

# LIST OF STRATEGIES, ACTIONS, AND LEAD AGENCY

## Land Use and Transportation

Goal 1: Madison will be comprised of compact, interconnected neighborhoods anchored by a network of mixed-use activity centers

Goal 2: Madison will have a safe, efficient, and affordable regional transportation system that offers a variety of choices among transportation modes.

Strategies	Actions	Lead Agencies
<b>Strategy 1</b> Implement <b>bus rapid transit</b> to improve travel times, enhance reliability, and increase ridership.	a. Build a new bus storage and maintenance facility to support an expanded bus fleet.	Metro
	b. Prepare detailed plans for BRT corridors to guide redevelopment and improve pedestrian and bicycle linkages.	Planning
	c. Integrate BRT-supportive features into street reconstruction and development projects along BRT corridors wherever feasible.	Engineering
	d. Explore opportunities to use TIF to fund BRT infrastructure.	Economic Development
<b>Strategy 2</b> Improve <b>transit service</b> , especially to peripheral employment and residential locations, with a focus on <b>reducing the travel time</b> for transit dependent populations.	a. Pursue improvements to transit service in peripheral areas and adjacent municipalities.	Metro
	b. Consider implementing additional Madison Metro routes that more directly connect peripheral areas without traveling through Downtown.	Metro
	c. Prioritize improved service for transit-dependent populations when integrating Madison Metro routes and schedules with BRT.	Metro
<b>Strategy 3</b> Ensure <b>all populations benefit</b> from the City's <b>transportation investments</b> .	a. Use the City's Racial Equity and Social Justice Initiative tools to inform major transportation projects.	Engineering
	b. Partner with businesses and governmental entities to expand access to various money-saving transit pass programs.	Metro
	c. Pursue equitable distribution of amenities and traffic calming measures in street reconstruction projects throughout the city.	Engineering, Traffic Engineering, Planning
<b>Strategy 4</b> Improve access to <b>transit service to nearby cities</b> , such as Milwaukee, Chicago, and Minneapolis.	a. Support construction of an intercity bus terminal that is well-integrated with Madison Metro and future BRT.	Director of Transportation
	b. Work with WisDOT and local railroad operators to maintain the viability of existing rail corridors for future passenger rail operations both within the city and to adjoining metro areas.	Director of Transportation
	c. Continue to advocate for high speed rail connections to nearby metro areas with state officials.	Mayor's Office
<b>Strategy 5</b> Concentrate the highest intensity <b>development along transit corridors</b> , downtown, and at Activity Centers.	a. Implement Transit Oriented Development (TOD) overlay zoning along BRT and other existing and planned high-frequency transit service corridors to create development intensity minimums, reduce parking requirements, and support transit use.	Planning
	b. Ensure that redevelopment is well-integrated into adjacent low density residential areas.	Planning
	c. Facilitate the creation of Transportation Management Associations (TMAs) and implementation of Transportation Demand Management (TDM) strategies to serve high-intensity development at Activity Centers and along major transit corridors.	Planning
	d. Prepare plans to transition auto-oriented commercial areas into mixed-use Activity Centers.	Planning
<b>Strategy 6</b> Reduce the demand for development of <b>farmland</b> on the periphery of the city.	a. Continue to update peripheral neighborhood development plans to increase allowable development intensity and create density minimums.	Planning
	b. Steer peripheral growth towards priority areas, with a focus on land already served by utilities.	Planning
	c. Accommodate a majority of growth through infill and redevelopment.	Planning
<b>Strategy 7</b> Maintain <b>downtown Madison</b> as a major Activity Center for the region while improving access and inclusivity.	a. Continue to use the City's Affordable Housing Fund to support construction of affordable housing in and near downtown.	Community Development
	b. Facilitate partnerships with community organizations to host more downtown events that attract a wider variety of demographic groups.	Planning, Economic Development
	c. Improve transit service to and from downtown outside of standard commuting hours.	Metro
	d. Develop and implement a park-and-ride plan to increase accessibility to downtown and the UW-Madison campus.	Planning, Metro

<b>Strategy 8</b> Expand and improve the city's <b>pedestrian and bicycle networks</b> to enable safe and convenient active transportation.	a. Proactively fill gaps in the pedestrian and bicycle network.	Engineering
	b. Continue to integrate pedestrian and bicycle safety improvements and amenities into new and reconstructed streets.	Engineering
	c. Update the subdivision ordinance to ensure that new developments incorporate the City's planned shared-use path network.	Planning
	d. Maintain a system-wide pedestrian and bicycle plan that advocates for implementation of modern design principles while also moving towards a financially sustainable maintenance program.	Planning
<b>Strategy 9</b> Implement <b>new technologies</b> to more efficiently use our existing transportation infrastructure.	a. Work with the Madison Area Transportation Planning Board (MATPB) and other entities to implement the Regional Intelligent Transportation Systems (ITS) Plan for the Madison Metropolitan Area.	Traffic Engineering
	b. Partner with UW-Madison and other entities to safely test and build transportation infrastructure that supports connected and autonomous vehicles.	Traffic Engineering
	c. Use technology to enhance parking management systems.	Traffic Engineering
	d. Evaluate emerging technologies for use in bridging "first mile/last mile" gaps in the transit system.	Metro, Traffic Engineering, Planning

## Neighborhoods and Housing

Goal 1: Madison will be a safe and welcoming city of strong and complete neighborhoods that meet the needs of all residents

Goal 2: Madison will have a full range of quality and affordable housing opportunities throughout the City.

Strategies	Actions	Lead Agencies
<b>Strategy 1</b> Create <b>complete neighborhoods</b> across the city where residents have access to transportation options and resources needed for daily living.	a. Plan for and facilitate mixed-use neighborhood centers featuring shops, services, employment, and a mix of housing types within and near single-use neighborhoods as identified in the Growth Prioritization map.	Planning
	b. Plan for complete neighborhoods in developing areas on the city's periphery to avoid the need to retrofit them in the future.	Planning
	c. Support the integration of a mix of housing types and neighborhood amenities near existing transit corridors and shared use paths.	Planning
	d. Ensure that existing and future neighborhoods are well served by transit routes, shared use paths, and sidewalks.	Planning, Metro, Traffic Engineering
<b>Strategy 2</b> Support development of a <b>wider mix of housing</b> types, sizes, and costs throughout the city.	a. Detailed neighborhood plans and neighborhood development plans should encourage "Missing Middle" housing types.	Planning
	b. Encourage life cycle housing choices by supporting lower priced or lower maintenance accessible housing options integrated into places with convenient transportation options.	Community Development
	c. Continue to enable and encourage a variety of ownership and occupancy structures including co-housing, condominiums, and owner-occupied rentals.	Planning, Zoning
<b>Strategy 3</b> Increase the <b>amount of available housing</b> .	a. Support substantial new housing opportunities by prioritizing planning efforts to transition underutilized, automobile-dominated commercial areas into complete neighborhoods and mixed-use Activity Centers.	Planning
	b. Explore adjustments to the number of dwelling units, building size, and height thresholds between permitted and conditional uses to increase the allowable density for residential buildings in mixed-use zoning districts and select residential zoning districts.	Planning, Zoning
	c. Take a proactive approach to finding and marketing housing development opportunities to development partners.	Community Development
	d. Explore the widespread replacement of residential density maximums with building height maximums outside of the downtown area.	Planning, Zoning

<b>Strategy 4</b> Integrate <b>lower priced housing</b> , including subsidized housing, into complete neighborhoods.	a. Support the distribution of affordable housing throughout the city.	Community Development
	b. Explore how TIF could be better utilized to fund affordable housing.	Community Development, Economic Development
	c. Continue allocating money to the City's Affordable Housing Fund.	Community Development
	d. Continue to pursue a variety of county, state, and federal funding and public-private partnerships to support the development of affordable housing.	Community Development
<b>Strategy 5</b> Provide <b>housing options with health and social services</b> for residents who need it most, including residents experiencing homelessness.	a. Through partnerships, support organizations that provide temporary shelter and access to a full range of supportive services in or near affordable housing.	Community Development
	b. Continue to support the provision of tenant resources and information about housing rights and options, especially for low-income households.	Community Development
	c. Continue the permanent supportive housing program and monitor the success of the program in meeting the challenges of homelessness.	Community Development
<b>Strategy 6</b> Support the <b>rehabilitation of existing housing stock</b> , particularly for first-time homebuyers and people living with lower incomes.	a. Increase inspection and enforcement activities for rental housing maintenance, prioritizing areas with vulnerable residents.	Building Inspection, Fire
	b. Partner with MG&E, the Madison Metropolitan Sewerage District, the Madison Water Utility, and others to provide incentives for rehabilitation; maintenance; and enhanced accessibility and sustainability.	MG&E, MMSD, Water Utility, Engineering, Fire
	c. Review the use of first time homeowner assistance programs, small cap tax incremental financing, and other similar rehabilitation and ownership programs.	Community Development, Economic Development, Building Inspection
<b>Strategy 7</b> Support <b>neighborhood-scaled schools</b> that offer amenities and services to the surrounding area.	a. Support development of neighborhood-scaled schools that serve the community while fitting within the context of the neighborhood.	MMSD, Planning, Library
	b. Ensure that Madison's existing schools can remain strong and viable by supporting housing for families with children near existing and planned schools.	Planning, Community Development, Housing
	c. Work with Madison Metropolitan School District (MMSD) and surrounding school districts to ensure school attendance areas reflect development patterns and account for planned growth areas.	MMSD, Planning
	d. Support expansion of the MMSD "Community School" program.	MMSD, Library
<b>Strategy 8</b> Ensure <b>access to food</b> that is affordable, nutritious, and culturally specific.	a. Continue initiatives to support the introduction of neighborhood-serving grocery stores into under-served established neighborhoods.	Economic Development
	b. Identify public and private spaces suitable for community gardens and explore expansion of existing gardens to meet demand.	Planning, Parks
	c. Improved access to fresh foods by encouraging and facilitating the equitable distribution of farmers markets and farm stands.	Economic Development
	d. Encourage initiatives that support the emergency food system and facilitate donation of near-expired, but high-quality foods.	Public Health



## Economy and Opportunity

Goal 1: Madison will have a growing, diversified economy that offers opportunity for businesses and residents to prosper.

Goal 2: Madison will have equitable education and advancement opportunities that meet the needs of each resident.

Strategies	Actions	Lead Agencies
<b>Strategy 1</b> Retain existing <b>employers</b> and attract new employers to ensure residents have access to jobs.	a. Target Business Retention and Expansion efforts toward our Competitive Advantage.	Economic Development
	b. Continue the Business Walk program.	Economic Development
	c. Support the siting of state government facilities within the City.	Economic Development
	d. Expand the City's TIF program to keep Madison regionally competitive and support employment.	Economic Development
<b>Strategy 2</b> Ensure an <b>adequate supply of sites</b> for a wide variety of employers to operate and grow.	a. Reserve sites for employment uses in City land use plans.	Planning
	b. Layer tools and incentives in specific geographic areas.	Community Development, Economic Development, Planning
	c. Facilitate the reuse of Brownfield sites.	Engineering
	d. Participate in site selection and site certification programs.	Economic Development
<b>Strategy 3</b> Attract more jobs that pay a <b>family-supporting living wage</b> .	a. Continue the living wage for City employees and contractors.	Human Resources, Civil Rights
	b. Leverage the Jobs TIF program to support living wage jobs.	Economic Development
	c. Pursue increases to Wisconsin's minimum wage.	Mayor's Office
<b>Strategy 4</b> Close the <b>educational opportunity gap</b> .	a. Continue to improve access to quality child care with an emphasis on marginalized populations.	Community Development
	b. Continue support for out of school time programming.	Community Development, Library
	c. Align City internships and initiatives with work-based learning opportunities for youth and young adults.	Civil Rights, Human Resources
	d. Expand access to low-cost, high-speed internet service.	Information Technology, Library
<b>Strategy 5</b> Remove barriers to achieving <b>economic stability</b> .	a. Continue support for neighborhood centers.	Community Development
	b. Work with partners to better align efforts in job training and placement programs.	Community Development, Economic Development
	c. Increase awareness of programs that build residents' financial capability.	Community Development
<b>Strategy 6</b> Support <b>small businesses</b> and cultivate <b>entrepreneurship</b> , especially businesses owned by underrepresented groups.	a. Continue the Business Assistance Team.	Economic Development
	b. Continue development of underrepresented contractors.	Community Development, Economic Development
	c. Continue implementation of the Madison Public Market and MarketReady program.	Economic Development
	d. Establish a Kiva City crowdfunding program.	Economic Development
<b>Strategy 7</b> Support efforts for businesses and consumers to <b>produce and buy local</b> food, products, and services.	a. Foster a Northside Food Innovation District.	Economic Development
	b. Continue support for business incubators.	Community Development, Economic Development
	c. Expand the Street Vending program.	Economic Development
<b>Strategy 8</b> City government should lead and encourage other employers to develop a <b>diverse workforce</b> best able to serve an increasingly diverse population.	a. Continue the City's Equitable Workforce program.	Civil Rights, Human Resources
	b. Support community efforts to diversify Madison's workforce.	Civil Rights, Human Resources

## Culture and Character

Goal 1: Madison will be a vibrant and creative city that values and builds upon its cultural and historic assets.

Goal 2: Madison will have a unique character and strong sense of place in its neighborhoods and the city as a whole.

Strategies	Actions	Lead Agencies
<b>Strategy 1</b> Create <b>vibrant and inviting places</b> through creative architecture and urban design.	a. Prioritize placemaking as a way to focus on who and how public spaces will be used and designed throughout the city.	Planning, Parks
	b. Emphasize high quality human-scaled design in new buildings and public spaces.	Planning
	c. Use the City's development review standards and processes to ensure that redevelopment and infill projects result in interesting, high-quality buildings and spaces and harmonious design relationships with older buildings.	Planning
	d. Update Urban Design Districts 1-6 and consider expanding urban design districts to redeveloping corridors.	Planning
<b>Strategy 2</b> Preserve <b>historic and special places</b> that tell the story of Madison and reflect our racially and ethnically diverse cultures and histories.	a. Complete, adopt, and implement the Historic Preservation Plan as a framework for the future of Madison's historic preservation program.	Planning
	b. Finish updating the Historic Preservation Ordinance by revising the standards for each of the local historic districts.	Planning
	c. Identify ways to retain older buildings that contribute to the special character of an area, or are associated with diverse cultures, through the adoption of sub-area plans prior to redevelopment pressures.	Planning
<b>Strategy 3</b> Create <b>safe and affirming community spaces</b> that bring people together and provide social outlets for underrepresented groups.	a. Identify existing spaces, both public and private, and help facilitate their increased usage and activation.	Planning, Library
	b. Design and program a wide variety of new parks and public spaces in developing parts of the city for enjoyment by a broad range of users.	Parks, Planning
	c. Engage artists and talent to find positive ways for the City to improve its support of concerts, events, and gatherings, including encouraging music venues for a wider range of audiences.	Planning
<b>Strategy 4</b> Balance the concentration of <b>cultural and entertainment venues</b> between the downtown and other areas of the city.	a. Continue to implement Madison's Cultural Plan and regularly update it to ensure it reflects Madison's changing population.	Planning
	b. Promote cultural and music events in diverse neighborhoods where the whole community is welcome.	Planning, Library
	c. Develop a streamlined protocol to set up temporary spaces for smaller events.	Planning, Parks, Traffic Engineering
<b>Strategy 5</b> Preserve <b>defining views</b> of the lakes, downtown skyline, and Capitol from publicly accessible locations.	a. Adhere to the Maximum Building Heights Map and Views and Vistas Maps in the Downtown Plan.	Planning
	b. Conduct a viewshed study of the lakes, downtown skyline and Capitol from vantage points within the city and beyond its borders and implement zoning restrictions to preserve these views.	Planning
<b>Strategy 6</b> Integrate <b>public art</b> throughout the city.	a. Continue to implement recommendations in the Public Art Framework and schedule a comprehensive revision of that plan to ensure it represents all segments of the community.	Planning
	b. Emphasize the equitable geographic distribution of City investment in public art.	Planning
	c. Incorporate art and the work of artists that reflects Madison's cultural diversity and heritage at City facilities.	Planning
	d. Work with community partners to integrate art into their buildings and spaces.	Planning, Library
<b>Strategy 7</b> Provide opportunities to <b>learn about, create, collaborate, and enjoy the arts.</b>	a. Promote and support a diverse array of local artists to increase their ability to flourish as creative professionals.	Planning, Economic Development
	b. Support the efforts of community partners to identify and implement art and creative activities that are open and accessible to the public.	Planning, Library
	c. Work with educational institutions and community organizations to provide culturally relevant arts education for all groups and age ranges.	Planning, Library
	d. Utilize artists in planning and other City processes to highlight the value of art as a cross-cultural communication tool.	Planning

## Green and Resilient

Goal 1: Madison will be a leader in stewardship of our land, air, and water resources.

Goal 2: Madison will have a model park and open space system that preserves our significant natural features and offers spaces for recreation and bringing reside

Strategies	Actions	Lead Agencies
<b>Strategy 1</b> Protect Madison's water supply and infrastructure to provide <b>safe, clean drinking water</b> .	a. Continue the accelerated water main replacement program and infrastructure renewal program.	Water Utility
	b. Expand education programs related to appropriate road and parking lot salt application.	Water Utility
	c. Pursue updates to the building code to expand use of rainwater harvesting and use of <b>graywater</b> for water conservation.	Planning, Building Inspection
	d. Continue to partner with Project Home to help lower income homeowners make water conservation upgrades.	Water Utility
<b>Strategy 2</b> Improve <b>lake and stream water quality</b> .	a. Partner with other entities to keep phosphorus and other pollutants out of the lakes.	Engineering
	b. Increase frequency of leaf collection and street sweeping to reduce phosphorus runoff.	Streets
	c. Further incentivize rain gardens and other types of green infrastructure.	Engineering
<b>Strategy 3</b> Increase the use and accessibility of <b>energy efficiency</b> upgrades and <b>renewable energy</b> .	a. Promote various financing tools to fund energy efficiency upgrades.	Engineering
	b. Partner with electrical utilities to provide education about renewable energy and associated cost savings.	Engineering
	c. Identify locations for solar installations and other renewable energy sources, including City facilities.	Engineering, Planning
	d. Support infrastructure to expand the use of electric vehicles, including the City's fleet.	Fleet, Engineering, Traffic Engineering
<b>Strategy 4</b> Acquire <b>parkland</b> and upgrade <b>park facilities</b> to accommodate more diverse activities and gatherings.	a. Incorporate preferences specific to different cultures, age groups, and abilities in parks and open spaces.	Parks
	b. Pursue acquisition of parkland in areas planned for significant redevelopment.	Parks
	c. Increase connectivity between parks and open spaces through greenways and trails.	Parks
<b>Strategy 5</b> Improve and preserve <b>urban biodiversity</b> through an interconnected greenway and habitat system.	a. Enhance the capability of greenways and open spaces to support natural habitats.	Parks, Engineering
	b. Integrate vegetation into the built environment, such as terrace plantings, living walls, and green roofs.	Planning, Engineering
<b>Strategy 6</b> Develop a healthy and diverse <b>urban tree canopy</b> .	a. Continue to prioritize tree species diversity to create a resilient tree canopy.	Parks/Forestry
	b. Work across agencies to optimize the tree canopy.	Parks/Forestry, Planning, Traffic Engineering, Fire
	c. Encourage the placement of utilities that fosters street tree growth.	Parks/Forestry, Planning, Engineering
<b>Strategy 7</b> Improve public <b>access to the lakes</b> .	a. Expand protected shoreline through the purchase of property or easements.	Parks, Engineering
	b. Provide additional connections to and along the lakes.	Parks, Engineering, Planning
	c. Prioritize water quality improvements at public beaches.	Parks, Public Health
<b>Strategy 8</b> Increase <b>recycling rates</b> and reduce the use of waste that is not biodegradable.	a. Establish the new westside full-service drop-off site for recyclables, hazardous materials, and yard waste.	Streets
	b. Establish a citywide food scrap recycling program.	Streets
	c. Create multi-lingual educational information about recycling and composting.	Streets
<b>Strategy 9</b> Support sustainable <b>farming and gardening</b> practices that protect the ecosystem and public health.	a. Work with partners to continue to support community gardens and associated infrastructure	Mayor's Office, community partners, Parks
	b. Identify opportunities to support local food production within the City.	Mayor's Office, Planning

## Effective Government

Goal 1: Madison will have efficient and reliable public utilities, facilities, and services that support all residents.

Goal 2: Madison will collaborate with other governmental and non-governmental entities to improve efficiency and achieve shared goals.

Strategies	Actions	Lead Agencies
<b>Strategy 1</b> Pursue <b>regional solutions</b> to regional issues.	a. Strengthen the capacity of regional agencies to foster collaboration and consensus.	Planning, Engineering, Public Health
	b. Work with Dane County and adjacent communities to improve the quality of area lakes and preserve other natural resources and facilities.	Engineering, Planning
	c. Work with Dane County to develop a regional food systems plan.	Planning, Public Health
<b>Strategy 2</b> Collaborate with State and local officials to create a <b>regional transit authority</b> to enhance public transit in the Madison area.	a. Collaborate with area municipalities and businesses to make the case for the creation of a regional transit authority.	Director of Transportation, Metro, Economic Development, Planning, MPO
<b>Strategy 3</b> Locate <b>community facilities</b> , such as community centers and fire stations, to provide a <b>high level of service</b> to all neighborhoods.	a. Create a long-range facilities plan to guide the siting of City facilities.	Finance, Engineering, Planning, Others
	b. Co-locate community facilities to improve service provision and reduce capital and operating costs.	Finance, Engineering, Planning, MMSD, Others
	c. Establish partnerships with other entities to improve service delivery and reduce duplicative services.	Streets, Engineering, Finance
<b>Strategy 4</b> Work with adjacent municipalities and regional jurisdictions to preserve long-term options for <b>efficient city expansion</b> .	a. Meet with area municipalities to share and discuss community goals and growth plans.	Planning, School Districts
	b. Work closely with Capital Area Regional Planning Commission and Dane County on regional planning.	Planning
	c. Continue to enter into intergovernmental plans and agreements with neighboring municipalities when it is beneficial to do so.	Planning
	a. Continue to use the City's extraterritorial review authority to limit unsewered, low density development on the City's periphery.	Planning
<b>Strategy 5</b> Ensure that <b>new development</b> occurs in locations that can be <b>efficiently served</b> to minimize costs on the community as a whole.	a. Use the Comprehensive Plan and sub-area plans to guide development towards areas that can be efficiently served.	Planning
	b. Use the urban service area process to guide development to areas that can be served best.	Planning, Water Utility, Engineering
	c. Be judicious with outward expansion of utilities and community facilities.	Planning, Water Utility, Engineering
<b>Strategy 6</b> Improve <b>accessibility to government</b> agencies and services.	a. Provide language translation to meet the needs of residents.	Civil Rights
	b. Consider new technology and systems, such as a 311 system for people to efficiently communicate with the City.	Finance, Information Technology
	c. Explore expanded office hours and satellite facilities to accommodate customers with varying work schedules or those who rely on transit	Planning, Library, Police, Fire, Public Health
<b>Strategy 7</b> Ensure that the City of Madison government is <b>transparent and accountable</b> .	a. Provide information on City operations and initiatives through Results Madison, customer surveys and other mechanisms.	Finance, Information Technology
	b. Use customer satisfaction surveys to gain feedback on city services.	Information Technology, Civil Rights
	c. Engage City residents by providing meaningful opportunities for participation in decisions that affect their neighborhoods and the City as a whole.	Planning
	d. Provide a wide range of opportunities for involvement in planning and decision making, with targeted access and inclusion of underrepresented populations.	Finance, Clerk
<b>Strategy 8</b> Continue to <b>build better relationships</b> between police officers and the diverse communities they serve.	a. Continue outreach programs that develop connections with individual residents and the community.	Police, Public Health
	b. Increase avenues for community feedback and influence in police practices.	Police, Public Health
	c. Continue Madison Police Department training in cultural competency.	Police, Public Health
<b>Strategy 9</b> Ensure all <b>neighborhoods are clean and safe</b> through the provision of quality non-emergency services.	a. Raise awareness to increase use of the City's report a problem service.	Engineering, Others
	b. Continue to pursue innovation and efficiency in the provision of core city services.	Engineering, Streets, Others
	c. Continue programmed building inspections.	Building Inspection, Public Health

# LAND USE SUPPLEMENT

DESIGN PRINCIPLES

SUB-AREA PLANS AND THE COMPREHENSIVE PLAN

LAND DEMAND ANALYSIS



## DESIGN PRINCIPLES

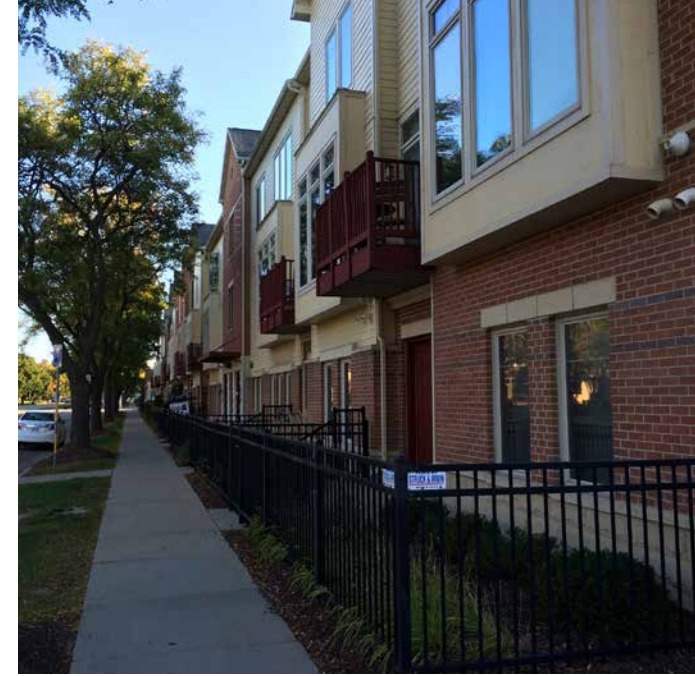
### Transit-Oriented Development Principles

This Plan encourages Transit-Oriented Development (TOD) along all existing and planned transit routes. Transit-Oriented Development is characterized by a compact, walkable, mixed-use development pattern that focuses higher development intensity in close proximity to high-capacity transit stops. Development, architectural, and site design standards are needed to create a TOD development pattern at and near transit stops. TOD standards may vary from location to location based on site-specific conditions, but the following design elements should be adhered to for TODs within the city:

- Place buildings so they create a sense of spatial enclosure of streets and public spaces.
- Orient buildings to the street and close to the sidewalk.
- Provide building entrances that open onto public streets and sidewalks (not private streets, sidewalks, or parking lots) to provide convenient access to transit.
- Provide windows at the ground level of buildings to create a feeling of interaction between the public right-of-way and private buildings.
- Provide urban open spaces such as plazas or squares.
- Connect TODs to multiple travel modes, important neighborhood destinations, and activity centers throughout the community and region.
- Include uses that generate pedestrian activity, such as retail shops, services, and offices, particularly at ground level.
- Create both vertical and horizontal mixed-use development patterns.
- Provide a mixture of housing types, sizes, tenures, and costs (for sale, for rent, market rate, affordable, senior housing, etc.).
- Manage parking to balance automobile accessibility with provisions to ensure attractive and convenient transit, walking, and bicycle accessibility.
- Provide shared parking facilities, parking structures, and underground parking. Surface parking should be limited, and, when present, should be

behind the building and screened from public streets.

- Create a highly interconnected system of streets, sidewalks, and paths that serve the area.
- The street network should create a series of small, walkable blocks.
- Concentrate the most intense development close to high-capacity transit stops (such as BRT stations).





## Traditional Neighborhood Development Principles

Traditional Neighborhood Developments (TNDs) are compact neighborhoods with mixed-use centers served by a highly interconnected system of pedestrian and bicycle-scaled streets, sidewalks, paths, and trails. Schools, parks, and other neighborhood-scale civic and institutional uses are interspersed throughout a TND.

TNDs are designed around the concept of the pedestrian shed, which is typically a five- to ten-minute walk from the center of the neighborhood to its edge. Local examples of TNDs include Grandview Commons (Madison), Middleton Hills (Middleton), Smith's Crossing (Sun Prairie) and Providence (Sun Prairie). Redevelopment and infill projects, such as Royster Corners, can also be developed as TNDs.

TNDs should be the primary style of development within neighborhood development plan areas and areas designated on the Generalized Future Land Use Map as Neighborhood Planning Areas. While TNDs are ideally created by a single developer under approved architectural and design standards, it will sometimes take more than one developer to create a complete TND. The City's TND zoning district is the "Traditional Residential – Planned" (TR-P) district, which enables the mix of uses needed to establish a TND without some of the more complicated requirements of Planned Development zoning. However, it is still possible to create a TND without using TR-P zoning by using a combination of other zoning districts. Many TNDs establish architectural design requirements for buildings, but the most important elements of a TND are a mix of housing types, mix of uses, and an interconnected, walkable street network.

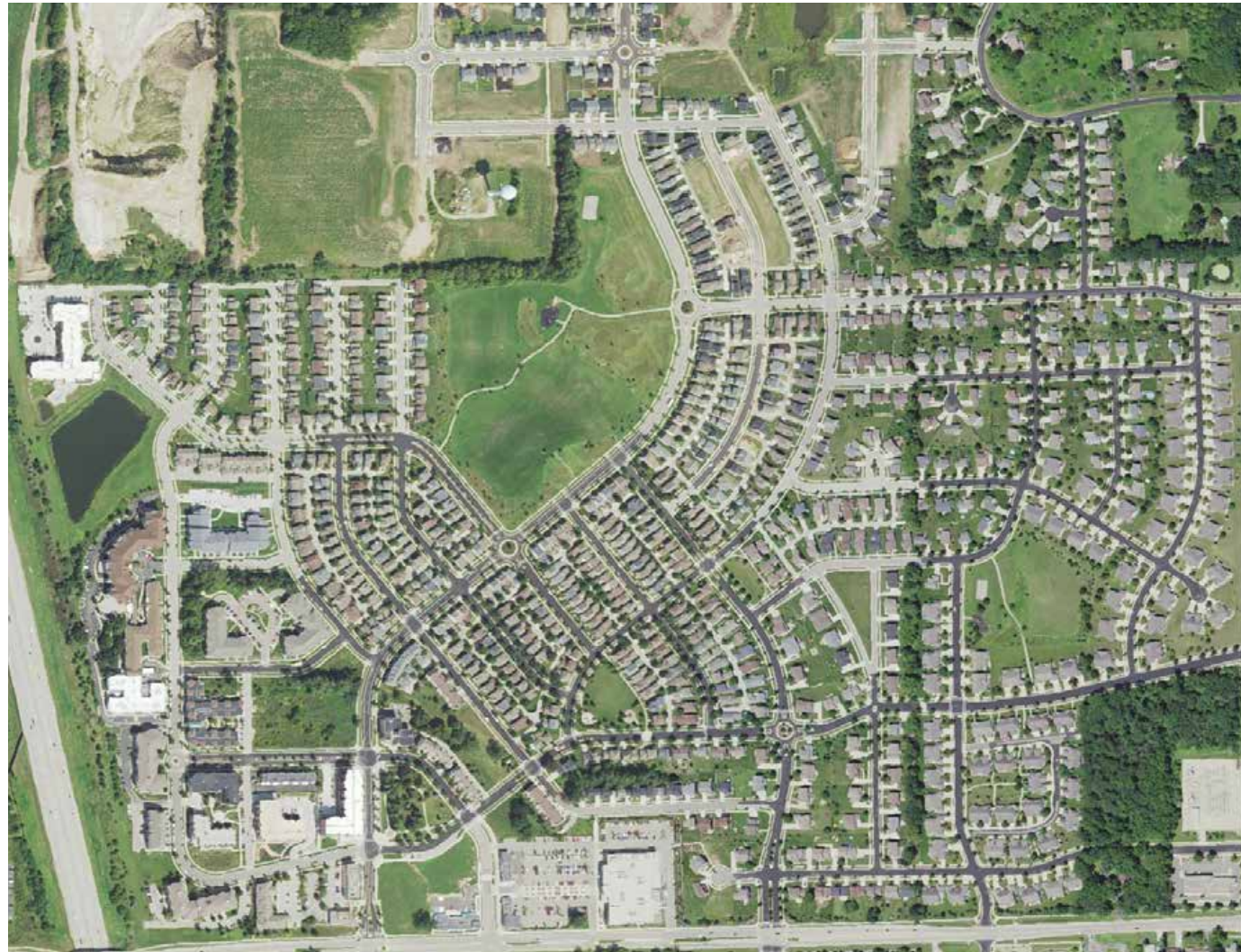
Neighborhood development plans provide specific recommendations regarding the location, layout, and design of planned TNDs. Infill TND projects should be designed to be compatible with the established land use pattern in the general area and be well connected with surrounding neighborhoods.

Regardless of the number of property owners, development of TNDs should provide a coordinated plan for the entire site. This plan may be established under a sub-area

plan, neighborhood development plan, or by a developer. Neighborhood development plan layouts may be refined by a landowner or developer master plan. These plans should ensure that public improvements such as schools, parks, public facilities, roads, and other infrastructure are built in a coordinated and timely manner, and that the cost of those improvements is equitably distributed among property owners and other beneficiaries. Ideally, coordinated architectural standards should be established if a TND will be developed by multiple developers or owners.

TNDs should adhere to the following general design principles:

- Neighborhoods should generally be no more than 160 acres. Sites larger than 160 acres should usually be developed as multiple TNDs.
- In general, between 50 and 70 percent of the land area of a TND, exclusive of non-developable areas such as parks or environmental corridors, should be residential development. This range may be adjusted based on the recommendations of a de-



tailed City-adopted plan.

- TNDs should exceed eight dwelling units per net acre, with the most intense development close to or within the neighborhood center, along major street corridors, or in close proximity to public facilities (community centers, libraries, schools, etc.).
- Dwelling units should include a mix of single-family detached dwellings on small and medium-sized lots, townhouses, duplexes/two flats, multifamily buildings, and dwellings in mixed-use buildings.
- Multifamily residential should contain a mixture of small units (efficiencies and one bedroom units), medium sized units, and larger units (with three or more bedrooms).
- TNDs should have relatively short block lengths (generally not more than 600 feet), narrow block widths (generally not more than 300 feet), and narrow streets lined with sidewalks and street trees. Mid-block pedestrian paths may be required if larger blocks are necessary due to topography or existing street patterns.
- A pattern of streets, sidewalks, bicycle facilities, and public transit facilities that maximizes the connectivity of land uses within the neighborhood and maximizes connectivity to areas outside the neighborhood.
- Connections to surrounding street networks should be made early in the development process.
- Streets should be relatively narrow and include on-street parking where possible.
- Buildings in TNDs should be designed using timeless principles of quality architectural design rather than mandating a specific architectural style. Critical factors in establishing a “timeless” architectural quality in the neighborhood include: massing and composition of the structure; the proportion and profile of windows, doors, and other elements of the facade; orientation of doors, windows, balconies, porches, and roof decks toward the street; and the choice of facade materials and colors.
- Any conditions, covenants, and restrictions for TND land division should include architectural standards for the property. These standards

should be approved by the City and include a process for assuring their long-term application and implementation.

- Parking facilities should be located behind, beneath, or at the side of buildings.
- Garages should not dominate the view from the street to the building and driveways should not dominate the front yard. Garages facing the front of the lot should be set back from the front façade of the principal building.
- The use of alleys for access to parking areas is preferred over front loaded driveways.
- Land use changes should occur at mid-block so that similar uses face each other.
- Multifamily buildings should have street entrances for all ground-floor units.
- Multifamily buildings, townhomes, commercial buildings, mixed-use buildings, and alley-loaded single-family and duplex residences should be set close to the street and have doors and windows facing the street.
- Single-family and duplex homes may be set back further from the street, generally by enough distance to allow for a car to be left on the driveway without blocking the sidewalk (approximately 18-20 feet).
- The center of a TND should serve as a focal point for the TND and include as many of the following elements as possible: engaging public space, such as a pedestrian-oriented “main street,” square, green, or plaza; public buildings, such as a library, place of worship, or community center; a transit stop; multi-unit residential buildings or mixed-use buildings; and, depending on market conditions, neighborhood-scale retail uses.
- Two- to four-story mixed-use buildings and/or multifamily residential buildings should be included in TND centers.

## SUB-AREA PLANS AND THE COMPREHENSIVE PLAN

### Relationship Between the Comprehensive Plan and Sub-Area Plans

This Plan includes a Generalized Future Land Use (GFLU) Map which makes general land use recommendations. The land use categories mapped in this Plan are broad and applied to relatively large geographic areas. Each land use category encompasses a range of potential land uses, development intensities, and building forms which establish the characteristics recommended within a given area. The land use and design recommendations within neighborhood, neighborhood development, or special area plans assign more specific uses, intensities, or forms to particular locations. Such plans should be consistent with, and fit within, the broad Comprehensive Plan future land use categories. There is considerable variation in the level of detail in different neighborhood or special area plans. Despite this, it is intended that all neighborhood and special area plans include land use and design recommendations that are specific enough to provide meaningful guidance to developers, neighborhoods, City agencies, policy makers, and others involved in the initiation or review of development projects.

In a community the size of Madison, the Comprehensive Plan can sometimes be too general to provide fine-grained levels of guidance on design considerations that tend to be site-specific. At the same time, the State-mandated comprehensive planning process is too cumbersome to allow for continuous updates to this Plan. Sub-area plans should be adopted as “a supplement to the Comprehensive Plan” to reflect their function and status in providing more detailed planning recommendations than are often needed to effectively implement the Plan. This Plan provides a long-term, broad generalized policy framework for land use, growth, and large scale investment priorities for the City. Sub-area plans provide more detailed recommendations for a specific geographic area. This Plan may be modified if a sub-area plan makes recommendations for a given area that is inconsistent with this Plan.



## Consistency Between Sub-Area Plans and the Comprehensive Plan

The mapped land use recommendations in this Plan are intended to be consistent with the recommendations in City-adopted neighborhood, neighborhood development, and special area plans, considering the differences in scale and specificity between the types of plans. Considerable flexibility is provided within the land use categories mapped in this Plan. Sub-area plans, unless they specifically recommend edits to this Plan, will work within Plan land use categories to establish more-detailed land use and design recommendations than are mapped more precisely. Thus, for example, given the scale of this Plan, a few small apartment buildings scattered within a Low-Density Residential District are not necessarily inconsistent with the recommended land use, nor would recommending a few locations for this use in a neighborhood plan necessarily require that the Comprehensive Plan recommendation for those locations be amended to maintain consistency between the plans. On the other hand, if a neighborhood plan recommends a four-block area for apartment development within a larger area recommended primarily for single-family and duplex development, then the area recommended for apartments should also be identified as a separate land use category (Medium Residential, for example) in the Comprehensive Plan.

The Comprehensive Plan and sub-area plans may also have small differences in the mapped boundaries between areas recommended for different land uses without necessarily making the plans inconsistent, or requiring an amendment to either plan. These differences are inherent in plans that differ significantly in scale, particularly when the Comprehensive Plan land use categories have considerable scope. For example, if a neighborhood plan recommends a block at the edge of a large designated Community Mixed-Use District primarily for residential uses, there is not necessarily an inconsistency with the Comprehensive Plan because residential developments are among the uses included in the Community Mixed-use District definition. But if the neighborhood plan recommended several blocks of mixed-use development within an area designated as Medium Density Residential, this would be considered inconsistent since the neighborhood plan proposes a significant amount of non-residential use where the Comprehensive

Plan recommends primarily residential uses.

Determining whether or not the recommendations in a neighborhood or special area plan are consistent with the Comprehensive Plan is to some extent a judgment call, and the range of uses and densities that would be considered consistent with the Comprehensive Plan will be greater within some land use categories compared to others. For example, the range of recommended uses that could be considered generally consistent with the Comprehensive Plan is much larger within the Community Mixed-Use category than within a Low Residential category. In cases where sub-area plan land uses are inconsistent with the Comprehensive Plan, either the sub-area plan must be revised to be consistent, or an amendment of the Comprehensive Plan must be adopted to change the land use designation for the area of potential conflict.

## Adopted Sub-Area Plans

Over the years, the City of Madison has adopted numerous sub-area plans. These include neighborhood development plans for peripheral areas, neighborhood plans for already-developed areas, and other special area plans for corridors or small areas. Adopted plans are listed below by category, with dates reflecting the original adoption of the plans and subsequent amendments.

### Neighborhood Development Plans

The City has 19 adopted neighborhood development plans (NDPs) as of Spring 2018. These plans include cover lands on the City's edge. Some of these NDPs, like Blackhawk, have experienced significant development over time, while others, such as Pumpkin Hollow, have seen little or no development. The intent of NDPs is to provide a detailed plan that addresses land use, transportation, utilities, and services. These plans often include large areas of undeveloped rural land. It is expected that over time new development will be constructed within approved NDP boundaries. However, some areas will potentially remain in rural/agricultural use for the foreseeable future. An alphabetical list of NDPs is shown below (see the Peripheral Planning Areas map in the Growth Framework Element for NDP boundaries):

- Blackhawk (1994, 2006)
- Cottage Grove (1992, 2006)

- Cross Country (1993, 1998)
- East Towne Burke Heights (1987)
- Elderberry (2002, update in progress 2018)
- Felland (2002)
- Hanson Road (2000)
- High Point-Raymond (1997 2001, 2005, 2006, 2017)
- Junction (1990, 1992, 2015, update in progress 2018)
- Marsh Road (1999)
- Midtown (1999, 2001, 2004)
- Nelson (1992, 1993, 1999, 2001, 2005)
- Northeast Neighborhoods (2009)
- Pioneer (2004, 2013, update in progress 2018)
- Pumpkin Hollow (2008)
- Rattman (1992, 1995, 1997, 2000)
- Shady Wood (2009)
- Sprecher (1998, 1999, 2001, 2005)
- Yahara Hills (2017)

### Neighborhood Plans

Neighborhood Plans are adopted for areas that have already been built out. They are frequently undertaken for areas that are either experiencing substantial redevelopment interest and/or have various challenges to neighborhood stability. Neighborhood Plans generally address such things as land use, urban design, economic development, transportation, parks, and community health and wellness. An alphabetical list of Neighborhood Plans is shown below:

- Allied-Dunn's Marsh (1990)
- Allied-Dunn's Marsh-Belmar (2005)
- Arbor Hills-Leopold (2013)
- Bay Creek (1991)
- Brittingham-Vilas (1989)
- Brentwood Village-Packers-Sherman Village (1996)
- Broadway-Simpson-Waunona (1986)
- Carpenter-Hawthorne-Ridgeway-Sycamore-Truax (2001)
- Darbo-Worthington-Starkweather (2017)
- Emerson East-Eken Park (1998)
- Emerson-East-Eken Park-Yahara (2016)
- First Settlement Neighborhood Master Plan (1995)
- Greenbush (2008)
- Greenbush-Vilas Neighborhood Housing Revitalization (2010)
- Hiestad (2006)

- Hoyt Park Area (2014)
- Marquette Neighborhood Center Master Plan (2000)
- Marquette-Schenk-Atwood (1994)
- Midvale Heights-Westmorland Joint Neighborhood (2009)
- Northport-Warner Park-Sherman (2009)
- Royster Clark Redevelopment - BUILD (2009)
- Regent Street South Campus (2008)
- Ridgewood East Central Development (2002)
- Schenk-Atwood-Starkweather-Worthington Park (2000)
- South Madison (2005)
- Southwest (2008)
- Spring Harbor (2006)
- Tenney-Lapham (2008)
- Triangle-Monona Bay (in progress 2018)
- University Hill Farms (2016)

#### Other Plans

- Central Park (2011)
- Cherokee Special Area (2007)
- Cottage Grove Road Activity Centers (2017)
- Cultural Plan (2013)
- Downtown Plan (2012)
- East Rail Corridor (2004)
- East Washington Gateway Revitalization - BUILD (2004)
- East Washington Avenue Capitol Gateway Corridor (2008, 2016)
- East Washington Old East Side Master Plan - BUILD (2000)
- Lamp House Block (2014)
- Monroe Street Commercial District (2007)
- Park Street Urban Design Guidelines (2004)
- Schenk-Atwood Neighborhood Business District Master Plan (2001)
- South Capitol Transit Oriented Development District (2014)
- Stoughton Road Revitalization (2008)
- Sustainable Madison Transportation Master Plan (2017)
- University Avenue Corridor (2014)
- Williamson Street - BUILD (2005)
- Wingra Creek Market Study and Redevelopment - BUILD (2006)

Additionally, the City has adopted campus master plans prepared by Edgewood College and the University of Wisconsin-Madison prepared under the City's Campus-Institutional zoning district.

### **Sub-Area Plan Retirement**

There is currently no process for retiring adopted city plans. This leads to some instances where staff must compare proposed projects to plans that have recommendations that have already been implemented or are out of step with more recently adopted policies and plans. The lack of a plan retirement process also leads to circumstances where there can be two, three, or four overlapping plans for the same area, leading to confusion by staff, policymakers, developers, and residents as to what plan recommendations govern. As the city continues to grow and change, plans that no longer reflect priorities or have largely been implemented should be retired. While the age of a plan does tend to play a role, how much of the plan has been implemented and whether the plan reflects current city priorities are also factors, meaning that a broad-brush approach that retires plans due to some arbitrary age limit is inadequate. Some older plans still reflect the general priorities contained in this Plan and play an important role in establishing detailed recommendations for specific areas that may still be developed or redeveloped.

This Plan recommends that the Planning Division and Plan Commission establish a procedure to periodically review plans to determine whether they should be retired. General considerations for review may include, but are not limited to:

1. Whether a plan has been implemented.
2. Whether a more recent plan has been adopted for the same area or a similar area.
3. The age of the plan.

### **Overlapping Sub-Area Plans**

There are some instances where sub-area plans overlap. Where this occurs, the more recently adopted plan should govern unless otherwise specified within the plan or within a plan amendment. To avoid confusion and streamline review of proposed projects, plans developed after adoption of this Comprehensive Plan should include an analysis of

previously adopted sub-area plans that are still in effect for any part of the planning area. This should be followed by a statement about how the new plan does, or does not, impact the previously adopted plans. If the new sub-area plan largely replaces previous planning efforts for a given area, retirement of the previous plans for the area should be considered at the time the new plan is adopted.

LAND DEMAND ANALYSIS

Wisconsin’s Comprehensive Planning Legislation requires municipalities to provide 20-year projections for land uses in five-year increments. These projections, shown in Table 1, are based on a variety of spatial assumptions. The projections shown here are general estimates. Changes in demand, financial changes, and other factors may considerably alter these projections. Nevertheless, despite the shortcomings of the assumptions and difficulty in making projections in general, the land demand analysis provides a framework for estimating the amount of land the City will need to accommodate growth through 2040.

Table 2 shows the assumptions used to determine the land demand for residential development between 2015 and 2040. The 22% single-family – 78% multi-family split is based on the number of new dwelling units built in the city from 2013 to 2016. 59% of projected multi-family units are attributed to infill, keeping with the 59% of new multi-family units built between 2007 and 2016 being built in infill locations or as redevelopment. Single-family and multifamily densities are assumed to be 5.17 dwelling units per acre (based on 2013-2016 new units) and 28.68 dwelling units per acre (based on 2007-2016 new units), respectively.

Table 1: Land Demand Projections for the City of Madison (acres), 2015-2040

Land Use						Land Demand
	2015-2020	2021-2025	2026-2030	2031-2035	2036-2040	2015-2040
Residential Single-Family	230	284	269	284	310	1,377
Residential Multi-Family	63	78	74	78	85	378
Commercial Office/Services	148	153	158	162	168	7,89
Commercial Retail	37	34	31	28	25	155
Industrial	0.0	0.0	0.0	0.0	0.0	0.0
Parks & Open Space	117	132	135	134	159	677
Institutional	24	27	27	28	30	136
Street ROW	155	177	173	179	194	878
Subtotal	773	884	866	894	970	4,387
+50% Flexibility Margin	387	442	433	447	485	2,194
Total Land Demand	1,160	1,326	1,299	1,341	1,455	6,581

Table 2: Residential Land Demand, 2015-2040

	2020	2025	2030	2035	2040
Projected Households	112,204	118,838	125,118	131,764	139,007
Numeric Change from 2015	5,377	12,011	18,291	24,937	32,180
22% Single-Family Households	1,172	2,618	3,987	5,436	7,015
Total Single-Family units w/ 1.5 % vacancy rate	1,190	2,658	4,047	5,518	7,120
Single-Family Land Demand (acres)	230	514	783	1,067	1,377
Single-Family Land Per 5-year increment (acres)	230	284	269	284	310
78% Multifamily Households	4,205	9,393	14,304	19,501	25,165
Multifamily Units w/ 5 % vacancy rate	4,415	9,862	15,019	20,476	26,423
Multifamily units minus infill units	1,810	4,044	6,158	8,395	10,833
Multifamily Land Demand (acres)	63	141	215	293	378
Multifamily Land Per 5-year increment (acres)	63	78	74	78	85

\* There were an estimated 106,827 households in 2015 in the City. That number represents an average between Wisconsin Department of Administration numbers and the US Census Bureau’s American Community Survey 1-year estimate for 2015.

Table 3 shows employment projections and Table 4 shows employment and other commercial land demand. Projections were made for total employment in Madison (employees, not employed residents) using historical information from the Census, Info USA, and the Census Center for Economic Studies' On the Map application, combined with estimates from Madison in Motion and the Madison Area Transportation Planning Board 2035 and 2050 Regional Transportation Plans. The 2012 Economic Census Bureau of Labor Statistics Employment Projections program and historical Dane County employment growth were used to project the proportion of employment in the industrial, commercial retail, and commercial office/services sectors. The three sectors were allocated according to standard NAICS classifications. These sector-specific employment numbers were then multiplied by space needs per employee and floor area ratio to determine total land demand. Employment density is the number of square feet per employee, derived from the National Association for Industrial and Office Parks, Certified Commercial Investment Member Institute, and a University of San Diego study. Floor area ratio (FAR) is based on a review of 1,628 non-vacant industrial, commercial, and employment zoning district parcels. Note that due to national trends in the decline of manufacturing jobs (including a 0.4% projected annual employment decline in Madison), no additional industrial land demand is projected in this analysis.

Table 5 shows the assumptions and calculations used to determine the demand for recreational land. The 10 acres per 1000 population standard is based on the City's 2012 Parks and Open Space Plan, existing conditions, and National Recreation and Park Association goals. See the Green and Resilient element or the City's latest Parks and Open Space Master Plan for a more detailed discussion on parks and open space needs.

Institutional and street right-of-way land demand has been determined based on existing allocations of these land uses. Approximately 4% of Madison's land area is allocated to institutional uses, and approximately 25% to right-of-way.

**Table 3: Employment Assumptions**

	% of Projected New Employment	2015-2020 New Employment	2020-2025 New Employment	2025-2030 New Employment	2030-2035 New Employment	2035-2040 New Employment
<b>Employment Sector</b>						
Commercial Office/Services	89%	6,438	6,646	6,859	7,075	7,295
Commercial Retail	11%	1,003	927	850	768	686
Industrial	0%	-496	-514	-530	-543	-556
Total	100%	6,945	7,059	7,178	7,300	7,426

**Table 4: Commercial Land Demand**

	Employment Density (SF/Employee)	Floor Area Ratio	2015-2020 Land Demand	2020-2025 Land Demand	2025-2030 Land Demand	2030-2035 Land Demand	2035-2040 Land Demand
<b>Employment Sector</b>							
Commercial Office/Services	250	0.25	148	153	158	162	168
Commercial Retail	400	0.25	37	34	31	28	25
Industrial	450	0.25	-21	-21	-22	-22	-23
Total			164	166	167	168	170

**Table 5: Recreation Land Demand**

	2020	2025	2030	2035	2040
10 acres/ 1000 pop ratio	0.01	0.01	0.01	0.01	0.01
2015 Population	245,788	245,788	245,788	245,788	245,788
Projected Population	257,461	270,631	284,147	297,582	313,444
Population Change	11,673	24,843	38,359	51,794	67,656
Parks & Open Space Demand (acres)	117	248	384	518	677
Demand Per 5-yr increment (acres)	117	132	135	134	159

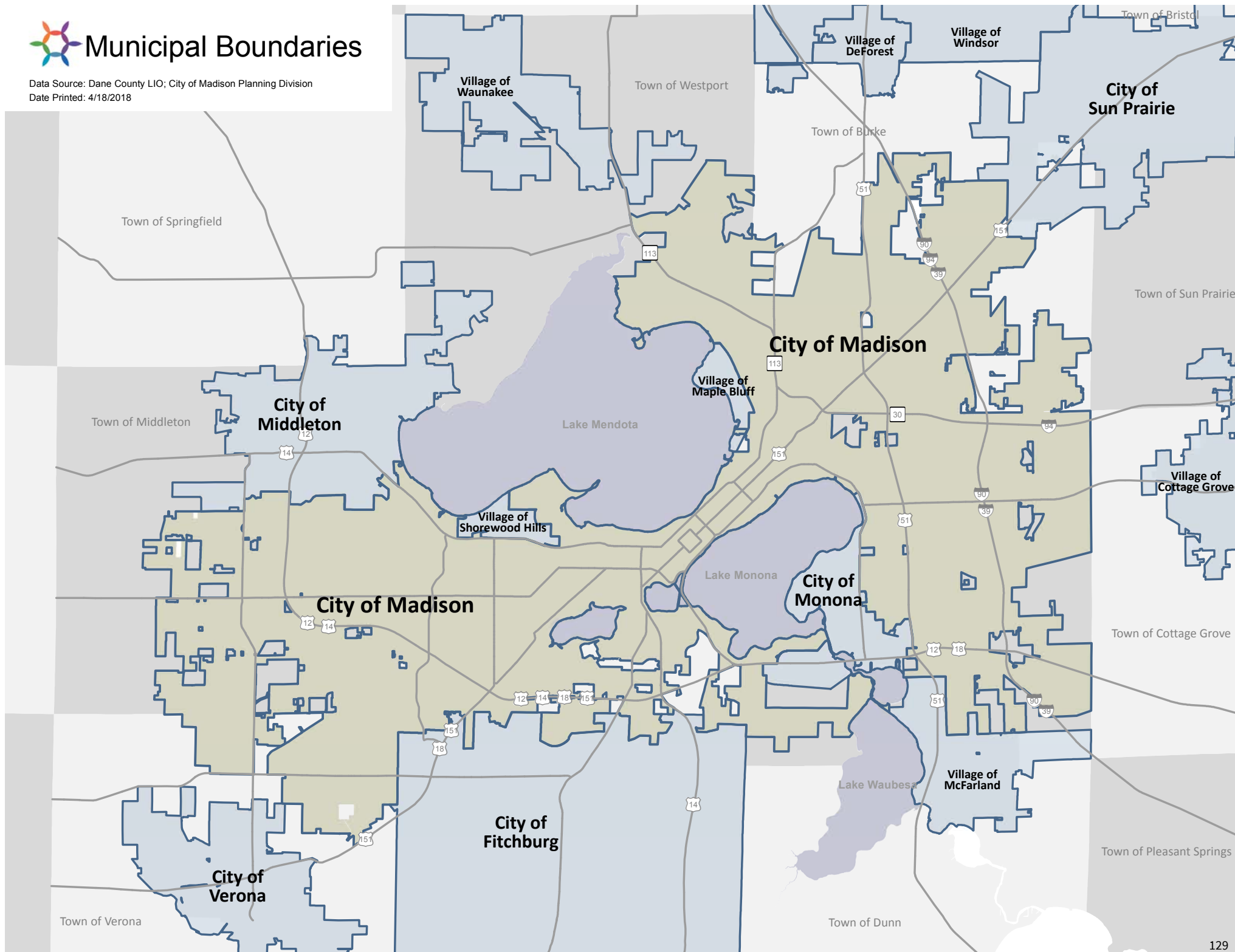
## Reference Maps

- 1 Municipal Boundaries
- 2 Residential Population Density
- 3 Net Population Change by Race and Ethnicity Recent
- 4 Residential Development
- 5 Existing Land Use
- 6 Development by Decade
- 7 Active Living Index
- 8 Roadway Functional Classification
- 9 Traffic Counts
- 10 Traffic Congestion
- 11 Metro Transit Routes
- 12 Employment Density
- 13 Natural Development Limitations
- 14 Natural Features
- 15 Productive Agricultural Soils
- 16 Drainage Basins
- 17 Mineral Resources
- 18 Parks and Open Spaces
- 19 Stormwater System
- 20 Wastewater System
- 21 Capital Improvements Projects
- 22 Fire Stations and Districts
- 23 Police Stations and Districts
- 24 Hospitals, Clinics, and Childcare
- 25 Community, Neighborhood, Senior Centers, and Libraries

The following reference maps are provided to offer additional context for the contents of this plan. Additionally, several of these maps have been included to meet the requirements for comprehensive plans found in §66.1001, Wisconsin State Statutes. Maps are ordered generally to correspond with the outline of Elements within the Plan, though individual maps are not individually tied to specific Elements, Goals, Strategies, or Actions.

# Municipal Boundaries

Data Source: Dane County LIO; City of Madison Planning Division  
Date Printed: 4/18/2018







# Residential Population Density

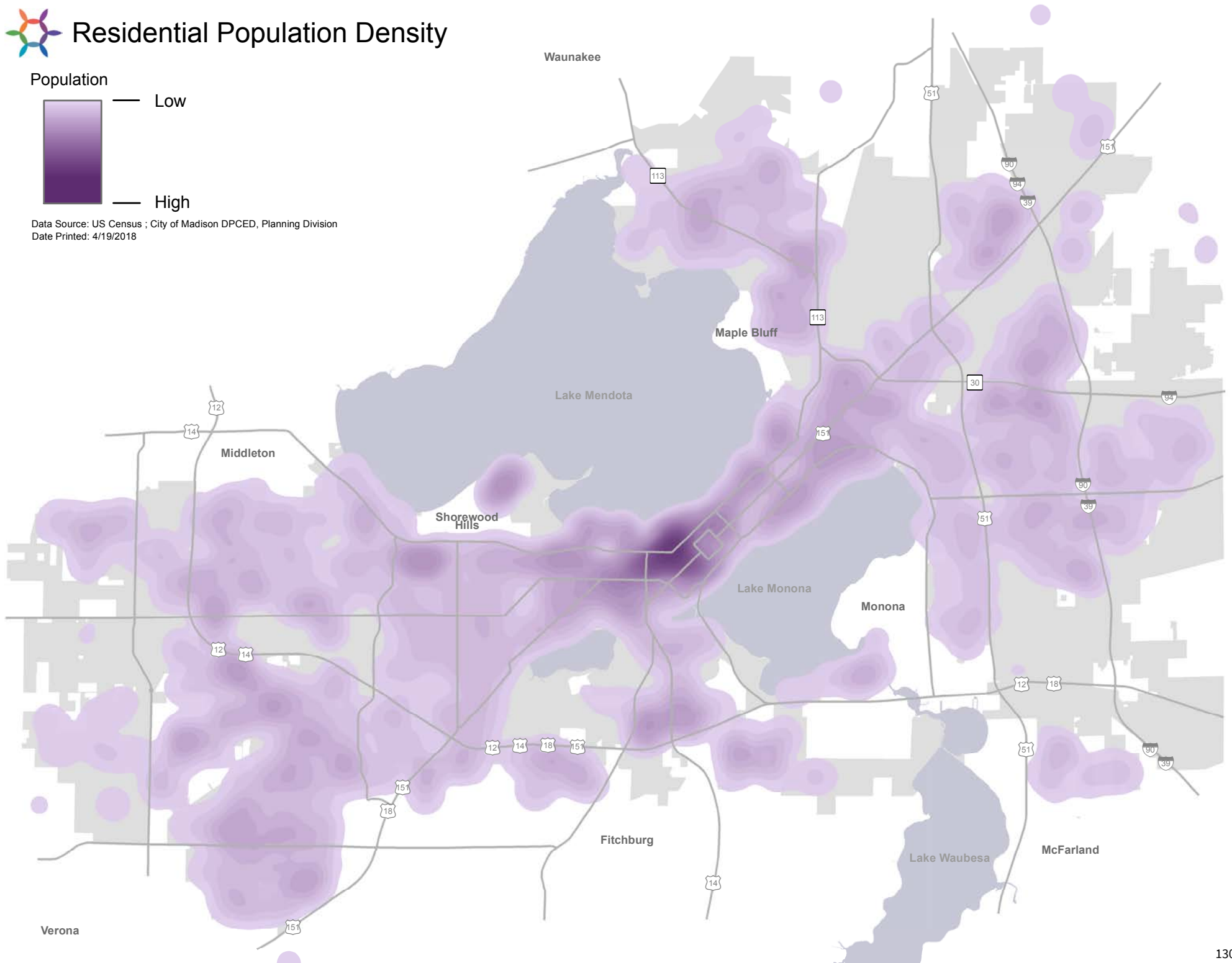
Population



Low

High

Data Source: US Census ; City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018





# Racial and Ethnic Integration 2000 - 2010 Census Population Change (Increase)\*

1 Dot = 1 Person

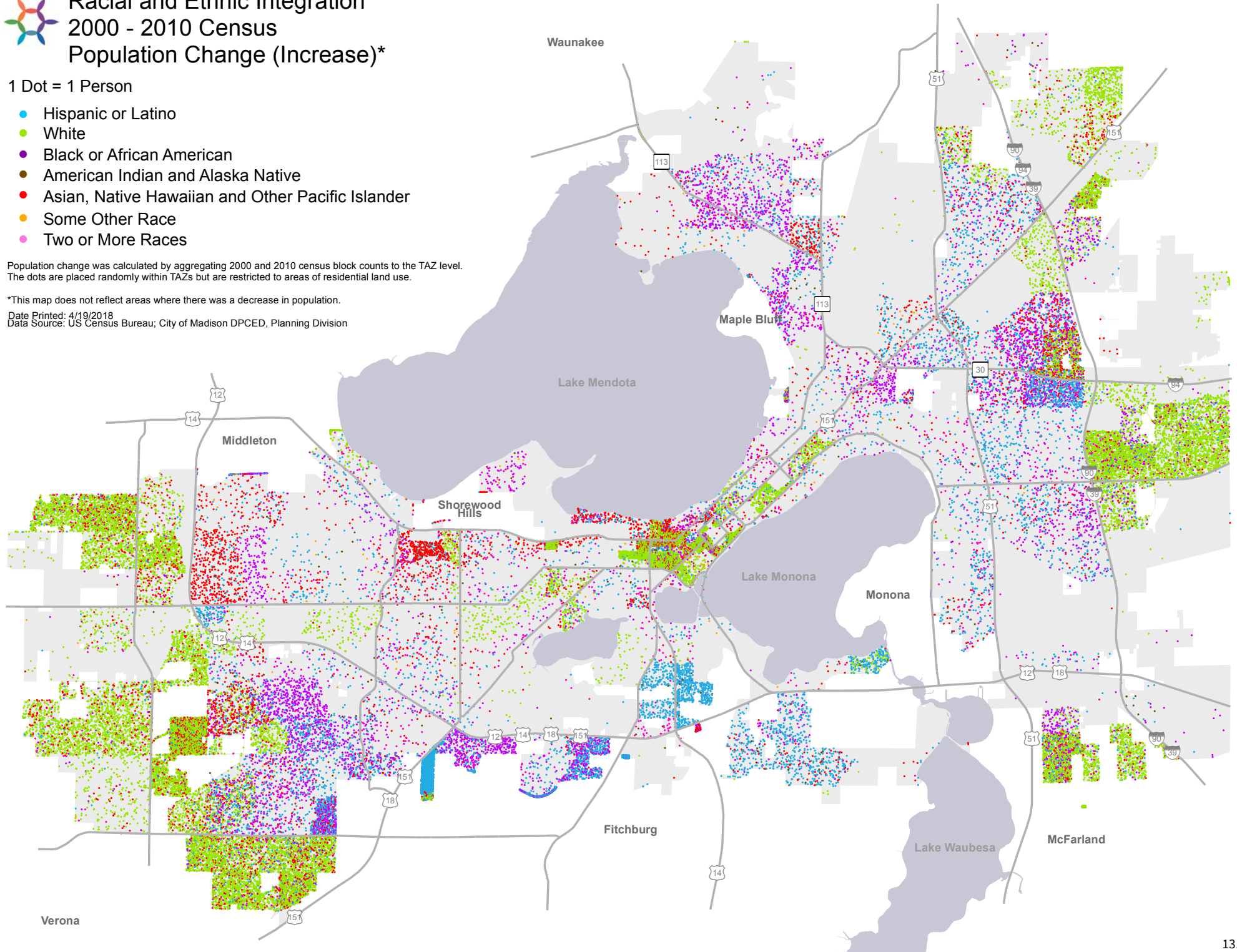
- Hispanic or Latino
- White
- Black or African American
- American Indian and Alaska Native
- Asian, Native Hawaiian and Other Pacific Islander
- Some Other Race
- Two or More Races

Population change was calculated by aggregating 2000 and 2010 census block counts to the TAZ level. The dots are placed randomly within TAZs but are restricted to areas of residential land use.

\*This map does not reflect areas where there was a decrease in population.

Date Printed: 4/19/2018

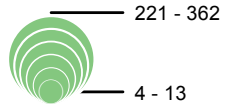
Data Source: US Census Bureau; City of Madison DPCED, Planning Division



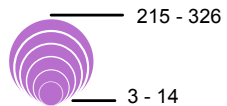


# Infill vs Greenfield Development 2006-2016

Greenfield Multi-Family Development



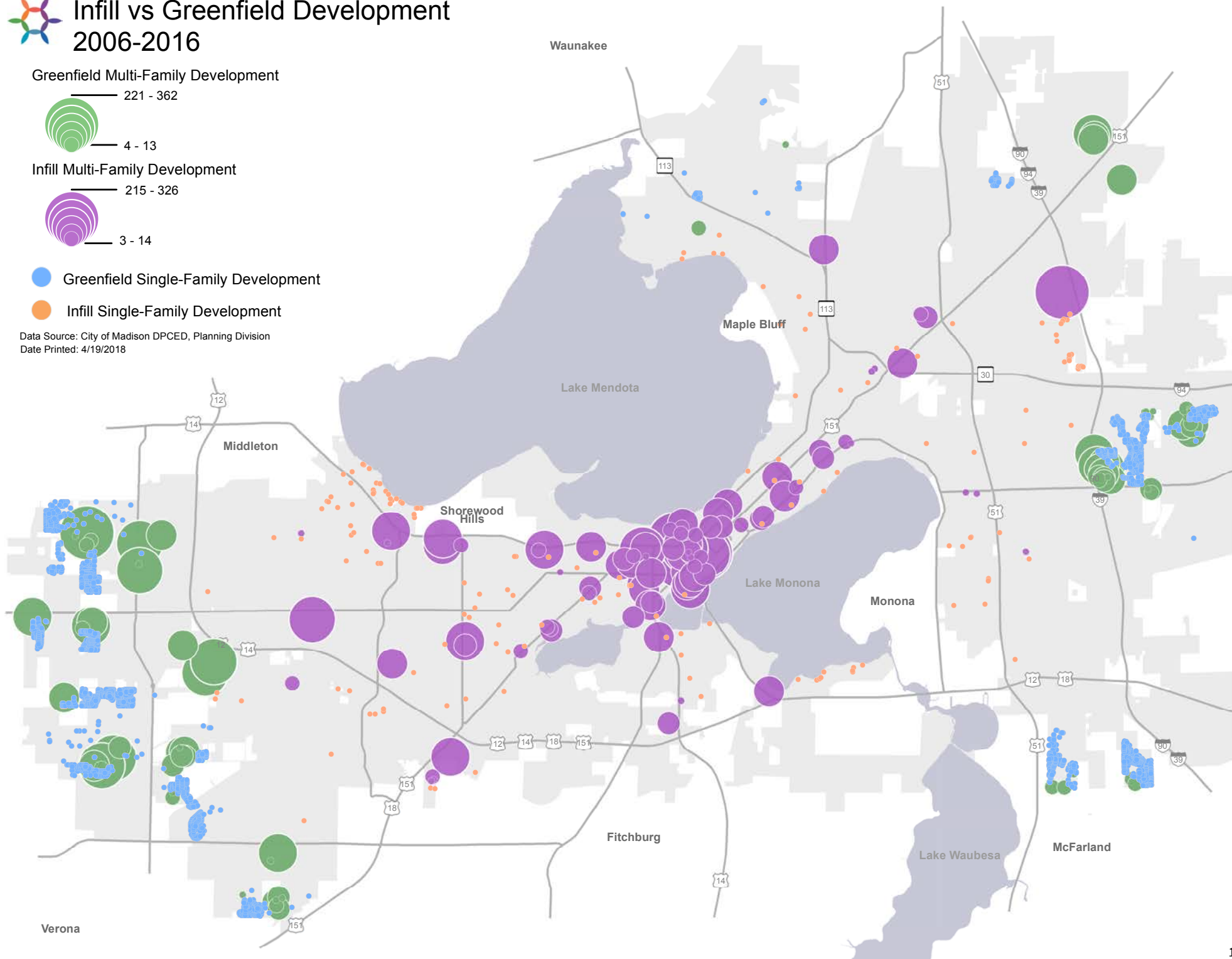
Infill Multi-Family Development



Greenfield Single-Family Development

Infill Single-Family Development

Data Source: City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018

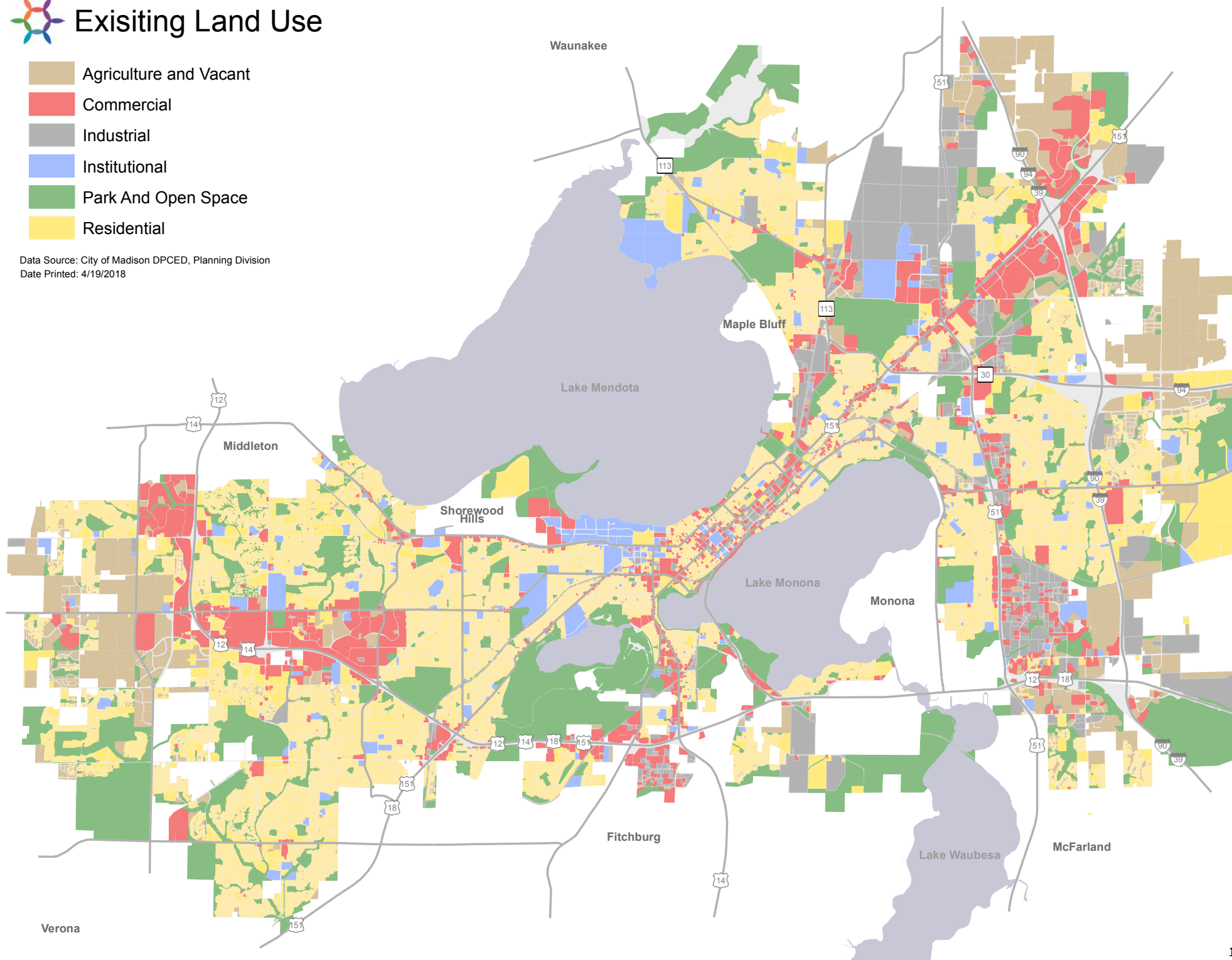




# Existing Land Use

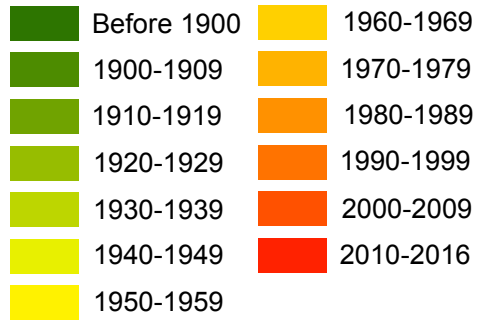
- Agriculture and Vacant
- Commercial
- Industrial
- Institutional
- Park And Open Space
- Residential

Data Source: City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018

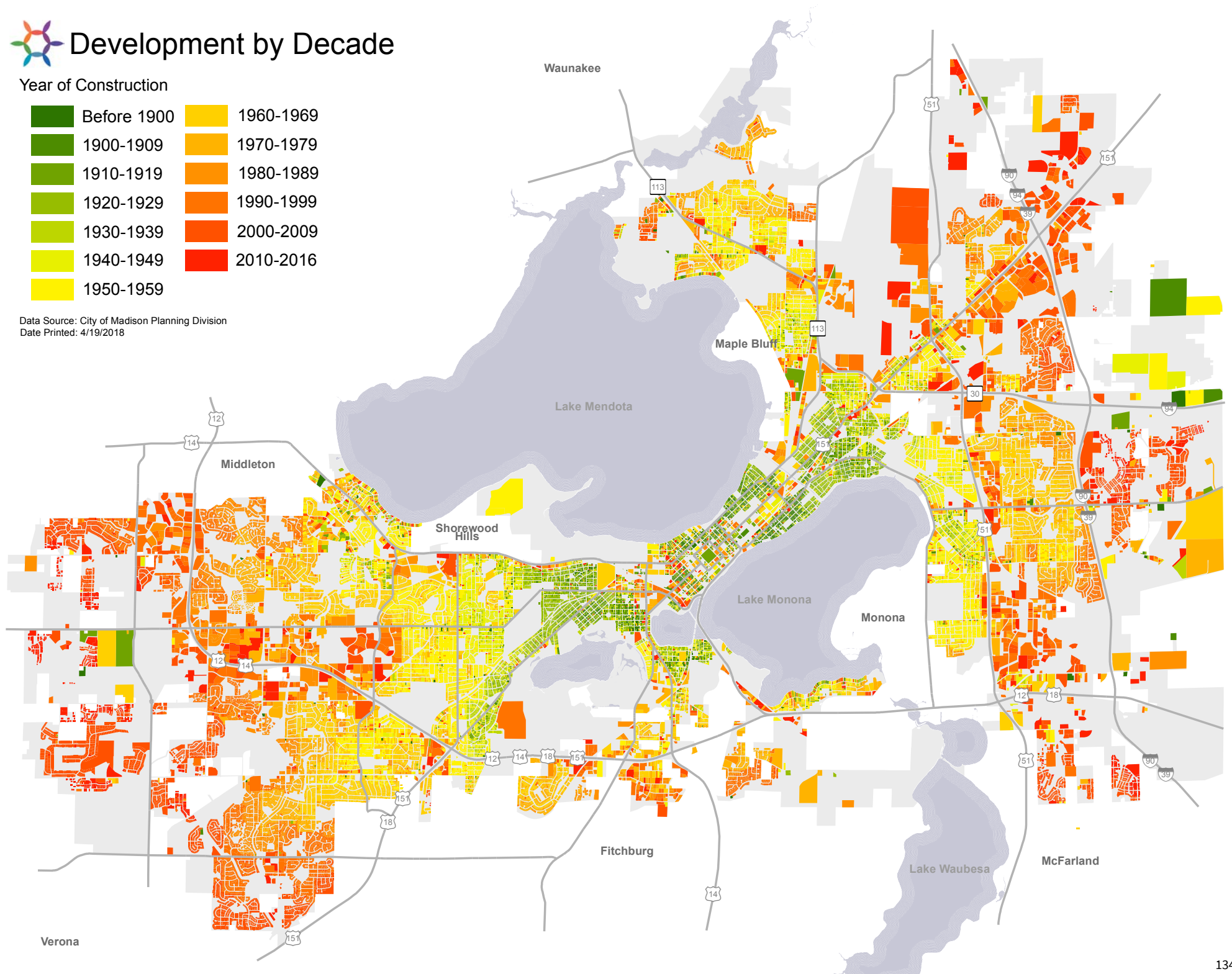


# Development by Decade

Year of Construction



Data Source: City of Madison Planning Division  
Date Printed: 4/19/2018

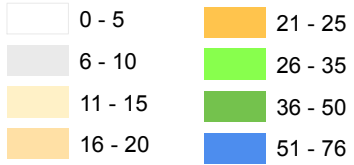







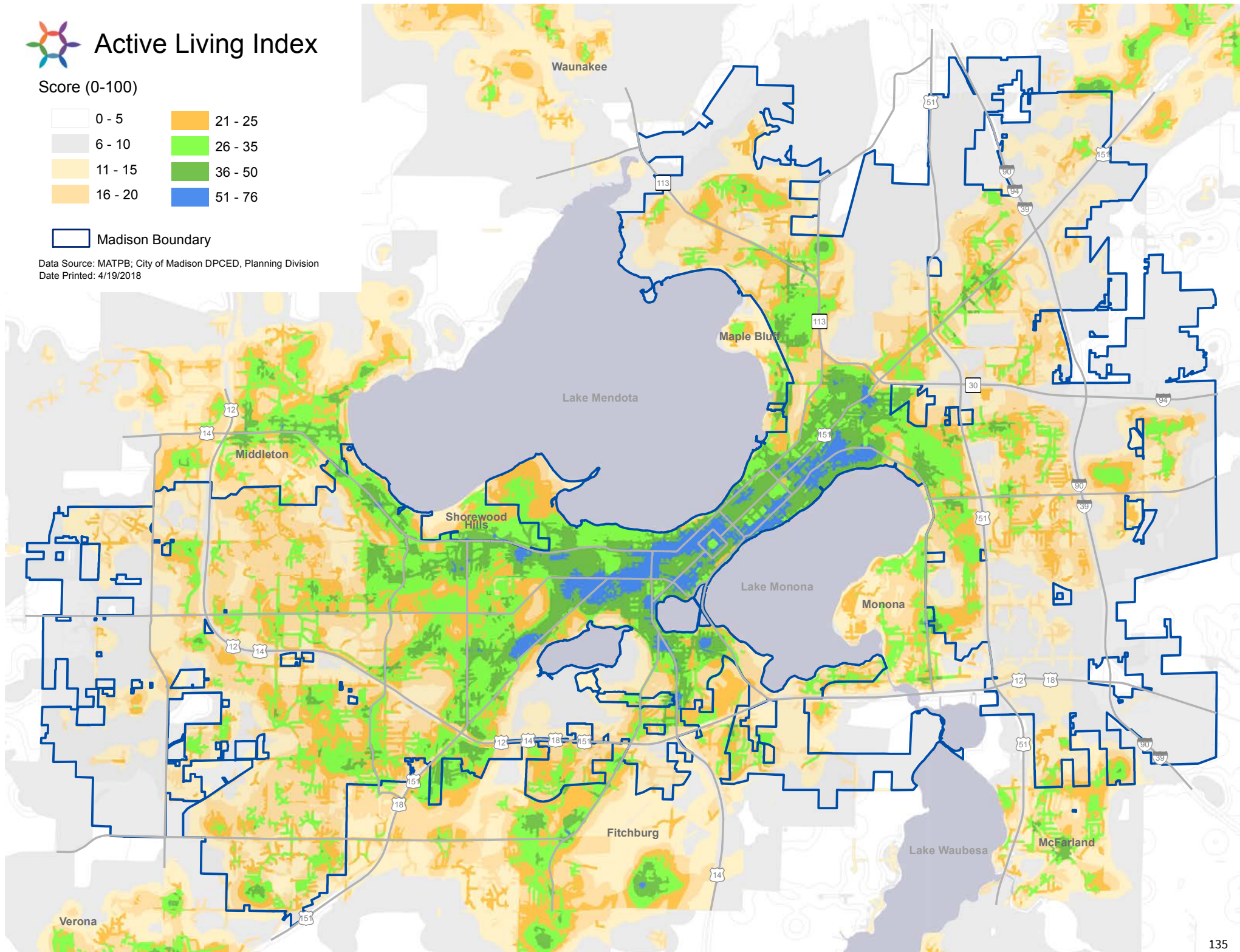
# Active Living Index

Score (0-100)



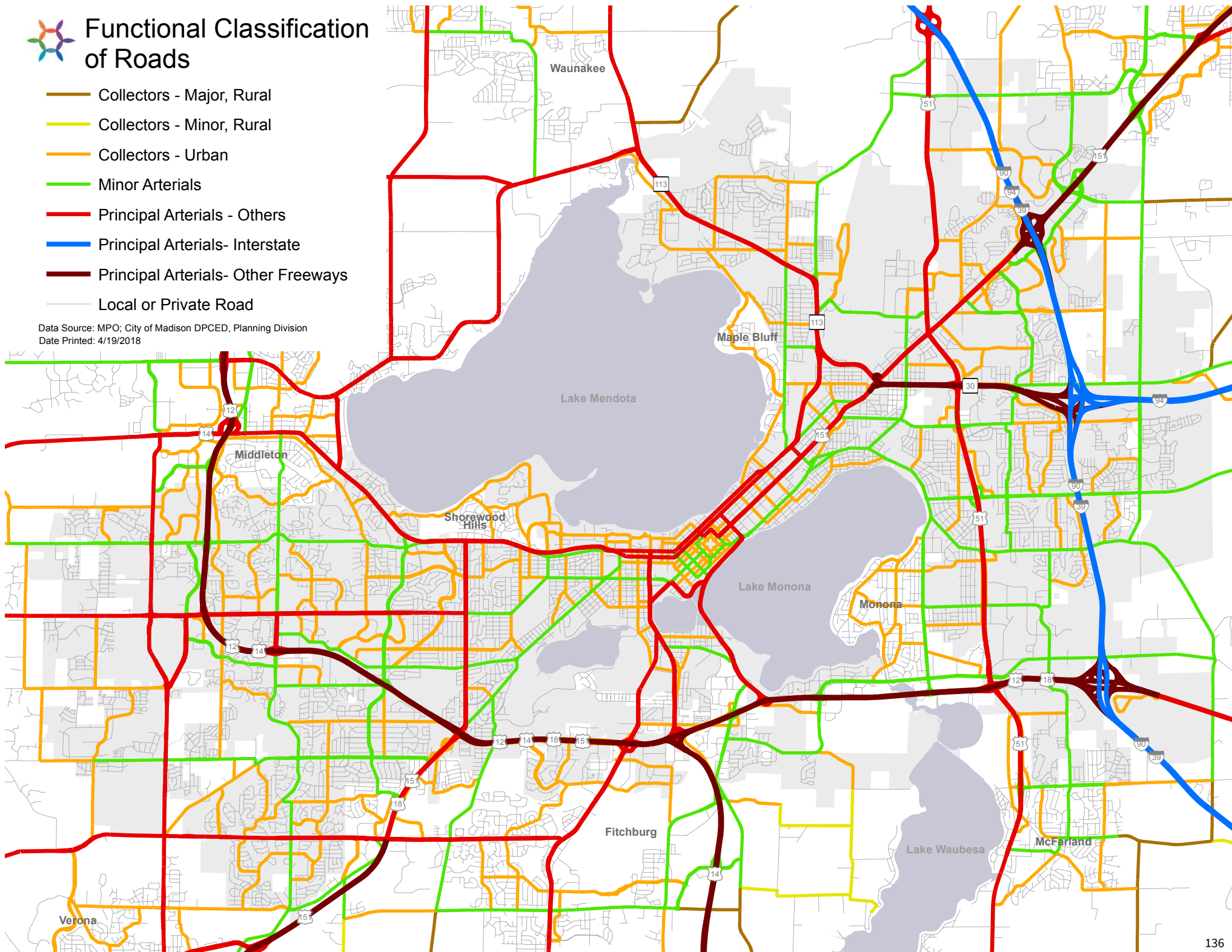
 Madison Boundary

Data Source: MATPB; City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018



-  Collectors - Major, Rural
-  Collectors - Minor, Rural
-  Collectors - Urban
-  Minor Arterials
-  Principal Arterials - Others
-  Principal Arterials- Interstate
-  Principal Arterials- Other Freeways
-  Local or Private Road

Data Source: MPO; City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018





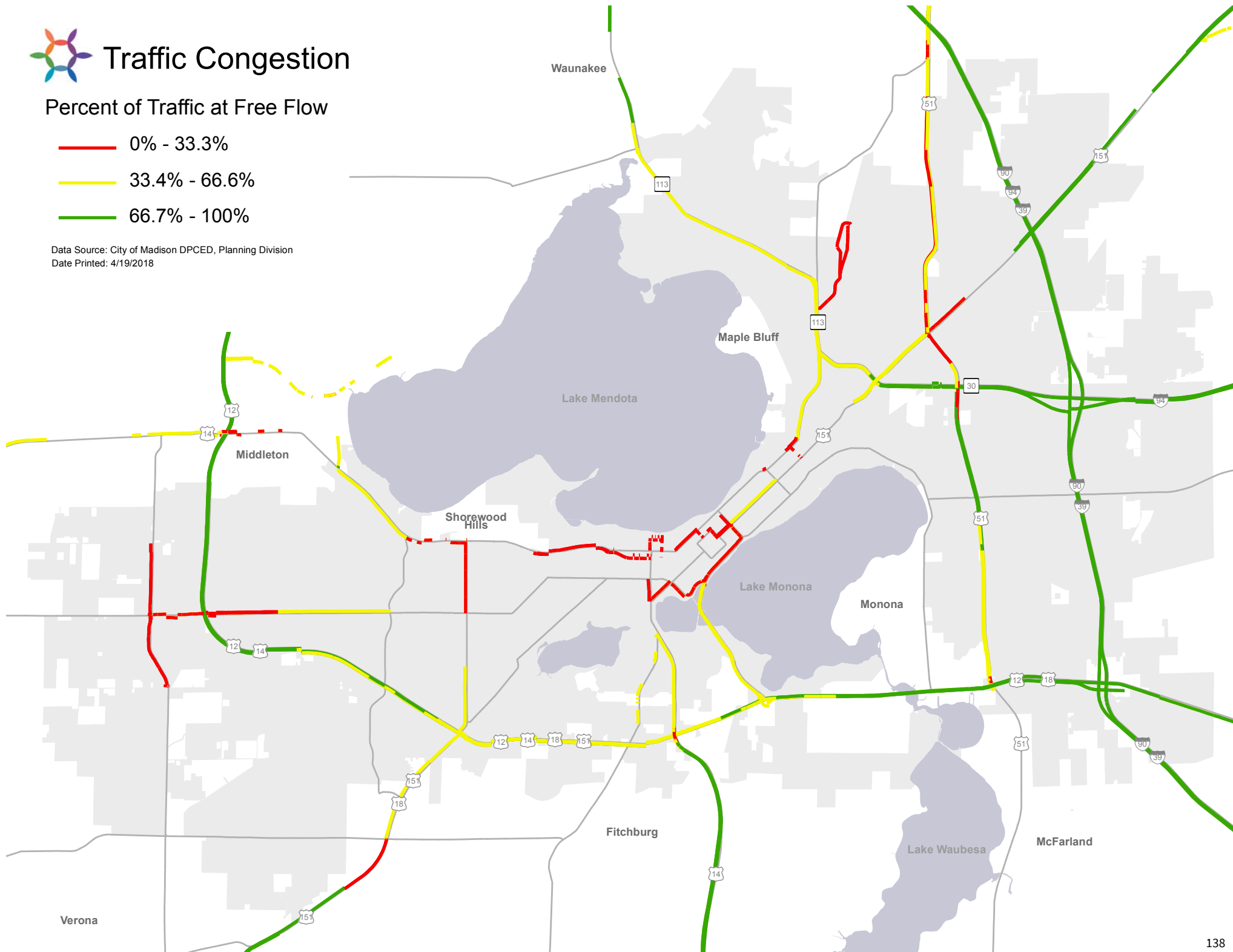


# Traffic Congestion

Percent of Traffic at Free Flow

- 0% - 33.3%
- 33.4% - 66.6%
- 66.7% - 100%

Data Source: City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018

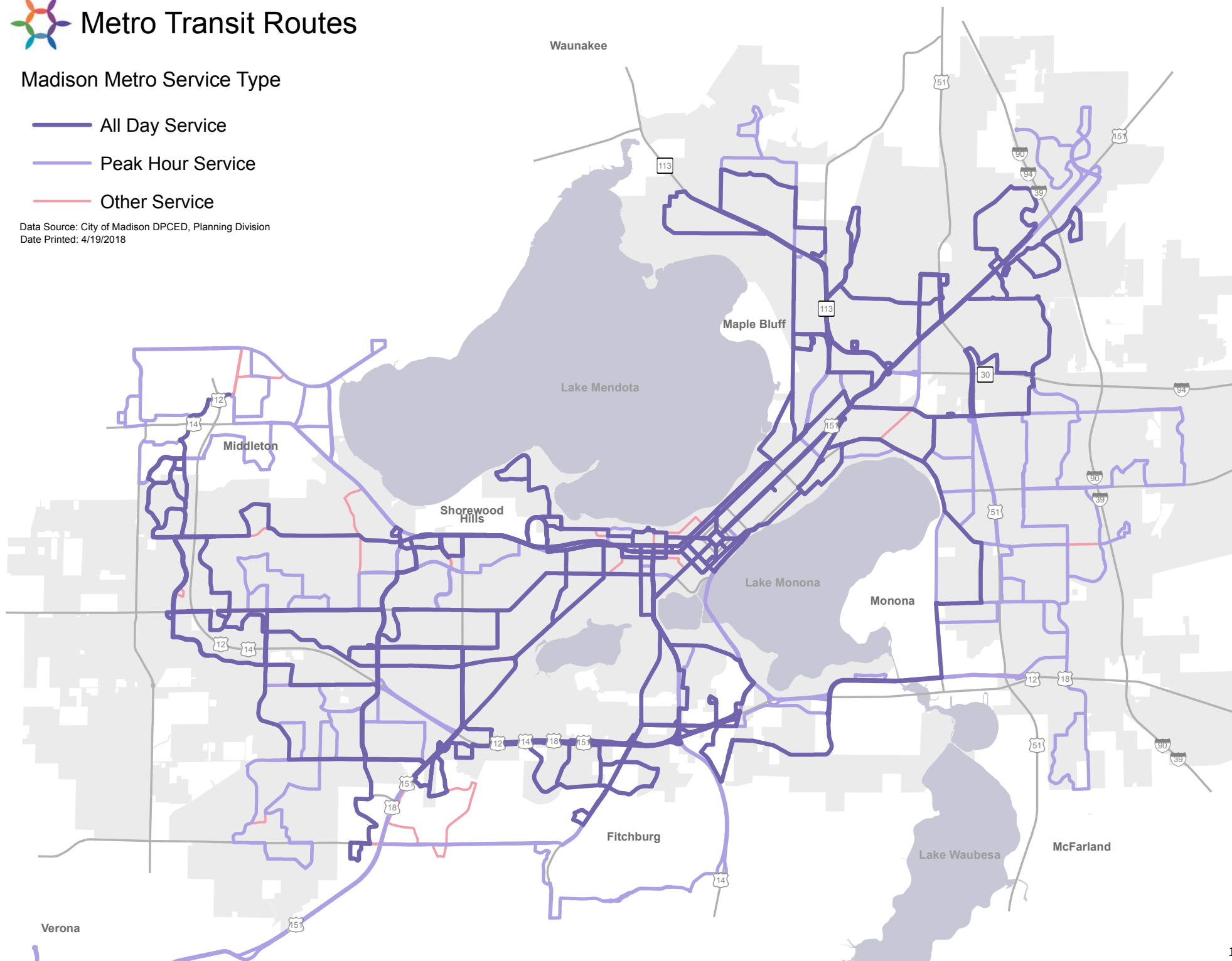




## Madison Metro Service Type

- All Day Service
- Peak Hour Service
- Other Service

Data Source: City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018





# Employment Density

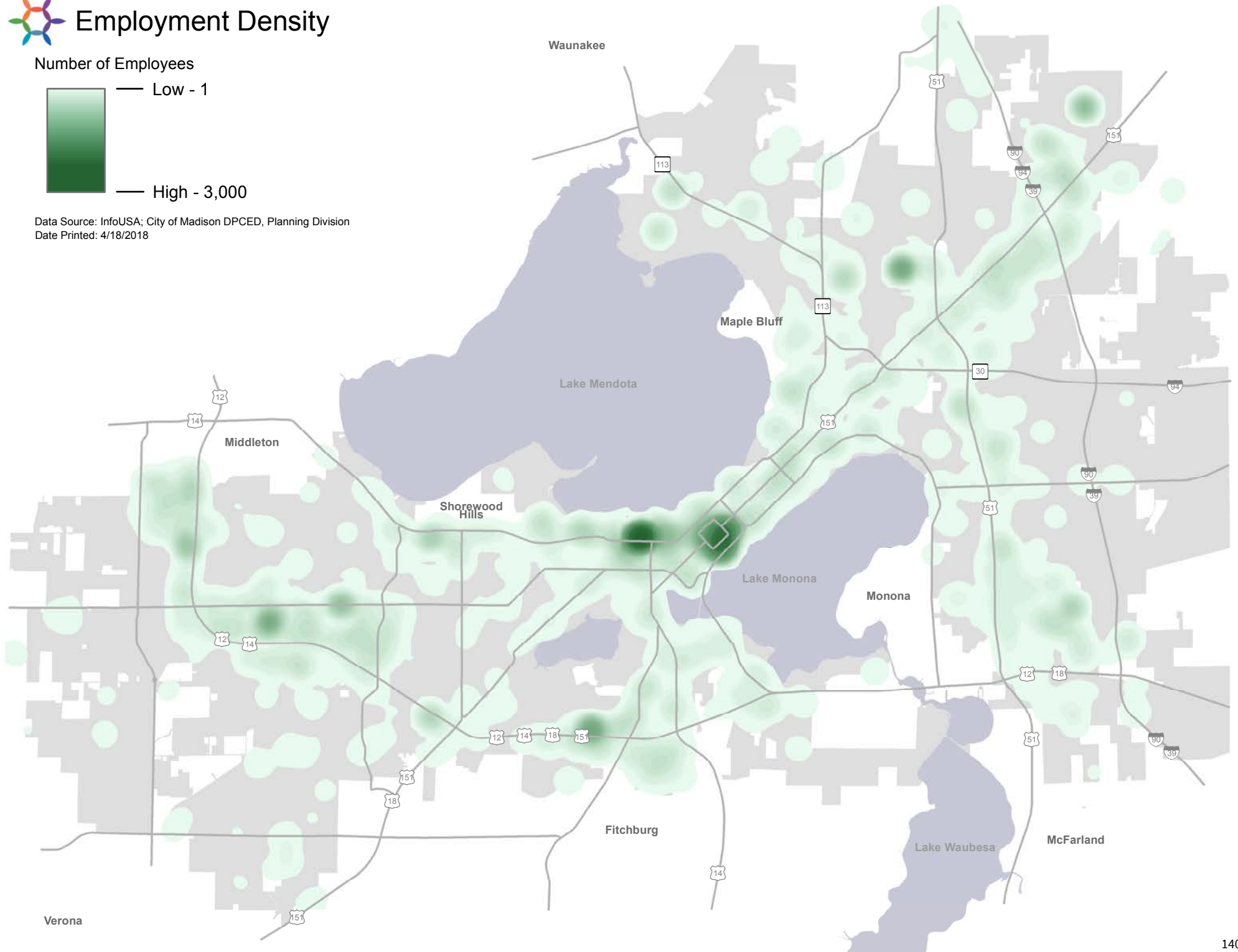
Number of Employees



Low - 1

High - 3,000

Data Source: InfoUSA; City of Madison DPCED, Planning Division  
Date Printed: 4/18/2018



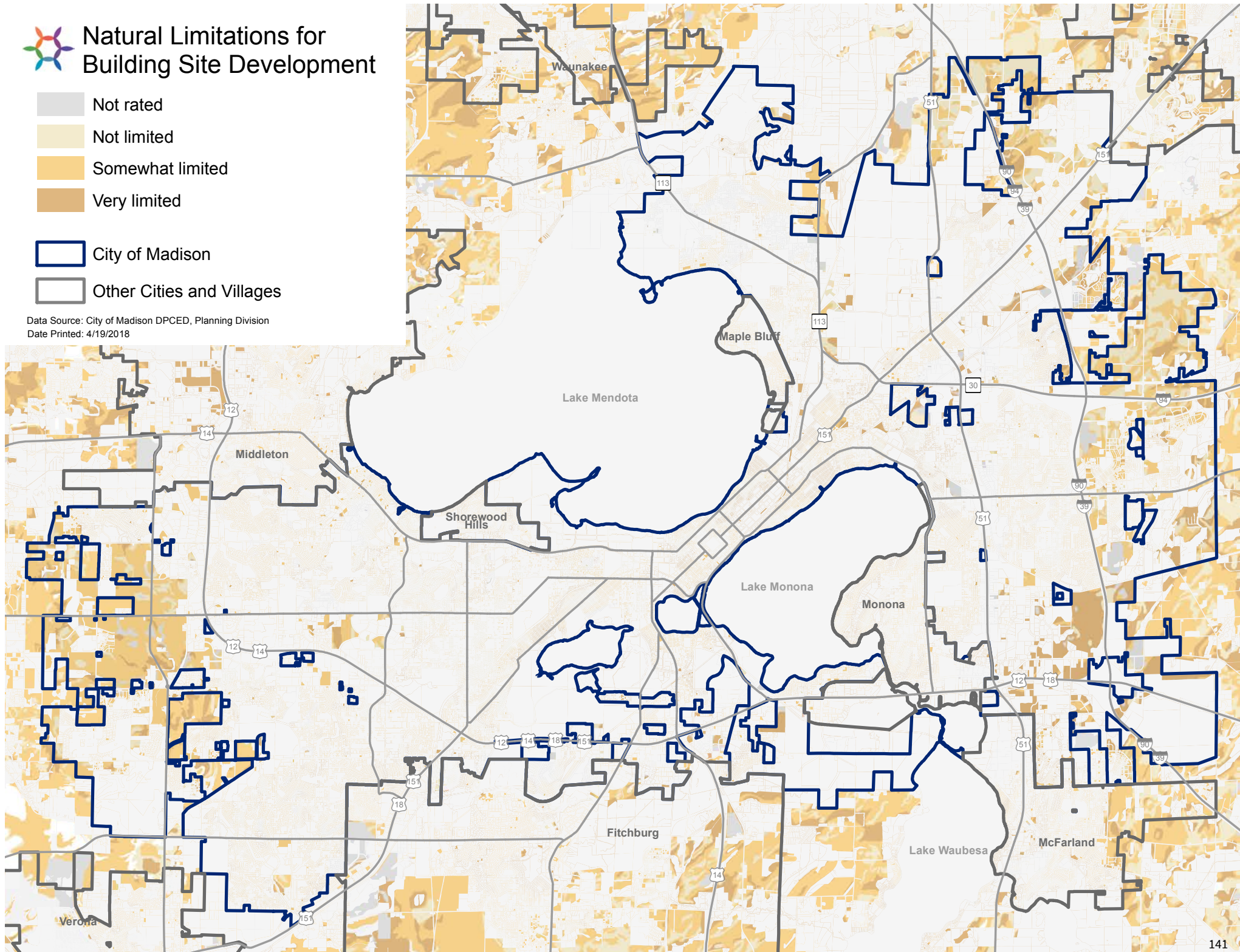


# Natural Limitations for Building Site Development

- Not rated
- Not limited
- Somewhat limited
- Very limited

- City of Madison
- Other Cities and Villages

Data Source: City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018



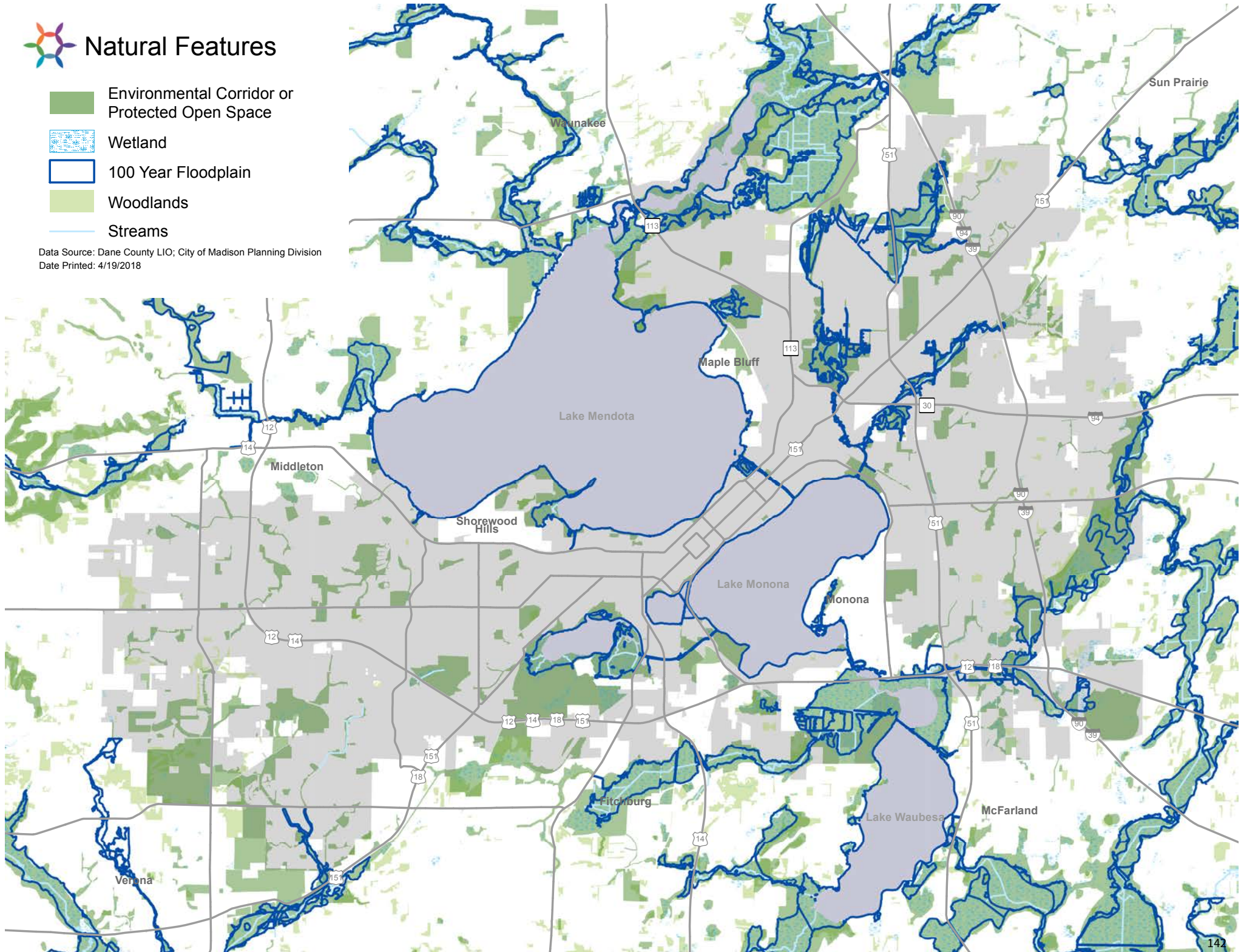




## Natural Features

-  Environmental Corridor or Protected Open Space
-  Wetland
-  100 Year Floodplain
-  Woodlands
-  Streams

Data Source: Dane County LIO; City of Madison Planning Division  
Date Printed: 4/19/2018

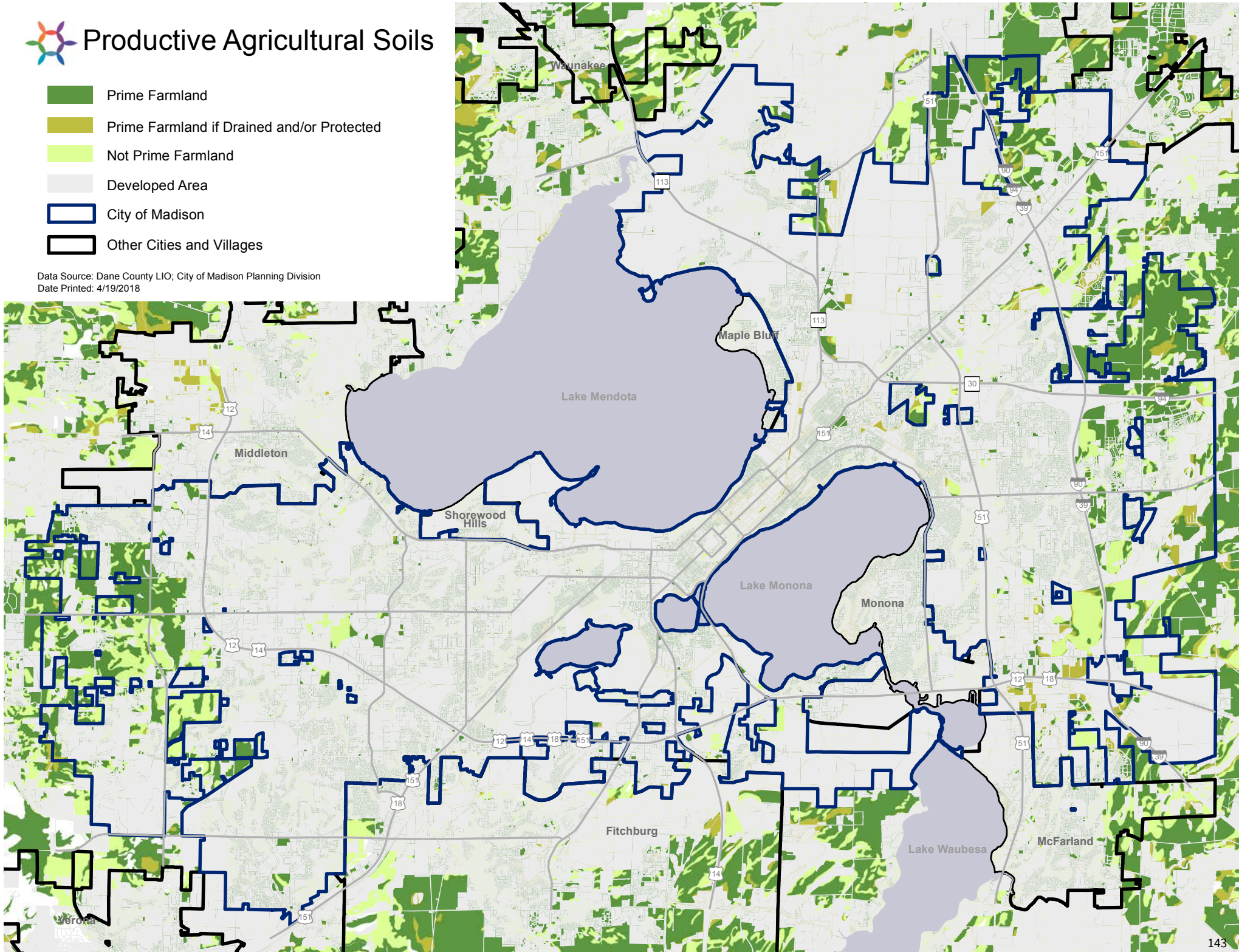




# Productive Agricultural Soils

- Prime Farmland
- Prime Farmland if Drained and/or Protected
- Not Prime Farmland
- Developed Area
- City of Madison
- Other Cities and Villages

Data Source: Dane County LIO; City of Madison Planning Division  
Date Printed: 4/19/2018



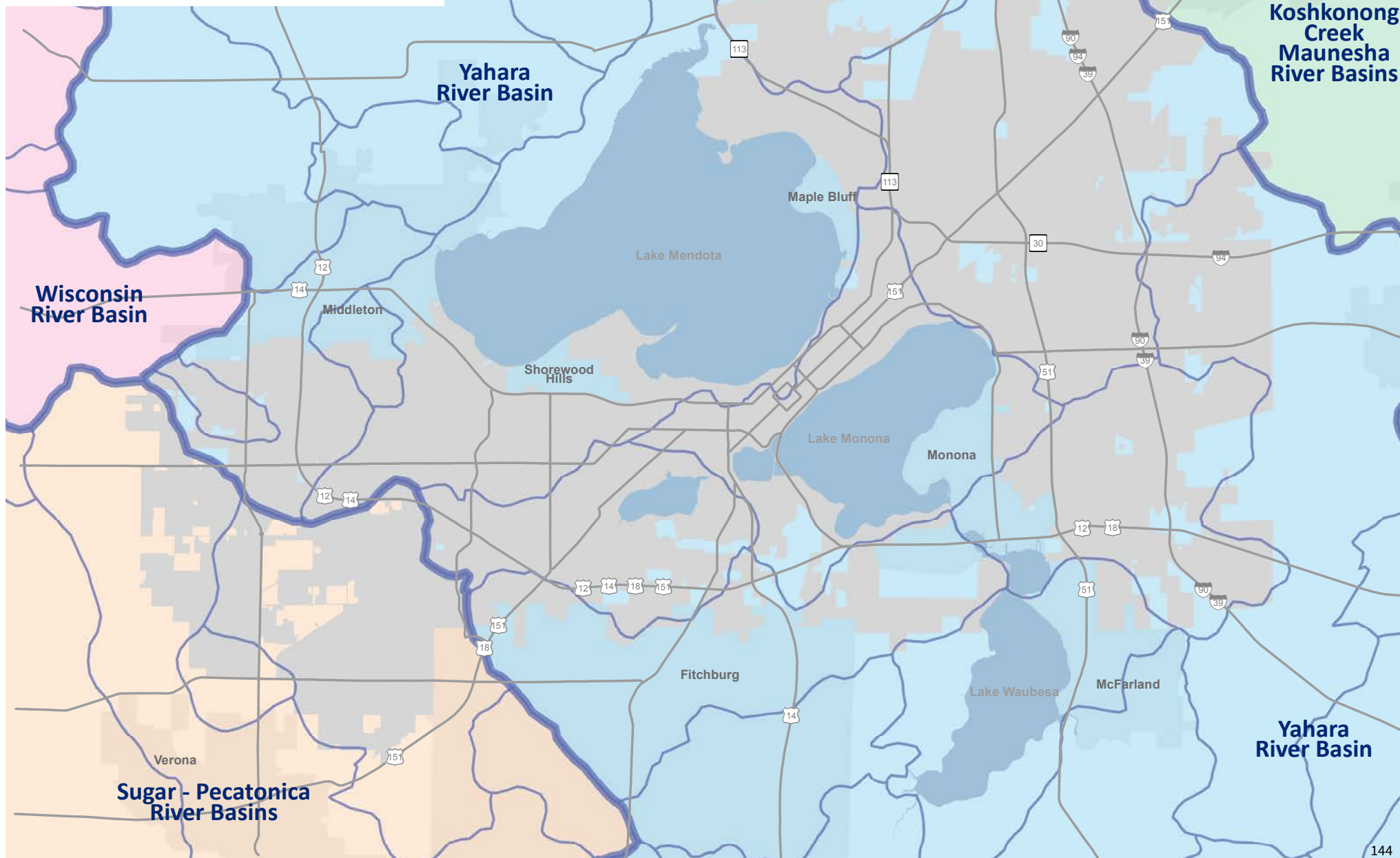




# Drainage Basins



- Major Drainage Basins
- Minor Drainage Divisions

Data Source: City of Madison Planning Division  
Date Printed: 4/19/2018





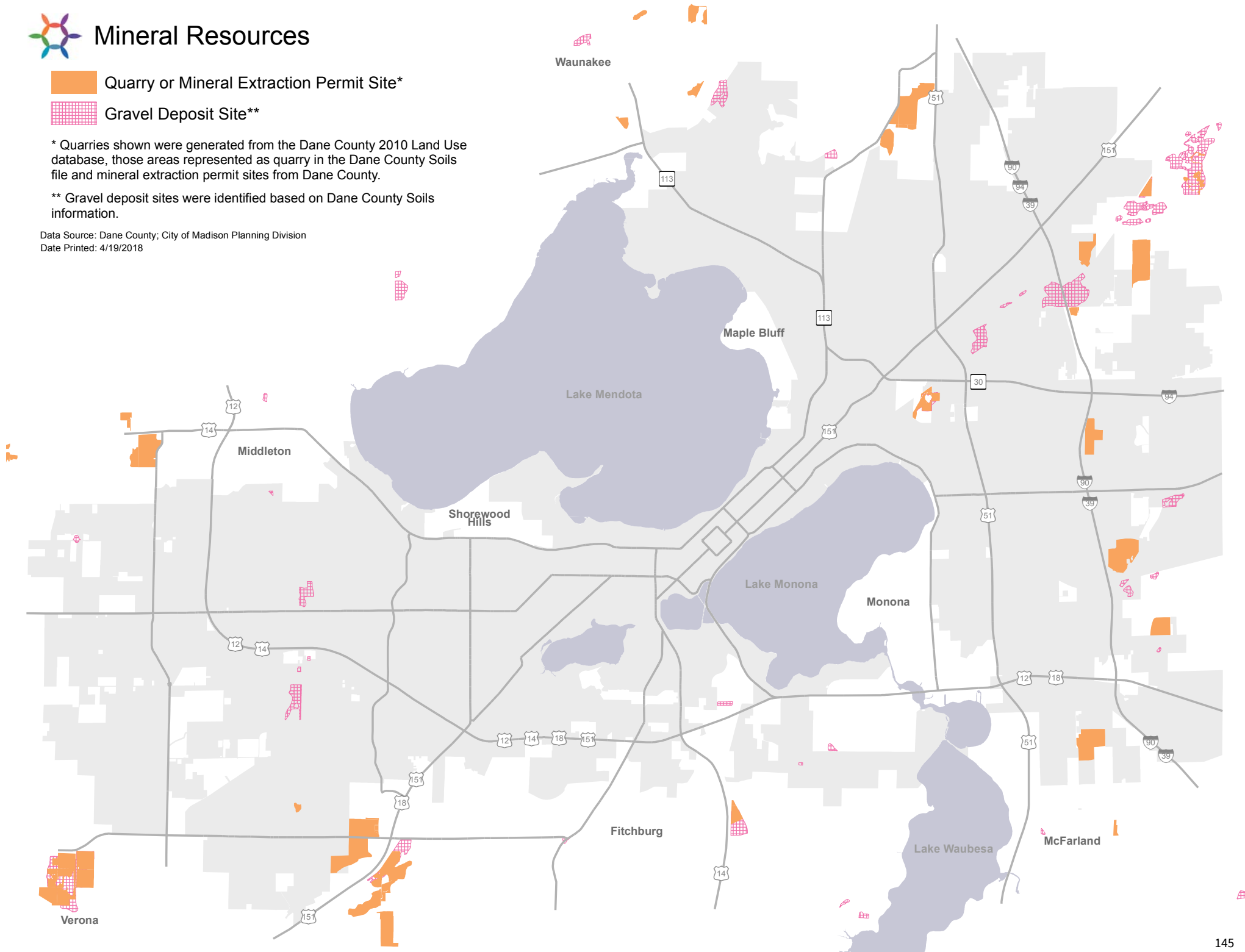
# Mineral Resources

-  Quarry or Mineral Extraction Permit Site\*
-  Gravel Deposit Site\*\*

\* Quarries shown were generated from the Dane County 2010 Land Use database, those areas represented as quarry in the Dane County Soils file and mineral extraction permit sites from Dane County.

\*\* Gravel deposit sites were identified based on Dane County Soils information.

Data Source: Dane County; City of Madison Planning Division  
Date Printed: 4/19/2018

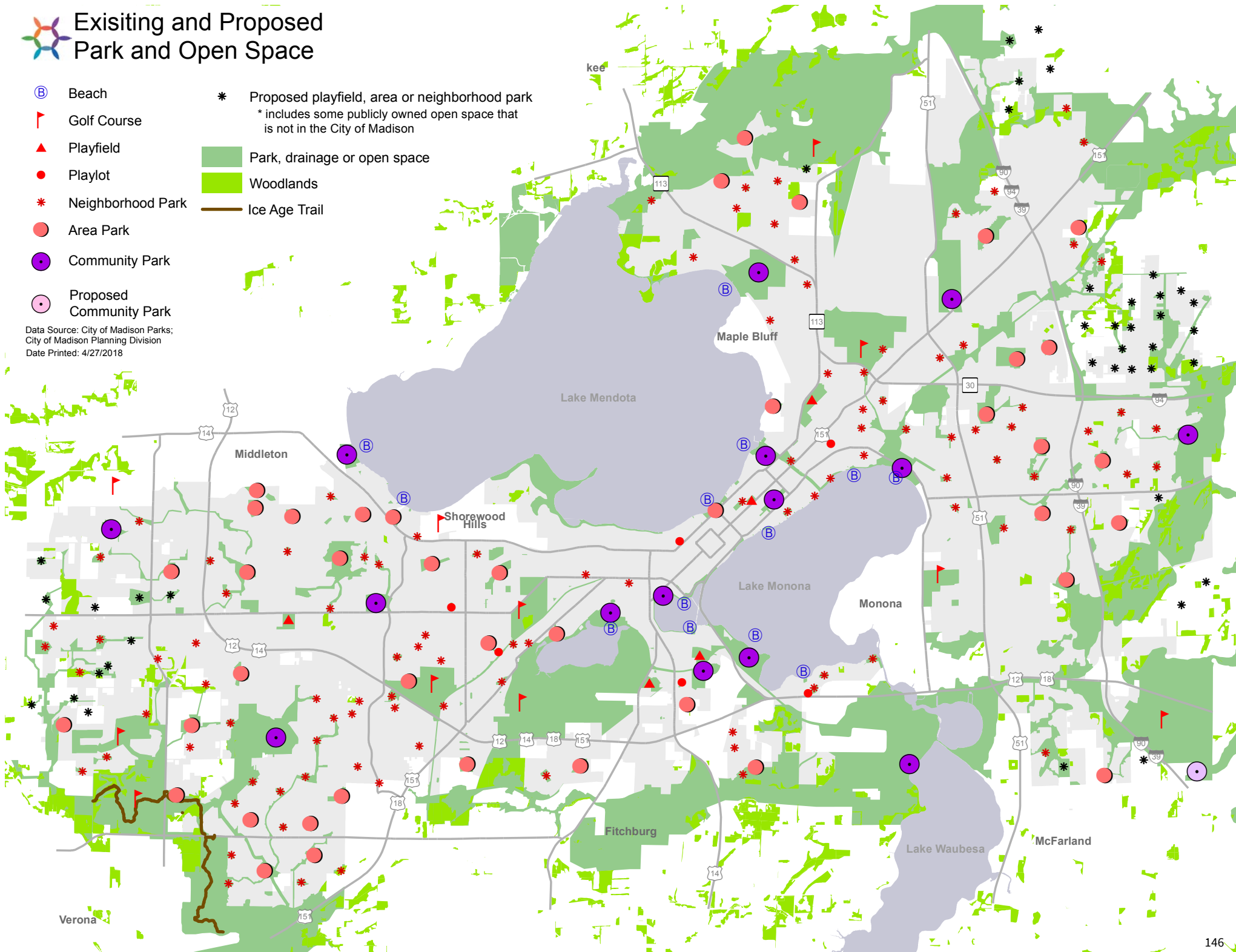




# Existing and Proposed Park and Open Space

- Ⓟ Beach
- 🚩 Golf Course
- ▲ Playfield
- Playlot
- \* Neighborhood Park
- Area Park
- Community Park
- Proposed Community Park
- \* Proposed playfield, area or neighborhood park  
\* includes some publicly owned open space that is not in the City of Madison
- Park, drainage or open space
- Woodlands
- Ice Age Trail

Data Source: City of Madison Parks;  
City of Madison Planning Division  
Date Printed: 4/27/2018





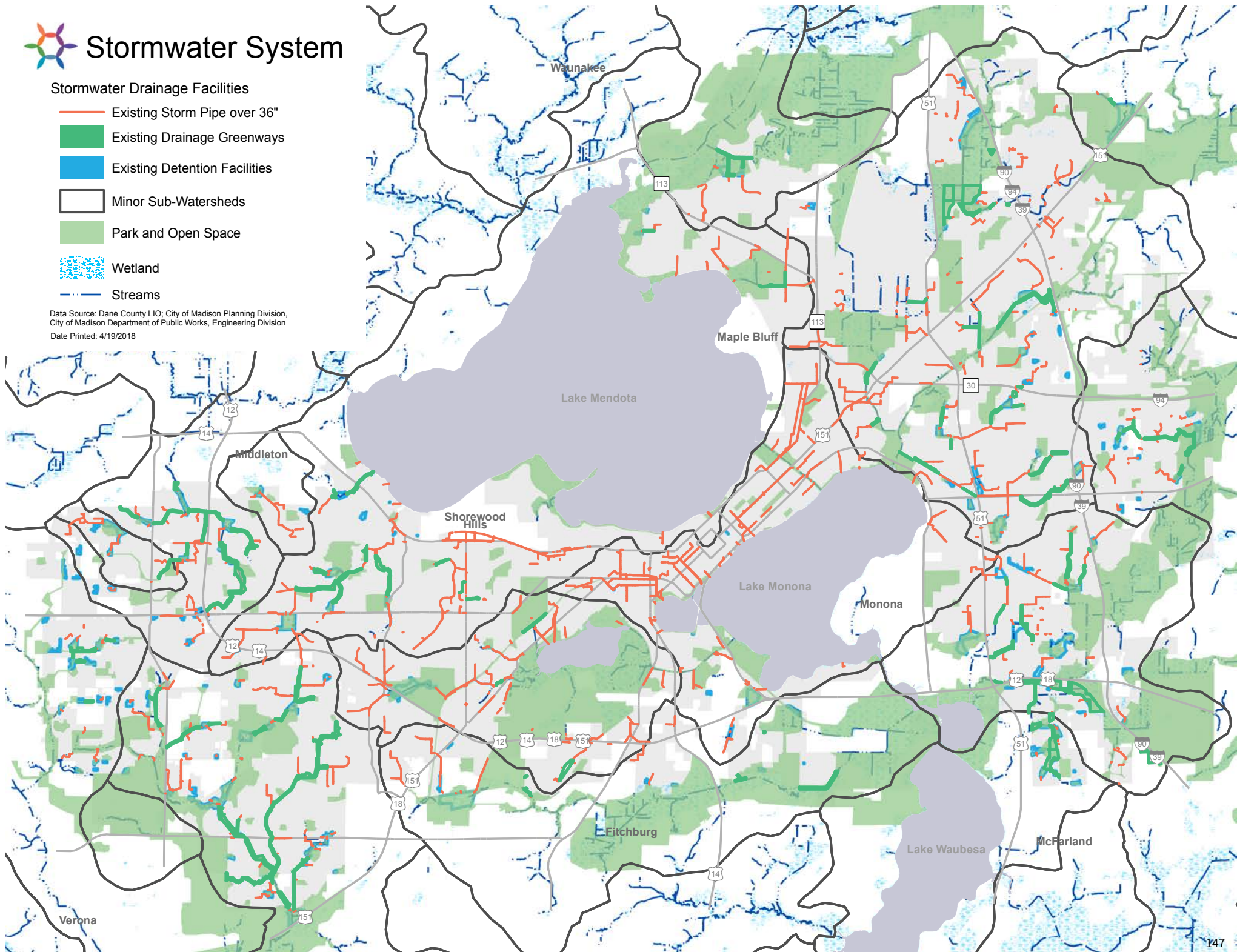


# Stormwater System

## Stormwater Drainage Facilities

- Existing Storm Pipe over 36"
- Existing Drainage Greenways
- Existing Detention Facilities
- Minor Sub-Watersheds
- Park and Open Space
- Wetland
- Streams

Data Source: Dane County LIO; City of Madison Planning Division,  
City of Madison Department of Public Works, Engineering Division  
Date Printed: 4/19/2018





# Public Wastewater System

Sun Prairie

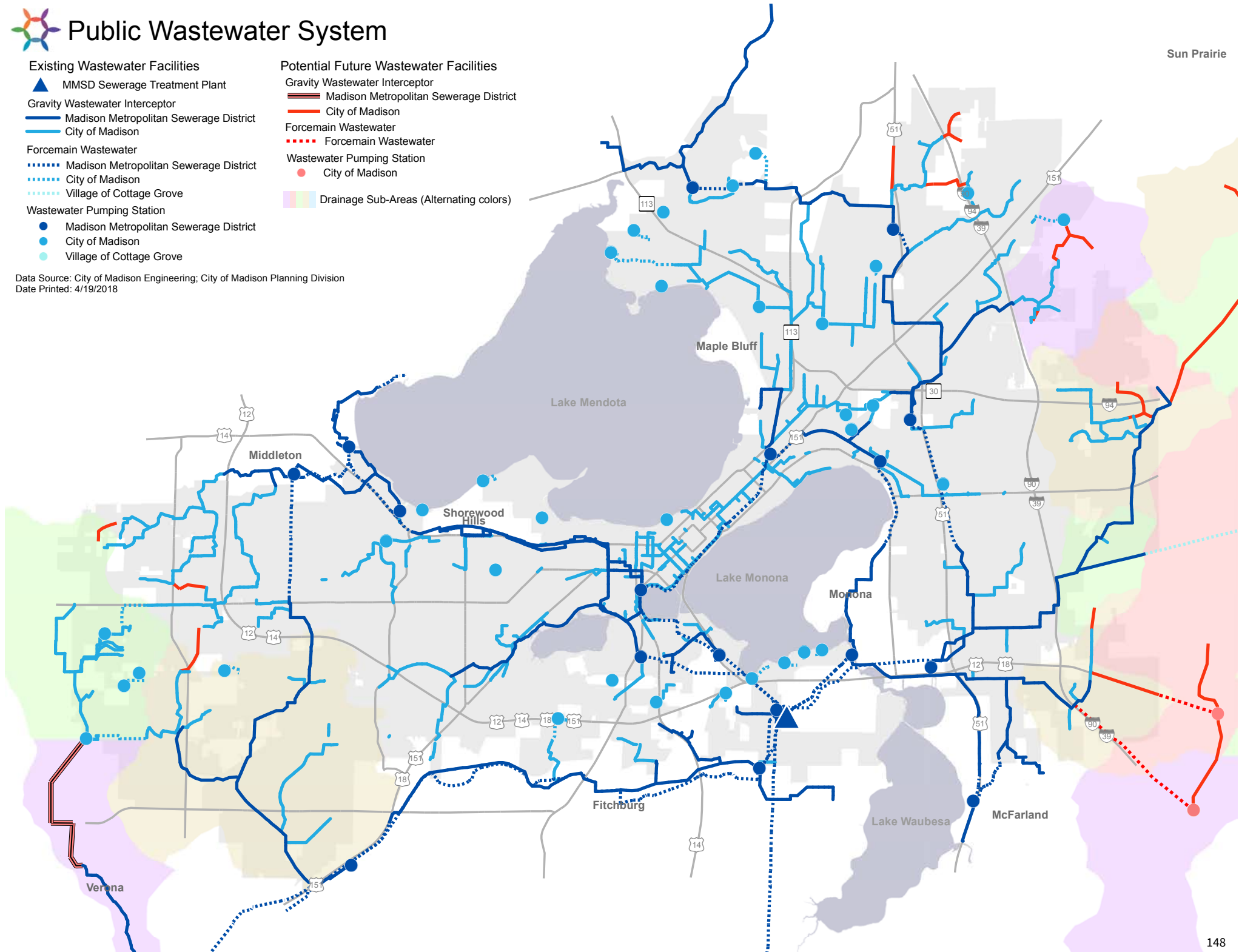
## Existing Wastewater Facilities

- ▲ MMSD Sewerage Treatment Plant
- Gravity Wastewater Interceptor
  - Madison Metropolitan Sewerage District
  - City of Madison
- Forcemain Wastewater
  - Madison Metropolitan Sewerage District
  - City of Madison
  - Village of Cottage Grove
- Wastewater Pumping Station
  - Madison Metropolitan Sewerage District
  - City of Madison
  - Village of Cottage Grove

## Potential Future Wastewater Facilities

- Gravity Wastewater Interceptor
  - Madison Metropolitan Sewerage District
  - City of Madison
- Forcemain Wastewater
  - Forcemain Wastewater
- Wastewater Pumping Station
  - City of Madison
- Drainage Sub-Areas (Alternating colors)

Data Source: City of Madison Engineering; City of Madison Planning Division  
Date Printed: 4/19/2018



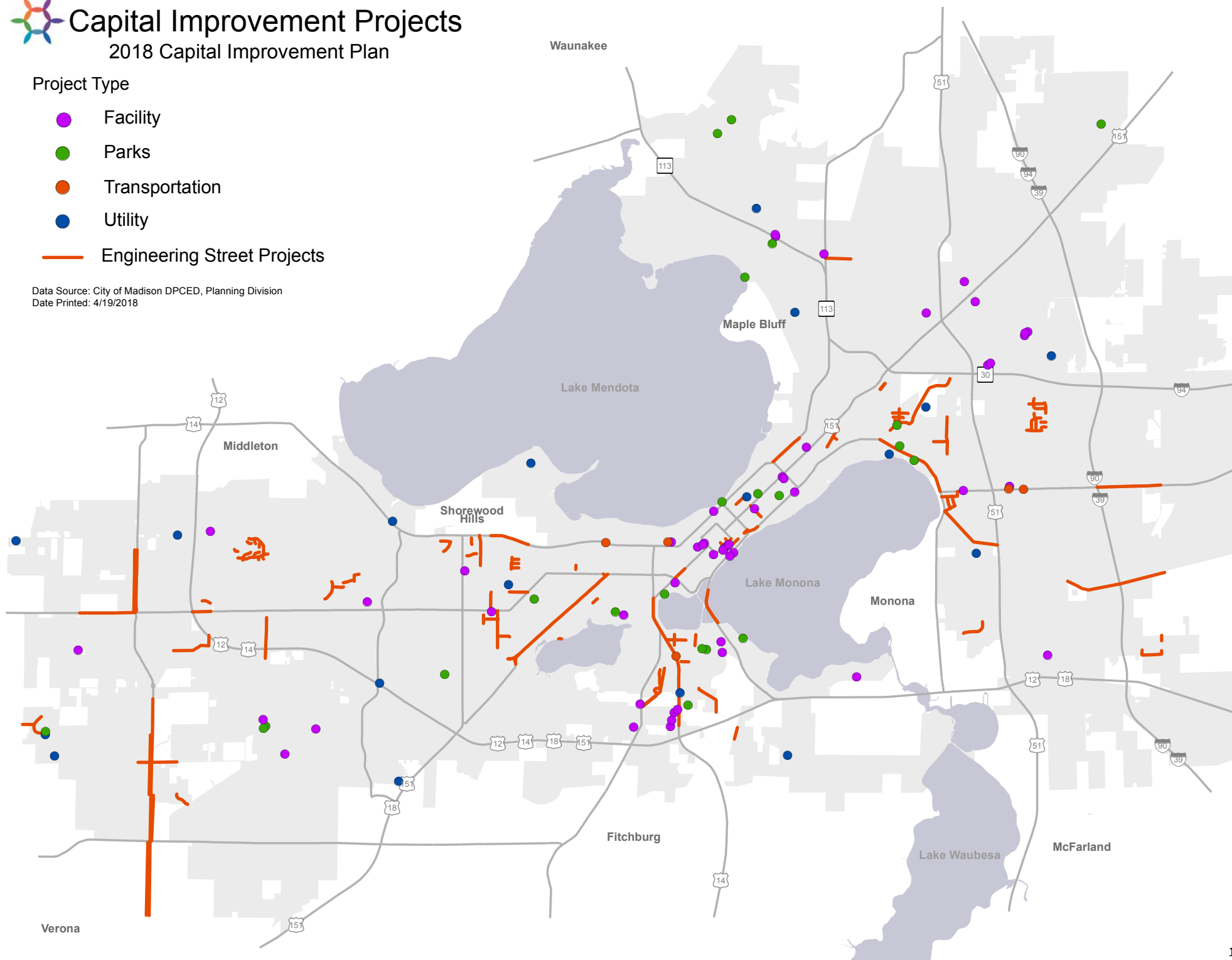
# Capital Improvement Projects

## 2018 Capital Improvement Plan




### Project Type

- Facility
- Parks
- Transportation
- Utility
- Engineering Street Projects

Data Source: City of Madison DPCED, Planning Division  
Date Printed: 4/19/2018



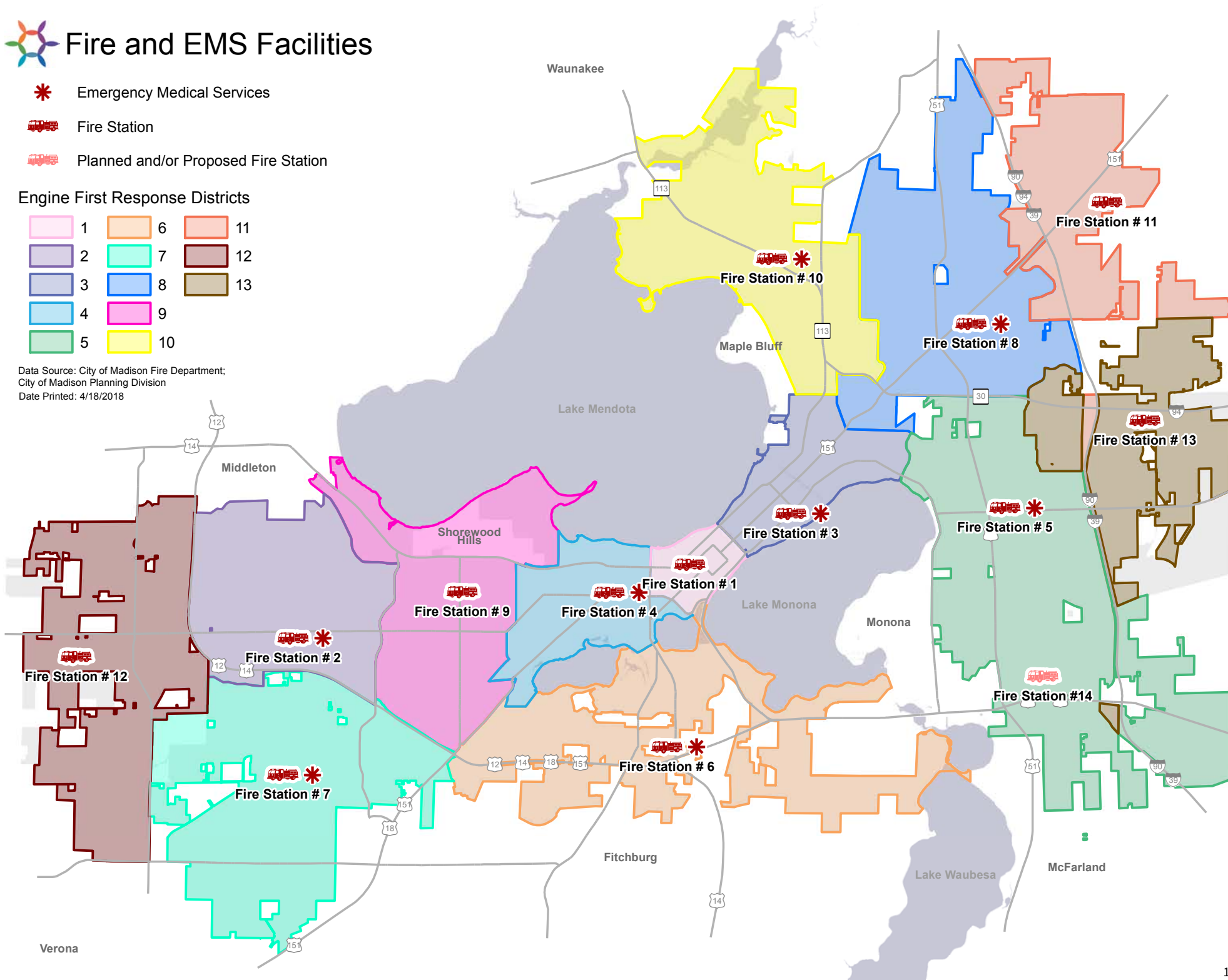


-  Emergency Medical Services
-  Fire Station
-  Planned and/or Proposed Fire Station

## Engine First Response Districts

	1		6		11
	2		7		12
	3		8		13
	4		9		
	5		10		

Data Source: City of Madison Fire Department;  
City of Madison Planning Division  
Date Printed: 4/18/2018





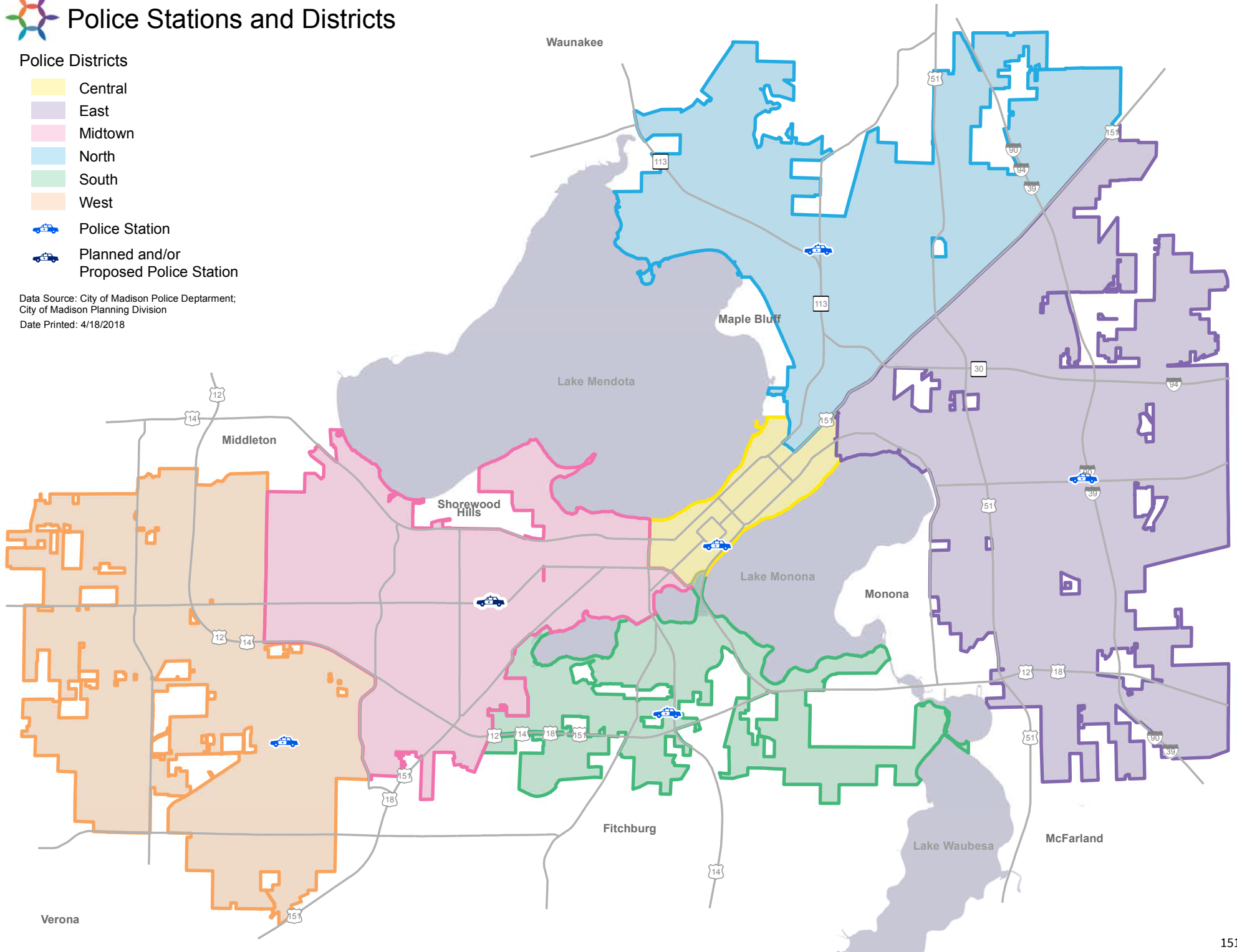
# Police Stations and Districts

## Police Districts

- Central
- East
- Midtown
- North
- South
- West

- Police Station
- Planned and/or Proposed Police Station


Data Source: City of Madison Police Department;  
City of Madison Planning Division  
Date Printed: 4/18/2018





# Hospitals, Clinincs, Child Care Facilities

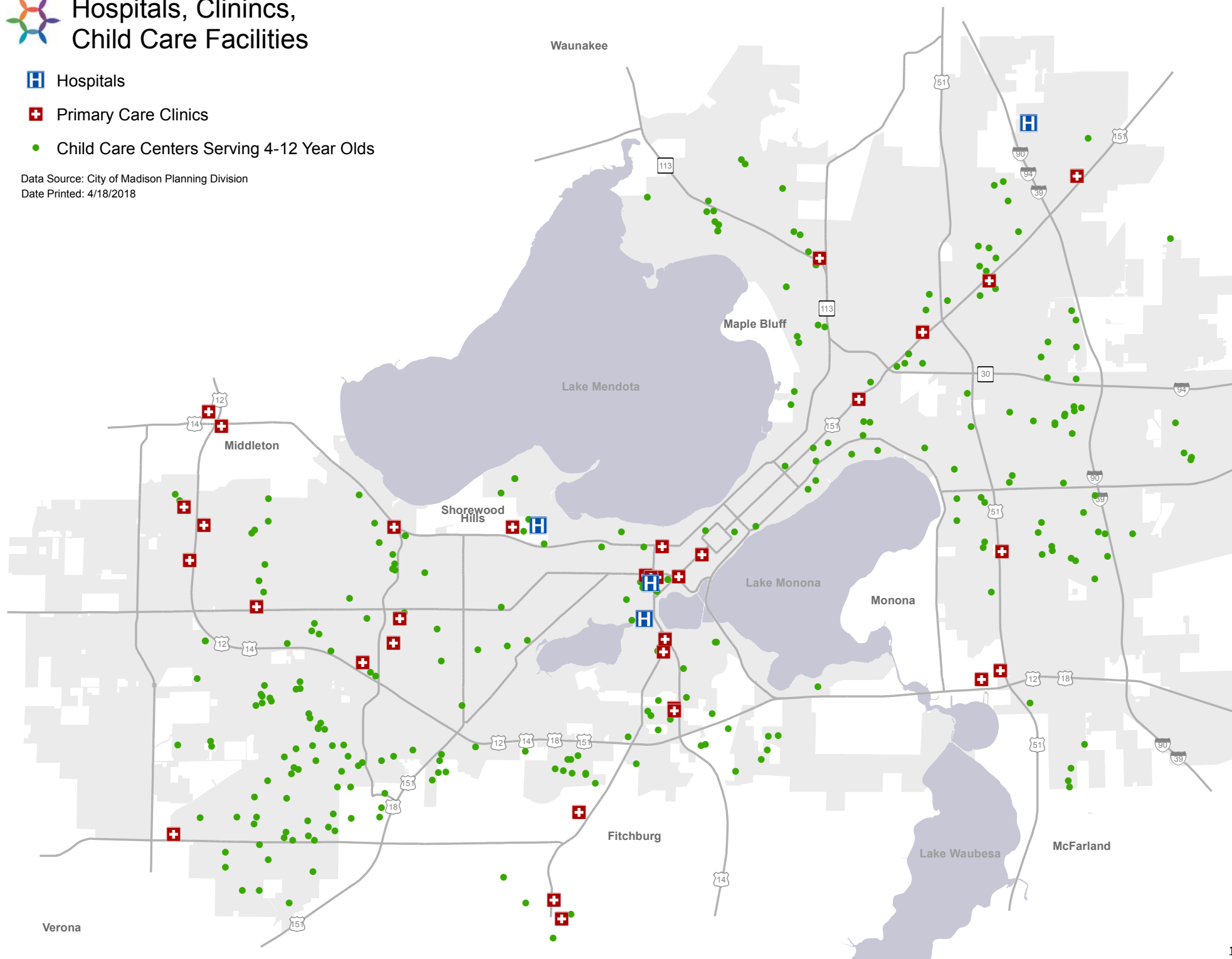
 Hospitals

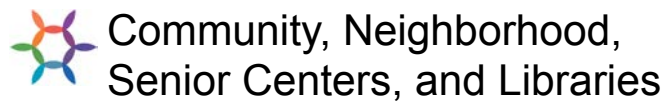
 Primary Care Clinics

 Child Care Centers Serving 4-12 Year Olds

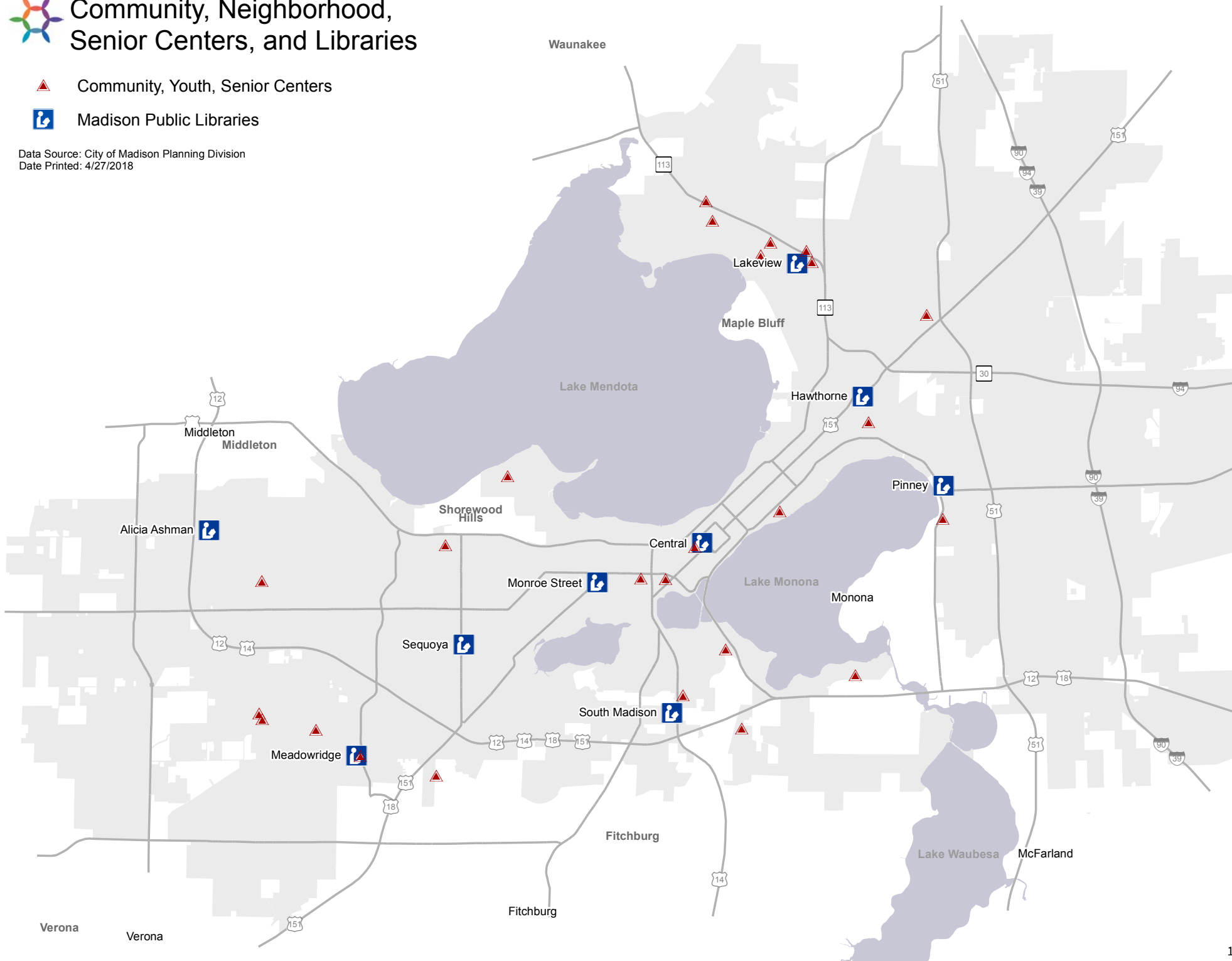
Data Source: City of Madison Planning Division

Date Printed: 4/18/2018





Data Source: City of Madison Planning Division  
Date Printed: 4/27/2018



# GLOSSARY OF TERMS

**Activity Center** – An intensively developed area that is the visual and/or functional center of a neighborhood(s) or a district. Activity centers are typically comprised of a mix of land uses developed at a higher intensity than the surrounding area including residential, commercial, employment, civic, institutional, parks and open space uses.

**Affordable Housing Fund** – A City of Madison program to provide loans and grants to for-profit and non-profit housing developers for the construction of new affordable rental housing.

**Anaerobic Digester** – The built system where anaerobic digestion takes place. Anaerobic digestion is the natural process in which microorganisms break down natural materials. (Source: U.S. EPA)

**Artificial Intelligence (AI)** – A branch of computer science dealing with the simulation of intelligent behavior in computers or the capability of a machine to imitate intelligent human behavior. (Source: Merriam-Webster Dictionary)

**Autonomous Vehicles** – Vehicles that can drive themselves from a starting point to a predetermined destination in “autopilot” mode using various in-vehicle technologies and sensors, including adaptive cruise control, active steering (steer by wire), anti-lock braking systems (brake by wire), GPS navigation technology, lasers and radar. (Source: Gartner)

**Beach Enclosure** – A treatment system that pumps water from inside a closed off area of a beach through filtration and then through UV disinfection, then releases treated water back into the swimming area. (Source: INFOS Yahara Lakes)

**Biodiversity** – The variety of life in a particular habitat, including plants, trees, and animals. (Source: Oxford Dictionaries)

**Bus Rapid Transit (BRT)** – A high-capacity bus system with features that are similar to a light rail system, such as frequent service, dedicated bus lanes, off-board fare collection, fewer stops, and traffic signal priority. (Source: In-

stitute for Transportation and Development Policy)

**Capital Area Regional Planning Commission:** is a regional planning agency that provides a variety of planning services including water quality planning, environmental conditions report, future urban development area planning, neighborhood design, scenario planning customized planning assistance and

**Capital and Operating Costs** – Capital costs are the expenses associated with purchasing assets such as land, buildings, and equipment. Operating costs are expenses associated with the maintenance and administration of a business or government on a day-to-day basis, such as salaries. (Source: Investopedia)

**Capital Budgeting** – A plan for what assets (such as land, buildings, construction, and equipment) will be purchased over a year or more time.

**City Expansion Areas** – Portions of the city that are expected to have future development, including housing, businesses, and more.

**City Fees** – Costs paid by developers or users of City services, such as building permits, development review fees, and parkland dedication fees.

**City Home Rehabilitation Loans** – Financial incentives to invest in housing units in need of rehabilitation, resulting in an improved housing stock.

**Competitive Advantage** – When a city, business, or other entity is able to produce a good or service at a lower price or in a more desirable fashion for customers. (Source: Investopedia)

**Complete Street** – Streets that are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. (Source: Smart Growth America)

**Complete Neighborhood** – A neighborhood where a mix of residential and non-residential buildings are in close proximity to each other with multiple transportation options. This enables community members to reach destinations needed for daily living (like grocery stores, schools, banks, and more) quickly, conveniently, and safely.

**Connected Vehicle** – A car or other vehicle that communicates with the internet, infrastructure, and/or other vehicles. This can allow a car to estimate the cost of a trip, be alerted to traffic, and many other activities. (Source: Center for Advanced Automotive Technology)

**Context-Sensitive Design** – New construction that conforms to the character of the surrounding neighborhood, and may include elements such as height and bulk, setback from the street, and width along the street frontage, among others.

**Development District** – Key areas identified to target employment and housing growth within mixed-use, transit-oriented development. These are areas where City economic development tools can be aligned, removing barriers to quality development.

**Easement** – A legal tool that grants one party the right to use property that another party owns and possesses. (Source: Investopedia, Merriam-Webster Dictionary)

**E-Commerce** – Activities that relate to the buying and selling of goods and services over the Internet. (Source: Merriam-Webster Dictionary)

**Edge Development** – Also known as greenfield development: development of vacant, agricultural, or forested land on the periphery of the city that has not been previously developed.

**Energy Cost Parity** – Also known as grid parity; parity is achieved when the cost of electricity generated by renewable energy sources is as cheap as (or cheaper than) energy purchased from the electrical grid. (Source: Forbes)

**Equitable Hiring Initiative** – A checklist and guide to ensure each hiring decision for the City of Madison is as equitable as possible.

**Equity Review** – A series of questions to ask to ensure that the impacts on all community members are being considered when making decisions.

**Extraterritorial Plat Approval Jurisdiction:** The purpose of extraterritorial plat approval jurisdiction is to provide cities and villages with a statutory tool to review land divisions outside city and village boundaries in anticipation of urban development.

**Floor Area Ratio (FAR)** – The measurement of a building's floor area in relation to the size of the building's lot or parcel. FAR is an effective way to calculate the bulk or mass of building volume on a development site, and is often used in conjunction with other development standards such as building heights, lot coverage and lot area to encourage a community's desired arrangement and form of development. (Source: Metropolitan Council (MN))

**Focus on Energy Program** – Wisconsin's energy efficiency and renewable resource program that partners 108 Wisconsin electric and natural gas utilities with homeowners, business owners, local governments, and others to install energy efficiency and renewable energy projects. (Source: Focus on Energy)

**Geothermal** – Heat derived below the earth's surface that is harnessed to generate clean, renewable energy. (Source: U.S. Department of Energy)

**Graywater** – Wastewater gathered from sinks, bathtubs, and washing machines (but not wastewater from toilets). (Source: APA, A Planners Dictionary)

**Greenfield Development** – Also known as edge development: development of vacant, agricultural, or forested land on the periphery of the city that has not been previously developed.

**Greenhouse Gas** – Gases that trap heat in the atmosphere. Common greenhouse gases include carbon dioxide, methane, nitrous oxide, and fluorinated gases. Burning fossil fuels, livestock and agricultural emissions, and heavy industry are top producers of greenhouse gases. (Source: U.S. EPA)

**Green Infrastructure** – A cost-effective, resilient approach to managing wet weather impacts that provides many community benefits. (Source: APA, A Planners Dictionary)

**Green Roofs** – A roof covered with soil (or other growing media) and vegetation that retains, then evaporates water. (Source: U.S. EPA)

**Greenway** – Linear corridors of land and water and the natural, cultural, and recreational resources they link together. (Source: Massachusetts Office of Energy and Environmental Affairs)

**Gross Domestic Product (GDP)** – One of the primary indicators used to gauge the health of a region or country's economy. It represents the total dollar value of all goods and services produced over a specific time period, often referred to as the size of the economy. (Source: Investopedia)

**Healthy Retail Access Program** – Created by Madison's Food Policy Council, the program provides funds for healthy retail projects that aim to improve access to affordable, healthy, and culturally appropriate food and retail within underserved areas.

**Historic District** – A significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. A local, state, or the federal government can officially recognize districts. (Source: U.S. National Park Service)

**Historic Landmark** – A building or site that has been individually designated as a place of historic significance by the City of Madison, and may or may not also be within a historic district.

**Historic Preservation Plan** – A plan to provide a framework for future preservation that goes beyond the City's current, primarily regulatory, role. It will recommend strategies to more effectively integrate historic preservation into public policy, explore zoning and land use tools, capitalize on economic development and financial incentives, and encourage heritage tourism.

**Human-Scaled Design** – The perceived size of a building relative to a human being. A building is considered to have good human scale if there is an expression of human activity or use that indicates the building's size. For example, traditionally sized doors, windows, and balconies are elements that respond to the size of the human body, so these elements in a building indicate the building's overall size. (Source: Burien, WA)

**Infill Development** – Development of vacant or underused lots that are surrounded by developed areas.

**Invasive Species** – Any kind of living organism that is not native to an ecosystem and causes harm. They can harm the environment, the economy, or even human health. Species that grow and reproduce quickly, and spread aggressively, with potential to cause harm, are given the label "invasive." An invasive species does not have to come from another country. (Source: National Wildlife Federation)

**Living Wage** – A wage that is high enough to maintain a normal standard of living. (Source: Oxford Dictionaries)

**Living Wall** – Also known as green walls: self-sufficient vertical gardens that are attached to the exterior or interior of a building. (Source: Green over Grey - Living Walls and Design Inc.)

**Master Plan for City Facilities** – A document stating goals and actions to maintain and update City buildings and infrastructure.

**Missing Middle Housing** – A range of smaller multi-unit or clustered housing types compatible in scale with single-family homes. (Source: Opticos Design, Inc.)

**Natural Soil Amendments** – Substances used to improve the physical nature of soil by adding nutrients to the soil and helping retain moisture. (Source: Lowes)



**Neighborhood Development Plan** – A neighborhood development plan (NDP) is typically prepared for largely undeveloped land on the city’s edge. Neighborhood development plans are adopted as supplements of the Comprehensive Plan and include recommendations for land use, transportation, parks and open space and utilities.

**Neighborhood Police Officers** – Police Officers that are assigned to specific areas of the City. The neighborhoods are geographically small, and typically have a high need for police services.

**Neighborhood Resource Teams** – A citywide effort to coordinate and improve the delivery of city services to Madison’s neighborhoods. Neighborhood Resource Teams (NRTs) provide a regular forum for City employees to meet, discuss, and support each other’s efforts in delivering excellent City services. NRT membership can include alderpersons, city staff and non-City staff participants.

**Neighborhood-Scaled Schools** – Schools that are smaller in size in order to serve and fit in with the surrounding neighborhood.

**Percent for the Arts** – A requirement that 1% of public building project costs, for projects with an adopted budget of \$5 million or more, be used for public art.

**Permanent Supportive Housing** – Housing that has social services and counseling programs to assist people with housing, mental health, drug, or other challenges, in the transition to self-sufficiency through gaining a stable income and other skills. (Source: APA, A Planners Dictionary)

**Petro-chemical Fertilizers** – Substances to help plants grow that are created by using a large amount of petroleum and other chemicals. (Source: San Francisco Gate)

**Placemaking** – The creation of a build environment that creates community, stimulates interaction, encourages entrepreneurship, fosters innovation and nurtures humanity. (Source: Project for Public Spaces)

**Pollinators** – Animals that assist plants in their reproduction. Species include ants, bats, bees, beetles, birds, butterflies, flies, moths, wasps, and others. (Source: USDA Forest Service)

**Property Assessed Clean Energy (PACE)** – Financing for energy improvements that addresses some of the economic barriers that have prevented the widespread adoption of home energy upgrades, including access to capital and efficient financing mechanisms for upgrades to existing homes. (Source: U.S. Department of Energy)

**Public Housing** – Decent and safe rental housing for low-income families, the elderly, and persons with disabilities. Public housing comes in all sizes and types, from scattered single-family houses to high-rise apartments. (Source: HUD)

**Rain Gardens** – Specially designed gardens that collect and infiltrate stormwater from impervious areas such as roofs, driveways, and heavily compacted lawns.

**Recyclopedia** – An annual City guide that provides information on trash collection, recycling dos and don’ts, large item collection, and more.

**Redevelopment** – Construction of a new building where a building already exists.

**Regional Agency** – An organization whose interest extends beyond municipal boundaries.

**Regional Transit Authority (RTA)** – An entity created for providing organized, effective public transportation across municipal boundaries.

**Report a Problem** – A City program and website where community members can provide information on non-emergency issues typically related to public safety, including pothole concerns, snow removal, animal control, and stolen bicycles.

**Resident Panels** – A cornerstone of the Imagine Madison public engagement process. Formed through a partnership between the City of Madison and community-based

organizations that have connections to Madison’s communities of color, lower income residents, and other residents whose voices are often missing from planning processes, the Resident Panels allowed for the voices heard in the Imagine Madison process to be more representative of the city’s population.

**Results Madison** – An effort by the city of Madison to coordinate city actions as they work on implementing various city services. Results Madison also gathers and analyzes data to help provide information that can be used by city service providers.

**Road Diet** – Reducing the number of lanes dedicated for car travel on an underutilized road in favor of other features, such as bicycle lanes, turn lanes, or wider terraces.

**Sense of Place** – The characteristics of a location that make it readily recognizable as being unique and different from its surroundings and that provides a feeling of belonging to or being identified with that particular place. (Source: Scottsdale, AZ)

**Shared Solar** – A type of community solar, shared solar is a business model that allows multiple participants benefit directly from the energy produced by one solar array. Shared solar participants typically benefit by owning or leasing a portion of a system, or by purchasing kilowatt-hour blocks of renewable energy generation. (Source: U.S. Department of Energy)

**Social Practice Artists** – Artists who focus on social engagement, inviting collaboration with individuals, communities, and institutions in a dialog about community issues.

**Step Backs** – A building design where there are fewer stories closer to the lot line (for example, near sidewalks and adjacent properties) than the rest of the building.

**Stormwater** – Untreated runoff from rainfall and snowmelt. It flows across impervious surfaces, through fields and over construction sites, crossing municipal boundaries and carrying contaminants to our lakes and streams. (Source: Dane County Office of Lakes & Watersheds)

**Subdivision Ordinance** – An ordinance adopted by the City Council to that sets standards for the division of land/property.

**Tax Increment Financing (TIF)** – A financing tool used by the City to fund public infrastructure, assist redevelopment projects, encourage employment growth, and expand the tax base.

**Terrace** – The space that lies between the sidewalk and the curb.

**Traditional Neighborhood Development (TND)** – Development of a complete neighborhood using traditional town planning principles, such as provision of a range of housing types, a network of connected streets, a variety of public spaces, and a variety of destinations (such as schools, shops, offices, and places of worship) within walking distance.

**Transit-Oriented Development (TOD)** – Compact, walkable, pedestrian-oriented, mixed-use development that is centered around a high-quality transit line or system to encourage transit use and reduce traffic generated by new development.

**Transportation Demand Management (TDM)** – A program of information, encouragement, and incentives provided by companies and local or regional governments to help people know about and use transportation options beyond single-occupancy vehicles. It is used to optimize mobility by publicizing non-car options and to counter-balance the built-in subsidization of parking and roads. (Source: Mobility Lab)

**Transportation Management Association (TMA)** – A nonprofit, member-controlled organization that provides transportation services in a particular area, such as a commercial district, mall, medical center or industrial park. They are generally public-private partnerships, consisting primarily of area businesses with local government support. (Source: TDM Encyclopedia)

**Tree Canopy** – The layer of leaves, branches, and stems of trees that cover the ground when viewed from above. (Source: Center for Watershed Protection)

**Tier 1 Streets** – Streets that are classified as arterials or collectors, have local bus service, have a high level of school-related pedestrian activity, or that provide connections to neighborhood commercial development or community services.

**Tuj Lub** – A top spinning game played on a court that is popular in the Hmong community.

**Urban Agriculture** – The growing of plants and the raising of animals within and around cities. Urban agriculture links the urban economic and ecological systems. (Source: RUAF Foundation)

**Urban Biodiversity** – The variety and variability among living organisms found in a city and the ecological systems in which they occur. (Source: “Urban Biodiversity and Climate Change” by Jose Antonio Puppim de Oliveira, Christopher N. H. Doll, Raquel Moreno-Peñaranda, and Osman Balaban)

**Water Quality** – The term water quality is used to describe the condition of water, including its chemical, physical, and biological characteristics usually with respect to its purpose (i.e. drinking, swimming or fishing). (Source: Florida Brooks National Marine Sanctuary, Key West, Florida.)

**Watershed** – An area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. (Source: USGS)

**Wisconsin Shares** – Wisconsin Shares Child Care Subsidy supports low-income working families by subsidizing a portion of the cost of quality child care while the parents or caregivers are working or participating in another approved activity. Wisconsin Shares is implemented locally by counties and tribes. (Source: Wisconsin Department of Children and Families)

**YoungStar Rating** – Wisconsin’s child care quality rating and improvement system. YoungStar Rating objectively measures child care quality, giving parents an easy way to compare child care options. YoungStar also supports child care providers with tools and training. (Source: Wisconsin Department of Children and Families)

**Zones of Contribution (for Municipal Wells)** – The entire land surface area over which water can infiltrate and move toward the well. (Source: WI DNR)

**Zoning Code** – An ordinance that regulates land use, lot size, building placement, building height, and other aspects of the development of land.

# DATA REFERENCES/PHOTO CREDITS

## Introduction

1: Low Estimates from Wisconsin DOA Demographic Services Lab Population Projections. 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 DOA and Wisconsin DOA Projections through 2040. Sources: Decennial U.S. Census; U.S. Census Bureau Annual Population Estimates; U.S. Census Bureau ACS 1-Year Table DP05; Wisconsin DOA Annual Population Estimates; Wisconsin DOA Demographic Services Lab Population Projections; City of Madison Planning Division

2: ACS 2014 1-Year Table DP03

3: ACS 2006 Table DP5; ACS 2014 1-Year Table DP05

4: ACS 2014 5-Year Tables S1501, C15002B, D, H, I

5: ACS 2006 Table DP5; ACS 2014 1-Year Table DP05; ACS 2014 1-Year Tables B01001B, D, H, & I

## Land Use and Transportation

6: ACS 2014 5-Year Tables B08006 & B08105H

## Neighborhoods and Housing

7: ACS 2014 1-Year Table DP04

8: HUD 2009-2013 Comprehensive Housing Affordability Strategy - Table 9

9: City of Madison Housing Division

10: MG&E Multifamily Rental Vacancy Rates

11: City Assessor, Planning Division

12: HUD 2009-2013 Comprehensive Housing Affordability Strategy - Table 9

## Economy and Opportunity

13: Bureau of Economic Analysis State and Metropolitan Area Regional Data

14: ACS 2014 5-Year Table DP03, ACS 2014 5-Year Table B19001A

15: ACS 2014 5-Year Tables S1501, C15002B, D, H, I

16: ACS 2014 5-Year Tables S1501, C15002B, D, H, I

## Green and Resilient

17: Public Health - Madison & Dane County 2014 Water Quality Report Card; UW Center for Limnology

18: Madison Measures 2016

19: Clean Lakes Alliance 2015 State of the Lakes Annual Report

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Land Use and Transportation, Strategy #1: Greater Cleveland Regional Transit Authority

Neighborhoods and Housing, Strategy #2: Opticos Design, Inc.