

Meeting: Board Meeting Meeting date: 7/8/2021 Agenda Item #: 12.1 Item type: Discussion

Title: Hydrologic Analysis of Minneapolis Upzoning Study – Housing Analysis Results

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**Purpose:** To provide the Board with an update on the Minneapolis Upzoning study to date, outline key findings, and receive the Board's feedback on next steps.

### **Background:**

On October 15th, 2019 the Minneapolis City Council adopted a resolution to approve the City of Minneapolis's 2040 Comprehensive Plan (2040 Plan). Of the many goals within the 2040 plan, increasing access to affordable housing is listed as a major priority for the City. In order to achieve this goal, the City is proposing a range of up-zoning policies to increase housing choice and supply by promoting the construction of multi-family buildings throughout the city, as seen on page 38 and 39 of the packet, within attachment 3.

Specifically, the City is looking to achieve these goals through upzoning policies these policies look to promote multi-family construction in a number of ways, including identifying key transportation corridors to serve as central development areas, as well as allowing for the construction of multi-family buildings on lots that traditionally would have held single family homes. As a result, single family home lots are now able to be combined and re-zoned for multi-family use.

Overall, density is anticipated to increase within the City on lots of all sizes. MCWD's current Stormwater Management Rule does not require a specific scope of stormwater treatment for sites that are under one acre in size. A majority of lots within the City of Minneapolis fall below this acre size threshold. Therefore, as new multi-family buildings are constructed to accommodate housing goals, increases in hardcover may occur on sites that historically would have not seen high levels of hardcover and that currently require a minimal level of stormwater treatment.

To better understand how the impacts from up-zoning may influence downstream water resources, the MCWD Board of Managers (Board) directed staff to analyze the land use policy changes coupled with a stormwater modeling exercise.

The goal of this effort would be to (1) understand the amount and rate of turnover expected with the new zoning incentives, and (2) what those changes meant for downstream water resources in terms of water quality and quantity. On July 9<sup>th</sup> 2020, the Board of Managers approved resolution 20-055 which authorized staff to execute consultant contracts to complete this study.

At the July 8<sup>th</sup>, 2021 meeting, staff will provide the Board with an update on the study and the findings of the first portion of the initially authorized work, which includes the market research, conducted by Maxfield Research and Consulting. The summary below identifies the process and key findings of the study thus far, and outlines potential next steps, for which, Staff will be gathering the Board's feedback.

### **Summary:**

### Methods:

Maxfield Research and Consulting has provided the District with a market analysis assessing potential changes in density over time and space for the portions of Minneapolis that fall within District boundaries. The boundaries and analysis areas can be seen on page 8 of the packet, within attachment 1.

In order to complete this study, MCWD's boundaries were categorized into four study areas to match them to groups of minor subwatersheds. These four study areas include the Chain of Lakes Analysis Area, Southwest Minneapolis Analysis Area, Powderhorn Analysis Area, and Nokomis Analysis area.

Four different sources of data were utilized to complete the projections. The data sources include:

- 1. The supply of single-family home, and multi-family buildings (US Census Bureau data),
- 2. Building permit data (Metropolitan Council data),
- 3. Lot coverage data (MCWD and Metropolitan Council Data); and,
- 4. Average Lot and Unit Pricing information (Greater Minneapolis Area Association of Realtors).

Maxfield used the above components to calculate average lot coverage amounts, percent and net change of different housing types over the past decade, and average pricing changes. These values were then used to develop their projections.

### Findings:

The key findings of the study are broken into the following; the first being a summary of housing trends within District boundaries from the past decade, the second being the 'short term' (2020 to 2030) and 'long term' (2030 to 2040) projections.

### Summary of Housing Trends

Over the past decade, the most prominent housing trend within Minneapolis and District boundaries has been the construction and reconstruction of single family homes, with the highest levels of activity between 2015 and 2018. Construction of multifamily housing occurred, but at a slower pace, with the highest levels of multifamily activity observed between 2018 and 2019.

Lot coverage on both single family home and multifamily parcels has increased, as well as the potential for an increase in total impervious surface within District Boundaries. Although density has not always increased during these active periods, based on the difference in activity levels between single family and multifamily homes, lot coverage has.

### **Density Projections**

Moving forward, multifamily buildings that are near public transit, shopping, and recreation will trend within the development community, thus resulting in higher levels of increased density within the City to satisfy housing demands. As further explained below, it is likely that multifamily buildings on larger sites will make up the bulk of this increase. These sites are typically over 1 acre, and are captured by the District's stormwater requirements, through both current and proposed rule revisions.

#### Short Term Density Projections (2020-2030)

In the short term, developers are more likely to focus on opportunities where they can rapidly achieve higher economies of scale through the number of available units. Buildings with 40 units or more achieve this favorable return, whereas

midsize apartment buildings and one-off triplex or quadplex developments do not. A few key findings have been articulated below:

- Large-scale multifamily developments, classified as >40 units, are projected to provide the bulk of density increase within Minneapolis District boundaries as these developments have the most favorable return on investment.
  - These developments are projected to occur along transit corridors and commercial areas where density is either already established or was originally planned to.
  - These developments tend to be occur on lots over an acre in size, resulting in specific rate, volume, and phosphorous treatment scopes under the District's Stormwater Management rule.
- One-off duplex, triplex, or quad-plex developments are less likely to occur. This is because these developments
  are favored in existing single family home neighborhoods, where the cost of purchasing and combining several
  lots is not favorable for only a few units.
  - Of the analysis areas, new construction within this category is projected to be favorable only within the Chain of Lakes area, as this area allows for a greater amenity value to be included within the unit pricing in order to increase return.
  - These developments tend to be occur on lots less than an acre in size, resulting in treatment that is not held to specific rate, volume, and phosphorous scopes under the District's Stormwater Management rule.
- Mid-size developments, classified as 18 to 24 units, are also less likely to occur for based on the same issues of cost-effectiveness.
  - Maxfield projects that these types of developments could occur in areas where there is aging housing stock, resulting in slight improvements in cost-favorability, but it is still unlikely. These types of multifamily buildings are not projected to frequently occur in the middle of a single family neighborhood.
  - o These developments tend to occur on lots that are less than an acre in size.

### Long Term Density Projections (2030 – 2040)

Over an extended period of 20 years, it is anticipated that development of the remaining commercial and transit corridor areas will eventually turn over as outlined in the 2040 plan.

In the time since the Board authorized this work, the City of Minneapolis has adopted updated stormwater ordinances. The new ordinances, scheduled to go into effect in January 2022, will require sites 0.5 acres or more in size, to provide stormwater treatment in the form of volume, rate, and water quality removals, in excess of the District's current requirements. The full language of this ordinance update can be found on page 34 of the packet, within attachment 2. The vast majority of duplex, triplex and quadplex projects, as well as mid-sized apartments, are anticipated to fall into this threshold, and will be required to provide stormwater treatment, where none had previously been required.

In summation, Maxfield's projections show that cost-effectiveness and current market conditions favor multifamily buildings sized at 40 units or more. Duplex, triplex, quadplex, and other mid-size apartment uses are unlikely to be profitable, and are not anticipated to trend in the same way that large multifamily buildings will. The City has updated its ordinances to introduce stormwater requirements for lots 0.5 acre or more in size, to capture changes in hardcover, and prevent impacts to its infrastructure. This also protects downstream resources.

The initially directed work called for a full stormwater analysis to compliment housing trend projections. With the above findings and context, staff are asking for the Board's assessment of the study moving forward. Considering that the sites under 1 acre are not cost-effective, nor anticipated to be a source of turnover, and that Minneapolis now has stormwater mechanisms to cover smaller sites should they turnover at some point in the future, staff will engage the Board to determine next steps in the study.

The second phase of the study would have covered the anticipated changes to runoff rates, volumes, and impacts to downstream waters. However, since the changes are now 1) unlikely, and 2) mitigated by new ordinance, staff is assessing the Board's desire to continue with the study.

### Staff has outlined a few next steps:

- 1. Do not proceed with the remaining stormwater analysis portion of the study,
- 2. Modify the study to analyze stormwater impacts only within areas of major turn over, which include major commercial and transit areas,
- 3. Continue per the initial resolution and contract and complete the full study to analyze stormwater impacts within areas of both major and minor turnover.

### Supporting documents (list attachments):

- 1. Maxfield Research and Consulting Memorandum; Analysis and Projections of Potential Increases in Residential Density from Upzoning
- 2. Summary Memo of Minneapolis Stormwater Ordinance Updates
- 3. City of Minneapolis 2040 Plan Projected Land Use Maps



June 11, 2021

### **MEMORANDUM**

TO: Ms. Grace Barlow

**Minnehaha Creek Watershed District** 

FROM: Mr. Max Perrault | Ms. Mary C. Bujold

**Maxfield Research and Consulting, LLC** 

RE: Analysis and Projections of Potential Increases in Residential Density from

Upzoning through the Minneapolis 2040 Plan

# **Introduction/Purpose and Scope of Research**

This memorandum contains a summary of findings for the Minnehaha Creek Watershed District (MCWD) that include a trend and forecast research analysis related to a recent change in zoning policy implemented by the City of Minneapolis in its 2040 Comprehensive Plan. The policy was a response to goals and objectives outlined in the 2040 Plan which would result in increasing residential densities in neighborhoods that had previously been predominantly low density. The impetus for the increase in housing density is to provide better access to housing and specifically affordable housing. The analysis does not address potential qualitative outcomes or the cost of new housing units.

This report includes market research and data analysis to analyze and assess the potential increase in densities in the areas that are under The District's jurisdiction to determine the impacts to water quality and water quality issues due to a recent or projected increase in residential densities.

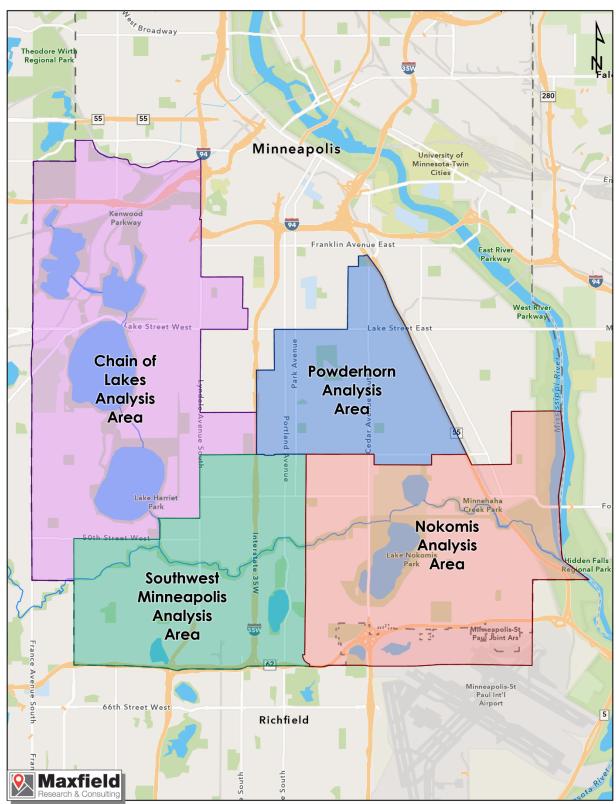
The intent is to project the level to which upzoning may become reality and the number of additional structures and dwelling units that may be added to the City in various geographies to 2040.

# **MCWD Analysis Areas Definition**

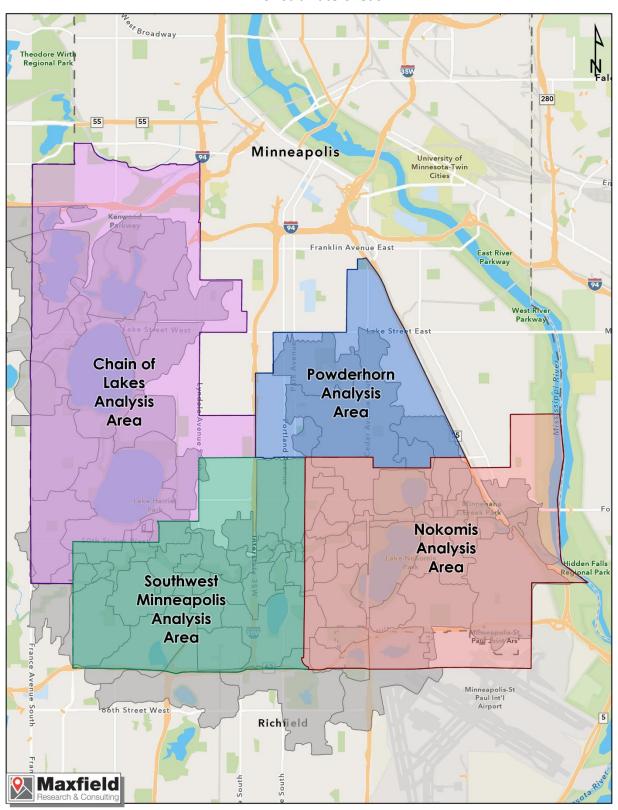
By overlaying the current Minnehaha Creek minor subwatershed boundaries that lie within the City of Minneapolis and the 2010 Census Tract boundaries, Maxfield Research determined the subject region, which was further divided into four analysis areas: (1) Chain of Lakes Analysis Area, (2) Southwest Minneapolis Analysis Area, (3) Powderhorn Analysis Area and (4) Nokomis Analysis Area. The maps on the following pages illustrate the boundaries of the four analysis areas, as well as the location of the Minnehaha Creek minor subwatersheds within the analysis areas.

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# **Minnehaha Creek Watershed District Analysis Areas**



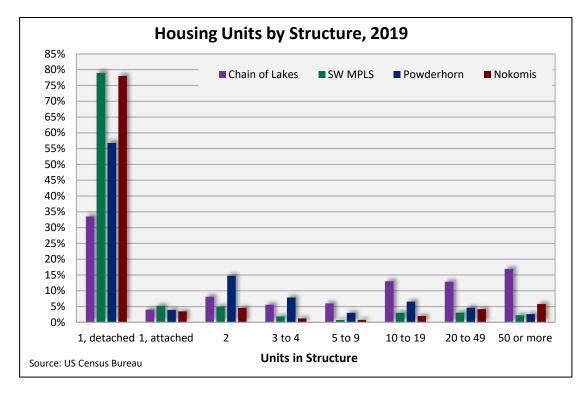
### **Minor Subwatersheds**

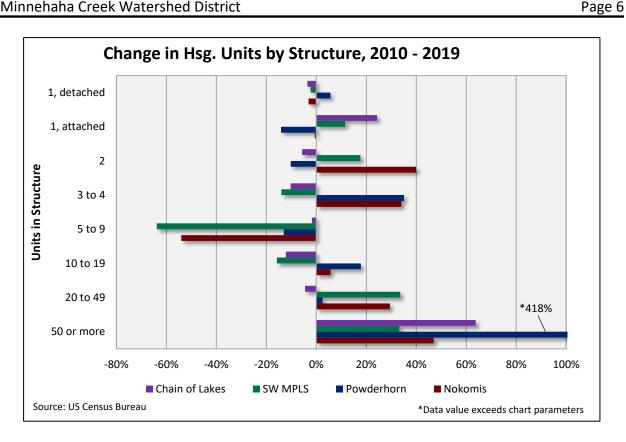


# **MCWD Analysis Areas Summary**

Table 1 and subsequent charts summarize features regarding each Analysis Area and provides a baseline for the supply of single-family detached dwelling units. Single-family detached dwelling data is sourced to Hennepin County, while the data in both charts is sourced to the United States Census Bureau.

		TABLE 1 A COMPARISON SUMMA ATERSHED DISTRICT ANA		
Summary	Chain of Lakes Area	SW MPLS Area	Powderhorn Area	Nokomis Area
# of Census Tracts	16	8	12	9
Analysis Area Sq. Mi.	9.79	5.56	3.56	7.41
# of Minor Subwatersheds in Area	25	31	5	38
SF Dwelling Units Baseline	10,131	11,920	7,416	11,911
Lot Size (Acres)				
Median	0.130	0.136	0.116	0.119
Average	0.156	0.148	0.121	0.133
Lots ≤ 1 Acre	10,127	11,919	7,416	11,910
Note: Some minor subwatersheds overla subwatersheds in the entire Analysis Ard Sources: Hennepin County; Maxfield Re	ea.	ysis Area or outside of N	Ainneapolis. In total, there an	re 83 minor





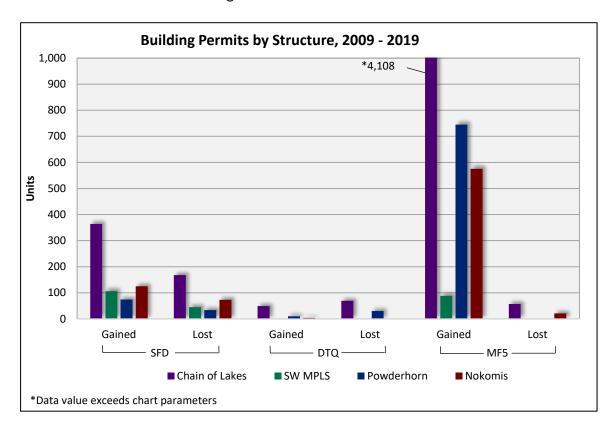
The data in the chart above shows there have been substantial percentage increases in each of the Analysis Areas regarding the number of dwelling units in buildings of 50 units or more. The Powderhorn Analysis area is estimated to have experienced an increase of more than 100% in this category since 2010 followed by Chain of Lakes and Nokomis. SW Minneapolis has experienced a larger increase in the number of units in buildings with between 20 and 49 units, but a decrease in units in buildings with five to nine units.

Overall, there have been increases in the number of units in each of the Analysis Areas showing that density in the City has increased. Although there have been increases overall in buildings with fewer than 10 units, most of those increases have been concentrated in building with up to four units. The data also shows that buildings with five to nine units have decreased in each Analysis Area between 2010 and 2019.

# **Building Permit Analysis**

This section of the report presents residential building permit data in Tables 2 through 4 from the Metropolitan Council and was collected annually from 2009 through 2019. The data is provided by Analysis Area and sorted into three housing types: (1) Single-Family Detached (SFD); (2) Duplex, Triplex, and Quads (DTQ); and (3) Multifamily (5+ Units) (MF5). The classification for permit type is found at the footnote of each table.

The data displayed in Tables 3 and 4 represent units not structures, while the associated maps illustrate the location of the buildings which house the units.



# Single-Family Detached

# TABLE 2 BUILDING PERMITS MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA

	Chain of Lakes Analysis Area												
				S	FD - Single-Fa	mily Detache	:d						
			Gained					Lost					
	NU	MI	FC	FD	FM	RM	МО	TC	TD	TM	Net		
2019	24		1			33			2		-10		
2018	23					27					-4		
2017	22					23					-1		
2016	43			4		31		1			15		
2015	43			2		48					-3		
2014	49			3		1					51		
2013	58										58		
2012	33										33		
2011	24										24		
2010	19			1					1		19		
2009	15					1					14		

				Sout	thwest Minne	apolis Analys	is Area				
				S	FD - Single-Fa	mily Detache	d				
1 [			Gained					Lost			
	NU	MI	FC	FD	FM	RM	MO	TC	TD	TM	Net
2019	6					3					3
2018	10					9					1
2017	17					13					4
2016	12					8					4
2015	13					12					1
2014	13										13
2013	21										21
2012	5										5
2011	3										3
2010	1										1
2009	5										5

NU = New Unit, MI = Moved In, FC = From Commercial, FD = From Duplex/Tri/Quad, FM = From Multifamily

RM = Removed, MO = Moved Out, TC = To Commercial, TD = To Duplex/Tri/Quad, TM = To Multifamily

# Single-Family Detached – Continued

# TABLE 2 - CONTINUED BUILDING PERMITS MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA

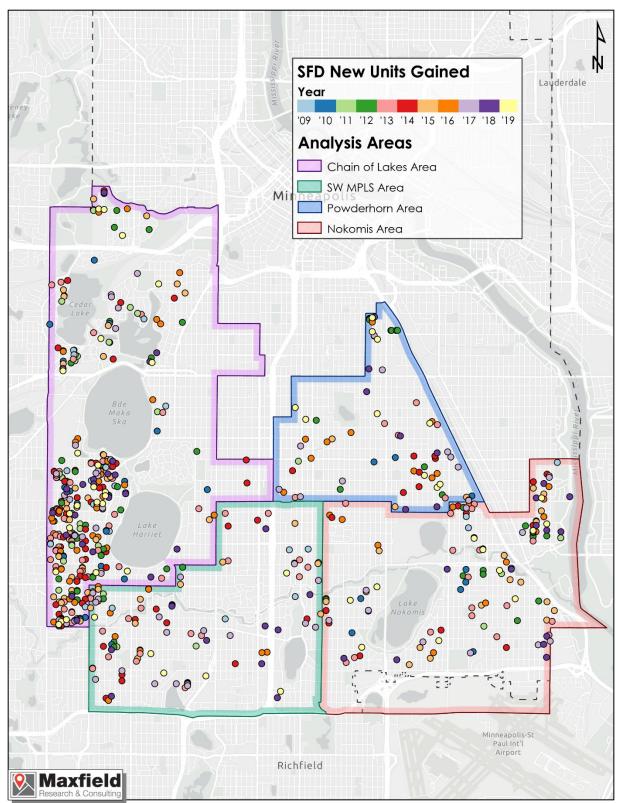
	Powderhorn Analysis Area											
				S	FD - Single-Fa	mily Detache	ed				1	
			Gained					Lost			•	
	NU	MI	FC	FD	FM	RM	MO	TC	TD	TM	Net	
2019	10			1		7			1		3	
2018	7					6			1		0	
2017	11					12					-1	
2016	13			2		7					8	
2015	4										4	
2014	7										7	
2013	6										6	
2012	9										9	
2011	1										1	
2010	3										3	
2009											0	

	Nokomis Analysis Area												
				S	FD - Single-Fa	mily Detache	d						
			Gained					Lost					
	NU	MI	FC	FD	FM	RM	МО	TC	TD	TM	Net		
2019	11					12			1		-2		
2018	15					12					3		
2017	12					11					1		
2016	13			2		16			1		-2		
2015	19					20					-1		
2014	11										11		
2013	18										18		
2012	10										10		
2011	5		·								5		
2010	6										6		
2009	3										3		

NU = New Unit, MI = Moved In, FC = From Commercial, FD = From Duplex/Tri/Quad, FM = From Multifamily

RM = Removed, MO = Moved Out, TC = To Commercial, TD = To Duplex/Tri/Quad, TM = To Multifamily

Single-Family Detached NU Gained by Year (2009 - 2019)



# Duplex, Triplex, & Quad (Units)

# TABLE 3 BUILDING PERMITS MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA

					Cha	ain of Lakes	Analysis A	rea					
					DTQ	- Duplex, T	riplex, & O	uads					
			Gaiı	ned					Lo	st			
	NU	MI	MU	FC	FS	FM	RM	MO	TF	TC	TS	TM	Net
2019	12		5		6		12						6
2018													0
2017	6		3				12						-6
2016	5						4				8		-7
2015	4						16				4		-16
2014	1		1		4								5
2013													0
2012													0
2011													0
2010					2		11				2		-11
2009													0

### Southwest Minneapolis Analysis Area

[					DTQ	- Duplex, 1	riplex, & C	Quads					1
			Gai	ned					L	ost			
	NU	MI	MU	FC	FS	FM	RM	MO	TF	TC	TS	TM	Net
2019													0
2018													0
2017													0
2016													0
2015													0
2014													0
2013													0
2012													0
2011													0
2010													0
2009													0

NU = New Unit, MI = Moved In, FC = From Commercial, FD = From Duplex/Tri/Quad, FM = From Multifamily

RM = Removed, MO = Moved Out, TC = To Commercial, TD = To Duplex/Tri/Quad, TM = To Multifamily

# Duplex, Triplex, & Quad (Units) - Continued

# TABLE 3 - CONTINUED BUILDING PERMITS MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA

	Powderhorn Analysis Area													
					DTQ	- Duplex, 1	Triplex, & Q	uads						
			Gai	ned					Lo	ost				
	NU	MI	MU	FC	FS	FM	RM	MO	TF	TC	TS	TM	Net	
2019	2				2		2				2		0	
2018	6												6	
2017													0	
2016							6				4		-10	
2015							2						-2	
2014													0	
2013													0	
2012													0	
2011													0	
2010							14						-14	
2009													0	

#### **Nokomis Analysis Area** DTQ - Duplex, Triplex, & Quads Gained Lost FM RM NU MI ΜU FC FS МО TF TC TS TM Net 2019 2 2018 2017 2016 2015 0 2014 2013 0 2012 0 0 2011

NU = New Unit, MI = Moved In, FC = From Commercial, FD = From Duplex/Tri/Quad, FM = From Multifamily

RM = Removed, MO = Moved Out, TC = To Commercial, TD = To Duplex/Tri/Quad, TM = To Multifamily

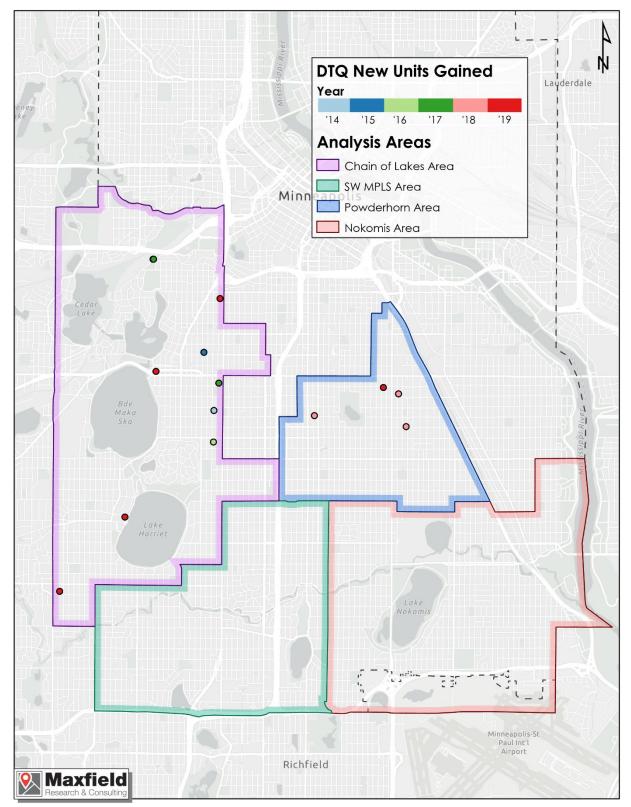
Sources: Metropolitan Council, Maxfield Research & Consulting, LLC

2010

2009

0

# Duplex, Triplex, Quad Properties NU Gained by Year (2009 – 2019)



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# **Multifamily (Units)**

# TABLE 4 BUILDING PERMITS MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA

	Chain of Lakes Analysis Area													
[				MF	5 - Multifa	mily (5+ Un	its)				1			
			Gained					Lost						
	NU	MU	FC	FS	FD	RM	TF	TC	TS	TD	Net			
2019	734		8			12					730			
2018	575	1									575			
2017	300	7									300			
2016	175					3					172			
2015	383	1				15	4				368			
2014	40					15					25			
2013	473					8					465			
2012	853		9								862			
2011			136								136			
2010	336										336			
2009		19	58								58			

### **Southwest Minneapolis Analysis Area**

				MF	5 - Multifa	mily (5+ Ur	nits)				1
			Gained					Lost			
	NU	MU	FC	FS	FD	RM	TF	TC	TS	TD	Net
2019											0
2018											0
2017											0
2016	13										13
2015											0
2014	45										45
2013											0
2012											0
2011											0
2010											0
2009	30										30

NU = New Unit, MI = Moved In, FC = From Commercial, FD = From Duplex/Tri/Quad, FM = From Multifamily

RM = Removed, MO = Moved Out, TC = To Commercial, TD = To Duplex/Tri/Quad, TM = To Multifamily

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# Multifamily (Units) - Continued

# TABLE 4 - CONTINUED BUILDING PERMITS

### MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA

				Po	owderhorn	Analysis Ar	·ea				
				MF	5 - Multifa	mily (5+ Un	its)				
			Gained					Lost			
	NU	MU	FC	FS	FD	RM	TF	TC	TS	TD	Net
2019	48										48
2018	6			2							8
2017	225										225
2016											0
2015	135		3								138
2014	42				5						47
2013	64										64
2012											0
2011											0
2010	93										93
2009	122										122

### **Nokomis Analysis Area**

Γ				MF	5 - Multifa	mily (5+ Un	its)				
			Gained					Lost			
	NU	MU	FC	FS	FD	RM	TF	TC	TS	TD	Net
2019	231					16					215
2018	148										148
2017										1	-1
2016				2					4		-2
2015											0
2014											0
2013											0
2012	48										48
2011	146										146
2010											0
2009											0

NU = New Unit, MI = Moved In, FC = From Commercial, FD = From Duplex/Tri/Quad, FM = From Multifamily

RM = Removed, MO = Moved Out, TC = To Commercial, TD = To Duplex/Tri/Quad, TM = To Multifamily

### Multifamily Building Permits – Parcel Size

Table 5 presents a parcel size summary for the parcels associated with each of the building permits labeled New Units (NU) as displayed in Table 4. The figures in Table 4 include only the specific parcel associated with the street address of the individual building permit and do not include additional parcels that may be associated with a multifamily development (i.e. outlot, additional surface parking lot, etc.).

TABLE 5 MULTIFAMILY BUILDING PERMITS - PARCEL SIZE SUMMARY MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA								
NU MF5 Parcels	Chain of Lakes Area	SW MPLS Area	Powderhorn Area	Nokomis Area				
Parcel Acreage								
Average	0.66	0.21	0.71	0.88				
Median	0.40	0.16	0.60	1.19				
Minimum	0.08	0.12	0.12	0.34				
Maximum	2.73	0.46	2.58	1.26				
Parcel Count								
Total	47	5	12	7				
≤ 0.99 Acres	36	5	11	3				
≥ 1.00 Acres	11	0	1	4				
NU = New Unit; MF5 =	Multifamily (5+ Units)							
Sources: Metropolitan	Council; Hennepin County; Max	rfield Research & Consul	lting, LLC					

There are a number of multifamily buildings with more than 50 units constructed recently in Minneapolis on parcels of less than one acre. The following are examples:

Uptown Lake Apartments (2003) (two buildings – 165 units, 82 and 83 units each)

1212 West Lake Street 0.67 acres 714 West Lake Street 0.73 acres

The Revel (2017) (one building – 131 units)
1300 West Lake Street 0.77 acres

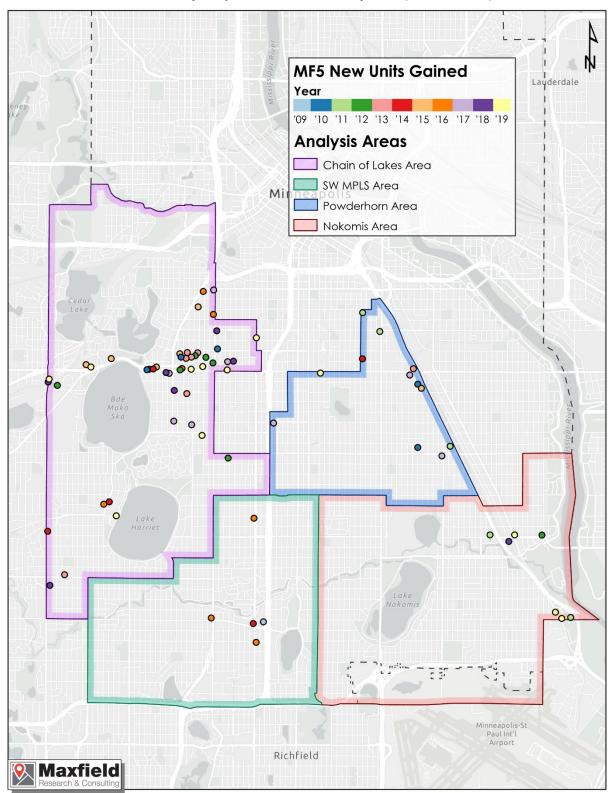
The Asher (2020) (one building – 175 units)
1125 Lagoon Avenue
0.80 acres

The Overland (2020) (one building – 63 units)

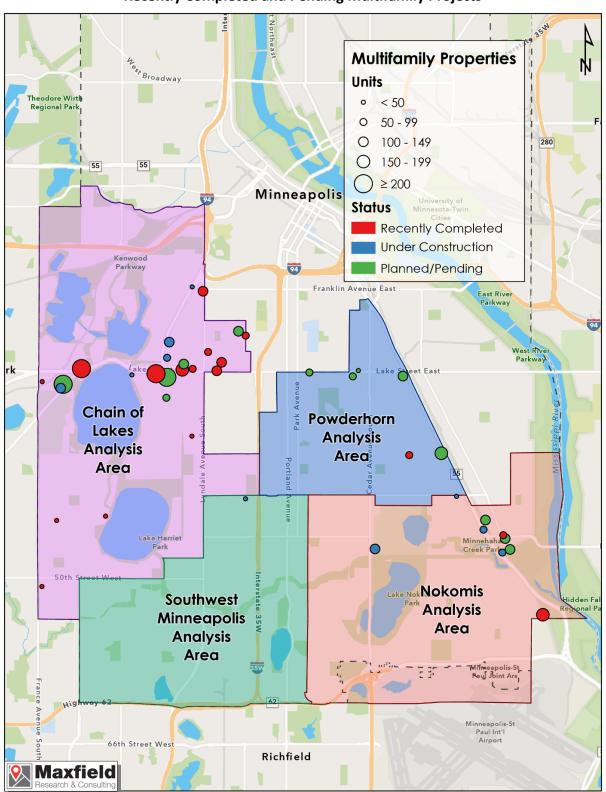
2325 E 38<sup>th</sup> Street 0.44 acres

The Southsider (2018) (one building – 123 units) 3029 22<sup>nd</sup> Avenue South 0.87 acres

# Multifamily Properties NU Gained by Year (2009 – 2019)



# **Recently Completed and Pending Multifamily Projects**



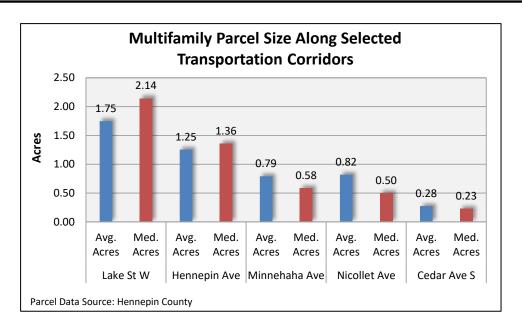
# **Single-Family Detached Lot Coverage Survey**

Using geographic information systems (GIS) software and Hennepin County aerial imagery, Maxfield Research and Consulting, LLC conducted a lot coverage survey to roughly estimate the average lot coverage for single-family lots of one acre or less. Building permits for new single-family detached units were selected at random from each of the four Analysis Areas and sorted by year issued. The following table summarizes the lot coverage survey.

TABLE 6 LOT COVERAGE SURVEY MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA										
			New SFD Unit Adjacent Properties							
	BP Year	Avg. Lot Acreage	Avg. Lot Coverage (Pre)	Avg. Lot Coverage (Post)	% Lot Coverage (Post)	Avg. Coverage Change	% Change	Avg. Lot Acreage	Avg. Lot Coverage	% Lot Coverage
Chain of Lakes Analysis Area	2017 - 2019 2013 - 2016 2009 - 2012 Total	0.20 0.13 0.14 <b>0.15</b>	0.05 0.06 0.05 <b>0.05</b>	0.11 0.08 0.08 <b>0.09</b>	53.0% 61.0% 61.0% 5 <b>7.9</b> %	0.06 0.02 0.04 <b>0.04</b>	130.4% 34.3% 72.4% <b>72.4</b> %	0.19 0.14 0.15 <b>0.16</b>	0.08 0.08 0.07 <b>0.08</b>	43.2% 59.3% 49.1% <b>50.1%</b>
SW MPLS Analysis Area	2017 - 2019 2013 - 2016 2009 - 2012	0.19 0.13 0.15 <b>0.15</b>	0.07 0.04 0.05 <b>0.05</b>	0.09 0.07 0.09 <b>0.08</b>	47.9% 55.1% 59.8%	0.02 0.03 0.04 0.03	27.8% 65.4% 73.3%	0.19 0.13 0.15 <b>0.15</b>	0.08 0.06 0.07	40.3% 45.8% 47.5% <b>44.4%</b>
Powderhorn Analysis Area	2017 - 2019 2013 - 2016 2009 - 2012 Total	0.12 0.13 0.14 <b>0.13</b>	0.04 0.03 0.06 <b>0.05</b>	0.06 0.06 0.06 <b>0.06</b>	48.3% 47.4% 42.9% 46.1%	0.01 0.03 0.00 <b>0.01</b>	33.3% 75.6% 0.0% <b>30.6%</b>	0.12 0.12 0.14 <b>0.12</b>	0.06 0.06 0.06 <b>0.06</b>	47.4% 50.7% 42.7% <b>47.0</b> %
Nokomis Analysis Area	2017 - 2019 2013 - 2016 2009 - 2012 Total	0.13 0.13 0.16 <b>0.14</b>	0.05 0.04 0.05 <b>0.04</b>	0.07 0.06 0.10 <b>0.08</b>	50.8% 49.2% 60.2% <b>54.4%</b>	0.02 0.02 0.05 0.03	43.5% 63.2% 110.7% <b>75.7%</b>	0.13 0.13 0.15 <b>0.14</b>	0.06 0.05 0.08 <b>0.06</b>	42.9% 40.9% 51.4% <b>45.8%</b>

### Multifamily Parcel Size – Transportation Corridors

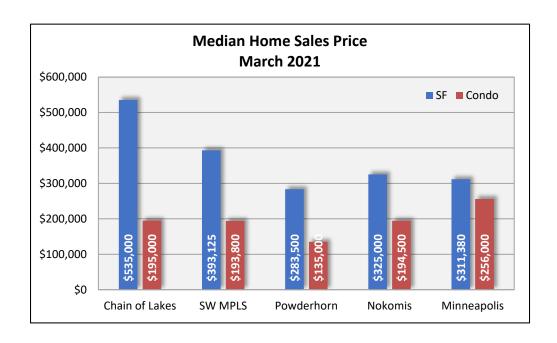
The data in the following chart displays the average and median acreage for multifamily parcels along the five selected transportation corridors. Maxfield Research utilized Hennepin County tax parcel and road centerline GIS data to arrive at these calculations. The parcels used for this exercise are within 100 feet of the specified road centerline and that road may stretch into multiple analysis areas or outside of the analysis area.



### **For-Sale Market Conditions**

Table 7 provides a snapshot of the current for-sale housing market conditions in the Analysis Areas. The data presented includes sales activity and pricing for single-family detached units and condominium units for March 2021 year-over-year (YOY) and is sourced to the Greater Minneapolis Area Association of Realtors.

			TABLE 7								
		ΔN	IALYSIS AREA HOME	SALES							
	MINNEHAHA CREEK WATERSHED DISTRICT ANALYSIS AREA										
	.•	IIIVIVEIIAIIA CKE	MARCH 2021 YO		ANLA						
			Single-Family								
	Total	Listing %	,	Sales %	Med. Sales	Med. %	Months				
Analysis Areas	Active Listings	Change	Closed Sales	Change	Price	Change	of Inventory				
Chain of Lakes	143	-4.0%	662	27.1%	\$535,000	-1.1%	3.0				
SW MPLS	88	-8.3%	824	23.0%	\$393,125	3.5%	1.5				
Powderhorn	46	24.3%	469	29.9%	\$283,500	8.1%	1.4				
Nokomis	64	4.9%	826	33.9%	\$325,000	8.7%	1.1				
City of Minneapolis	555	-3.1%	4,895	21.6%	\$311,380	9.8%	1.5				
			Condominium								
	Total	Listing %		Sales %	Med. Sales	Med. %	Months				
Analysis Areas	Active Listings	Change	Closed Sales	Change	Price	Change	of Inventory				
Chain of Lakes	91	46.8%	298	3.8%	\$195,000	-2.5%	3.8				
SW MPLS	2	100.0%	10	0.0%	\$193,800	11.7%	22.2				
Powderhorn	10	100.0%	46	-16.4%	\$135,000	-15.6%	2.6				
Nokomis	19	375.0%	26	4.0%	\$194,500	14.4%	8.8				
City of Minneapolis	463	48.9%	1,198	-18.1%	\$256,000	-7.9%	4.7				
Sources: Greater Minneap	oolis Area Association of	Realtors; Maxfie	ld Research & Consul	ting, LLC			_				



## **Key Findings**

The following text summarizes key findings from the *Minnehaha Creek Watershed District City* of *Minneapolis Upzoning Analysis*.

Residential development activity in the previous decade has been substantial in Minneapolis, with the highest levels of activity occurring in 2018 and 2019 in the multifamily category and from 2015 through 2018 for single-family. New single-family (i.e. primarily tear-downs) construction has slowed across all Analysis Areas. This may be a result of the high cost of construction with lumber prices and labor costs soaring in recent months. Although the pandemic has increased the attractiveness of expansion and renovation in residential homes and interest rates remain low, the short-term challenges of new construction are likely to continue to suppress activity in the single-family sector for at least the next 24 months, despite low interest rates.

In-fill multifamily buildings, especially on urban lots, that are near public transit, shopping and recreation continue to spark interest in the development community. Land costs however, are a factor in any decision to redevelop property. With home prices increasing at a rapid pace due to shortages, developers' incentives to increase density in the urban areas are focused on locations where they can achieve higher economies of scale. Developers are more likely to look at properties where they can 1) combine parcels, 2) where they can construct more than five units on a property and 3) where the property will "fit" within the surrounding character of the neighborhood.

One-off duplex or triplex developments in largely single-family neighborhoods are unlikely to occur in the short-term under current conditions with shortages related largely to the pandemic. Unless there would be substantial gap funding available to support this type of development, private developers will seek properties where they can construct more than 10 units on a site.

At this time, we are aware of a proposed increase in density on single-family parcels where the Minneapolis Public Housing Authority wants to increase the number of affordable units on their existing single-family properties that they already own and control. The recent upzoning policy enables them to do this with minimal review and reduced public process.

We anticipate there will continue to be an overall shift toward increased density in the City of Minneapolis and primarily along major transportation corridors in each of the Analysis Areas. More development along the Light Rail line, along Lake Street, Lyndale Avenue, Nicollet Avenue, Cedar Avenue, etc. and at commercial nodes, is likely to continue.

We do not anticipate substantial redevelopment in the heart of existing single-family neighborhoods either on side parcels or as redevelopment of existing single-family homes. The cost to remove and redevelop is high and private developers will continue to focus on locations where this makes economic sense and where the housing product desired will obtain the highest value and absorb rapidly in the market. These areas include the Chain of Lakes and SW Analysis Areas and in Nokomis, on or near high-amenity locations around the Lake.

The analysis demonstrates that redevelopment of existing parcels in Minneapolis, whether for single-family homes or for multifamily buildings, has resulted in increased lot coverage and therefore, an increase in the potential impervious surface that exists. Visual inspections of several sites where redevelopment has occurred verifies that the new structures cover more of the lot than the previous structures. Although density has not always increased, the lot coverage has. We do not make any assessment of the previous lot coverage changes regarding any impacts to water-runoff and/or water quality which are not the experience of this firm and are not covered in our scope of work.

## **Projected Housing Unit Construction**

Table 8 on the following page shows the projected housing unit construction by building type along with an average lot coverage for the periods 2020 to 2030 and 2030 to 2040 for the Analysis Areas. In order to satisfy demand for new housing in Minneapolis, density increases will occur. These density increases are likely to continue to target locations in commercial areas and sites where increased density has already become established or was originally planned to occur (i.e. along the LRT).

There have been and will be additional sites near primary intersections or within small commercial districts of local neighborhoods that may increase in density. There are several recent examples of this (i.e. Linden Hills, along 38<sup>th</sup> Street between Hiawatha and Cedar, France Avenue and 44<sup>th</sup> Street, France Avenue and 50<sup>th</sup> Street, Hennepin Avenue, south of Lake Street and some others) in Southwest and South Minneapolis. Most of these new developments have been constructed above commercial buildings or are on sites where older commercial structures were removed rather than single-family homes. At times, there are older single-family homes adjacent to these neighborhood commercial areas which, because of their proximity to the commercial district and a minor arterial, may also have been removed for the redevelopment.

Most of these new properties have 45 units or more. Because of the cost of new construction and high land prices, developers tend to prefer to build more than 40 units. With an average lot size in most single-family neighborhoods of between 0.12 up to 0.23 acres (corner lots are

sometimes 0.33 acres), developing buildings of between 18 and 20 units is not considered cost effective.

The Minneapolis Public Housing Authority is proposing to develop four-unit buildings in residential neighborhoods by removing existing single-family homes and increasing density to what is essentially a two-story duplex building. This product is much smaller than developing up to 20 units and is certainly smaller than developing 50 units.

It is not impossible to develop multifamily properties on city lots with between 18 and 24 units, but it would require acquisition of more than one single-family lot and most often these are developed at the end of blocks, not in the middle. We could see this happening more on either side of I-35W, where there is aging housing stock, but it is more likely to happen primarily along minor arterials or as in-fill in small neighborhood commercial districts than in the middle of a single-family neighborhood.

For the period 2030 to 2040, we anticipate and project continued development of high-density multifamily housing near and along major commercial, traffic and transit corridors in each of the Analysis Areas. There are already redevelopment sites that have been identified but not yet built on which have the potential to substantially increase residential densities through multistory buildings.

TABLE 8
PROJECTED CONSTRUCTION AND LOT COVERAGE RATIOS
2020 - 2040

	2020 - 2030							
		Average	Duplex	Average		Average		
	Single-	Coverage	Triplex	Coverage	Multi	Coverage		
Analysis Area	Family	Ratio	Quad	Ratio	Family	Ratio		
Chain of Lakes	150	0.11	50	0.44	3,300	0.70		
Southwest Minneapolis	50	0.09	10	0.3	320	0.35		
Powderhorn	35	0.06	24	0.27	800	0.60		
Nokomis	100	0.07	24	0.29	1,200	0.65		
Totals/Average	335	0.083	108	0.325	5,620	0.58		

	2030 - 2040							
		Average	Duplex	Average		Average		
	Single-	Coverage	Triplex	Coverage	Multi	Coverage		
Analysis Area	Family	Ratio	Quad	Ratio	Family	Ratio		
Chain of Lakes	100	0.11	46	0.5	3,500	0.72		
Southwest Minneapolis	40	0.09	18	0.45	280	0.45		
Powderhorn	24	0.07	22	0.42	1,000	0.62		
Nokomis	80	0.08	36	0.38	1,400	0.70		
Totals/Average	244	0.09	122	0.44	6,180	0.62		

Note: Represents net new units to each Analysis Area

Source: Maxfield Research and Consulting LLC

Less likely is the development of duplex, triplex and quad-style residences, primarily because land costs, construction costs and surrounding home values to not offer significant economies of scale to the development community (market rate or affordable) to develop housing products in buildings with between 2 and 4 units. While there are likely to be a few duplex units, particularly in the Chain of Lakes area where home values are higher (due to amenity values), the other areas are likely to experience modest or limited numbers new construction units.

We anticipate that single-family tear downs and new construction will continue, but to a lesser degree than occurred during the 2010s.

Mortgage interest rates, tax incentives, property taxes and construction costs, will continue to have an impact on redevelopment of lots in Minneapolis in the Analysis Areas over time.

For developers of multifamily housing, reductions in required parking ratios and changes to side-yard and front and back set-backs are more likely to have an impact on the attractiveness of increasing density than increases in smaller buildings. New construction single-family homes

will continue to be attractive to buyers provided that market conditions support the removal and replacement of older housing with new housing. New housing is projected to increase the average lot coverage ratio, if only minimally.

#### **ORDINANCE**

### By Reich

Amending Title 3, Chapter 54 of the Minneapolis Code of Ordinances relating to Air Pollution and Environmental Protection: Storm Water Management.

The City Council of the City of Minneapolis do ordain as follows:

Section 1. That Chapter 54, Sections 54.10 through 54.180, of the Minneapolis Code of Ordinances be and hereby is repealed in whole and replaced with a new Chapter 54, Sections 54.10 through 54.210, to read as follows:

#### **CHAPTER 54. STORMWATER MANAGEMENT**

- **54.10. Authority.** This ordinance is adopted pursuant to the authorization and policies contained in Minnesota Statutes, Chapter 103B, 115, 116, and 473, and Minnesota Administrative Rules Chapter 8410.
- **54.20. Purpose.** The purpose of this ordinance is to minimize negative impacts of stormwater runoff rates, volumes, and quality on Minneapolis lakes, streams, wetlands, and the Mississippi River by guiding development and redevelopment activity and by assuring the long-term effectiveness of stormwater best management practices. Chapter 54 establishes regulatory thresholds for conservation practices and planning activities to establish policies regarding water resource management and flood control as described in city, regional, state, and federal documents, and statutes.
- **54.30. Minneapolis Stormwater and Sanitary Sewer Guide.** The Minneapolis Stormwater and Sanitary Sewer Guide, also known as the Guide, summarizes stormwater review and approval processes, outlines project submittal requirements, and provides guidance for the development of a complete submittal package. The Guide also outlines the standards and requirements that must be met for compliance with this Chapter of the City Code of Ordinances and for approval. The Guide is available on the Minneapolis Department of Public Works, Surface Water and Sewers Division webpage.
- **54.40. Definitions.** For the purposes of Chapter 54, the following terms, phrases, words, and their derivatives shall have the meanings stated below:

Applicant is the individual or entity proposing a development, project, undertaking, or land-disturbing activity, including common plans of development or sale or phased or connected actions.

Best management practices—see Stormwater Best Management Practices.

City engineer is the city engineer of the City of Minneapolis and their duly authorized designees.

Common plan of development or sale is one proposed plan for a contiguous area where multiple separate and distinct land-disturbing activities may be taking place at different times on different schedules within a two-year period but under one proposed plan. One plan is broadly defined to include designs, permit applications, advertisements, or physical demarcations indicating that land-disturbing activities may occur. This are also referred to as connected or phased actions, as defined herein.

Connected actions are actions that are also defined in a common plan of development or sale; or two (2) or more projects, regardless of ownership, determined by the city engineer to be related in any of the following ways:

- (1) One project directly necessitates the other.
- (2) One project is a prerequisite for the other.
- (3) Neither project is justified by itself.

Development is any human-induced change to improved or unimproved real estate (public or private). This includes (but is not limited to) construction, installation, or expansion of a building or other structure; land division; street construction; drilling; and site alteration that involves dredging, grading, excavating, filling, clearing, or paving of parking/storage facilities. Development encompasses new development, redevelopment, and nonlinear projects.

*Green infrastructure* is a wide array of practices at multiple scales that manage wet weather through volume reduction and maintain or restore natural hydrology by infiltrating and evapotranspiring or harvesting and using stormwater.

Guide—see the Minneapolis Stormwater and Sanitary Sewer Guide, Section 54.30.

*Impervious surface* is one that does not allow rainfall to soak into the ground, including (but not limited to) rooftops and paved areas such as roads, parking lots, driveways, sidewalks, and plazas.

Land-disturbing activities are any activities that result in a change or alteration in the existing ground cover (both vegetative and nonvegetative) and/or the existing topography. Land-disturbing activities include (but are not limited to) the following: development, redevelopment, demolition, construction, reconstruction, clearing, grading, filling, stockpiling, excavating, and constructing borrow pits.

Linear project is the construction or reconstruction of public roads, trails, sidewalks, or rail lines.

Mill and overlay is the practice of resurfacing a paved area by first removing the pavement surface and a portion of the existing pavement base material followed by the placement of new pavement base material and surface. Projects that do not disturb the underlying soil below the base material are considered a mill and overlay. An overlay of an existing impervious surface that includes raising the grade of the impervious surface more than six (6) inches is not considered a mill and overlay.

Owner is any person with a legal or equitable interest in the land that includes one (1) or more stormwater best management practices.

Person is any individual, firm, corporation, partnership, franchisee, association, or governmental entity.

*Phased actions* are two (2) or more projects undertaken by the same proposer that the city engineer determines:

- (1) Will have environmental effects on the same geographic area; and
- (2) Are substantially certain to be undertaken sequentially over a limited period of time.

*Pollutant* is an elemental or physical material that can be mobilized or dissolved by water or air and creates a negative impact on human health and/or the environment. See the Guide for stormwater and other emerging pollutants.

*Project* is an undertaking that involves land-disturbing activities, including phased or connected actions or a common plan of development or sale.

Public waters are waters identified under Minnesota Statutes, Section 103G.005, Subdivision 15.

Receiving water body is the initial lake, stream, river, or wetland into which site runoff is conveyed whether directly or through the public storm drain system.

Regional stormwater BMP is a structure or device designed, approved by the city engineer, and constructed to capture and manage stormwater runoff from a large area or multiple properties.

Responsible party is the property owner and agents, employees, and others acting under the property owner's direction.

Sediment is soil or other particulate matter that can be transported by stormwater.

Site is the land on which the project is located, including a common plan of development or sale or phased or connected actions.

Storm sewer system refers to infrastructure including (but not limited to) pumping stations; enclosed storm sewers; outfall sewers; surface drains; street, curb, and alley improvements associated with storm or surface water improvements; natural and created wetlands; channels; ditches; rivers; streams; wetand dry-bottom basins; pocket ponds; multiple pond systems; settling basins; infiltration trenches or basins; filter systems; bioretention areas; dry or wet swales; grass channels; rooftop detention; skimming devices; grit chambers; and other flood-control facilities. These systems work to collect, transport, convey, pump, treat, control, store, manage, and dispose of storm or surface water or pollutants originating from or carried by storm or surface water.

Stormwater means water that is generated by rainfall or snowmelt.

Stormwater banking is an approach where water quality or volume reductions in excess of the standards for is use on future projects unable to meet the standards, as calculated in compliance with a stormwater banking program and approved by the city engineer.

Stormwater best management practices (BMPs) are structural and nonstructural practices meant to prevent or reduce the discharge of pollutants from the storm sewer system to public waters. BMPs that use the properties of vegetation or soil to remove stormwater pollutants through physical and biological processes are often referred to as "green infrastructure." A partial list of nonstructural BMPs includes organic litter management, street or parking lot sweeping, and construction phasing to minimize the length of time soil areas are exposed. A partial list of structural BMPs and devices includes pond systems, detention facilities, infiltration cells ("rain gardens"), infiltration trenches, filtration systems, vegetated channels, grit chambers, and oil/water separators. BMPs are practices, techniques, or measures that are effective in managing one (1) or more of the following:

- (1) Stormwater runoff rate;
- (2) Stormwater runoff volume; or
- (3) Pollutants and sediments conveyed by stormwater runoff.

Stormwater infiltration refers to passage of stormwater into the ground through soil.

Stormwater management plan (Plan) is the set of drawings, calculations, operation and maintenance plans, and other documents that constitute all the information and specifications for the drainage systems, structures, concepts, and techniques that will be used to control stormwater as required by this Chapter and the Guide.

Stormwater runoff is water generated by rainfall or snowmelt that does not soak into the ground but flows over surfaces.

Wetlands are waters identified under Minnesota Statutes, Section 103G.005, Subdivision 19.

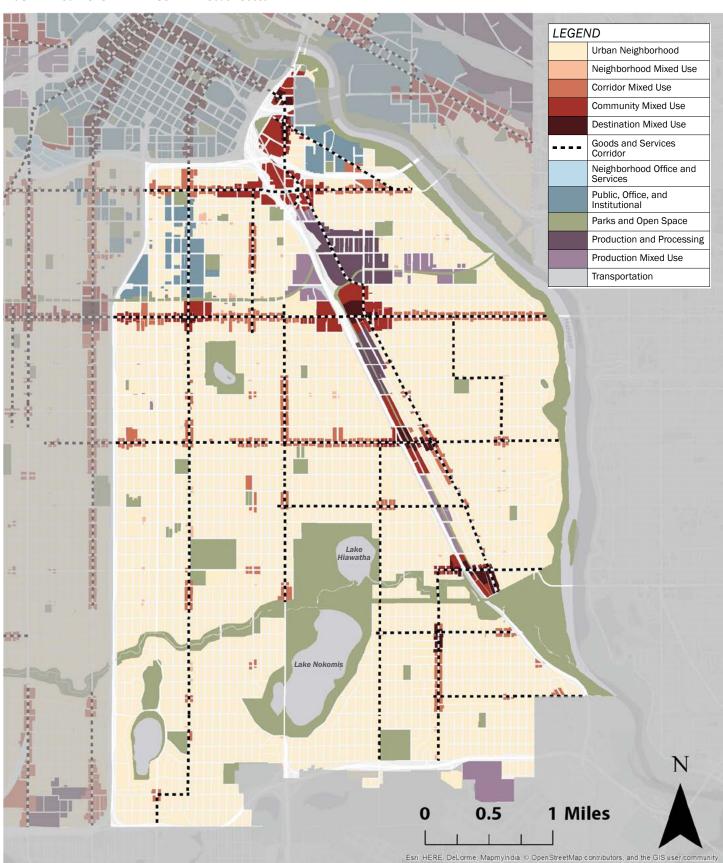
- **54.50. Applicability.** Chapter 54 establishes requirements for land-disturbing activities, new and existing BMPs, and activities implemented to meet the requirements of this Chapter.
- (1) Land-disturbing activities. All land-disturbing activities in excess of half (0.5) an acre, including common plans of development or sale, are subject to the requirements of this Chapter.
- (2) Existing BMPs. BMPs designed and constructed to comply with this version or previous versions of this Chapter are subject to annual site registration, annual inspection, and adherence to operations and maintenance plan requirements prescribed in the Guide.
- (3) *Special conditions*. The city engineer may impose such conditions and requirements as deemed necessary to prevent degradation of the performance of the City's storm sewer system or creation of a nuisance or unreasonable hazard to persons or to a public or private property.
- **54.60. Exemptions.** The following are exempt from the requirements of Chapter 54:
- (1) Land-disturbing activities that have received all necessary approvals from the City before the effective date of this ordinance as specified in Section 54.210.
- (2) Emergency work to protect life, limb, or property.
- (3) Installation of fence, sign, telephone, electric, or other kinds of posts or poles.
- (4) Sidewalk or underground utility-only projects that restore the ground surface to its pre-project condition.
- (5) Mill and overlay activities.
- (6) Linear projects that involve noncontiguous disturbed areas, such that each noncontiguous disturbed area shall be considered a separate land-disturbance area, regardless of whether the noncontiguous areas are part of the same plan set.
- (7) Construction or reconstruction of a single-family home or duplex.
- (8) BMPs implemented for reasons other than to comply with the requirements of this Chapter.
- **54.70. Stormwater management plan approval requirement.** No person shall disturb land in excess of half (0.5) an acre without having first obtained approval of a stormwater management plan (Plan), in conformance with this ordinance, from the city engineer.
- **54.80. Plan requirements.** (a) *On-site management*. Measures to achieve stormwater management standards shall be incorporated on all sites. Where it has been evaluated and approved by the city engineer using the stormwater banking approach outlined in the Guide, entities may create regional stormwater BMPs that exceed stormwater management standards and bank them for use.
- (b) Full or partial off-site management. When incorporating stormwater management standards on site becomes impossible due to development density, topographic features, site constraints, or soil or vegetation conditions, the responsible party may apply for approval of full or partial participation in a regional stormwater BMP. The Guide shall provide the method for calculating and documenting stormwater credits or cost of full or partial off-site management in lieu of full on-site management through a stormwater banking program. The City will provide standards for administration of a stormwater banking program for approved governmental entities. Off-site management shall not circumvent the general purposes and intent of this ordinance.

- (c) Plan design standards.
- (1) Water quality standards according to receiving waterbody. Water quality discharge standards, as contained in the Guide, shall apply.
- (2) *Peak discharge rate control*. Peak discharge rates shall be maintained at or below the existing condition rates for the disturbed land area.
- (3) Volume control. Volume control shall be addressed as follows:
- a. New development, redevelopment, and nonlinear projects on sites without restrictions shall capture and retain on-site 1.1 inches of runoff from the new and fully reconstructed impervious surfaces within the disturbed area.
- b. Linear projects on sites without restrictions shall capture and retain the larger of the following:
- 1. 0.55 inch of runoff from the new and fully reconstructed impervious surfaces within the disturbed land area.
- 2. 1.1 inches of runoff from the net increase in impervious area.
- 3. Stormwater infiltration practices may be restricted or prohibited in areas defined in the Guide and the City's current MPCA NPDES/SDS Municipal Separate Storm Sewer Systems (MS4) permit.
- (4) Operations and Maintenance (O&M) Plan. The Plan shall include an O&M Plan that defines the maintenance regimen, including the type and interval of inspection and maintenance, and party responsible for conducting such inspection and maintenance.
- (5) Accessibility for maintenance. All BMPs shall be accessible for maintenance and inspection.
- (6) *Impacts on other properties*. No Plan shall cause unreasonable damage or unreasonable environmental, health, or safety conditions on adjacent properties.
- (7) *Conformity with other requirements*. Plans must conform to all applicable federal, state, city, and water management organization requirements, ordinances, and regulations.
- (8) Conditions of approval. In granting approval pursuant to Chapter 54, the city engineer may impose such conditions as may be reasonably necessary to prevent creation of a nuisance or unreasonable hazard to persons or to a public or private property.
- (9) Changes to plans. Any modifications to an approved Plan must be submitted to the city engineer for review and approval. Modifications to any aspect of an approved Plan that are not approved by the city engineer shall be considered noncompliant with this Chapter.
- **54.90. Denial.** If the city engineer determines that the Plan does not meet the requirements of this Chapter, the Plan will not be approved. A revised Plan must be submitted and approved before any land-disturbing activity begins.
- **54.100 Appeal.** Any applicant may appeal the city engineer's decision by following the procedures established in the Minneapolis Zoning Code, Chapter 525 Administration and Enforcement, Article IV. Appeals.
- **54.110. Responsibility during construction/completion.** (a) *Inspection of BMPs*. The applicant shall notify the city engineer prior to construction of the stormwater management BMP to allow for inspection of the BMP.

- (b) Construction/completion final report and certification. The applicant shall submit a final report, as outlined in the Guide, to validate compliance with the approved Plan.
- **54.120. Responsibility following construction/completion.** (a) *Duration*. An approved Plan shall remain in effect unless cancellation is approved by the city engineer. All site areas used for the purpose of reducing pollutants and nutrients, for managing peak flow rates, and for maximizing infiltration shall be preserved and maintained for those uses, including areas required for maintenance and inspection.
- (b) Annual site registration. The responsible party of a BMP installed under this Chapter shall register it annually with the city engineer and remit an annual registration fee at the rate established in the Annual License Fee Schedule.
- (c) *Inspection of BMPs*. All BMPs are subject to inspection by the city engineer. If the city engineer deems that BMPs are not functioning satisfactorily, a notice of noncompliance may be issued, and procedures followed as described in Section 54.130.
- (d) Operation and maintenance of BMPs. The entirety of the BMPs required under this ordinance shall be maintained and kept in operating condition by the owner at levels outlined in the approved Plan. Any failure to maintain a BMP and keep it in operating condition adequate to meet the water quality, rate control, and volume control requirements under this ordinance may result in the city engineer issuing remedial action per Section 54.130.
- **54.130. Inspections, remedial actions, and compliance procedures.** (a) The city engineer will carry out routine inspections for compliance with the provisions of this Chapter and the O&M Plan. In the event of noncompliance, the following remedial actions, penalties, or assessments may be applied:
- (1) Tier 1. Written notice. If noncompliance with Chapter 54 is identified by the city engineer, the city engineer shall issue a Tier 1 written notice to the responsible party of the BMP specifying each item or instance of noncompliance with this Chapter or the O&M Plan. The BMP(s) shall be subject to reinspection within the time outline in the written notice by the city engineer.
- (2) Tier 2. Second written notice and escalation. If noncompliance is still identified after the time outline in the Tier 1 written notice, the city engineer shall issue a Tier 2 written notice to the responsible party of the BMP. Within thirty (30) days of issuance of a Tier 2 written notice, the responsible party must submit, to the city engineer for review and acceptance, a plan outlining corrective procedures necessary for compliance with this Chapter or the O&M Plan, including timeframes to complete such procedures.
- (3) *Tier 3. Written notice, citations, and civil fines.* Any responsible party that has received a Tier 2 written notice and is noncompliant with this Chapter or the O&M Plan requirements and compliance procedures may receive a Tier 3 written notice and may be subject to administrative enforcement pursuant to Chapter 2 of this Code or any other appropriate and available enforcement provided by law. Administrative citations may be issued for Tier 3 noncompliance or to continuing violators.
- (4) Tier 4. Performing necessary maintenance and assessing cost. In addition to all other rights and remedies the City may have at law or in equity, the city engineer shall retain the right to reject defective or incomplete work. The city engineer is authorized to remedy any such deficiency and to determine the cost. Any cost incurred by the City to remedy a deficiency may be charged to the owner of the BMP(s) for such defective or incomplete work. If said charges are not paid within ninety (90) days after a bill of charges has been mailed to the owner, the City Council shall assess and levy the amount as a special assessment upon and against the property benefited in the manner provided by law for other assessments.

- (b) Any person, firm, corporation, or agency acting as property owner, responsible party, or otherwise who fails to comply with the provisions of this Chapter shall be guilty of a misdemeanor.
- **54.140. Prohibited discharges to storm sewer system.** No person shall discharge or cause to be discharged into the storm sewer system any non-stormwater discharges, sewage, or wastewater, including (but not limited to) contact cooling water, groundwater, or surface water that is determined to be contaminated. Discharges permitted pursuant to an approved industrial NPDES permit or as a result of firefighting activities are permissible discharges.
- **54.150. Liability.** The responsible party is responsible for safe and legal compliance with this Chapter. Neither approval under the provisions of Chapter 54 nor compliance with the provisions hereto or with any condition imposed by the issuing authority shall relieve any person from responsibility for damage to persons or property resulting therefrom, or as otherwise imposed by law, nor impose any liability upon the City for damages to persons or property.
- **54.160. Interpretation.** In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be liberally construed in favor of the City and shall not be deemed a limitation or repeal of any other powers granted by state statutes.
- **54.170. Severability.** If any section, clause, provision, or portion of this Chapter is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the Chapter shall not be affected thereby.
- **54.180. Disclaimer.** The City in no way guarantees or implies that areas will be free from flooding or flood damages. The City does not assume a specific duty as to individual property owners to enforce this ordinance but is enacting this Chapter as a general regulation. This ordinance shall not create liability on the part of the City or its officers or employees for any flood damage that may result from the failure to comply with any portion of this Chapter or any administrative decisions made pursuant thereto, whatever the cause.
- **54.190. Abrogation and greater restrictions.** It is not intended by this Chapter to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter imposes greater restrictions, the provisions of this Chapter shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only.
- **54.200. Relation to other laws**. Neither Chapter 54 nor any administrative decision made under it exempts the applicant or any other person from procuring other required permits or complying with the requirements and conditions of such permits or limits the right of any person to maintain, at any time, any appropriate action, at law or in equity, for relief or damages against the applicant or any other person arising from activity regulated by Chapter 54.
- **54.210. Effective date.** This ordinance shall become effective on January 1, 2022.

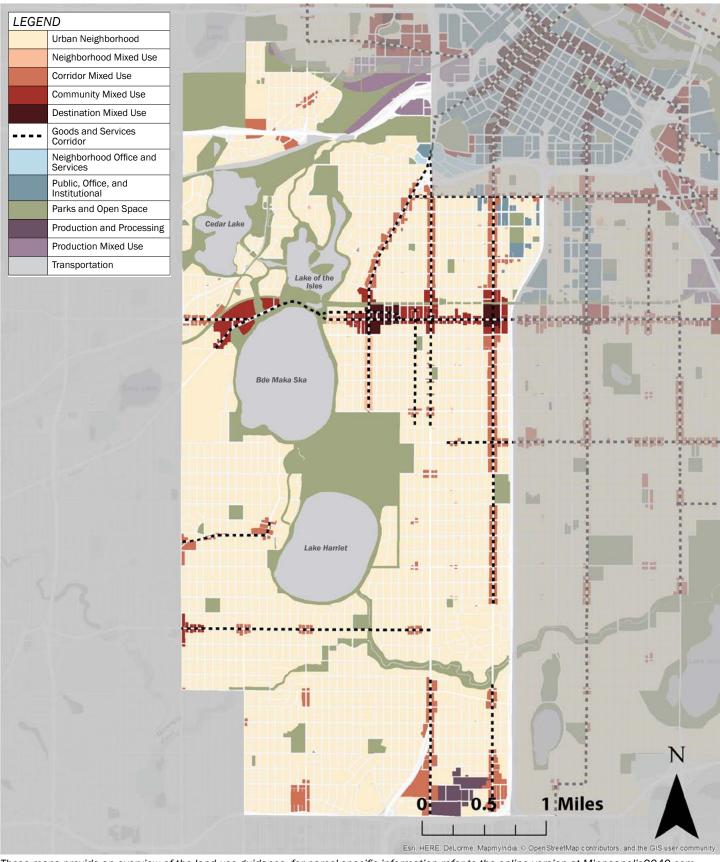
FIGURE T1.3d: FUTURE LAND USE MAP South Sector



These maps provide an overview of the land use guidance, for parcel specific information refer to the online version at Minneapolis2040.com

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FIGURE T1.3e: FUTURE LAND USE MAP Southwest Sector



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