Planning & Maintenance
- Operations
- Program Compliance

#### And a process of meetings as follows:

- 1. A project kick-off meeting to discuss expectations: December 23, 2024
- 2. A virtual project discussion of data sources and additional data analytics: January 23, 2025
- 3. An in-person ranking meeting: February 11, 2025
- 4. A virtual draft report and findings meeting: March 12, 2025

This project followed 11 steps to rank Milwaukee Recreation playfields, and results were grouped by project deliverable type: Data Normalization, Prioritization Model, and Data Visualization.

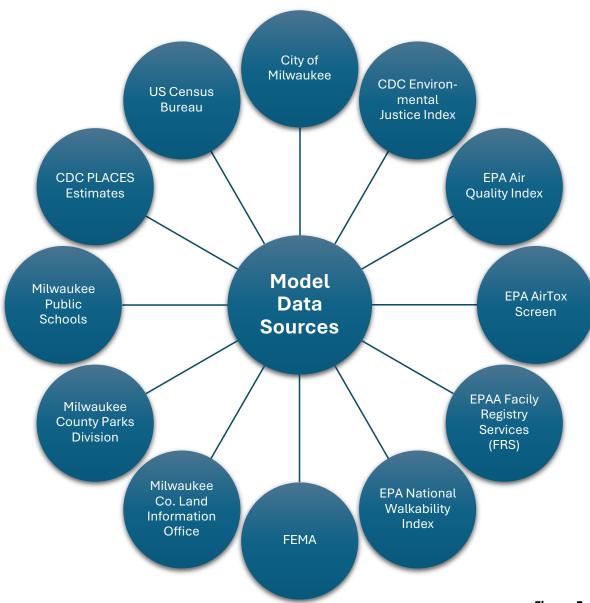


Figure 5: Data Sources

#### DATA **PROCESSING**

With an eye toward data that would support park prioritization, 51 indicators were investigated and 38 were deemed to be meaningful park facility differentiators. As a result, 38 were included in the prioritization calculations.

The 38 meaningful indicators were categorized into four modules that include Neighborhood, Park Pressure, Condition Rating, and Security. Smaller sub-groupings of data types are provided below each module in Figure 6. The Neighborhood category had - by far - the most indicators with 44. Park Pressure had five indicators, and Condition Rating and Security each had one indicator.



#### Neighborhood

#### **Park Pressure**

Social Environmental Health







#### **Condition Rating**

2024 Crime

MPS Rating

Security

Figure 6: Indicator Modules

#### **CATEGORIZING AND STANDARDIZING OF** THE DATA

Given the diverse contexts of the category values, data was standardized to allow for grouped comparisons across different physical, social, and spatial factors.

A percentile ranking system was employed to normalize the data. The following stream (Figure 7) graphically represents the flow of data analyzed. Normalize Data

- Identify indicators used in 2016 Prioritization plan.
- Identify additional indicators to include in anlysis.
- Rank each indicator relative to other playfields using percentile ranking system.

Indicator **Prioritization** 

- Identify weights (ranging from 1-5) for each indicator based on significance in model.
- Multiply indicator percentile ranking by determined weight.

Module **Prioritization** 

- Identify weights (ranging from 1-5) for each of the four modules based on significance in model.
- Sum weighted indicator rankings for each respective module.
- Multiply module sums by module weight value.

Final **Prioritization** 

- Exclude recently improved playfields from final ranking.
- Sum weighted module rankings for each playfield.
- Calculate final percentile ranking of playfields based on total summed value of the four weighted modules.

Figure 7: Data Flow

## PRIORITIZATION CALCULATIONS

A two-layer weighting system (represented in Figure 8) was used to calculate the final prioritization values. The first layer was applied to the individual indicators. This emphasized the relative importance of each indicator within its respective module. To account for the varying impact of each module, a second layer of weights, also ranging from 1 to 5, was assigned to each module. This additional weighting step emphasizes indicators that have a greater impact on park prioritization. The weighted module percentiles were then aggregated, and a final percentile ranking was applied, identifying the ultimate playfield.



#### Module Ranking Formula





- Percentile(Σ Indicator<sub>i</sub> \* Indicator Weight<sub>i</sub>) = Module Value
- Percentile( $\Sigma$  Module Value<sub>j</sub> \* Module Weight<sub>j</sub>) = Prioritization Rating

Figure 8: Two-Layer System





"A welcoming space for all ages and abilities. [Playfields are] a wonderful creation in the heart of the city."

- Brian Litzey, Senior Director, Milwaukee Recreation

#### **FINDINGS**

It was determined that for the final ranking, "Condition" was the most important of the four modules, followed by "Neighborhood" and "Park Pressure," and finally "Security." This ranking is ultimately an amalgamation of all of the indicators deemed to have an impact on importance of prioritization for park improvements.

The Milwaukee Recreation playfields that ranked the highest priority in 2025 based on Milwaukee Recreation staff-verified weights are shown in Figure 8 and in red. The playfields in shades of green are the least in need of improvement. The figure also identifies (in blue) which playfields have received recent improvements.

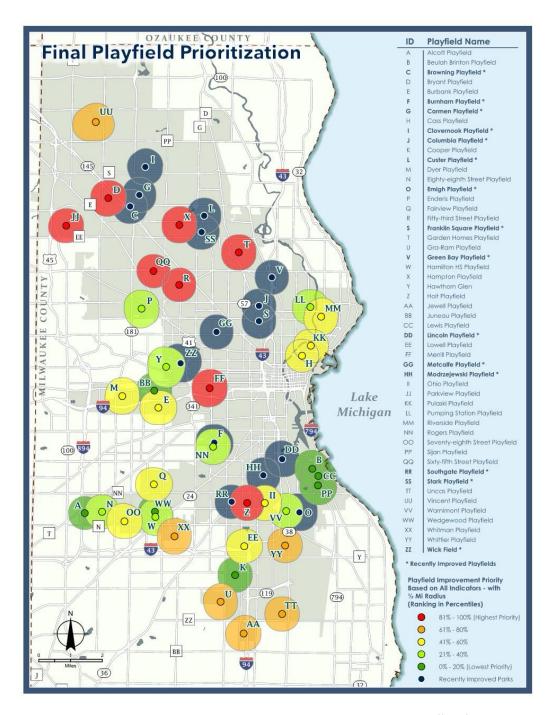


Figure 8: Overall Park Improvement Prioritization

#### NEIGHBORHOOD MODULE



Having access to parks has a direct and significant impact on neighborhoods and in building community. Access benefits vulnerable populations such as low-income households, those with limited mobility, and those with disabilities. When health or environmental burdens limit mobility, having public play spaces and parks that are walkable is essential. And, youth in low-income neighborhoods rely on convenient access to public parks and play spaces to gather, stimulate, and play, emphasizing the positive relationship with parks and households with children.

The Neighborhood module had the highest number (by far) of indicators included. For data manageability, indicators within the Neighborhood category were condensed into three sub-categories that address social vulnerability, environmental burden, and health vulnerability. The indicators with the highest weights were:

- Population with high racial/ethnic diversity
- Poverty as compared to federal levels
- Percent of population ≤ 17
- Lack of walkability

It should be noted that the definition of "neighborhood" in this module is based on a ½ mile radius of a Milwaukee Recreation playfield and does not refer to City of Milwaukee-defined neighborhoods.

As shown in Figure 9, the majority of the Milwaukee Recreation playfields that ranked highest in this category are in the northern and northwestern parts of the city. You may see in these neighborhoods relatively higher population densities, lower income levels, larger household sizes (including households with children), higher disability rates, and limited mobility options compared with other parts of Milwaukee.





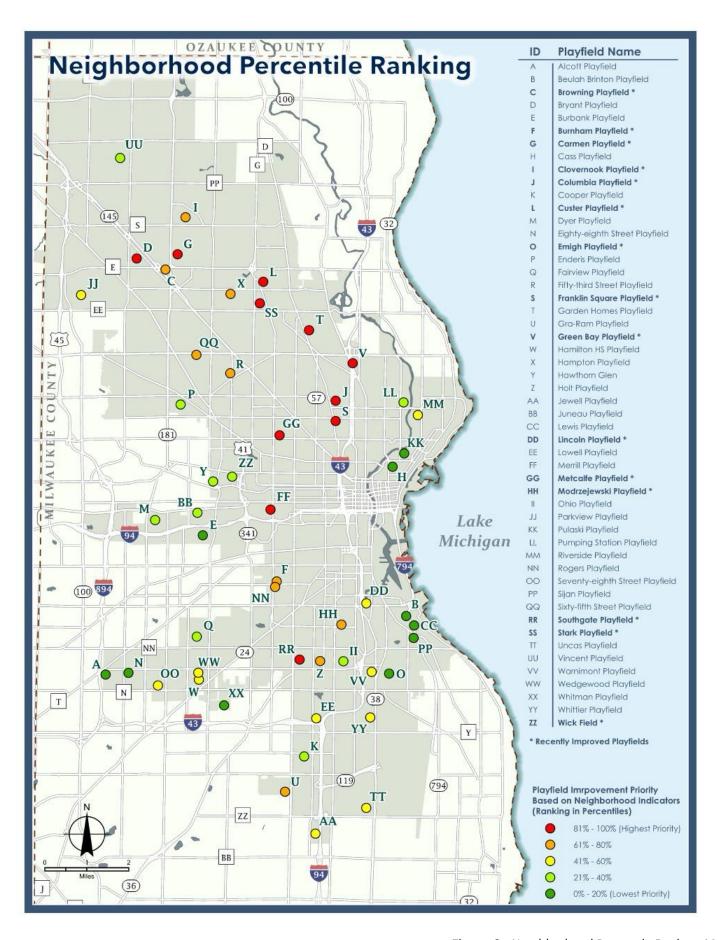


Figure 9: Neighborhood Percentile Ranking Map

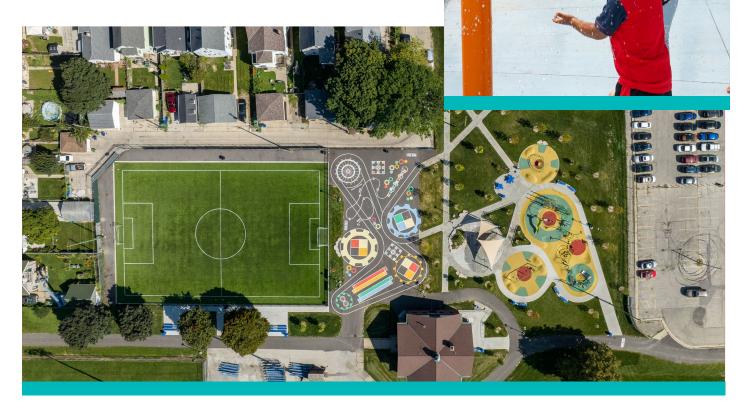
## PARK PRESSURE MODULE



Milwaukee is fortunate to have an existing and robust park system dispersed throughout the city. Milwaukee Recreation playfields, also dispersed throughout the city, are sometimes located close to these other facilities managed and operated by other agencies. These disparities in distribution and correlation with overall population densities were the main weights considered in this module.

This module included five indicator weights, with three out of the five indicators ranking as a 5 (or the highest value). If a Milwaukee Recreation facility was near an existing park with amenities, it received a lower priority ranking. If a facility was located in a highly populated neighborhood, it received a higher ranking. As shown in Figure 10, these Milwaukee Recreation playfields with dispersion pressure and large populations are typically found on the far north, northwest, south, and southwest sides of the city. They are shown in red.





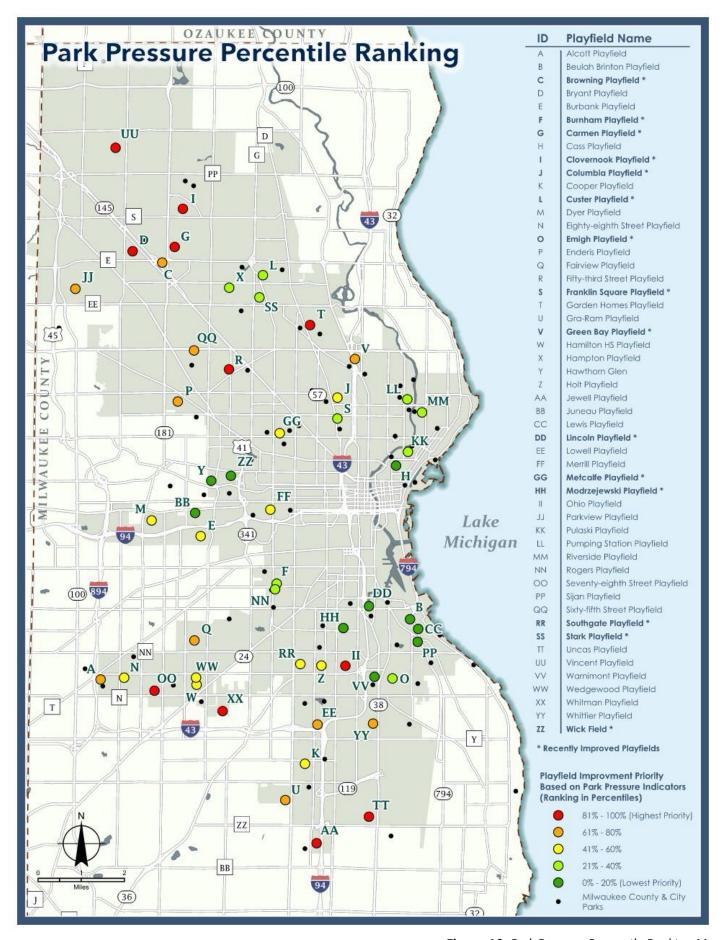


Figure 10: Park Pressure Percentile Ranking Map

## CONDITION RATINGS MODULE



Condition plays an important role in how inviting and attractive a park is to the end user. It is also important to understanding the level of investment a facility should be awarded. One indicator qualified for the Condition category, and that was the existing Milwaukee Recreation condition rating. This rating considered the average condition of amenities within each park. Amenities considered as part of the condition ranking included: baseball/softball fields, basketball courts, soccer fields, football fields, tennis courts, parking lots, splash pads/wading pools, playgrounds, fieldhouses and walking trails. Many Milwaukee Recreation playfields are aging and are approaching the end of their useful lives. Understanding age and condition further helps set priorities. Figure 11 shows the playfields with the highest need for improvement in red.



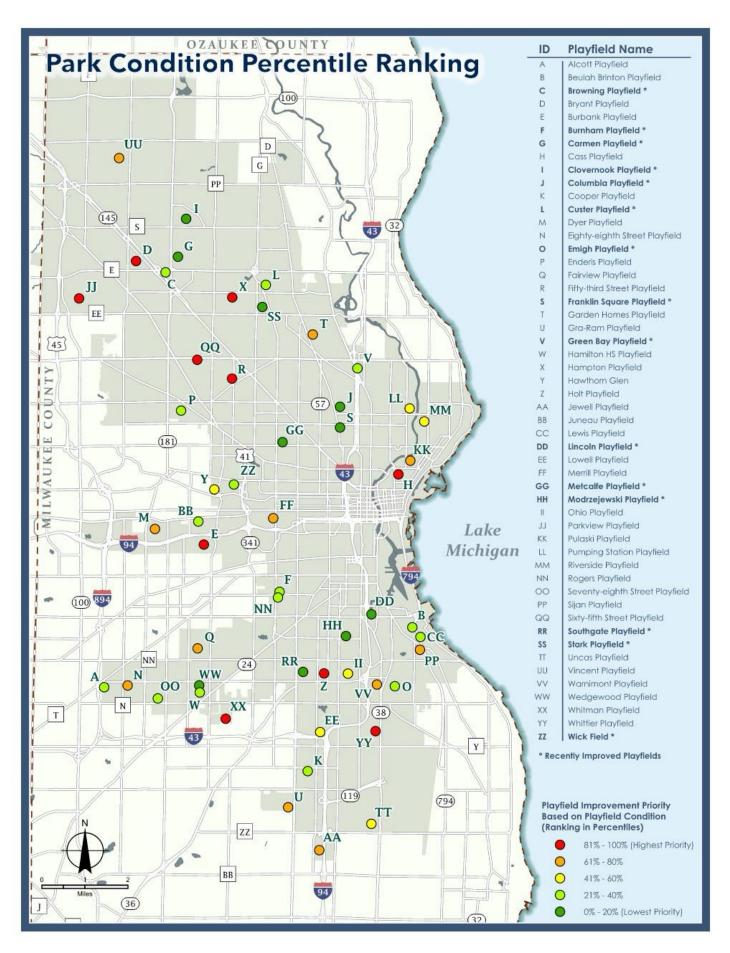


Figure 11: Condition Percentile Ranking Map

## SECURITY MODULE



Along with condition, real and perceived safety is an important indicator to how desirable and attractive a park is to use. Thoughtful design, park amenity options, and good working conditions can enhance the use of a park. Use can decline if lack of safety is evident or perceived. City of Milwaukee 2024 crime statistics was the indicator considered for this module. This data considered counts of Group A Crimes. Group A crimes are defined by the FBI's National Incident-Based Reporting System and are indicators of more serious criminal offenses occurring within a jurisdiction. All playfields that ranked high in this module were geographically located far north and near north of downtown Milwaukee.

An example of playfields with the highest ranking, or most in need improvement, is shown in red in Figure 12.





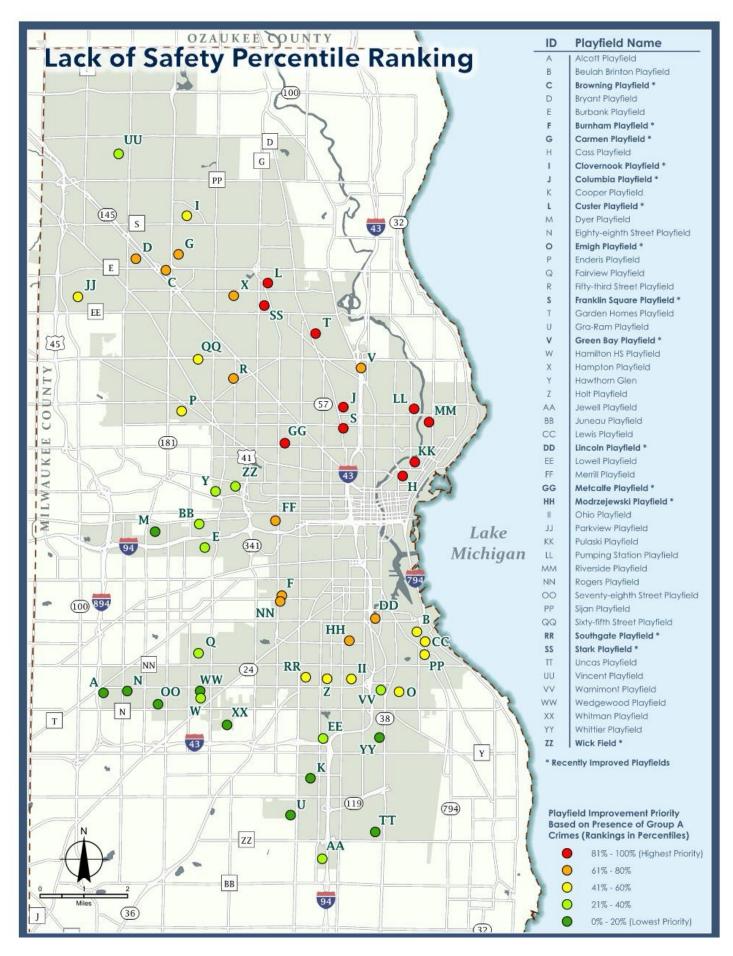


Figure 12: Lack of Security Percentile Ranking Map

## PROCESS DATA MODEL

An ArcGIS Pro project was created to house the processed data, geoprocessing tools that were used to curate the data, and a map to explore the different indicators, modules, and final prioritization rankings. Database documentation that fully describes the indicators and their associated metadata is provided in Appendix A. This exercise was designed to be

repeatable, with as little effort as possible necessary to recreate it in the future. This replicability is important because data sets can and do change over time.

Below is a detailed diagram of the contents of the ArcGIS Pro project package as well as the ancillary data that is included with the deliverables.

#### Data Ranking Interactive Processed Data Geodatabase EJI Indicators (reranked to county) Child Disability Indicators **Custom Geoprocessing Tools EPA Facility Registry Service Locations** Aggregate Data City of Milwaukee Boundary Calculate Adjacent EPA Sites City of Milwaukee Parks (with amenities) Calculate Area Overlap Milwaukee County Parks (with amenities) **ArcGIS Pro Data** 2024 Group A Crimes Calculate Crime Ranking Calculate Final Prioritization Limited Vehicle Access **Model Package** County Adjacent Parks and Amenities Median Income Import Park Condition Data Total Population MPS Parks (populated with all indicator Join Census Table Recalculate EJI Indicators percentile rankings) City of Milwaukee Multifamily Zoning Summarize Census Variable · Tree Canopy Cover Weighted Parks (with final priority ranking) **Ancillary Data** Raw unprocessed copy of all data Indicator & Module Weights Tables Data Dictionary Technical Documentation Figure 13: Process Module

#### **APPENDICES**

DATA REVIEWED FROM THE FOLLOWING SOURCES:

- CITY OF MILWAUKEE
- ENVIRONMENTAL JUSTICE INDEX
- EPA AIR QUALITY SYSTEM (AQS)
- EPA AIRTOXSCREEN
- EPA FACILITY REGISTRY SERVICE (FRS)
- EPA NATIONAL WALKABILITY INDEX
- EPA WATERSHED INDEX ONLINE (WSIO)
- FEMA
- MILWAUKEE COUNTY LAND INFORMATION OFFICE
- MILWAUKEE COUNTY PARKS DIVISION
- MILWAUKEE PUBLIC SCHOOLS
- OPENSTREETMAP
- US CDC PLACES ESTIMATES
- US CENSUS BUREAU AMERICAN COMMUNITY SURVEY (ACS)
- US DECENNIAL CENSUS (2020)
- US DOT NATIONAL HIGHWAY SYSTEM (NHS)
- US DOT NATIONAL TRANSPORTATION ATLAS DATABASE (NTAD)
- US MINE SAFETY AND HEALTHY ADMINISTRATION MINE DATA RETRIEVAL SYSTEM (MDRS)
- CDC ENVIRONMENTAL JUSTICE INDEX

### SPECIAL THANKS TO THE MILWAUKEE PUBLIC SCHOOLS SUPERINTENDENT DR. BRENDA CASSELLIUS AND THE MILWAUKEE BOARD OF SCHOOL DIRECTORS:

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#### ADDITIONAL THANKS TO THE PLAYFIELD PRIORITIZATION PLAN TEAM:

- GRAEF
- MILWAUKEE RECREATION SENIOR LEADERSHIP (BRIAN LITZSEY AND ANDREW ROSSA)
- MILWAUKEE RECREATION DESIGN & DEVELOPMENT TEAM
- MILWAUKEE RECREATION MARKETING TEAM







## Local programs with national recognition

In the fall of 2021, Milwaukee Recreation joined the ranks of elite park and recreation agencies across the country by earning accreditation through the Commission for Accreditation of Park and Recreation Agencies (CAPRA) and the National Recreation and Park Association (NRPA).

This distinguished accomplishment was awarded during the 2021 NRPA Annual Conference. Only 2 percent of park and recreation agencies in the country are accredited (214 out of more than 10,000 agencies). Milwaukee Recreation is one of just two accredited agencies in the state of Wisconsin, and is the nation's only school district-run agency to have received CAPRA accreditation to date.

In 2024, Milwaukee Recreation was one of 10 agencies selected to participate in a CAPRA Beta program as part of our reaccreditation. In the summer of 2025, Milwaukee Recreation successfully completed reaccreditation and is awaiting final approval from the CAPRA Commission which takes place annually in the fall at the NRPA national conference.

CAPRA accreditation is the only national accreditation for park and recreation agencies, and is a measure of an agency's overall quality of operation, management, and service to the community. This mark of distinction indicates that an agency has met rigorous standards related to the management and administration of lands, facilities, resources, programs, safety and services.





**Milwaukee Recreation** earned **CAPRA accreditation**, the only national accreditation for park and recreation agencies and a measure of an agency's overall quality of operation, management, and service to the community.



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