

CHAPTER 2: LAND USE

GOALS AND STRATEGIES

Credit River has adopted the following goals and strategies to help guide land use and development:

A. Growth and land use development shall be managed in a fiscally responsible manner which will result in staging of infrastructure investments to support growth.

1. Community-Wide Policies:
 - a. Require developers to pay for all direct costs associated with development.
 - b. Require developers to contribute a reasonable and proportionate share of the costs associated with expanding existing or constructing new services in order to accommodate new development.
 - c. Manage growth to maintain reasonable tax rates.
 - d. Develop plans that allow for flexibility to respond to market demands.
 - e. Allow new development to occur only when it is demonstrated that adequate facilities and supportive services exist to accommodate such development. Recognize that different facilities and services are needed for rural residential and urban developments.
 - f. Create and maintain a Township Capital Improvement Plan to finance various plans and public improvements necessary to support growth.
 - g. Deny premature development proposals based upon applicable Township and/or County ordinances.
2. Urban Policies:
 - a. Develop service delivery strategies that are fiscally conservative.
 - b. Explore options for collaborating with other jurisdictions for the provision of services.
 - c. Manage growth by utilizing available infrastructure (to promote fiscally responsible growth) and reject premature development.
 - d. Maintain plans for future public sewer and water service.

- e. Measure and evaluate development trends to determine future infrastructure needs to ensure that all development occurs in accordance with logical extension of utilities.
3. Rural Policies:
- a. Maintain the Individual Sewage Treatment System (ISTS) and Community Sewage Treatment System maintenance programs consistent with State standards and Metropolitan Council policies.
 - b. Require property owners to provide sufficient land area to accommodate a protected back up location for the replacement of proposed sewage treatment systems.
- B. Coordinate growth management and land use planning between Credit River Township and neighboring jurisdictions.**
- 1. Be proactive in collaborating and communicating with neighboring jurisdictions on mutual planning issues such as urban expansion, land use, transportation, natural resources, water and sanitary service and inspection, and parks, trails and recreation.
 - 2. Share, coordinate and communicate planning issues of mutual concern with neighboring jurisdictions during the preparation of comprehensive plans or system plans.
 - 3. Coordinate long range transportation and other infrastructure plans that will support and direct future growth and allow for planned road right-of-way and infrastructure improvements.
 - 4. When appropriate, participate in multi-jurisdictional agreements to address responsibilities for project implementation.
- C. Pursue commercial and industrial development to diversify the local tax base and promote local employment opportunities.**
- 1. Promote new commercial and industrial uses where compatible with adjacent land uses and infrastructure. If necessary, land for future commercial and industrial uses should be reserved until urban services are extended to the area.
 - 2. Develop zoning standards that encourage high quality and aesthetically pleasing commercial buildings.
- D. Support the efficient delivery of urban services, including public utilities.**

1. Support an amendment to the Metropolitan Council’s Thrive MSP 2040 Planning Area Map, changing the designation of Northern Credit River from a “Rural Residential” Planning Area to an “Emerging Suburban Edge” classification).
2. Consider incorporation to:
 - Establish a Credit River specific vision of the community including the type, intensity, quality, and location of development within its boundaries.
 - Protect, enhance and implement Credit River’s vision of the community via formally adopted land use controls.
 - Ensure the economic stability of the community.
 - Protect environmentally sensitive areas.
 - Prevent undesirable development patterns.
 - Maintain or enhance the quality of life in the community.
 - Provide necessary services, including range of land uses, to meet the specific needs of its residents.
3. Consider joint powers agreements or contractual agreements for extension/provision of urban services.
4. Promote orderly growth and the provision of urban services (within areas of the Township guided for urban use) in a fiscally responsible manner.
6. Consider updating the fiscal impact analysis and provide a service plan for all areas proposed for urbanization.
7. Identify preferred sewer service areas which reflect community development objectives.
8. Provide comment and recommendations to Scott County for projects within its borders, making sure that proposed developments are consistent with the Township policies and applicable ordinances.
9. In evaluating the appropriate governmental options for Metropolitan Urban Service Area (MUSA) expansion, as well as locally provided municipal service area expansions, consider the physical and financial viability of providing public utilities and services to the urban expansion areas.

F. Manage growth and land use development in a manner that is fiscally responsible and will result in the staging of infrastructure investments to support growth.

1. Recognize and plan for Credit River’s share of Scott County’s projected growth over the next two decades.

2. Support the reasonable preservation, dedication, and acquisition of right-of-way along existing major transportation corridors prior to anticipated road improvements.
3. Require developers, not existing taxpayers, to pay for their proportionate share of initial and incremental costs for needed and planned infrastructure related to or resulting from new development.
4. Update a Capital Improvement Program (CIP), which allows the Township to properly manage and finance public improvements, including transportation, parks and trails, and other public facilities, to adequately support growth.
5. When public sewer and water service become available, establish fair, equitable and timely policies related to service conversion and hook up.
6. Limit direct access to principal arterial, minor arterial, and major collector roadways.

G. Plan for and reserve areas for future urban uses.

1. Specifically define a phased urban expansion area sized to accommodate urban growth based on the Township's ultimate urban service capacity. (The configuration of the urban expansion area will be reflective of the service capacity of available and planned services, including public sewer, water, roadways, and storm water management.)
2. Periodically review and adjust, if new conditions warrant, the boundaries and phasing plan for the urban expansion area.
3. Develop standards for interim development uses to allow for future conversion to sewer development when urban services become available.
4. Promote compatible land use patterns on shared boundaries between urban and rural uses as a means of protecting future urban expansion and transition areas.
5. Within the urban expansion areas, discourage premature development, subdivisions or land use patterns that may obstruct the logical future extension of utilities and roadway systems.
6. Review new development and land use changes in urban expansion areas for consistency with the Comprehensive Plan.
7. Consider the reservation of trail corridors and new park lands when reviewing development applications.

H. Foster a rural land use character in areas where sewer service is not anticipated to be provided.

1. Work with the Metropolitan Council and Scott County to identify long range sanitary sewer service areas and develop land use strategies for areas that will not likely be served by public sewer service.
2. Limit residential development serviced by individual or community sewage treatment systems and private or community water supply systems to low density residential and complementary uses.
3. Identify locations where commercial or industrial uses may be compatible with residential and agricultural uses in the rural areas of Credit River.

I. Develop a cohesive land use pattern that ensures compatibility and functional relationships among activities and between jurisdictions.

1. Build on community strengths including environmental quality, open space, recreational/park facilities, and quality development to realize the Township's land use objectives.
2. Provide a range of lot sizes, densities, land use types, and residential lifestyle choices for rural and urban residents.
3. Designate land use areas and guide development in a manner that ensures desirable land use patterns that provide for public infrastructure, protect the natural environment, and minimize conflicts.
4. Encourage opportunities for public participation in the planning and development review process.
5. In rural residential growth areas, utilize flexible zoning tools to encourage the private sector into a collaborative development track that could include density bonuses in exchange for public values that promote varied housing options, improve public infrastructure systems, and encourage natural resource protection.
6. In urban growth areas, collaboratively plan for public utilities (sewer and water) in a staged manner which, to the extent possible, maintains compatible land use relationships.
7. To the maximum extent possible, apply development policies and regulations consistently and uniformly.

8. Change geographic land use designations and related zoning classifications only when it can be demonstrated that such modifications are in the best long-term interest of the Township.

J. Promote higher intensity, higher density urban growth and development within appropriately designated areas of the Township.

1. Support phased urban development consistent with the Township's Sewer and Water Plans to maximize the use of infrastructure.
2. Encourage the provision of public utilities in a planned, orderly fashion that encompasses larger areas, rather than in a piece-meal, parcel-by-parcel fashion, so jurisdictions can plan for parks and trail links, school sites, utilities, street interconnections, local collectors, and minor arterial roadways.

K. Promote a compatible land use pattern that limits existing and potential conflicts and respects private property rights.

1. Guide new land uses to areas where similar uses are located and plan for transitional areas along natural or physical barriers (i.e., topography, drainageways, transportation routes, etc.) to minimize potential impacts.
2. Work with neighboring jurisdictions seeking to ensure that the proposed use and development of abutting properties will be in harmony with existing and planned uses in the Township.
3. Provide a full range of housing choices, including both rural residential neighborhoods and urban housing opportunities.
4. Assure that incompatible land uses are not located close to one another, and that appropriate measures such as larger lot size requirements, greater setbacks, additional landscape screening, and/or orientating lots and buildings, equipment, vehicle parking and exterior storage away from surrounding land uses, are used in instances where incompatibilities may otherwise occur.
5. Guide the location and overall site design, including landscaping and screening, of utility facilities and structures (substations, water towers, lift stations, pole structures, etc.) in such a way that they are compatible with surrounding land uses.
6. Require adequate lot sizes and soundly constructed buildings of sufficient size for all types of development.
7. Allow institutional uses such as churches or other uses provided that all traffic, access spacing, infrastructure, utility setbacks, storm water management, and compatibility issues are sufficiently addressed.

L. Maintain, protect, and where necessary, upgrade the character of established neighborhoods, which includes elimination of non-conforming and incompatible uses.

1. Encourage the redevelopment of substandard, obsolete, or blighted properties including the removal of unsafe or hazardous structures inconsistent with the proposed land use changes.
2. Provide land use transitions and/or proper buffering or screening between distinctly different types of land uses.
3. Protect property values through the harmonious relationship of land uses, roads, and natural features and the maintenance of properties.
4. Encourage non-conforming uses and structures to be brought into conformity with current standards over time.

M. Fairly balance the development rights of land owners with solar resource with the community character rights of adjacent landowners.

1. Continue to follow and update, as necessary, zoning regulations such as building setbacks and height requirements to ensure reasonable access to solar energy.
2. Continue to ensure solar access protection rights are maintained and find new ways to allow for the use of alternative energy systems.

N. Encourage protection of valuable historical sites to preserve the Township's sense of history.

1. Adhere to applicable Federal laws regarding historical sites.
2. Encourage preservation and maintenance of structures found to be of historic or architectural significance in the Township.

O. Support and encourage clustered developments that respect the overall planned density for the area and that minimize the impact of development on the environment and significant natural features.

1. Encourage the placement of housing units in a manner that preserves significant natural resources.
2. Encourage innovation in subdivision design and housing development through the use of devices such as the cluster unit development concept and development techniques that conserve land and increase value, provided desired densities can be maintained.

3. Continue to ensure that accessory uses and structures are compatible with the overall land use in the area.

P. Support the development of subdivisions that provide opportunities for residents to maintain active lifestyles in order to promote healthy living and help reduce the costs of preventative health care.

1. Encourage parks, trails, walking paths, and open space in the design of new residential developments, and connections to adjoining developments and regional systems, if possible, to provide opportunities for residents to maintain active lifestyles near their homes.

Q. Preserve and protect non-metallic mineral deposits.

1. Identify significant deposits of non-metallic minerals (sand, gravel, and aggregate) and where appropriate, consider preservation and protection for future access and resource-based activities that provide for a diverse, regional, and sustainable economy and environment.
2. Allow gravel mining as an interim land use as appropriate within all zoning districts.
3. Restrict portable concrete/asphalt plants to permitted gravel mining operations.
4. Encourage aggregate resources to be extracted prior to development of an aggregate-rich site.

R. Protect active agricultural uses and the economic viability of farming operations.

1. Amend the zoning ordinance as necessary to protect the viability of continued agricultural activity prior to future development.
2. Where applicable, cluster residential development areas such that it does not conflict with agricultural operations.

S. Fairly balance the development rights of land owners with solar resource with the community character rights of adjacent landowners.

1. Continue to follow and update, as necessary, zoning regulations such as building setbacks and height requirements to ensure reasonable access to solar energy.
2. Continue to ensure solar access protection rights are maintained and find new ways to allow for the use of alternative energy systems.

COMMUNITY DESIGNATIONS

The Metropolitan Council has classified every community in the metropolitan area into one or more community designations that has policies related to the orderly and efficient use of land. In Thrive 2040, Credit River has been designated as Diversified Rural and Rural Residential. The southern portion of the community is designated as Rural Residential, which is anticipated to continue to have rural residential land uses in the long-term and not be served by urban services. The northern portion of the community is designated as Diversified Rural, and is also included in the long-term service area for regional wastewater treatment (see map on page 2-10).

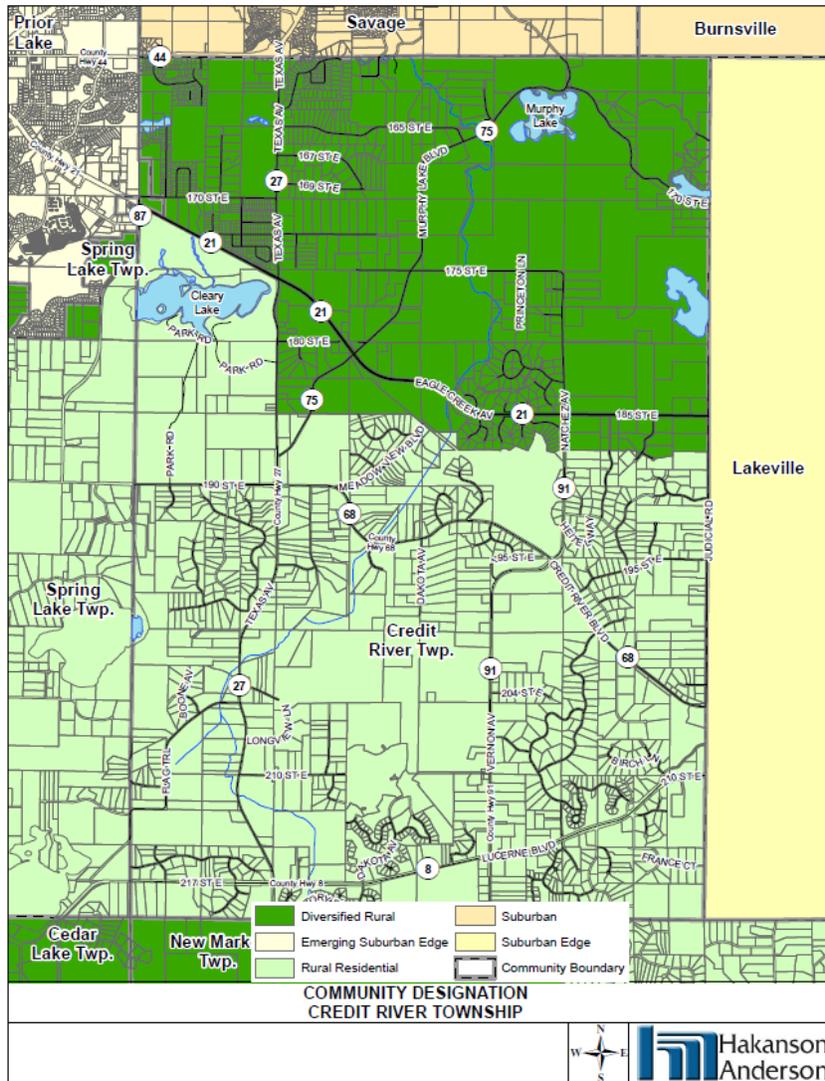
This section of the plan will outline the Credit River and the Metropolitan Council role in each of these community designation areas. In the future, it is anticipated that Credit River will request the area currently shown as Diversified Rural to be redesignated to an Emerging Suburban Edge classification.

Credit River anticipates that urban growth and the extension of sanitary sewer and municipal water services will be needed prior to 2040 and that the Metropolitan Council and Credit River will consider the extension of urban services to Credit River with the update of the regional system plans in approximately 2021-2023. Savage (Suburban), Lakeville (Suburban Edge), and Prior Lake (Emerging Suburban Edge) all border this portion of Credit River that is Diversified Rural and have been experiencing tremendous growth, it is anticipated that this portion of Credit River will also be in market demand for development given that it is the next “edge” of this portion of the metropolitan area. As a result, this plan has been developed in a manner to meet the requirements of the Emerging Suburban Edge classification for the northern portion of Credit River that is currently designated Diversified Rural in order to preserve land for future urban development. As a result, the Emerging Suburban Edge requirements are also shown in this section.

Rural Residential

The Metropolitan Council has established the following policies for Credit River to follow for the portions of the community that are designated as Rural Residential:

- Discourage future development of rural residential patterns (unsewered lots of 2.5 acres or less) and where opportunities exist, plan for rural development at densities that are not greater than 1 unit per 10 acres.
- Implement conservation subdivision ordinances, cluster development ordinances, and environmental protection provisions in local land use ordinances, consistent with the Council’s flexible residential development guidelines.
- Promote best management practices for stormwater management, habitat restoration, and natural resource conservation in development plans and projects.



The Metropolitan Council’s role in these areas is to:

- Encourage rural development patterns that will protect natural resources and preserve areas where post-2040 growth can be provided with cost-effective and efficient urban infrastructure.
- Discourage future development of rural residential patterns (unsewered lots of 2.5 acres or less) and encourage rural development at densities that are not greater than 1 unit per 10 acres.
- Work with communities to plan development patterns that will protect natural resources and water quality and quantity, and maintain existing contiguous lots that are 10 or more acres in size.

OVERALL DENSITY EXPECTATIONS FOR NEW GROWTH, DEVELOPMENT, AND REDEVELOPMENT	
Rural Service Area: Maximum Allowed Density, except Rural Centers	
Rural Center	3-5 units/acre minimum
Rural Residential	1-2.5 acre lots existing, 1 unit/10 acres where possible
Diversified Rural	4 units/40 acres
Agricultural	1 unit/40 acres

- Encourage the use of the Council’s flexible residential development guidelines and adoption of ordinances that provide for residential clustering and protection of sensitive natural resources.
- Provide technical assistance to communities to plan for adequate land availability to address current needs and forecasted growth using development practices that protect the quantity and quality of the region’s surface and groundwater resources and natural resources identified in regional or local inventories.

Diversified Rural

The Metropolitan Council has established the following policies for Credit River to follow for the portions of the community that are designated as Diversified Rural:

- Plan for growth not to exceed forecasts and in patterns that do not exceed 4 units per 40 acres.
- Preserve areas where post-2040 growth can be provided with cost-effective and efficient urban infrastructure.
- Manage land uses to prevent the premature demand for extension of urban services, and so that existing service levels (such as on-site wastewater management, gravel, and other local roads) will meet service needs.

The Metropolitan Council’s role in the Diversified Rural areas is to:

- Work with communities to plan development patterns that will protect natural resources, preserve areas where post-2040 growth can be provided with cost-effective and efficient urban infrastructure, and support forecasted growth through 2040 without the provision of regional urban services.
- Promote development practices and patterns that protect the integrity of the region’s water supply and the quality and quantity of water resources.

Emerging Suburban Edge

The Metropolitan Council has established the following policies for communities to follow for the portions of the community that are designated as Emerging Suburban Edge:

- Plan and stage development for forecasted growth through 2040 and beyond at overall average net densities of at least 3-5 dwelling units per acre in the community. Target higher-intensity developments in areas with better access to regional sewer and transportation infrastructure,

OVERALL DENSITY EXPECTATIONS FOR NEW GROWTH, DEVELOPMENT, AND REDEVELOPMENT	
Metropolitan Urban Service Area: Minimum Average Net Density	
Urban Center	20 units/acre
Urban	10 units/acre
Suburban	5 units/acre
Suburban Edge	3-5 units/acre
Emerging Suburban Edge	3-5 units/acre

connections to local commercial activity centers, transit facilities, and recreational amenities.

- Identify and protect an adequate supply of land to support growth for future development beyond 2040, with regard to agricultural viability and natural and historic resources preservation.
- Incorporate best management practices for stormwater management and natural resources conservation and restoration in planning processes.
- Plan for local infrastructure needs including those needed to support future growth.

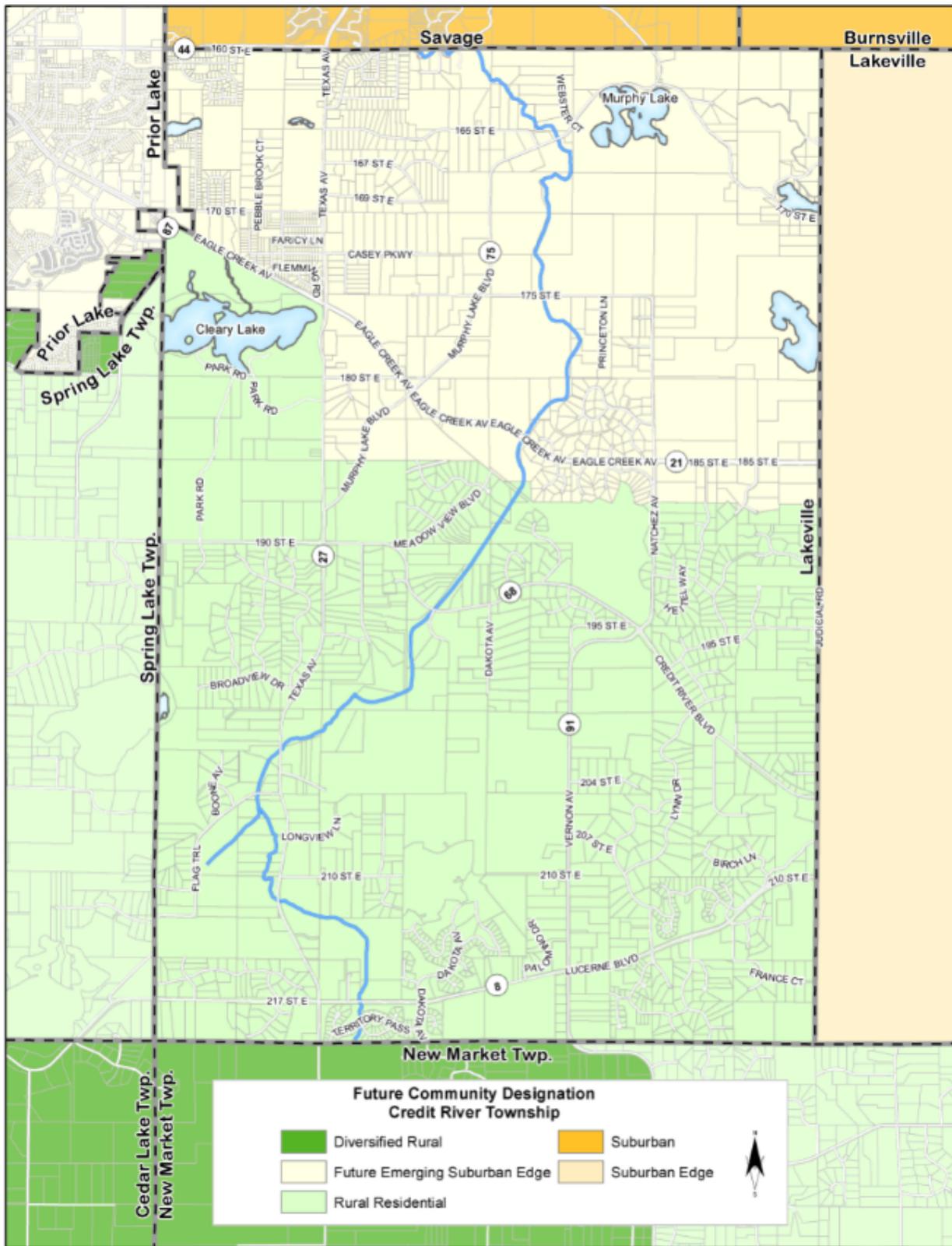
The Metropolitan Council's role in the Emerging Suburban Edge areas is to:

- Promote land use patterns with clear distinctions between urban and rural areas to protect natural resources and land for agricultural viability.
- Provide technical assistance to communities on land use strategies and staged development to inform the local comprehensive planning process.
- Partner with local communities to improve land use patterns to reduce generation of carbon emissions.

Change in Community Designation

Between 2021 and 2030, it is anticipated that water and sanitary sewer will be available to certain portions of Credit River, as shown on the Future Land Use Map on page 2-19. As a result, it is proposed that a portion of Credit River be designated Emerging Suburban Edge at this time, as shown on the map on page 2-13.

This Comprehensive Plan has been prepared to satisfy the requirements of communities with an Emerging Suburban Edge designation for the portion of the town that is currently identified as Diversified Rural, including a minimum density expectation of 3-5 units per acre. The area that is proposed to be reclassified as Emerging Suburban Edge with the next update to the regional policy plans is shown on the page 2-14.



FORECASTS

Credit River was provided the following forecasts within the system statements provided by the Metropolitan Council:

Credit River System Statement Forecasts

<u>Forecast</u>			
<u>Year</u>	<u>Population</u>	<u>Households</u>	<u>Employment</u>
<u>2010</u>	<u>5096</u>	<u>1662</u>	<u>397</u>
<u>2018 Actual</u>	<u>5620</u>	<u>1805</u>	<u>425</u>
<u>2020</u>	<u>5650</u>	<u>1800</u>	<u>410</u>
<u>2030</u>	<u>5900</u>	<u>2240</u>	<u>420</u>
<u>2040</u>	<u>6400</u>	<u>2100</u>	<u>420</u>

Source: Metropolitan Council

Credit River System Statement Forecasts			
Forecast Year	Population	Households	Employment
2010	5096	1662	397
2018 Actual	5620	1805	425
2020	5200	1800	410
2030	5500	1960	420
2040	5600	2100	420

Source: Metropolitan Council

As evidenced in the table above, there has been an increase in population that is greater than forecasted amounts which is consistent with a higher number of persons per household than previously experienced.

As part of this Comprehensive Planning process, Credit River is proposing to begin providing urban services to portions of Credit River Township. This change predominantly impacts providing urban services to existing neighborhoods that are currently served with individual well and septic. The sewerred portion of the community is anticipated to have the following forecasts:

Proposed Sewerred Area Forecasts

<u>Forecast</u>			
<u>Year</u>	<u>Population</u>	<u>Households</u>	<u>Employment</u>
<u>2010</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>2020</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>2030</u>	<u>1285</u>	<u>443</u>	<u>0</u>
<u>2040</u>	<u>2082</u>	<u>771</u>	<u>0</u>

Proposed Sewered Area Forecasts			
Forecast Year	Population	Households	Employment
2010	0	0	0
2020	0	0	0
2030	1300	440	0
2040	1600	580	0

EXISTING LAND USE

Credit River is approximately 15,285 acres in area, or about 24 square miles. The following table and map show the existing land use in Credit River. The primary existing land use is Single Family residential on lots between 2 and 15 acres in size occupying 40.43% of the land. With two regional parks in Credit River, Parks is the next largest use of land at 17.68%, followed by Agricultural Over 40 Acres at 17.23%.

Existing Land Use		
Land Use	Total Area (Acres)	Percent of Total Area
Single Family <2 Ac	658.54	4.31%
Single Family 2-15 Ac	6179.32	40.43%
Single Family 15+ Ac	522.74	3.42%
Multi-Family Residential	2.76	0.02%
Commercial	92.96	0.61%
Institutional	71.06	0.46%
Agricultural/Undeveloped Over 40 Ac	2634.17	17.23%
Agricultural/Undeveloped Under 40 Ac	1978.17	12.94%
Golf Course	203.39	1.33%
Parks	2702.38	17.68%
Open Space	182.48	1.19%
Total	15284.7	

FUTURE LAND USE

To guide land use development, Credit River has prepared a Future Land Use map, shown on the following page. Credit River uses this plan to develop policies, strategies, and recommendations for land uses, infrastructure and development review. It is used for guiding day-to-day development decisions, and provides the context and policies that will be utilized when updating the development regulations and other official controls of the City.

Land Use Categories

The land use categories are a general guide for the densities and use types. The Zoning Ordinance includes the specific development criteria.

Although all property is given a future land use classification, it is the policy of Credit River to only approve residential development if adequate sanitary sewer and municipal water are available to serve the development if it is located in an area that is located within the regional wastewater system long-term service area.

For all land uses, existing agricultural uses may remain until such time as the property is developed.

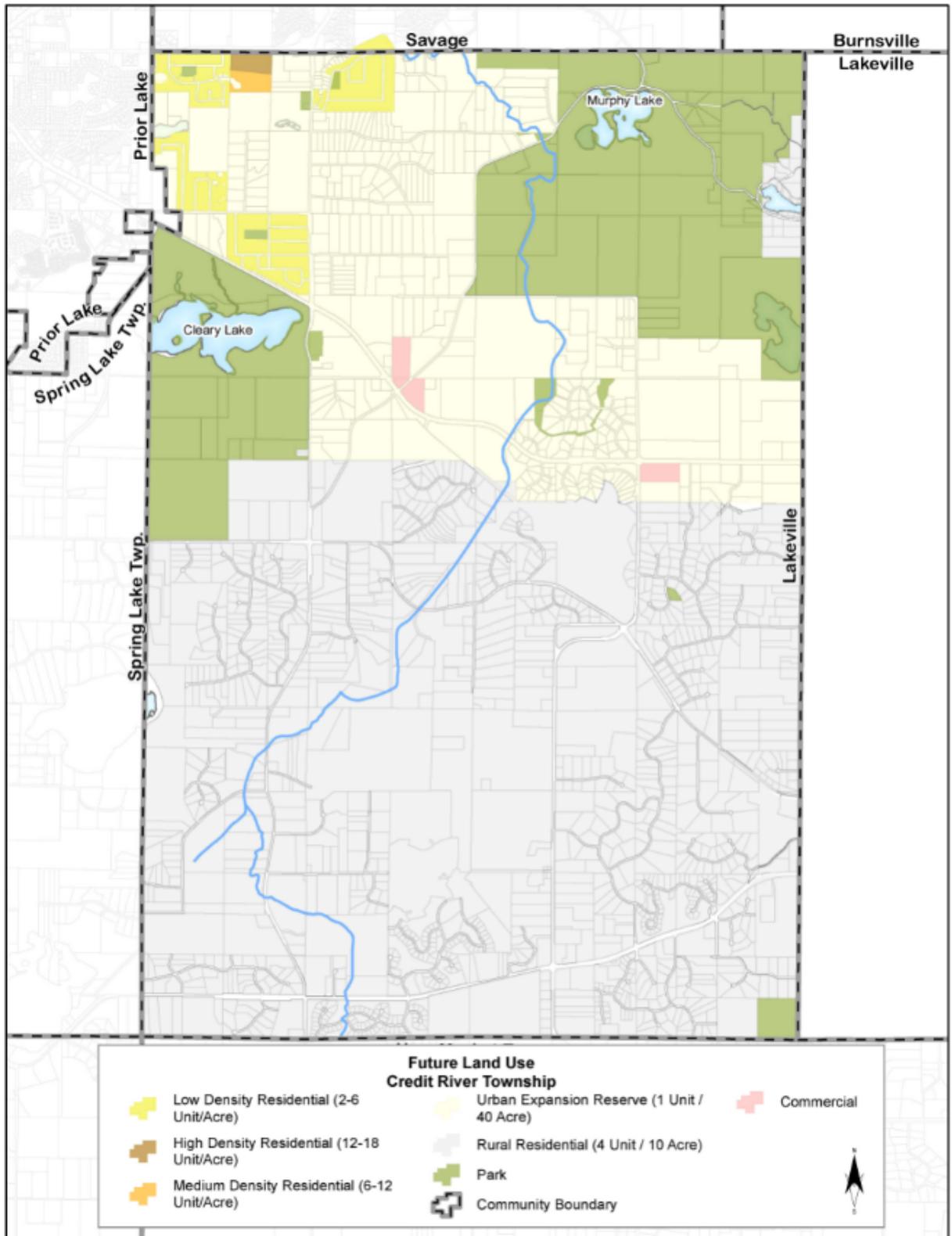
Low-Density Residential

This classification provides for a range of lower density housing opportunities. Although typically consisting of traditional single-family detached dwellings, other types of housing such as villas and twinhomes may also be located in this land use designation.

Density: Net densities between 2 and 6 units per acre may be allowed.

Minimum Requirements: Sanitary sewer and municipal water are required before development can be approved. Parcels without access to municipal water and sanitary sewer have one housing unit eligibility per existing parcel or one housing unit eligibility for each 40 acres.

Corresponding Zoning: R-1



Medium-Density Residential

This category provides for a broader range of housing opportunities. Small lot single-family detached, villas, townhomes, and twin-homes are typical of this category.

Density: Net densities between 6 and 12 units per acre may be allowed.

Minimum Requirements: Sanitary sewer and municipal water are required before development can be approved. Parcels without access to municipal water and sanitary sewer have one housing unit eligibility per existing parcel or one housing unit eligibility for each 40 acres.

Corresponding Zoning: R-2

High-Density Residential

This category provides for a range of high-density housing opportunities. Apartments, condominiums and high-density townhomes are typical of this category.

Density: Net densities between 12 and 18 units per acre may be allowed.

Minimum Requirements: Sanitary sewer and municipal water are required before development can be approved. Parcels without access to municipal water and sanitary sewer have one housing unit eligibility per existing parcel or one housing unit eligibility for each 40 acres.

Corresponding Zoning: R-3

Urban Expansion Reserve

This category provides for opportunity for future development or redevelopment with urban water and sanitary sewer services.

Density: Maximum density of one unit per 40 acres is permitted.

Minimum Requirements: Site must be suitable for either individual or community septic and water.

Corresponding Zoning: UER

Rural Residential

This category provides for rural single-family housing opportunities in the same manner and pattern as previously permitted under the Scott County Comprehensive Plan and development regulations. This area will likely never be served by a regional or municipal sanitary sewer system and already contains a significant number of rural subdivisions. Portions of the area are serviced by community septic systems administered by Credit River. Subdivisions in this area may be located on lots with either individual or community septic and water services.

Density: Development of this area consistent with past patterns of development permitted under Scott County development regulations is anticipated to continue, for a maximum density of four units per 10 acres.

Minimum Requirements: Site must be suitable for either individual or community septic and water.

Corresponding Zoning: RR

Commercial

This category provides for typical commercial uses such as retail, medical, offices and service businesses or light industrial uses.

Minimum Requirements: Several parcels guided Commercial already contain commercial uses on the property. Development may occur on other parcels prior to the extension of municipal water and sewer services provided that development occurs in a manner allowed under the development regulations and is designed to accept future extension of municipal services.

Corresponding Zoning: C or I

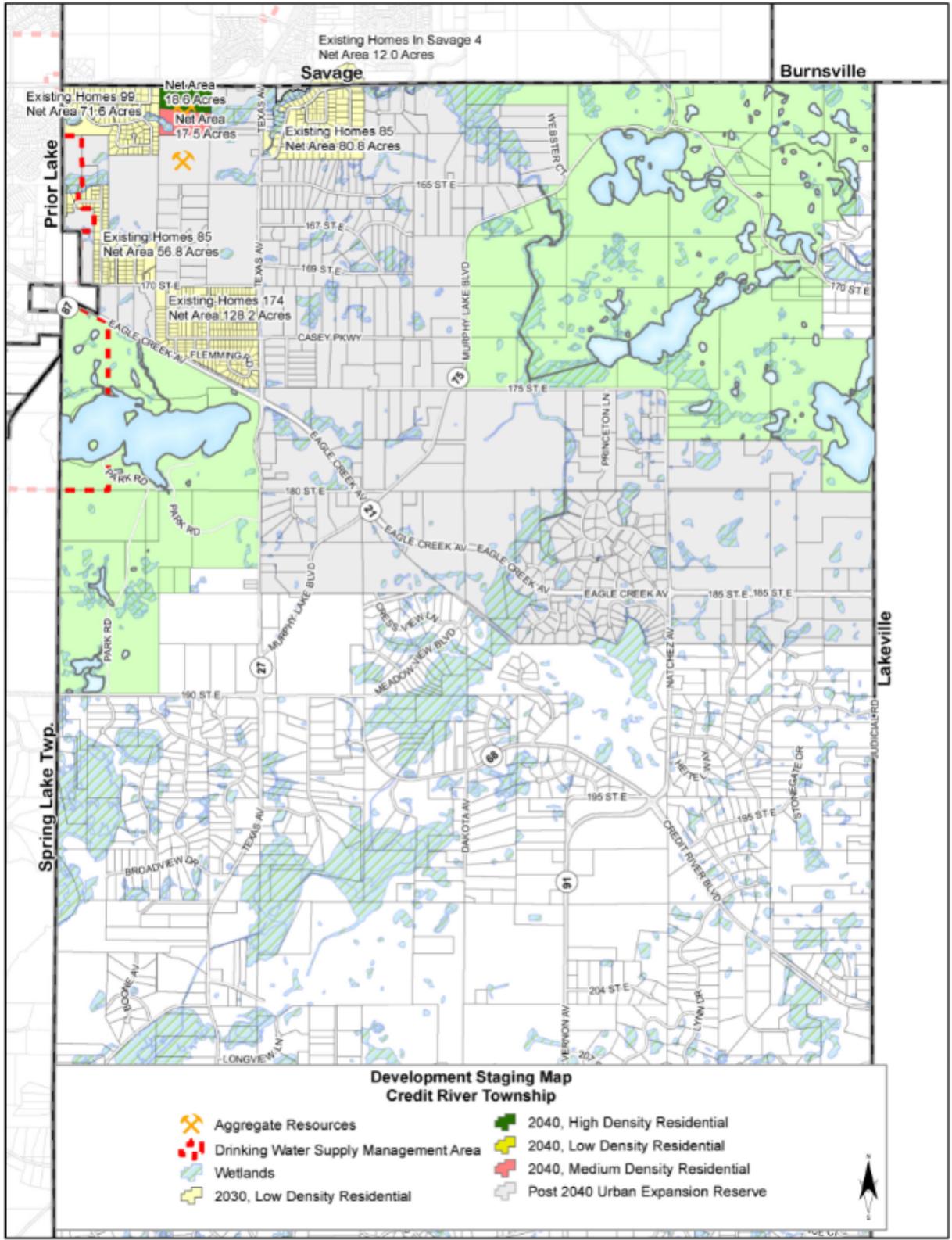
Park

Certain parcels that are either within, abutting or are in-holdings within Murphy-Hanrehan Park Reserve or Cleary Lake Regional Park have been identified in a master plan approved by the Metropolitan Council as being potential sites for acquisition. If the parcels are acquired for park use, then they will be treated as park with relation to the Future Land Use map. While they remain in private ownership, they will be treated in accordance with the underlying future land use guidance.

Corresponding Zoning: UER or RR

Acres and Density Calculations

Acres and density calculations for Credit River during the planning period area shown in the table below. There are four existing neighborhoods in the Metropolitan Urban Services Area (MUSA) as shown on the Development Staging Map on page 2-23 that have extremely small lots and failing septic systems that would be connected by 2030. The density calculations show the impact on density both with and without those existing home connections even though Metropolitan Council policy does not require these connections to be calculated under density requirements under certain circumstances. It is anticipated that some of these areas will be able to be exempted from consideration of density requirements at the time they are connected to the system, and Credit River will provide the necessary documentation to verify those connections meet those exemption requirements at that time. In order for Credit River to be able to provide service to these existing neighborhoods, it is necessary to provide municipal services to other undeveloped properties nearby as it is not feasible to correct the septic situations in these existing neighborhoods without planning for logical and orderly growth of the surrounding area on municipal services. Density forecasts for 2030 and 2040 shown below are conservative as they are based on the minimum number of units per net acre allowed within each residential land use classification (except for the four neighborhood areas of septic connections which are assumed to have no intensification of density). Net acres are calculated as gross acres minus wetlands, floodplain, bluff, and arterial road rights of way.



Density and Forecast Analysis (including by Sewer Connection Point)									
	Western Connection Point			Eastern Connection Point			Total Combined		
2030	Acres	Units	Net Density	Acres	Units	Net Density	Acres	Units	Net Density
Septic Connections	256.6	358		80.8	85		337.4	443	
Medium Density							0	0	
Low Density							0	0	
							0	0	
Total New Construction	0	0		0.00	0.00		0	0	
Total 2030	256.6	358	1.40	80.80	85.00	1.05	337.4	443	1.31
2040	Acres	Units	Net Density	Acres	Units	Net Density	Acres	Units	Net Density
Septic Connections							0	0	
Medium Density	17.5	105					17.5	105	
Low Density		0					0	0	
High Density	18.6	223.2					18.6	223.2	
Total New Construction	36.1	328.2	9.09	0.00	0.00		36.1	328.2	9.09
Total All 2040	36.1	328.2	9.09	0.00	0.00		36.1	328.2	9.09
Total New Planning Period	36.1	328.2	9.09	0	0		36.1	328.2	9.09
Total All Planning Period	292.7	686.2	2.34	80.8	85.00	1.05	373.5	771.2	2.06

Density and Forecast Analysis (including by Sewer Connection Point)									
	Western Connection Point			Eastern Connection Point			Total Combined		
2030	Acres	Units	Net Density	Acres	Units	Net Density	Acres	Units	Net Density
Septic Connections	256.6	358		80.8	85		337.4	443	
Medium Density							0	0	
Low Density							0	0	
							0	0	
Total New Construction	0	0		0.00	0.00		0	0	
Total 2030	256.6	358	1.40	80.80	85.00	1.05	337.4	443	1.31
2040	Acres	Units	Net Density	Acres	Units	Net Density	Acres	Units	Net Density
Septic Connections							0	0	
Medium Density	17.5	105					17.5	105	
Low Density		0					0	0	
High Density	18.6	223.2					18.6	223.2	
Total New Construction	36.1	328.2	9.09	0.00	0.00	#DIV/0!	36.1	328.2	9.09
Total All 2040	36.1	328.2	9.09	0.00	0.00	#DIV/0!	36.1	328.2	9.09
Total New Planning Period	36.1	328.2	9.09	0	0	#DIV/0!	36.1	328.2	9.09
Total All Planning Period	292.7	686.2	2.34	80.8	85.00	1.05	373.5	771.2	2.06

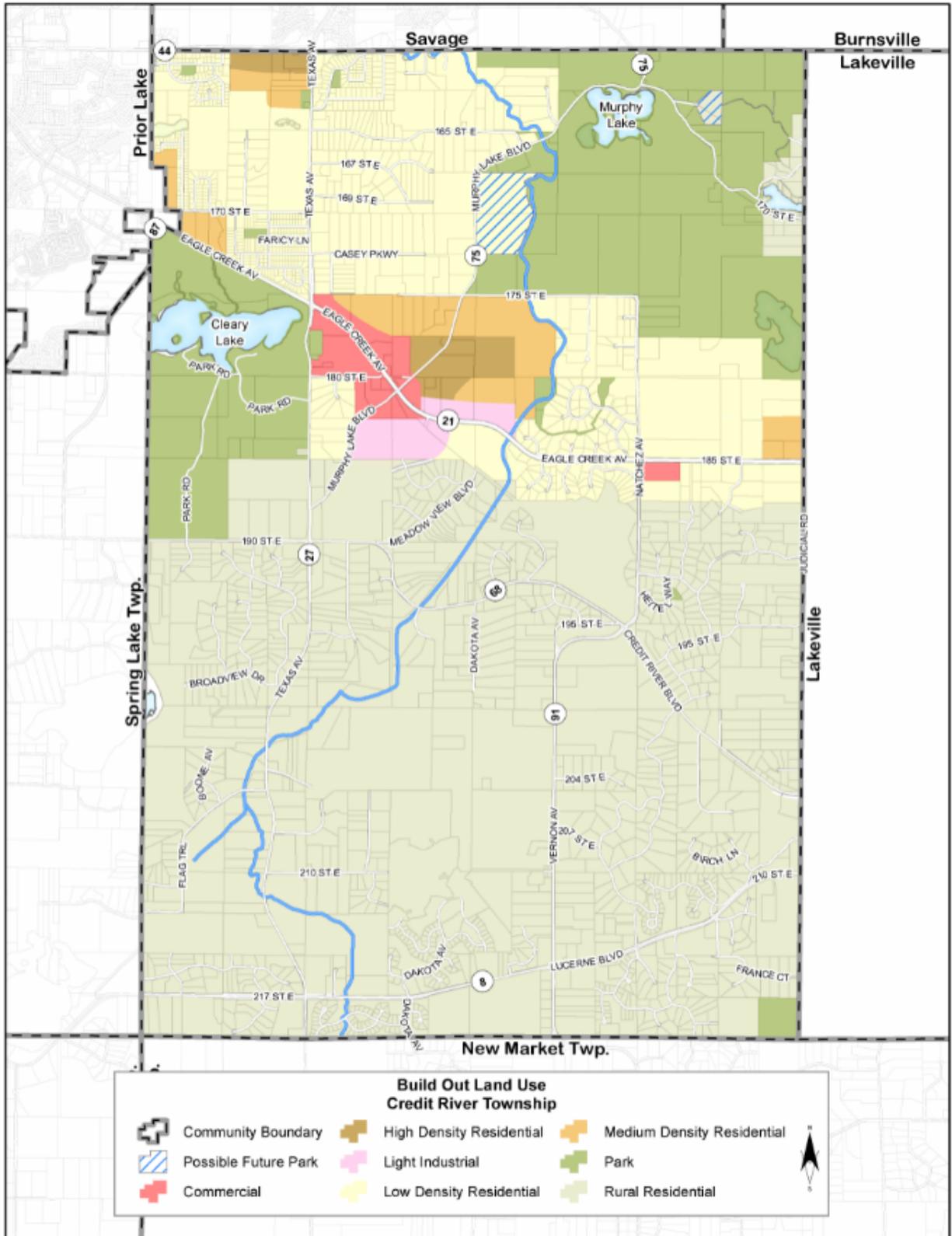
SETTING THE STAGE FOR THE FUTURE

Credit River anticipates that in the 2050 Comprehensive Plan it will be planning for urbanization of the northern portion of the community that is currently classified as Diversified Rural. To move in that direction, at this time Credit River has prepared a draft Build Out Future Land Use map (see page 2-23).

Future Land Use Table

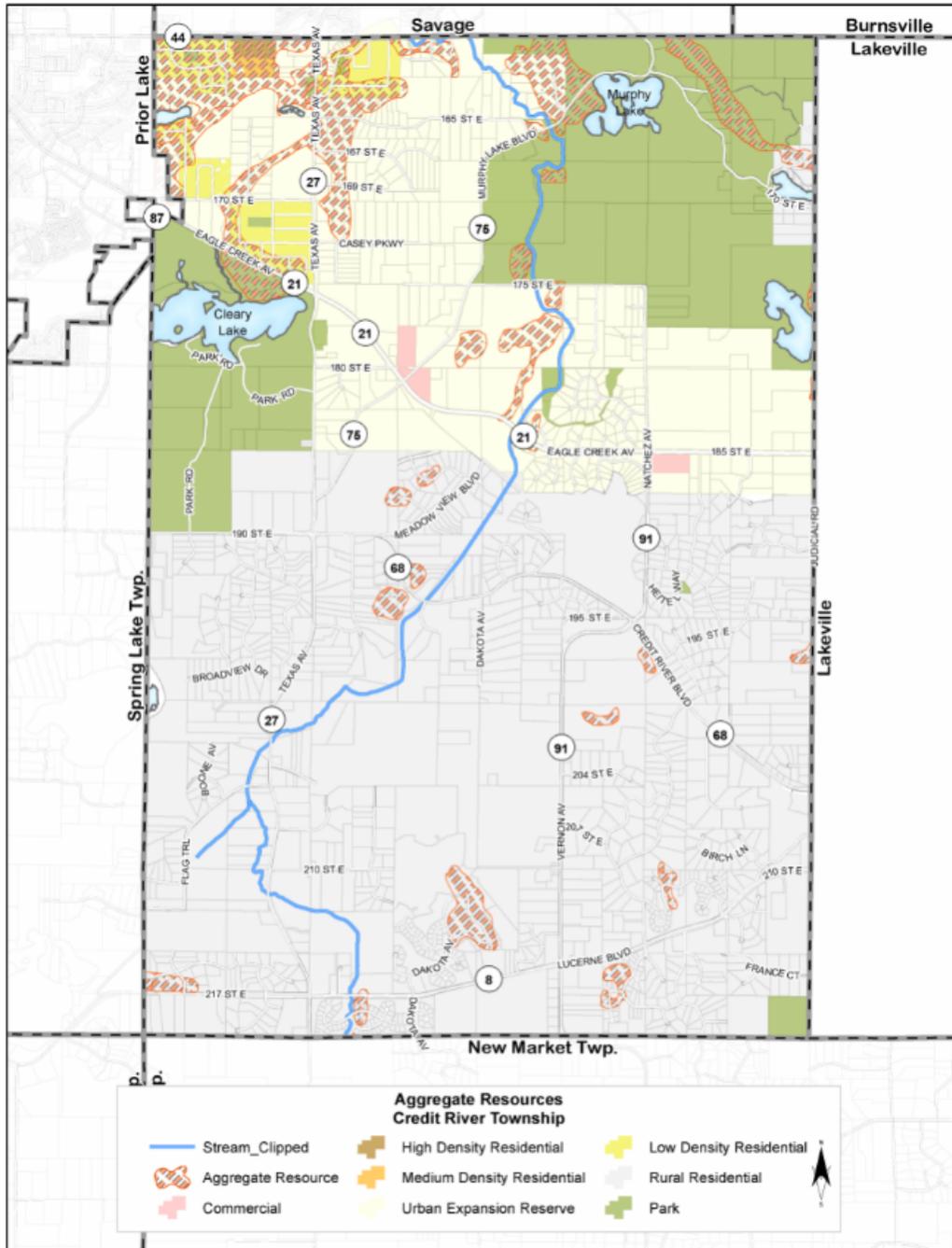
Credit River plans that municipal water and sewer service will be available starting in 2021 to certain portions of the community, and that the community will be coordinating with the Metropolitan Council to review the possibility for urban development with the next update to the regional policy plans. Based upon this, a draft Build Out Land Use Table that corresponds to the Build Out Future Land Use Map is as follows:

Build Out Land Use Table		
	Buildout Acres	2040 % Total
Within Urban Service Area		
Residential Land Uses		
Low Density Residential	296	2%
Medium Density Residential	71	0%
High Density Residential	19	0%
Commercial/Industrial Land Uses		
Commercial	0	0%
Industrial	0	0%
Extractive	40	0%
Public/Semi Public Land Uses	0	0%
Outside Urban Service Area		
Residential	7107	47%
Commercial	93	1%
Institutional	71	0%
Undeveloped	4444	29%
Parks	2702	18%
Open Space	386	3%
Total	15228	100%



AGGREGATE RESOURCES

There are significant sand and gravel resources in Credit River. These are shown on the map below overlaid upon the Future Land Use Map. Where practical, aggregate resources are anticipated to be extracted prior to development of the property. Encouraging extraction of aggregate resources prior to development will delay the development of some medium and high-density housing into a decade later than when municipal services would otherwise be available.



SOLAR ACCESS PROTECTION

Solar Suitability

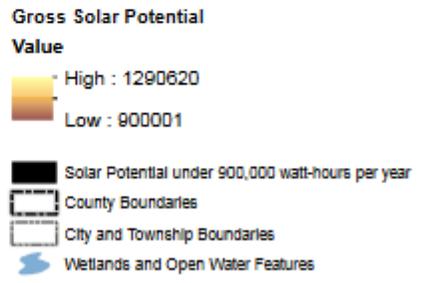
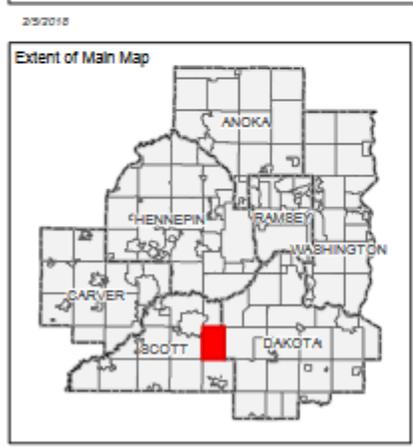
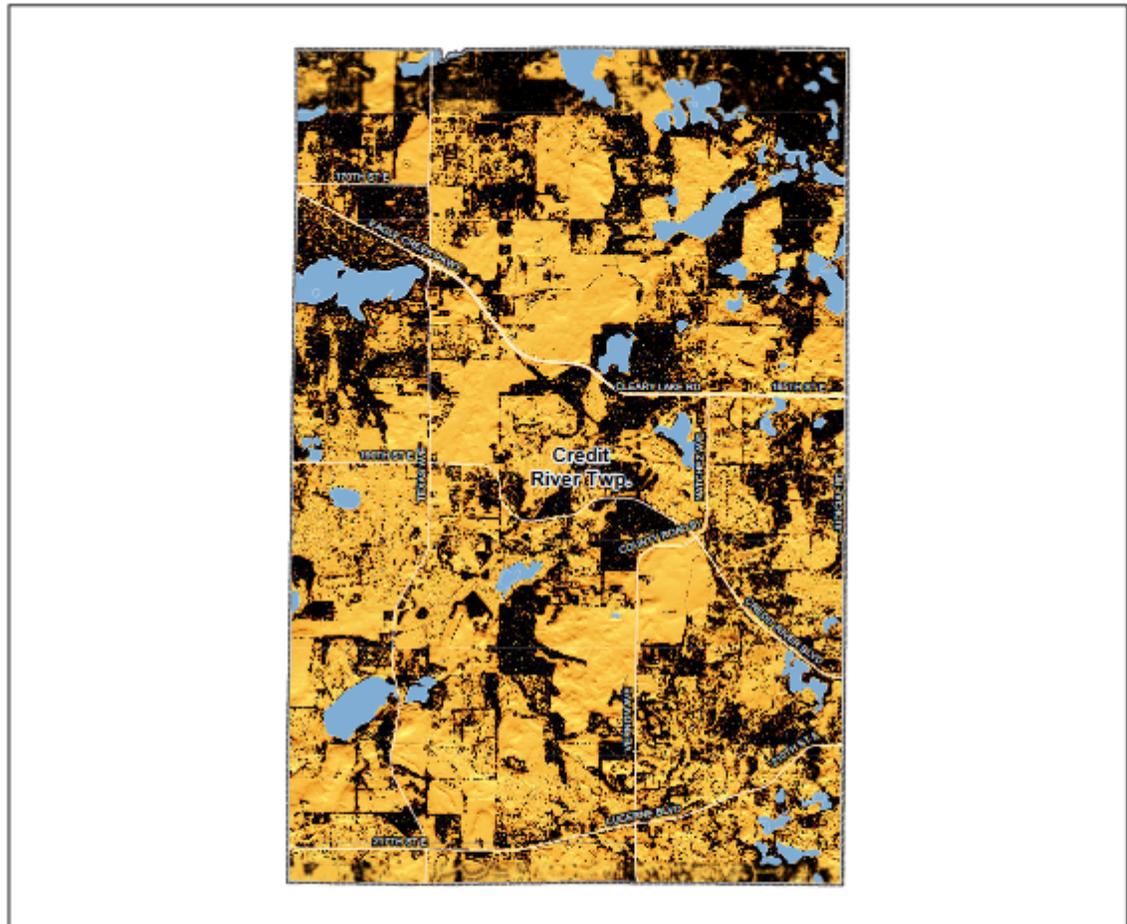
Local governments in the seven-county metropolitan area are required by State Statutes to include an element related to the protection and development of access to direct sunlight for solar energy systems in their Comprehensive Plans (MINN. STAT. 473.859 Subd. 2b.)

Solar technologies can be installed in a number of scales and contexts. Installations can be designed that range in size from a few square feet to tens or hundreds of acres. Because they can be designed in so many sizes, they can either be accessory to a principal use of a property or can be the principal use on a property.

Credit River Township has numerous locations that are suitable for solar access development as evidenced by the Solar Suitability Map on the following page. The areas with the highest potential for solar access typically correlate with the locations that are currently utilized as crop land. The Metropolitan Council has calculated the gross solar generation potential and the gross solar rooftop generation for Credit River, which are estimates of how much electricity could be generated using existing technology and assumptions on the efficiency of conversion. The conversion efficiency of 10% is based on benchmarking analyses for converting the Solar Suitability Map data to actual production, and solar industry standards used for site-level solar assessment.

Community ¹	Gross Potential (Mwh/yr)	Rooftop Potential (Mwh/yr)	Gross Generation Potential (Mwh/yr) ²	Rooftop Generation Potential (Mwh/yr) ²
Credit River Township	43,015,369	387,204	4,301,537	38,720

**Gross Solar Potential
Credit River Township, Scott County**



Source: University of Minnesota U-Spatial Statewide Solar Raster.

The goal to provide solar access protection is not mutually exclusive to the other goals of Credit River and can be in conflict with other goals related to natural resources protection and property development. A balance between these competing priorities is obtained through the application of the requirements of the Zoning Ordinance.