Chapter 10: Land Use

Smart Growth

Existing Land Use Patterns

Development Projections

Future Land Use Plan

Regulatory Tools

Sustainability

Figure 1 Outdoor seating on College Avenue

Land use plays a critical role in planning for Appleton's future. Land is a finite resource. The City seeks to ensure that it will have a sufficient area available to meet its future needs for residential, commercial, industrial, recreational, and other forms of development. This will be accomplished through a combination of redevelopment and infill in existing parts of the community, which may entail brownfield sites, and through the development of "greenfield" sites within the City or its extraterritorial jurisdiction.

Just as having too little developable land can impede growth, having an excessive area available for development can result in low land values. The result of this may be scattered development that is more difficult and costly for the City to serve, a trend toward lower design standards, and fewer redevelopment opportunities that are financially feasible. Appleton's objective is to maintain a supply of land that is in equilibrium with the demand for development.

Planning, zoning, annexation, sewer service areas, creation of tax incremental financing districts and redevelopment areas, and provision of public utilities are some of the techniques that Appleton will use to regulate the supply of land. This chapter of the ***Comprehensive Plan*** provides a discussion of these tools. It also contains an inventory of existing uses, projections for future land needs, and a plan for the proposed location of various land uses in the City and its extraterritorial jurisdiction.

Smart Growth

The 2016 update to the City's Comprehensive Plan introduces the principles of smart growth, which are intended to serve as an overall framework to guide land use decision-making. The smart growth principles emphasize the interconnectedness between land use, transportation, housing, and community facilities in particular. They are intended to promote a quality built environment that supports the efficient and sustainable use of land, resulting in strong neighborhoods located within walking distance of many daily services. Each of the Smart Growth principles[1] is described briefly below.

Make Full and Efficient Use of Urban Services

To avoid stretching city services, which increases both the cost of government and the distance that people must travel to their destinations, new growth should be steered toward underutilized "infill" areas as well as adjacent to existing development in order to produce a cost effective, economically efficient, and sustainable city.

Encourage "Human-Scaled" Design

Contemporary urban/suburban development, framed by automobile transportation, frequently spreads out over the land and lacks the compact, human scale and detail often found in traditional neighborhoods. For example, Downtown Appleton and the surrounding neighborhoods have an intimate human scale in contrast to some newer arterial and Highway oriented-developments. While these new developments provide valuable services, the large building setbacks, dominance of parking lots, traffic noise, distance between buildings, and lack of pedestrian access and public spaces create a far less inviting environment. Compact and efficient project and building designs use land and resources effectively, preserve more open space, and support smart transportation investments. Well-planned large-scale developments have an important place in Appleton's economy as well, and can be designed in such a way that they fit in with adjacent neighborhoods and support multi-modal transportation options. Finally in many cases it is cheaper to provide and

[1] http://smartgrowth.org/smart-growth-principles

maintain services like water, sewer, electricity, phone service and other utilities in more-compact neighborhoods than in dispersed communities.

Walkable Neighborhoods

Walkable neighborhoods are a key component of smart growth. They are characterized by a range of goods (such as housing, offices, and retail) and services (such as transportation and schools) which are located within a convenient walk. Walkable neighborhoods in turn support more transportation options, including for pedestrians, bicyclists, transit riders, and drivers. According to Jeff Speck, there are four necessary ingredients to create walkable neighborhoods. The walk must be: 1) interesting, 2) useful, 3) safe, and 4) comfortable. Many of Appleton's neighborhoods are walkable today, and the City is taking steps to make them more so, including development of a Trails Master Plan and continued investment in dense, mixed use neighborhoods in the downtown area. Despite these efforts, several barriers to walkability remain, including the need to solve the "last mile" problem in parts of the City. The "last mile" barrier refers to the final gap in the pedestrian fabric which often occurs near the pedestrian's final destination. For example, despite their proximity to Wisconsin Avenue, some residents choose not to walk to destinations along the corridor because portions of the street do not feel safe, comfortable, or interesting from a pedestrian standpoint.

Figure 2 Lawrence University's campus contributes to neighborhood walkability

Ensure Predictable and Cost-Effective Development Decisions

The value of property and the desirability of development sites are affected by investments in infrastructure and government regulation. When local governments make infrastructure and regulatory decisions in line with the community's overall vision and goals for the future, they can help ensure fair, predictable and cost-effective smart growth investments by the private sector. This is especially the case in infill sites and redevelopment areas, where new uses are more likely to elicit concerns from existing residents. By proactively helping craft a vision for such sites, the City can help ensure a more predictable, efficient development process. Another area where local governments can help ensure a cost effective and predictable development process is by creating a support environment for mixed use, pedestrian oriented development projects. Appleton has taken proactive steps to ensure a cost effective development process through the recently completed Economic Development Strategic Plan, which identifies several areas for improvement.

Mix Land Uses

In and around the historical neighborhoods of central Appleton retail, service, office, and recreational uses are located relatively close together. Conversely, newer contemporary development in Appleton tends to separate different land uses farther away from one another. The concept of single-use zoning grew out of a need to separate living places from major industries to protect the health of residents, and this practice is still good policy in some cases. But mixing compatible but different uses in a modern setting creates more interesting, walkable, and distinctive neighborhoods which are increasingly valued by homebuyers and renters. Providing uses that are closer and linked to one another can also reduce the distances that people must travel by car to conduct their daily lives, while making public transit more feasible.

Create Housing Opportunities

Appleton has a good mix of owner- and renter-occupied housing, however more diverse housing types are needed to meet changing housing needs and preferences. Appleton has seen a fair amount of senior housing being built to meet the demands of an aging population and this will likely need to continue into the future. Consequences of the mortgage crisis and subsequent economic downturn of 2008-2011, as well as demographic change, create greater demand for multi-family development, smaller lot single-family development in innovative design settings, and attached housing for young professionals and empty-nesters. Residential development in higher densities can be incorporated into mixed use projects to reduce the separation between living places and activity centers. Encouraging a diverse mix of housing opportunities throughout the City provides opportunities for people at all stages of life to age within their own neighborhoods – as their circumstances demand different housing products - whether it is a garden apartment, a row house, or a traditional single-family home.

Figure 3 Riverwalk Place at Eagle Flats provides quality housing for seniors

Encourage Distinctive Neighborhoods with a Sense of Place

Newer residential areas often occur in defined and sometimes isolated subdivisions. However, some of these areas do not appear to have strong identities. Smart growth principles embrace the neighborhood as the fundamental building block of the City and recognize the importance of creating and sustaining a sense of place and venues which encourage social interaction among neighbors. The City's Neighborhood Program is helping residents define their own neighborhoods and develop stronger communication with City government.

Preserve Open Space and Vital Environmental Areas

Appleton's environment, including the Fox River and the park system, is one of its greatest assets. By preserving open spaces and environmentally sensitive areas, the City balances the built and natural environment and provides habitat for plants and animals, recreational opportunities, and places of natural beauty. Parks and other public open spaces also add real property value to adjacent development.

Create Transportation Options

Many communities have begun to realize the need to provide a wider range of transportation options. A completely auto-dependent city limits access of such groups as young people and older seniors. An increase in the City's physical size should not reduce access. Techniques that increase the ability of all residents to move freely around the City include better coordination between land use and transportation, increasing connectivity within the street network, and developing multimodal (or complete) streets that accommodate multiple forms of transportation. This expands transportation options and increases opportunities for social interaction. Equally important, incorporating physical activity into the daily routine of citizens creates a healthier and more physically fit community.

Achieve Community and Stakeholder Collaboration in Development Decisions

Appleton is a great place to live, learn, work, and play any time of the year. City government should stay close to its constituents through techniques that regularly engage the entire community. Surveys, community open houses, and focus groups have been and continue to be used successfully. Finally, use of on-line tools and social media have helped the City stay engaged with residents on an on-going basis. In short, ideas developed by the community cannot be considered and the implementation of the Smart Growth Principles cannot occur without the collaboration of citizens. Partnerships between neighborhoods, adjoining communities, developers, nonprofit organizations, and the City will support and accelerate implementation of this Plan.

Figure 4 Participants at March 16, 2016 Issues and Opportunities Workshop

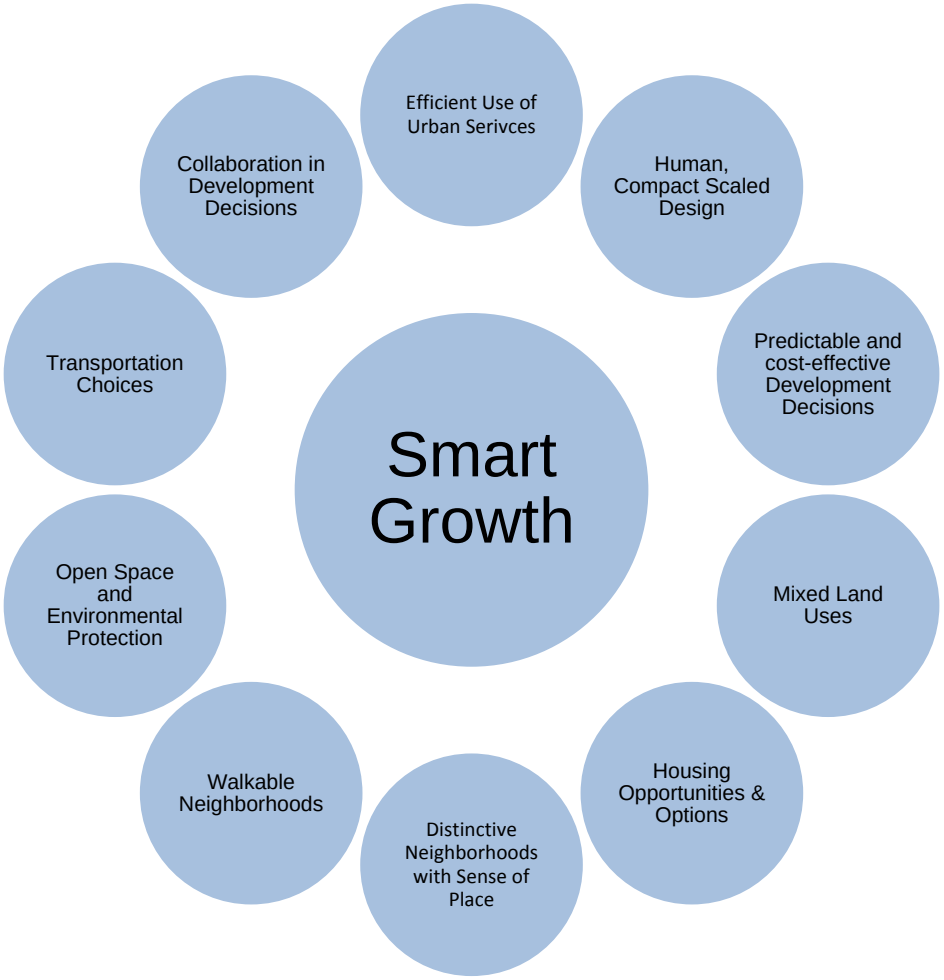


Figure 5 Smart Growth principles

Existing Land Use Patterns

Existing land uses are those uses that are presently found at a given location. Existing land use data from 2010 was the most current data available, and was used in this analysis. The data was provided by the East Central Regional Planning Commission. Because more than one use may be found on different parts of the same property, land uses do not always follow parcel boundaries. Some of the classifications that were used in the original data were combined to more closely reflect land use categories used by the City of Appleton. Existing land uses are shown in Figure 6.

Understanding Land Use and Zoning

"Land use" and "zoning" are terms that often are not clearly understood. While both refer to activities that may be permissible on a piece of land, they are not interchangeable expressions. Land use is a broad term that describes the general nature of activity that exists, or may occur on a land parcel. Land use is usually what is considered when evaluating existing conditions or planning future land uses. Zoning, on the other hand, is a specific set of regulations that narrowly defines the specific uses, as well as setbacks, height, floor area ratios, and other dimensional requirements, and other site characteristics such as signage, parking, and landscaping. Because it is a broad characterization of an area, a land use category may be made up of several zoning districts. For example, a "residential" land use category might include single-family, two- to four-family, and multifamily zoning districts.

Wetlands and Floodplains

Floodplains are areas, usually found along rivers and streams that are subject to periodic flooding. Floodplains are mapped by the Federal Emergency Management Agency (FEMA), which periodically reviews its mapping for accuracy. Development within areas of floodplain is regulated by federal and state statutes in addition to ordinances adopted by the City of Appleton. These areas are often treated as an "overlay" of the base land use or zoning. That is, a property may have any land use classification or zoning, but the designation as a floodplain over all or a portion of the property will result in more limitations or prohibitions on development.

As defined by the U.S. Army Corps of Engineers, "the term wetlands means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Wetlands are mapped by the Wisconsin Department of Natural Resources through the Wisconsin Wetland Inventory, as well as through regional and local agencies. Development within areas of wetland is regulated by federal and state statutes in addition to shoreland-wetland ordinances adopted by the City of Appleton. These areas are often treated as an "overlay" of the base land use or zoning. That is, a property may have any land use classification or zoning, but the designation as a wetland over all or a portion of the property will limit development potential. State and Federal regulations require development avoid or minimize wetland impacts. Permits are required from the U.S. Army Corps of Engineers and the Wisconsin DNR, and if the area is a shoreland-wetland the City of Appleton must follow the state mandated standards for re-zoning the shoreland wetland for development purposes. Current wetland regulations can present significant limitations for development activities.

In both cases, the maps are produced at a large scale that shows the general location of wetland and floodplain boundaries. When development occurs, the City will require detailed surveys that accurately map the boundaries of these features. These boundaries may vary considerably from what has been mapped.

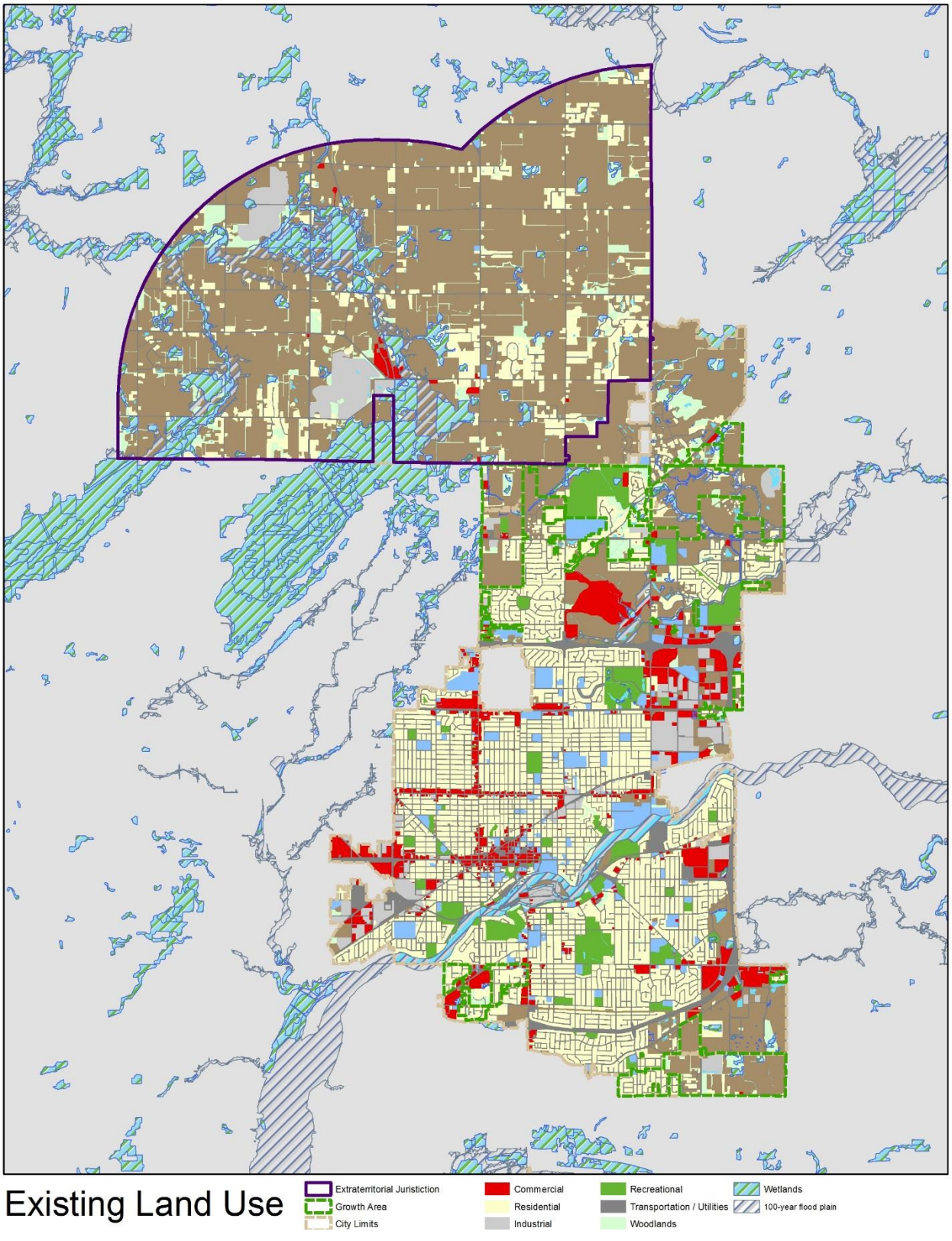


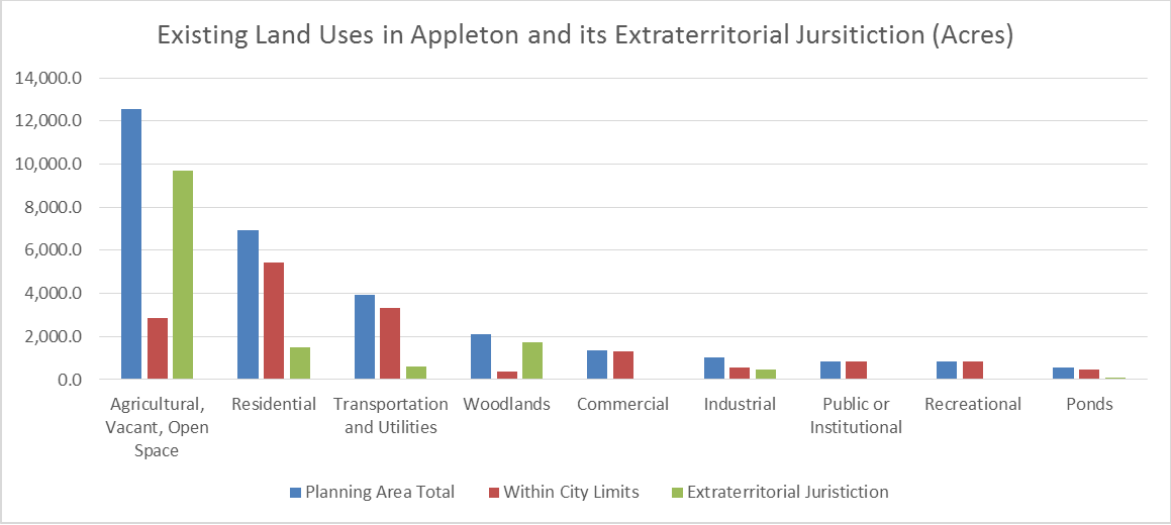
Figure 6 Existing Land Use

Existing Land Uses

Appleton currently has an area of 15,963.4 acres[2]. An additional 14,143.2 acres lie within its extraterritorial jurisdiction, as truncated by the boundary agreements the City has entered into with some of its neighbors (See Chapter 2). The number of acres existing for each use are summarized in the following table.

Existing Land Uses in Appleton and Its Extraterritorial Jurisdiction

Land Use Classification	Acres Within City Limits	Percent of Area Within City Limits	Acres Within Extra-territorial Jurisdiction	Percent of Area Within Extra-territorial Jurisdiction	Total Acres Within Planning Area	Percent of Area Within Planning Area
Agricultural/Vacant/Open Space	2,846.9	17.8%	9,690.7	68.5%	12,537.6	41.6%
Residential	5,442.3	34.1%	1,495.8	10.6%	6,938.1	23.0%
Commercial	1,306.8	8.2%	67.7	0.5%	1,374.4	4.6%
Industrial	581.8	3.6%	450.9	3.2%	1,032.7	3.4%
Public/Institutional	825.8	5.2%	13.9	0.1%	839.7	2.8%
Recreational	822.5	5.2%	3.1	0.0%	825.5	2.7%
Transportation/Utilities	3,305.4	20.7%	612.0	4.3%	3,917.4	13.0%
Woodlands	372.4	2.3%	1,712.1	12.1%	2,084.4	6.9%
Ponds	459.6	2.9%	97.0	0.7%	556.6	1.8%
TOTAL	**15,963.4**		**14,143.1**		**30,106.4**	
Wetlands	190.6		1,292.5		1,483.1	
Floodplains	604.4		1,489.5		2,093.9	
Source: East Central Regional Planning Commission and City of Appleton						



The following is a summary of the existing land uses in Appleton and its larger planning area.

Agricultural/Vacant/Open Space

This category of land use, consisting of 12,537.6 acres in total, includes land that is undeveloped, whether currently used for agriculture or simply vacant lots. A majority of the land lying within the

[2] Note that because the source data for the Existing Land Use Map and the Future Land Use Map are from differing sources, there is a slight discrepancy in the totals.

City's extraterritorial jurisdiction is classified in this use. Especially within the northern parts of this area, agriculture is the predominant use. These uses make up 41.6 percent of the planning area.

Residential

All residential uses, regardless of density or type, are classified under the residential category. These uses cover 6,938.1 acres. At 23.0 percent of the planning area, residential is the largest developed land use, and the second-largest use overall. Residential land is the largest use within the city limits. It may be important to note that the land use classification does not identify areas of mixed use development, so that additional residential uses may be found in the downtown area, or other parts of the City that have been classified as commercial.

Commercial

The commercial land use category is made up of retail, office, and service uses. It includes significant portions of the City's Northeast Business Park and Southwest Industrial Park. It is found mostly within the more intensely developed portions of the city, and very few commercial uses are found in the extraterritorial jurisdiction. Commercial uses comprise 4.6 percent of the planning area, or 1,374.4 acres.

Industrial

The industrial land use category is made up of light and heavy manufacturing, production, processing, fabrication, assembly, packaging, warehousing, wholesaling, and distribution of goods. Industrial uses are found both within the City and within its extraterritorial jurisdiction. They make up 3.4 percent of the total planning area, totaling 1,032.7 acres. Industrial acreage went down slightly since the 2010 plan, in part a reflection of successful redevelopment activities occurring along the Fox River in the industrial flats. Most of these uses are found near the edge of the City, along major arterial roads. A quarry within the Town of Center is considered an industrial use in this classification scheme.

Public/Institutional

Government uses (except parks and open space) and certain quasi-public uses make up 2.8 percent of the land area in Appleton's planning area. These 839.7 acres include uses such as City buildings, the Outagamie County Courthouse and associated buildings, Lawrence University, public and private schools, churches, and cemeteries.

Recreational

In this classification system, public parks and privately-owned recreational facilities are all classified as recreational uses. These include city parks, Plamann County Park (Outagamie County), and the privately-owned Riverview Gardens. These uses total 825.5 acres and make up 2.7 percent of the planning area.

Transportation/Utilities

Transportation and utilities comprise 13.0 percent of the planning area, or a total of 3,917.4 acres. These uses include road and railroad rights-of-way, water and wastewater facilities, electrical substations, and similar uses. They also include private uses that are primarily transportation-related, such as trucking terminals.

Woodlands

The East Central Regional Planning Commission adopted a land use classification that identifies woodlands as a separate use. Small, isolated woodlands may be found within Appleton's city limits. These tend to be found in parks, where there is steep terrain (such as the ravines) and along the Fox River. Much larger woodland areas can be found within the City's extraterritorial jurisdiction. Several large woodland tracts are found within the Town of Center. Altogether, they comprise 6.9 percent of the planning area, or a total of 2,084.4 acres.

Ponds

This classification includes surface water features found within the area, except the Fox River. Ponds may include facilities constructed for stormwater management. Several of these features are overlapped by wetlands. Ponds take up 556.6 acres, or 1.8 percent of the planning area.

Wetlands

There are 1,483.1 acres of mapped wetlands in the City and its extraterritorial jurisdiction. A majority of these are found north of Interstate 41.

Floodplains

According to the Federal Emergency Management Agency's (FEMA) map index for Outagamie County several important floodplains are identified by the following drainage ways: Apple Creek, AAL Tributary (to Apple Creek), Glory Lane Swale, French Road Swale, County Trunk Highway JJ Swale, Apple Creek North, Apple Creek Northeast, and Mud Creek. Altogether, floodplains cover 2,094 acres of the planning area.

Redevelopment and Infill

According to data compiled by the City of Appleton in December 2016, there is a total of about 1,475 acres of undeveloped land within the current city limits. This may include land that is actively marketed for development as well as undeveloped lots that are not considered by their owners as available for development. For example, in older parts of the community that are platted with small lots, an undeveloped lot may be considered part of the yard for an adjacent parcel. Undeveloped parcels may also include land that is unsuitable for development due to factors such as slopes, wetlands, access, or other issues.

Approximately 444 acres, or 30 percent, of the total undeveloped land is zoned residential. There is roughly 382 acres of undeveloped industrial land and 161 acres of undeveloped commercial land, based on existing zoning. Another 489 acres of undeveloped land is currently zoned for other uses, such as agricultural.

The inventory of undeveloped land does not necessarily include areas that the City has targeted for redevelopment. The City has identified parts of the Fox River corridor, areas within the downtown and adjacent neighborhoods, and several other specific redevelopment districts. While some of this land is vacant, portions of it are currently devoted to other uses.

Through its Downtown Plan, specific area plans for the Wisconsin Avenue, Richmond Street, and South Oneida Street corridors, and other documents or policies, the City of Appleton has demonstrated a desire to encourage redevelopment. Reuse of existing sites for development can have significant advantages for the community. Redevelopment may eliminate blight and help to improve neighborhoods. It can increase property values, create jobs and housing, and attract

desired retail uses. Furthermore, it is also one of the most efficient means of growth in that redevelopment does not typically create a need for new roads or utility extensions.

Despite the benefits of redeveloping existing sites within the City limits, a number of barriers exist which can make it difficult to do so. These include parking requirements, setback requirements, use restrictions, ingress and egress challenges, and others.

Development Projections

The following table summarizes anticipated population and household growth within the City of Appleton, in five-year increments, through 2040. By mid-century it is anticipated that the City's population will begin to stabilize at around 80,000 persons, even as the number of households is projected to slowly increase. This may be a reflection of a long term trend toward smaller household sizes, both at the state and national levels.

Projected Population and Household Growth in Appleton

	2015	2020	2025	2030	2035	2040	Numeric Change	Percent Change
Population	73,330	76,370	78,680	80,570	81,165	80,605	7,275	9.9%
Households	29,874	31,623	32,983	34,200	34,853	34,938	5,064	17.0%
Source: Wisconsin Department of Administration								

Residential Development Land Analysis

Between 2015 and 2040 the City of Appleton is expected to add 7,275 residents and 5,064 new housing units. These new homes will consume a varying amount of land depending upon the density of development, as measured in units per acre. Currently, the average density in the City is 5.60 units per residential acre (1.91 units per acre overall), with higher densities found in older parts of the community, where lot sizes are smaller and there is a greater concentration of two-unit or multifamily housing. The following table identifies the land area required to accommodate expected residential growth at varying densities.

Land Area Required for Residential Development at Various Densities

Five-Year Growth Period	Total Units Added	Land Area Required at Average Density (Units per Acre)					
		Two	Four	Six	Eight	Ten	Twelve
2015-2020	1,749	875	437	292	219	175	146
2020-2025	1,360	680	340	227	170	136	113
2025-2030	1,217	609	304	203	152	122	101
2030-2035	653	327	163	109	82	65	54
2035-2040	85	43	21	14	11	9	7
Total	**5,064**	**2,534**	**1,265**	**1,011**	**707**	**507**	**421**
Source: Wisconsin Department of Administration							

At the City's existing average residential density of 5.60 units per residential acre, 904.3 acres of land will be needed to accommodate the projected growth in households in Appleton between 2015 and 2040. Some portion of this land area will include existing platted subdivisions that have not yet been completed.

Chapter 5 (Housing) suggests that demand for multifamily housing is likely to increase as the population ages and due to the changing desires of home buyers. This could result in a higher overall density and a need to develop less land area. Additionally, it is a goal of the City to

encourage redevelopment within the urban core, further reducing the demand for greenfield development.

Commercial Development Land Analysis

Based on average household expenditures ($28,246 annually[3]) and average sales per square foot[4], each new household supports an estimated 82 square feet of retail or commercial space. Because expenditures may be made in other communities as well as Appleton, some of this demand may be met elsewhere. In the same way, though, people in other communities may make some of their purchases in Appleton. As is indicated in chapter 9 (Economic Development), over $465 million of annual sales within a 10 minute radius of the downtown area come from outside that 10-minute radius.

If it is assumed that each new household in the City will equate to a demand for 82 square feet of retail or commercial space, then the projection for an additional 5,064 households will result in a need to provide 415,248 square feet of new commercial space. This may take several forms, including large format stores, strip commercial centers, and traditional urban and mixed use development. As an average, the ratio of building to land area is likely to be in the vicinity of one to five. To accommodate 415,248 square feet (9.5 acres) of new commercial space, it may be necessary to have available approximately 48 acres of developable commercial land.

Business/Industrial Development Land Analysis

There are 1.57 jobs for every household in the City of Appleton. With an expectation of 5,064 new households by the year 2040, the City should plan to accommodate about 7,950 new employees.

Nationally, about 400 square feet of space is required for every employee[5]. The space required varies considerably according to the type of work performed, and may range from under 400 square feet for many office workers, to several thousand square feet for employees in some manufacturing and distribution occupations. Although Appleton has a strong manufacturing base, the majority of recent employment growth has been in office, service, and healthcare occupations.

Using the 400 square foot average, there will be a need to add approximately 3,180,000 square feet of employment space. This may take the form of office, retail or commercial, industrial, warehouse, and other types of space. Using a ratio of 1 square foot of building area to five square feet of lot area, the City should seek to provide 15,900,000 square feet (365 acres) of commercial, industrial, and mixed use land for development of this new space.

Future Land Use Plan

The Future Land Use Map for Appleton and its extraterritorial jurisdiction depicts the locations of land uses summarized in the table below. For uses shown in the Town of Center, located outside of the City's sewer service area, the City has adopted the future land use patterns recommended in the ***Outagamie County Comprehensive Plan***. The future land use section of that plan was updated in March 2012. To a great extent, the future uses shown in the area beyond Appleton's sewer service area are already existing. It is the City's intent that the majority of this area remain in agricultural or open space use over the next twenty years.

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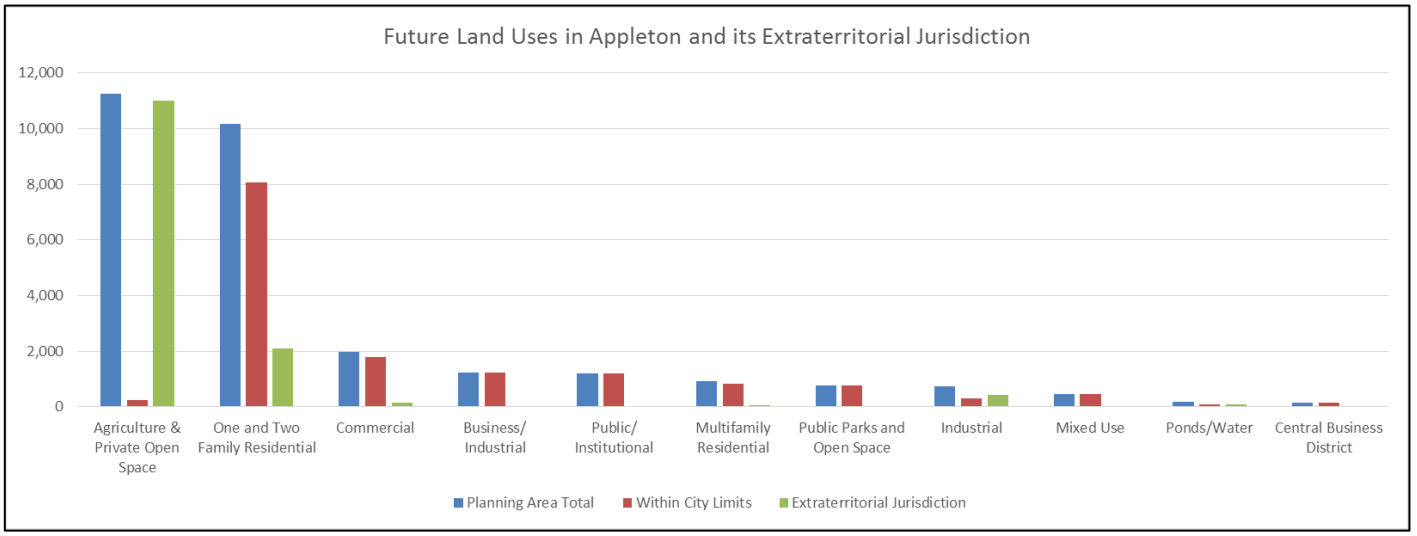
[3] U.S. Bureau of the Census, Annual Consumer Expenditure Survey, 2013
[4] https://en.wikipedia.org/wiki/Sales_per_unit_area, 2016
[5] International Facility Management Association. The average was 435 square feet in 2009, up from 415 in 2008 and 396 in 2007. This reflects rising unemployment and fewer workers within the same space. An approximate number of 400 is used for this analysis

Future Land Uses in Appleton and Its Extraterritorial Jurisdiction[6]

Land Use Classification	Acres within City Limits	Percent of Area within City Limits	Acres within Extra-territiorial Jurisdiction	Percent of Area Within Extra-territorial Jurisdiction	Total Acres Within Planning Area	Percent of Area within Planning Area
One and Two Family Residential	8,076.1	53.1%	2,096.9	15.1%	10,173.0	35.0%
Multifamily Residential	843.6	5.5%	75.1	0.5%	918.7	3.2%
Industrial	304.0	2.0%	433.2	3.1%	737.1	2.5%
Business/Industrial	1,241.0	8.2%	0.0	0.0%	1,241.0	4.3%
Central Business District	144.4	0.9%	0.0	0.0%	144.4	0.5%
Commercial	1,802.5	11.8%	167.0	1.2%	1,969.5	6.8%
Public Parks and Open Space	781.0	5.1%	3.1	0.0%	784.1	2.7%
Agriculture and Private Open Space	259.2	1.7%	10,994.0	79.2%	11,253.3	38.7%
Public/Institutional	1,197.4	7.9%	13.9	0.1%	1,211.3	4.2%
Mixed Use	472.4	3.1%	0.0	0.0%	472.4	1.6%
Ponds/Water	92.1	0.6%	90.3	0.7%	182.4	0.6%
TOTAL	**15,213.6**		**13,873.6**		**29,087.2**	

Source: City of Appleton



[6] Note that because the source data for the Existing Land Use Map and the Future Land Use Map are from differing sources, there is a slight discrepancy in the totals. The numbers for the extraterritorial jurisdiction only reflect land in the Town of Center, and the numbers for city limits include some land within other parts of the future growth area.

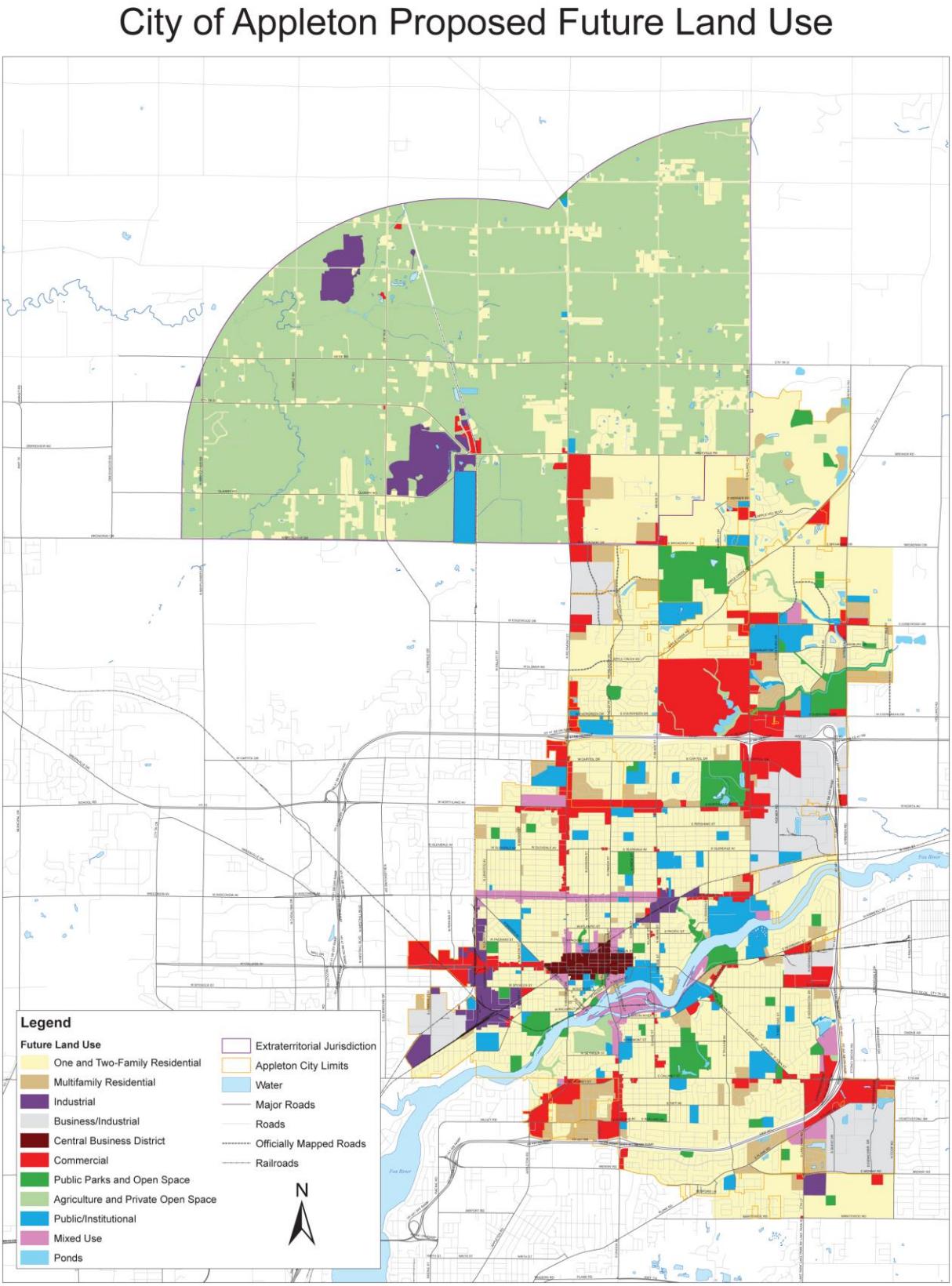


Figure 7 City of Appleton Proposed Future Land Use

In comparison to the City's 2010 future land use plan, several changes have been made. The most significant of these is the expansion of the mixed use future land use category further west along Wisconsin Avenue, as well as the expansion of mixed use designations throughout other areas of the City.

One and Two-Family Residential

One and two-family residential uses make up the largest part of the City, taking up more than half of the total land area. The Future Land Use Map identifies a large area of new one and two-family residential use, primarily to the north, and in the eastern and southeastern parts of the City and its extraterritorial jurisdiction. There is a total of 8,076.1 acres of one and two-family residential land use planned within the City of Appleton, and an additional 2,096.9 acres in the extraterritorial jurisdiction.

Development of these areas should occur at an urban density, with required connection to municipal water supply and wastewater collection systems. Unsewered and large lot development should not be permitted. Residential subdivisions will be required to provide adequate parks and open space meeting the City's established standards set forth in the Parks and Recreation Master Plan (Chapter 18). These parks and open spaces should be arranged to maximize the interconnectivity of open space throughout the subdivision and connecting to adjacent parcels.

The City of Appleton has approximately 232 single-family lots available for sale in established subdivisions, the majority of which are located on the north side. An additional 13 single family lots are anticipated to come available in the Pond View Estates subdivision in 2016. There are many acres of planned single family lots that are currently unplatted as well.

Multifamily Residential

A total of 843.6 acres of multifamily residential use is planned within the city limits. This includes existing as well as future sites for attached units that may be either owner or renter-occupied. It is the City's desire to avoid concentration of this use in any part of the community, instead providing multiple small sites where multifamily development may occur.

Vacant land for new multifamily development can be found in the southwestern and northern parts of Appleton and its extraterritorial jurisdiction. In addition, multifamily uses are encouraged on several redevelopment sites, particularly within the downtown, on the industrial flats, and in the Wisconsin Avenue corridor.

As with lower-density residential uses, multifamily development must occur on municipal water and sewers, and will be required to make adequate provision for parks and open space.

Commercial

A total of 1,802.5 acres of commercial use is planned within the city limits. This includes existing as well as future sites. As noted earlier, 48 acres of land is required to meet the City's future commercial development demand. Land area more than adequate to meet this need has been identified in the City's expansion areas to the north and east. The City also hopes to meet a part of its future commercial growth through redevelopment of properties located in the downtown, on the industrial flats, and in commercial corridors in existing parts of the community. In addition to areas identified as commercial, these uses may occur in the central business district or mixed use land use designation.

The Wisconsin Department of Transportation (WisDOT) plans to construct a “Diverging Diamond” intersection at Hwy 441 and South Oneida Street starting in 2020. In addition, the City of Appleton plans to make updates to South Oneida Street between the Oneida Skyline Bridge and Hwy. 441. These improvements will further enhance this area’s attractiveness for commercial development.

Central Business District and Mixed Use

A total of 616.8 acres of central business district and mixed use area is planned within the city limits. This includes existing as well as future sites. The 2010 Future Land Use Map showed several central business district and mixed use land use areas in four locations described below, some of which were expanded or modified during the 2016 Plan Update.

- The downtown mixed use area includes parcels on the north side of downtown (south of Packard Street), along with a mix of commercial and residential uses located along Richmond Street, from College Avenue north to West Atlantic Street. Redevelopment within this area may consist of commercial (retail, office, or service) uses, multifamily residential uses, or a combination of the two.

- The industrial flats were identified as a mixed use area in accordance with the ***Fox River Corridor Plan*** (Chapter 13 of the ***Comprehensive Plan***). The intent of this designation is to provide the maximum degree of flexibility to permit the unfettered continuance of existing industrial uses while also making it possible to redevelop with a combination of suitable uses. In this area, continued industrial use of existing industrial sites will be permitted. The City will consider a mix of office, retail, restaurant, service, and multifamily residential uses on redevelopment sites, based upon factors such as the size and location of the parcel, existing buildings that may be retained in the redevelopment proposal, adjacent uses, and ability to provide sufficient parking for the proposed uses.

- A portion of the South Oneida Street corridor, north of St. Elizabeth's Hospital, has been designated as a mixed use area. This designation is appropriate to encourage a transition from the residential neighborhoods south of the river to the industrial flats and the downtown. Uses in this area already reflect this mixed use character, and include commercial, residential, and institutional uses. Additional opportunities for economic development may include hospital related services, eye doctors, and specialty services.

- The mixed use district along Wisconsin Avenue, originally shown from Richmond Street to Meade Street, was extended to the western border of the City. This district is approximately one block deep on either side of the street. The ***Wisconsin Avenue Corridor Plan*** (Chapter 15 of the ***Comprehensive Plan***) provides greater detail on the vision for this area. The City seeks to provide flexibility to respond to market conditions that may make it difficult to economically utilize or redevelop portions of this area for purely commercial uses. The mixed use designation will permit commercial and/or multifamily development to occur. Extending the designation to a full block deep will aid in carrying out the property assembly necessary to overcome limitations imposed by the relatively small parcel sizes found in the corridor.

The 2016 Plan Update added several additional mixed use areas to the City, including but not limited to the South Kensington Drive area, South Lake Park Road, and West Northland Avenue.

Residential development within mixed use areas will be required to provide some level of public amenities or open space. The City recognizes that the constrained nature of these redevelopment sites may make it difficult to provide the same ratio and character of open space as might be

required in a greenfield development site. Alternative approaches may be to incorporate pocket parks, courtyards, or similar areas that provide opportunities for landscaping and outdoor activities. These spaces may be privately maintained. All development on the Fox River will be required to make provision for public access to the river.

Business/Industrial

This category can be described as offices and light industrial "flex" spaces such as may be found in the Southpoint Commerce Park or the Northeast Business Park. These uses are primarily found within the existing city limits and comprise a total of 1,241.0 acres, or 8.2 percent of the city's area. Land is available for development in both of these locations, as well as an additional area planned on the east side of Richmond Street south of West Broadway Drive.

The City currently has 100+ acres of fully improved land available for development in the Southpoint Commerce Park and an additional 100+ acres with planned improvements. 2015 saw increased interest in land in Southpoint.

Industrial

Industrial lands tend to be sites where industrial activity has been occurring for many decades, rather than newly-planned industrial parks. Within the City, these uses tend to be found along the railroad tracks, particularly near the Southwest Industrial Park and along Linwood Avenue, and near the intersection of Meade Street and Wisconsin Avenue. They total 304.0 acres within the city limits, with an additional 433.2 acres in the extraterritorial jurisdiction, mainly in the Town of Center.

Public/Institutional

Public/institutional uses include municipal buildings, public and private schools, churches, and cemeteries, as well as the landfill northwest of the City. Siting of these uses is considered on a case-by-case basis. While no specific locations have been identified as future sites for institutional uses, it is expected that these can be located within the planning area. While they may be located on land designated for any use, certain criteria should guide site selection. At a minimum, the City should consider compatibility with existing or planned land uses in the area, traffic or other impacts and the need for utilities, scale of the proposed use (buildings, etc.) in comparison to existing or planned neighboring uses, and whether the proposed location may be better suited to other uses (such as commercial or employment-related) that may be needed to serve the neighborhood or provide a proportionally greater benefit to the community as a whole.

Public Parks and Open Space

The Future Land Use Map notes the locations of existing public parks and other open space, including facilities owned by Appleton or Outagamie County. Specific locations for new parks have not been identified, however, should be identified and acquired as areas develop or opportunities arise. The ***Parks and Recreation Master Plan***, contained in Chapter 18 of this ***Comprehensive Plan***, identifies criteria for levels of service and park land acquisition.

The City has adopted goals to provide a total of 10 acres of park land per thousand residents. This acreage should consist of two acres of neighborhood parks and eight acres of community parks, although other types of parks may be included in the total. As noted in Chapter 18, the City of Appleton exceeds adopted standards for the provision of neighborhood parks, but lacks sufficient community parks. This is ameliorated to an extent by the presence of Plamann Park, which is not owned or programmed by the City, but located near the City's north side. The 257-acre park is

owned and maintained by Outagamie County and features many of the amenities expected within a community park, such as ball fields, shelters, a swimming beach, and trails. Not including Plamann Park, Appleton has approximately 240 acres of community parks, falling 345 acres short of the current standard, and leaving a deficit of 371 acres by 2020. Factoring in 139 acres of special park and recreation areas including but not limited to Reid Golf Course and USA Youth Sports Complex, Appleton's Park and Recreation Department maintains a total of 558 acres. This equates to 7.54 acres per thousand residents, and is projected to be 7.34 acres per thousand residents in 2020 if no additional park space is created.

Priorities for land acquisition should be based on the service area standards identified in the ***Parks and Recreation Master Plan*** (Chapter 18). Some particular areas for park land acquisition have been noted in that plan, including the southeastern and southwestern portions of the community, and parts of the existing City where service coverage does not meet the adopted standards. Park sites should be selected to preserve important natural, geological, cultural, or other resources. In addition, the City should seek to provide connectivity among its parks through the provision of greenway corridors and an interconnected network of off-street trails integrated with the City's on-street bike lane system.

Agricultural and Private Open Space

A majority of the extraterritorial jurisdiction outside of Appleton's sewer service area has been designated as agricultural or private open space (which may include woodlands or wetlands that are not used for agriculture). Consistent with the Outagamie County Comprehensive Plan, the City's intent is that these areas should not be developed until some distant time when they can be provided municipal utilities and brought into the City. Scattered, low-density development in this area will prove difficult to serve and may provide a barrier to the orderly growth of the urban area.

Some of the areas within this category consist of woodlands and other natural features where development should be limited. These areas may be considered as locations for future parks or open space corridors.

Ponds

As with the Existing Land Use Map, ponds include the surface water features of the City and its extraterritorial jurisdiction.

Regulatory Tools

Appleton has several tools that it has adopted and may use to regulate the use of land within the City, and in some cases, within the extraterritorial jurisdiction. These tools are described below.

Land Use Planning

The land use plan is a blueprint for the future arrangement of uses within the City and its planning area. In addition to determining what uses may be appropriate in a given location, the land use plan may provide guidance on the pace or phasing of development. As of January 1, 2010, local governments in Wisconsin must make land use decisions concerning official mapping, zoning and subdivision regulations, and shoreland or wetland zoning regulations, which are consistent with their comprehensive plan.

Appleton has not adopted a growth management strategy. A limited number of Wisconsin communities have adopted such a policy, which often contain limits on the pace, as well as phasing of growth. Methods used to ensure that these maximum growth rates are not exceeded

include annexation and subdivision approvals, limits on building permits, and phased utility extensions. Growth management strategies are not always effective unless other local jurisdictions have also enacted growth limitations, so that a regional approach is needed. It is recommended that Appleton engage in a dialogue with adjacent communities to discuss such a regional approach, which would assure orderly and sustainable growth without depleting the resources or impairing the vitality of already developed areas in those communities.

Zoning

Zoning is the most commonly known means municipalities use to guide land use. Zoning is used to regulate the use of land as well as to define the character of development through requirements or limitations on setbacks, height, provision of parking, signage, and a variety of other issues.

Zoning provides more specific guidance than what is found in the land use classifications used in the ***Comprehensive Plan***. Following adoption of the ***Comprehensive Plan***, the City should establish a priority to revise its Zoning Code to reflect proposed changes found in the plan. This is particularly true of the new mixed use designation and of standards recommended in the corridor plans for Wisconsin Avenue, Richmond Street, and South Oneida Street. This will be necessary to facilitate compliance with Wisconsin's Smart Growth Law.

Extraterritorial Authority

Wisconsin statutes grant cities and villages the right to plan, to prepare official mapping, and to conduct subdivision review on lands outside of the community that fall within its extraterritorial jurisdiction. That area varies according to community size, but for Appleton it is generally three miles from the city limits. As described in Chapter 2 of the ***Comprehensive Plan***, that area has been limited by boundary agreements with most of the surrounding communities.

Extraterritorial zoning provides a means for a city or village to zone land outside of its jurisdictional limits. It can only be accomplished when the city or village has entered into an agreement with a neighboring town, wherein the city and town have jointly adopted a zoning ordinance and map. Appleton has not entered into any such agreements to establish extraterritorial zoning authority.

The City does have the ability to conduct extraterritorial plat review for any proposed subdivision of land lying within its extraterritorial jurisdiction. The City may deny approval of land subdivision based upon its land use plan. In the case of a conflict, the proposed subdivision must comply with the more restrictive of the town's or the City's subdivision ordinance.

Sewer Service Area

The Wisconsin Department of Natural Resources and regional planning commissions collaborate to work with cities and villages on the delineation of sewer service areas. Sewer service areas are based on a projection of future needs for wastewater treatment over a 20-year time frame. The sewer service area includes existing parts of the community where sewer service is provided along with adjacent land where development may occur. The amount of undeveloped land included in the sewer service area is based on community size and growth projections. This land is usually considered the priority location for future development to occur. In addition to guiding land use and development, the sewer service area is a valuable tool for planning future extensions of sewers and wastewater treatment capacity.

Annexation

Cities and villages in Wisconsin expand their territory through annexation, which is usually initiated voluntarily by property owners adjacent to the corporate limits. Annexation to the City is usually a requirement for obtaining municipal water and sewer services that enable property to be developed.

Public Utility Services

Except for large lot residential and a limited number of commercial uses, most development cannot occur without the provision of municipal services such as wastewater treatment or municipal water. Appleton can make determinations on whether or not to provide these services to a property based upon the degree to which proposed development is consistent with the ***Comprehensive Plan***, as well as to the potential costs and impact to the City's capital facilities.

Sustainability

The City has joined the Wisconsin's Department of Natural Resources Legacy Green Tier Program. The purpose of this voluntary program is to "help communities across the state of Wisconsin move continuously toward a sustainable future through initiatives that promote environmental stewardship, economic growth, public health, and social equity." The City's Parks, Recreation & Facilities Management Department administers the program.

As a participant in the program the City agrees to develop an Environmental Management System (EMS). The EMS includes the following components:

1. Conduct baseline benchmarking of its environmental footprint,
2. Set targets to reduce its impact,
3. Develop and implement strategies to achieve the targets,
4. Monitor progress toward achieving those targets,
5. Report annually on progress, and
6. Adjust the program as needed.

A few significant projects which the City has completed include:

- Lighting upgrades performed, which commenced in 2006, account for a projected reduction of 1.6 million kWh.
- Retrocommissioning of the wastewater plant and library reduced electrical usage by 102,000 kWh and 54,000 therms annually.
- Converted to "green" cleaning chemicals and janitorial paper products carrying the "Green Seal" certification.
- Installed a networked computerized Energy Management and Control System in 14 of the largest buildings. Buildings can be monitored, controlled and scheduled from a single location or from remote locations. Cost savings are anticipated to result from decreased energy of 5% to 10%.

Objectives and Policies

Appleton will continue to add housing, businesses, and new residents through a combination of greenfield development and redevelopment (including brownfields) or infill within the urban core. The City's overall goal with regard to land use will be to provide sufficient quantities of land for development or redevelopment, in appropriate locations to meet future demand, while ensuring the protection of natural resources, provision of adequate parks and open spaces, and efficient

provision of municipal utilities and services. To achieve this goal, the City will adopt the following objectives and policies.

10.1 OBJECTIVE: Provide an adequate supply of suitable land meeting the demand for development of various land uses.

10.1.1 Adopt, and as necessary, amend the Future Land Use Map in the Comprehensive Plan.

10.1.2 Adopt, and as necessary, amend an Official Map that designates street right-of-way requirements, existing and future city parks, school sites, and utility locations, along with other features permitted by state statute.

10.2 OBJECTIVE: Encourage redevelopment to meet the demand for a significant share of future growth, and to enhance the quality of existing neighborhoods.

10.2.1 Continue to identify areas in which redevelopment may be desirable and prepare planning to guide that redevelopment.

10.2.2 Continue to provide assistance, through tools such as tax incremental financing, redevelopment bonds, loan programs, business or neighborhood improvement districts, and other resources, to encourage redevelopment and reinvestment in established neighborhoods.

10.2.3 Support new infill and redevelopment in accordance with the redevelopment framework presented in Chapter 14: Downtown Plan. Invest in downtown parks, trails, and quality of life amenities which enables residents to live downtown throughout all phases of their lives.

10.3 OBJECTIVE: Support future changes to zoning and other regulatory tools which are necessary to achieve the type of urban form and development reflective of smart growth principles, including support for "complete" neighborhoods (neighborhoods where residents can meet the majority of their daily needs on foot and by bicycle) throughout the City and in growth areas.

10.3.1 Revise existing zoning districts or establish new districts that permit and regulate the uses intended for mixed use areas including but not limited to the central business district, Richmond Street, Wisconsin Avenue, South Oneida Street, and the industrial flats.

10.3.2 Amend the Zoning Ordinance to address parking and dimensional standards to provide added flexibility to redevelop commercial property in the Wisconsin Avenue, Richmond Street, and South Oneida Street corridors.

10.3.3 Establish a maximum lot size for single family residential development in order to support the cost effective provisioning of public infrastructure.

10.3.4 Amend the Central Business District zoning classification to allow for ground floor residential uses, except for properties fronting College Avenue.

10.3.5 Plan for park amenities in complete neighborhoods and integrate into existing neighborhoods.

10.4 OBJECTIVE: Plan for compact, efficient, and fiscally responsible growth of residential, commercial, and industrial development in new neighborhoods in order to implement the principles of smart growth.

10.4.1 Continue to guide residential growth to locations either contiguous to or within presently urbanized areas. As peripheral development occurs, it should be at a compact, urban density to ensure new neighborhoods can be efficiently served by public infrastructure.

10.4.2 Seek to maximize land use planning coordination among municipal departments through continued communication and the proactive integration of utility, transportation, and land use planning efforts especially within the City's growth areas.

10.4.3 Promote commercial and industrial development which is compatible with nearby residential areas.

10.4.4 Encourage the development and extension of the City's trail network in or adjacent to all new neighborhoods.

10.4.5 Encourage that future subdivision plats are compatible with traditional neighborhood principles including a well-connected, grid-like street network. Include in new neighborhoods a variety of types of housing (both detached and attached), local streets sized to encourage appropriate traffic speeds, street trees and sidewalks, parks and greenways within walking distance, and small commercial areas that accommodate not just cars but also bicyclists, pedestrians, and public transit.

10.4.6 Actively enforce boundary agreements to ensure City's agreed-upon future growth areas.

10.4.7 Encourage the creation of residential neighborhoods which are not characterized by large tracts of exclusively single–family residential dwellings or large, isolated clusters of duplex or multiple-family buildings.

10.5 OBJECTIVE: Support the continued redevelopment and revitalization of land uses adjacent to Appleton's key transportation corridors and downtown.

10.5.1 In conjunction with area neighborhoods, property owners, and other key stakeholders and the public, implement and eventually update the Wisconsin Avenue, Richmond Street, and South Oneida Street Corridor Plans, in addition to other corridors. Future updates should encourage additional tax base on underperforming parcels while enhancing community quality of life through the provision of additional neighborhood services, increased bike and pedestrian access, and other improvements.

10.5.2 Develop a communications plan to make existing and potential land owners and developers aware of the vision plans for these corridors.

10.5.3 Within transitional areas at the edge of downtown, encourage development that is compatible with existing residential neighborhoods.

10.6 OBJECTIVE: Participate in and initiate discussions with community groups and regional jurisdictions about sensible land use planning consistent with Smart Growth principles.

10.6.1 Encourage local jurisdictions in the Fox Cities area to develop a consistent regional perspective on the future. Convene meetings of community and government leaders to discuss growth issues including but not limited to those identified in Chapter 11 Intergovernmental Cooperation. In partnership with local jurisdictions, jointly develop and adopt principles that guide growth in the metropolitan area.

10.7 OBJECTIVE: Provide leadership in sustainability and continue to strive to incorporate sustainability into City planning and operations.

10.7.1 Continue to participate in the WDNR's Legacy Green Tier program.

10.8 OBJECTIVE: Develop and extend a system of local residential streets that are highly interconnected, relatively narrow, and designed to meet the needs of pedestrians, bicyclists, motorists, public transit, and vehicles associated with periodic service providers.

10.8.1 Neighborhood streets and sidewalks should provide an interconnected transportation network that links neighborhoods, districts and corridors without forming barriers between them. Dead-end streets and cul-de-sacs should generally be avoided unless necessary to protect sensitive environmental features or address significant changes in topography.