Milwaukee County

Parks Equity Index

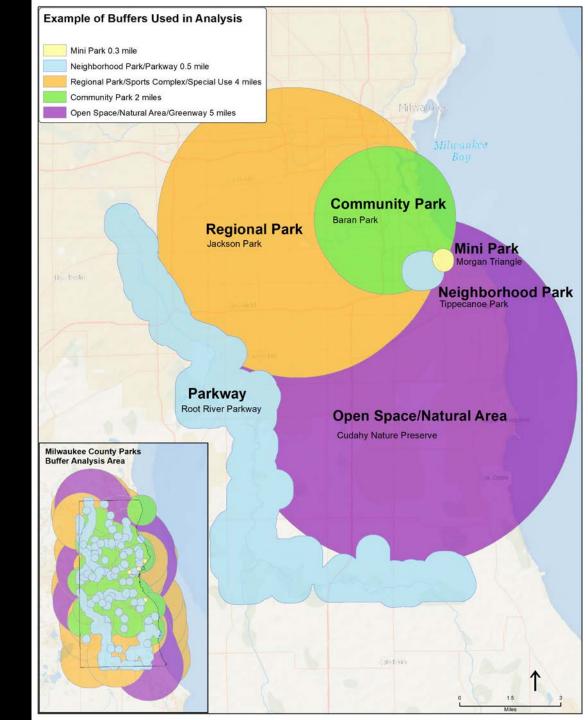
2022 Approach & Updates



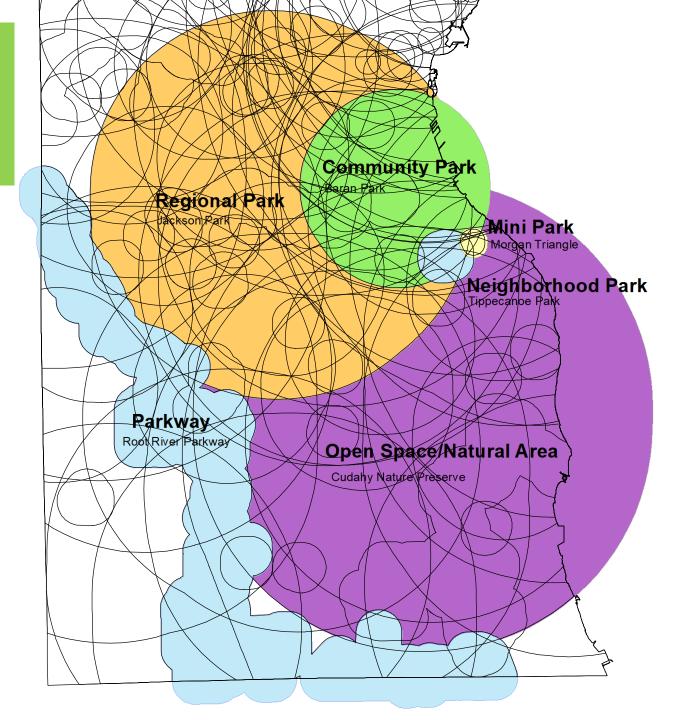


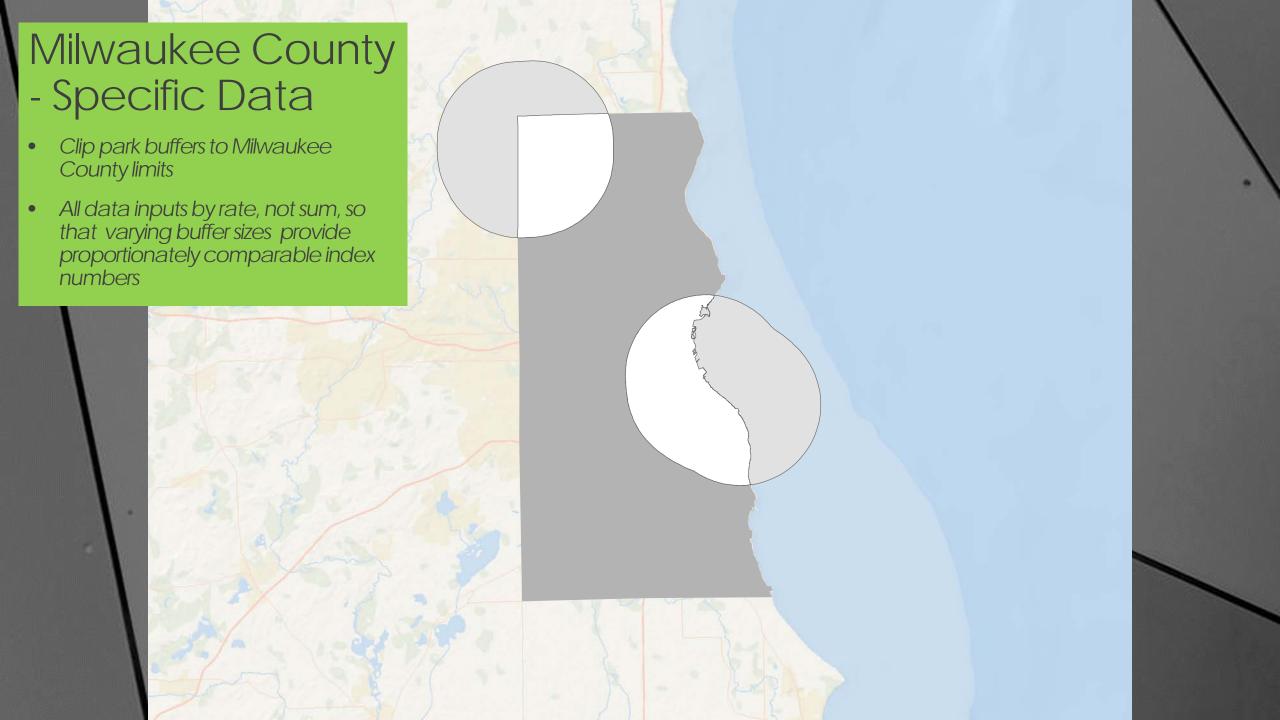
Park Typology - 2050 Parks and Open Space Plan

- **Regional Park** Regional parks serve several communities and residents are predominantly natural resource based. 100 acres or more, Service radius: Four miles or greater.
- **Community Park** A community park is accessible to multiple neighborhoods and focus on meeting community-based recreational needs while preserving unique landscapes and open spaces. 25 to 60 acres; may be up to 100 acres. Service radius: Two miles.
- **Neighborhood Park** A neighborhood park may be defined by its use and facilities and may serve as the recreational and social focus of adjoining neighborhoods, contributing to their distinct identity. Three to 10 acres; occasionally smaller. Service radius: 0.5 mile.
- **Mini Park** A mini park is a small site located in a dense/urban area with limited open space and recreational facilities. 2 acres or smaller; determined by availability of open land. Service radius: one-quarter to one-half mile.
- **Sports Complex** A may be single-focused or multi-focused, include indoor and/or outdoor facilities, and may serve the recreational needs of youth and adults. Preferably 40+ acres for stand-alone complex. Service radius: Determined by community demand.
- **Special Use Facility** A special use facility usually serves a single purpose. Special use facilities may be located inside another park or open space site and generally fall into three categories: historic/cultural/social sites, golf courses, and indoor or outdoor recreation facilities.
- Parkways A parkway is a linear site featuring a roadway and a natural resource corridor, most often along major rivers and streams that connect communities, parks, and recreational and cultural components. A typical width of at least 200 feet, including the roadway and adjacent natural features.
- **Greenways** A greenway is a narrow trail right-of-way that links neighborhoods, recreation facilities, attractions, and natural areas, or other park and open space sites and facilities. A typical width of at least 30 feet of unencumbered land. May include 10-foot-wide urban trail to support pedestrian/bicycle use.
- Open Space/Natural Areas Open space/natural areas, undeveloped aside from any natural or paved trails, contain natural resources that can be managed for recreational and educational opportunities and for conservation benefits, such as protecting endangered species, wildlife habitat, and water quality.



Buffer Overlays by Park Typology





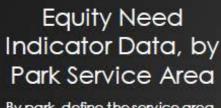


2020 Project Approach

Use of GIS to spatially consider equity need across Milwaukee County, based on park locations and typology. Annual improvements and updates are planned.



Parks Equity Index - 2021



By park, define the service area radius for each park classification as assigned in the 2050 Parks and Open Space Plan. Use GIS to create buffer polygons for each park.

Income

Median Household Income (Inverse Rating Low-High)

20%



Access to Health Insurance

20%



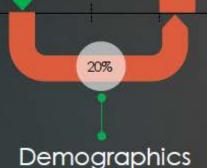
Tree Canopy

Rate of canopy coverage

versus County average

Peer Review

Parks Racial Equity Ambassadors, OAAA, County GIS Staff



Minority Population

At-Risk Population

20%

Aggregate ESRI data – Households with disability, 65 + non-English speakers, households with no vehicle



data

Crime
Personal Crime Index



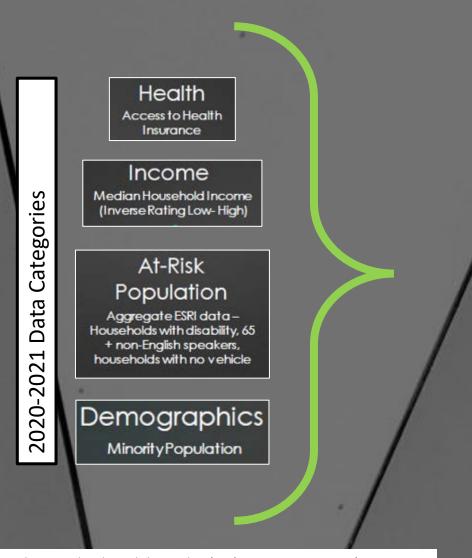
Equity Index Score 0-10 Index

0-10 Index score assigned to each to reflect park's equity need



Centers for Disease Control (CDC) Social Vulnerability Index (SVI)

erall



Methods

Variables Used

American Community Survey (ACS), 2014-2018 (5-year) data for the following estimates:

Socioeconomic Vulnerability Status

Household Composition & Disability

Minority Status & Language

Housing Type & Transportation

Below Poverty

Unemployed

Income

No High School Diploma

Aged 65 or Older

Aged 17 or Younger

Older than Age 5 with a Disability

Single-Parent Households

Minority

Speaks English "Less than Well"

Multi-Unit Structures

Mobile Homes

Crowding

No Vehicle

Group Quarters

LINK: The Social Vulnerability Index (SVI): Interactive Map | CDC

Centers for Disease Control (CDC) Social Vulnerability Index (SVI)

Population estimate, 2012-2016 ACS		
Population estimate MOE, 2012-2016 ACS	Percentage of civilian (age 16+) unemployed estimate MOE	
Heusing units actionate 2012 2016 ACC	Per capita income estimate, 2012-2016 ACS	
Harris a verite action to MACE 2012 2015 ACC	Per capita income estimate MOE, 2012-2016 ACS	
	Percentage of persons with no high school diploma (age 25+) estimate	
	Percentage of persons with no high school diploma (25+) estimate MOE	
	Percentage of persons aged 65 and older estimate, 2012-2016 ACS	
	Percentage of persons aged 65 and older estimate MOE, 2012-2016 ACS	
	Percentage of persons aged 17 and younger estimate, 2012-2016 ACS	
	Percentage of persons aged 17 and younger estimate MOE, 2012-2016 ACS	
Per capita income estimate, 2012-2016 ACS.	Percentage of civilian noninstitutionalized population with a disability estimate, 2012	Percentile percentage of persons (age 5+) who speak English "less than well" estimate
Per capita income estimate MOE 2012-2016 ACS	Percentage of civilian noninstitutionalized population with a disability estimate MOF	Sum of series for Minority Status/Language theme
Persons (age 25+) with no high school diploma estimate 2012-2016 ACS	Percentage of single parent households with children under 18 estimate, 2012-2016 A	A Percentile ranking for Minority Status/Language theme
Persons (age 25+) with no high school diploma estimate MOE, 2012-2016 ACS	Percentage of single parent households with children under 18 estimate MOE, 2012-2	2 Serventile percentage mobile homes estimate
Persons aged 65 and older estimate, 2012-2016 ACS	Percentage minority (all persons except white, non-Hispanic) estimate, 2012-2016 AC	Percentile percentage households with more people than rooms estimate
Persons aged 65 and older estimate MOE, 2012-2016 ACS	Percentage minority (all persons except white, non-Hispanic) estimate MOE, 2012-20	Percentile percentage households with no vehicle available estimate
Persons aged 17 and younger estimate, 2012-2016 ACS	Percentage of persons (age 5+) who speak English "less than well" estimate, 2012-201	Percentile percentage of persons in institutionalized group quarters estimate
Persons aged 17 and younger estimate MOE, 2012-2016 ACS	Percentage of persons (age 5+) who speak English "less than well" estimate MOE, 201	
	r creentage of nousing in structures with 10 of more units estimate	Percentile ranking for Housing/Transportation theme
	Percentage of nousing in structures with 10 of more units estimate wor	Sum of series themes Flag -the percentage of persons in poverty is in the 90th percentile (1 = yes, 0 = no)
Single parent household with children under 18 estimate, 2012-2016 ACS	Percentage of mobile nomes estimate	Flag - the percentage of persons in poverty is in the 90th percentile (1 = yes, 0 = no) Flag - the percentage of civilian unemployed is in the 90th percentile (1 = yes, 0 = no)
Single parent household with children under 18 estimate MOE, 2012-2016 ACS	Percentage of mobile homes estimate MOE	Flag -per capita income is in the 90th percentile (1 = yes, 0 = no)
Minority (all persons except white, non-Hispanic) estimate, 2012-2016 ACS	Percentage of occupied housing units with more people than rooms estimate	Flag -the percentage of persons with no high school diploma is in the 90th percentile (1 = yes, 0 = no)
Minority (all persons except white, non-Hispanic) estimate MOF, 2012-2016 ACS		Sum of flags for Socioeconomic Status theme
Persons (age 5+) who speak English "less than well" estimate 2012-2016 ACS		Flag - the percentage of persons aged 65 and older is in the 90th percentile (1 = yes, 0 = no)
Persons (age 5+) who speak English "less than well" estimate MOE 2012-2016 ACS	0	Flag - the percentage of persons aged 17 and younger is in the 90th percentile (1 = yes, 0 = no)
Housing in structures with 10 or more units estimate, 2012, 2016 ACS	refeetinge of persons in institutionalized group quarters estimate, 2012-2010 Acs	Flag - the percentage of persons with a disability is in the 90th percentile (1 = yes, 0 = no) Flag - the percentage of single parent households is in the 90th percentile (1 = yes, 0 = no)
Housing in structures with 10 or more units estimate MOE 2012-2016 ACS	Percentage of persons in institutionalized group quarters estimate work, 2012-2010 A	Flag - the percentage of single parent nouseholds is in the 90th percentile (1 = yes, 0 = no)
	Percentile Percentage of nersons helow noverty estimate	Flag - the percentage of minority is in the 90th percentile (1 = yes, 0 = no)
	Parcentile Percentage of civilian (age 161) unemployed actimate	Flag - the percentage those with limited English is in the 90th percentile (1 = yes, 0 = no)
Mobile homes estimate MOE, 2012-2016 ACS	Percentile per capita income estimate	Sum of flags for Minority Status/Language theme
At household level (occupied housing units), more people than rooms estimate, 2012-2	Percentile Percentage of persons with no high school diploma (age 25+) estimate	Flag - the percentage of households in multi-unit housing is in the 90th percentile (1 = yes, 0 = no)
University of the control of the con	Sum of series for socioeconomic theme	Flag - the percentage of mobile homes is in the 90th percentile (1 = yes, 0 = no)
	reference familiary	Flag - the percentage of crowded households is in the 90th percentile (1 = yes, 0 = no)
	Percentile percentage of persons aged to and older estimate	Flag - the percentage of households with no vehicles is in the 90th percentile (1 = yes, 0 = no) Flag - the percentage of persons in institutionalized group quarters is in the 90th percentile (1 = yes, 0 = no)
	Percentile percentage of persons aged 17 and younger estimate	Sum of flags for Housing/Transportation theme
	Percentile percentage of civilian noninstitutionalized population with a disability est	Sum of flags for the four themes
		Adjunct variable - Uninsured in the total civilian noninstitutionalized population estimate, 2012-2016 ACS
Percentage of persons below poverty estimate MOE	Sum of series for Household Composition theme	Adjunct variable - Uninsured in the total civilian noninstitutionalized population estimate MOE, 2012-2016 ACS
		Adjunct variable - Percentage uninsured in the total civilian noninstitutionalized population estimate, 2012-2016 ACS
		Adjunct variable - Percentage uninsured in the total civilian noninstitutionalized population estimate MOE, 2012-2016 ACS
		Adjunct variable - Estimated daytime population, LandScan 2016

Milwaukee County Parks Equity Index - 2022

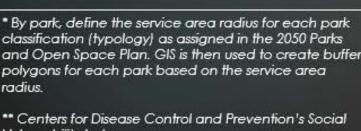
Park Service Area Definition*

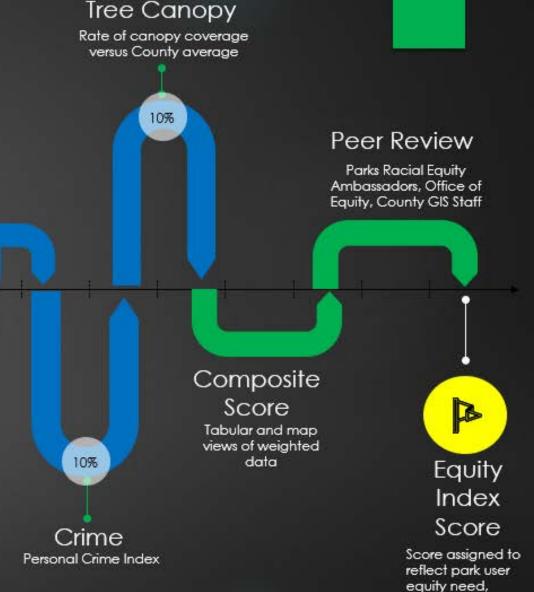
80%

CDC SVI** - Overall Vulnerability

- Socioeconomic Status
- Household Composition & Disability
- Minority Status & Language
- Housing Type & Transportation

- classification (typology) as assigned in the 2050 Parks and Open Space Plan. GIS is then used to create buffer polygons for each park based on the service area radius.
- Vulnerability Index





values range 1-10



Equity Index Score - Higher Score = Higher Equity Need

202		2022 Equity Index		Canopy 2017		SVI - Overall percentile ranking			2021 Personal Crime Index				15			
Site	Rank	Score (1-10)*	Final score	Value			Weighted score	Value			Weighted score	Value	Score	weight	Weighted score	SiteID
Moody Park	1	10	0.96	2	1.00	0.10	0.10	0.916132	0.95	0.80	0.76	842	1.00	0.10	0.10	701
Clarke Square Park	2	10	0.94	2	1.00	0.10	0.10	0.963926	1.00	0.80	0.80	306	0.36	0.10	0.04	761
Tiefenthaler Park	3	10	0.92	2	1.00	0.10	0.10	0.898158	0.93	0.80	0.74	641	0.76	0.10	0.08	792
Lucille Berrien Park	4	10	0.91	2	1.00	0.10	0.10	0.892778	0.92	0.80	0.74	636	0.75	0.10	0.08	
Atkinson Triangle	5	10	0.90	2	1.00	0.10	0.10	0.865362	0.89	0.80	0.72	681	0.81	0.10	0.08	677
Johnsons Park	6	10	0.89	2	1.00	0.10	0.10	0.839611	0.87	0.80	0.69	786	0.93	0.10	0.09	
Walker Square Park	7	9	0.86	2	1.00	0.10	0.10	0.876292	0.91	0.80	0.72	326	0.38	0.10	0.04	795
Pulaski Park	8	9	0.84	2	1.00	0.10	0.10	0.857532	0.89	0.80	0.71	258	0.30	0.10	0.03	
Garden Homes Square	9	9	0.84	1	0.00	0.10	0.00	0.922103	0.96	0.80	0.76	608	0.72	0.10	0.07	688
Vogel Park	10	9	0.81	1	0.00	0.10	0.00	0.909102	0.94	0.80	0.75	515	0.61	0.10	0.06	
Noyes Park	11	9	0.79	2	1.00	0.10	0.10	0.782904	0.81	0.80	0.64	381	0.45	0.10	0.04	703
Popuch Park	12	9	0.79	2	1.00	0.10	0.10	0.799974	0.82	0.80	0.66	252	0.29	0.10	0.03	705
Harriet Tubman Park	13	8	0.78	1	0.00	0.10	0.00	0.875297	0.91	0.80	0.72	507	0.60	0.10	0.06	711
Highland Park	14	8	0.78	2	1.00	0.10	0.10	0.753358	0.77	0.80	0.62	513	0.61	0.10	0.06	
Sherman Park	15	8	0.78	2	1.00	0.10	0.10	0.744725	0.77	0.80	0.61	569	0.67	0.10	0.07	791
King Park	16	8	0.76	2	1.00	0.10	0.10	0.732765	0.75	0.80	0.60	526	0.62	0.10	0.06	
Wyrick Park	17	8	0.75	1	0.00	0.10	0.00	0.861661	0.89	0.80	0.71	345	0.40	0.10	0.04	714
Lincoln Creek Parkway	18	8	0.73	1	0.00	0.10	0.00	0.815081	0.84	0.80	0.67	495	0.58	0.10	0.06	
Schoenecker Park	19	8	0.73	1	0.00	0.10	0.00	0.805665	0.83	0.80	0.66	517	0.61	0.10	0.06	-
McGovern Park	20	8	0.72	1	0.00	0.10	0.00	0.799476	0.82	0.80	0.66	476	0.56	0.10	0.06	
Carver Park	21	8	0.71	2	1.00	0.10	0.10	0.673404	0.69	0.80	0.55	533	0.63	0.10	0.06	
Kosciuszko Park	22	7	0.70	2	1.00	0.10	0.10	0.696003	0.71	0.80	0.57	243	0.28	0.10	0.03	774
Lindsay Park	23	7	0.69	1	0.00	0.10	0.00	0.778803	0.80	0.80	0.64	389	0.46	0.10	0.05	697
Granville Dog Park	24	7	0.68	1	0.00	0.10	0.00	0.771666	0.79	0.80	0.64	382	0.45	0.10	0.04	655
Indigenous Peoples' Park	25	7	0.68	1	0.00	0.10	0.00	0.769324	0.79	0.80	0.63	377	0.44	0.10	0.04	681
Milwaukee Rotary Centennial Arboretum	26	7	0.67	2	1.00	0.10	0.10	0.638162	0.65	0.80	0.52	447	0.53	0.10	0.05	790
Beckum Park	27	7	0.67	2	1.00	0.10	0.10	0.644031	0.66	0.80	0.53	398	0.47	0.10	0.05	615

DATA SOURCES

CDC SVI Social Vulnerability Index:

Name 2018 Social Vulnerability Index (SVI).

Source Created by the Centers for Disease Control and Prevention (CDC) / Agency for Toxic Substances and Disease Registry (ATSDR) / Geospatial Research, Analysis, and Services Program (GRASP).

The Social Vulnerability Index (SVI) uses U.S. Census data to determine the social vulnerability of every county and tract. CDC SVI ranks each county and tract on 15 social factors, including poverty, lack of vehicle access, and crowded housing, and groups them into four related themes:

- Socioeconomic
- Housing Composition and Disability
- Minority Status and Language
- Housing and Transportation

Vintage 2018

Personal Crime:

Name 2021 Personal Crime Index (AGS)

Source 2021 Crime - The Personal Crime Index provides an assessment of the relative risk of four major crime types: murder, rape, robbery, and assault. It is modeled using data from the FBI Uniform Crime Report and demographic data from the Census and AGS.

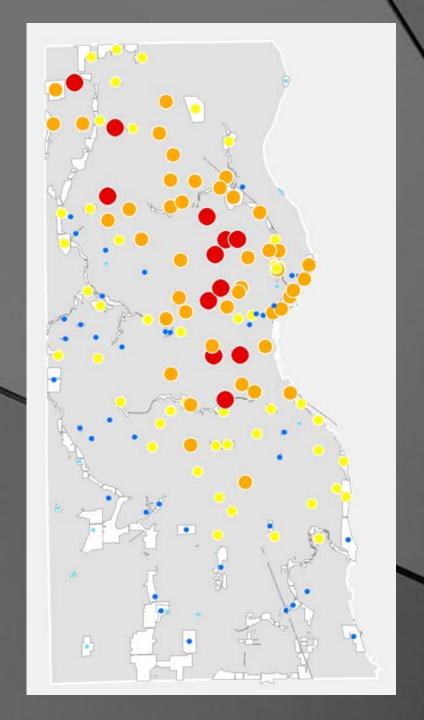
Vintage 2021

Tree Canopy:

Name Milwaukee County Tree Canopy

Source Erker, T., Townsend, P., & Buckler, D. (2019). Milwaukee County Land Classification, 2017. Wisconsin DNR. Retrieved from DNR Urban Forestry

Vintage 2017



2022 Planned Applications



Capital Project Planning

Used for both internal evaluation as well as submission to CIC



Major Maintenance Funding Allocations

Used for internal decision-making purposes to weigh options



Other Internal Uses

Possible workforce allocations, etc.



Project Proposal Requests

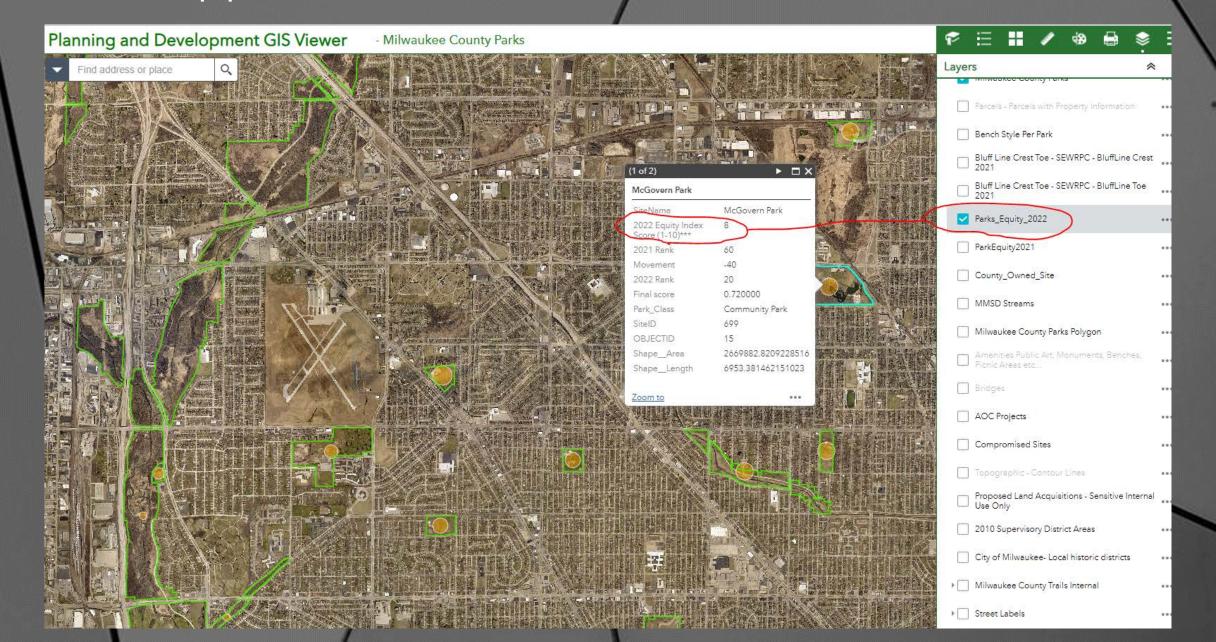
Used in matrix evaluation and scoring of third-party project proposals twice per year



Land Utilization Requests

Used in matrix evaluation and scoring of third-party project proposals

Other Applications



Current Improvements

- Use of CDC SVI rather than individual datasets
- Updated annual personal crime index data (ESRI)
- Sub-Index by park typology (Filtering through Excel)

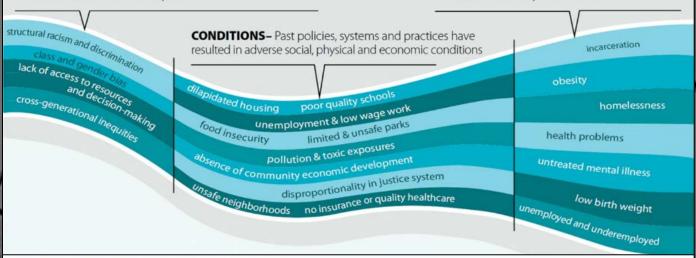
Future Possibilities

- ❖ Walkable distance evaluation (10-min)
- Evaluation of aquatic facilities as driving asset
- Improvements to health data
 - OEM EMS dashboard data
 - ESRI/GARE/Milwaukee County pilot project
 - Track advancement in PLACES and other health data for tract-level indicators
 - CDC PLACES Local Data for Better Health was evaluated as a part of this work, and while it has value for specific chronic illnesses, data is modeled, and therefore determined to not yet be accurate for average health metrics.
- Industry trends

THE "UNHEALTHY STREAM" CREATES INEQUITIES

POLICIES, PRACTICES & SYSTEMS – Policies, structures and systems – including those in government – have sustained and even contributed to inequities

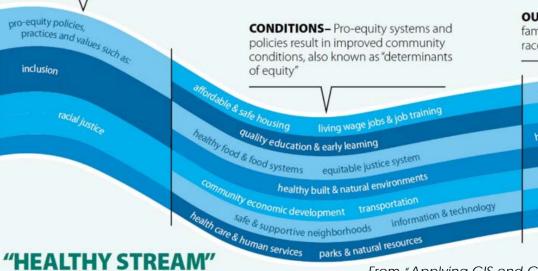
OUTCOMES – Government programs historically have tended to react to problems and treat poor individual and family-level outcomes



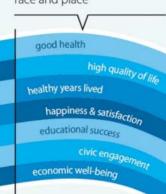
PRO-EQUITY POLICIES, PRACTICES & SYSTEMS-

CREATES EQUITY

For greatest and most effective impact, King County is **focusing** "upstream" to address root causes and be pro-equity



OUTCOMES – Individuals and families thrive regardless of race and place



From "Applying GIS and Geographic Analysis to Support Equity and Social Justice" by Greg Babinski



