

DENSITY ANALYSIS FOR IMAGINE 2050

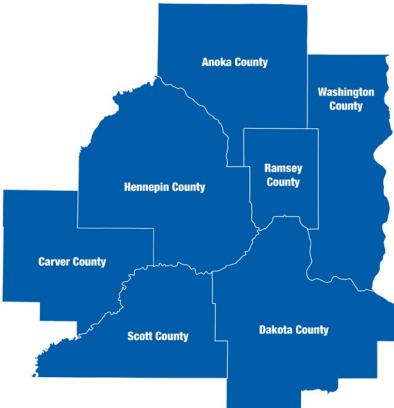


May 2024

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Executive Summary

The Metropolitan Council conducted a density analysis for the Imagine 2050 planning process. The analysis provides insights into the current and projected development densities across communities within the Metropolitan Urban Service Area (MUSA). This analysis includes net developed overall density, net developed 2010-2020 density, and minimum planned densities for 2030 and 2040. Our Plat Monitoring Program data on residential platting activity is included for evaluation of the density of submitted plats.

The conclusions from the density analysis highlight differences between actual developed densities that exist in the built environment and planned minimum densities that are authorized as part of local comprehensive plans. Despite some communities achieving higher densities in recent years, overall development density falls short of planned targets. Notably, communities designated as Suburban Edge in Thrive MSP 2040 exhibit lower densities than required, while platted density surpasses developed density, indicating a slower build-out or lot absorption for subdivisions.

In response to these findings, we evaluated nine approaches, including both policy decisions and administrative practices, to help implement any density policy adopted as part of Imagine 2050. These approaches aim to achieve development consistency while allowing flexibility for local planning needs. The policy approaches we analyzed include increasing minimum density requirements, restraining MUSA expansion, and requiring new connections to the regional sewer system to meet the required minimum density of any given community designation.

We analyzed the following proposed administrative processes or guidelines:

- Evaluating the feasibility of demand and development based on practicality.
- Including all land guided to support growth in density calculations.
- Identifying forecasted growth and land supply by decade.
- Using a performance-based approach to offering flexibility in meeting minimum requirements.

We also considered, but did not recommend, approaches to include all existing development in density calculations and to assign a target density for communities in addition to minimum density standards.

To recommend specific minimum densities for community designations in Imagine 2050, our analysis included assessment of average and median planned densities for different community designations in Thrive MSP 2040. Recommendations include revised minimum density requirements tailored to community designations.

While not all approaches are recommended for consideration, we do recommend a holistic approach that integrates various strategies, including performance-based flexibility programs, to achieve consistent yet flexible planned development that results in a built form reflective of minimum planning requirements.

We recommend additional analysis to establish clear criteria for MUSA expansion, develop incentive programs, and refine methodologies for assessing land use practicality. Additionally, a detailed assessment is required to establish minimum density requirements for transit station areas, tailored to specific community designations and transit modes.

Overall, the density analysis and proposed approaches provide a comprehensive framework for addressing development density challenges, ensuring sustainable growth, and aligning with regional goals within the urban service area.

The appendix to this report includes the development density methodology, the Met Council-endorsed updated community designations for Imagine 2050, and the process for that update.

Density Analysis

Minimum density requirements are an essential component of community designations which determine the overall minimum density of new development and redevelopment in different communities based on their designation. To determine these requirements, Met Council staff evaluated the developed and planned densities in communities within the Metropolitan Urban Service Area (MUSA). To conduct an analysis of current development density trends in communities within the MUSA, staff compiled several pieces of data:

1. Net developed overall density

The overall net developed density illustrates community-wide density of existing residential development in each jurisdiction in the region. This measure uses the number of all the housing units in a community based on the 2020 census and the areas identified as residential in the Met Council's 2020 Generalized Land Use information. The acreage excludes areas that are not developable and only includes the developed portions of the land.

2. Net developed 2010-2020 density

This measure is the net density of developments that occurred between 2010 and 2020 in each community using two factors: 1) the number of housing units added between the 2010 and 2020 census; and 2) the change in residential acreage between the Met Council's 2010 and 2020 Generalized Land Use information, where change refers to movement from a nonresidential use or vacant land to any residential use.

3. Minimum 2030 planned density (2030 comp plan update-planned)

The minimum 2030 planned density includes the overall minimum density of new development and redevelopment within each community. This measure is extracted directly from each 2030 local comprehensive plan.

4. Minimum 2040 planned density (2040 comp plan update-planned)

The minimum 2040 planned density includes the overall minimum density of new development and redevelopment within each community. This measure is extracted directly from each 2040 local comprehensive plan.

5. Plat monitoring 2000-2022

Communities that participate in the Met Council's [Plat Monitoring Program](#) annually report their sewered residential platting activity. The program started in early 2001 and includes data from these communities going back to 2000 and provides credit to communities that assist with meeting minimum density requirements. There are 45 communities included in the program. Platting activity demonstrates a stage between planning and permitting development. As such, not all plats are realized into actual developments, or may be realized with a several-year delay. This measure shows the density of the plats submitted by each participating community during the program.

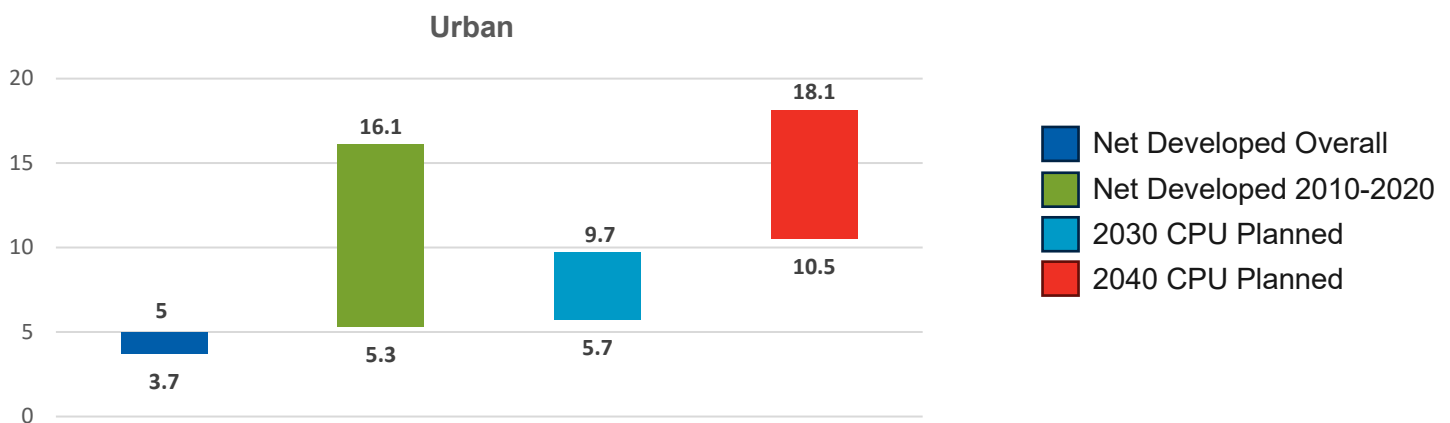
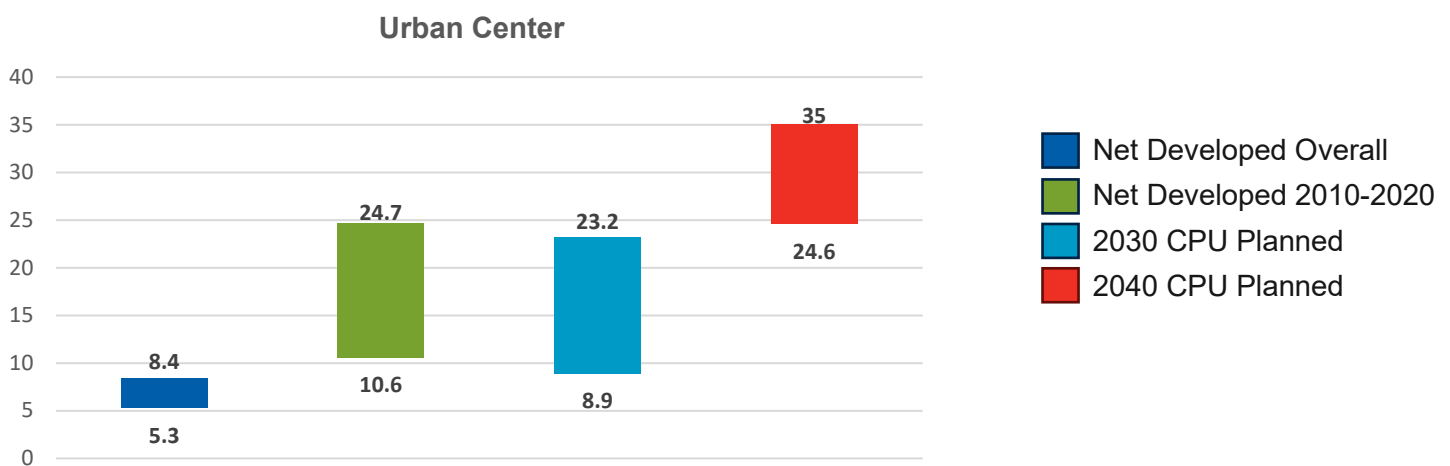
Conclusions from the density analysis

The following charts show the range of densities in each category described above, within the *Thrive MSP 2040* community designations. Overall, the charts below show:

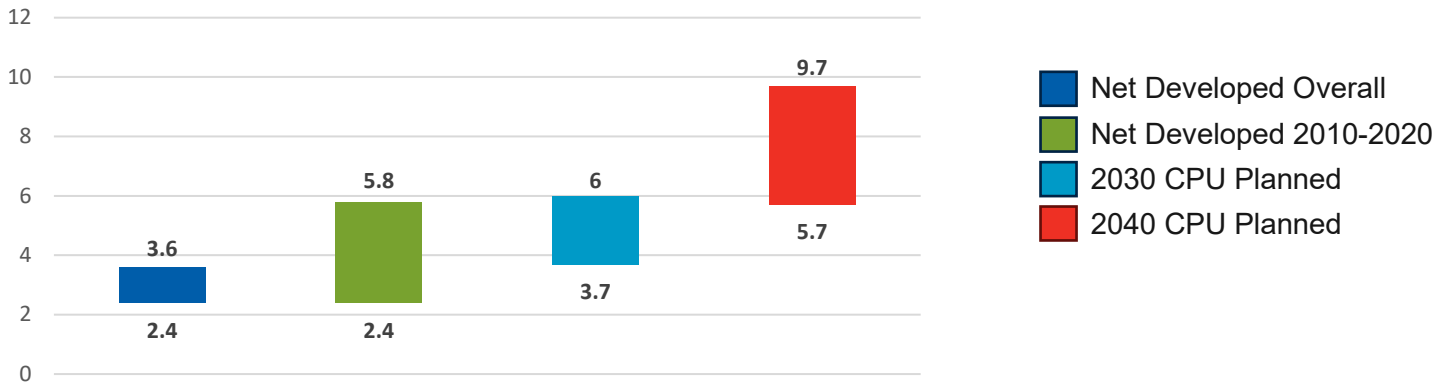
- Despite higher density ranges developed in the past decade, overall developed density remains below planned minimum densities.
- Higher developed densities in the recent decade are insufficient to bring the overall density of development up to minimum planned densities.

- Despite some communities building at higher densities, very low densities are still being developed in other communities within the same community designation.
- Recent development trends in Suburban Edge communities are consistent with the planned 2040 densities.
- Overall developed density in Emerging Suburban Edge communities is lower than the minimum requirements.
- Platted density is higher than developed density. We recognize that it takes time for construction to occur in recently platted subdivisions which results in some differences between built and platted densities.

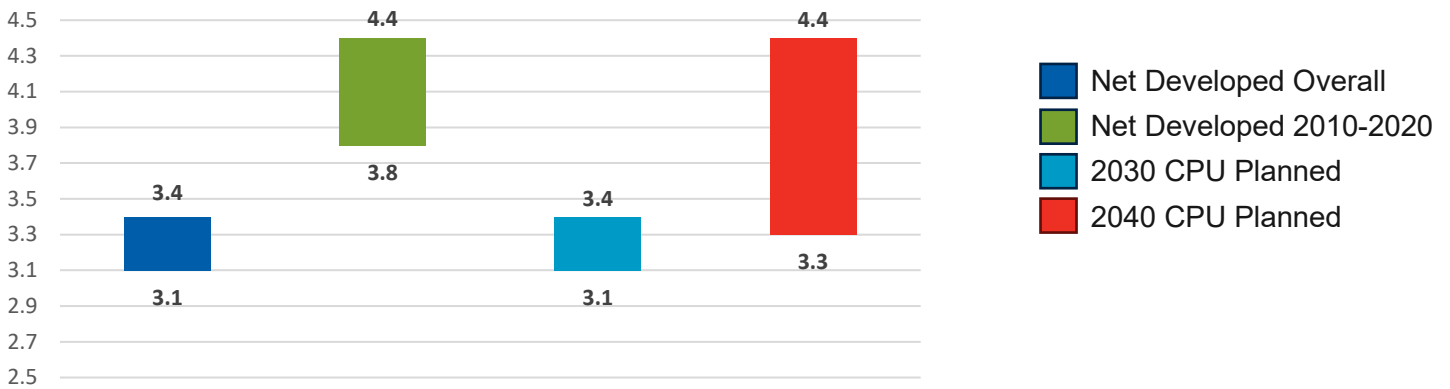
The ranges shown on the charts represent the middle spread of densities in each category and exclude outliers. Middle spread refers to the data between 25% and 75%, excluding the lowest and highest values.



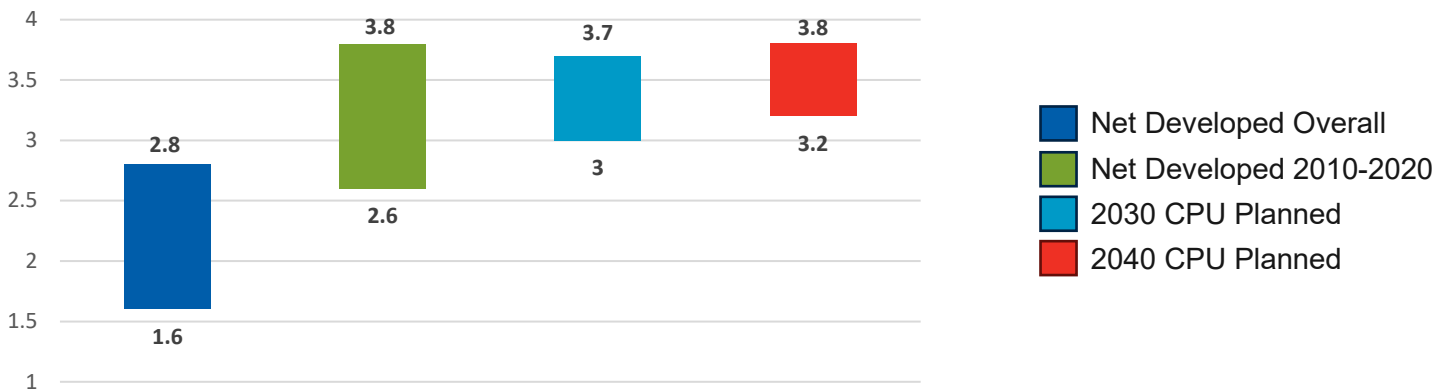
Suburban



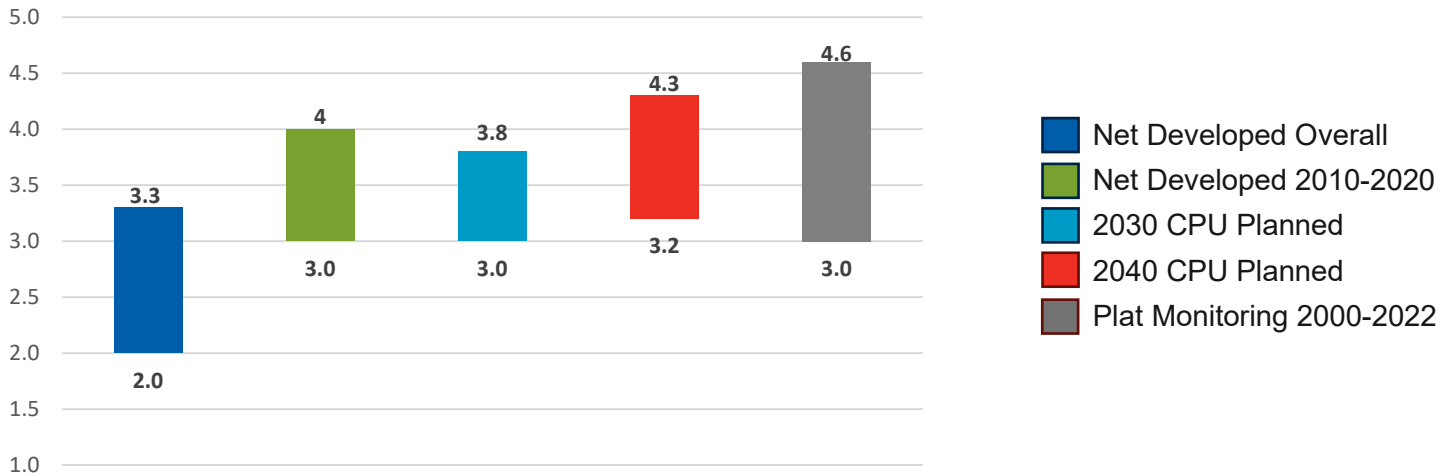
Suburban Edge



Emerging Suburban Edge



Plat Monitoring Participants



Possible land use and density approaches

Each approach below includes a description and identification of some associated implications, advantages, and potential considerations. None of these approaches are meant to exist in isolation but can be paired with other approaches to achieve both more consistent development densities for use of the regional wastewater system, and some flexibility for local planning purposes. These approaches are separated into density policy decisions included in either land use policies or actions (1-4 below); or administrative practices or guidelines developed to implement comprehensive planning requirements (5-9 below).

1. Increase minimum density requirements.
2. Restrain MUSA expansion and establish criteria for when expansion would be authorized.
3. Establish a minimum density requirement for all new connections to the regional sewer system.
4. Evaluate the feasibility of demand and development of land uses based on practicality.
5. Include all land guided to support growth within the planning period, not just areas of change in density calculations.
6. Identify forecasted growth and land supply by decade, meeting the density requirements within each planning decade rather than over the planning horizon.
7. Include all existing developments in density calculations.
8. Establish a target density in addition to minimum density requirements.
9. Use a performance-based approach to explore flexibility in minimum planning requirements while advancing regional goals.

Density policy decisions

1. Increase minimum density requirements.

Minimum density requirements are based on community designations. Raising the minimum requirements means that communities will have to plan for higher density developments in their comprehensive plans. Communities with limited land supply will need to achieve this density mostly through redevelopment.

Increasing the minimum density requirements could encourage communities to overall plan for higher-density, more compact development and better advance regional goals. Over time, as communities plan for higher minimum densities, it can contribute to an overall increase in the density of existing development, compensating for lower-density areas within communities. Additionally, compact development has been shown to lower greenhouse gas (GHG) emissions, irrespective of the development trajectory, which is crucial in meeting the state's new GHG reduction targets and regional goals.

However, without accompanying measures that require communities to meet minimum density requirements within specific timeframes, communities may maneuver the numbers in subsequent decades to merely meet the minimum number without real progress. There may be pushback from communities that wish to preserve their "small town character," potentially leading to resistance and conflict. It is advisable to pair this increase with a strong collaborative effort, engaging all stakeholders in exploring how such an increase can be implemented, emphasizing the benefits for communities.

2. Restrain MUSA expansion and establish criteria for when expansion would be authorized.

The MUSA boundary is informed by local comprehensive plans and based on the Met Council's capacity to provide wastewater service in an orderly and efficient manner. Currently, MUSA expansion can occur as part of the comprehensive plan update process or through amendments to those plans. As long as the regional system has capacity in the respective period and the site is within the Met Council's service area, these MUSA expansions are typically authorized. Analysis shows that the region has more than adequate land supply within the current MUSA boundary to accommodate the growth forecasted to 2050. The Met Council can restrain MUSA expansion and limit or preclude these requests. The Met Council can establish standard criteria for when MUSA expansion meets regional policies and goals to signal a commitment to efficient and cost-effective growth management.

This approach encourages more efficient infrastructure utilization by directing development to areas already equipped with infrastructure, which includes small and developing cities. It also helps mitigate inefficient, dispersed development patterns, and facilitates the protection of agricultural lands and natural resources.

However, this approach may be perceived as limiting the outward expansion of areas receiving services. Communities may view Met Council policy as inflexible, not accommodating local needs, and may strain relationships with local governments.

3. Establish a minimum density requirement for all new connections to the regional sewer system.

Any new development within the MUSA can apply for a sewer extension permit. These permits are reviewed by the Met Council and approved by the Minnesota Pollution Control Agency (MPCA). As part of its review, the Met Council ensures consistency of the development with the future land use guiding of the site. While communities have to meet an overall minimum density requirement based on their community designations, they still accommodate land uses with densities lower than that minimum requirement. This provides flexibility within local boundaries to plan for a variety of development densities. This approach would require any development with a new connection to the regional sewer system to meet the minimum density requirement based on community designation, even if the land use category of the site allows for a lower density development.

Implementing this policy would contribute to increasing the overall net density of existing development in communities, addressing situations where density falls below three units per acre. It encourages higher-density, more compact development and promotes efficient platting practices,

particularly in single-family attached and detached developments, to meet minimum density requirements. Additionally, it streamlines the review of sewer service extension permits, ensuring the efficiency of the overall wastewater system.

However, this approach can be perceived as limiting local communities' flexibility to plan for lower density, sewer development, a practice they have been accustomed to in the past, and therefore may receive significant resistance. In practice, it may render all future land use designations with minimum densities lower than three units per acre ineffective and applicable only to existing development. It should also be noted that meeting the three units per acre requirement can be challenging for developments within existing local regulatory practices and may require subsequent changes to local ordinances.

This approach also highlights the concept of zoning within the context of land use policy. Changes to local zoning ordinances are required by state statute following every decennial comprehensive plan update to ensure local zoning conforms to adopted land use plans. Local governments are also required to submit to the Met Council any necessary zoning ordinance updates within nine months following local adoption of their decennial comprehensive plan update. This provision is currently not well adhered to, although the Met Council does have the authority to establish a more precise submittal schedule. Historically, the Met Council has not done this. Inconsistencies between the local land use plan and the underlying zoning district have resulted in misinterpretation and errors in implementing the land use plan locally. It can also result in challenges with local sewer permit review until the comprehensive plan is amended so that the site aligns with the local land use plan.

4. Evaluate the feasibility of demand and development of land uses based on practicality.

This approach proposes measuring the feasibility of demand and development of land uses within different communities, ensuring that both the intensity (density range) and location of planned developments are practical. The objective is to differentiate between what is merely allowed and what is plausible, providing a realistic framework for land use planning. This methodology would compel communities to plan land uses that are realistically marketable within the planning period, focusing on plausibility and long-term viability.

The advantage of this approach is that it encourages realistic planning by urging communities to adopt land use plans that are not only allowed but also realistically implementable. This helps prevent the overestimation of development outcomes, thereby reducing the risk of underutilized infrastructure, inefficient land management, and improbable planned densities.

This method may introduce stricter planning constraints, which could be more challenging for communities to meet their minimum density requirements, especially in areas with aggressive growth targets. The approach ensures enough flexibility to accommodate unforeseen future changes while still grounding expectations in practicality. By adopting this method, the Met Council can assist communities in refining their comprehensive plans to better reflect feasible development patterns. This facilitates more efficient growth management and guides regional resources more effectively by focusing investments in areas with a higher likelihood of development.

Administrative practices and guidelines

5. Include all land guided to support growth within the planning period, not just areas of change in density calculations.

The Met Council calculates the overall density of development and redevelopment for each community based on areas identified to accommodate future growth. Currently, it is the Met Council's policy to give deference to the previously approved comprehensive plan and only review the new plan based on areas of change between the two planning documents. Communities, of

course, may start each comprehensive planning process anew and completely redo their plan, and many do. However, some communities opt to look only at areas of change, which in turn means that the Met Council may authorize a plan that does not meet minimum density requirements. This approach will ensure that every comprehensive plan is reviewed based on all areas that are identified to accommodate future growth and not just those that are changing from the previous 2040 comprehensive plan.

This approach can help communities plan more effectively for change in their communities and not focus on previous planning decisions and approaches that may not fit the evolving regional and local needs well.

However, for very built-out communities, complying with minimum density requirements could prove challenging if all land to accommodate growth is factored into the calculations. This could lead to difficulties in meeting regional density minimum requirements.

6. Identify forecasted growth and land supply by decade, meeting the density requirements within each planning decade rather than over the planning horizon.

The Met Council calculates the minimum density requirement based on the acreage identified for new development or development between the date of the plan (for example, 2018) and the planning horizon (for example, 2040). For land use and density purposes, communities are not required to divide the planning period into smaller timelines and only need to meet the minimum density requirement over the entire period.

However, that approach has led to more of the lower density developments being planned for the near future and in some cases, higher density development is postponed to a later time in the planning horizon (2050). This cycle delays higher density development with each consecutive planning cycle as comprehensive plan updates occur every 10 years. Calculating minimum density by decade will ensure that the communities meet their density requirements in each decade, and higher density developments are also planned for the more immediate future.

Shifting to per-decade density calculations may result in fewer lower-density developments being planned for the initial decade of the period, aligning with regional objectives for increased density. This approach could assist some communities in meeting their affordable housing planning requirements for the first decade without postponing higher-density development to later periods to achieve overall density targets. Additionally, this approach does not require new planning tools. Local comprehensive plans already identify stages or phases of growth in 10-year increments, so the foundation for this work already exists as part of planning requirements.

7. Include all existing developments in density calculations.

Currently, the overall density of a community for purposes of meeting minimum requirements only includes acreage planned for new development and redevelopment. Areas already developed do not count towards a community's overall density. But since land use decisions have long-lasting effects, many communities' existing densities are in fact much lower than the minimum density requirements. This approach ensures that past planning practices play a role in the planned density of each community.

Incorporating existing developments into density calculations can serve as a means for the Met Council to acknowledge and account for the current realities of the region, providing a more accurate reflection of the existing state. If implemented effectively, this approach could hold communities more accountable for the existing pattern of development within their boundaries, potentially preventing them from designating lower-density future land uses without justification. This approach could complement other measures and provide valuable context for evaluating and achieving density goals.

However, this approach could potentially make it considerably more challenging for communities to meet minimum density requirements, which may lead to resistance in some cases, particularly in communities facing constraints that make achieving higher densities difficult.

Alternatively, this approach could be implemented first as a tracking measure to assess overall community progress towards higher density of existing development. This could raise awareness of the overall impact that each community's existing development density has on the overall development pattern observed in the region.

8. Establish a target density in addition to minimum density requirements.

Communities are required to plan for development and redevelopment in a manner that meets the minimum density requirements based on community designations. [Communities with transit investments](#) need to meet higher average minimum densities around the station areas, depending on the transit type. Additionally, the 2040 Transportation Policy Plan identifies higher target densities that best support transit, and communities are encouraged to explore opportunities to guide land at these higher densities. One approach in regional land use practices can be to establish a community-wide target density to encourage communities to plan at higher than minimum densities.

Implementing a mechanism for establishing target densities alongside minimum requirements could empower local staff to negotiate higher minimums for their land uses by showcasing the potential for even higher target densities. When complemented with additional incentives, this approach has the potential to drive higher-density developments.

However, historically, target densities for transitways have lacked significance and proper tracking, raising concerns about their effectiveness. Communicating the impact and significance of this policy to local communities may pose challenges, as it could be perceived as symbolic rather than effecting tangible changes in permitted and developed projects. Ensuring clarity will be essential to its successful implementation and effectiveness.

9. Use a performance-based approach to explore flexibility in minimum planning requirements while advancing regional goals.

Under this approach, the Met Council would use past plans and actions—including regional goal and regional policy consistency, existing development patterns, plat monitoring data, adopted plans and ordinances as well as other relevant data—to determine eligibility for MUSA expansion, flexible density programs, or application of density credits. A programmatic and performance-based approach to flexible application of density requirements is intended to incentivize local implementation of regional goals. The structure and requirements where flexibility may be acceptable in developing communities must not jeopardize conformance with regional system plans or consistency with Met Council policies.

As an example, net density calculations take into account areas that are undevelopable, such as wetlands, steep slopes, and arterial rights of way. While some natural areas are protected as a result and do not have to be planned for development, the scope of such protections is very limited and not widespread. The Met Council can provide additional flexibility in meeting minimum density requirements, if certain conditions are met locally, such as protection of regionally significant ecological areas. Communities will need to systematically implement such protections through adopted ordinances to ensure their lasting impact.

Implementing such incentives could provide more flexibility locally and improve the Met Council's relationship with local governments. Incentives have historically proven to be effective in encouraging desired outcomes at the local level. However, more specific details about the nature

and design of these incentives are needed, and consideration may be necessary for the additional effort at the Met Council to develop, administer, and track any established program.

Minimum density requirement analysis

Thrive MSP 2040 land use policies established minimum density requirements for different community designations to support orderly and efficient land use, along with the objectives of reducing greenhouse gas emissions and promoting sustainable development. As we transition from Thrive MSP 2040 to Imagine 2050, it is crucial to reassess and potentially recalibrate these minimum density requirements to reflect the changing dynamics and growth patterns observed across the region. Detailed information on these analyses, including densities from each community within the MUSA, is included in the appendix. Our recent analysis of the average and median minimum planned densities from the 2040 local comprehensive plans, categorized by the draft 2050 community designations, reveals the following:

- **Urban:** Average planned density is 30.9 units per acre, excluding Minneapolis which has a significantly higher density of 98.1 units per acre. The median planned density in Urban areas is 34.3 units per acre. One out of nine 2050 Urban communities (City of Osseo) was designated as Urban in Thrive MSP 2040 (minimum density of 10 units per acre), while the rest were designated as Urban Center (minimum density of 20 units per acre).
- **Urban Edge:** Average planned density is 14.6 units per acre. The median planned is 12.6 units per acre. One third (out of 24) of 2050 Urban Edge communities were designated as Suburban in Thrive MSP 2040 (minimum density of 5 units per acre), while two were designated as Urban Center (minimum density of 20 units per acre). The rest were designated as Urban (minimum density of 10 units per acre).
- **Suburban:** Average planned density is 7.7 units per acre. The median planned is 7.0 units per acre. 13% (out of 36) of 2050 Suburban communities were designated as Suburban Edge or Emerging Suburban Edge in Thrive MSP 2040 (minimum density of 3-5 units per acre).
- **Suburban Edge:** Average planned density is 4 units per acre. The median planned is 3.4 units per acre. One fifth (out of 40) of 2050 Suburban Edge communities were designated as Suburban in Thrive MSP 2040 (minimum density of 5 units per acre).

Recommendations on Land Use and Density Approaches

After careful consideration of the various density approaches discussed, we offer the following recommendations:

1. **Minimum density requirement by community designation:** Based on the above analysis and community-specific information, the overall minimum density requirement for development and redevelopment for communities within the MUSA based on community designations in Imagine 2050 should be considered as follows:

Community Designation	Recommended Minimum Density Requirement
Urban	25 units per acre
Urban Edge	14 units per acre
Suburban	7 units per acre
Suburban Edge	4 units per acre

Based on these recommended minimum density requirements, there should be additional evaluation to determine whether any communities are potentially better suited to be part of another community designation.

Since other communities outside of the MUSA (Rural Center, Diversified Rural, Rural Residential, Agricultural) were not part of this analysis, the minimum or maximum density requirements and guideline for them should be carried forward from Thrive MSP 2040.

2. **Approach #7 - Inclusion of all existing developments in density calculations** should not be implemented due to the significant complications it introduces at the local level. This approach would force communities to plan at much higher densities than the minimum requirements, which is not aligned with their long-range planning efforts. Implementing this approach could also unfairly penalize communities for historical development patterns, creating a barrier to achieving planned growth objectives.
3. **Approach #8 - Establishing a target density in addition to minimum density requirements** appears to be less beneficial than anticipated. The effort required to establish this approach is considerable, and it primarily serves as a communications tool rather than a substantive change to planning practices. The potential benefits do not justify the resources and time investment required, making it an inefficient option.
4. **Consideration of other approaches:** All other approaches should be considered collectively, as they are not mutually exclusive and can potentially complement each other to achieve more consistent and flexible development densities. Specifically, incentives should be integrated with various approaches to enhance their effectiveness and encourage consistency with regional goals.
5. **Further development needed:**
 - a. Criteria for MUSA expansion: Additional work is required to establish clear criteria for MUSA expansion to ensure that it aligns with regional goals and policies.
 - b. Incentive programs: There is a need to develop comprehensive incentive programs that support the achievement of desired density outcomes.
 - c. Methodology for land use practicality: Establishing a methodology for measuring the practicality of land uses is essential to ensure that land use planning is both feasible and aligned with realistic development expectations.
6. **Density requirements in transit station areas:** A detailed assessment is needed to establish minimum density requirements for transit station areas based on recent developments and 2050 community designations. This involves several steps:
 - a. Identifying the geographies of various transit station areas for different transit modes.
 - b. Collecting residential permit data for developments within these areas from the last decade (2013-2023) to align with Thrive MSP 2040 requirements.
 - c. Integrating permit data with parcel data to calculate the density of developments.
 - d. Evaluating these densities based on the 2050 community designations and transit modes.
 - e. Formulating recommendations for minimum density requirements for station areas tailored to specific transit modes and community designations.

APPENDIX A

Development density methodology

To calculate the development density between 2010 and 2020, the area of development must first be defined and the number of new units built in those areas summarized. There are two methods to define the area of development:

1. Total area of county parcels with new residential units (excluding rebuilds), or
2. Total land consumed for development as observed in the Metropolitan Council's Generalized Land Use Inventories.

Calculating development density using the total area of full parcels provides a more representative measure of new development (units per platted property). However, for considering long-term land supply and housing capacity, calculating density based on land consumed (units per observable residential land use) is more appropriate. For instance, in rural areas where agricultural land is subdivided into 5-acre parcels with one home constructed per parcel, the development density would be 0.2 units per acre based on the full parcel size. However, if only 0.25 acres of each 5-acre parcel is developed, the remaining 4.75 acres could potentially be further developed in the future (depending on the nature of the remaining land). If eventually, the entire 5 acres were developed into 0.25 acre lots with a home on each, the total development could accommodate 20 homes, representing a density of 4 units per acre. This example illustrates how different calculations can yield dramatically different development density measures. Therefore, density calculations will include both full parcel density and land consumption.

To calculate development density, several datasets are needed, and each dataset has its own challenges.

1. Generalized land use

Although each Generalized Land Use Inventory is built on the previous inventory, not all changes represent a true land use change between inventory years. In other words, some change between land use inventory years can reflect changes missed in the previous year inventory, a refinement of a delineated boundary, or a correction to the land use classification. Steps need to be taken to minimize the amount of area included in the change analysis.

2. County parcel data

Parcels tend to be defined based on the county's ability to leverage a tax on the property. As a result, sometimes parcels are "missing" in the dataset. This becomes particularly challenging when trying to determine the full development area for multifamily and specifically single-family attached housing (for example, attached townhomes). Even if the common land is delineated in the parcel dataset, there is generally not a corresponding building permit for the area. As a result, when building permits are used to help identify land development, these areas are often not included, which over-inflates the development density in these areas.

3. Comprehensive plan data

To fully understand any development density measure, it is important to be able to distinguish different geographic areas when summations are made. In other words, rather than simply calculating the overall residential density for a community, it is better to calculate the density for areas inside and outside the MUSA. There is also the assumption that summations will be desirable by Thrive MSP 2040 community designations and the proposed Imagine 2050 community designations. However, the MUSA and community designation datasets are constructed independent of generalized land use and county parcel data and therefore the alignment of the three datasets are not perfect. This leads to a lot of noise that needs to be addressed before any calculations can be undertaken.

4. Building permits

Although new permits are a useful measure, the placement of permits points do not always line up with observable land consumption, which makes spatial relations difficult. Additionally, it appears that the demolition permits are incomplete. In determining development density of “new” development, all residential teardowns and rebuilds should be excluded in the analysis. There are many examples where imagery clearly shows that an existing home is demolished and a new unit is built, however, there are not corresponding demolition and new build permits in the building permit data.

Development density (housing) between 2010 and 2020

General steps

1. Prepare and clean land use data

Identify areas that were categorized as Agricultural, Farmstead, Extractive, or Undeveloped in 2010 and changed to Residential by 2020. Efforts were made to account for alignment discrepancies between the 2010 and 2020 land use inventories.

2. Create MUSA and Thrive MSP 2040 community designations layer

To distinguish land use changes within the MUSA and summarize by community designation, create a combined MUSA/community designation layer that will be associated with the land use change layer.

3. Prepare parcel data

Address gaps in geographic representation within the county parcel data. Condominium properties may appear as stacked parcel polygons, where each unit represents the full extent of the property boundary. Necessary steps were taken to generate geographies for missing properties and to eliminate all stacked parcels, ensuring that only a single geographic polygon represents each parcel to avoid overcounting total acreage.

4. Prepare residential building permit data for change analysis

Assuming that all new developments have a corresponding residential building permit, identify permits issued between 2010 and 2019 for new units or conversions and group them accordingly.

5. Identify land use change

- a. Identify all new unit building permits located within (or in some cases, near) areas identified with a residential land use change. The process is somewhat iterative to ensure that all appropriate permits were included and all inappropriate permits (for example, teardowns and rebuilds) were excluded. This step does not include redevelopment areas other than some large-lot rural or farmstead parcels that were redeveloped into higher density suburban development.
- b. Note that in calculating development density, the total number of housing units may differ slightly due to variations in defining the area of development: full parcel versus land consumption. More significantly, the total area of development between the two methods is dramatically different. These differences are due to the choice of geographic base: county parcels or Met Council’s generalized land use data. Using county parcels as the geographic base provides the total land area of all parcels identified as having new residential development, while calculating land consumption using the generalized land use data includes rights-of-way easements along with the portion of parcels delineated with residential land. Typically, the total area of development in the land consumption method is larger than that of the full parcel method.

Full parcel development density (net developed density)

What density are communities developing at (in other words, platting)?

From the data gathered, 67,838 new housing units were developed on 15,471 acres within the 2040 MUSA boundary, resulting in an overall development density of 4.38 units per acre. Recognizing that this average density does not accurately reflect variations across the region, the development density was further analyzed within each Thrive MSP 2040 community designation:

Thrive Community Designation	Housing Units	Acres	Density
Urban Center	8,519	266.4	31.97
Urban	3,971	367.8	10.80
Suburban	13,643	3,032.1	4.50
Suburban Edge	23,064	5,971.9	3.86
Emerging Suburban Edge	16,896	5,218.3	3.24
Rural Center	1,738	604.4	2.88
Diversified Rural*	7	10.0	0.70

**Results likely due to misalignment of all combined geographies.*

In light of defining appropriate density policies for the proposed 2050 community designations, average densities were calculated for developments between 2010 and 2019 within these new designations:

2050 Community Designation	Housing Units	Acres	Density
Urban	8,286	241.6	34.30
Urban Edge	5,227	493.8	10.58
Suburban	17,573	4,292.6	4.09
Suburban Edge	35,007	9,828.5	3.56
Rural Center	1,738	604.4	2.88
Diversified Rural*	6	7.5	0.80
Rural Residential*	1	2.5	0.40

**Results likely due to misalignment of all combined geographies.*

Land consumption development density (gross developed density)

What is the land consumption rate for supporting residential development, including roads and potential subdivision of parcels?

Based on available data, 72,514 new housing units on 18,170 acres were identified within the 2040 MUSA boundary, equating to an overall development density of 3.99 units per acre. Recognizing the

regional variability, development density was also analyzed within each Thrive MSP 2040 community designation:

Thrive Community Designation	Housing Units	Acres	Density
Urban Center	8,774	618.4	14.19
Urban	4,506	449.9	10.01
Suburban	15,525	3,388.7	4.58
Suburban Edge	24,337	7,023.3	3.44
Emerging Suburban Edge	17,596	6,026.0	2.92
Rural Center	1,770	743.4	2.92
Diversified Rural*	7	8.2	0.85

**Results likely due to misalignment of all combined geographies.*

We conducted further analysis for the proposed 2050 community designations to determine appropriate density policies based on developments between 2010 and 2019:

2050 Community Designation	Housing Units	Acres	Density
Urban	8,612	589.5	14.61
Urban Edge	5,712	647.2	8.83
Suburban	19,682	4,858.5	4.05
Suburban Edge	36,731	11,461.2	3.20
Rural Center	1,770	605.2	2.94
Diversified Rural*	6	6.6	0.91
Rural Residential*	1	1.6	0.63

**Results likely due to misalignment of all combined geographies.*

APPENDIX B

Community designations

Regional land use policies are framed around common characteristics of communities. These common characteristics are the basis for community designations. As part of the regional development guide, community designations work in concert with land use policies to guide growth in areas with urban infrastructure; establish distinct land use policies and density expectations; protect agricultural land and natural amenities; and outline strategies to meet the region's forecasted growth. Community designations are further used to plan and implement regional policies at the local level.

Imagine 2050 builds upon the foundation of community designations by categorizing communities based on defining characteristics essential for effective regional planning. These community designations are informed by key variables that guide the development towards areas equipped with the necessary urban infrastructure. They set specific land use and density expectations crucial for managing spatial development while preserving agricultural lands and natural amenities essential for sustainable regional growth.

Key variables used to define community designations include:

- **Age of infrastructure:** Acts as a proxy for the infrastructure's overall condition and anticipated service life.
- **Planned residential density:** Extracted from 2040 local comprehensive plans; this variable helps in anticipating future growth patterns.
- **Intersection density:** Serves as an indicator of connectivity, urban form, and accessibility within the community.

By incorporating these main variables, Imagine 2050's designations are tailored to implement regional policies effectively at the local level, accommodating projected growth in a structured and foresightful manner (Figure 1). Community designations not only support the planning of local policies but also help implement these strategies effectively, accommodating the region's projected growth in a sustainable and efficient manner.

Process

To establish community designation in Imagine 2050, Met Council staff examined Thrive MSP 2040 community designations, identified areas of improvement, and compiled proposals for new community designations. The project team worked in collaboration with the Met Council's Land Use Advisory Committee, an external focus group of local planners, and an internal group of technical experts during this process. The engagement efforts have helped narrow down the possibilities, better understand local needs, and analyze potential impacts.

After extensive feedback, there was consensus among the groups that areas outside of the Metropolitan Urban Service Area (MUSA) with rural designations should remain unchanged in order to better reflect the long-term effect of policies in these designations. Areas within the MUSA were further explored for refinements.

The project team evaluated the variables considered in Thrive MSP 2040 designations, as well as new variables recommended by the stakeholders. Among the variables considered, the following were excluded from the analysis due to lack of regionwide data, duplicative material, binary information, no significance to the data, or because their inclusion could bias the outcomes by predetermining the results:

- Localized flooding

- Significant ecological areas
- Groundwater infiltration areas
- Municipal water supply system source
- Drinking water vulnerability
- Transitways
- Redevelopment opportunities
- Forecasts
- Job/employment density
- Prime agricultural soil
- Land surface temperature
- Previous designations
- Percentage of developable land (percent developed)

In turn, the project team in collaboration with the stakeholders identified the following as the main variables for identifying community designations within the MUSA:

- Age of infrastructure
- Planned residential density (from 2040 local comprehensive plans)
- Intersection density

Figure 1: Draft 2050 Community Designations

- Urban
- Urban Edge
- Suburban
- Suburban Edge
- Rural Center
- Diversified Rural
- Rural Residential
- Agricultural
- Outside Council jurisdiction

