



AGENDA OF THE SPECIAL MEETING OF
THE CITY COUNCIL
CITY OF BIRCHWOOD VILLAGE
WASHINGTON COUNTY, MINNESOTA
March 25, 2019
6:00 P.M.

CALL TO ORDER

REGULAR AGENDA

- A. 2040 Comprehensive Plan*
 - a. Public Hearing (continued from March 12)
 - b. Council Deliberation
 - c. Approve Resolution 2019-06

ADJOURN

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* Denotes items that have supporting documentation provided

**RESOLUTION 2019-06
CITY OF BIRCHWOOD VILLAGE
WASHINGTON COUNTY, MINNESOTA
RESOLUTION AUTHORIZING SUBMITTAL OF
2040 COMPREHENSIVE PLAN FOR REVIEW**

WHEREAS, Minnesota Statutes section 473.864 requires each local governmental unit to review and, if necessary, amend its entire comprehensive plan and its fiscal devices and official controls at least once every ten years to ensure its comprehensive plan conforms to metropolitan system plans and ensure its fiscal devices and official controls do not conflict with the comprehensive plan or permit activities that conflict with metropolitan system plans; and

WHEREAS, the Metropolitan Council approved a submittal extension to Birchwood until March 31, 2019; and

WHEREAS, the City Council, Planning Commission, and the City Staff have prepared a proposed Comprehensive Plan intended to meet the requirements of the Metropolitan Land Planning Act and Metropolitan Council guidelines and procedures; and

WHEREAS, pursuant to Minnesota Statutes section 473.858, the proposed Comprehensive Plan was submitted to adjacent governmental units and affected special districts and school districts for review and comment; and

WHEREAS, the Planning Commission has considered the proposed Comprehensive Plan and thereafter submitted its recommendations to this Council; and

WHEREAS, the City conducted public hearings on March 12 & 25, 2019 relative to the adoption of the proposed Comprehensive Plan; and

WHEREAS, the City Council has reviewed the proposed Comprehensive Plan and those recommendations, public comments, and comments from adjacent jurisdictions and affected districts; and

WHEREAS, Minnesota Statutes section 473.858 requires a local governmental unit to submit its proposed comprehensive plan to the Metropolitan Council following recommendation by the planning commission and after consideration but before final approval by the governing body of the local governmental unit.

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of Birchwood Village, Minnesota, that based on its review of the proposed Comprehensive Plan and Planning Commission and staff recommendations, it is ready to submit its proposed plan to the Metropolitan Council for review pursuant to Minnesota Statutes section 473.864; and

BE IT FURTHER RESOLVED, that the City Administrator is directed to distribute said Comprehensive Plan to the Metropolitan Council by March 31, 2019 pursuant to Minnesota Statutes section 473.864.

Adopted by the City Council this 25th day of March, 2019.

Attest:

Mary Wingfield, Mayor

Tobin Lay, City Administrator-Clerk

*City of
Birchwood Village*

2040 Comprehensive Plan

Plan complete Fall 2018.

BIRCHWOOD VILLAGE 2040 COMPREHENSIVE PLAN

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CHAPTER 1: COMMUNITY CONTEXT

Introduction

The City of Birchwood Village is a small community located on the southwestern shore of White Bear Lake. The community is easily accessible to the greater Twin Cities Metropolitan Area region and is located approximately 13-miles from downtown Saint Paul, 20-miles from downtown Minneapolis and 20-miles from the Minneapolis-Saint Paul International Airport. Because of the community's accessibility, high-quality neighborhoods, and proximity to White Bear Lake the City continues to be a desirable place for residents to live and recreate.

The purpose of this chapter is to provide context from which subsequent chapters of this plan were derived. Included in the following summary is the City's historical setting, existing demographic and socio-economic conditions, and market snapshot. The following sections are used to help inform the Land Use, Parks & Open Space, Transportation and Infrastructure sections of this Comprehensive Plan update.

Location, Historical Setting, Governmental Structure & Community Goals

The City is located on the far western edge of Washington County, and is connected to major roadways including County Road E and I-694. The City's location within the region coupled with the small-town village character, makes the community a highly desirable place for residents to live and recreate. The City is truly a small "village" comprising only 214 acres with an estimated 2016 population of 869 residents of all ages. The community's relatively compact land area and small population fosters a small-town, quaint environment with invested long-term residents and strong neighborhoods. As further detailed within Chapter 2: Land Use, the community is designated by the Metropolitan Council as "Suburban," and while this designation accurately describes the City's location within the region it does not reflect the community's character or historical past. ~~As such, providing~~ Providing a brief historical context of the Village is an important way to differentiate the community from other more typical suburban communities.

HISTORICAL SETTING

~~First~~ Birchwood was incorporated as a Village in ~~the year~~ 1921, ~~a~~ subsequent act of the State Legislature converted the "Village" to a "City of the Fourth Class." Though the State Statute required Birchwood Village to evolve from a village into a city, residents continued to strongly associate the character and identity of the community as a "Village." Because of that association, when the City incorporated it amended its name to become Birchwood Village to reflect the residents' continued commitment to its small village character.

Birchwood Village first developed as a community of summer recreation cottages built by residents of the Saint Paul area in ~~the~~ early 1900's. Initial subdivisions occurred along the lakeshore, which continues to define the land use pattern today. Although remnants of this pattern can still be seen, housing development along the shore became more diverse as the City evolved from a vacation town to a place for permanent residences. ~~Many~~ Most of the historical homes have been extensively remodeled to meet modern lifestyles, while others have been torn down and new homes constructed ~~on lots making~~ This makes for a diverse housing pattern where new and old are successfully integrated. Inland from the lakeshore, newer subdivisions ~~away from the lakeshore~~ have larger lots and ~~the homes~~ are more homogeneous in appearance. ~~Though~~ Even though homes are more consistent in appearance, the character of the Village is preserved through how homes were sited to respect the rolling topography and ~~original~~

tree canopy ~~that was original to the area.~~

In addition to the impact of natural features of the community, the historical presence of ~~the~~ streetcar line ~~also~~ impacted the City's land use and development pattern. ~~At one time the The~~ City was served by the Twin City Lines streetcar ~~which passed through the Village on its way from Saint Paul. The line went to Mahtomedi then to White Bear Lake and Mahtomedi. Because of this old through Birchwood. The other line went from Mahtomedi to Stillwater. There were several~~ streetcar ~~line, a significant difference~~ stops in lot sizes between older and newer areas of the community can be seen which reflects the influence of the transportation system in place at the time development occurred Birchwood. This made "coming to the Lake" much easier for St. Paul residents. ~~The older portions of Birchwood were influenced by this streetcar line and those characteristics are still distinguishable from newer developed neighborhoods.~~

One of the most defining characteristics of the community is its lack of commercial or business uses, and its commitment to single-family residential and open space uses. This land use pattern extends back to when the community was first developed as a vacation spot and has been reinforced by the City's ordinances ~~and centrally-located city hall~~ as it continued to grow and evolve into a place with permanent residences.

Though the City's historical identity as a vacation town played a significant part in establishing how the community developed, today there are no ~~local, state or federal~~ historically designated ~~resources or properties~~ in Birchwood Village. ~~However, just because no properties have been pursued for historical designation, that is not to say there are not properties or areas of historical value either at the local or regional level.~~ While the City does not plan to actively pursue formal historical designation, ~~the City~~ it is willing to create a policy that addresses preservation in the future if ~~any resources or properties are designated through the State or National registers, needed.~~

Commented [TL1]: Wingfield: leave this sentence in

GOVERNMENTAL STRUCTURE

Birchwood Village is a City of the Fourth Class with a City Council form of government. ~~Elected at large, the The~~ City Council consists of the Mayor and four council members ~~who are elected at large.~~ Each member has ongoing responsibilities between meetings. Several supporting commissions and committees also help to serve the community. These include the Planning Commission, Parks & Natural Resources Committee, Personnel Committee, Roads and Streets Committee, and Water/Utility Committee.

The City has ~~two five~~ employees: one full-time City Administrator ~~Clerk and a, one~~ part-time City Treasurer ~~Deputy Clerk, one on-call office worker and two on-call maintenance workers.~~ The elected officials, appointed officials, and ~~other dozens of~~ residents provide many volunteer hours to the City to perform needed services. Some municipal services such as sewer maintenance, police and fire protection, and building inspections/planning are contracted primarily from surrounding communities.

Commented [TL2]: Aakre: "dozens of" not quantifiable and not necessary

COMMUNITY CONTEXT GOALS

The community's historical setting, local and government structure all provide background information from which the City can use to plan for its future. To help guide the general direction of the community, the City has identified the following goals and principles for this planning period:

- Maintain the existing character of the community through preservation of the single-family residential land use and neighborhood patterns.

- Preserve ~~and~~, protect and educate the community about the value and preservation of the City's natural areas including woodlands, wetlands, and lakes ~~and educate the community.~~
- Maintain and improve municipal services to ensure the health, safety and general wellbeing of Birchwood Village residents of all ages.
- Maintain the autonomy of Birchwood Village as a governmental entity.
- Preserve the community's identity and character through existing traditions such as the July 4th parade, ~~plant exchange, and village-wide garage sale, annual children's Christmas party, and village newsletter.~~
- Work to identify opportunities to reduce energy usage by 1% per year.
- ~~Maintain-Monitor~~ and ~~monitor-maintain~~ all city property, structures and assets.
- Support and increase volunteerism in Birchwood Village.
- Increase communication of community happenings and projects.
- Prepare for emergencies and explore opportunities to improve the community's resilience and long-term sustainability.
- Create safer walking areas ~~within-throughout~~ the Village's ~~city streets~~

This core set of general goals and principles is like those of the 2020, and 2030 Comprehensive Plans ~~indicating that. Historically, this indicates~~ residents, community members and policy-makers ~~are content to maintain~~ ~~desireous of maintaining~~ ~~desire to maintain~~ the community in a similar way through this planning period.

Throughout the remaining chapters of this Plan, each topic area includes a set of goals and principles to help establish the community's aspirations for the future ~~of the community related to each topic area. The goals and principles are purposefully broad, and the City intends to further refine its strategies for the future, if, and when, opportunities are presented.~~

Demographic and Socio-Economic Characteristics

~~Many~~Most of the City's demographic and socio-economic characteristics have remained relatively constant over the past decade with little change, ~~with only a couple of exceptions.~~ As demonstrated in subsequent chapters of this Plan, the City is fully developed with primarily single-family residential uses. ~~As a result, and it therefore comes as no coincidental that~~ the number of households in the community has been relatively constant for the past 20 years and is expected to remain similar through this planning period. However, even with much of the community remaining unchanged, there are some ~~characteristics that are~~ ~~trends~~ worth noting because they impact this Plan, or future planning efforts in the community ~~if these trends continue.~~ The following snapshot of community characteristics is provided as consideration in this Plan.

HOUSEHOLDS AND POPULATION

The number of households in the City has remained relatively constant for the last 16 years with 357 households in 2000 and 359 in 2016. ~~The n~~New construction and redevelopment in the City have been located primarily on existing lots where an existing home was torn down and replaced by a new (oftentimes larger) construction home. During this same period, the population has decreased approximately 10% from 968 in 2000 to 869 in 2016. The Metropolitan Council forecasts ~~a stabilization~~ ~~no little change~~ in the number of households ~~by the year from~~ 2020, ~~through 2040;~~ but ~~also forecasts~~ a continued decrease in population ~~due to the age of current residents.~~ The population is likely to decrease as ~~its residents~~ ~~resident's~~ age and ~~their~~ children leave home ~~resulting in smaller~~

~~average-person-per-household.~~ The City anticipates no additional net households through 2040, although a few large lots remain that could be subdivided and ~~but acknowledges that~~ assume the tear-down and major remodeling trend is likely to continue.

Table 1-1: Birchwood Village Population and Households (Historical & Projected)

Year	Population	Households
1970	926	235
1980	1059	326
1990	1042	364
2000	968	357
2010	870	351
2016	869	361
2020	850	360
2030	830	360
2040	800	360

As the City's population ages the community will need to adjust to the changing and evolving needs and demands of its residents across generations, which may change and evolve. For example, residents may require improved/increased access to services such as transit, and transportation mode choice, ADA accessibility or may desire better trail/sidewalk connections as opposed to programmed park spaces. ~~As these changes occur, the~~ The City will need to monitor its public facilities, roadways and parks and may need to adjust programming, access, and delivery of services to better accommodate the city's residents. In addition to public services, the The City may face an increase of vacant homes/properties during winter months for those residents that who choose to winter in warmer climates and. ~~The City may also experience more demands for ADA accessibility and transportation mode choice.~~ These factors can become financially challenging for the City and for those residents that reach retirement age and are on a fixed-income. These population changes will happen over time, and it is important for the City monitor and understand what changes should be planned for through this planning period occur gradually. The City should routinely check with the government agencies who track this information as well as try to anecdotally track this trend.

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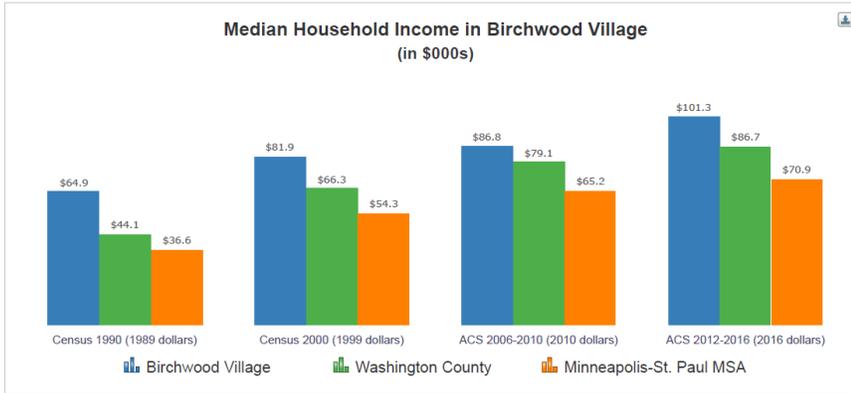
HOUSEHOLD INCOME

As shown in Figure 1-1, ~~the~~ the City's Median Household Income has been higher than that of Washington County, in which Birchwood lies, and the Minneapolis-St. Paul MSA since the 1990s. Additionally, Birchwood Village's median income has outpaced the region over the last decade. ~~Birchwood is in Washington County which is likely due to~~ has the highest average per capita income in Minnesota.

Commented [TL4]: Aakre: "I removed the reference to Birchwood having highest per capita income unless we can cite resource and the year this was measured."

~~Because of~~ the community's adjacency and accessability to White Bear Lake and accessibility within the region and the recovering real estate market. ~~If this trend line continues,~~ it becomes more likely that small homes and cottages will be either torn down or experience major remodeling. This situation further depleting-depletes the affordability-affordable housing in of the community.

Figure 1-1: Median Household Income in Birchwood Village

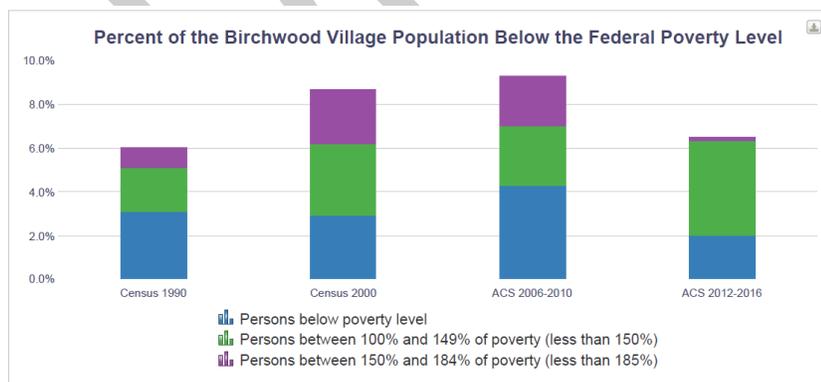


Source: US Census, ACS 2012 – 2016

The increased value of homes in the community that will naturally occur because of increasing household incomes will squeeze out many of the traditional older summer cottages and residents with lower incomes. As property becomes more and more valuable, property taxes will continue to increase. However, meanwhile, aging residents will see their disposable income stabilize or decrease thus posing hardship to afford their homes. This will become one more factor which might force long-time residents to find alternate housing options and leave the community because of the lack of diversity in the City's housing stock.

The trend of displacement is already emerging as demonstrated on Figure 1-2 which illustrates the percentage of Birchwood Village's population at or below the federal poverty level. As shown, the percentage of the City's population rose during the recessionary period (reflected on ACS 2006 – 2010) but has since decreased. While some of this decrease is likely attributed to residents improving their wages or employment since the recession, it also likely represents some of the lower-income residents' displacement due to rising housing costs in the community.

Figure 1-2: Percent of Population Below Poverty Level



Source: US Census, ACS 2012-2016

EMPLOYMENT

The City prohibits commercial and industrial development. The City employs one full-time employee, ~~one-four~~ part-time employee and several seasonal, part-time park and recreation employees. Residents may have a business in their home (home occupation) with conditions and proper permits. ~~As seen below in Table 1-2, the employment reflects the City's imposed limitations on commercial and industrial development and does not anticipate any significant changes in employment opportunities in the community.~~

Table 1-2: Employment in Birchwood Village

YEAR	EMPLOYMENT
2010	25
2020	30
2030	30
2040	30

Source: Metropolitan Council

RESIDENTS WHO WORK FROM HOME

~~The city has never tracked the employment of its residents. It does not know for certain how many of its residents work from home either full-time or part-time, let alone exact number of residents who are employed (either full-time or part-time).~~

~~The number of people telecommuting in the U.S. increased 115% between 2005 and 2015.~~

~~Nationally,~~

- ~~• 2.9% of the total U.S. workforce work from home at least half of the time.~~
- ~~• The average telecommuter has at least a bachelor's degree and earns a higher median salary than an in-office worker.~~
- ~~• The average telecommuter is 46 years of age or older.~~
- ~~• Telecommuting is more common among employees over 35 years of age and most common among baby boomers.~~
- ~~• Roughly the same population of women and men telecommute.~~

~~This trend will affect Birchwood in several ways:~~

- ~~• People who might have retired will continue to work or work part-time.~~
- ~~• IT infrastructure changes may be necessary as teleworkers need access to company systems, software, and data.

 - ~~o The City has little to no leverage in better cable or Internet connection.~~~~
- ~~• If someone working from home needs several deliveries of products, there will be an increased number of trucks on Village streets.~~
- ~~• If more people are working from home, they will be less tolerate of normal city distractions from neighbors, construction, and children~~
- ~~• More people working from home will be consuming more water and flushing more toilets, but also driving less on our streets~~

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Commented [TL5]: This info comes from MetCouncil. I believe it originates from the US Census. Although we don't track this info, other governmental agencies do.

<https://www.flexjobs.com/blog/post/8-interesting-stats-about-working-from-home/> *8 New Stats About Working from Home*, Brie Weiler Reynolds, June 27, 2017

INTERNET CONNECTIONS

Currently, most of the city's Internet connection is from Comcast. CenturyLink offers internet service to residents in Birchwood. Eventually, small cell wireless providers are expected to ramp up service. This also relates to the "5G" type of service. All Internet providers must go through and on public property. Comcast is roughly governed by the Ramsey-Washington Cable Commission. The Commission has some power over this monopoly, but its power is limited by FCC rulemaking authority. In the future, there may be cell towers in/on utility poles which will increase wireless Internet access.

DRAFT

CHAPTER 2:- LAND USE

Introduction

The City of Birchwood Village is a small, fully-developed community located on the southeast shoreline of White Bear Lake.- Developed originally ~~as a resort town~~ in the early 1900s, ~~as a collection of~~ small summer cottages ~~that~~ dotted the ~~Lake~~ shoreline ~~and became; it was~~ a destination for Saint Paul residents looking for respite from the City. Naturally, as the lakeshore became more developed, other parts of the community began to grow, and small meandering roadways were constructed with summer cottages that were still within proximity to the Lake. Eventually, new regional roadways and infrastructure became available that made it possible for residents to call Birchwood Village their permanent home – not just their summer getaway.

Even though the community transitioned over the course of several decades, much of the existing land use pattern today remains a reflection of the community’s historical roots as a resort town.- Roadways still meander, easements to provide lake access are ~~co-mingled~~ ~~run with~~ ~~between~~ existing homes, and many ~~of the~~ original cottages remain but with updates and additions to make them ~~more~~ habitable on a year-round basis.

The land use pattern today is reminiscent of Birchwood Village’s past, and is the foundation for the City’s future. ~~The City is planning to stay the same, with only modest enhancements and changes planned only if, and when, opportunities emerge.~~ Generally, the community hopes to maintain the existing character of Birchwood Village for generations to come.- With that objective in mind, the subsequent sections of this Chapter provide a roadmap to preserving the City’s land use and neighborhood patterns and does not plan for, ~~nor contemplate~~, wholesale changes in the community.- However, this Plan still provides an opportunity for the community to consider how it might approach change if it presents itself, and to ensure that any redevelopment in the community is completed in a manner that is consistent with the goals and objectives of this Plan.

The intent of this Chapter is to describe the existing and planned land use and neighborhood patterns, and to define how these land use patterns will continue to support the identity and character of the community through this planning period.

Planning Context

The planning context of the 2040 Comprehensive Plan is an important consideration in the preparation of this Land Use chapter and of subsequent sections of this Plan update. ~~Ofentimes communities are unsure of when and why they should undertake a review of their Comprehensive Plan, and particularly their Land Use plan particularly when the community has remained relatively unchanged over many decades.~~ The following sections are provided to help explain why the City initiated this process, and how the regional and local planning context were used to inform the update of this Chapter.

METROPOLITAN COUNCIL POLICY GUIDELINES

As described in Chapter 1: Community Context, the City of Birchwood Village is located on the far western edge of Washington County.- As a community located within the 7-County Metropolitan Area, the City is within the Metropolitan Council’s jurisdiction which requires communities to prepare an update of their Comprehensive Plans for consistency with regional systems on a decennial basis.- In the years preceding the required decennial update, the

Metropolitan Council issues a System Statement for every City which describes what updates must be included within each community's Plan.

Each community is assigned a Community Designation based on the geographic location of the community, the existing land use patterns and anticipated growth based on regional trends and planned regional improvements. As previously noted, Birchwood Village is fully developed and its existing land use pattern is predominantly low-density residential ~~use uses that are, and composed~~ primarily ~~developed with of~~ single family residential structures. Communities with this land use pattern are generally designated by the Metropolitan Council as "Suburban." (See Figure 2-1.) For each community designation, the Metropolitan Council describes the Community's Role with respect to *Orderly and Efficient Land Use*. The identified *Community Roles for Suburban communities* are as follows:

- Plan for forecasted population and household growth at overall average densities of at least 5 units per acre, and target opportunities for more intensive development near regional transit investments at densities and in a manner articulated in the 2040 Transportation Policy Plan.
- Identify areas for redevelopment, particularly areas that are well-served by transportation options and nearby amenities and that contribute to better proximity between jobs and housing.
- In collaboration with other regional partners, lead major redevelopment efforts.
- Lead detailed land use planning efforts around regional transit stations and other regional investments.
- Plan for and program local infrastructure needs (for example, roads, sidewalks, sewer, water, and surface water), including those needed to accommodate future growth and implement local comprehensive plans.

Because Birchwood Village is geographically small, many of the roles identified above are not fully applicable, such as transit and major redevelopment efforts. However, the concept of several of the identified roles are relevant and should be used to help guide the community through this planning period. For example, while there are no significant regional roadway or transit improvement planned within the City, there are improvements planned in adjacent communities that could provide opportunities to the City for a more connected community to the greater region. ~~Additionally, though~~ ~~Though~~ the City is fully developed ~~that it~~ does not preclude someone from potentially redeveloping a parcel or collection of parcels provided that such development is consistent with the Community Roles with respect to density ~~as identified above~~.

In addition to the *Community Designation* and correlated *Community Roles*, the *System Statement* includes the Metropolitan Council's projected population, households and employment forecasts for the City through this Planning Period. Table 2-1 shows that the Metropolitan Council does not ~~anticipate or project~~ ~~anticipate~~ significant changes in the City's land uses as demonstrated by the Household and Employment forecasts. ~~However~~ ~~Nonetheless~~, the population is ~~anticipate~~ ~~projected~~ to continue to decrease even as ~~Households and Employment~~ ~~households~~ stay relatively flat. With respect to the City's land uses, the decreasing ~~and aging~~ population ~~has the potential to will~~ impact what types of facilities, services, park programming, and access ~~may will~~ be needed and demanded by residents ~~as of the~~ ~~community's population continues to age in the future~~ ~~community~~. These trends were used as a foundation to the subsequent section of this chapter, and other sections of this Plan update.

Figure 2-1. Metropolitan Council Community Designation



**Thrive MSP 2040
Community Designation**

 Suburban



DRAFT
Source: Metropolitan Council,
Birchwood Village, Washington
County
Date: 9.20.2017
Prepared by: SHC, LLC

Table 2-1. Population, Households, and Employment Forecasts

Year	Population	Households	Employment
2020	850	351	25
2030	830	360	30
2040	800	360	30

(Source: 2015 Birchwood Village System Statement - Metropolitan Council)

COMMUNITY CONTEXT

The Regional Context provides a broad overview and structure from which this Plan update was developed, but the local context provides additional refinement to ensure that this Land Use plan reflects the goals and aspirations of the community through this planning period.

To effectively manage and maintain the community’s land uses the City has developed a set of policy guidelines to guide the community through this planning period.- The following policy guidelines were included within the 2030 Comprehensive Plan and have been updated, where applicable, to reflect the aspirations of the community moving forward through this planning period.

Land Use Goals & Objectives

The following goals and objectives ~~to maintain the City’s character~~ will be used to help guide land use decisions in the City through 2040:

1. Maintain the existing character of the community by permitting growth that is consistent with the land use designations contained within this plan.
2. Work to create **and enforce** ordinances and policies that regulate new construction of housing that follows **appropriate** building codes.
3. Create ordinances and policies that promote sustainability of existing and new residential structures through site planning standards that incorporate considerations for natural hydrology, drainage and other unique physical/natural features.
4. Continue to enforce ordinances that prohibit the development of commercial, industrial and high-density residential uses.
5. Protect important natural resources from new development and redevelopment impacts by establishing and enforcing proper ordinances and permitting procedures.- (e.g. wetland protection, lakeshore/shoreland protection, and significant tree preservation ordinances, etc.)
6. Promote maintenance of existing homes, properties and natural areas ~~to maintain the City’s character.~~
7. Maintain the City’s high-quality and **affordable** residential neighborhoods.
8. Protect and preserve the City’s tree canopy and significant healthy trees by enforcing the Significant Tree ordinance that establishes maintenance, removal and replacement standards.
9. Create an ordinance to monitor, inspect, and remove **invasive species** that ~~threatened~~**threaten** the quality of natural habitat.

Commented [TL1]: Aakre: Can we claim this? How will we impact?

Commented [TL2]: Parks Committee: include impact on flora/fauna by disease

Existing Land Use

The existing land use pattern reflects Birchwood Village’s commitment to foster, improve and preserve its quaint “Village” ~~and and predominantly~~ single-family neighborhood character. Throughout its history, the City has continued to reinforce its Village and “resort” town character by carefully regulating new development and redevelopment of remaining lands to continue the existing low-density residential neighborhood patterns. To that end, the City has prohibited the development of commercial, industrial or high-density housing, and has prioritized the protection of natural resources as part of any new development in the community. With ~~these~~ ~~sc~~ ~~limitations~~ ~~on~~ ~~development~~ ~~styles~~, Birchwood Village ~~is~~ ~~has~~ ~~remained~~ almost completely developed with single-family residential uses (88%). Little to no additional residential development has occurred since 2008 because the community is fully developed, and there has been little to no pressure for redevelopment. A few larger lots remain that have the potential to be further subdivided based on current subdivision and zoning standards, but these areas would be required to develop with uses consistent with the existing neighborhood patterns. ~~In addition to the~~ ~~After~~ single-family residential uses, the City’s remaining land areas are primarily used for right-of-way, institutional and parks/open spaces. The City owns and manages three public parks and one natural area/open space and owns various ~~trail~~ ~~trails~~ and ~~six~~ lake access easements sprinkled throughout the community that provide connections to the city parks and to White Bear Lake. (See Figure 2-2 Existing Land Use).

Generalized Existing Land Use (ELU)

The following definitions are provided for each existing land use as shown on Figure 2-2. The following definitions are the Generalized Land Use definitions as provided from the Metropolitan Council. The definitions that follow do not attempt to describe what the current/existing zoning is of a property, or what the planned or allowed uses might be. Rather the following land use designations describe the current and existing use of a property based on a snapshot in time and help describe and illustrate the current neighborhood patterns of the community.

Single Family Detached – Land use exclusively for residential purposes containing a single dwelling unit that is detached from any other residential dwelling units (i.e., with open space on four sides, includes townhomes).

Seasonal/Vacation – Land used exclusively for residential purposes containing a single dwelling unit that ~~is~~ occupied seasonally or used as a vacation property.

Undeveloped – Land not currently used for any defined purpose that may or may not contain buildings or other structures or has no discernable use based upon the aerial photos or available data. Undeveloped land may include non-protected wetlands or land currently under development.

Park, Recreation or Preserve – Land used for park and recreational assembly (ex: community level ball fields, ~~regional~~ ~~or~~ small urban parks – public ~~or~~ ~~private~~, playgrounds, rest areas, and other venues – indoor or outdoor – for sporting ~~events~~ ~~recreation~~ or like purposes). Also includes passive activity uses such as park preserves, wildlife refuges, habitat area, public hazards, river walk, DNR owned land, greenways and other public or private preserved land.

Table 2-2 identifies the existing land uses in the community and calculates the total acres and percentage composition of each land use.

draft

Table 2-2. Current Generalized Land Use Tabulation (Acres)

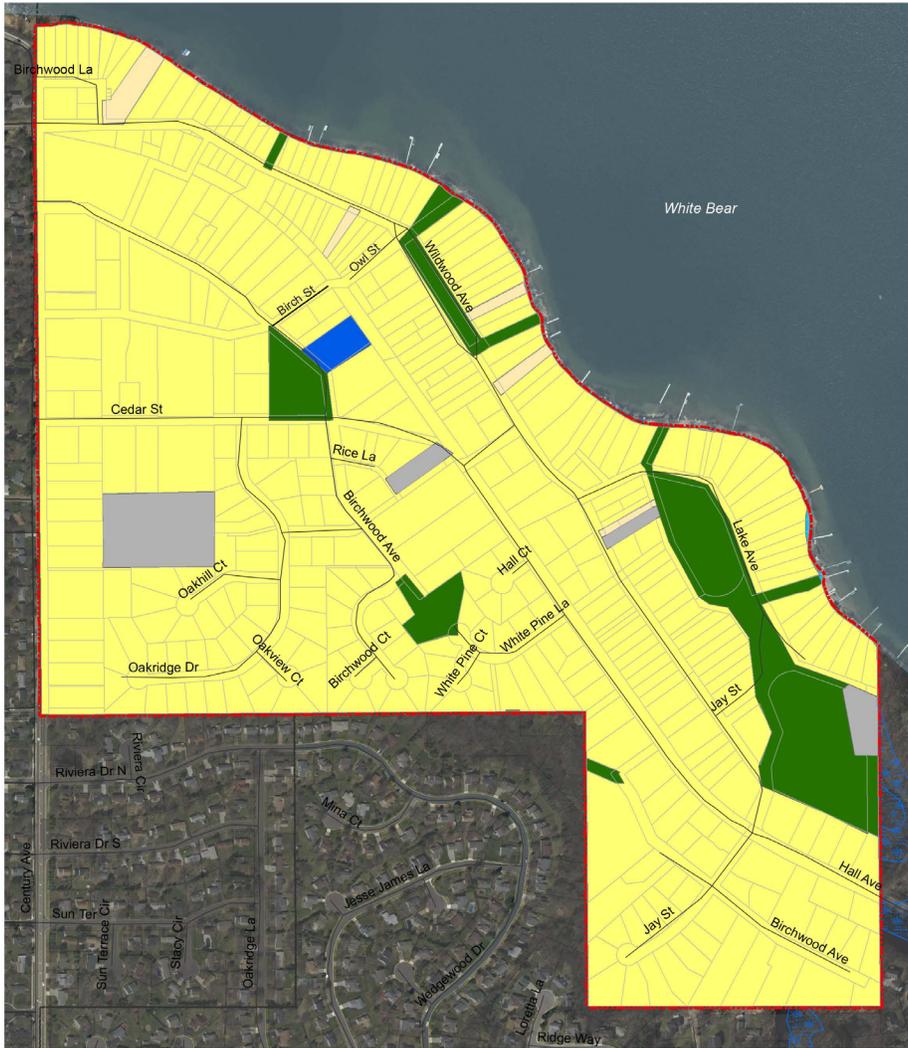
Land Use*	Acres	Percent of Total
Single Family Detached	188	87.82%
Seasonal/Vacation	2	0.96%
Park, Recreational or Preserve	17	8.12%
Institutional	1	0.42%
Undeveloped Land	6	2.64%
TOTAL	214	100%

*Local right-of-way (ROW) included within land use acre calculation

Source: Metropolitan Council, SHC

draft

Figure 2-2. Existing Land Use & Zoning



Generalized Existing Land Use

2016 GLU - Metropolitan Council

 Single Family Detached	 Open Water
 Seasonal/Vacation	 Park, Recreational, or Preserve
 Institutional	 Undeveloped

DRAFT

Source: Metropolitan Council, Birchwood Village, Washington County

Rev. Date: 9.13.2018
 Date: 9.20.2017
 Prepared by: SHC, LLC

Future Land Use

~~As identified in the goals and objectives of this Chapter, the City is committed to maintaining the existing neighborhood patterns and uses in the community. As a fully developed community,~~ Birchwood Village's focus is primarily on maintaining the existing homes and neighborhoods and ensuring that the existing character and uses continue to define the City through this planning period. Since the community's priority is to remain relatively unchanged through this planning period, the Future Land Use plan contained in this chapter directly responds to the intent of Birchwood Village to continue to be a primarily single-family residential community.

To that end, the community has guided the majority of its future land uses for low density residential uses, that will work to preserve existing neighborhood patterns even if redevelopment occurs on individual lots. The City does not intend to permit or re-guide any land within the community for higher density residential uses, or to introduce commercial or business uses into the community. ~~This is because~~ ~~Because~~ ~~Current~~ infrastructure including roadways, water, and sanitary sewer are designed to support the existing development ~~and~~ ~~and~~; no significant improvements ~~of these infrastructures~~ are planned. ~~As such, the future~~ Future land uses ~~are~~ ~~is~~ ~~are~~ reflective of the City's existing neighborhood patterns, and planned uses through this planning period. The following future land use designations describe the intended land use patterns for this planning period.

Future Land Use Designations

Low Density Residential (LDR)

This land use designation identifies land currently used or planned to be used for predominantly single-family residential uses. ~~This designation applies to all of the City's existing neighborhoods which are developed at densities between 3 and 6 dwelling units per acre. Any redevelopment, or development of vacant parcels, will be developed at densities consistent with this density designation and are planned to be developed at densities no less than 5 dwelling units per acre.~~

Institutional

Land that is used for municipal buildings.

Parks/Open Space

Land designated as park or open space is owned and managed by the City of Birchwood Village. ~~Land within this designation is used for active and passive recreational uses, included including trails, parks, open spaces and wetland areas.~~

Right-of-Way (ROW)

Land used exclusively for roadways/right of ways.

Table 2-3. Future Land Use Total Acreage

Future Land Use	Residential Density	Acres	Percent of Total
Low Density Residential	2.5 – 5.0	169.98	78.9%
Institutional	NA	0.80	0.4%
Parks/Open Space	NA	10.29	4.8%
ROW	NA	33.21	15.5%
TOTAL		214.28	100%

Source: City of Birchwood Village, SHC

Table 2-4. Future Land Use Forecast Acreage per Decade

Future Land Use	Residential Density	2020 Acres	2030 Acres	2040 Acres
Low Density Residential	2.5-5.0	169.98	169.98	169.98
Institutional	NA	0.80	0.80	0.80
Parks/Open Space	NA	10.29	10.29	10.29
ROW	NA	33.21	33.21	33.21
TOTAL		214.28	214.28	214.28

Source: City of Birchwood Village, SHC

Figure 2-3. Planned Land Use & Zoning



Planned Land Use & Zoning

- Residential (Low Density 3-5 d.u./acre)
- Institutional
- Parks/Open Space
- ROW



DRAFT
 Source: Metropolitan Council,
 Birchwood Village, Washington
 County
 Rev. Date: 9.13.2018
 Date: 9.20.2017
 Prepared by: SHC. LLC

Areas Planned for Change or Redevelopment

The City of Birchwood Village is considered fully developed and the only opportunity for change in the community would be due to redevelopment. The City's Future Land Use plan guides the majority of the land within the community for low density residential uses and plans for the continuation of the existing uses through this planning period. While the existing land use pattern is planned to continue, the City will likely continue to see more modest changes such as remodels and additions. While these activities do not constitute a change in use, remodeling and additions does have the potential to alter the character of the community. ~~In addition, there~~

~~There is thea high potential for tear downs of existing homes and redevelopment of individual lots ~~or the~~ but low chance of an assembly of a collection of lots for redevelopment. ~~These~~ While these activities have not occurred ~~frequently, however~~ very often, depending on market conditions, the pressure and interest for redevelopment could become more frequent. If and when redevelopment is proposed, the City will follow this Comprehensive Plan and will continue to reinforce the single-family residential neighborhood patterns of the community. Finally, while there are no currently known development or redevelopment plans, at time of redevelopment the City will continue to prioritize and focus on the preservation, enhancement and protection of the City's natural resources.~~

CHAPTER 3: HOUSING

Introduction

~~The City's housing stock defines the community's village character since Birchwood Village is entirely developed for residential use and there are no independent commercial or businesses uses permitted in the community. Because the principal land use is residential understanding the existing housing stock and planning for its future becomes central to the long-term sustainability of the community.~~

The purpose of this housing chapter is to present and describe the City's existing housing stock, and to use the information as a basis from which to plan for future housing needs in the community.

Birchwood Village is entirely developed for residential use and there are no independent commercial or businesses uses permitted in the community. Although the City's households and population are anticipated to stay relatively unchanged over this planning period, that does not mean that there will not be any changes to the housing stock. As described in subsequent sections of this chapter, the City's housing stock is aging which means that maintenance, rehabilitation, remodeling and in some cases redevelopment of existing lots are likely to become more prevalent.

Information contained in the following sections is a compilation of data collected primarily from the US Census, American Community Survey and the Metropolitan Council. Because the City is small sometimes the information from these resources does not adequately describe the challenges and opportunities Birchwood Village faces, and therefore the data collected from these resources is supplemented with information from the City.

Housing Goals & Objectives

An important element of the housing plan is to establish a set of principles and goals to help guide the City through this planning period. The City identified a set of goals and objectives as part of the 2030 Comprehensive Plan that have been updated to reflect the community's direction for 2040. The housing principles and goals established by the City are as follows:

- Continue to support efforts to maintain a balanced housing supply and will focus on opportunities to provide housing for people at all income levels.
- Embrace and welcome diversity of all residents in all of its neighborhoods and will and support such diversity in both owner-occupied and renter-occupied housing.
- Encourage and promote lifecycle housing within the existing housing stock, and in any new or redeveloping areas of the community.
- Maintain and enhance the existing housing stock steek and neighborhoods to promote the long-term sustainability of the community.
- When passing or updating ordinance(s), calculate if the ordinance will affect Maintain and support the City's current level of housing affordability or remodeling.
- Protect the existing single-family detached housing density and neighborhood quality.

Commented [TL1]: Aakre: replace with "and support such diversity in both owner-occupied and renter-occupied housing."

Commented [TL2]: I think this sentence aims at encouraging housing stock that would support someone through their entire life, young and old. Since our residents are aging, this would encourage aging residents to remain in Birchwood.

In addition to the City’s identified goals and principles, the community must consider and address the housing policies and directives established by the Metropolitan Council for Suburban Communities as described within the 2015 Birchwood Village System Statement. The defined role includes the following housing practices that may be applicable for Birchwood Village:

- Designate land in the comprehensive plan to support household growth forecasts and address the community’s share of the region’s affordable housing need through development and redevelopment at a range of densities.
- Use state, regional, and federal sources of funding and/or financing and development tools allowed by state law to facilitate the development of new lifecycle and affordable housing.
- Plan for affordable housing that meets the needs of multigenerational households.
- Invest in and expand regional systems to support redevelopment in communities that partner in the preservation and expansion of housing choices.

Because the City is fully developed there are few, if any, opportunities for redevelopment in the community particularly given the existing land use pattern.- However, the City will consider and evaluate any new proposed development for consistency with the Metropolitan Council’s roles and the City’s identified principles and goals.

Existing Housing Stock

OVERVIEW OF BIRCHWOOD VILLAGE’S RESIDENTIAL NEIGHBORHOODS

The City of Birchwood Village’s residential neighborhoods have evolved over time transitioning from primarily seasonal/vacation cottages to permanent residences that now make up ~~the majority~~ almost all of the City’s housing stock.- Though the community is relatively homogenous in the land use, which is dominated by single-family detached product, there is a little bit of every housing style available in the community.- The diversity of housing contributes to the City’s ‘village’ character since no two streets or blocks look the same.- Lots and homes were built and developed at different times with some areas filling in over the span of several decades ~~which~~. This results in a development pattern that feels more organic, ~~which is a~~ contrast to some of Birchwood Village’s more suburban neighbors.- This development pattern has also resulted in an existing supply that is both unique and aging.- The following existing characteristics of Birchwood Village’s housing supply provide a baseline from which the City can consider potential housing needs and demands.

Commented [TL3]: Aakre: replace with “the majority”

HOUSING STOCK STATISTICS

According to the data from the Metropolitan Council and the City of Birchwood Village, there are 369 housing units in the City as of 2016. As a fully developed community, new residential development in Birchwood Village has been limited since the 1990s, ~~and since~~. Since 2000, only 15 new units have been constructed ~~which that~~ were likely the replacement of an existing home or cabin.

Housing Tenure

Of the 369 units, 342 units (93.2%) are owner-occupied, and 25 units (6.8%) are rented according to data from the Metropolitan Council (Table 3-1).

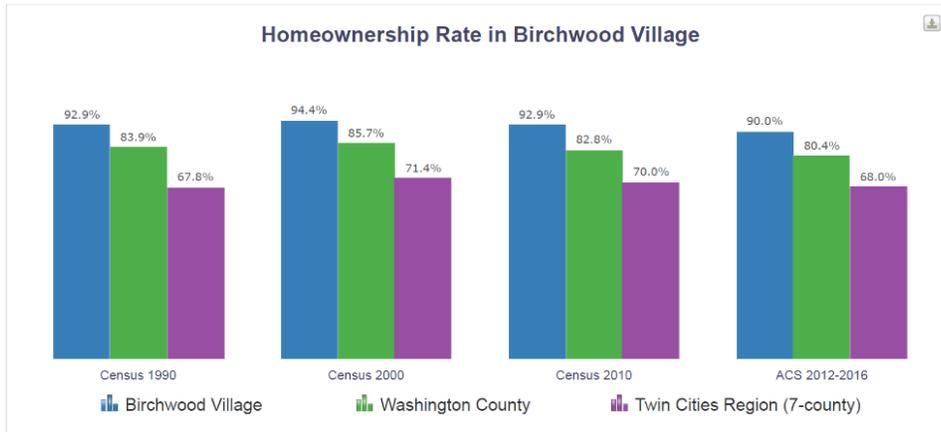
Table 3-1: Housing Tenure 2016

Ownership Units	Rental Units	Total Units
344	25	369

Source: Metropolitan Council

The City’s distribution of owner-occupied units to renter-occupied units is significantly higher than the ratios experienced in both Washington County and the 7-county metropolitan area as shown in Figure 3-1.- As shown, the Birchwood Village’s home ownership rate was approximately 90% in 2012 as compared to 80% in Washington County and 68% in the 7-County metropolitan area. ~~Some of the~~ One likely reason for Birchwood Village’s higher home ownership rate is ~~likely due to~~ the lack of availability of multi-family housing which is more commonly associated with renter-occupied units, but it is also likely an indicator of relatively high housing values within the existing single-family housing stock.

Figure 3-1.- Housing Tenure of City, Washington County and 7-County



Source: Metropolitan Council, US Census, 2012-2016 ACS

Housing Type

Correlated to housing tenure is housing type.- Overall, Birchwood Village is not balanced with respect to its housing stock as it is predominantly single-family homes (93%).- Even though the housing stock is unbalanced, this is not a cause for concern because of the relatively small number of units and size of the community.- There are a limited number of multi-family housing units which provide some housing choice within the community.- See Table 3-2: Housing Type.

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Table 3-2:- Housing Type

Single-family Units	Multi-family Units	Manufactured Homes	Other	Total Units
350	19	0	0	369

Source: Metropolitan Council

Year Built

Nearly 80% of Birchwood Village’s housing stock (288 units) is more than 45 years old. Because of the age of structures in the community, it will be important to track the conditions of the older homes because they are at-risk of deferred maintenance, which can rapidly result in critical structural problems or accelerate major remodel/tear-downs. At the same time, well-maintained older housing can be an important source of entry-level housing particularly if they have not experienced major remodeling and additions. It will be important for the City to monitor the condition of the older housing stock considering its desire to maintain housing and neighborhood quality, as well as retain some affordability in the community. See Figure 3-2, Age of Residential Structures. The Village will survey the ages of homes and remodeling. The city will update this survey every two years.

Housing Affordability

The Metropolitan Council considers housing affordable when low-income households are spending no more than 30 percent of their income on housing costs. Households are considered low-income if their income is at or below 80 percent of the metropolitan area’s median income (AMI).

In Birchwood Village, the housing stock is becoming increasingly less affordable, particularly as major remodeling, tear downs, and improvements become more prevalent. As of In 2016, the Median home value in Birchwood Village was approximately \$321,000 which far exceeds the median Seven-County Metropolitan Area sales price of \$247,900 for a single-family home (Minneapolis Association of Realtors). As shown on Figure 3-3, the majority of the more expensive housing units are located along the lake frontage and have experienced the most significant remodeling over the past several decades. However, as of In 2016, there remains a portion of the existing housing stock that meets the Metropolitan Council’s criteria for affordability as demonstrated in Table 3-3.

Table 3-3: Affordability of Units by Income Level

	Birchwood Village	% of All City Housing Units	Metro Area % of all Housing Units
Units affordable to households with income at or below 30% of AMI	4%	1%	6.5%
Units affordable to households with income 31% to 50% of AMI	2%	>1%	21.8%
Units affordable to households with income 51% to 80% of AMI	76%	20.6%	39.9%
Total Units at or below 80% AMI	82%	22.2%	68.3%

Source: Metropolitan Council (2016 and 2017 Metro GIS Regional Parcel Data; US Census, 2012-2016 ACS)

Based on information collected nearly a quarter of the City's owner-occupied units are affordable at or below 80% AMI, which given the City's relatively small size represents a fairly significant proportion of units. Due to the reasonable rate of affordability, coupled with the City's unlikeliness to redevelop, the Metropolitan Council has not allocated a need for new affordable housing units in Birchwood Village through 2040.

Although Birchwood Village has a reasonable proportion of affordable units per the Metropolitan Council's definition, there are some observable trends that suggest that the cost of housing in the Village could rise rapidly in the coming years making the community less affordable. Market pressure in the for-sale housing market throughout the region has experienced significant increases in the past couple of years. Since Birchwood Village is dominated by owner-occupied/for-sale housing, the regional market trends have the potential to significantly impact the community's long-term affordability. The City is likely to continue to face pressure for tear-downs/rebuilds given the proximity to the lake and average age of housing stock. Not only will increased investor interest raise prices, but new or significant rebuilt homes that are much larger will also result in market-wide increases. New builds also have the potential to undermine the goal of maintaining the "village" character of Birchwood Village, as investors and developers are less likely to be concerned with preserving the history and character of the area. These trends are important to consider if, and when, new policies are implemented that could impact housing in the community.

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Figure 3-2. Age of Residential Structures



Figure 3-3. Estimated Market Value of Residential Structures



COST BURDENED HOUSEHOLDS

Cost burden is the proportion of household income spent toward housing and utilities. When lower income households spend more than 30 percent of their income toward housing and utilities this burden is considered excessive because it begins to limit the money available for other essentials such as food, clothing, transportation, and healthcare. Table 3-4 presents the number and percentage of low-income Birchwood Village households that are cost burdened and compares this against the metro area rate of cost burdened low-income households.

Table 3-4: Cost Burdened Households by Income Level

	Birchwood Households	% of all households	Metro Area % of all households
Income at or below 30% of AMI	8	2.2%	10.0%
Income 31% to 50% of AMI	26	7.0%	7.4%
Income 51% to 80% AMI	3	0.8%	5.8%
Total households at or below 80% AMI	37	10.0%	23.2%

Source: U.S. Department of Housing and Urban Development, 2010-2040 Comprehensive Housing Affordability Strategy (CHAS) data, with counts adjusted to better match Metropolitan Council 2016 household estimates.

Projected Housing Needs

As referenced in Chapter 2: Land Use, the Metropolitan Council’s 2015 System Statement forecasts that Birchwood Village will not expand the number of total housing units in the community.- The existing community is fully developed, and planned land uses guide any redevelopment to occur consistent with existing land use and neighborhood patterns.

Even though the community is not projected to add households, that does not mean there will not be continued pressure for tear downs and major remodels. The community is supportive of continued investment into existing homes and neighborhoods but acknowledges that this may come at the expense of some of the more affordable housing options in the community and preservation of the “village” feel. As the City continues to face pressure for major remodels and tear downs, it will evaluate and consider how it may protect some of its affordable housing stock.- Since the median home price in Birchwood Village already exceeds that of the region and the 7-County metropolitan area it is already becoming more difficult for entry-level and first-time homebuyers to find a home in the community. This challenge is reflected in the City’s 2040 population projections which identify a decreasing population while the number of households remains constant. This is likely due to the aging of the City’s residents, and lack of opportunity for younger family-families to move into the community. Over this planning period, the City will work to assign a committee to identify ways to encourage a more diverse housing pattern that will support a more diverse demographic to help what, if any ways, the City can ensure the long-term sustainability of the housing stock and community overall; this report will be completed in five (5) years.

Commented [TL4]: Are you sure you want to committee to a timeframe here?

Housing Implementation Program

The housing implementation program for Birchwood Village will seek to support the City in succeeding with its housing goals. There is little space for any new development, so it is a priority that the City maintains the prevailing homes. The following table outlines a variety of resources and tools the City can use to assist in meeting housing needs.

Table 3-5: Implementation Tools

Housing Goal	Tool / Resource / Strategy	Description
Maintain and support the City's current level of housing affordability.	Washington County Community Development Agency (CDA)	Given the limited staff of Birchwood Village, regularly coordinate with the Washington County CDA to best align their resources with the City's housing needs and goals. The CDA has capacity, funding resources, and expertise to assist smaller communities with their housing needs.
	Referrals	Review and update reference procedure and training for applicable staff, including a plan to maintain our ability to refer our residents to any applicable housing programs outside the scope of our local services.
	Foreclosure Prevention	Work with the Washington County CDA and other agencies on foreclosure prevention strategies
Maintain its single family detached housing density.	Zoning and Subdivision Ordinances	Review zoning and subdivision ordinances to identify any regulations that inhibit the housing priorities in this document.
Maintain and enhance the exiting housing stock and neighborhoods to promote the long-term sustainability of the community.	<ul style="list-style-type: none"> - Home ownership rehabilitation, home improvement, and energy-efficient local programs. - Housing rehabilitation programs funded locally. - Community Clean-Up Days 	Work with agencies, including banks, Washington County CDA, etc., to help support resident's efforts to maintain and repair homes.

Commented [TL5]: Aakre: Do we also want to think about incentives or programs for remodels / builds that preserve the character of Birchwood (vs. model homes) – could also impact affordability.

CHAPTER 4: TRANSPORTATION

Introduction

The purpose of the Transportation chapter is to guide development, maintenance, and improvement of Birchwood Village's transportation network. This chapter addresses the City's existing and planned transportation system based on existing and future land use patterns.

The City's transportation network consists primarily of roadways and trails, but given the City's regional context, also considers adjacent transit and airports that serve the community's residents. These systems work in harmony to move people within and through the City connecting residents to local and regional destinations.

The following sections address each component of the City's transportation system and plans for potential system improvements, maintenance and management utilizing the existing and planned land uses. As a predominantly residential community, the City's transportation system is critical to maintain and plan for because residents rely on the system to provide access to jobs, services, shopping, and other amenities that are not contained within the community. As such, the information contained in this Chapter not only addresses system components that are fully contained within the City but also describes regional transportation components that provide access and services to Birchwood Village's residents.

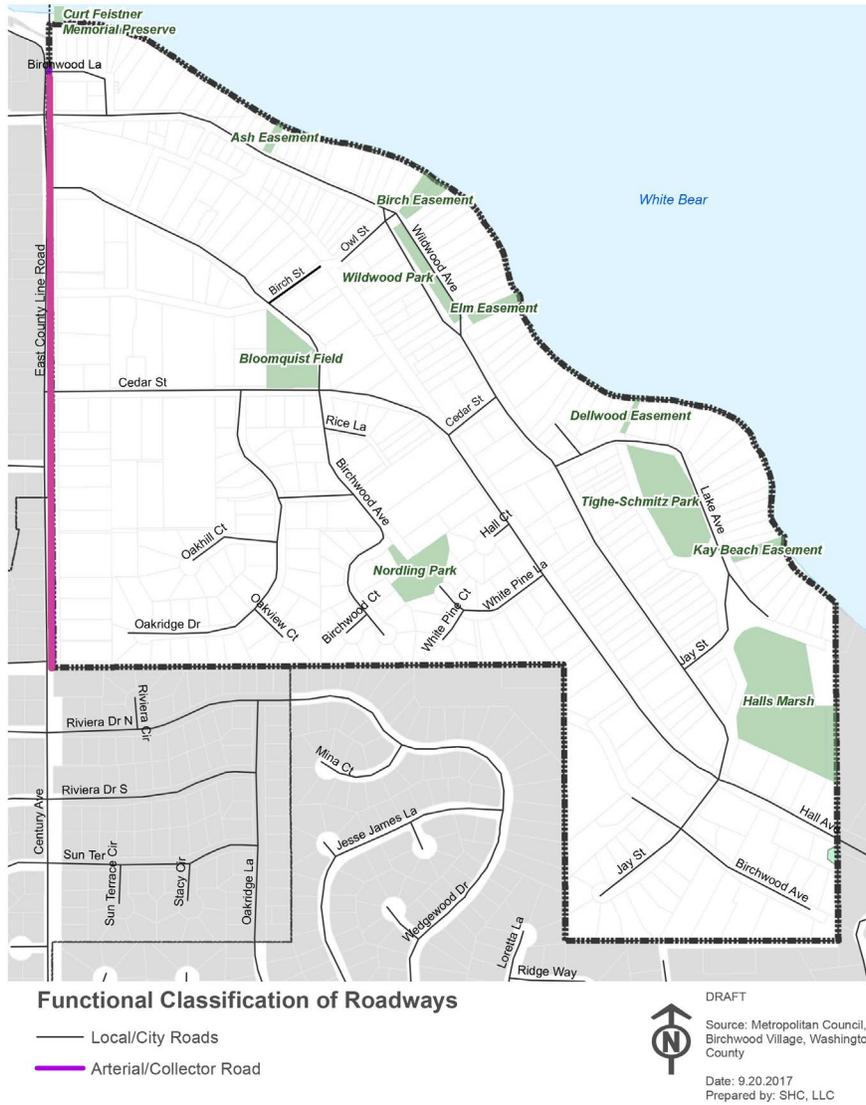
Roadways

EXISTING AND PLANNED ROADS

Residents of the City of Birchwood Village primarily rely entirely on the local and regional roadways to travel to adjacent job centers, services, and retail locations. Internal to the City, all roadways are local roads providing access to residences, open spaces, and parks. There are no streets within the City that are under State or County jurisdiction, and all local roadways are managed and maintained by the City. The City of Birchwood Village manages 4.2 miles of bituminous surfaced streets and one 150-foot gravel roadway (Grotto Street) located east of Wildwood Avenue. Connecting the City to the region is East County Line Road located along the west border of Birchwood Village which is jointly owned by Washington County and Ramsey County. There are several areas with dedicated street rights-of-way that have not been improved and function today mostly as open space/trail easement areas. These areas are known as Birch, Ash, Elm, Dellwood, Park Avenues and Highwood Street.

As stated within the Land Use chapter, the City of Birchwood Village's future land use plan is consistent with the existing land use plan and no significant changes are proposed. Since no redevelopment areas or significant development are contemplated within the City, there are no new roadways or planned functional classification changes within the City during this planning period. As shown on Figure 4-1, the Existing and Planned Functional Classification of Roadways is planned to stay the same between now and 2040.

Figure 4-1. Existing and Planned Functional Classification of Roadways



FUNCTIONAL CLASSIFICATION DEFINITIONS

The Metropolitan Council, in coordination with County and State agencies, has established a functional classification system for roadways serving the Twin Cities Metropolitan Area. This system establishes a hierarchy of roads to match road function with capacity and purpose. The functional classification system for roadways is broken down into four categories: principle arterials, minor arterials, collectors and local roadways. There are only two functional classifications of roadways in the City: Minor Arterials and Local Roadways. The following definitions are provided for the two classifications affecting the community:

Minor Arterials –

The minor arterial system supplements the principal arterial system and provides connections to the principal arterial system. Minor arterials also support access to major traffic generators, including regional job concentrations and freight terminals, and between rural centers within and just outside the region. Minor arterials should serve medium-to-short trips, including arterial bus rapid transit, limited-stop bus, and local bus service. In the urban service area, the emphasis of minor arterials is on supplementing principal arterial mobility as opposed to providing direct access to land, and only concentrations of commercial, industrial, or residential land uses should have direct access to them. Minor arterials should connect to principal arterials, other minor arterials and collectors. Connections to some local streets are acceptable. Minor arterials are designed to carry higher volumes of general traffic than other local roads and these design characteristics often create a barrier for bicycle and pedestrian travel. Priority should be placed on addressing these barriers in areas with pedestrian traffic, such as within regional job concentrations, within local centers, and along major transit routes. Minor arterials are generally under MnDOT or county jurisdiction. East County Line Road falls within this classification. It is denoted as Other Arterial by the Metropolitan Council.

Local/City Roads –

Local roads connect blocks and land parcels, and the primary emphasis is on land access. In most cases, local roads connect to other local roads and collectors. In some cases, they connect to minor arterials. Local roads serve short trips at low speeds. Local roads serve local travel for pedestrians and bicyclists and may double as bike links in some locations. Transit is occasionally a consideration for local roads, depending on the surrounding land uses. All streets except for E County Line Road within Birchwood Village fall under this classification.

Transportation Analysis Zones

To support transportation planning efforts in the region, the Metropolitan Council requires communities to identify their projected population, households and employment by decade for each Transportation Analysis Zone (TAZ) located within their community. The City of Birchwood Village includes only one TAZ, which is projected to remain relatively consistent over each decade since no significant growth or redevelopment is projected. Table 4-1 identifies the City's TAZ forecasts by decade through 2040.

Table 4-1: Transportation Analysis Zone Forecasts

TAZ 1146	2020	2030	2040
Population	850	830	800
Households	351	360	360
Employment	25	30	30

Source: 2015 Birchwood Village Metropolitan Council System Statement

ROADWAY CONSIDERATIONS THROUGH 2040

Birchwood Village’s street infrastructure is the largest asset and liability in the City’s public works system and requires ongoing and routine maintenance.- The City’s streets consist of two to three inches of bituminous surfacing over four to five inches of aggregate base.- Bituminous overlays of the streets have been completed in the past, and as a result the bituminous surface may be thicker than three inches on some roadways or in some areas.- The City has relatively low traffic volumes, and there are no commercial or business uses in the community which helps minimize wear and tear on the roadways.- The planned land uses are expected to remain consistent with the existing land uses, and therefore traffic volumes are anticipated to remain the same or be reduced as the City’s population is projected to shift slightly lower during this planning period.

In recent years, the city has undertaken a comprehensive maintenance plan of crack filling and seal coating all its roadways. Experts have opined that under normal use this process will extend the pavement another twenty years before a subsequent mill and overlay is necessary. To continue this maintenance program, the City has recently adopted a Capital Improvement fund that is funded annually through its general levy. The fund has now built up sufficient funds to ensure all roadways are maintained for years without the need for much more expensive total reconstruction. To maintain and manage the City’s roadways, the City plans for and provides adequate budget during its annual budget process. The City facilitates multi-year programs for seal coating and crack sealing to ensure all roadways are managed and maintained on a regular and consistent basis.

Commented [TL1]: Aakre: This makes it sound like any road improvements are entirely out of City budget with no special assessments – revise?

It is recommended that the streets continue to be crack sealed every three years-, or as recommended by our consultants. Some additional as-needed repairs may emerge along the bituminous roadways. These necessary repairs could be a result of severe weather conditions and utility repairs. Because the City’s population is less than 5,000 there is no state aid available to help manage and maintain any local roadways, and budgeting and costs must be absorbed by the City and its residents. The City will continue to monitor and plan for needed improvements to its roadways through this planning period. It is also recommended that the City utilize its Roads and Streets Committee to improve education of street maintenance programs for City residents.

Highway surface improvement projects taking place from 2019-2024 in the vicinity of Birchwood Village have been identified by the Metropolitan Council in the Birchwood Village 2015 Systems Statement. The only identified pavement project is the resurfacing of East County Line Road south of MN-244, which will continue north post 2024.

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Bicycling & Walking

As the region continues to grow it will become increasingly more important for residents to have transportation mode choices to help reduce overall reliance on vehicles. Though Birchwood Village is not easily accessible to mass transit services, the City is perfectly positioned to improve and create opportunities for residents to be connected to regional bike and trail infrastructure.

BICYCLING

The City was the first White Bear Lake area community to implement signage of the Lake Links regional bicycle route. In addition, the city adopted traffic calming on Hall Av/Cedar St by narrowing driving lanes to 10 feet, adding regular stops signs, and painting lines for wider shoulders for bicyclists and pedestrians. Additional traffic calming measures include reducing speed to 25 MPH on Hall Ave/Cedar St and installing pedestrian markers at many of the intersections. Most residents feel that the existing roads are multi-purpose and can safely accommodate bikers, walkers and auto traffic. Currently Birchwood Village has no specifically designated bicycle infrastructure, such as dedicated bicycle trails or on-road bicycle lanes. Though the City does not provide dedicated bike lanes on its roadways, residents primarily feel that the existing roads are multi-purpose and can safely accommodate bikers, walkers, and auto traffic.

To supplement the use of the local roadways for bicyclists, the City will contemplate the direction of the Metropolitan Council's desire for the City to explore how it can plan for a more specific connection into the planned Regional Bicycle Transportation Network (RBTN). The Metropolitan Council has identified a RBTN Tier 1 search corridor in the City along Wildwood Avenue (see Figure 4-2). According to the Metropolitan Council's 2040 Regional Parks Policy Plan, a Tier 1 (high priority) network is identified where bicycle travel is greatest, population and job densities are highest, and where there were the most opportunities to connect regional job concentrations and activity centers with population and the regional transit system. The RBTN alignment passes through Birchwood Village going east-west. Given this aligned corridor, Birchwood Village will seek to plan for the implementation of bicycle supporting facilities through 2040 to establish a connection to the RBTN. Improved bicycle infrastructure was identified by residents as an important consideration in the 2017 Park Survey, and it is likely that planning for a more connected bikeway into the region will be supported by area residents.

SIDEWALKS & PEDESTRIAN WAYS

There are no sidewalks within Birchwood Village. Limited discussion has been heard regarding sidewalk improvements along East County Line Road and Birchwood, Hall and Cedar Avenues, but this roadway, East County Line Road is not under the jurisdiction of the City. As the roadway exists today, and the road drainage includes a series of ditches and culverts that would make construction of trail or sidewalk improvement difficult in this area. It may be possible to construct storm sewers to accommodate runoff, but any improvements would need significant coordination with Washington and Ramsey Counties. There has also been discussions about a sidewalk on Birchwood/Hall/Cedar Avenue There has yet to be strong enough support for sidewalks anywhere in Birchwood.

Pedestrians also utilize a narrow bituminous surface between upper and lower Birch Street and Owl Street as a path. The City maintains Ash, Nording, Bloomquist, and Grotto walkways as wood chip paths. Generally, residents walk on local roadways which are seen as multi-purpose and shared facilities for pedestrians, bicyclists and auto traffic. The 2017 Parks Survey identified the development of new pathways as an important addition to the City.

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Mass Transit

Birchwood Village's Transit Market Area is Market Area III as designated by the Metropolitan Council. This Market Area is described having moderate density but tends to have a less traditional street grid that can limit the effectiveness of transit. Transit service in this area is primarily offered by Metro Transit with a commuter express bus service (Route 270) and one local bus route (Route 219) running on the west border of Birchwood Village.

There is currently no fixed-route local service operators within Birchwood Village, and public dial-a-ride services fulfill needs for basic local transit needs. Transit Link is a small bus service that provides a dial-a-ride service for trips that cannot be completed on regular transit routes. Metro Mobility is another service but is limited to certified riders who are unable to use regular fixed-route buses due to disability or health concern.

There are no park-and-rides or other transit facilities located in the City. [The closest park-and-ride is at the Maplewood Mall, 4.5 miles away.](#)

Aviation

The nearest major commercial airport that serves Birchwood Village residents is the Minneapolis-St. Paul International Airport that is located approximately 16-miles southwest of the City. The nearest airport is the Lake Elmo airport which is a general aviation facility operated by the Metropolitan Airports Commission.

Several private light planes operate off the surface of White Bear Lake year-round. The lake is adequate in size for light activity and MnDOT Aeronautics has designated it as appropriate for seaplane operations. The City acknowledges this designation and accepts present seaplane activity, but would object to large scale operations.

There are no existing height barriers for seaplane operation within the City. Municipal Code restricts the height of structures at 35 feet per [City Zoning Code 302.045](#). Any variance which would result in a structure having a height of more than 200 feet would be considered an aviation hazard and require approval of MnDOT and the notification of the FAA. The City will use proper notice and protocol to the FAA for any proposed construction or variance which could affect navigable airspace.

Freight

There are no railways, barge facilities and truck or intermodal freight terminals within Birchwood Village. Since there is no commercial development allowed within the City, there are no nodes or areas that generate freight movement.

Chapter 5: Parks, Trails, Open Space & Natural Resources

Introduction

The City's existing parks, trails, open space and natural resources system is an important part of Birchwood Village's quaint small-village character. Tree canopied streets, and private wooded lots with rolling topography make the community feel like the small resort town of yesteryear, while active park areas provide residents with ~~opportunity~~ opportunities to meet and gather. The parks, trails, open space and natural resource system ~~is~~ is an important part of the City's past and ~~is~~ is planned to be an important asset of its future.

The following sections identify and describe the City's existing system and establishes a plan for the future of the City's Parks, Trails, Open Space and Natural Resources (PTOSN) System. Finally, this chapter introduces the concept of a green network that incorporates all of these elements and considers the resiliency and long-term sustainability of Birchwood Village for this planning period.

PTOSN Goals & Objectives

The City's parks, trails, open space, and natural resources system is a defining characteristic of Birchwood Village. Though the City is relatively small, a significant proportion of the City's land uses are dedicated for park and open space uses which are further enhanced by the presence of White Bear Lake ~~and, and~~ all the natural areas within rights-of-way and ~~natural areas on~~ private lots ~~that remain~~ in the community today. When all of these areas are considered collectively, the organized park areas and natural areas further ~~support~~ define the small-town village atmosphere of the community.

~~Since the parks and open spaces are an important part of the City's responsibilities to manage and maintain,~~ The City issued a park survey in 2017 to solicit feedback from residents to provide ~~a~~ direction for the ~~system~~ parks and open spaces moving forward. Many of Birchwood Village's residents responded to the survey, and their feedback was used to help define and establish the following goals and objectives for the parks and open space system through this planning period. Here are some of the areas noted by residents (in no particular order):

1. Preserve Natural Spaces

2. Maintain and improve the City's existing parks and open space facilities to ensure the health, safety and general wellbeing of Birchwood Village residents.
3. Provide park and open space facilities that serve all age groups and meet programming needs of Birchwood Village's residents. The City will take a balanced approach to programming and develop a system that supports all age cohorts in the community.
4. Create and develop a system of walkways within the City that connect residents to Birchwood Village's parks and open spaces providing safe alternate transportation mode choices and reducing resident's reliance on vehicles to access the system.
5. Upgrade and maintain the lake easements, as necessary, to meet the needs and desires of residents.
6. Improve the overall maintenance of parks and public facilities.
7. Integrate and align the City's equipment and resources to support and contribute to other local communities and youth organization's parks, trails, and open space systems.

There are many ways that the City can accomplish the goals and objectives as identified above. The City's Parks & Natural Resources Committee is taking the first step toward the goal by developing a Parks Improvement Plan that intends to address what residents ~~clearly~~ indicated in their response to the survey: desire for the system to be enhanced and better maintained as an asset of the community into the future. To support this value, ~~planned~~ maintenance, improvements and enhancements should be well planned to protect the system's long-term sustainability as a key characteristic of the community through this planning period. ~~Perhaps~~ The most important pieces of ~~the~~ Parks Improvement Plan will be to establish a capital improvement plan (CIP) for the system to identify priorities and budget ~~money (and timed maintenance schedules)~~ for proposed investment ~~and maintenance~~.

Existing Parks, Trails, Open Space and Natural Resource System

As indicated in previous sections, and within the Chapter 2: Land Use, the City is primarily developed with single-family residential uses with interspersed protected park, open space and natural resource areas. To better understand how the City should plan a coordinated Parks, Open Space and Natural Areas system, it is important to first understand the existing condition and location of each component of the system ~~and prioritize maintenance of these areas~~.

Commented [TL1]: Aakre: per email from Bridget Sperl

There is a total of 13.8 acres of park and public open space land within the boundaries of Birchwood Village (See ~~see~~ Figure 5-1). The City's park system includes four park areas with passive and active recreational uses; six lake easements that provide access to White Bear Lake, and several undeveloped areas (easements and right-of-way) that have not been designated with a specific use. All City residents are within one-half mile of one, or more, of the City's parks or open space areas. In addition to the protected park and open space areas, the significant natural resources in the community include White Bear Lake and ~~Halls Marsh~~, the wetland area just south of Tighe-Schmitz park. Outside of publicly protected natural resources, the City's private lot areas and easement areas include extensive tree cover and rolling topography which all contribute to the City's stormwater and natural resources system. The following sections describe Birchwood Village's existing parks, open space and natural resource areas in the community.

CITY PARKS & OPEN SPACES

Bloomquist Field

Classification: Neighborhood Park

Size: 1.50 Acres

Located at the intersection of Cedar Street and Birchwood Avenue, is a neighborhood park with a double tennis court, ~~and~~ picnic tables and benches. New playground equipment was installed in 1998. The park is heavily used by residents, and current programming matches the community's demands.

Wildwood Park

Classification: Open Space

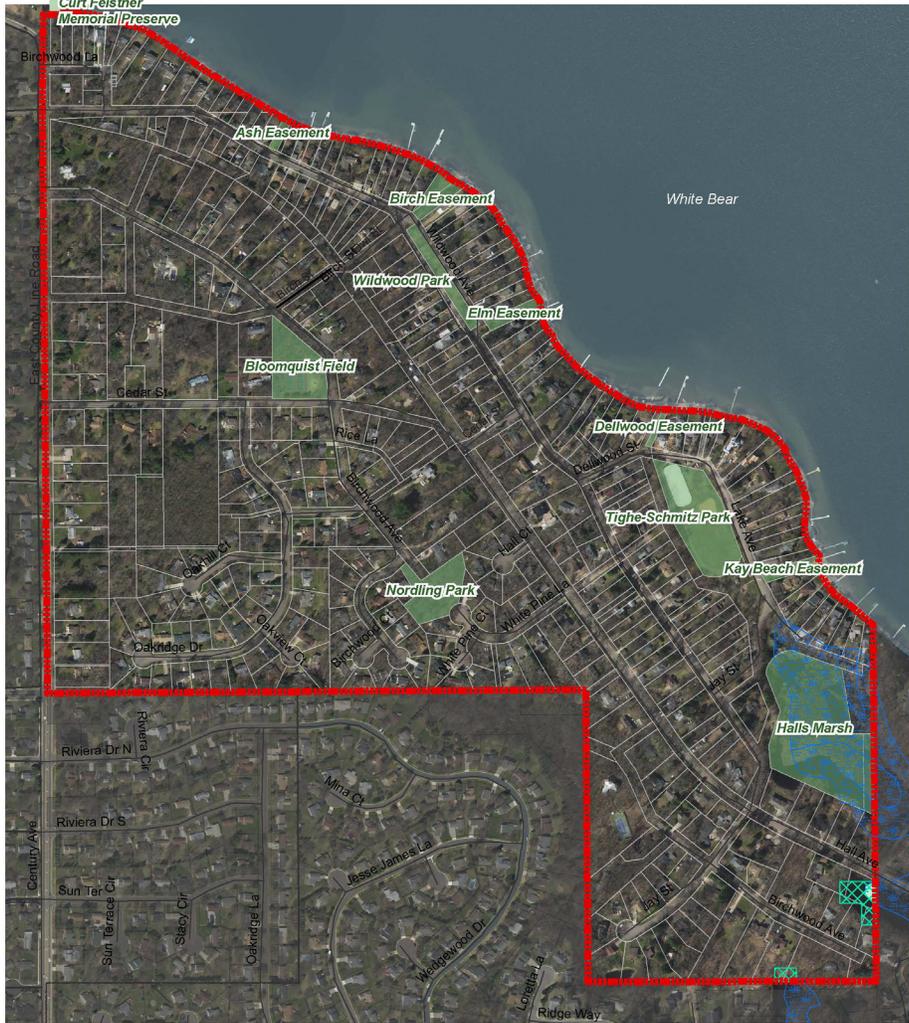
Size: 0.60 Acres

This park/open space area is located within the right-of-way of Wildwood and is at approximately the midpoint of Wildwood Avenue within the City. The boulevard area is a wide-open grassy area which provides passive recreational opportunities to residents and is used for community gatherings such as its Fourth of July celebration. The open space area is connected to two of the easements to White Bear Lake providing further connections within

the City's open space network.

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Figure 5-1. Parks, Open Space & Natural Resources



Parks, Open Space, Natural Resources

- Parks/Open Space
- National Wetlands Inventory (NWI)
- Regionally Significant Natural Area (MLCCS Derived)



DRAFT
 Source: Metropolitan Council,
 Birchwood Village, Washington
 County
 Rev. Date: 9.13.2018
 Date: 9.20.2017
 Prepared by: SHC, LLC

Tighe-Schmitz Park

Classification: Neighborhood Park

Size: 2.50 Acres

The Tighe-Schmitz Park is located in the southeastern quadrant of the City and is the City’s largest park area. The park provides both passive and active recreational opportunities to residents and is the most popular park in the City’s system. The recent results from the 2017 community survey indicated high usage of this park ~~and that residents most frequently used and appreciated the walking trails in the park.~~ In addition to passive park uses, the park also includes a large active sport area with a hockey rink, open skating rink, ~~volleyball field,~~ baseball field, football and soccer practice areas, and pickle ball. The multi-purpose hockey rink (completed in 1997) provides for year-round use including in-line skating ~~and,~~ basketball ~~and pickle ball~~ in the off-season. Adjacent to the skating rinks is a warming house ~~and volleyball court.~~ Children’s play equipment (installed in 1996), and a picnic shelter complete the park’s current amenities. Adjacent to the picnic area, a rain garden was installed.

Commented [TL2]: Wingfield: delete

Commented [TL3]: Wingfield: delete

Nordling-Nording Park

Classification: Open Space & Stormwater Management

Size: 1.3 Acres

The Nordling-Nording Park area provides passive recreational uses and stormwater management. This is an example of an area that serves dual purpose, providing recreation opportunities while also allowing for surface water management including localized groundwater recharge contributing to the City’s green infrastructure and network.

White Bear Lake Easements (Multiple)

Classification: Open Space

Size: 1.2 Acres (total)

The City owns and manages six lake easements that provide residents access to White Bear Lake for swimming, boating, fishing, and winter activities. The easements are evenly spaced along Wildwood and Lake Avenues and are generally between 40 and 55-feet in width and are within a short walking distance of all of Birchwood Village residents. The easements are known as: Kay, Dellwood, Elm, Birch, Ash and Curt Feistner Memorial Preserve. The City ~~owns and maintains one dock at Kay Easement and~~ contracts dock management services ~~for the remaining five easements~~ to a private organization that owns and maintains their docks ~~at the easements.~~

~~The City bought a new dock for Kay Beach which has been warmly received by residents because for the first time, it allows the public to use the dock without paying a fee.~~

~~Residents continue to request more space for storage of motorized boats (paddle boards, canoes, kayaks) at all the easements. As a result, new boat racks have been added and continue to be added to all the beaches. The city monitors the spaces by charging a small fee for a permit. The program remains popular.~~

Halls Marsh

Classification: Open Space & Stormwater Management

Size: 6.6 Acres

This open space is a dedicated nature preserve and is currently unimproved. There are no existing trails, or other

organized/programmed uses and the area is generally open space and provides ponding and stormwater management.

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Birchwood Village City Hall

Classification: Open Space & Stormwater Management

Size: 0.79 Acres

Located adjacent to Bloomfield Field, the Birchwood Village City Hall serves as a gathering and meeting place for various Birchwood Village organizations as well as for official business meetings. The Village currently uses the land directly north of the Village Hall for open space and stormwater management.

City Trails

There are several existing city trails that are heavily used by area residents. Residents also rely on existing roadways for walking, running, and biking. While roadways are viewed as relatively safe, their narrowness coupled with topography can cause safety concerns when sharing the roadways with vehicle traffic. Figure 5-2 illustrates locations of existing trails and where new trails ~~are currently~~ have been considered.

Regional and State Parks & Trails

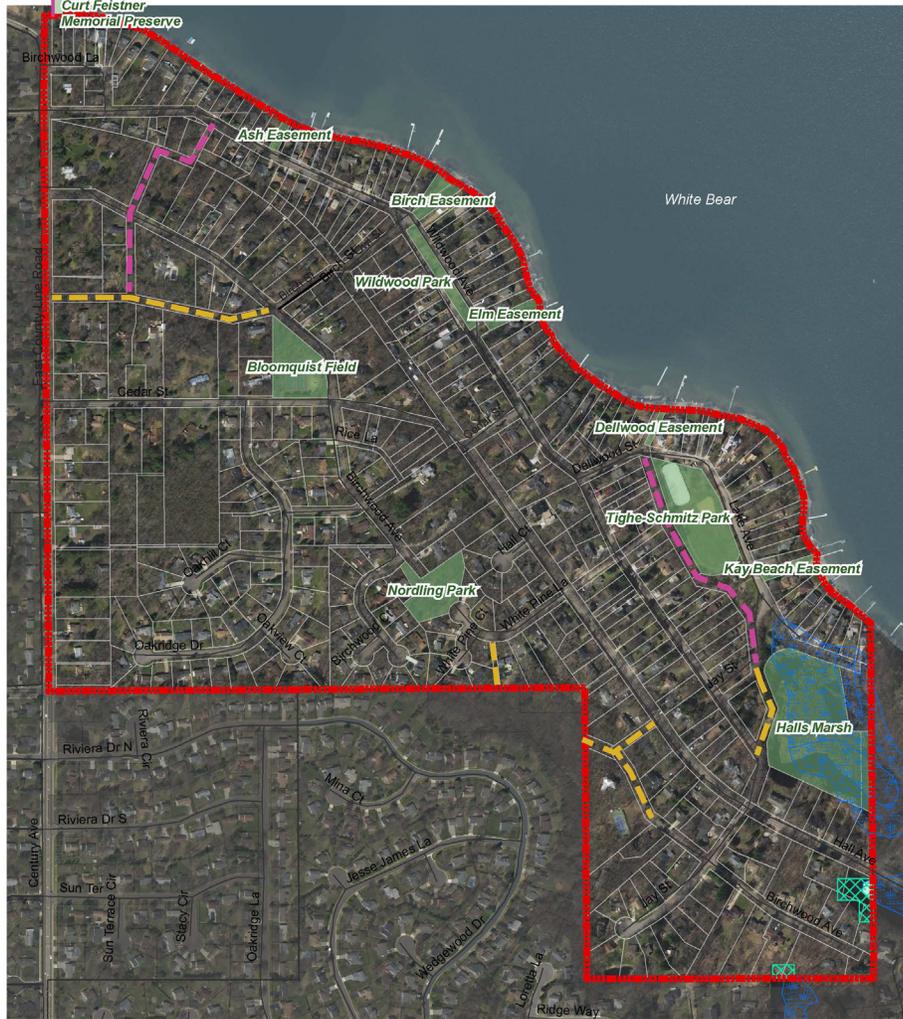
The City is within the search area for new regional bike trails according to the Metropolitan Council. There are no designated regional or state trails in the City. Recently, efforts to establish the Lake Links Trail will incorporate streets within Birchwood Village as part of a designated trail route around White Bear Lake, connecting Birchwood Village residents with local, regional and state parks and trails in adjacent communities.

Adjacent Communities Parks & Open Space

As a small community, it is not possible for resident's parks and open space needs to be fully met within the Birchwood Village borders, and therefore, the parks amenities of neighboring communities help complete the system. Birchwood Village residents are blessed with access to the recreational facilities in nearby communities such as Mahtomedi, White Bear Lake, White Bear Township and the surrounding region. Some of the closest resources include Wildwood Park and Wedgewood Park located off of County Road E in Mahtomedi, both are just to the south and east of Birchwood Village. Nearby to the west is a well-developed playground at the former Bellaire School that includes playground equipment and a softball field. Additionally, the City of White Bear Lake has play equipment at the corner of County F and Bellaire, and White Bear Township's Bellaire Beach and picnic area is located on White Bear Lake one-half mile west of Birchwood Village.

Because of Birchwood Village's size, park programming, community education and recreational associations that serve residents include White Bear Lake and Mahtomedi.

Figure 5-2. Parks & Trails



Parks & Trails

- Parks/Open Space
- National Wetlands Inventory (NWI)
- Regionally Significant Natural Area (MLCCS Derived)
- Existing Trail
- Potential Trail

DRAFT
 Source: Metropolitan Council,
 Birchwood Village, Washington
 County
 Rev. Date: 9.13.2018
 Date: 9.20.2017
 Prepared by: SHC, LLC

Existing Natural Resources

The City parks and open spaces are enhanced and supported by the natural resources that further complete the system. This concept of combining all parks, open space and natural resources to be considered and managed as one system is often referred to as a “Green Network.” The concept is particularly fitting in Birchwood Village given its extensive natural resources further described here.

Topography and Stormwater

Birchwood Village has rolling topography which slopes gradually away from White Bear Lake. Since development of the community happened in the late 1800s and early 1900s, much of the natural topography was protected as vacation homes and cottages were sited to capitalize on existing topography and views. As a result of this development pattern, the City’s terrain is hilly, with rolling hills of 12% - 15%, up to 24% in some areas. Due to the slope, it is imperative that natural vegetation and ground cover is maintained to prevent erosion which is a significant consideration for land in excess of 12% slope. Maintaining proper vegetation and ground cover is also important to protect lake quality since White Bear Lake is the lowest elevation of the community at approximately 924-feet. The topography of the community rises to a height of just over 1,010 feet at the west and south borders of Birchwood Village, indicating that runoff flows to the Lake if not properly maintained and managed.

Tighe-Schmitz Park is one of the lowest points inland from White Bear Lake making it a natural stormwater retention area during rain events. Before it was filled-in during the 1950’s, it was described as a bog, wetland and swamp. Currently the City considers the Park as part of its stormwater management system and has designed and programmed facilities that are conducive to its function as a stormwater holding area during high-volume rain events. To assist with drainage and surface water runoff the City has constructed a permeant rain garden that helps clean and filter water and contributes to localized groundwater recharge.

The City has constructed a second rain garden in the Birch Easement to serve as a natural stormwater management feature. The Birch Easement rain garden functions to help slow and clean stormwater runoff from local roadways prior to being discharged in White Bear Lake. Both rain gardens require regular programmed maintenance and management to function properly as stormwater features.

Soils & Vegetation

Birchwood Village’s native soils are predominantly sand of various classifications. Close to the lake, the Kingsly fine sandy loam predominates, which is considered to have a slight degree of limitation for building and can be prone to erosion on steeper slopes. The outcrop of rock that goes through this area is called the Birchwood Outcrop. The south-central portion of the City contains Pemroy loamy fine sand. This soil type presents a severe erosion hazard when found on slopes greater than 12% that are found in this area of the City. This soil also tends to be rather impermeable, which makes localized groundwater recharge more challenging. Some ledge rock is encountered at scattered locations throughout the City. Detailed information on surface soil types is available from the Washington County Soil and Water Conservation District.

Aquatic vegetation is found in the marsh areas, and the land areas that were once farmland in the southwest portion of the community are heavily vegetated with a variety of trees that were primarily planted as new neighborhoods were developed.

Overall, Birchwood Village is extensively wooded with many large Oaks and Maples throughout the community. Birchwood Village has expressed concern of the dominant presence of Oak ~~and~~, Elm, ~~and~~ Ash groups of trees because of the prevalence of Oak Wilt, ~~and~~ Dutch Elm Disease, Bur Oak Blight, the threat of Emerald Ash Borer, and the lack of options to prevent trees from becoming diseased. Given the age of the City's neighborhoods, the trees are also aging and loss of trees and tree limbs due to inclement weather and aging is becoming more prevalent. Losing these old growth large trees, if not replaced, will have a significant visual impact on Birchwood Village in the future.

The City has since adopted a tree preservation ordinance to ensure that significant trees are preserved or any loss of trees are mitigated by a replacement plan.

In addition to the aging tree stock, the City has also experienced the increase of invasive species in the community and most notably the presence of buckthorn. Due to the severity of invasion, the Washington County Sentence to Service crews ~~spends~~ several weekends ~~every year for several years~~ cutting buckthorn. While Sentence to Service is free, the City must allocate resources for disposal of the wood. ~~Lately~~ ~~From years X to X1~~, volunteers have worked several weekends/year cutting down buckthorn. Other invasive species in the community include wild mustard and purple-loosestrife, which has most recently replaced many native species in Halls Marsh. There is no easy answer to eradicating this plant, and currently the City's best solution is to continue to work with volunteers and organizations on continued removal of this invasive plant from the community.

Commented [TL4]: Aakre: what years?

Wildlife is abundant in Birchwood Village, and the current population of deer in the area is beginning to also pose a threat to the native plants and trees. Unified Management management of the deer population with neighboring communities will need to be considered for ongoing natural resource protection.

Lakes and Wetlands

White Bear Lake itself is probably the community's most valuable natural resource, providing recreational activities both summer and winter, and acting as an effective moderator of ambient temperatures. The sloping terrain toward the lake provides many homes with sweeping vistas of open space.- The City and the citizens of Birchwood Village should be cognizant of this resource when applying chemicals.- Additionally, the City has identified tools and strategies within its Local ~~Surface~~-Water Resource Management Plan (LSWRMP) contained within the Comprehensive Plan that support the Rice Creek Watershed District and their efforts to protect and improve the Lake. (See Chapter 6.)

The other significant surface water feature in the community is the wetland area which is known as Hall's Marsh. The wetland area serves an important function in the City's surface water management and is also a place with native vegetation and open space for Birchwood Village's residents.

Planned Parks, Trails, Open Space and Natural Areas

The City's existing parks, trails, open spaces and natural areas provides the foundation from which the City can plan for the future of the system.- As noted in previous sections, and identified by residents within the survey, the existing system is an important and character defining element of the community.- As such, it is important to properly plan for the maintenance and management of the existing system, and also to identify opportunities to enhance and contribute to a more complete system for the City's future.

Focus on Trails (Pedestrian, Bikeways, and Multi-Purpose)

Many area residents have identified the desire to expand the pedestrian and bikeway network in the community and across its borders, and to make the trail network safer. The existing trails in Birchwood Village are not well connected to the region, and residents are supportive of establishing a safe route around the lake for pedestrians, bikers, and joggers. Previously the communities around White Bear Lake discussed establishing a bike and pedestrian trail around the lake connecting all communities called the Lake Links Trail. This concept is coming closer to fruition as Washington County leads the State of Minnesota has committed hundreds of thousands of dollars for planning and implementation of the effort to provide a connection, as noted and described in subsequent sections of this chapter. [Lake Links Trail](#).

At the local level, residents are conflicted about how to balance the desire for improved trail connections for pedestrians and bicyclists while still protecting existing neighborhood patterns and character. There is some fear that any change will be less desirable than the current condition. Even though the discussion is difficult, it does not mean Birchwood Village should ignore opportunities to provide a more complete network as desired by residents. Instead, Birchwood Village intends to plan for a more complete system while giving proper consideration to those that will be most affected or impacted by potential improvements.

LOCAL TRAILS AND UNIMPROVED EASEMENT AREAS

One of the City's priorities is the preservation of the natural charm of its existing neighborhoods and the privacy of its citizens. This must be considered in terms of the collective community, and how individual property owner's desires for privacy can be balanced with opportunities to create a more complete trail system. The residents that have the potential to be most negatively affected by improvements within these unimproved right-of-way areas are those that adjoin the easement/right-of-way and have enjoyed this publicly owned property as essentially an extension to their private lots. While this is understandable, it must also be noted that these areas were dedicated for public use as a road right-of-way, and that a trail is a far less intense use than what was contemplated for these areas. Since these areas were taken for public use, the City intends to plan for, and contemplate how the right-of-way areas may serve as trail connections.

The planning process will consider how a trail could be located within the right-of-way area but will also identify and work with adjacent property owners to identify what types of mitigation may be available to protect their privacy even with a public trail located nearby. For example, in areas where there is concern that trail users may venture off the trail, vegetation and landscaping including trees may help serve as a guide to keep users from venturing into private property. Or, for property owners concerned about trail users being able to see into adjacent homes or lots there may be opportunities to plant more mature conifers along the trail corridor. Birchwood Village is committed to improving trail access throughout the community because it benefits all of its residents, but the City is equally as committed to working with affected property owners to identify proper mitigation to help alleviate some of the concerns associated with greater trail access throughout the community.

BIKEWAYS

The Metropolitan Council has identified the City within one of the Regional Bicycle Transportation Network's (RBTN) future corridors. It is designated as a Tier 1 corridor, which according to the Metropolitan Council's 2040 Regional Parks Policy Plan a Tier 1 (high priority) network is identified where bicycle travel is greatest, population and job densities are highest, and where there were the most opportunities to connect regional job concentrations and activity centers with population center and the regional transit system. Given this criterion, Birchwood Village

is required to plan for the implementation of bicycle supporting facilities through 2040. As shown in Chapter 4, Figure 4-2, the entire City is within the Corridor, but based on the City's infrastructure, the most likely location for an on-road bike lane is along Wildwood ~~and~~ Lake Avenues ~~and a short bit on~~ Hall Avenues.

Reinforcing this alignment, Washington County just recently identified a corridor through Birchwood Village for bicycle traffic that is part of the Lake Links Trail. The Lake Links Trail aims to create a trail loop around White Bear ~~Lake~~ Lake and Silver Lake, an extension of the Bruce Vento Trail from Maplewood to the Hugo trail system, and trail links between each of these and to the Gateway Trail and Stillwater trail system. The Birchwood Village Trail Corridor totals 1.7 miles following Wildwood ~~and~~ Lake ~~and Hall~~ Avenues through the City.

PAVED AND UNPAVED TRAILS

While there is some desire for additional paved trails in the City for both bicycle and pedestrian traffic, there are more opportunities for turf trails or other soft-surface trails where the impact from a paved surface may be too significant. One of several key factors to be considered in any decision to construct new trails is whether the property owners of the property abutting the specific street right-of-way where the proposed trail is located are in favor of such trail. Another consideration is the type of usage contemplated by the trail and whether it is primarily intended to provide local resident access or whether it will serve a larger regional role. In the case of a new regional trail, whether such trail is on-road or road-separated, the trail should be constructed in a location that incorporates and considers the Lake Link and RBTN alignment and such trail should be paved to accommodate a higher level of usage. For those trails intended to improve local connections, a case-by-case review of anticipated use, as well as appropriate trail surface, should be conducted. The City's vision is that the trail system will provide a more complete system to local residents, and that a variety of trail surfaces will be available, creating a diverse and interesting trail experience for pedestrians and bicyclists.

Planned Acquisitions or Improvements to Parks and Open Space

As a fully developed community, Birchwood Village is not planning for any additional park or open space acquisitions in this planning period. However, the existing system, including underutilized park/open space land, will continue to be a priority for programming, maintenance and management to ensure the existing parks and open spaces continue to meet the needs of Birchwood Village residents. The following summary of planned considerations for parks and open spaces is provided:

UNDERUTILIZED LAND/PROGRAMMING CONSIDERATIONS

The City ~~currently~~ owns ~~several small lots/easements that could accommodate a small pocket park~~. Outlot A of the Lakewood Rearrangement, ~~for example, which is approximately 0.2 Acres but could fit. Though the property is small, it is perfectly sized to accommodate a small pocket park that could include~~ a tot-lot or other similarly scaled improvements. As noted in the existing parks and open space section ~~there are~~, some areas within the existing system ~~present opportunities~~ for improvements, such as near City Hall where continued enhancements to the City's green network and stormwater management system are possible as well as ~~Nording Park and areas~~ near existing Tighe-Schmitz Park and Halls Marsh. The City will continue to identify opportunities, even small opportunities, to enhance the City's system, including its green network, to make a more sustainable community for the future.

MAINTENANCE AND MANAGEMENT OF THE EXISTING SYSTEM

As indicated by the 2017 park survey, residents are particularly concerned with the existing conditions of the park and open space system. The existing park infrastructure such as paths, playground equipment, and ice rink all are experiencing deferred maintenance and replacement, or repair of these public assets was widely requested from residents in the 2017 park survey. An overall concern for the lack of maintenance with respect to the public space across the City is of great concern to the residents, with concerns including expressed concern regarding yard work required to upkeep these spaces such as weeding, mowing, and the removal of overgrowth and branches.

Commented [TL5]: Wingfield: replace with:
 The City recently expended significant sums of money for the replacement of its tennis court surface and ice rink warming house. The tennis surface now has a durable “Flex court” overlay that has helped reduce players’ joint pain and avoided the expensive cost of a total reconstruction. The ice rink warming house project replaced a deteriorated small shack and was spearheaded by a local contractor who coordinated the volunteer project to create a first class facility.
 The City has also embarked on a significant tree replanting program that will enhance its open spaces. Residents also coordinated the rebuilding of the water control weir at Hall’s Marsh that restores original water levels and improves storm water quality before it is discharged into White Bear Lake. This was an extremely complicated project that took many years of coordination and required working with the RCWD and neighboring community to ensure a positive outcome. Tighe-Schmitz Park also benefited because the groundwater levels are again stable in the area and water backing up into the park has been significantly reduced.
 The City also improved a connector to its walking trails by installing steps on a steep hill on Grotto easement. These steps now make the connection to the lake and City beaches safer for residents as they walk to these amenities.
 Residents requested the City to be more lenient with allowing dogs in public spaces. The City adopted new code which permits dogs at all city beaches, parks and open spaces provide the owner abides by all other provisions of the animal code.
 The park infrastructure such as some paths and playground equipment had been experiencing deferred maintenance or repairs. As a result of the concerns of the residents expressed in the 2017 survey, the city hired two part-time maintenance workers to weed, mow and remove overgrowth and branches. The work is ongoing, but residents have appreciated the improvements.

Natural Areas and Resiliency

The City’s existing right-of-way, trails, parks and open spaces all work together to form a green network in the community that promotes long-term sustainability and resiliency in the community. This concept is built on the idea of incorporating recreational, natural areas, trails, rights-of-way and open spaces into a connected network that can offer long-term benefits to the community.

While the City is not adopting a formal green network as part of this plan, the City has adopted and incorporated many of its green network principles which is evidenced by the extensive parks, open spaces, and natural areas in the community today. In concept, the City is adopting a green network as a way to promote resiliency of Birchwood Village over this planning period. Examples of land uses that the City considers part of the green network include:

- Active recreational park areas
- Passive recreational park areas and open spaces
- Conservation easements
- Utility easements and road rights-of-way (un paved shoulders, swales and ditches)
- Storm ponds and retention basins
- Swales
- Wetlands
- Rain gardens
- Porous paving and sustainable stormwater management areas
- Solar gardens/solar panels

The intent is that these land uses and features help to create a green network that is adaptable, and contributes not only to the City’s Parks, Trails and Open Space Network but to the sustainability of the community as a whole.

Resiliency can also refer to the health and wellness of residents, that when considered collectively with the green network provides offers the opportunity to provide access to nature, views, wildlife and places that reduce stress, recreational opportunities, community gathering spaces, greenery and places that reduce stress, and shade canopies that can reduce energy consumption. Connected spaces will also establish more walkability, bikability and accessibility within the City.

SOLAR ENERGY

The City’s existing land uses and vegetative patterns make solar access challenging particularly on individual home sites. There are some positives regarding this challenge – insofar as individual homes are shaded by an extensive tree canopy – but there are drawbacks in that individual property owners lack options for alternative energy such as solar. The existing solar access in the City is shown on Figure 5-3, and the associated potential solar generation is

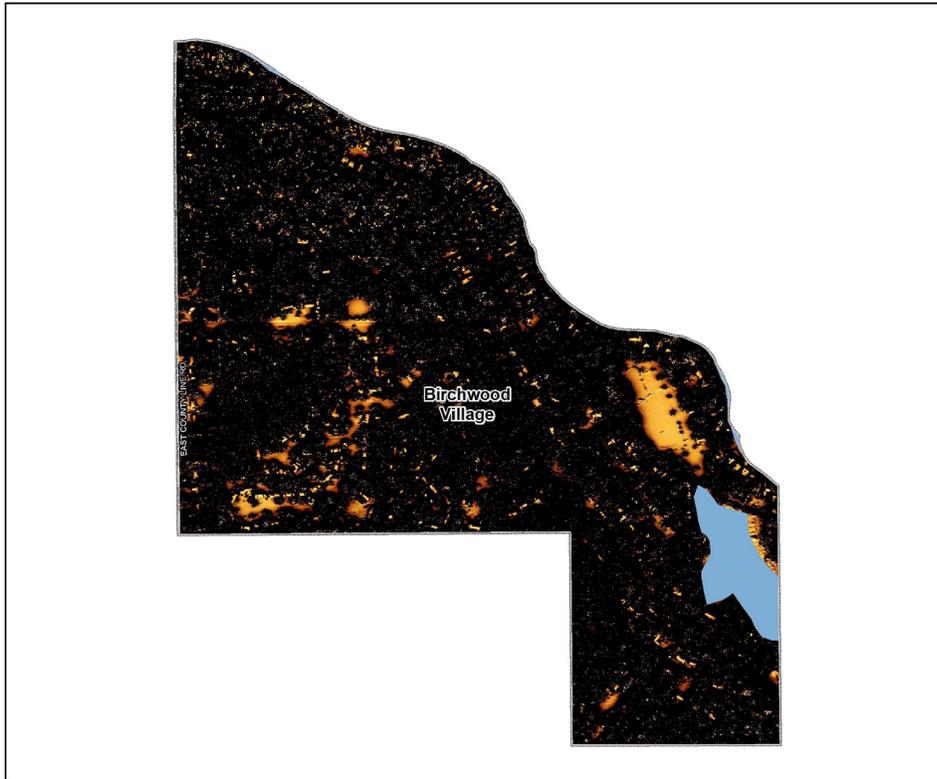
identified in Table 5-1. The City has co-opted with a solar garden in the area. ~~The garden is currently in planning and construction phases to ensure that the City's power consumption includes renewable resources.~~ When technology allows for it, Birchwood Village residents can access community solar gardens and services on an individual level, ~~which and services~~ are currently being considered by solar developers in the region.

Table 5-1: Gross and Rooftop Solar Resource Calculations

GROSS POTENTIAL (MWH/YR)	ROOFTOP POTENTIAL (MWH/YR)	GROSS GENERATION POTENTIAL (MWH/YR) ²	ROOFTOP GENERATION POTENTIAL (MWH/YR) ²
90,456	15,426	9,045	1,542

DRAFT

Figure 5-3. Solar Access



12/1/2016



- Gross Solar Potential
(Watt-hours per Year)**
- High : 1269018
 - Low : 900002
 - Solar Potential under 900,000 watt-hours per year
 - County Boundaries
 - City and Township Boundaries
 - Open Water Features

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

CHAPTER 6: ~~SURFACE WATER~~ RESOURCES

Introduction

This section of the Birchwood Village 2040 Comprehensive Plan serves to outline ~~surface~~ water resources management in the City for the purpose of conserving, protecting, and maintaining the quality of surface waters, ground water, and natural resources. The City is positioned to follow water management strategies and regulations set forth by the governing watershed district, Rice Creek Watershed District (RCWD). The Metropolitan Surface Water Management Act of 1982 identifies local watershed management organizations or watershed districts as the primary organization to prepare and implement comprehensive surface water management plans for local units of government in the seven-county metro area.

The goals of the Metropolitan Surface Water Management Act are to:

- protect, preserve, and use natural surface and groundwater storage and retention systems;
- minimize public capital expenditures needed to correct flooding and water quality problems;
- identify and plan for means to effectively protect and improve surface and groundwater quality;
- establish more uniform local policies and official controls for surface and groundwater management;
- prevent erosion of soil into surface water systems;
- promote groundwater recharge;
- protect and enhance fish and wildlife habitat and water recreational facilities; and
- secure the other benefits associated with the proper management of surface and groundwater.

(source MN Board of Water and Soil Resources, www.bwsr.mn.us)

This chapter therefore recognizes that the City of Birchwood Village follows and incorporates by reference the policies, standards, and procedures for surface water management required by the RCWD and that meet the provisions of Minnesota Statutes §473.157 and §103B.235, Minnesota Rules 8410.

~~Other~~ Organizations with jurisdictional influence for ~~surface~~-water resource management include Washington County, Rice Creek Watershed District (RCWD), the Metropolitan Council, State of Minnesota Agencies such as the Minnesota Pollution Control Agency (MPCA), the Minnesota Department of Natural Resources (MN DNR), the Minnesota Department of Health (MDH), and the Board of Soil and Water Resources (BWSR), plus Federal Agencies, most notably the Environmental Protection Agency (EPA), and U.S. Army Corp of Engineers, where applicable.

Birchwood Village Local ~~Surface-Water~~ Resources Management Plan

Plan Summary

As part of Thrive MSP 2040, the Metropolitan Council adopted a water resources policy plan with policies and strategies aimed to achieve the following goal for water management: “To protect, conserve, and utilize the region’s groundwater and surface water in ways that protect public health, support economic growth and development, maintain habitat and ecosystem health, and provide for recreational opportunities, which are essential to our region’s quality of life.” The City of Birchwood Village strives to match this goal through the implementation of policies and practices initiated by the City and also through the goals and policies of the Rice Creek Watershed District (RCWD). Birchwood Village falls completely within the RCWD, and watershed management plans and standards for the RCWD are adopted and incorporated by reference herein.

The single greatest issue facing the City is the problems associated with stormwater runoff—especially runoff into White Bear Lake. Since Birchwood Village is considered built-out, there is little potential for significant increases of impervious surface that contribute to greater rates of runoff as current development and infrastructure patterns are maintained. However, pollutants entering the lakes and wetlands untreated are still an area of concern as much of the area was developed before surface water rose to the level of current concern. The City has plans in place to address such concerns as described in this chapter.-

This chapter of the 2040 Comprehensive Plan for Birchwood Village therefore serves as the Local ~~Surface-Water~~ Resources Management Plan (LSWRMP) to guide the protection and management of surface waters, ground water, and related natural resources in the City and meets the requirements of applicable state statutes, the Metropolitan Council, and the local watershed district (RCWD). The LSWRMP is intended to comply with current regulations and requirements of these organizations.

Local Water Management Responsibilities and Related Agreements

The City is wholly within the RCWD which requires permits for development, redevelopment and land disturbing activities. The RCWD has adopted rules ~~including but not limited to the following: that require permit applicants to address~~ storm water management, (including volume and rate control, ~~and~~ water quality), erosion and sediment control, wetland ~~alterations~~, and floodplain ~~alteration~~.- The RCWD is also the designated Local Unit of government for purposes of the State of Minnesota Wetland Conservation Act. Birchwood Village requests RCWD to continue to implement these rules and regulations and issue permits for the City.

Table 6-1. ~~Surface-Water~~ Resource Jurisdiction within the City of Birchwood Village

MANAGEMENT ENTITY	JURISDICTION
US Army Corp of Engineers	All jurisdictional wetlands
MN DNR	DNR protected waters & wetlands extending to the ordinary high-water elevation or top of stream banks
MPCA	Water quality through 401 certification and NPDES
RCWD	All wetlands and activities that interact with surface waters

City of Birchwood Village	Activities that affect wetlands and surface water
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PLAN REVISIONS AND AMENDMENT PROCEDURES

Birchwood’s LWRMP is intended to guide the City over the next 10 years. To keep current with local practices and policies during this timeframe and address unintended issues, the City may need to revise and update its LSWRMP from time to time. Written petitions from residents for amendments must be submitted to City staff and provide supporting information for the request. City staff may also propose amendments. Any amendments deemed feasible by the City must be approved by RCWD, Washington County, and the Metropolitan Council before adoption into the Plan.

PHYSICAL ENVIRONMENT AND LAND USE

EXISTING & FUTURE LAND USE AND PHYSICAL ENVIRONMENT

Birchwood Village was incorporated in 1921 and consists of approximately 250 acres on the south shore of White Bear Lake in Washington County and is fully within the jurisdiction of Rice Creek Watershed District. The City is considered fully developed and is home to approximately 800 residents. The existing and future land use is dominated by residential uses, with a small percentage of the land use for right-of-way, roadways, parks and open space. (See Figure 2-1. Existing Land Use Map, 2018 and Figure 2-2. Existing Zoning Map, 2018.) The population and development in the City are expected to remain relatively unchanged during this planning period, with only small in-fill or redevelopment anticipated at current densities. (See Figure 2-3: Future Land Use Map, 2018.)

The physical environment of Birchwood Village is primarily a wooded setting of cottages and homes tucked into the trees and along the lakeshore. Topography is generally flat with small areas of sloped land along the shores of White Bear Lake. There is only one public water body in Birchwood Village outside of adjacent White Bear Lake called Hall’s Marsh – a small wetland complex ~~is~~ located on the east side of the City between Lake Avenue and Hall Avenue. It is adjacent to a local park in the City, Tighe-Schmitz Park, just inland from the White Bear Lake. ~~(Lost Lake a public waterbody just outside Birchwood Village boundaries.)~~ Lost Lake is a public water body located mostly outside the city boundary, however, there is a small portion of the lake along Hall Avenue that is in Birchwood.

Vegetative cover in the City is consistent with lake area communities ~~and as~~ described by the Minnesota Land Cover Classification System (MLCCS) (See see Figure 6-1. Minnesota Land Cover Classification System MLCCS.). The bedrock in the City is mostly St. Peter sandstone and Platteville-Glenwood formations. More information about the topography, geology, soils, and climate can be found in the Rice Creek Watershed District Watershed Management Plan, accessible online ~~here:~~ at <http://www.ricecreek.org/> ~~and Washington County’s Groundwater Plan, accessible at:~~ https://www.co.washington.mn.us/1212/Plans.

SURFACE WATER AND STORMWATER DRAINAGE

Birchwood Village is in the Clearwater Creek sub-watershed of the RCWD. The City’s drainage areas and paths of stormwater runoff are shown in Figures 6-2A & 6-2B. Information about the volumes and rates of stormwater runoff in the City can be found in the RCWD’s Watershed Management Plan and the RCWD’s hydraulic and hydrologic modeling for this sub-watershed. Figure 6-23. RCWD Planning Regions illustrates the sub-watershed boundaries.

Current modeling does not indicate issues with existing or future increased runoff within the City. More information can also be found online at <http://www.ricecreek.org> in the RCWD Future Conditions Modeling Report, February 2016.

The City is responsible for following standards that prevent or mitigate pollutants as a result of development, new construction, remodeling or re-development.- All new development, new construction, remodeling or re-development must conform to the Nationwide Urban Runoff Program (NURP) standards, requirements of the National Pollutant Discharge Elimination System's (NPDES), Storm Water Pollution Prevention Plan (SWPPP), the MS4 Permit, and the MPCA's best management practices for erosion and sedimentation control. The City's SWPPP and MS4 are included in the Appendix for reference.

Figure 6-1. Minnesota Land Cover Classification System Map

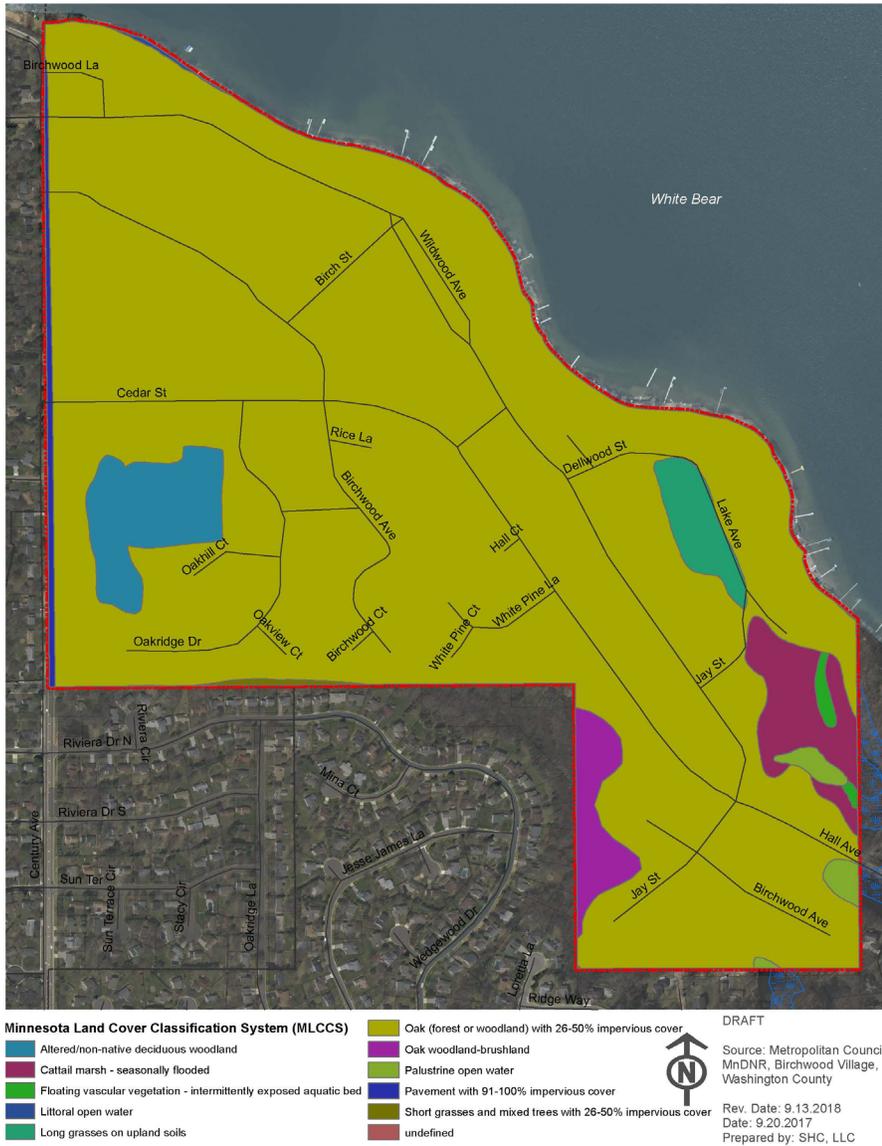


Figure 6-2A: Birchwood Stormwater Runoff Map

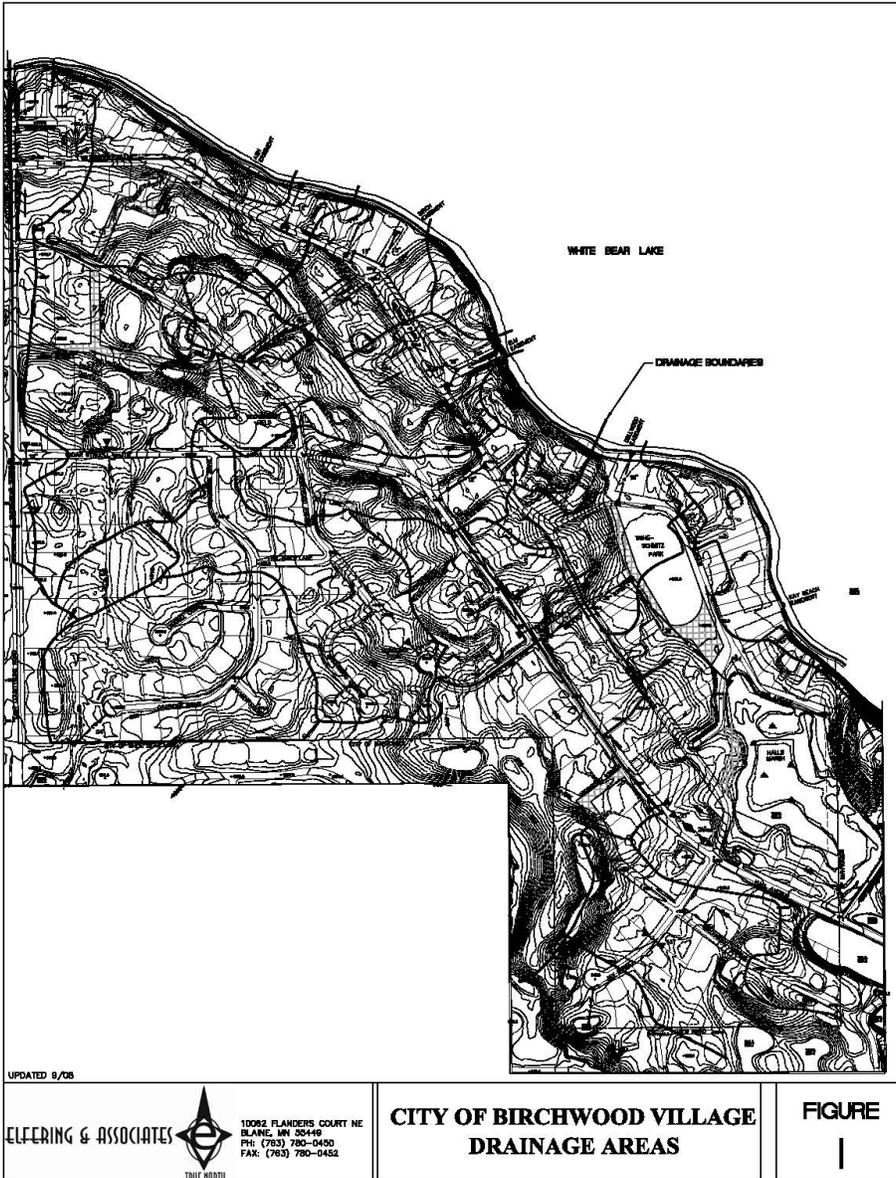
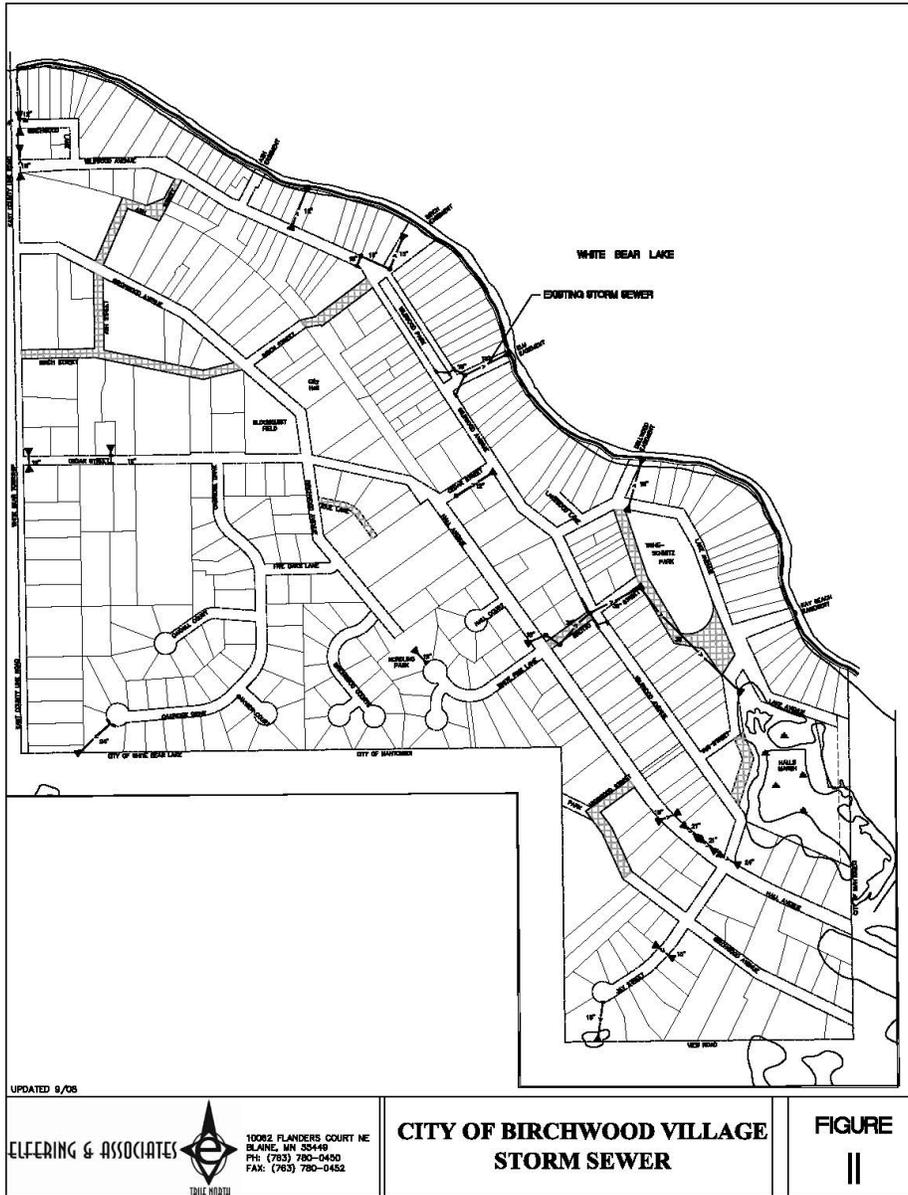


Figure 6-2B: Birchwood Storm Sewer Map



Some streets in Birchwood Village are constructed with rural road sections, and runoff primarily drains to street edges, swales, and vegetated shoulders. There are several catch basins and swales that drain directly to White Bear Lake. Changes to some of these have improved the quality of runoff water reaching the lake and are described below.

In 1965, in conjunction with the construction of some newly curbed streets, runoff was concentrated to the point where storm sewer culverts became necessary at a few locations to prevent erosion or to conduct runoff through park areas where the presence of open ditches were considered undesirable.

No additional storm sewers were needed until the early 1970's when residential development in new areas began to precipitate concerns about increasing runoff rates. In 1974, in conjunction with the platting of Birchwood Ridge #2, a 20-foot wide public easement was provided to enable future construction of a storm sewer along White Pine Lane and Grotto Street to the lake. In early 1980's, the Priebe Lake Outfall project was constructed in this area by the RCWD. Priebe Lake lies within the City of White Bear Lake, but the outfall passes through Birchwood Village to Hall's Marsh.

PUBLIC WATERS

There are three waterbodies listed by the City as public waters:

- White Bear Lake DNR ID #82-167 OHW 924.7~~ft~~^{89ft}
- Hall's Marsh DNR ID #82-480W OHW 924.7ft
- Lost Lake DNR ID #82-~~124-134~~ OHW 925.6ft

Lost Lake is located mostly outside the City boundaries, ~~but some~~ runoff from the immediate area ~~far eastern~~ portion of Birchwood does drain into the water body and is therefore included within the City's inventory.

Within the boundaries of Birchwood Village there is only one body of water that is listed on the 303d impaired waters list: White Bear Lake (MPCA www.pca.state.mn.us). The lake is listed as impaired water 82-0167-00 under the use classes of 2B and 3C. Lost Lake is located just outside of the City's south-eastern boundary but is also listed as an impaired water as 82-0134-01 and 82-0134-02 under the use class of 2B and 3C.

Groundwater

The City of Birchwood Village follows regulations and standards for groundwater protection, preservation, and use from various state and local agencies charged with monitoring and regulating water quality and consumption. These agencies include:

- The MPCA, which monitors water quality and enforces laws relating to water pollution.
- The Minnesota Geological Survey which compiles a state inventory of groundwater resources.
- The DNR which regulates the usage rate and volume of drinking water. Domestic water use is regulated with permits. Use in excess of 25 people or use that exceeds 10,000 gallons per day or 1,000,000 gallons per year must obtain a water appropriation permit from the DNR.
- The Minnesota Department of Health (MDH) is responsible for environmental groundwater quality protection and facilitates well abandonment and installation of new wells.
- Rice Creek Watershed District ~~is generally responsible for groundwater protection and use along with their role in cooperating and assisting state agencies in groundwater protection efforts~~ services

in an advisory capacity related to groundwater protection and use and cooperates and assists state agencies in their groundwater protection efforts.

The city recently adopted a water sprinkling code that prohibits watering during specific daylight hours. Residents believe water conservation is important and have asked the city to contact violators when others are watering in violation of this code. The City monitors water usage by individual residents to determine if there is any excess usage. The City has reached out to those to provide advice on moisture monitors for their sprinkling systems or to check for leaks in their systems. Finally, the City has adopted water rates that encourage efficient use of this resource and imposes significantly higher fees for excessive use. The success of this tool is still being reviewed.

Washington County developed the Washington County Groundwater Plan that provides a county-wide structure for preserving and protecting the county's groundwater supply. The groundwater plan can be found online at <https://www.co.washington.mn.us/DocumentCenter/View/794>.

Birchwood Village is fully within the Metropolitan Urban Service Area (MUSA) and serviced with municipal water and sanitary sewer. Private septic systems are not a concern for groundwater issues in this area.

EXISTING AND POTENTIAL WATER RESOURCE-RELATED PROBLEMS

EXISTING WATER RESOURCE PROBLEMS

~~As noted, the City is located adjacent to White Bear Lake. White Bear Lake is listed on the MPCA 303d Impaired Waters list for mercury. There are currently state laws that require households to recycle fluorescent lamps, ban items that contain mercury in toys, games, apparel, and thermometers, and require removal prior to demolition of homes. Birchwood Village will promote the proper disposal of items that contain mercury.~~

Birchwood Village is regulated by MS4 on a few TMDLs, including the Peltier/Centerville Lake TMDL and the Upper Mississippi River Bacteria TMDL. One way the City has addressed the Peltier/Centerville Lake TMDL is by installing storm runoff catch basins and rain gardens to reduce the amount of sediment that runs into White Bear and Lost Lakes. The City replaced and expanded its rain garden at Birch easement in Fall 2018. One way the Upper Mississippi River Bacteria TMDL has been addressed is by requiring any person in custody or control over an animal to immediately remove and dispose of the animals feces in a sanitary manner (see Birchwood Code 605.044). The City adopted this ordinance in 2010 for the health and safety of all.

The City lies entirely within a moderate to highly vulnerable Drinking Water Supply Management Area (DWSMA). The source of all of the City's drinking water is from an underground aquifer and is supplied by the City of White Bear Lake. Some water from White Bear Lake has been found in the aquifer water supply. Accordingly, the City has little direct control over how its drinking water is drawn. The City established a Utilities Committee in 2014 to evaluate and make recommendations to the City Council about its water and sewer utilities. The Committee contributes to the protection of its sensitive water resource by monitoring and advising on city water usage rates. In 2017 the City replaced its toilets with low-flow water conserving toilets and encouraged residents to do the same by participating in a program designed to reduce the water demand on White Bear Lake.

Birchwood Village directly discharges storm water runoff to White Bear Lake at several points along the northwest side of the City. At most of these points sediment in the storm-water runoff used to enters the lake without any prior

treatment. A program was begun in 2007 to install storm sewer structures with sumps prior to the outlet point. The storm sewer outlets located at the Birch Easement and Elm Easement have had structures installed.

A large amount of storm water runoff enters directly into White Bear Lake at the intersection of East County Line Road and County Road F.- This runoff is heavily loaded with nutrients and sediment. ~~The City recently partnered with Ramsey County recently to install~~ a structure at this location to retard and treat storm water running off County 120 into White Bear Lake.

In recent years, the City has constructed multiple smaller projects to address storm water issues. The first, completed in 2002, consisted of installing a baffle on an outlet from the two catch basins on Oakridge Drive.- This baffle is designed to slow down the stormwater velocity coming out of the outlet, which drains into a swale running along property lines of homes in the City of White Bear Lake. A permanent erosion control blanket was installed along this swale in 2005.-

~~The City initiated a semi-annual, city-wide leaf pick up service a few years ago. This benefit has proven very popular with residents. It also has prevented significant amounts of phosphorus (released from the decaying leaf matter) from running off into White Bear Lake and contaminating the water. A semi-annual street sweeping policy provides more of the same benefit to the lake.~~

~~In 2006, the City installed a concrete cable swale along parallel to the existing bituminous Birch Easement/Owl Walkway. This swale is designed to remove sediment from the stormwater runoff while it is traveling through the swale, which in turn reduces the amount of sediment entering White Bear Lake. -The construction of this concrete swale also created a walking trail along the easement, since it was intended to direct the stormwater away from the walkway-eliminated the need for the existing bituminous swale to convey the stormwater. This concrete swale has not worked as effectively as it was intended. Stormwater is not slowed down and continues to course down the swale as well as the walkway, down Owl Street and into Birch easement. There is a continuous problem of the flow to the swale being blocked and water instead coursing down the walkway, down Owl Street and then into the lake.-~~

In 2007, three existing catch basins were removed along Wildwood Avenue and the Elm Beach Easement and replaced with new catch basins that have 4-foot sumps incorporated in them.- These 4-foot sumps ~~will~~ trap sediment in the catch basin, which ~~will~~ diminish the amount of sediment entering White Bear Lake.- Birchwood Village has outlined a maintenance schedule to clean structures with sumps every fall and spring.

~~In 2013, the City conducted inspections of all sumps to determine if cleaning or structural maintenance was required. The and condition of each sump can be viewed in the table below. All but three sumps required cleaning, and none required any structural maintenance. Inspections are ongoing.~~

POTENTIAL WATER RESOURCE PROBLEMS

As noted, the City is located adjacent to White Bear Lake. White Bear Lake is listed on the MPCA 303d Impaired Waters list for mercury. There are currently state laws that require households to recycle fluorescent lamps, ban items that contain mercury in toys, games, apparel, and thermometers, and require removal prior to demolition of homes. Birchwood Village will promote the proper disposal of items that contain mercury yearly in the Village Newsletter as well as an alert on its website.

~~In 2013, the City conducted inspections of all sumps to determine if cleaning or structural maintenance was required. The condition of each sump can be viewed in the table below. All but three sumps required cleaning, and~~

Commented [TL2]: Aakre: Was the cleaning completed? If so, we should note.

none required any structural maintenance. Inspections are ongoing.

Table 6-2. 2013 Sump Inspection Report

NUMBER / LOCATION	DEPTH-BELOW-OUTLET PIPE	CLEANING-REQUIRED	DATE	CONDITION-OF-STRUCTURE / MAINTENANCE NEEDED
West of Elm	2'	Yes	4/28/13	OK
165 Wildwood	0	Yes	4/28/13	OK
Hockey Rink	4.5'	No	4/28/13	OK
West of Birch Easement	2'	Yes	4/28/13	OK
At Birch Easement	2'	Yes	4/28/13	OK
At Elm Easement	2'	Yes	4/28/13	OK
East of Elm Easement	6"	Yes	4/28/13	OK
North End of Tighe-Schmitz Park	4'	No	4/28/13	OK
Cedar Street and Hall Ave	0.5'	Yes	4/28/13	OK
West side of Grotto Street and Wildwood	2-3'	No	4/28/13	OK

Source: City of Birchwood Village Sump Inspection Report, Dated 4/28/13.

The City of Birchwood Village continues to plan for the removal and replacement of existing catch basins with structures that include sumps to promote sediment reduction. There are approximately 12 catch basins/inlets that could be reconstructed at an approximate construction cost of \$5,500 each. To ensure that the project is of adequate size, the City will complete a minimum of three catch basin reconstructions with each project.

Birchwood Village installed a rainwater garden along Birch Easement in 2004. This garden collected substantial sediment from the roadway, which limited the effectiveness of the garden. The installation of the catch basins with sumps will aid in alleviating the amount of sediment entering the garden. The rainwater garden was replanted in 2008 and again in 2018 and will continue to be monitored.

The City has two public roadways adjacent to Halls Marsh, Iris Street and Lake Avenue. The roads run alongside the marsh for approximately half of the perimeter and the storm water runoff is directed to the marsh through the existing drainage patterns. There is also a culvert from Tighe-Schmitz Park that directly discharges into Halls Marsh. As part of a future street project, treatment of the storm water runoff is desired in order to promote a reduction in the sediment and nutrient loaded water from entering Halls Marsh. Possible government entities that may be involved with reducing the storm water runoff could be: Mahtomedi, Birchwood Village, Rice Creek Watershed District, Washington Conservation District, and the White Bear Lake Conservation District.

Commented [TL3]: Wingfield: IF THIS IS TRUE THEN the Lake Ave project needs to include this in the feasibility study

In May of 2017, the Washington Conservation District prepared the SE White Bear Lake Stormwater Retrofit Analysis for the Rice Creek Watershed District. This document analyzed and provided a prioritized list (ranked by

cost effectiveness) of stormwater retrofit recommendations to improve the treatment of stormwater runoff in several drainage areas connected to White Bear Lake, Lost Lake and Lake Washington. The analysis considers all of Birchwood Village’s runoff areas (catchments) and provides a detailed analysis with recommendations. Note that these catchments are not official and were created in order to rank practices more effectively by geographic area. The existing stormwater management practices within each catchment were analyzed for the annual pollutant loading of the following: Total Phosphorous (TP), Total Suspended Solids (TSS), and Water Quality Volume (WQV). (See Figure 6-34. Catchment Analysis Map). Although the City has not selected which SWA projects it plans to construct during this planning period, it will pull from this list when doing so.

Commented [TL4]: Wingfield: “plans to consider, it will review the recommendations as part of any feasibility study”

Table 6-3. Catchment Analysis Results

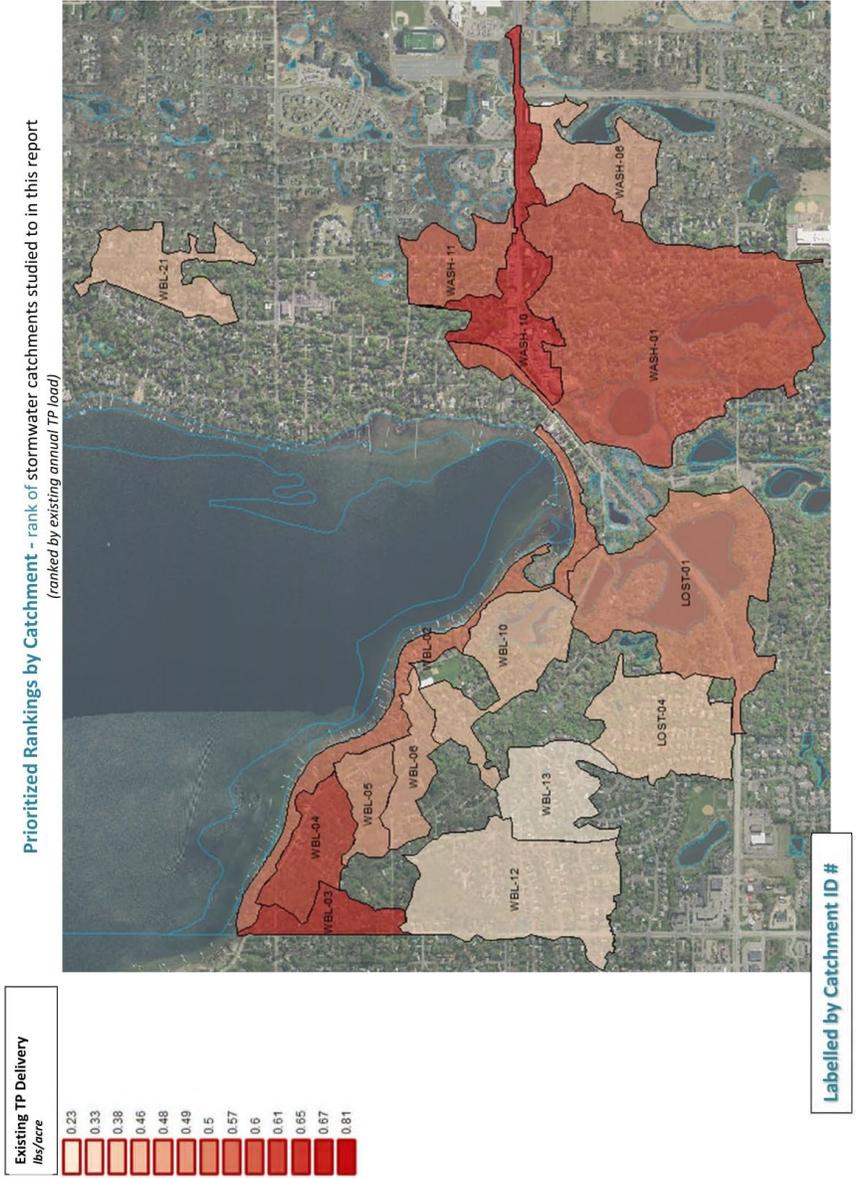
Project Rank	Catchment ID Lake-##	Retrofit Type	Projects Identified	TP Reduction (lb/yr)	TSS Reduction (lb/yr)	Volume Reduction (ac-ft/yr)	Total Cost	Annual Operations & Maintenance (2017 Dollars)	\$ Cost /lb-TP/year (10-year)	\$ Cost/ton-TSS/year (10-year)
1	LOST-01	Increased Street Sweeping to 4x per year	1	2.78	1209	0.00	\$784	\$0	\$28	\$130
2	WBL-02	Increased Street Sweeping to 4x per year	1	1.30	520	0.00	\$672	\$0	\$56	\$258
3	WBL-10	Increased Street Sweeping to 4x per year	1	1.07	464	0.00	\$820	\$0	\$77	\$354
4	WBL-04	Increased Street Sweeping to 4x per year	1	0.96	416	0.00	\$781	\$0	\$81	\$375
5	WBL-03	Increased Street Sweeping to 4x per year	1	0.50	216	0.00	\$798	\$0	\$160	\$739
6	WBL-05	Increased Street Sweeping to 4x per year	1	0.29	128	0.00	\$730	\$0	\$252	\$1,140
7	WBL-05	Increased Street Sweeping to 4x per year	1	0.26	114	0.00	\$721	\$0	\$277	\$1,265
8	WBL-04	BMP 29: Expand SAFL Baffle to Grit Chamber	1	1.99	691	0.00	\$8,100	\$200	\$528	\$3,730
9	WBL-03	BMP 0: Pipe Repair + Grit Chamber	2	2.28	1012	0.00	\$15,325	\$200	\$760	\$3,424
10	WBL-02	BMP 5: BioFiltration Basin	1	2.86	851	0.71	\$17,658	\$450	\$775	\$5,208

BIRCHWOOD VILLAGE 2040 COMPREHENSIVE PLAN

Project Rank	Catchment ID Lake-##	Retrofit Type	Projects Identified	TP Reduction (lb/yr)	TSS Reduction (lb/yr)	Volume Reduction (ac-ft/yr)	Total Cost	Annual Operations & Maintenance (2017 Dollars)	\$ Cost/lb-TP/Year (10-year)	\$ Cost/ton-TSS/year (10-year)
11	WBL-10	BMP 6: BioFiltration Basin in Park	1	3.81	849	0.95	\$23,050	\$750	\$802	\$7,197
12	WBL-06	BMP 31: Infiltration Basin South of Cedar Lower	1	1.23	464	0.19	\$9,104	\$225	\$923	\$4,894
13	WBL-05	BMP 4: BioFiltration Basin	1	1.53	588	0.99	\$10,291	\$400	\$934	\$4,861
14	WBL-04	BMP2: BioFiltration Basin in Front Yard	1	2.91	871	1.19	\$23,554	\$200	\$1,167	\$5,868
15	WBL-02	BMP:38-42: Swale with Riprap Sump	1	1.23	395	0.33	\$9,308	\$900	\$1,485	\$9,270
16	WBL-04	BMP3: Expand Swale and Sump	2	0.40	169	0.34	\$5,000	\$100	\$1,508	\$7,101
17	WBL-04	BMP30: Bioinfiltration Basin in Woods	1	1.27	478	0.64	\$18,950	\$200	\$1,648	\$8,766
18	WBL-06	BMP 33: Infiltration Basin North of Cedar	1	0.73	321	0.34	\$9,920	\$300	\$1,763	\$8,050
19	WBL-06	BMP 31 +32 ALT Combined	2	1.49	583	0.68	\$21,894	\$600	\$1,873	\$9,569
20	WBL-06	BMP 32: Infiltration Basin South of Cedar Upper	1	0.57	236	0.31	\$14,940	\$375	\$3,262	\$15,839
21	WBL-03	BMP 1: Curb Cut Raingarden	1	0.70	65	0.00	\$20,086	\$525	\$3,619	\$77,957
22	WBL-02	Typical Shoreline Restoration	20	3.00	500	0.00	\$73,400	\$5,850	\$4,397	\$52,760

Source: [South East White Bear Lake Stormwater Retrofit Analysis](#) (RCWD Management Plan, 2010)

See Figure 6-34. Catchment Analysis Map



Surface-Water Resources Goals & Policies

WATER SUSTAINABILITY GOALS

The water sustainability goals of Birchwood Village are in part shaped by the policy designations the City is required to meet as part of the Metropolitan Council's Thrive MSP 2040 Water Sustainability Policy as provided within the 2015 Birchwood Village System Statement. Birchwood Village falls into the Suburban Community Designation and with that includes the following water sustainability practices:

- Implement best management practices to control and treat storm water as redevelopment opportunities arise.
- Explore alternative water supply to ensure adequate water resources beyond 2040.

SURFACE-WATER RESOURCES MANAGEMENT POLICIES

1. ~~Designate~~ Continue to designate wetland alteration and mitigation requirements consistent with the Wetlands Conservation Act to Rice Creek Watershed District.
2. ~~Assist RCWD in implementing its~~ the Rice Creek Watershed District's Watershed Management Plan as it pertains to Birchwood.
3. Enforce the Minnesota Pollution Control Agency's urban best management practices; titled Protecting Water Quality in Urban Areas to reduce non-point source pollutant loadings in storm water runoff.
4. Require that storm water ponds meet the design standards of the National Urban Runoff Program; and
5. Enforce shore land management regulations of the Minnesota Department of Natural Resources.
6. Implement MS4 Permit and SWPPP best management practices.
7. The City of Birchwood Village reviews all building and land disturbance permits under one acre.- Rice Creek Watershed District reviews permits required for land development plans greater than 1 acre or having shoreland disturbance. Before the City gives its final approval, ~~to~~ the resident must obtain the required permits from the watershed district.
8. The City requests the RCWD continue to implement its rules and regulations and issue permits within the municipal boundaries of Birchwood Village.

General Standards for the City to meet compliance with RCWD rules and regulations include the following:

1. When possible, existing natural drainage ways, wetlands and vegetated soil surfaces must be used to convey, store, filter, and retain storm water runoff before discharge to public waters-, applying pre-treatment and energy dissipation methods prior to discharge.
2. Development must be planned and conducted in a manner that will minimize the extent of the disturbed areas, runoff, velocities, erosion potential, and reduce and delay runoff volumes.-
3. When development density, topographic features, and soil and vegetation conditions are not sufficient to adequately handle storm water runoff using natural features and vegetation, various types of constructed facilities such as diversions, settling basins, skimming devices, dikes, waterways, and ponds may be used.-

NPDES PHASE II

Birchwood Village is required to have a Municipal Separate Storm Sewer System (MS4) permit through the MPCA's National Pollutant Discharge Elimination System (NPDES) Phase II Program of the Minnesota Pollution Control Agency (MPCA). MS4 Permits are required for communities with urban development and populations over 10,000, or with urban development and populations over 5,000, that have potential to discharge to valuable or polluted waters.

In accordance with an MS4 Permit, Birchwood Village is required at a minimum to implement six control measures:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management
- Pollution Prevention/Good Housekeeping for Municipal Operations

For more information on the MS4 Permit requirements, see the MPCA's rules online at www.pca.state.mn.us.

OFFICIAL CONTROLS

Specific standards for land use development require:

- Impervious surface to be limited to 25 percent of the lot area
- No increase in the rate of storm water runoff from the parcel-
- Gutters and downspouts to have drain leaders routed to pervious areas
- No clear cutting of trees
- Natural vegetative buffer at shore land and wetland

Specific standards for infrastructure development require:

- New storm water outfalls to public waters or wetlands to provide for filtering or settling of suspended solids before discharge.
- Storm water detention facilities to be designed according to the most current technology, as recommended by the MPCA-, [including pretreatment and energy dissipation measures](#).

The City requires a grading and filling permit to minimize and control storm water runoff, prevent erosion and trap sediment during construction.- Provisions in the City code address size of disturbed area, length of exposure, use of temporary ground cover, use of runoff control devices such as silt fences, location of storage piles, and placement of fill material.-

The City of Birchwood Village maintains official controls for the purposes of water management and environment protection within their Municipal Code.

EDUCATION PROGRAM

As part of Birchwood Village's commitment to education, and an important component of the MS4 Permit compliance, the City will continue to organize education programs for increased public awareness and participation in local surface water management. Opportunities will continue to be presented for residents, business owners, developers, and others to help improve strategies and implementation for increasing water quality and reducing runoff in all areas of the City. Example programs may include:

- Wetland buffer delineation and management
- Best management practices for storm water infiltration
- Best management practices for storm water runoff reduction and control
- Invasive species control
- Conservation easements
- Sustainable groundwater recharge

COLLABORATION WITH AGENCIES & ORGANIZATIONS

There are a number of local, state, and federal agencies that have rules and regulations related to local water management. The City recognizes the roles of these other agencies and will cooperate, coordinate, and when possible partner with these agencies.

This chapter recognizes the many agencies and organizations involved with regulating surface water management. It is the intention of Birchwood Village to cooperate, collaborate, and coordinate efforts with these agencies to achieve successful water management within the City. Each of these organizations hosts various resources, plans, data, rules, and regulations for water management at the related website:

Federal

- Environmental Protection Agency www.epa.gov
- US Army Corps of Engineers www.mvp.usace.army.mil
- US Fish and Wildlife Service www.fws.gov

State

- Minnesota Environmental Quality Board www.eqb.state.mn.us
- Minnesota Department of Natural Resources www.dnr.state.mn.us
- Minnesota Pollution Control Agency www.pca.state.mn.us
- Minnesota Department of Health www.health.state.mn.us
- Board of Water and Soil Resources www.bwsr.state.mn.us
- Minnesota Department of Agriculture www.mda.state.mn.us

County

- Washington County <http://www.co.washington.mn.us/>
- Washington Conservation District <http://www.mnwcd.org/>

Regional

- Rice Creek Watershed District www.rjccreekwd.org
- Metropolitan Council www.metrocouncil.org

CHAPTER 7: WATER SUPPLY & SANITARY SYSTEMS

Introduction

This chapter of the 2040 Comprehensive Plan addresses water supply and wastewater (sanitary sewer) systems in the City of Birchwood Village. Consistent with the Metropolitan Council’s Thrive MSP 2040 planning and 2040 Water Resources Policy Plan. This chapter primarily intends to assist the Metropolitan Council Environmental Services (MCES) with continued operation of the Metropolitan Disposal System (MDS) for wastewater collection and treatment. Both Water Supply and Sanitary services are managed and maintained by authorities outside of the City of Birchwood Village. Intercommunity agreements for these services are included in the Appendix.

The City continues to educate and notify its residents that many substances and items are deleterious to the sanitary sewer system, resulting in significant maintenance and repair costs. An educational flyer is provided periodically in the quarterly Birchwood Village newsletter and is also sent to all new residents to be good stewards of the sewer system. The city also notifies residents when significant problems have occurred and solutions attained to ensure the residents are aware the City is working to achieve and manage a well-run sanitation system.

Commented [JA1]: Additional language per Paul S

Commented [TL2]: Wingfield: proposes adding this after the first paragraph under subheading “Maintenance Issues,” which is under heading “Maintenance Report” in the “Wastewater (Sanitary) Sewer System” section.

Water Supply Plan

Since the 1960s, municipal water service has been supplied to residents of Birchwood Village by the City of White Bear Lake, which owns and maintains the municipal water supply utilities. Birchwood Village has a network of water mains consisting largely of 6-inch cast iron pipe. All repairs and maintenance of the system are ~~completed under the direction of the City Engineer and White Bear Public Works staff~~ contracted out and repairs are on as needed basis.

The City of Birchwood Village does not have any wells that feed the system, and all municipal water is purchased from the City of White Bear Lake. The connection for municipal water is located in the southwest corner of the City beneath East County Line Road. An additional water supply connection from White Bear Township was constructed in 1982 for emergency back-up use. A written agreement between the two communities is in place for this connection, which has been utilized in a very limited manner since 1982. The City also has the ability to draw water from the City of Mahtomedi during emergencies but has never needed to. No modifications or improvements to ~~this~~ these connections are necessary at this time.

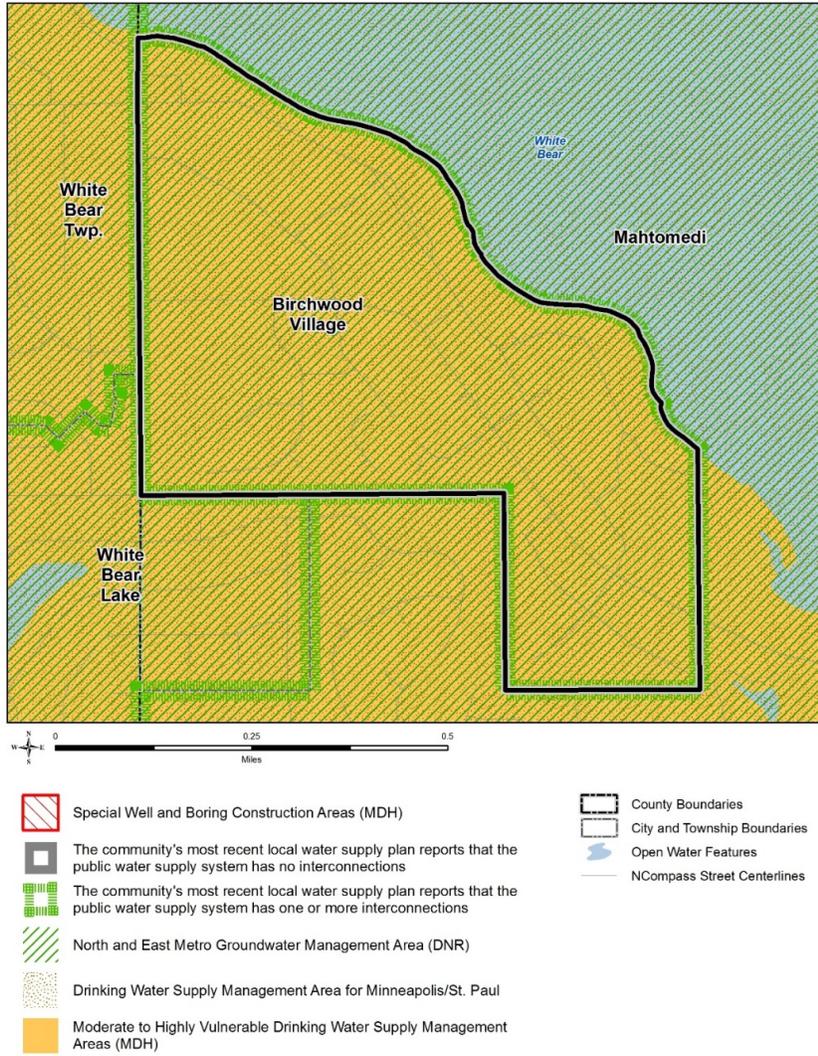
Commented [TL3]: Aakre: Assuming there is no expiration of this agreement?

~~The most recent update to the City’s water lines was complete in 2008.~~ There are no replacement projects or updates to the City’s water system currently planned. As the City does not manage its own water supply, a Water Supply Plan is not included as part of the 2040 Comprehensive Plan. More information about the local water supply plan can be found by contacting the City of White Bear Lake. However, the City is evaluating potential efforts to reduce unnecessary water usage amongst residents.

Figure 7-1 shows Birchwood Village and its inclusion within an area identified with moderate to highly vulnerable drinking water supply management—an issue managed by the City of White Bear Lake.

Figure 7-1. Municipal Public Water Supply System

**Municipal Public Water Supply System Interconnections and Management Areas
Birchwood Village, Washington County**



Wastewater (Sanitary) Sewer System

System Features

The City of Birchwood Village is served by the regional sanitary sewer service. The sanitary sewer system, as shown in Figure 7-2, is owned by Birchwood and considered its own district, and it is managed by White Bear Township. Birchwood Village is located within the Metropolitan Council’s District 12. It does not have a wastewater treatment facility.

The original mains are predominately 9-inch clay pipe and installed in 1964. The system is served by three lift stations located at 1) the Dellwood Easement (north of Tighe-Schmitz Park), 2) the north west end of Wildwood Park, and 3) at the west end of Birchwood Lane near East County Line Road. All effluent entering the City’s system is passed into the Metropolitan Council Environmental Services (MCES) sewer and ultimately treated at the Pigs Eye Treatment Plant in St. Paul. The waste enters their City’s MCES system through a gravity interceptor beneath E County Line Road on the western border of the City (see Figure 7-2). A metering station is also located at this connection point denoted as meter M028A, as seen on Figure 7-3. The Metropolitan Council has the following estimations for the wastewater flow from Birchwood Village.

Prior to 2015 the city relied on its sewer contractor to provide emergency generator service to its lift stations in the event of a power outage. This left some residents who had sewer pipe elevations similar to the lift station vulnerable to sewage back up. As a result, the city purchased and installed a large, permanent generator that automatically starts when a power outage occurs. The generator has been used on a few occasions already and has proved to be a wise investment.

The City also installed a SCADA monitoring system of its lift stations that allows the stations to be monitored off site. Significantly reducing site visits has created substantial savings to the city with no reduction in service and maintenance.

Table 7-1 Birchwood Village Adjusted Projections

	2020	2030	2040
Population	850	830	800
Households	351	360	360
Employment	25	30	30
Average Wastewater Flow (MGD)	0.05	0.05	0.05
Allowable Peak Flow (MGD)	0.23	0.23	0.23

Source: Metropolitan Council (Peak Flow Factor = 4.5)

SYSTEM FLOWS AND CAPACITY

It is anticipated that the total volume of wastewater flow will not change significantly through 2040, and there will therefore be no need to upgrade existing infrastructure. All future investments for Birchwood Village’s sanitary sewer system will be in the maintenance, repair, or replacement of the existing pipes and lift stations. The sanitary sewer

system must be capable of handling the anticipated peak flows, estimated by applying a peak flow factor to the average flow. The peak flow factor accounts for flow variability and includes an allowance for infiltration and inflow.

System flows have been estimated for current (2018) conditions as well as 2040 projected land use conditions. The average wastewater flow from each sanitary sewer district has been estimated by applying unit flow rates to each land use category. ~~These estimates, along with trunk line capacities, are summarized in Tables 7-2 and 7-3.~~ The existing trunk system ~~shown in Tables 7-2 and 7-3~~ has adequate capacity for the estimated flows. ~~[confirm]~~

INFLOW AND INFILTRATION

MCES I/I Surcharge Program

In February of 2006, Metropolitan Council instituted its Inflow/Infiltration (I/I) Surcharge Program. The fundamental policy statement summarizing this program is that Metropolitan Council “will not provide additional capacity within its interceptor system to serve excessive inflow and infiltration.” The Council establishes inflow and infiltration thresholds for each of the communities that use its system. Communities that exceed this threshold were required to eliminate this excess flow within a reasonable time-frame or pay a surcharge fee. In 2013, Metropolitan Council instituted a wastewater demand charge program for communities that did not meet their inflow and infiltration goal(s).

Infiltration and Inflow Prevention

The City of Birchwood Village has several measures in place to prevent infiltration and inflow (I/I) into the sanitary sewer mains. Ordinance 202.100 states that it shall be unlawful for anyone to direct storm water, surface water, ground water, or water from air conditioning systems into the sanitary sewer and prohibits the connection of sump pumps, rain leaders, and passive drain tile to the sanitary sewer system. In addition, ~~the mains are monitored via closed-circuit television to allow the City to pinpoint areas of high infiltration and take corrective action~~ the City installed a SCADA system to monitor any abnormal change in flow volume.

MAINTENANCE REPORT

Birchwood Village had its entire sanitary sewer system televised during the summer of 2003. Approximately half of the system was found to have significant deterioration and/or had high amounts of infiltration. In order to prevent further deterioration of the lines to the point where open trench replacement would be necessary, rehabilitation of approximately one-half of the mains by lining the sewer was done. This work was completed in the winter of 2005. In 2006, the sanitary sewer along Birchwood Lane was also rehabilitated by the cured in place pipe process. These mains are now 8-inch plastic pipe. An additional section was rehabilitated in 2008, using the same method.

On August 30th, 2017 a closed-circuit television inspection was conducted again ~~of on the~~ 2,600 feet of remaining sanitary sewer lines not included in Birchwood Village the previous cured in pipe projects. It was determined from the inspection that 2,565 feet of unlined sanitary sewer needed to be rehabilitated with cured-in-place piping (CIPP). The CIPP project will extend the life of the pipes 50-100 years. The sections of pipe ~~are were~~ located in four separate areas throughout the City, and a total cost of the project ~~is estimated at was~~ \$95,000100. Funding for the project ~~will bewas~~

provided half from city funds and half from assessments to the properties that benefit from the project. This proposal was approved to move forward by the City Council on November 14th, 2017 **and completed in the first half of 2018.**

There are three lift stations within Birchwood Village. The Birchwood Lane Lift Station was reconstructed in 1997. In addition, the piping from the lift station to the wet well was replaced in October 2006. The Wildwood Lift Station was reconstructed in 2001. The reconstruction of the lift station consisted of removing and installing new pumps and piping inside the existing concrete structure. The Dellwood Lift Station was completely replaced in 2004. This work included removing and constructing a new concrete structure and installing new pumps and piping inside the structure. ~~The pumps in these three stations should be adequate for 20 years past their installation date and the structures should be adequate for 50 years past their installation date. Ongoing maintenance of the three lift stations will still be necessary.~~

Commented [TL4]: Aakre: Do we need to reference the issue with the lift system we are dealing with now?

Maintenance Issues

There are several areas where gravity sanitary sewer is located outside of street right-of-way. These areas are located behind 127-173 Birchwood Avenue, behind 146-152 Wildwood Avenue, behind 101-117 Wildwood Avenue and along White Bear Lake between 339 Wildwood Avenue and the Dellwood Easement. Access to these locations with conventional maintenance equipment is extremely difficult, if not impossible. The City has discussed the need for additional easements that would be necessary to gain access. The fact that these sewers are located in wooded or inaccessible areas leads to significant concerns regarding root problems. All these mains have been reviewed as part of the televising that was completed and will continue to be monitored.

Commented [TL5]: Wingfield: proposes putting Paul S language here (see first page of this chapter

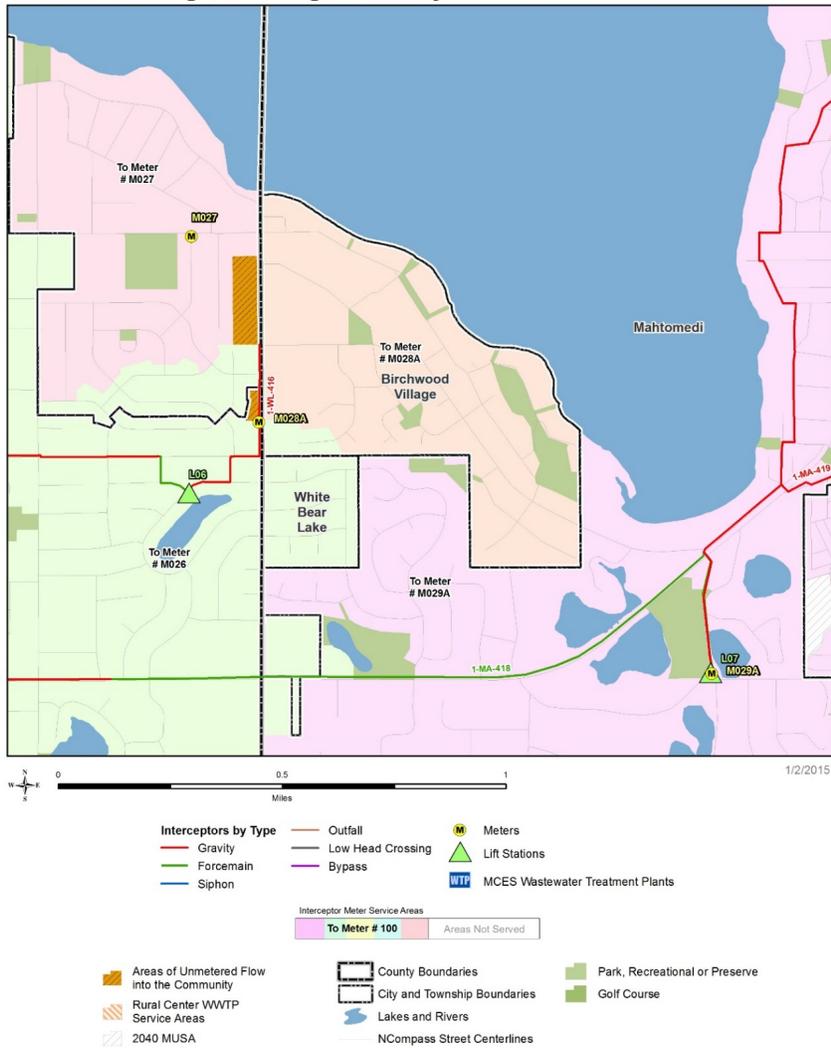
The pumps in the Birchwood Lane station have recently begun to fail. The City is working with White Bear Township to remove this station from the City's sanitary sewer system and move its service to a nearby station owned by and located in White Bear Township. The pumps in these threetwo stations should be adequate for 20 years past their installation date and the structures should be adequate for 50 years past their installation date. Ongoing maintenance of the remaining three lift stations will still be necessary.

Commented [TL6]: Wingfield: replace with "The Birchwood Lane lift station is functionally obsolete and one of its pumps recently failed. This situation created an opportunity for the City to work with White Bear Township to efficiently address the problem of providing sewer service for 13 homes. As a result, a gravity line will soon be built to connect to the White Bear Township system removing the need to build a new lift station as well as saving the ongoing annual maintenance and repair costs of an extra lift station. This partnership will provide tax savings by reducing unnecessary infrastructure redundancies. Ongoing maintenance of the remaining two lift stations will still be necessary."

~~There are three lift stations within Birchwood Village. The Birchwood Lane Lift Station was reconstructed in 1997. In addition, the piping from the lift station to the wet well was replaced in October 2006. The Wildwood Lift Station was reconstructed in 2001. The reconstruction of the lift station consisted of removing and installing new pumps and piping inside the existing concrete structure. The Dellwood Lift Station was completely replaced in 2004. This work included removing and constructing a new concrete structure and installing new pumps and piping inside the structure. The pumps in these three stations should be adequate for 20 years past their installation date and the structures should be adequate for 50 years past their installation date. Ongoing maintenance of the three lift stations will still be necessary.~~

Figure 7-3. MCES Sanitary Sewer Meter Service Areas

**MCES Sanitary Sewer Meter Service Areas
Birchwood Village, Washington County**



CHAPTER 8: IMPLEMENTATION

Introduction

As a small community, the City of Birchwood Village has to be methodical and selective about which initiatives it chooses to pursue. With both limited staff resources and budget available, it makes the City's relationship with adjacent municipalities and jurisdictions even more critical in order to ensure the City continues to be sustainable into its future. To that end, this implementation chapter identifies strategies that the City will employ over this planning period to bring this Comprehensive Plan Update to fruition. Birchwood Village is committed to maintaining the current quality of life for its residents, so many of the strategies that are identified are meant to reemphasize the importance of continuing with current efforts, relationships and initiatives. The purpose of a Comprehensive Plan is to be aspirational, so not only do the implementation strategies identify ways to maintain the current condition of the City but identify reasonable and modest improvements that would enhance the community and make it better for generations to come.

Generally, the following Implementation Strategies are organized according to the Chapters contained within this 2040 Plan Update. The implementation strategies listed below are not prioritized, but instead are priorities that should be given equal consideration and the City will capitalize on opportunities as they are presented.

Land Use

The following Implementation Strategies are provided to support the goals and objectives contained within Chapter 2: Land Use of this Comprehensive Plan Update.

- The City will support the Future Land Use Plan contained in this Comprehensive Plan through consistent zoning district designations and policies.
- The City will maintain an up-to-date official Zoning Map to implement this Comprehensive Plan.
- The City will review its zoning ordinance for consistency with the stated goals and objectives of this Comprehensive Plan.
- Redevelopment of existing single-family homes with major additions or teardowns will be monitored through this planning period, and appropriate review and update to existing ordinances will be performed as necessary.
- The City will continue to follow and monitor rule changes at the Minnesota Department of Natural Resources (MnDNR), and the watershed districts for shoreland and wetland policies (*e.g.*, structure setback and coverage requirements, coverage requirements, etc., for structures) and will make appropriate changes and updates to ordinanceordinances for consistency with regulatory agencies having jurisdiction within the City. The City will assign the City Attorney to track these changes and report yearly to the Council.

Housing

The following Implementation Strategies are provided to support the goals and objectives contained within Chapter 3: Housing of this Comprehensive Plan Update.

- The City will maintain its existing neighborhood pattern and quality by limiting, and in most cases, prohibiting, any commercial or business use.
- The City will review existing nuisance and administrative ordinances for necessary updates to ensure consistency with this Comprehensive Plan.
- The City will continue to support the City's existing housing stock and neighborhoods through appropriate code, and as needed, code enforcement.
- Protecting the City's housing stock through providing support through building permit review, land use application review and other permitting processes will continue to be a high priority for City Staff and resources over this planning period.

TRANSPORTATION

The following Implementation Strategies are provided to support the goals and objectives contained within Chapter 4: Transportation of this Comprehensive Plan Update.

- The City will prepare a Capital Improvement Plan (CIP) to plan and budget for maintenance of existing roadways and transportation systems that are the responsibility of the City.
 - › The CIP will plan for a minimum of a five (5) year time period and will be updated regularly.
- The City will continue to prioritize road improvements to ensure local roadways are safe, passible and maintained.
 - › Improvements will be monitored to ensure all roadways are maintained on a regular schedule to ensure that all roads remain at a safe standard.
- The City will continue to work with regional partners including counties, adjacent jurisdictions and Metro Transit to plan for appropriate transportation improvements that will benefit the residents of Birchwood Village.

PARKS, TRAILS AND OPEN SPACE

The following Implementation Strategies are provided to support the goals and objectives contained within Chapter 45: Parks, Trails and Open Space of this Comprehensive Plan Update.

- The City will ~~continue to~~ study opportunities to create a more complete trail system that will provide improved connections within the City and to the region.
- A Capital Improvement Plan (CIP) for the City's parks, trails and open space system will be developed to identify strategic and planned improvements to the system to ensure it is well maintained for generations to come. The City will complete a CIP that plans for a minimum of a ~~three-five (35)~~ year period, and once

prepared will continue to update the CIP ~~on an annual basis~~ regularly.

- The City will continue to use existing parks and open space land for recreational, natural resource protection, and surface water management features.- Given the City’s small size it is important for municipal owned properties to serve a variety of functions that provide benefits to the whole community.
- ~~In a survey, most residents had concerns about the maintenance of the City parks.~~ The City will create, maintain, implement and update a yearly maintenance plan. This plan will be placed on the City website.
- The City currently has playground equipment in two parks. It also has a hockey rink, tennis court and City Hall. These resources will also be included in the CIP and maintenance plans.
- The City will continue to research opportunities to reduce climate change impacts – like the recently entered into an agreement to purchase solar power from a local solar community garden entity that will ensure at least a portion of the City’s power consumption is from a renewable resource. The following are some of the issues the City will consider addressing:
 - Protect open spaces from chemicals including pesticides and herbicides
 - Increase the use of pollinators
 - Adopt a road salt/sand policy to reduce the impact on WBL
 - Review possible solutions to reduce carbon footprint.
 - Prohibit the use of certain chemicals that are hazardous for WBL, such as toxic seal coating materials.

TRANSPORTATION

The following Implementation Strategies are provided to support the goals and objectives contained within Chapter 5: ~~Transportation of this Comprehensive Plan Update.~~

- ~~The City will prepare a Capital Improvement Plan (CIP) to plan and budget for maintenance of existing roadways and transportation systems that are the responsibility of the City.~~
 - › ~~The CIP will plan for a minimum of a three (3) year time period and will be updated on an annual basis.~~
- ~~The City will continue to prioritize road improvements to ensure local roadways are safe, passible and maintained.~~
 - › ~~Improvements will be monitored to ensure all roadways are maintained on a regular schedule to ensure that all roads remain at a safe standard.~~
- ~~The City will continue to work with regional partners including the Countycounties, adjacent jurisdictions and Metro Transit to plan for appropriate transportation improvements that will benefit the residents of Birchwood Village.~~

SURFACE WATER RESOURCES

The following Implementation Strategies are provided to support the goals and objectives contained within Chapter 6: ~~Surface~~ Water Resources of this Comprehensive Plan Update.

- The City will continue to work with the Rice Creek Watershed District on implementation of its requirements and standards within the City.

- The City will cooperate with the Rice Creek Watershed District on any significant regional improvements that may affect the City of Birchwood Village.
- The City will prepare a CIP to implement this Comprehensive Plan and will address surface water related improvements.- The CIP will identify projects on a minimum of a ~~three-five~~ (35) year basis, and the City will work with Rice Creek Watershed District to identify key priorities and any potential grant opportunities.

WATER SUPPLY & SANITARY SYSTEMS

The following Implementation Strategies are provided to support the goals and objectives contained within Chapter 7: Water Supply & Sanitary Systems of this Comprehensive Plan Update.

- The City's sanitary sewer is currently monitored and managed through an intercommunity agreement with White Bear Township.- The City will maintain this agreement and work cooperatively with the Township on any future improvements to the system.
- The City's water supply is currently supplied by the City of White Bear Lake; monitored and managed maintenance through-is contracted out with repairs on an as needed basis an intercommunity agreement with the City of White Bear Lake. The City will maintain this these agreements and will work cooperatively on any future improvements to the system and evaluate strategies to reduce unnecessary water usage by residents.
 - › The City will continue to defer billing responsibility to the City of St. Anthony Village, which manages billing for municipal water and sewer services ~~from the City of White Bear Lake.~~ Birchwood Village will provide assistance as needed.
 - › The City will work collaboratively with the City of White Bear Lake through its contracted water superintendent on any issues regarding the Water Supply Permit with the MnDNR, or any required permits, to ensure safe and reliable drinking water is available to the City's residents.
- ~~The City recently entered into an agreement to purchase solar power from a local entity that will ensure at least a portion of the City's power consumption is from a renewable resource.~~

MAP EDITS

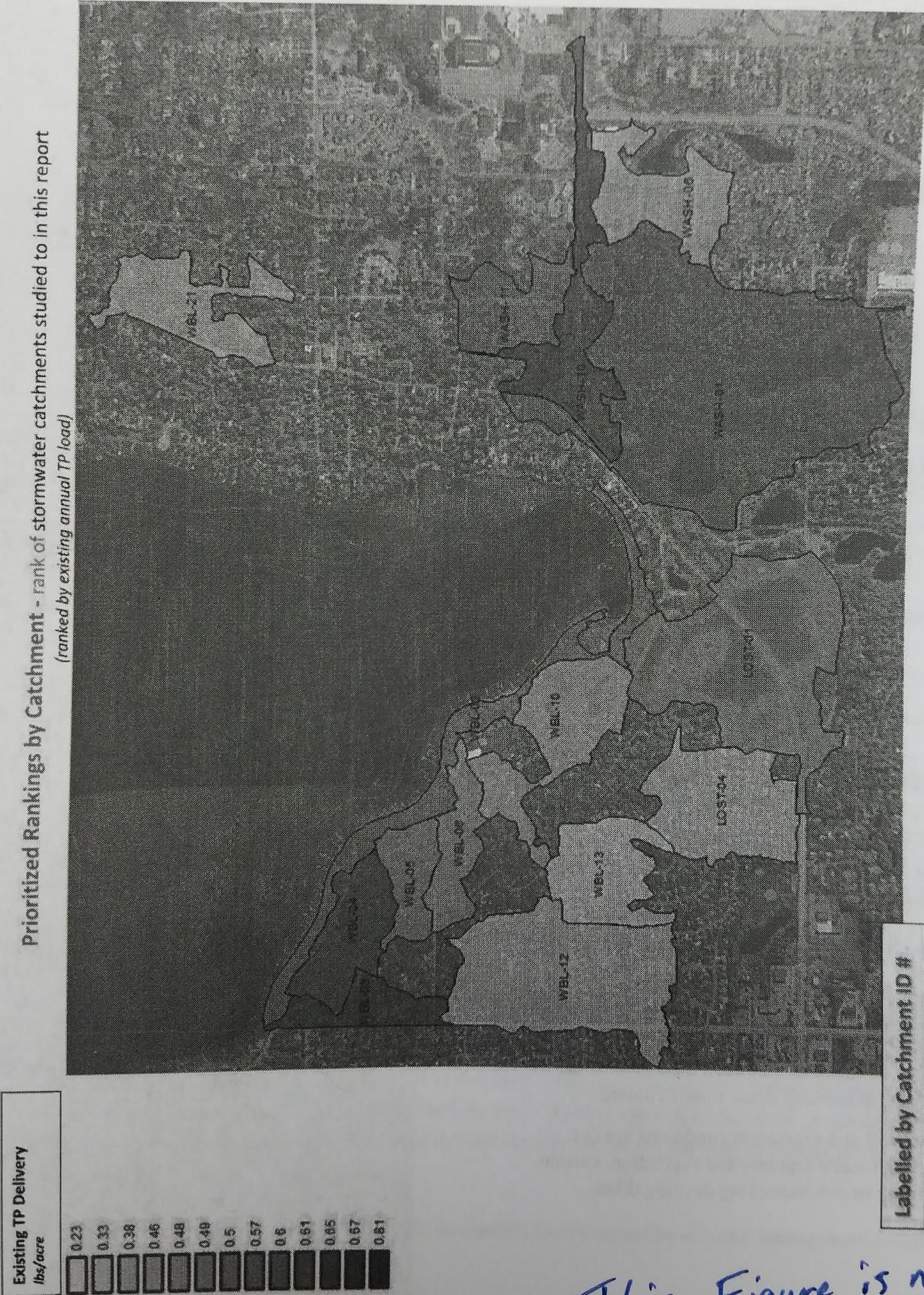
The enclosed are proposed edits to the Plan's Figures (maps).

These edits have not been made yet and must be made by the consultant who drafted the Plan.

6-4

See Figure ~~6-3~~ Catchment Analysis Map

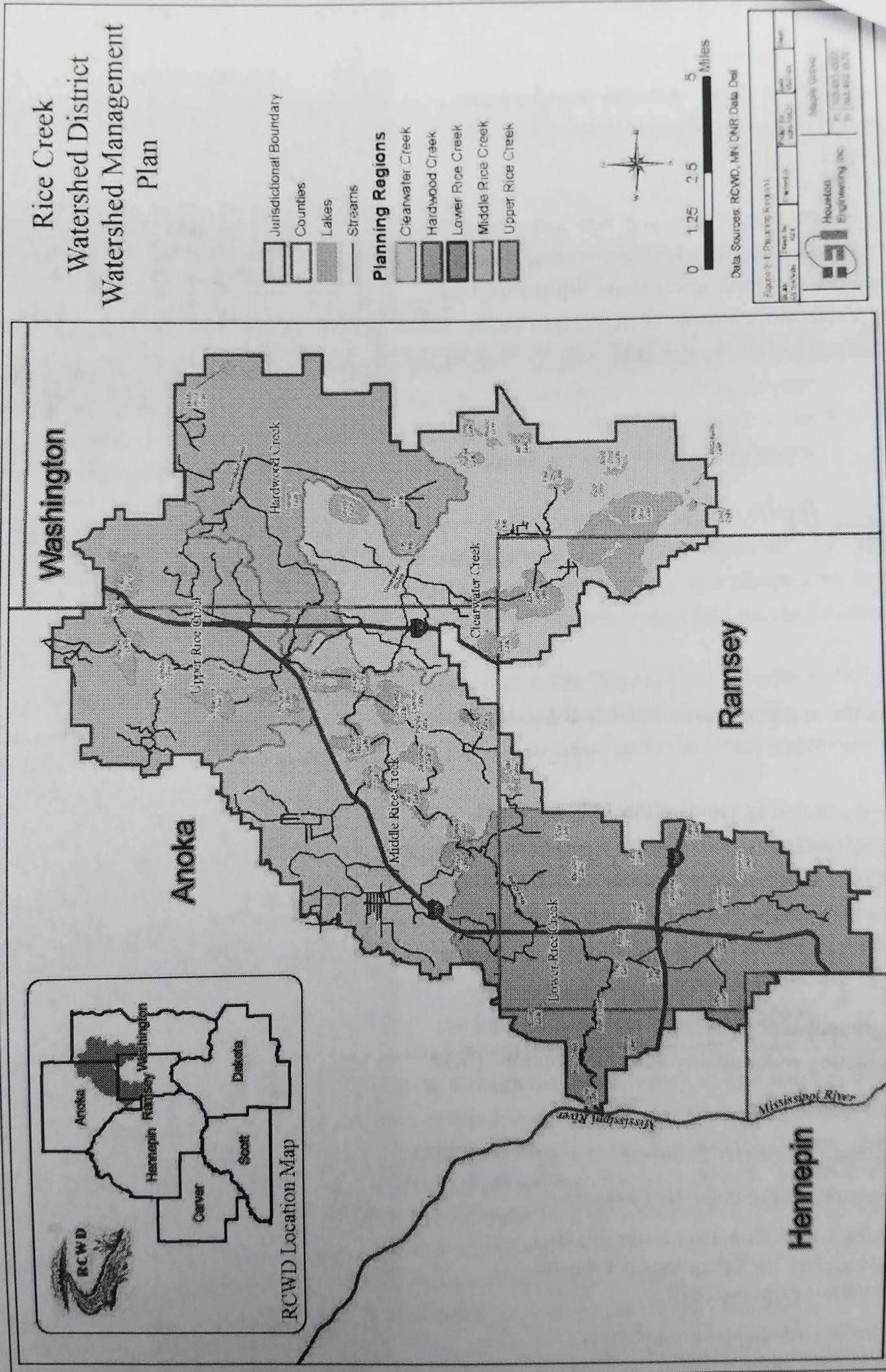
Prioritized Rankings by Catchment - rank of stormwater catchments studied to in this report
(ranked by existing annual TP load)



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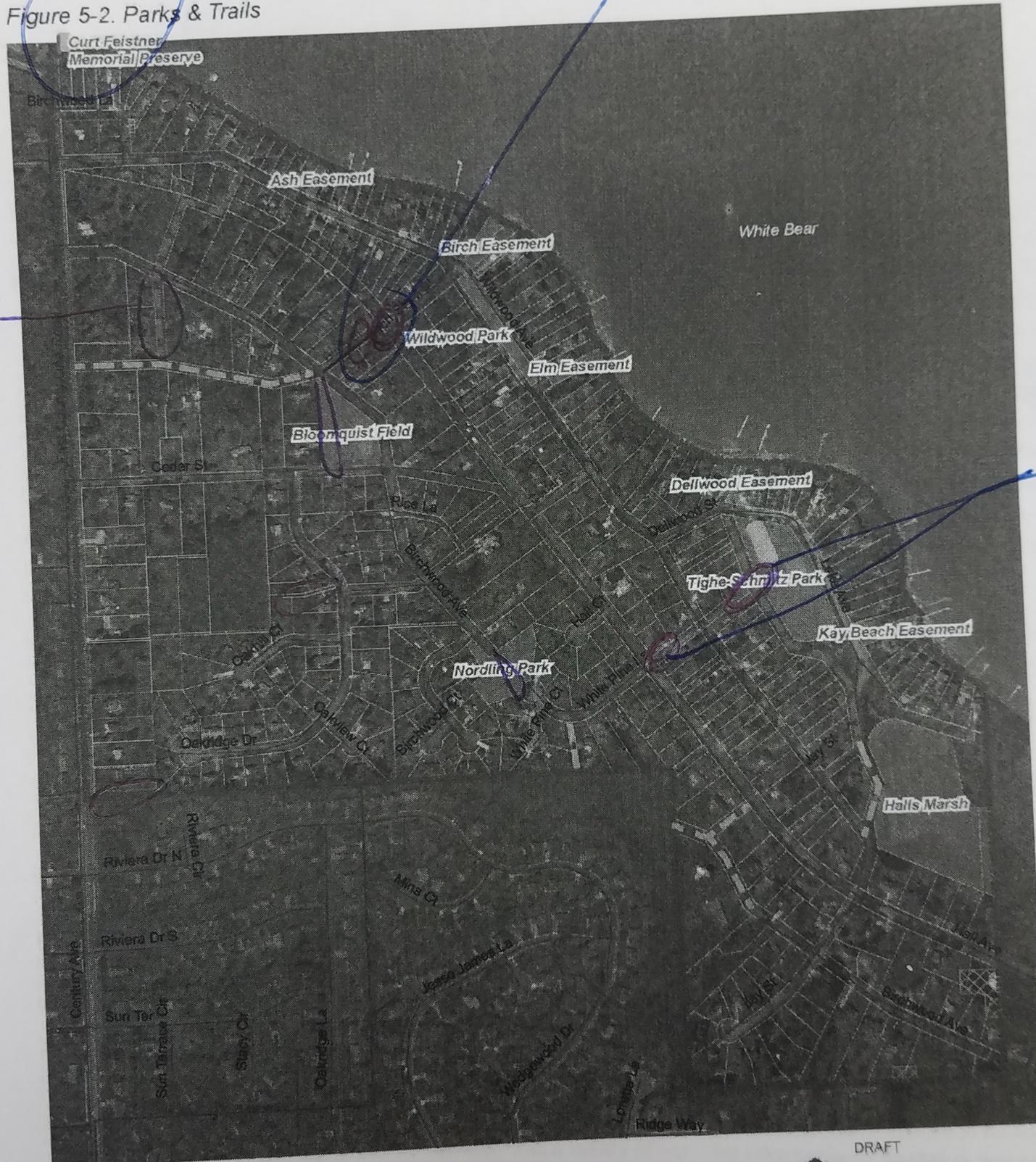
6-3

Figure 6-2. RCWD Planning Regions



2-3

Figure 5-2. Parks & Trails



runs adjacent to
ECL Rd.

Birch St. written
twice, over Owl

Change to
potential

existing
Grotto
Path
Both ends of
Grotto St.

Parks & Trails

- Parks/Open Space
- National Wetlands Inventory (NWI)
- Regionally Significant Natural Area (MLCCS Derived)
- Existing Trail
- Potential Trail

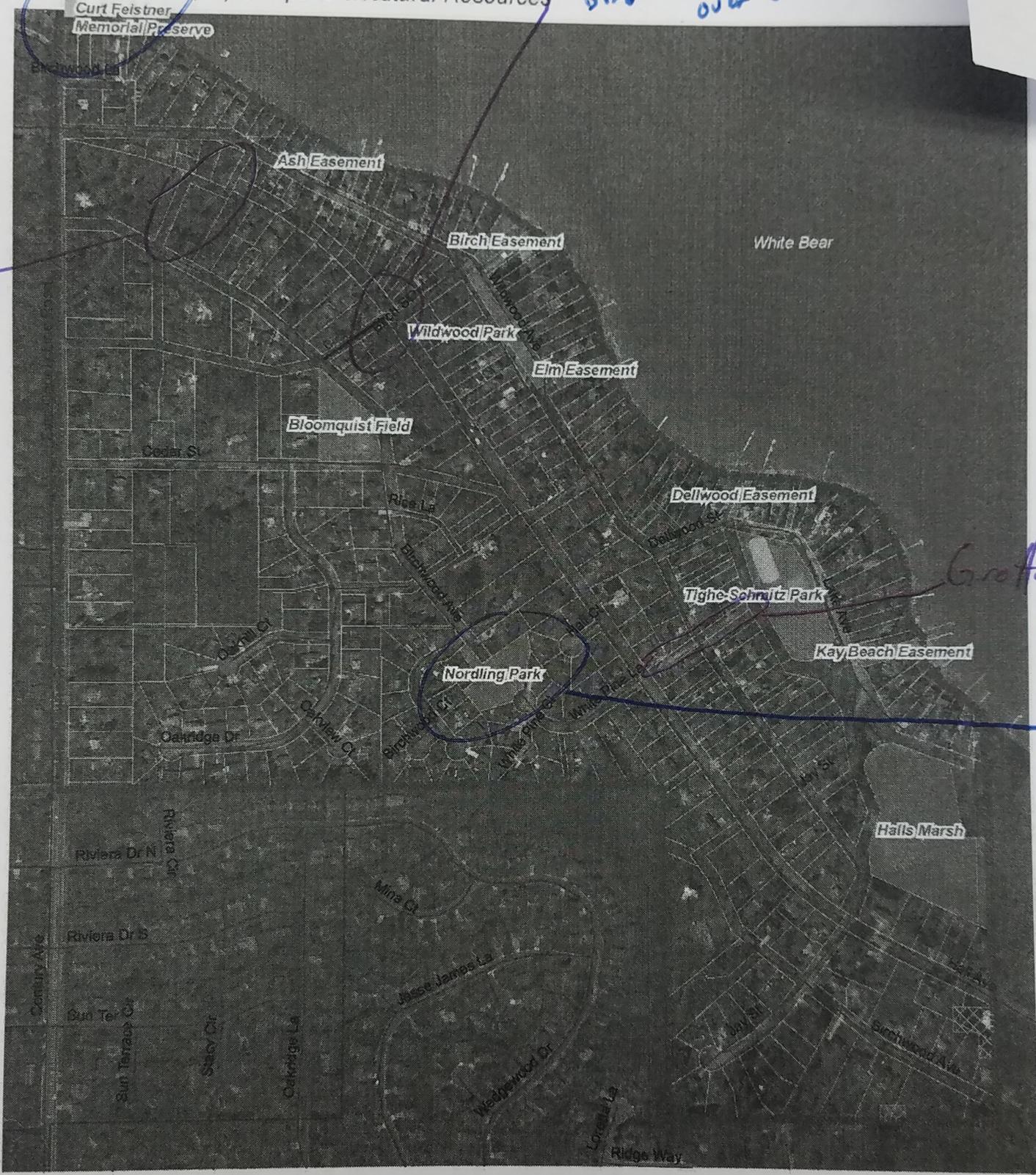


DRAFT

Source: Metropolitan Council,
Birchwood Village, Washington
County

Rev. Date: 9.13.2018
Date: 9.20.2017
Prepared by: SHG, LLC

Figure 5-1. Parks, Open Space & Natural Resources



- runs adjacent to ECL Rd.

owl str
Birch written twice over owl

Ash Path

What case are as

Grotopath

no "L". It's Nordling

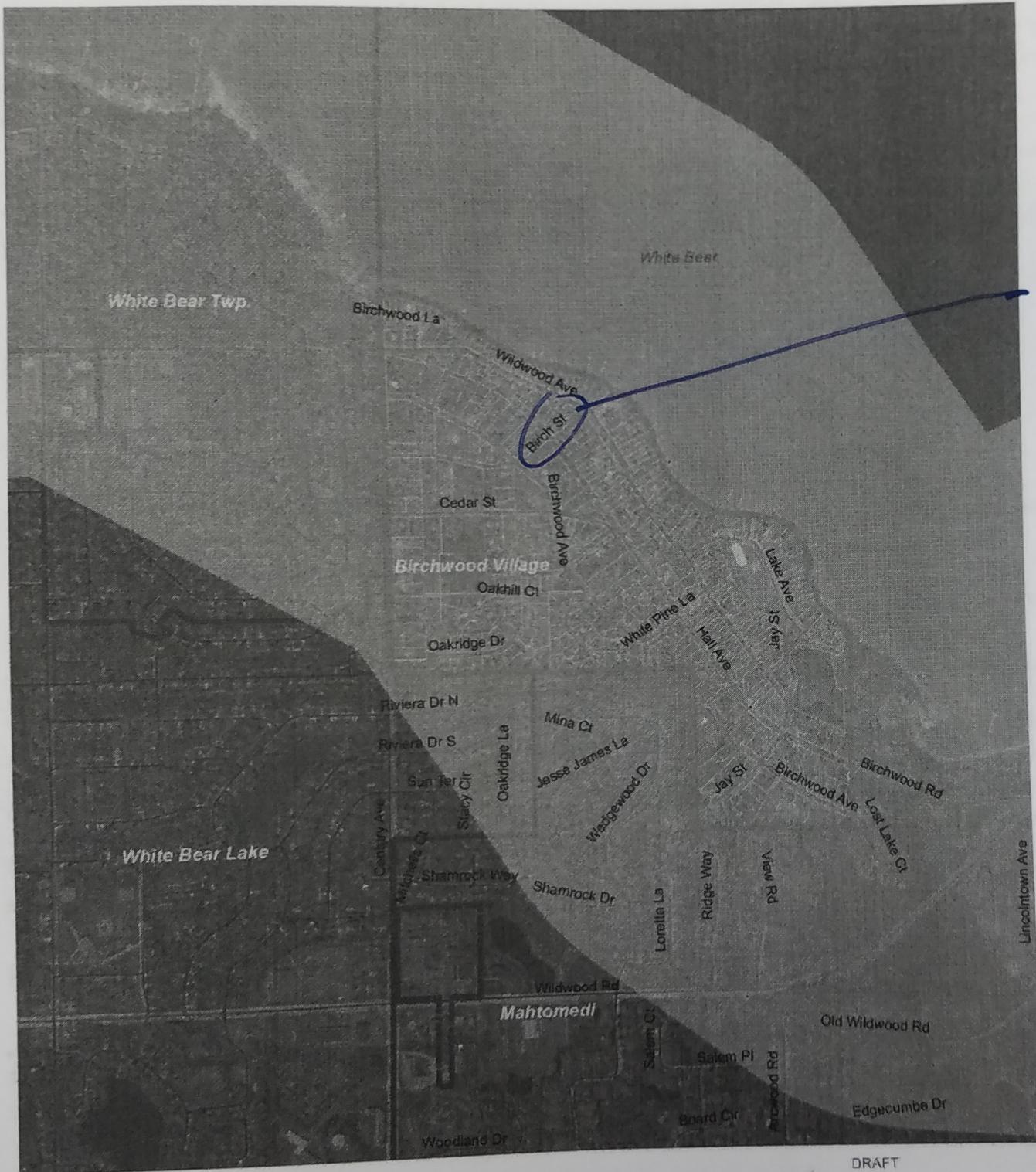
Parks, Open Space, Natural Resources

-  Parks/OpenSpace
-  National Wetlands Inventory (NWI)
-  Regionally Significant Natural Area (MLCCS Derived)



DRAFT
 Source: Metropolitan Council, Birchwood Village, Washington County
 Rev. Date 9.13.2018
 Date: 9.20.2017
 Prepared by: SHC, LLC

Figure 4-2. Regional Bicycle Transportation Network Tier 1 Search Corridor



Birch doesn't go all the way through 'Owl' on the other side

RBTN Corridors

Tier 1



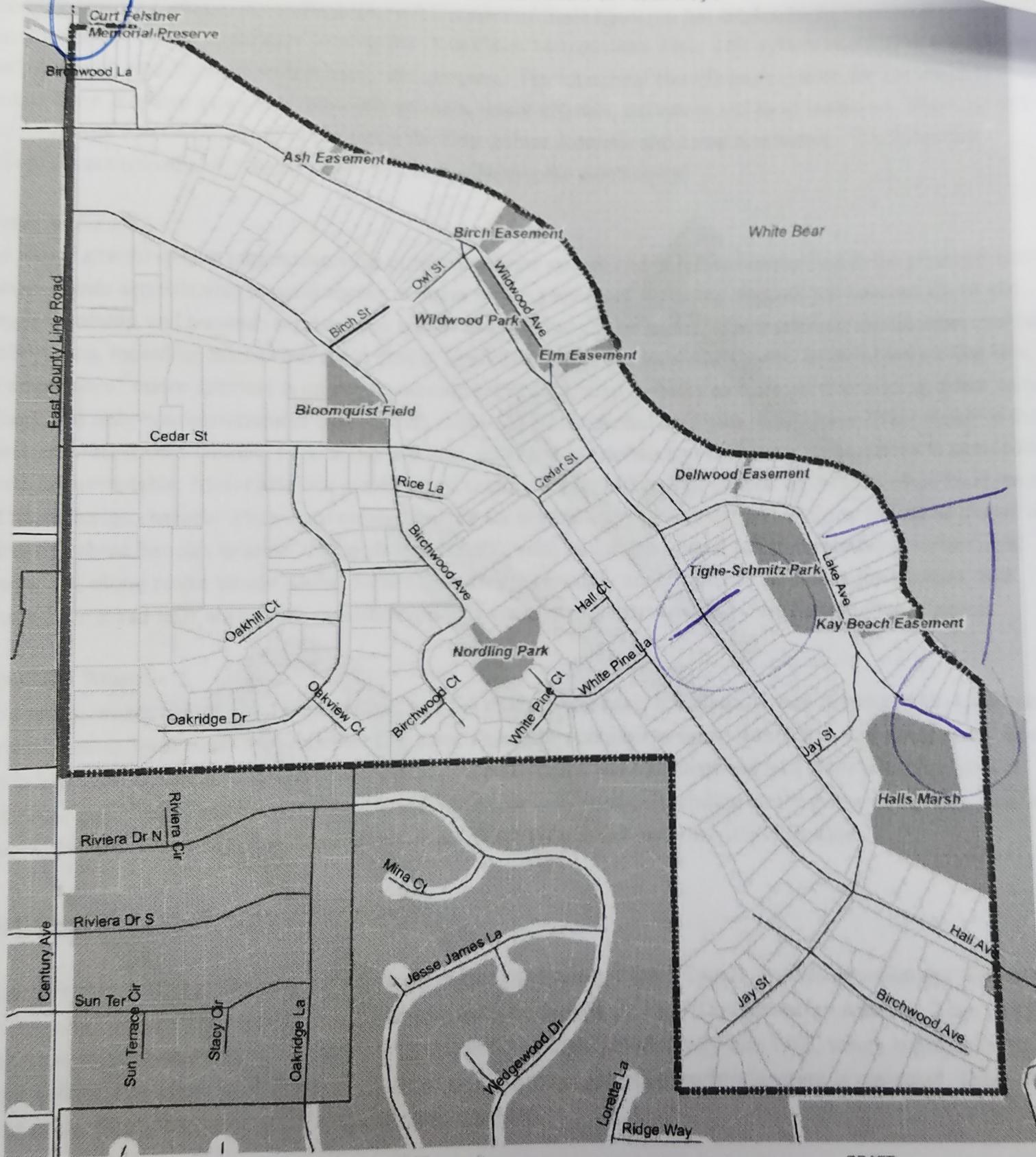
DRAFT

Source: Metropolitan Council,
Birchwood Village, Washington
County

Date: 9.20.2017
Prepared by: SHC, LLC

runs adjacent to
ECL Rd.

Figure 4-1 Existing and Planned Functional Classification of Roadways



Add
(Grotto St. &
Lake Ave)

Functional Classification of Roadways

- Local/City Roads
- Arterial/Collector Road



DRAFT

Source: Metropolitan Council,
Birchwood Village, Washington
County

Date: 9.20.2017
Prepared by: SHC, LLC

What is this?

Figure 3-3. Estimated Market Value of Residential Structures

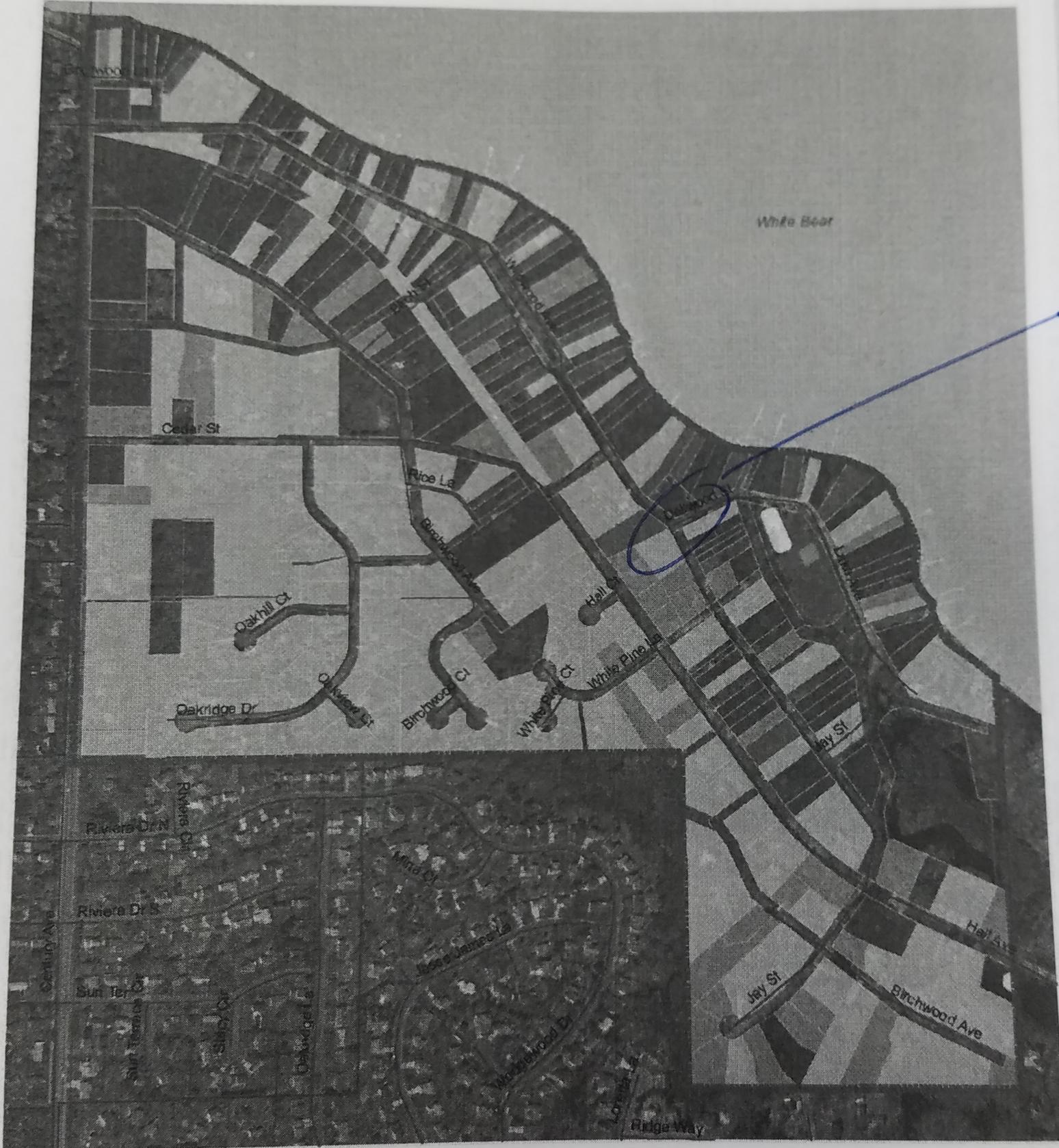


EMV of Residential Properties	
Lightest Gray	\$400 - \$85,100
Medium Gray	\$85,101 - \$256,200
Dark Gray	\$256,201 - \$485,600
Black	\$485,601 - \$819,100
Dark Gray	\$819,101 - \$1,079,800



DRAFT
 Source: Metropolitan Council,
 Birchwood Village, Washington
 County
 Rev. Date: 9.13.2018
 Date: 9.20.2017
 Prepared by: SHC, LLC

Figure 3-2. Age of Residential Structures



Is this still registered as Dellwood?

**Age of Housing
Year Built**

Vacant/ROW/PSP	1932 - 1961	1981 - 1997
Pre-1931	1962 - 1980	1998 - 2016

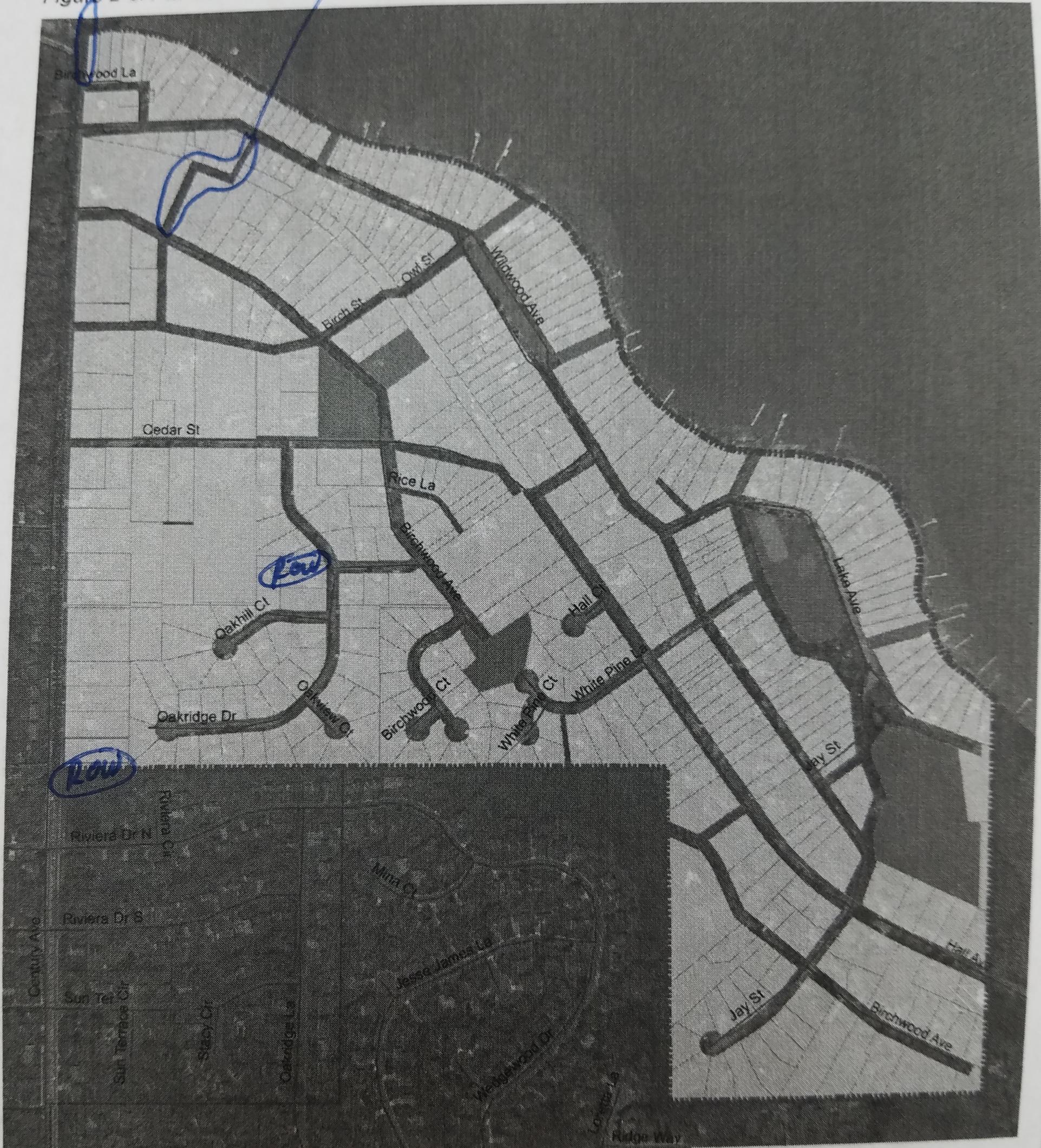


DRAFT

Source: Metropolitan Council,
Birchwood Village, Washington
County

Date: 9/20/2017
Prepared by: SHC, LLC

Figure 2-3. Planned Land Use & Zoning



Planned Land Use & Zoning

- Residential (Low Density 3-5 d.u./acre)
- Institutional
- Parks/Open Space
- ROW

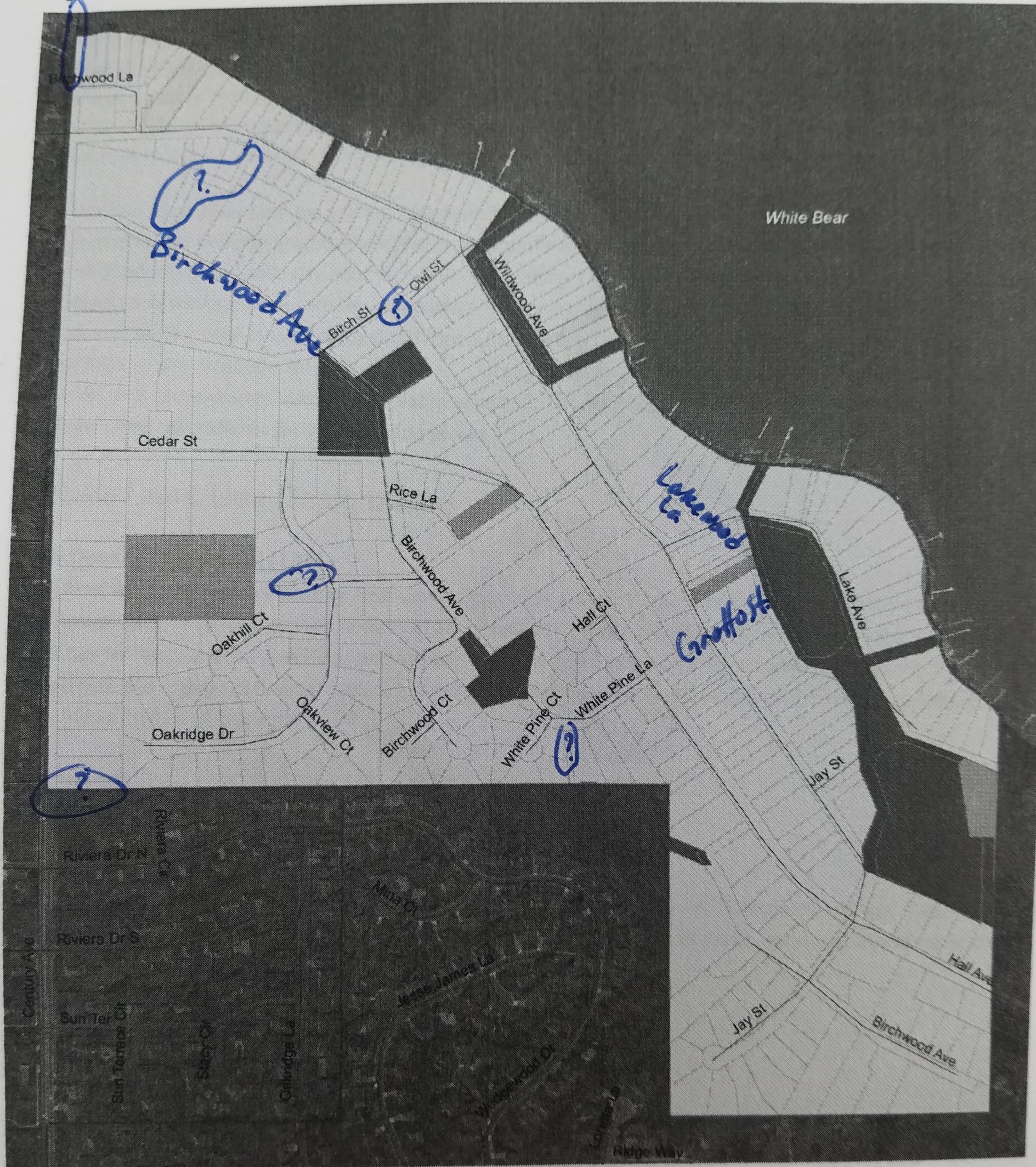
DRAFT



Source: Metropolitan Council,
 Birchwood Village, Washington
 County

Rev. Date: 9.13.2018
 Date: 9.20.2017
 Prepared by: SHC, LLC

Park
 Figure 2-2. Existing Land Use & Zoning



Generalized Existing Land Use

2016 GLU - Metropolitan Council

- | | | | |
|---|------------------------|---|---------------------------------|
|  | Single Family Detached |  | Open Water |
|  | Seasonal/Vacation |  | Park, Recreational, or Preserve |
|  | Institutional |  | Undeveloped |



DRAFT

Source: Metropolitan Council,
 Birchwood Village, Washington
 County

Rev. Date: 9.13.2018
 Date: 9.20.2017
 Prepared by: SHC, LLC

FEEDBACK

The enclosed comments have all either been entered into the draft by staff or were distributed during the March 12, 2019 City Council meeting (to be considered by Council Members in their individual edits, presented and discussed tonight)

Comments and questions
 Randy LaFoy

**CHAPTER 1
 HOUSEHOLDS AND POPULATION**

How will the city monitor and adapt to this?

As the City’s population ages the community will need to adjust to the changing and evolving needs and demands of its residents. For example, residents may require improved/increased access to services such as transit and transportation mode choice or may desire better trail/sidewalk connections as opposed to programmed park spaces. The City will need to monitor its public facilities, roadways and parks and may need to adjust programming, access, and delivery of services to better accommodate the city’s residents. The City may face an increase of vacant homes/properties during winter months for residents who choose to winter in warmer climates. The City may also experience more demands for ADA accessibility. These factors can become financially challenging for the City and for those residents that reach retirement age and are on a fixed-income. These changes will happen over time, and it is important for the City monitor and understand what changes should be planned for through this planning period

MISSING

Information about people who work from home. This will affect energy, water, and transportation.

MISSING

Communications. There is nothing about Internet connections. This is especially important to those who work from home.

NOT SO SURE ABOUT THESE IN SECTION 2

Land Use Goals & Objectives

- 7. Maintain the City’s high-quality and affordable residential neighborhoods.
- 9. **Create an ordinance to monitor, inspect, and remove invasive species that threatened the quality of natural habitat.**

We are missing a section in here on people who are working from home. How many are there? We don’t know. What are the trends? The more people work from home, there will be more demands on infrastructure like sewer and water, but less on roads.

CHAPTER 3

Housing Goals & Objectives

What does this mean?

Encourage and promote lifecycle housing within the existing housing stock, and in any new or redeveloping areas of the community.

This is out of our hands.

Maintain and support the City’s current level of housing affordability.

HOW WILL THE CITY MONITOR?

YEAR BUILT: “It will be important for the City to monitor the condition of the older housing stock considering its desire to maintain housing and neighborhood quality, as well as retain some affordability in the community.”

HOW IN THE WORLD IS THE CITY GOING TO DO THIS??

Projected Housing Needs

Over this planning period, the City will work to identify ways to encourage a more diverse housing pattern that will support a more diverse demographic to help ensure the long-term sustainability of the housing stock and community overall.

CHAPTER 4

EXISTING AND PLANNED ROADS

I THOUGHT GROTTO WAS LONGER, DID WE MEASURE BOTH SIDES OF WILDWOOD?

and one 150-foot gravel roadway (Grotto Street)

ROADWAY CONSIDERATIONS THROUGH 2040

Are they going wait to resurface 120 until 2024?

CHAPTER 5

GOALS AND OBJECTIVES

IS THIS BEING DONE?

The City’s Parks Committee is taking the first step toward the goal by developing a Parks Improvement Plan that intends to address what residents clearly indicated in their response to the survey:

I DON’T SEE THIS HAPPENING, YET

desire for the system to be enhanced and better maintained as an asset of the community into the future.

IS THIS HAPPENING?

Perhaps the most important pieces of Parks Improvement Plan will be to establish a capital improvement plan (CIP) for the system to identify priorities and budget for proposed investment.

CHAPTER 6

We should include the map of how water drains in Birchwood in here.

EXISTING AND POTENTIAL WATER RESOURCE-RELATED PROBLEMS

HOW WILL WE DO THIS?

Birchwood Village will promote the proper disposal of items that contain mercury.

EXISTING WATER RESOURCE PROBLEMS

I redid the section on the concrete swale it said was installed on the Birch easement.

CHAPTER 7

There are some formatting issues in this section that need to be fixed.

CHAPTER 8

LAND USE

Again, monitoring issue: how does the city plan on monitoring “rule changes at the MnDNR and watershed districts?”

PARKS, TRAILS AND OPEN SPACE

There is not anything about maintenance. This should be included.

Proposals to Comp Plan (Mary Wingfield)

Matters that need to be addressed prior to March 31, 2019 (i.e matters of fact or significant import)

Page 30. Keep third paragraph “Though the City’s historical identity...” in light of new information found out about the historical value of the village hall.

Page 31. 4th Bullet point: Add “annual Children’s Christmas Party and village newsletter.”

Page 32. Last paragraph: Incomplete sentence.

Page 59. Replace as 2nd paragraph: In recent years, the city has undertaken a comprehensive maintenance plan of crack filling and seal coating all its roadways. Experts have opined that under normal use this process will extend the pavement another twenty years before a subsequent mill and overlay is necessary. To continue this maintenance program, the City has recently adopted a Capital Improvement fund that is funded annually through its general levy. The fund has now built up sufficient funds to ensure all roadways are maintained for years without the need for much more expensive total reconstruction.

Third paragraph: ...every three years “or as recommended by our advisors.”

Page 60. BYCYCLING Replace 1st paragraph with: “The City was the first White Bear Lake area community to implement signage of the Lake Links regional bicycle route. In addition, the city adopted traffic calming on Hall Av/Cedar St by narrowing driving lanes to 10 feet, adding regular stops signs, and painting lines for wider shoulders for bicyclists and pedestrians.” Most residents feel that the existing roads are multi-purpose and can safely accommodate bikers, walkers and auto traffic.

Page 62: Sixth paragraph: building height restriction is 30 feet, not 35.

Page 63. #1 bullet point is “Preserve Natural Spaces”

Page 66: paragraph 1: Delete “and appreciated the walking trails in the park.” Delete references to “beach volleyball” and “volleyball court”.

Page 72. First paragraph: total corridor trail length is “1.0 mi”

Page 72-73: MAINTENANCE AND MANAGEMENT

Replace with: The City recently expended significant sums of money for the replacement of its tennis court surface and ice rink warming house. The tennis surface now has a durable “Flex court” overlay that has helped reduce players’ joint pain and avoided the expensive cost of a total reconstruction. The ice rink warming house project replaced a deteriorated small shack and was spearheaded by a local contractor who coordinated the volunteer project to create a first class facility.

The City has also embarked on a significant tree replanting program that will enhance its open spaces. Residents also coordinated the rebuilding of the water control weir at Hall's Marsh that restores original water levels and improves storm water quality before it is discharged into White Bear Lake. This was an extremely complicated project that took many years of coordination and required working with the RCWD and neighboring community to ensure a positive outcome. Tighe-Schmitz Park also benefited because the groundwater levels are again stable in the area and water backing up into the park has been significantly reduced.

The City also improved a connector to its walking trails by installing steps on a steep hill on Grotto easement. These steps now make the connection to the lake and City beaches safer for residents as they walk to these amenities.

The park infrastructure such as some paths and playground equipment had been experiencing deferred maintenance or repairs. As a result of the concerns of the residents expressed in the 2017 survey, the city hired two part-time maintenance workers to weed, mow and remove overgrowth and branches. The work is ongoing, but residents have appreciated the improvements.

Page 78. PHYSICAL ENVIRONMENT. 2nd paragraph: Keep "Lost Lake is a public water body located mostly outside the city boundary, however, there is a small portion of the lake along Hall Avenue that is in Birchwood."

Page 84: PUBLIC WATERS: 2nd paragraph: "Lost Lake is located *mostly* outside the City boundaries. Runoff from the far eastern portion of Birchwood does drain into the water body."

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Next paragraph: At most of these points sediment in the storm water "used to" enter the lake without any prior treatment.

Next paragraph: "Ramsey County recently installed a structure at this location...."

Page 86-87: POTENTIAL WATER RESOURCE PROBLEMS

Second paragraph and graph and next paragraph. This information is from one snapshot of the catch basin cleanout in 2013. It would be like including a summary of an oil change for your car from 2013 if you were asked about its complete maintenance history. The plan for adding more catch basins was scuttled because the ones that were built were not based on any evidence that they were effective.

Page 87 Third paragraph: "As part of a future street project, treatment of the storm water runoff is desired in order to promote a reduction in sediment and nutrient loaded water from entering Hall's Marsh." **IF THIS IS TRUE, THEN THE LAKE AVENUE OVERLAY PROJECT NEEDS TO INCLUDE THIS IN ITS FEASIBILITY STUDY.**

Wingfield Edits

Next Paragraph: Change last line to “Although the City has not selected which SWA projects are for consideration, it will review the recommendations as part of any feasibility study.”

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Page 98. Second paragraph. Change to: “The Birchwood Lane lift station is functionally obsolete and one of its pumps recently failed. This situation created an opportunity for the City to work with White Bear Township to efficiently address the problem of providing sewer service for 13 homes. As a result, a gravity line will soon be built to connect to the White Bear Township system removing the need to build a new lift station as well as saving the ongoing annual maintenance and repair costs of an extra lift station. The immediate savings to Birchwood by this cooperative effort is hundreds of thousands of dollars.” Ongoing maintenance of the remaining two lift stations will still be necessary.

Page 104: Last line regarding solar: Keep. Give separate Heading of CLIMATE CHANGE

Matters that are opinion and preference or need expansion

Aside from one sentence that states the city will attempt to reduce energy consumption 1%, there is nothing in the Plan to address Climate Change or what leadership role the city will provide. This is an area both Kevin and I stated in our SWOT analysis was a top priority. Clearly, the report needs to include a whole section on this issue. Here are some specifics:

- Protecting open spaces from chemicals including pesticides and herbicides
- Increasing pollinators
- Adopting a road salt/sand policy to reduce the impact on WBL
- Add carbon footprint analysis and possible solutions to reduce (Initially, the parks group offered to provide data and ideas).
- Move solar energy statement (p. 73) to this section

Page 29. Third to last line: Keep “away from the lake shore”

Page 85. EXISTING WATER RESOURCE PROBLEMS: First paragraph: Add at the end: “The city adopted this ordinance in 2010 for the health and safety of all.”

Add a Section on Village Hall and its historical significance and what the city wants to accomplish for restoration going forward into our second century

Additional Proposals to comp Plan—Mary wingfield

After reviewing my notes, I have the following additions to the City's accomplishments since 2010...

P.60 Additional traffic calming measures include reducing the speed limit to 25 MPH on Hall Ave/Cedar St and installing pedestrian markers at many of the intersections.

p. 66. CITY PARKS AND OPEN SPACES—White Bear Lake easements. Add:

The City bought a new dock for Kay Beach which has been warmly received by residents because for the first time, it allows the public to use the dock without paying a fee.

Residents continue to request more space for storage of motorized boats (paddle boards, canoes, kayaks)at all the easements. As a result, new boat racks have been added and continue to be added to all the beaches. The city monitors the spaces by charging a small fee for a permit. The program remains popular.

Page 70. Top of page, After first paragraph add:

The City has since adopted a tree preservation ordinance to ensure the tree canopy is preserved or any loss of trees are mitigated by a replacement plan.

Page 72-73: MAINTENANCE AND MGMT OF EXISTING SYSTEMS. Add just before last paragraph:

Residents requested the City to be more lenient with allowing dogs in public spaces. The City adopted new code which permits dogs at all city beaches, parks and open spaces provide the owner abides by all other provisions of the animal code.

Page 84 at bottom of page (after bullet points) add:

The city recently adopted a water sprinkling code that prohibits watering during specific daylight hours. Residents believe water conservation is important and have asked the city to contact violators when others are watering in violation of this code. The City monitors water usage by individual residents to determine if there is any excess usage. The City has reached out to those to provide advice on moisture monitors for their sprinkling systems or to check for leaks in their systems. Finally, the City has adopted water rates that encourage efficient use of this resource and imposes significantly higher fees for excessive use. The success of this tool is still being reviewed.

Page 86 after top four lines of page Add:

The City initiated a semi-annual, city-wide leaf pick up service a few years ago. This benefit has proven very popular with residents. It also has prevented significant amounts of phosphorus (released from the decaying leaf matter) from running off into White Bear Lake and contaminating the water. A semi-annual street sweeping policy provides more of the same benefit to the lake.

p. 96 WASTEWATER SEWER SYSTEM –system features Add after second paragraph:

Prior to 2015 (?), the city relied on its sewer contractor to provide emergency generator service to its lift stations in the event of a power outage. This left some residents who had sewer pipe elevations similar to the lift station vulnerable to sewage back up. As a result, the city purchased and installed a large, permanent generator that automatically starts when a power outage occurs. The generator has been used on a few occasions already and has proved to be a wise investment.

The City also installed a SCADA monitoring system of its lift stations that allows the stations to be monitored off site. The savings of reducing on site visits from three times a week to bi-weekly (?) has created substantial savings to the city with no reduction in service and maintenance.

Climate change (new) should include the fact that the City provides free recycling bins and service to encourage all residents to minimize their garbage output. Nearly all residents participate in the program

The (new section) regarding the city hall should include the fact that the city added a new ADA compliant sidewalk with flower garden in 2014. This benefit helps serve our older population who visit the city office or participate in community programs.

Proposals to Comp Plan (Mary Wingfield)

Matters that need to be addressed prior to March 31, 2019 (i.e matters of fact or significant import)

Page 30. Keep third paragraph “Though the City’s historical identity...” in light of new information found out about the historical value of the village hall. **Leave as modified; nothing is before any board or commission – all we have is a photograph and architect.**

Page 31. 4th Bullet point: Add “annual Children’s Christmas Party and village newsletter.” **OK**

Page 32. Last paragraph: Incomplete sentence.

Page 59. Replace as 2nd paragraph: ~~In recent years,~~ **In the past _____ years,** the city has ~~undertaken a comprehensive~~ maintenance plan of **comprehensively maintained it streets by** crack filling and seal coating all its roadways. ~~Experts~~ **The City Engineer has** ~~have~~ opined that under normal use this process will extend the pavement another twenty years before a subsequent mill and overlay is necessary. To continue this maintenance program, the City has recently adopted a Capital Improvement fund that is funded annually through its general levy. ~~The fund has now built up sufficient funds to ensure all roadways are maintained for years without the need for much more expensive total reconstruction.~~
Conjecture and if not, say who says this

Third paragraph: ...every three years “or as recommended by **its engineer** ~~our advisors.~~”

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Page 62: Sixth paragraph: building height restriction is 30 feet, not 35.

Page 63. #1 bullet point is “Preserve Natural Spaces” **I like what is there now,** Maintain and improve the City’s existing parks and open space facilities to ensure the health, safety and general wellbeing of Birchwood Village residents.

Page 66: paragraph 1: Delete “and appreciated the walking trails in the park.” Delete references to “beach volleyball” and “volleyball court”. **Why both? The volleyball net is still there.**

Page 72. First paragraph: total corridor trail length is “1.0 mi”

Page 72-73: MAINTENANCE AND MANAGEMENT

Replace with: **Do Not Replace as this a big deal and I don’t think City is doing enough. Mary’s comments could go in another section, but not one entitled “Maintenance and Management.”** The City ~~recently~~

~~expended significant sums of money for the replacement of~~ replaced its tennis court surface and ice rink warming house. The tennis surface now has a **with a** durable “Flex court” overlay that has helped reduce players’ joint pain and ~~avoided~~ **thus avoiding** the expensive cost of a total reconstruction. The ice rink warming ~~deteriorated~~ **warming** house project replaced a small shack **was replaced**. and was spearheaded by a local contractor who coordinated the volunteer project to create a first class facility. **The replacement was spearheaded by Birchwood residents who raised the money, built it and served as master contractor.**

The City has also embarked on a significant tree replanting program that will enhance its open spaces. **Too many years ago. Residents also coordinated the rebuilding is this true??** of the water control weir at Hall’s Marsh that restores original water levels and improves storm water quality before it is discharged into White Bear Lake. ~~This was an extremely complicated project that took many years of coordination and required working with the RCWD and neighboring community to ensure a positive outcome.~~ Tighe-Schmitz Park ~~also~~ benefited **from this project** because the groundwater levels are again stable in the area and water backing up into the park has been significantly reduced.

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Next paragraph: “Ramsey County recently installed a structure at this location...”

Page 86-87: POTENTIAL WATER RESOURCE PROBLEMS

This is OK with me. We reference other historical work. This could be important information downt he road, even if it is from 2013. I thought we did another check in 2018. Second paragraph and graph and next paragraph. This information is from one snapshot of the catch basin cleanout in 2013. It would be

like including a summary of an oil change for your car from 2013 if you were asked about its complete maintenance history. **Probably best to ditch the first full paragraph on page 87.** The plan for adding more catch basins was scuttled because the ones that were built were not based on any evidence that they were effective.

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The City of Birchwood Village has several measures in place to prevent infiltration and inflow (I/I) into the sanitary sewer mains. Ordinance 202.100 states that it shall be unlawful for anyone to direct storm water, surface water, ground water, or water from air conditioning systems into the sanitary sewer and prohibits the connection of sump pumps, rain leaders, and passive drain tile to the sanitary sewer system. ~~In addition,~~ The mains are monitored via closed-circuit television to allow the City to pinpoint areas of high infiltration and take corrective action; **the city has also installed a SCADA system to monitor any abnormal change in flow volume.**

Page 98. Second paragraph. Change to: “The Birchwood Lane lift station is functionally obsolete and one of its pumps recently failed. This situation created an opportunity for the City to work with White Bear Township to efficiently address the problem of providing sewer service for 13 homes. ~~As a result, a A~~ gravity line will ~~soon~~ be built to connect to the White Bear Township system removing the need to build a new lift station as well as saving the ongoing annual maintenance and repair costs of an extra lift station. ~~The immediate savings to Birchwood by this cooperative effort is hundreds of thousands of dollars.~~” Ongoing maintenance of the remaining two lift stations will still be necessary.

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Wingfield Edits – WITH LAFOY COMMENTS

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Add a Section on Village Hall and its historical significance and what the city wants to accomplish for restoration going forward into our second century | think this is premature

Tobin Lay

From: John Manship
Sent: Friday, March 8, 2019 10:59 AM
To: Tobin Lay
Subject: Re: Birchwood 2040 Comp Plan - Feedback Requested

Nope no change to the system other than the bypass from E county line to Oakridge years ago. Maht bypass is a temporary setup available for emergencies only. We also have the same availability w WBL off the end of Oakridge.

On Mar 8, 2019, at 10:19 AM, Tobin Lay <Tobin.Lay@cityofbirchwood.com> wrote:

Thank you John, I'll make those changes. Will you tell me about our Maht. water connection so I can include that in the Plan? And are you aware of any time that we have improved our water supply lines? The Plan says we did in 2008 but I'm wondering if they meant sewer because we relined sewer lines that year. Let me know. Thanks

----- Original message -----

From: John
Date: 3/8/19 9:58 AM (GMT-06:00)
To: Tobin Lay <Tobin.Lay@cityofbirchwood.com>
Subject: Re: Birchwood 2040 Comp Plan - Feedback Requested

Tobin, I did review this document. Possible changes could be chpt 7 paragraph 2 White Bear Township for the agreement and also chpt 8 2nd line to WBT. The wording could be stated that supervision and maintenance of the water system is contracted out and repairs are on as needed basis. Otherwise I didn't note any other things that apply to the water system. Thanks John

On Mar 7, 2019, at 11:30 PM, Tobin Lay <Tobin.Lay@cityofbirchwood.com> wrote:

John,

Will you please skim through the water and sewer sections of the attached Comp Plan and see if there are any mistakes or if there is anything you'd add? Also will you tell me about our Maht. water connection so I can include that in the Plan? And are you aware of any time that we have improved our water supply lines? The Plan says we did in 2008 but I'm wondering if they meant sewer because we relined sewer lines that year. Let me know. Thanks!

Tobin Lay
City Administrator-Clerk
City of Birchwood Village, MN

office: (651) 426-3403
fax: (651) 426-7747
email: tobin.lay@cityofbirchwood.com
website: <http://www.cityofbirchwood.com/>

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From: Tobin Lay
Sent: Thursday, March 7, 2019 11:24 PM
Subject: Birchwood 2040 Comp Plan - Feedback Requested

Hello Committee members,

The City Council will be hearing public input and discussing the 2040 Comp Plan at next Tue's City Council meeting (Mar 12th at 7pm). Please review the attached Plan, especially the sections regarding the areas covered by your committee. Please send any comments to me by Monday night if possible or feel free to attend Tue's meeting. Thanks!

Tobin Lay
City Administrator-Clerk
City of Birchwood Village, MN
office: (651) 426-3403
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email: tobin.lay@cityofbirchwood.com
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<image001.jpg>

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<Combined Draft 3.7.19.pdf>

Tobin Lay

From: Ana Vang
Sent: Tuesday, March 12, 2019 5:27 PM
To: Tobin Lay
Subject: Re: FW: Birchwood 2040 Comp Plan - Feedback Requested
Attachments: Birchwood Parks Improvement Plan.docx; Birchwood Parks Improvement Plan.pdf

Attached is a PDF and word doc of the parks improvement plan.

Below are comp plan comments from the committee re: parks and natural resources sections:

- page 1-4 Second bullet under Community Context Goals seems incomplete. educate the community as to what? Value of natural spaces, stewardship, etc.?
- Page 2-4 When discussing invasive species and removal, there should be some inclusion of flora/fauna impacted by disease.
- Page 4-5 There should be incorporation of Lake Links in the bicycling and sidewalks/pedestrian ways sections
- Page 6-6 The map needs to be thoroughly reviewed. Existing trails are missing, trails that no longer exist are on the map, trails that have never been discussed are listed as potential trails while potential trails that have been discussed are missing.
- page 39 Tighe walking trails are not maintained so they are not use.
- page 39 Lake easements, the City owns and maintains Kay docks.
- page 41 Map is incorrect, Ash walkway stops at Birchwood Ave.
- Where is out lot "A"?

Tobin Lay

From: BRIDGET SPERL
Sent: Friday, March 8, 2019 8:53 AM
To: Tobin Lay
Subject: Re: Birchwood 2040 Comp Plan - Feedback Requested

Tobin, it is clear that a lot of time and effort has been put into the plan. Here is my feedback;

I am unclear what the black lines are in graphs 3.2 and 3.3. Should be explained.

Initially there is a stated objective of safer walking areas, I don't see that "safety" is addressed in the paths and walkways section. This is an important point. How do we create spaces that are "safe" both for walkers and residents.

We should have a principle that we must maintain and enhance the parks and trails we have today before creating new ones. We are not maintaining the ones we have today.

As I pointed out before graph 5.2 shows an existing trail in the front of our house. That is incorrect. Please get this changed.

Increased communication with residents is a stated objective. I do not see any plans to do that.

On Mar 7, 2019, at 11:24 PM, Tobin Lay <Tobin.Lay@cityofbirchwood.com> wrote:

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Tobin Lay
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Tobin Lay

From: paul steinhauser
Sent: Monday, March 11, 2019 7:11 PM
To: 'Mary Wingfield'; Tobin Lay
Subject: RE: Birchwood 2040 Comp Plan - Feedback Requested

Adding that verbiage makes sense to me if it does to you two. ps.

-----Original Message-----

From: Mary Wingfield
Sent: Monday, March 11, 2019 3:12 PM
To: paul
Cc: Tobin Lay
Subject: Re: Birchwood 2040 Comp Plan - Feedback Requested

Great points Paul...

Tobin...I propose adding after first paragraph on Page 98: "The City continues to educate and notify its residents that many substances and items are deleterious to the sanitary sewer system resulting in significant maintenance and repair costs. An educational flyer is provided from time to time in the quarterly newsletter and is also sent to all new residents to be good stewards of the sewer system.

The city also notifies residents when significant problems have occurred or when significant solutions have been attained so residents know the City is working to achieve and manage a well-run sanitation system.

On 3/11/19, paul wrote:

> Hello Tobin, Mayor Mary, I just finished reading the 2040 comp plan
> from start to finish. Nicely done. Happy to see the focus on
> preserve, protect and educate early on, and again with MS4. Education
> can preserve and protect for free, even saving money. Ex: what you can
> and can't flush down the toilet. I believe there is water saving advice on the City Website.
> I'm
> happy to upgrade that piece, and perhaps a newsletter article on lawn
> watering (huge waste) as we approach that season. Hard to think
> about
> Kayak racks with our current weather - more appropriate for X county
> ski racks! :) Thanks for your work, Paul S

>
>
>
> From: Tobin Lay [mailto:Tobin.Lay@cityofbirchwood.com]
> Sent: Thursday, March 07, 2019 11:25 PM
> Subject: Birchwood 2040 Comp Plan - Feedback Requested

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> City of Birchwood Village, MN

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> Birchwood Clump Logo_2

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Tobin Lay

From: Andy Sorenson
Sent: Monday, March 11, 2019 8:09 AM
To: Tobin Lay
Subject: Re: Comprehensive plan

Although im not in favor of spending money on a bike corridor, I think the slowing of traffic was all that was needed to create a safe environment for bikes and walkers , we still have people walking the wrong way, with the flow.

Thanks , Andy

On Mar 10, 2019, at 7:19 PM, Tobin Lay <Tobin.Lay@cityofbirchwood.com> wrote:

Mainly that it is consistent with the direction you think we should be going

----- Original message -----

From: Andy Sorenson
Date: 3/9/19 3:53 PM (GMT-06:00)
To: Tobin Lay <Tobin.Lay@cityofbirchwood.com>
Subject: Comprehensive plan

Hi Tobin

What in particular should we as members of the planning committee be studying and familiar with ??

Thanks , Andy